OOTHECA WOLLEYANA:

AN ILLUSTRATED CATALOGUE

OF

THE COLLECTION OF BIRDS' EGGS,

BEGUN BY THE LATE

JOHN WOLLEY, JUN., M.A., F.Z.S.,

AND CONTINUED WITH ADDITIONS

BY THE EDITOR

ALFRED NEWTON.

VOLUME II.

LONDON:

M.CM.V.—M.CM.VII.

[Sold by R. H. Porter, 7 Prince's Street, Cavendish Square.]
PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.
Thankful as I am at being able to complete this work, my feeling is rather of regret than satisfaction, for, owing to the length of time which has elapsed since the first part of it appeared, so few of Mr. Wolley's personal friends are left to see its conclusion, and this Catalogue is largely a record of ancient friendships. My only consolation is that the protracted delay has not been my own fault, as I can honestly say that whenever the cessation of more important duties gave me opportunity I resumed my labour of love, but again and again months—not to say, years—passed without such opportunity recurring. Furthermore, I may repeat, as I pointed out in the 'Introduction' (Vol. I. p. iii), that the delay has not been without its advantages, by enabling me to make considerable additions to the Collection of great value and interest—many of them specimens wholly unattainable in Mr. Wolley's lifetime and for long after his death. Some of these I obtained in time to include them in their proper place in the body of the work; others will be found in the 'Supplement,' but in referring to them I am bound to call attention to the fact that the acquisition of most of these rarities is due to the good offices of Mr. Dresser, whose energy as an egg-collector is still as great as when nearly half a century ago he, then little more than a boy in years, took with his own hands a Waxwing's nest.
But my hearty thanks are also due to many other friends who have so kindly assisted me in making the Collection what it is, and among them especially to one of the earliest, the late Lord Lilford. In every case, I believe, their welcome contributions have been acknowledged in the text, and to enumerate them now would be unnecessary.

It was my original intention to figure a greater number of the eggs of which Mr. Wolley, if not their first discoverer, obtained a far finer series than any of his predecessors, and this was especially the case with those of the Limicole; but though the specimens have been most carefully guarded from the effects of light and air, the very lapse of time—in many instances more than fifty years—has injured their once delicate tints, so that the more accurately they could be now depicted, the less would their pristine beauty be represented. Of this I may cite as examples the three eggs of Totanus fuscus (§§ 3638, 3642, and 3643) fortunately figured by Mr. Hewitson in all their freshness, for though the shape and position of the markings, as drawn by him with his accustomed fidelity, are unchanged, the tender and bright hues have so faded as to leave the specimens hardly recognizable at first sight. Portraits of such aged specimens would be not only misleading in themselves, but also if compared with figures from recent examples, as, for instance, those so admirably depicted by the late Mr. Poynting, would fail to do justice to the wonderful variety exhibited by the series in this Collection. I therefore reluctantly came to the conclusion that it would be better to figure no more eggs than those of Alca impennis, to which the last objection does not apply, while
the interest taken in them is greater than that attaching to those of any existing species. Herein I have had the advantage of obtaining the help of Mr. Grønvold, and I believe it is admitted that the Plates executed by him (Tabb. xiv.-xxi.) are unsurpassed by any that have appeared.

The view of Muoniovara, Mr. Wolley's headquarters in Lapland (Memoir, p. xxvi), intended as the Frontispiece to this second volume, is reduced from a pencil drawing made by him in the autumn of 1853. Devoid as it may be of artistic merit, it gives a fairly correct notion of the house and its surroundings as seen from the south-east, though the foreground of rough pasture is not so successful.

It is with peculiar pleasure that I am able to give a faithful copy (Tab. N) of a sketch from life, by the late Mr. Wolf, of the true Anas erythrophus of Linnæus, the long existing confusion concerning which was cleared up by Mr. Wolley's means.

The map which I have had drawn to shew the part of Lapland which was the scene of Mr. Wolley's operations in that country will, I hope, be found of some use, though it was impossible to mark on it more than a very small number of the places named in these volumes, and readers acquainted with the beautifully executed maps of the portion of Sweden and Finland included in it may not unjustly complain of its want of finish and neatness. But it may perhaps pass muster, as accurate maps of Lapland—that very ill-defined country lying
under four different Governments—are not readily accessible, for several that have been published of late years in England are very erroneous, especially in delineating the course of the rivers on which so much depends.

On a previous occasion I mentioned the difficulty I had with the Finnish names of places, and this has continued to the very end, though I hope there are not so many mistakes in the latter as in the former parts of the work. I have found it impossible to be consistent in the spelling of these names, and I trust that Finnish scholars apprehending the difficulties with which I have had to contend will pardon my shortcomings in this respect. Thanks to the care of the press-readers, I believe the number of actual misprints to be inconsiderable, and those which occur to be of comparatively little importance, so that it is not worth while giving a list of them.

In an Appendix will be found reprinted all of Mr. Wolley's publications on Natural History with which I am acquainted, excepting those already included in the body of the work.

Lastly, I have to state that the Collection of which this is the Catalogue has been given to the University of Cambridge, in whose Museum of Zoology I trust it may long continue.

A. N.

Magdalene College, Cambridge,
20 November, 1906.
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AN ILLUSTRATED CATALOGUE

OF

THE COLLECTION OF BIRDS' EGGS

FORMED BY THE LATE

JOHN WOLLEY, JUN., M.A., F.Z.S.

EDITED FROM THE ORIGINAL NOTES

BY

ALFRED NEWTON.

PART III. COLUMBÆ—ALCÆ.

LONDON:

R. H. PORTER, 7 PRINCE'S STREET, CAVENDISH SQUARE.

M.CM.V.

[Price £2 2s. net.]
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The drawing of the figures, two of each specimen, has been greatly assisted by photographs from the series taken under the supervision of Mr. Edward Bidwell, to whom the Editor desires to record his acknowledgments on that account.
OOTHECA WOLLEYANA.

COLUMBA PALUMBUS, Linnaeus.

RING-DOVE.

§ 2798. Four.—Wirksworth, Derbyshire. Not later than 1843.

Taken by George [Wolley] near Wirksworth. He has often found young ones in September.

§ 2799. Three.—Bearwood, Berkshire, 1846. From Mr. II. F. Walter.

Out of five or six sent by Mr. Walter.

§ 2800. One.—Tangier, June, 1846. From M. Favier, through Mr. Williams, 1847.

This is like the egg of the Ring-Dove, and probably came from some distance from the town (for where are the trees near Tangier?) and from near the lakes where breed the Water-fowl and whither go the hunting parties. The Rock-Dove I shot at Tangier.

§ 2801. One.—Pentland Hills. 24 April, 1850. "J. W. ipse."

Bird seen within four yards. Messrs. W. Dumbreck and Belcomb in company. [Cf. § 2663.]

PART III.

These two eggs I took quite fresh from a nest in a fir-tree in the Old Moor Wood at Strelley, early in August. The bird discovered itself by flying from the nest, on the approach of our party. Both Wood-Pigeons and Stock-Doves breed in the ivy-covered trees between Strelley church and the house. Barbary Turtle-Doves are turned out to breed about the house during summer and never wander far from it.

[§ 2803. *One.*—Elveden, 1845.]

[§ 2804. *One.*—Elveden, 22 September, 1845.

The nest in a Scotch fir-tree, was found by the bird flying off it. A boy climbed to it, and brought me the egg on the spot. We were Partridge-shooting at the time in Marmon's Grave Plantation.]

[§ 2805. *One.*—Elveden, 1847.]

[§ 2806. *Two.*—Elveden, 1852.]

[§ 2807. *One.*—Djendeli, Algeria, 14 May, 1857. From Mr. Tristram.

Given to us under the name of *Palumbus excelsus*, Bonaparte (Comptes Rendus, 1850, p. 830), for, on the representation of Dr. Buvry (see Journ. fur Orn. 1857, p. 185), Prince Charles Lucien thought that the Algerian Ring-Dove was a distinct species. Messrs. Salvin and Tristram, however, obtained specimens which were not different from our own (Ibis, 1859, p. 318, and 1860, p. 152).]

[§ 2808. *Two.*—Fox Hall, Donegal, 5 May, 1863. "R. H." From Mr. Robert Harvey.

Mr. Harvey writes that he took these himself in Fox Hall Wood, about four miles from Letterkenny.]
COLUMBA TROCAZ.—C. LAURIVORA.

[§ 2809. Two.—St. Neot's, Huntingdonshire, 10 May, 1864. From Mr. Rowley.

The nest in a spruce-fir at Priory Hill.]

[§ 2810. Two.—Norfolk, 10 July, 1867. From Mr. Norgate.]

[§ 2811. Two.—Taverham, Norfolk, 15 May, 1875. From Mr. Norgate.]

COLUMBA TROCAZ, Heineken.

[§ 2812. One.—Lilford Aviary, 1894. From Lord Lilford.]

COLUMBA BOLLII, Godman.

[§ 2813. One. — Vittoria, Tenerife, 17 March, 1889.]

[§ 2814. One.—Vittoria, 2 April, 1889. From Señor Gómez, through Mr. Dresser.]

[§ 2815. One.—St. Ursula, Tenerife, 16 May, 1889.]

[§ 2816. One.—St. Ursula, 28 May, 1889.]

COLUMBA LAURIVORA, Webb & Berthelot.

[§ 2817. Three.—Lilford Aviary, December and January, 1890-1. From Lord Lilford.

The hen bird which laid these eggs was mated with a cock C. bollii; but, from Lord Lilford's later letters to me, it seems that copulation may not have been effected.]
COLUMBÆ GENAS, Linnaeus.

STOCK-DOVE.

§ 2818. One.—Rockingham Forest, Northants, April, 1842.

§ 2819. Two.—Wingfield, Derbyshire, 4 April, 1844.

I found these two eggs in the same nest in a hole of the wall sheltered by ivy at that part of the ruins of Wingfield Manor House to which the cow climbed. The nest consisted of a few larch-twigs. I saw the bird fly off. The eggs had been sat on for two or three days. They bred in numbers in the rocks about Matlock. I did not see one Rock-Dove on the High Tor, though I went to the top on purpose to look for them. I am inclined to think the Rock-Dove is never found inland. A pair of Stock-Doves are breeding in a Dove-cote hung in a tree before the windows at Mr. F. Robinson’s, Widmerpool. There was one egg in the nest on the 13th April. A pair of Fantail-Pigeons have laid in an adjoining hole. The Stock-Dove’s egg had a brown tinge and was of the shape of my specimen from Rockingham Forest. These two specimens differ singularly in shape and colour.

15 April.—I saw several Stock-Doves on the cliff at Clifton Lane End [Notts]. My father says that his father used to say the blue Wood-Pigeon was common at Wollaton and Strelley. The Stock-Dove’s egg is never of so pure a white as that of the Ring-Dove and Rock-Dove (?). Cutts informs me that the Stock-Dove builds in rabbit-holes at Clifton, also that it is abundant about Worksop. He has found several nests in the same pollard oak.

[The difference in shape of these two specimens is remarkable, but I perceive none in colour, which perhaps is not surprising after nearly sixty years.]

§ 2820. Two.—Yoxhall Lodge, Staffordshire, 1851. From Mr. John Evans.

Mr. Evans himself took these out of a hollow oak, from which he had seen the bird fly on the preceding day. The tree is in an old corner of Needwood Forest.

"Taken by ourselves, from Rabbit-burrows."

§ 2822. *One.*—Böda, Öland, 11 June, 1856.

Taken during the same walk with the Roller's [§ 662]. Lundberg (the handelsman) saw the bird fly from the tree, and I saw it soon after it had left. There were two eggs, still when I first saw them I thought they were Roller's eggs.


Taken by Spiuks, of the Warren Lodge at Elveden.

[§ 2824. *One.*—Elveden, before 1848.]

[§ 2825. *One.*—Elveden, 1848.]

[§ 2826. *Two.*—Icklingham, Suffolk, 1848.]

[§ 2827. *Two.*—Elveden, 1849. (Different nests.)]

[§ 2828. *One.*—Icklingham, 1851.]

[§ 2829. *Two.*—Elveden, 1852. (Different nests.)]

[§ 2830. *One.*—Icklingham, 1852.]

[§ 2831. *Four.*—Elveden Warren, April, 1854. (From two nests.)]

[§ 2832. *Two.*—Elveden, 8 June, 1854. "E. N." ]

[§ 2833. *Two.*—Elveden, April, 1855. "A. & E. N." ]
The late breeding of this Ring-Dove has been often noticed, but I know no other instance of this species having eggs so late in the year.

Out of nine from Spinks the warrener, of which we gave a pair to Mr. Wolley (§ 2823) and two pairs to Mr. Gould.

From Mr. Buckley, 1896.

From the late Mr. Scales's collection, 1885.

COLUMBA RUPESTRIS, Bonaparte ex Pallas.

From Dr. Dybowski, through M. Verreaux, 1873.

The first of these eggs was presumably received from Dr. Dybowski, as the last certainly was. A note on this species by him is printed by Dr. Taczanowski in the 'Journal für Ornithologie' for 1873 (p. 97), and its eggs are described in the posthumously published work of the latter (Faune Ornith. de la Sibérie Orientale, ii. p. 731).]
COLUMBA LIVIA, Bonnaterre ex Brisson.

ROCK-DOVE.

§ 2844. One.—Yorkshire. From Mr. Williamson, not later than 1843.

From Mr. Williamson of Scarborough, in the neighbourhood of which they breed plentifully, laying their eggs in fissures of the cliff all along that coast.

§ 2845. One.—Flamborough, Yorkshire. From Mr. Williamson, 1846.

Mr. Williamson says the egg is difficult to get, from the bird breeding so far in the holes.

§ 2846. One.—Orkney. From Mr. Tuke, 1846.

§ 2847. One.—South Ronaldshay, 29 August, 1848. “J. W.”

One of two eggs I saw taken out of a cave at Pigeon Cove, near Halero Head, by two boys—one by name Aikin. The other egg was broken before being blown. They were quite fresh. It is said that tame Pigeons in Orkney are very apt to be enticed away by the wild ones—no doubt of the same species. I shot them in Shetland, and near Wick. They are believed to breed alternate months, almost throughout the year. In another cave were procured three young ones. After some trouble these reached Beeston, where two of them came to an untimely end; but one is now (13 February, 1849) living in company with a young Stock-Dove from Strelley in a dove-cote over the saddle-room door. Had the young Pigeons done well I should have forwarded them to Mr. Wakefield in Warwickshire, whom I saw at the Eagle’s nest at Dunnet Head, 4 August, 1848, and who assisted me in taking it by holding the stick round which the rope slid [cf. § 67]. He was very anxious to get some Pigeons.
COLUMBA LIVIA.—TURTUR COMMUNIS.

§ 2848. One.—Sutherland, 1850. From Mr. W. Dunbar.

§ 2849. Three.—Orkney, 1850. From Mr. George Harvey of Stromness.

Out of four sent. There is no other kind of wild Pigeon there.

§ 2850. Eight.—Orkney, 1851. From Mr. George Harvey.

Out of twelve sent.

[§ 2851. Two.—Flamborough Head, 1851. From Mr. Jones of Bridlington.]

[§ 2852. Two.—Unst, Shetland, 1854. From Mr. James Smith.]

[§ 2853. Two.—Rathlin, 6 May, 1863. From Mr. Robert Harvey of Leek Glebe.

Mr. Harvey wrote:—"This nestful was taken for me by my cousin, Robert Gage, Esq., the proprietor of Rathlin. One of his boatmen got them on a ledge of a rock on the east side of the island."]

TURTUR COMMUNIS, Selby.

TURTLE-DOVE.

§ 2854. One.—Eton, not later than 1842.

This was found near Eton in a nest placed in a bush in the middle of a large field, which I was told is the situation in which they are most frequently found.

§ 2855. One.—Milton, Cambridgeshire, not later than 1844?

[This appears to be one of two "found by old Rawlinson in the nest at the top of a fir-tree at Milton. He saw the bird and knew it."
§ 2856. One.—Tangier, from M. Favier, through Mr. Williams, 1847.

§ 2857. One.—Chemora, Algeria, 18 May, 1857. From Mr. W. H. Simpson.

[§ 2858. One.—Elveden, 1847.]

§ 2859. Four.—Elveden, 1852. (Different nests.)

§ 2860. Two.—Norfolk. From Mr. Norgate, 1875.

§ 2861. One.—Cambridge, May, 1886.

A dwarf egg, measuring .86 by .65 inch, from a nest at the back of the Colleges, brought to me by a trustworthy man. The largest egg of this species in the Collection measures 1·29 by .93 inch.

TUR TUR ORIENTALIS (Latham).

§ 2862. One.—"Darasun, Daourie, Juin, 1868." From M. Verreaux, 1871.

§ 2863. One.—Siberia. From Dr. Dybowski, through M. Verreaux, 1873.

Both these eggs, the first presumably and the second admittedly received from Dr. Dybowski, came to me under the name of Turtur gelastes, now considered a synonym of T. orientalis, and they differ so much in size (1·28 by .95 inch, and 1·52 by 1·04 inch) that I was inclined to suppose that one of them might belong to another species—perhaps T. ferrago. But I observe that the Doctor has given (Journ. für Orn. 1873, p. 98) measurements of six eggs of T. rupicola, another synonym of T. orientalis, which shew great diversity—37·7 to 32 mm. by 26 to 24 mm., and the same appears from Dr. Taczanowski’s posthumous work (Faun. Orn. Sib. Orient. ii. pp. 734, 735), where eight eggs are said to vary from 37·6 to 31·2 mm. by from 26 to 23·4 mm. Hence I infer that both may be regarded as belonging to the same species, as was originally stated.]
TURTUR SENEGALENSIS (Linnaeus).

[F 2864. Two.—Jericho, 18 April, 1864. From Mr. Tristram.

From a nest in a zizyphus tree. The Canon's notes on the Turtle-Doves of the Holy Land are contained in 'The Ibis' for 1868 (pp. 210, 211), and were repeated in a somewhat extended form in his 'Fauna and Flora of Palestine' (pp. 120, 121).]

TURTUR RISORIUS (Linnaeus).

BARBARY DOVE.

[F 2865. One.—Exning, Suffolk, 1846. From Mr. H. F. Dobede. (Laid by a tame bird.)]

[F 2865. Two.—Jericho, 18 April, 1864. From Mr. Tristram.

Into the question of the wild original form of the domesticated T. risorius I am not prepared to enter. Canon Tristram's notes already referred to (§ 2864) shew his view of the case; but considerable weight is due to the contrary opinion expressed by Mr. Blyth (Ibis, 1867, p. 151) and others since his time.]

[F 2867. One.—From the late Mr. Scale's Collection, 1885.]

SYRRHAPTES PARADOXUS (Pallas).


This was the first egg laid by one of the birds sent from China in 1861, and I exhibited it at the meeting of the Society on the 10th of December (Proc. Zool. Soc. 1861, p. 377). It was afterwards figured as above.]

[F 2869. Two.—Gardens of the Zoological Society, 1863.

These were believed by Mr. Bartlett to have been laid by the same Chinese bird as laid the egg I had in 1861 (§ 2868). She died in 1864, the last of her fellow captives. Mr. Rowley had some eggs laid by her in 1862. One of these eggs looks like that of an exhausted bird.]
[§ 2870. One.—Near Ringkjøbing, Jutland, 6 June, 1863. From Professor Reinhardt.

Early in June, 1863, Herr Bülow, a Custom-house officer at Ringkjøbing, sent Professor Reinhardt several living birds of this species which had been snared on their nests by a gunner in that neighbourhood, together with four of their eggs. One of the latter was found by Herr Bülow in the box which conveyed the birds to him, having been laid on the journey. It was colourless, indicating that it had been prematurely produced. The other three, of which this is one, were fully coloured. It appears that this gunner found two nests of Syrrhaptes, while a third was found by a neighbour of his near Bjerregaard, and on two of these nests both the birds (in each case the hen first and then the cock) were snared. All these nests were on the sand-hills not far from the sea. Two of them were near one another; and containing three eggs, was merely a slight deepening in the sand lined with a little dry straw. The other had only two eggs, was placed among some heather, and was likewise furnished with a little dry grass. The third nest was like the first, and also held three eggs, but was at some distance and halfway up a sand-hill. Of the three mature eggs sent to Herr Bülow, he found that two were quite fresh, but in the third the embryo had just begun to form, shewing that they were not all from the same nest. More nests were found by other people, but unfortunately no care was taken about them. Later in the year, near the end of July, the same gunner found two other nests, taking both as well as the old birds. Professor Reinhardt was kind enough to send me one of the eggs from one of the first nests found, but which it was he did not know. He was further so good as to furnish me with these details, of which I availed myself, printing them in 'The Ibis' for 1864 (pp. 195, 196), in anticipation of the publication of the excellent account which he himself contributed to the Natural History Union of Copenhagen (Naturhist. Foren. Viden-k. Meddelelser, 1863, pp. 219–221).]

[§ 2871. Two.—Shu River, Turkestan, 1 May, 1887. From Mr. W. H. Bateson, 1888.

Mr. Bateson, whose attention I had especially directed to this species, before he set out on his travels in Central Asia, was good enough to give me with these specimens the following notes:—

"S. paradoxus is very common about Kazalinsk, and on the steppe of the Shu River. We met quantities of them on the shores of the Lake Balkash, but none were seen on the grassy hills north of the lake nor on any part of the grassy steppes of Semipalatinsk and Western Siberia. I never saw any near Irgizh, which is in sandy country, though they were common some fifty miles to the south, where the Artemisia-covered steppe begins. Between Kazalinsk and Turkestan there were great quantities on the post-road, picking about among the horse-dung.

"The nests were very common in the steppe of the Shu, being mostly little depressions among the tufts of Artemisia, lined with a little loose chaff.
These two eggs were found on the bank of the Shu on the 1st of May, 1887, about 350 miles east of Telekul.

"The Kirghiz are accustomed to notice the direction in which the birds fly before midday, as an indication of the whereabouts of water; but they do not seem to be very particular as to the quality of the water. I saw them drinking the water of Telekul, which is almost unfit for cooking purposes, having a specific gravity of 1·005. I never saw them drinking at a lake saltier than this. The Kirghiz name for them is Bulduruk; but the Russians call them Kuropatka, which means simply Partridge."

Mr. Tate son could not tell me whether these eggs were actually taken by himself. A good many eggs were found, of which most were broken in one way or another, by the men of his company as they passed along.

[§ 2872. Three.—"Altai." From Herr Tacré, of Auclam, 1888, through ——.

These eggs were sent to me as having been taken in Norfolk in May, 1888, during the time of the very great immigration into this country of birds of this species. At first I was quite prepared to accept the story, and their occurrence was recorded in 'The Times' of the 15th and 'The Field' of the 16th June. On further enquiry into the matter my suspicions were aroused, and after a great deal of trouble and an investigation which was spread over many weeks, I was, thanks to various friends, able to satisfy myself that a most disgraceful attempt to impose upon me, and naturalists generally, had been made; and that the specimens had been received from Herr Tacré, who sent them to this country in the ordinary course of trade, but coming into the hands of a dishonest dealer, they were by him passed off to the correspondent from whom I obtained them as having been taken at Holt in Norfolk, on the 20th May. The contradiction of the lie (or lies, for there were many) was recorded in 'The Field' of the 8th September, 1888. Among the friends who assisted me in detecting this impudent fraud were Mr. E. Bidwell, Mr. Alfred Chapman, Mr. Dresser, Mr. J. J. Lister, Mr. H. A. Macpherson, Mr. Upcher, and Lord Walsingham, not one of whom was aware at the time of the part the others were taking in the investigation.]

[§ 2873. One.—Kattensundet Aviary, Denmark, 1890. From Herr B. Christensen.

Herr Christensen, having been shewn by Herr Herlaf Winge the description and figure of the Syrrhaptes-chick taken in Moray in 1889, which appeared in 'The Ibis' for 1890 (pp. 207-214, pl. vii.), was good enough to write to me on the 23rd of September in that year, telling me that in January, 1889, he bought a cock and two hens which, having been caught in Jutland, he had turned into his aviary at Kattensundet, near Copenhagen. On the 30th of May, 1890, one of the hen birds having died, he was surprised to find an egg laid by the other, and this was followed at intervals by four more. The mother shewing no disposition to incubate, he put two of the eggs under a Pigeon,
which, however, after brooding them for eighteen days, left them, when they were found to contain almost full-grown embryos. The other eggs were, unfortunately, injured by Parrakeets in the aviary, and so rendered useless. In the beginning of July this hen bird began to lay again, and in eight days five eggs were produced, and a sixth at the end of the month. Two of them were destroyed, as before, by the Parrakeets, but three were placed under a Bantam hen, and at the end of twenty-three days a young bird was hatched. The foster-mother then left the nest, and the other two eggs, both of them fertile, came to nothing, while she trod upon the chick so that it died the next day, when its remains were sent to the Museum at Copenhagen. In October, Herr Christensen was so kind as to bring to England and send to me the only remaining one of the eggs which he had to spare, and this, though broken, I regard as a valuable specimen. It is more highly coloured than any of the others I have, but very sensibly smaller.

PTEROCLES ALCIIATA (Linnæus).

§ 2874. Three.—Harakta, Algeria, 10 June, 1857. From Mr. Salvin.

[Mr. Salvin's notes on the breeding of this species are printed in 'The Ibis' for 1859 (p. 352).]

§ 2875: Three.—Plain of Roumila, Algeria, 10 June, 1857. From Mr. Simpson.

From one nest.

§ 2876. Three.—Algeria, 1857. From Mr. Tristram.

[The Canon's notes on this species in Northern Africa were published in 'The Ibis' for 1860 (pp. 70, 71).]

[§ 2877. Three.—Tz'har, Algeria, 4 or 5 June, 1857. From Mr. Salvin.

From one nest.]

[§ 2878. Three.—Harakta, 10 June, 1857. From Mr. Tristram.

A complete nest.]
PTEROCLES ALCHATA.—P. ARENARIUS.

§ 2879. One.—Nimroud, 1849. From Mr. Malan, 1860.

Mr. Malan wrote to me 19 May, 1860, that this species of Sand-Grouse was "very common on some of the islets of the Tigris and on the mainland too." In a previous letter he said that he had brought the eggs from Nimroud in 1849.

§ 2880. One.—Spain, 1872. From Lord Lilford, 1873.

Lord Lilford unfortunately never published anything on the breeding of either species of *Pterocles* in Spain, and the only notes on them in that country which he seems to have printed are in *The Ibis* for 1866 (p. 359).


PTEROCLES ARENARIUS (Pallas).

§ 2882. Three.—Tz'har, Algeria, 4 or 5 June, 1857. From Mr. Salvin.

A complete nestful taken by Mr. Simpson.

[Mr. Salvin has a very brief note on this species in *The Ibis* for 1859 (p. 353).]

§ 2883. Three.—Tz'har, 3 to 5 June, 1857. From Mr. Simpson.

From, apparently, different nests taken by him.

§ 2884. One.—Tz'har, 4 June, 1857. From Mr. Tristram.

Taken by Mr. Simpson.

[Canon Tristram has some interesting notes on the breeding of this species in *The Ibis* for 1860 (pp. 69, 70).]

§ 2885. Three.—Tz'har, 4 or 5 June, 1857. From Mr. Salvin.

A complete nest taken by Mr. Simpson and Arabs.]
[§ 2886. *Three.*—T'zar, 4 June, 1857. From Mr. Tristram.  
A complete nest.]

[§ 2887. *Three.*—Arganda, Madrid, 13 June, 1867. From  
Mr. Dresser, 1868.  
Taken and marked by Manuel de la Torre.]

[§ 2888. *Five.*—Southern Spain, 1882. From Lord Lilford,  
1884.]

**TETRAO UROGALLUS,** Linnaeus.  
**CAPERCALLY.**

§ 2889. *One.*—From Mr. Reid, 1844.  
A well-marked specimen, evidently genuine.

§ 2890. *Two.*—Piteä Lappmark, 1850. From Mr. Lawrence  
Heyworth.

Mr. Heyworth brought home eight eggs of the *Tjäder,* which he  
got in a house near Arjepong, but almost every house had or had  
had some, as the Lapps collect great numbers for eating. He saw  
the birds plentifully on the banks of the Great Lake [Horn Afvan,  
out of which the Skellefteä River runs] on which Arjepong stands,  
near the Arctic Circle. He shot here, and elsewhere, with the  
assistance of a little dog, eight or nine—mostly hens, while the people  
hunt the cocks most, as they sell best. Most of the eggs he had  
showed that “smudged” or wiped appearance which is probably  
caused at birth, while the markings are as yet very soft and unfixed.  
The *Tjäder* is almost or quite extirpated between Stockholm and  
Gottenburg, which the people attribute to the operations of Mr. Lloyd.  
On one of these eggs is, in Mr. Heyworth's writing, “Nordana.”

[Mr. Lloyd doubtless shot many Capercallies, but it is, of course, ridiculous  
to suppose that he made the species scarce in any part of Sweden.]
§ 2891. Two.—Juoksongi, East Bothnia, 7 June, 1853.
Brought with eggs of Orre [Greyhen] and Ripa [Willow-Grouse].

§ 2892. One.—Œlvre Muonioniska, June, 1853.
Out of six brought to me here, by a person who had taken them some days ago. He said that they were those of Tjäder hana [i.e. hen Capercally]. They had been sat upon for a short time.

§ 2893. Three.—Kätkäsuando, 29 May, 1854.
Out of six brought to me on the 30th. The Black Grouse is not found within many miles.

§ 2894. One.—Kuttainen, 3 June, 1854.
Kuttainen, two miles to the south of Kaaressuando, on the same side of the river, is probably the most northerly spot in this direction where the Capercally breeds. It is rarely seen at Kaaressuando. I do not know when these (six) eggs were taken. They were brought to me by Puno [i.e. red] Johan, an elderly man.

[The remaining five eggs are not forthcoming.]

§ 2895. Eight.—Vikki, 3 June, 1854.
Found by Anton at the end of Umarainan-uoma. The bird flew up from the nest, which was under a little Norway pine just in the angle, or nearly so, made by an old tree that lay on the ground. The bird flew away very slowly.
15 October.—I have seen the nest just as Ludwig described it, except that there were two little logs forming an angle with the tree. The nest, as usual, near a Norway fir, in a damp hollow or thicket.

§ 2896. Two.—Mielmooka-vaara, 9 June, 1854.
Out of seven which Salomon Hietalla brought on the 11th June, and Ludwig blew them—large young inside.
At Stevens's, 26 January, 1855, three were sold to Mr. Bond.

[The missing two I cannot account for.]
§ 2897. Two.—Jerisjärwi, June, 1854.

Out of seven, by the klokkun [sexton] Joel, brought to Muoniovara, 13 June, one being broken.
At Stevens's, 26 January, 1855, two sold to Mr. [afterwards Sir William] Milner, and two to Mr. Robson.

§ 2898. One.—Rowa, 1854.

Out of five, of which two were white, by Puntz's lads, who held the two white eggs to be some unknown kind of Falk, till at last when laughed at they began to say they were perhaps Koppelo's. It is not improbable that they took them from the old birds' insides; for Ludwig has heard that they are in the habit of snaring the mother on her eggs about Kittila.

[One of these given to Dr. David Walker for the Belfast Museum in 1860.]

§ 2899. Four.—Œlvre Muonianiska, 13 June, 1854.

Out of five, which Kokko Colly brought from the Œlvre-byn to Ludwig, on the 18th June.

§ 2900. One.—Kera Sieppi, F., 1854.

Out of two from Kera Sieppi's gubben [old man] at midsummer.

§ 2901. One — Nälima, 1854.

Out of four from Kainungi Johan, at midsummer.

§ 2902. One.—Sirka, 1854.

Out of five from Sirka by Keimio Miekel.

§ 2903. One.—Kätkäsuoando, 1855.

Out of three from Vellitallon Zacharias, on the 1st of August.

§ 2904. Three.—Salmojärwi, 1855.

Out of seven from Simon on the 23rd of June.

PART III.
§ 2905. Two.—Salmojärwi, 1855.
Out of seven from Matthias.
[Three of these were sent to Dr. Heermann, in 1861.]

§ 2906. Three.—Muonioiska, 1855.
Out of four from Piko Heiki.

§ 2907. Two.—Muonioalusta, 1855.
Out of six from Lassi Johan.

§ 2908. One.—Muonioalusta, 1855.
Out of seven.

§ 2909. Two.—Salmojärwi, 1855.
Out of six from Johan.

§ 2910. Two.—Rowa, 1855.
Out of seven, brought by Johan Eric, on the 23rd of June.

§ 2911. Three.—Muonioalusta, 29 May, 1855.
Out of five from Johan Taipalen-sun, otherwise Moaku, brought on the 1st of June. He said he took them because they were so near the track, that otherwise some dog would certainly have killed the mother.

§ 2912. Two.—West Finmark, Norway, 1855.
Out of nine, brought to Anton in 1856 by a Lapp from the Lyngen country.

§ 2913. One.—Modas Lombola, 3 June, 1856.
Out of six brought on the 24th of June by Adam Triomph, who said he took them that day three weeks back.
§ 2914. Three.—Toras Sieppi, 8 June, 1856.
Out of seven, brought by young Johan on the 21st of June. and blown by him.

§ 2915. One.—Särkijärwi, 1856.
Out of four brought by Piko Heiki on the 23rd of June.

§ 2916. Two.—Aitavaara, 7 June, 1857.
Out of four. Joel, son of Nālima Niku, brought them on the 18th June.

§ 2917. One.—Sieppi, 1858.
Out of six, from Matthis Hendrik, on the 19th of June.
[One of these given to Mr. Graham Manners-Sutton, in 1864.]

§ 2918. One.—Kemisaisinvaara, 15 June, 1858.
Out of six found by Pehr Matthisson Rauhula, and brought on the 23rd.

§ 2919. One.—Junkijärwi-maa, 1 June, 1859.
Out of six found by Heiki, and brought on the 4th.

[§ 2920. One.—Sweden. From Mr. A. D. Bartlett, 1851.
I believe this was sent to Mr. Bartlett by Mr. Charles John Andersson.]

[§ 2921. Two.—Taymouth, Perthshire, 1854. From Mr. Peter Robertson.
Sent with some others, all of which were broken. Peter had these eggs to put under Greyhens at Inveroran.]

[§ 2922. One.—Salmojarwi (Goshawk’s nest), 18 June, 1861.
This egg, which Knoblock did not recognize, was brought, with many others, to Muoniovara, on the 22nd June, 1861, by Hendrik Salmojarwi, who said he
found it in a Goshawk's nest about three fathoms from the ground. He did not see the Goshawk, but he knew that the nest was of that bird. The egg seemed to me the immature product of a Capercally, and on my enquiring about it more particularly, Knoblock wrote to me (6 July, 1862) that Martin Piety told him he had seen a Goshawk carry a living hen Capercally into its nest, and suggested this as an explanation of the egg being found there. I know no better one; but the matter must remain uncertain.]

[
§ 2923. Four.—Pulju, 1862.
Brought by Johan Johansson. One of them almost pear-shaped.]

TETRAO TETRIX, Linnaeus.
BLACK GROUSE.

§ 2924. One.—From Mr. Hancock, 1846.

§ 2925. Three.—Switzerland. From M. Nager, of Andermatt, 1847.

§ 2926. Nine.—Juoksengi, 7 June, 1853.
Brought with eggs of Tjäder and Ripa [§§ 2891, 2952].

§ 2927. One.—Salmojärvi, 5 June, 1857.
Out of eight found by Hendrik in Saidanletti.
[Two from this nest were sold at Mr. Stevens's, 30 May, 1860, to Mr. Gould.]

[§ 2928. Two.—Paultons, Hampshire, 1852.
Taken, I believe, on the property of Mr. Sloane-Stanley.]

[§ 2929. Two.—Cannock Chase, Staffordshire, May 1851 and June 1852. From Mr. R. W. Hawkins, 1852.]

[§ 2930. Six.—Dumfriesshire, 1854. From Mr. W. G. Johnstone.]
TETRAO MLOKOSIEWICZI.—BONASIA SYLVESTRIS.

[§ 2931. One.—Longshaw, Derbyshire, June, 1856. From Mr. O. Salvin.]

[§ 2932. Four.—Bloxworth Heath, Dorset, July, 1872.

Taken by the gamekeeper, who had known of the nest for some time; and, though he found the Greyhen sitting upon it, thought that there was no chance of her hatching a brood. I picked out these four, from the number he brought me, and next day blew them, when to my surprise I found the young in them alive, and there can be no doubt that if he had left the nest alone, a very respectable family would have been brought off. The other eggs he took away with him. Black Grouse are not numerous in Dorset, but I knew of several spots affected by them, where one could most generally see two or three, and sometimes more.]

TETRAO MLOKOSIEWICZI, Taczanowski.

[§ 2933. One.—Lagodechi (?), Russian Georgia. From Count Branicki, through Mr. H. E. Dresser, 1875.

The habits of this beautiful species are fully described by its discoverer, after whom it is named, in notes sent to Dr. Taczanowski, and communicated by him to Mr. Dresser, who printed them in his ‘Birds of Europe’ (vii. pp. 219-221), and very kindly gave me one of the eggs, which he had received from Count Casimir Branicki, presumably taken in the locality where the first specimens of the bird seen by ornithologists were procured.]

BONASIA SYLVESTRIS, Brehm.

HAZEL-HEN.

§ 2934. Six.—Tranevär, Calmar Län, Sweden, 3 June, 1856. “J. W. and W. H. S.”

[These eggs were not entered in his book by Mr. Wolley, but Mr. Hudleston’s journal, kindly placed at my disposal, shews that a boy at the post-house at Tranevär took those gentlemen “to a nest of Hjerpe, which had been discovered, in consequence of a new fence having been made into the forest.” The place is near Ryssby.]
§ 2935. *Fice.*—Köngäs in Kittila, 16, 17 June, 1856.

Eight eggs: the nest found about two miles from the church towards the north in low land a little burnt out. The bird very tame.

[One of these eggs was sold at Mr. Stevens's, 12 May, 1857, to Mr. Milner, a second, 30 May, 1860, to Mr. Salvin, and a third was sent by me to Dr. Heermann in 1861. This was the first nest of the species of which Mr. Wolley had knowledge in Lapland.]


Brought to Muoniovara, by Hendrik's wife, 23 June.

[§ 2937. *Four.*—Nolangi-selka, 30 June, 1860.

Out of eight found by Nicolai Wassara. The other four I sent to the Smithsonian Institution in 1863. One of these is curiously under-coloured.]

LAGOPUS SCOTICUS (Latham).

RED GROUSE.

§ 2938. *Two.*—England, not later than 1843.

Obtained by George Wolley.

[Most likely from some Derbyshire moor.]

§ 2939. *Four.*—Glasnevin, Sutherland, 25 May, 1849.

Given me at Inchnadamph by a shepherd, who had just brought them in; the mother had been killed by a cow. Glasnevin is a hill in Assynt. I could not find a nest myself in all my rambles over the moors.

§ 2940. *Seven.*—Orkney, 1850. From Mr. George Harvey, of Stromness.

The Ptarmigan, as I learn from the histories of Orkney, is not found in these islands, so these eggs are Grouse beyond the possibility of mistake. There is very good Grouse-shooting in Orkney. No Grouse in Shetland.
§ 2941. *Seven.*—Sutherland, 1850.

Out of thirteen, several of which are badly broken and some evidently from a deserted nest, as their upperside is bleached by exposure to weather, received from Mr. John MacGregor. One of them is less than any of the six Ptarmigans' sent at the same time [§ 2992], and others are of the same size as Ptarmigans'.

§ 2942. *Twenty.*—Moorfoot Hills, Mid Lothian, 1851.

Out of two dozen sent me by Mr. Daniel M. Falconer, of Loanhead, who wrote that "they were taken from the Heriot Moor, Moorfoot Hills—the most of them I took myself."

§ 2943. *Fourteen.*—Orkney, 1851. From Mr. George Harvey.

Out of seventeen—two of them, with very few spots, are marked "Grouse" by Mr. Harvey.

[Two others given to Dr. Heermann in 1861.]

§ 2944. *One.*—Scotland. From Mr. John Evans, of Darley Abbey, 1853.

From Mr. Roberts, of Scarborough, to whom it had been sent by Adams, the keeper of the Bass Rock.

[This seems to have been kept on account of its large size: 2½ by 1¾ inch.]

§ 2945. *Two.*—Ireland. From Dr. Frere, 1853.

Marked in Dr. Frere's book "Davis of Clonmel." These are of a singular variety.

[These, like the two sparsely spotted specimens from Orkney in 1851 above noted (§ 2943), shew considerable similarity to eggs of Tetrao.]

[§ 2946. *One.*—Fingal, Yorkshire, 1842.]

[§ 2947. *One.*—Leadenhall Market, 1844.

Perfectly formed but uncoloured, and evidently taken from the body of the parent.]
LAGOPUS SCOTICUS.—L. ALBUS.

§ 2948. One.—Scotland. From Mr. R. J. Thompson, 1846.

§ 2949. Eight.—Gordon Castle, Banffshire, 1854. From Lord March.

§ 2950. Two.—Dumfriesshire, 1854. From Mr. W. G. Johnstone.

§ 2951. Seven.—Gartan, Donegal, 8 May, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote that "this nestful was taken by my son in the mountain of Derryveagh, close to the spot where Murray (Mr. Adair's shepherd) was murdered three years ago."

LAGOPUS ALBUS (Gmelin).

WILLOW-GROUSE.

§ 2952. One.—Juoksengi, 7 June, 1853.

At Juoksengi, 7 June, two Tjader's eggs, and afterwards some nine Orre's and eleven Ripa's eggs were brought, those of the last two sat upon §§ 2891, 2926. The species from the aspect of the country is doubtless Dalripa [Lagopus albus, otherwise saliceti].

§ 2953. Five.—Muonioniska, June, 1853.

Brought to me at Herr Forsström's.

§ 2954. Five.—Kaaressuando, 2 June, 1854.

No doubt Tetrao saliceti, which I am assured is the only species at Kaaressuando. We saw very many and shot some cock birds. I took these eggs. On my first visit there were only four; by the side of a birch: not much nest, and the eggs covered with dried birch-leaves and mixed with them.

§ 2955. Seven.—Portavaara, 3 June, 1854.

Found by my men on the Finnish side on or near Portavaara.
§ 2956. *Five.*—Enontekis Lappmark, 9 June, 1854.

Willow-Grouse found by myself: the bird flying from its nest just before me, in a kind of mere near the river-side, between Nyimakka and Mukka-uoma.

§ 2957. *Eleven.*—Lapland, 1854.

Obtained on the 17th of June from Anders and his son Lars, two Lapps, at Rowtio, seven miles south of Nyimakka. They live or were living at Wokases. I picked these eleven eggs out of some three dozen, all said decidedly to be *Riekkö* [Willow-Grouse] and not *Kiirunä* [Ptarmigan], of which they had found none.


Taken by Sieppi’s Karl, the second boy.

§ 2959. *Five.*—Kaaressuando, 6 June, 1854.

Annonti’s Josa found these curious eggs near Kaaressuando, and said they were Willow-Grouse. *Kiirunä* or Mountain-Ptarmigan is not about Kaaressuando, in the summer at least.

[These eggs (one of the six originally obtained not being forthcoming) are warmly coloured, and somewhat closely freckled, but in a way that can be matched by many others.]

§ 2960. *Two.*—Mukka-uoma, 12 June, 1854.

Found by Elias under my eye in a plain above Mukka-uoma. Decidedly *Dalripa.*


Out of some fourteen or fifteen brought in 1854, and at the time believed by me confidently to be those of *T. saliceti*, though I do not now (August, 1855) exactly remember the particulars. I sent some to Herr Carl Hartman at Gefle.

§ 2962. *Four.*—Wassara, 1856.

Brought to Muoniovara 12 July by Nils Wassara, found by his brother Anders.
§ 2963. *Seven.*—Nălima, 1856.

Out of ten from Salomon Hictalla, in a district where there are no Mountain Ptarmigan.

[An eighth given to Dr. David Walker for the Belfast Museum in 1860.]

§ 2964. *Two.*—Lapland, 1857.

Brought to Muoniovara, 6 July.

[Three more given to Mr. Crowfoot in 1855.]

§ 2965. *Three.*—1858.

Out of eleven found by Mikel Mikelsson Kyrö, while employed on daily wages in various places, and blown by Piko Heiki, but the exact locality not written down. Brought to Muoniovara, 6 July.

[One, given by Mr. Welley to Mr. Tristram, passed with his collection to Mr. Crowley, and appeared at Mr. Stevens's rooms, 5 June, 1902, when it was bought by Mr. Ticehurst.]

§ 2966. *Nine.*—Koskiniska-vaara, 15 June, 1858.

Found by Mikel Tepasto, and brought to Muoniovara, 6 July.


Out of nine found by Karl Liljela near his homestead and brought to Muoniovara on the 20th.

[The remaining four I sent to Dr. Heermann in 1861.]


Out of eleven brought to Muoniovara 23 June by the wife of Sädekorva Hendrik. The other two thrown away.


Brought to us while staying at Herr Nordvi's house, but by whom there is no record.]
LAGOPUS HEMILEUCURUS.

[§ 2970. Two.—East Finnmark, 1856.]

[§ 2971. One.—Marainen, June, 1863.

Brought to Muoniovara as a Hawk-Owl's, but it is evidently the premature egg of a Lagopus, and, from the locality, L. albus.]

[§ 2972. Eight.—Anderson River, Arctic Coast of America, 8 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1870.

The label shews that these were from a nest of nine, on which the hen bird (no. 35914) was snared, taken by Mr. R. W. MacFarlane, who states (Proc. U. S. Nat. Mus. xiv. p. 430) that this species was exceedingly abundant on the Lower Anderson River, and in the wooded country to "the eastward." In the course of his five years' exploration he obtained nearly five hundred nests and over three thousand eggs.]

[§ 2973. Nine.—Anderson River, 9 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1870.

According to the label the hen bird (no. 35911) was snared by Mr. MacFarlane.]

[§ 2974. Eight.—Wilmot-Horton River, Arctic Coast of America, 27 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1870.

The label states that the cock bird was seen and heard by Mr. MacFarlane.]

LAGOPUS HEMILEUCURUS, Gould.


This is one of the two eggs obtained by the gentlemen above named, and kindly given to me, on their return from the somewhat hazardous voyage on which Mr. Hudleston and I saw them embark. They brought back but one skin (and that in very poor condition) of the bird, which at my request was subsequently placed in Mr. Gould's hands, and he described it forthwith as a new species (Proc. Zool. Soc. 1858, p. 354), which it certainly was, though it had before been figured in the Atlas to the work, published by the French
LAGOPUS HEMILEUCURUS.—L. RUPESTRIS.

Government, on the Expédition Scientifique du Nord under the direction of M. Gaimard, under the title of "Lagopus alpina, var. hyperborea." In 'The Ibis' for 1859 (pp. 169, 170), Messrs. Evans and Sturge, writing of their stay in Ice Sound, state that "one of us found a nest of this bird—if nest it could be called, being formed only of a few long stems of dry grass bent down in a trench-like hollow in the barren fjeld (or high tableland), where the snow had been thawed, or perhaps been blown away, which latter might have been the case, so bleak and exposed was the situation. There were two eggs, which resemble those of others of the genus. One of them measures 1·6 inch in length by 1·22 inch in transverse diameter."

§ 2976. Two (fragmentary).—Wide Bay, Spitsbergen, July, 1873. From Mr. A. E. Eaton.

Mr. Eaton's notes on this species (Zoologist, 1874, pp. 3807-3809), as observed by him when with Mr. Leigh Smith in Spitsbergen, unfortunately contain no mention of the nest whence these remains were obtained.

LAGOPUS RUPESTRIS (Gmelin)¹.

§ 2977. One.—Iceland, 1844. From Mr. Hancock, 1846.

§ 2978. One.—Oefjörd, North Iceland. From Mr. Proctor, 1844.

[§ 2979. Four.—North Iceland. From Mr. Proctor, 1851.]

[§ 2980. Two.—North Iceland, 1852. From Mr. Proctor, 1853.]

[§ 2981. Four.—North Iceland. From Mr. Proctor, 1856.]

[§ 2982. One.—Merkines, South-west Iceland, June, 1858.

Sent to Mr. Wolley and myself at Kyrkjuvogur on the 20th June by some man who ate the remaining eggs of the nest.]

¹ It will be borne in mind that the specific name rupestris was first applied to the bird from Hudson's Bay; that of Iceland is the Tetrao islandorum of Faber, and that of Greenland the T. reinhardtii of Brehm. To me all seem to belong to the same species.
§ 2983. *Five.*—Kyrkjuvogur, South-west Iceland, 4 July, 1858.

"A. N."

From a nest of eleven shewn to us by one of the Kyrkjuvogur people. It was placed in a rather exposed position on the slope of an old lava-stream, but with a good deal of vegetation around, at least for this district. Above the nest on the bank was a large patch of the very striking-looking moss, which I take to be the *Trichostoma canescens* mentioned by Sir W. Hooker (Tour in Iceland, p. 68; ed. 2, i. p. 83); below it some crowberry, dwarfed, as is everything hereabouts. The man tried to catch the old bird by throwing his jacket over her as she sat, but she jumped off with a cry of remonstrance as he did so. We then walked away from the nest, and the poor old thing accompanied us in a direction parallel to the one we were taking, and not keeping more than ten yards from us. After a time I fired my gun, thinking that the noise would make the cock crow; however, it only had the effect of sending the hen back to the nest, which she reached by flying most of the way, if not all. After waiting for her to settle herself, the man tried again to catch her as before, but unsuccessfully, and she flew off calling out. The cock bird almost immediately joined her. The eggs were on the point of hatching, several of them being chipped by the young. One was addled, though it had been fertile. The remaining six eggs from this nest, which were Mr. Wolley's share of it, are unfortunately not forthcoming, and I do not know what became of them.

§ 2984. *One.*—Greenland. From Sysselmand Müller, 1859.

Given to me at Copenhagen by Mr. Wolley's old Færöese friend, whom I found there attending the Rigsdag as representative of his native islands. He assured me he had received it direct from Greenland.

§ 2985. *One.*—"Greenland," lat. 72° N. 'Fox' Expedition. From Dr. David Walker, 1860.

Dr. Walker did not seem sure from which side of Baffin Bay this came.


Given to me by Mr. Robert Gray, of Edinburgh, who received them through Mr. A. J. Symington from Herra Jón Arnason of Reykjavik.


The label shews that the hen bird (no. 25971½) from this nest, which was composed of "hay-leaves," was shot, and the cock seen. These are from
LAGOPUS MUTUS.

Mr. MacFarlane's spoils, and he says (Proc. U. S. Nat. Mus. xiv. p. 431) that this species was not nearly so plentiful as the Willow-Grouse, and only met with in considerable numbers from the Wilmot-Horton Barren Grounds to the shores of Franklin Bay. I am at a loss to explain the locality assigned by the label, as the Anderson River seems to lie well within the Arctic Circle, and nowhere to cut it.]

LAGOPUS MUTUS (Montin).

PTARMIGAN.

§ 2988. Four.—Switzerland. From M. Nager, of Andermatt, 1846.

Out of six, one of which was given to Mr. Hancock, who saw these and believes the bird of the Alps to be identical with the Scotch.

§ 2989. Two.—Ben Clibrick, Sutherland. From Mr. W. Dunbar, 1848.

Of these Mr. Dunbar wrote, in June 1848, "I have sent you two Ptarmigan eggs. I sent Mr. Hancock two from the same nest"; and later, "Relative to the Ptarmigan eggs, those Mr. Hancock got were picked out of the lot by Mr. St. John, and are more perfect in the markings; but I can assure you they are from the same nest. I have seen some of their eggs almost pure white, and some very dark. This I can account for. When they begin to lay they do not sit on the eggs until they have laid the number intended. If the weather is rainy or very foggy, they get much bleached: if, on the contrary, the weather is fine, they still keep the spots perfect, though the sun, if very bright, makes them lighter: if the weather is dark and cloudy with no rain, the eggs remain the original colour."

§ 2990. One.—Sutherland, 1848.

This was given me in 1849 by John Sutherland, of Ledbeg. It was an egg of 1848. I tried in vain to get eggs myself. I shot two birds on Foinaven, and in the female was an egg as yet uncoloured; but of the size and shape as it would permanently have been. I killed the birds to feed my young Eagles.
§ 2991. One.—Foinaven, Sutherland, 7 May, 1849.

Colourless, e corpore matris, as above.

§ 2992. Six.—Sutherland, 1850.

These, which are perhaps somewhat smaller than the average of Grouse’s eggs, I received from Mr. John MacGregor, who, in reply to a question of mine, wrote:—“The Ptarmigan eggs were taken by Donald Ross, Shepherd, Stronchubic, and I make no doubt but they are Ptarmigan’s, as he is a very honest man.”

§ 2993. Nine.—Ben Clibrick, 1850. From Mr. W. Dunbar.

Mr. Dunbar wrote: “Some of these I got myself in the hill of Clibrick, but the others were brought to me by a shepherd who herds the same hill. The man had no occasion to deceive me with them, as he got no payment further than one glass of whiskey.”

§ 2994. One.—Cairn-gorm, 1850. From Mr. Lewis Dunbar.

Mr. Dunbar informed me that he took this egg himself.

§ 2995. Eight.—Pallas-tunturi, 22 June, 1853. “J. W.”

These were on Hima-riki *, the extreme top of Pallas-tunturi. The bird left them when I was a few paces off, with all the fluttering common to most that breed upon the ground, and settled again soon upon her breast. I shot her to identify the species. The nest was upon a little vegetation, or rather in a hole scraped in such a place, made of half a handful of fine bits of grass with lichen, mixed with a few white feathers and down.

* On the next mountain, Orotama-vaara, between Pallas-tunturi and Sieppi, I saw several Dotterels, as upon other mountains, and I had the good fortune to find a pair of Shore-Larks, Alauda alpestris, which apparently had a nest. I had not much time to look for it, as my companion, Herr Salomon, was extremely hungry, and had been almost lost in the course of the day. I shot the birds, the only two I had seen. [Mr. Wolley told me that on this occasion his companion was so nearly famished that he ate the two Larks raw.]
§ 2996. *Fourteen.*—Ounas-tunturi, 1854. (From two nests.)

Two nests of seven each found by Martin Pekka, and blown by him. He had also some ten eggs of the Willow-Grouse, but these were carefully packed separately in his basket, and were also of a lighter ground-colour and thicker markings. He at once knew the number of each, and on counting them they were found complete. These eggs are beyond doubt, from the high character for intelligence and care that he bears. He is unequalled in this neighbourhood.


Out of a nest of ten brought by Martin Pekka from Pallas-tunturi on the 25th of June.

[The tenth egg was sold at Mr. Stevens's, 7 March, 1856, to Mr. Burney.]


Out of a nest of nine, found by Martin Pekka's son Piety near Hima-riki on Pallas-tunturi. He shot the hen from this and the last nest, and they are now before me, stuffed and exactly like each other. It was on Hima-riki that I found the nest on 22nd June, 1853 [§ 2995].

[Two from this nest sold at Mr. Stevens's, 7 March, 1856, to Mr. Shepherd and Mr. Robinson.]


Brought by Martin Pekka, found by his daughter and son on Jakairla-kerro, the north side of Pallas-tunturi, the week before mid-summer.


[Out of twenty sent by Herr A. Ebeltoft, of Tromsö, in February, 1856, having apparently been taken in the preceding year by Peer Mortaisen, under the name "Giren," by which Kiruna, the Lapp name of *Lagopus mutus*, is meant. Mortas is a Lapp settlement not far from Kautokeino, near which place these were no doubt taken, and rather beyond the range of *L. albus*. They were not entered by Mr. Wolley in his Egg-book, nor is the sender's letter forthcoming.]
LAGOPUS MUTUS.—PERDIX CINEREA.


A complete nest, taken by a forester on the Gordon Castle Estate.


Out of eighteen, the contents of two or perhaps three nests. Lord March (who, in 1860, succeeded his father as sixth Duke of Richmond, and died in 1903) had given the strictest instructions that Ptarmigans' eggs only were to be taken, and he told me that all these and those in the preceding section could be safely trusted. One of these is a remarkably small specimen, measuring 1-53 by 0 inch, yet can scarcely be called a dwarf.


Out of seven sent by Mr. Peter Robertson, who wrote to my brother that these were taken from two nests, the one on Mealvourie, the other on Stob Ghabhan. My brother was unable to separate the nests.

§ 3004. *One.*—Switzerland. From M. Nager-Donazain, through Mr. Rowley, 1859.

§ 3005. *Two.*—Switzerland. From M. Nager-Donazain, through Mr. Harvie-Brown, 1859.

These are large, measuring respectively 1-78 by 1-23 and 1-73 by 1-21 inch; but there are some Scottish specimens very nearly as big.

§ 3006. *Seven.*—Norwegian Frontier, 1864.

Found by Aslagsen Turi when in search of Snowy Owls' and Skaas' eggs.

PERDIX CINEREA, Latham.

THE PARTRIDGE.

§ 3007. *Two.*—Eton Wick, Buckinghamshire, 1837.

Taken in 1837 by Sir George Hampson from a nest formed in the side of a dry moat on the Eton side of a lane that runs between Farnham End and Dorney. The spot was shewn to me the next day. I never before saw a Partridge's nest on so steep a bank.

PART III.

§ 3009. *Four.*—Cambridgeshire, 1843.

Given to me by old Rawlinson [§ 1098], who was afraid of being thought a poacher, though they were mown over.

[§ 3010. *One.*—Elveden, before 1848.]

[§ 3011. *One.*—Elveden, 1851.]

[§ 3012. *Nine.*—Elveden, 1852. (From three nests.)]

[§ 3013. *One.*—Elveden, May, 1853. *A. N.*]

[§ 3014. *Two.*—Elveden, May, 1857.]


These are out of four monsters sent me by my good friend, who wrote that they were taken by one of his gamekeepers from a nest out of which ten young birds were hatched and ran a few days before. I returned to him two of the four—one flask-shaped and having the attenuated end (which, by the way, seems to be what should have been the bigger one) wholly calcified, which it is not in the specimen I have kept, and the other a plain dwarf, but rather larger than the first, which measures but .91 by .73 inch.]

**PERDIX BARBATA,** Verreaux & Des Murs.

[§ 3016. *Six.*—Daurnia, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.

Dr. Dybowski's notes on the breeding of this bird, communicated by Dr. Taczanowski, are printed in the 'Journal für Ornithologie' for 1873 (p. 99), and further remarks on its eggs by the last-named naturalist, through whom its specific validity came to be recognized, will be found in his posthumously-published book (Faun. Orn. de la Sibérie Orient. ii. p. 778).]
§ 3017. *Cambridgeshire,* 1843.

All these, in 1843, from the neighbourhood of Cambridge, where they breed in small numbers every year. I saw several Quails in the poulterers' shops in Cambridge that had been shot in the Fens in December. They have been sometimes known to breed near Nottingham. A variety has smaller spots than usual and more thickly distributed over the surface. An egg very similar to this, from the Fens, much puzzled Mr. Hewitson, as he informs me in a letter dated October 1843, but every intermediate grade between this and the dark-blotched variety may be found.


From Osborne, of Fulbourne. Deprived of colouring-matter by long soaking in water.

[There is no doubt that this egg has no markings, but to judge from its appearance I should say it never had any.]

§ 3019. *Fevre.* From M. Favier, 1847.

Three of these marked "*Hemipodius tachydomus*" on paper by M. Favier.

[The other two were sent as "*Perdix coturnix,*" which they all obviously are.]

§ 3020. *Cambridgeshire,* 1851.

From poor Tom Rawlinson [§ 1096].

§ 3021. *Cambridge* [no date].

[A remarkably small egg (1.08 by .85 inch) and closely freckled.]

§ 3022. *Six.*—Cambridgeshire, 1852. From Dr. Frere.

[§ 3024. *One.*—Soham, Cambridgeshire, 1846. From Mr. H. Dobede.]

[§ 3025. *One.*—Barnham, Suffolk, May, 1849.
I have no record of how many eggs there were in the nest, but the first was estimated to have been laid on the 20th of May (Zool. p. 2525).]

[§ 3026. *Four.*—Southrey Fen, Norfolk, 1851. From Mr. J. Baker.
Two eggs from each of two nests.]

[§ 3027. *Two.*—Northwold, Norfolk, 1851. From Mr. J. Baker.
Remarkably curious eggs, having a kind of "bloom" like that on fruit on the dark patches, which vanishes on the shell being wetted, and reappears when it is dry.]

Out of a nest of eleven eggs, mown over in a field of sainfoin. Nine of them were placed under a Bantam hen, when the period of incubation was found to be nineteen days. About half a dozen were hatched and the young reared to maturity, being kept in a walled garden, whence one made its escape, while the rest in time disappeared—victims, as was supposed, to rats. The day after this nest was found another, containing a single egg—probably laid by the same bird—was mown over in the same field. The Quail had not been known to breed at Elveden before, so far as I could learn.]

[§ 3029. *One.*—Elveden, 26 June, 1852.
The single egg above mentioned.]

[§ 3030. *One.*—Barnham, 1854.]

[§ 3031. *Eight.*—Leck, Donegal, 12 July, 1863. From Mr. R. Harvey.
Mr. Harvey wrote:—"This nestful was found by myself as I was crossing the fields to my church and is the only one of the species I ever found. It was
in some long grass at the ditch-side along which I was passing. These fickle birds fluctuate strangely in this country. I was a grown-up lad before I ever saw a Quail here. They were then quite unknown. Suddenly they appeared in all the more fertile parts, and about twenty years ago they were quite common. Since then they have been declining in numbers, and are now scarce."

§ 3032. Seven.—Lurgybrack, Donegal, 27 June, 1865. From Mr. R. Harvey.

Mr. Harvey's note is:—"These were a nestful taken on a farm adjoining my own lands by the herd-boy and brought by him to me. They were deserted and addled."

COTURNIX JAPONICA, Temminck & Schlegel.

§ 3033. One.—Darasim, Dauria, 12 April, 1866. From Dr. Dybowski, through M. Jules Verreaux, 1871.

§ 3034. One.—"Sibérie." From Dr. Dybowski, through M. Jules Verreaux, 1873.

Dr. Dybowski's notes on the breeding of this bird, under the synonym of C. muta, were published by Dr. Taczauowski in the 'Journal fur Ornithologie' for 1873 (p. 99), and the latter gives some further particulars of its eggs, under the name of C. ussuriensis, in his 'Faune Ornithologique de la Sibérie Orientale' (ii. pp. 781, 782).

AMMOPERDIX HEYI (Temminck).

§ 3035. One.—Mount Quarantania, Jericho, 13 March, 1864. From Mr. Tristram.

§ 3036. Two.—Mount Quarantania, Jericho, 1 April, 1864.

The Canon's note states that the first of these was from a nest of nine, and the remaining two from a nest of twenty-seven; but sixteen of them were of the preceding year and addled! Both nests in holes in the rocks in the side of Mount Quarantania, near Jericho. The second nest was inside an old hermit's chapel-cave. Further particulars are given by the Canon in 'The Ibis' for 1868 (p. 214).]
CACCABIS RUFA (Linnaeus).
FRENCH PARTRIDGE.
§ 3037. One.—Cambridgeshire (?). From Mr. Sadd, 1843.

§ 3038. One.—From Mr. Thomas, of Liverpool, not later than 1843.

§ 3039. Two.—Trumpington, Cambridgeshire, 1852. From Mr. John Baker.

[§ 3040. One.—Elveden, before 1848.]

[§ 3041. One.—Elveden, 1848.]

[§ 3042. Four.—Elveden, 1851.]

[§ 3043. One.—Elveden, 1852.]

[§ 3044. Five.—Elveden, 1853. From two nests.]

[§ 3045. Six.—Elveden, April, 1863.]

[§ 3046. Eleven.—Sparham, Norfolk, July, 1875. From Mr. Norgate.]

CACCABIS PETROSA (J. F. Gmelin).
BARBARY PARTRIDGE.
§ 3047. Three.—From Mr. Argent, 1847.

§ 3048. Five.—Tangier. From M. Favier, 1847.
Two given to Dr. Brewer and Mr. Wilmot respectively.
§ 3049. Six.—Kef Laks, April, 1857. From Mr. Tristram, 1858.
All from different nests.

§ 3050. Six.—Kef Laks, Algeria, 15–20 April, 1857. From Mr. Salvin.
From several nests. The only species, and many were shot. Mr. Salvin has picked these eggs as varieties. They lay some eleven to fourteen eggs.

[Mr. Salvin's notes on this species are in 'The Ibis' for 1859, p. 353.]

§ 3051. Six.—Kef Laks, April, 1857. From Mr. Simpson.
From four nests. In the district whence these eggs came, Mr. Simpson was very sure there was no other species of Partridge.

[§ 3052. One.—Mogador, Morocco. From Dr. Frere, 1850.]

[§ 3053. Two.—Algeria, 1856. From Mr. Tristram.]

[§ 3054. Four.—Kef Laks, April, 1856. From Mr. Salvin.
From different nests.]

[§ 3055. One.—Valley of the Medjerda, Algeria, 7 April, 1857. From Mr. Tristram.]

[§ 3056. Five.—Kef Laks, 16–20 April, 1857. From Mr. Tristram.
From different nests.]

[§ 3057. Two.—Kef Laks, 16 and 19 April, 1857. From Mr. Simpson.
From different nests.]

[§ 3058. Two.—Laghouat, Algeria, April, 1870. From Mr. J. H. Gurney.]
CACCABIS SAXATILIS (Wolf & Meyer).

§ 3059. Two.—Tangier, 1886. From Professor Moscley.
Obtained from an Italian employed in the Custom House there.]

CACCABIS SAXATILIS (Saxatilis).

§ 3060. Three.—Switzerland. From M. Nager, 1847.

§ 3061. Five.—Tzipiana, 6 May, 1859. From Mr. Simpson.
Mr. Simpson (now Hulleston) has a few notes on the breeding of this species in Western Greece in 'The Ibis' for 1860 (p. 388).]

§ 3062. Five.—"Turkey." From Mr. Robson, of Ortakeuy, 1867.]

CACCABIS CHUkAR (J. E. Gray).

§ 3063. Two.—Mar Saba, Palestine, 30 March, 1858. From Mr. Tristram.

§ 3064. Six.—Jericho, Palestine, March, 1864. From Mr. Tristram.

The Canon's notes on the Red-legged Partridge of Palestine, and especially its eggs, are in 'The Ibis' for 1868 (pp. 213, 214). He plainly saw its distinctiveness from the allied European form, but calling that C. grceca, he applied the name C. saxatilis, a synonym of the last, to the former, which is now recognized as identical with the eastern C. chukar.]

TETRAOGALLUS CASPIUS (S. G. Gmelin).

§ 3065. One.—Bulgar-dagh, Taurus Mountains, 23 April, 1876. "C. G. D." From Mr. Danford, 1877.

Given to me by Mr. Danford as the egg of what was at the time supposed to be a new species of Tetraogallus (T. tauricus, Dresser, Proc. Zool. Soc. 1876, p. 675), but subsequently shown by him (Ibis, 1877, pp. 253, 254) to be identical with the long-known Tetrao caspius of S. G. Gmelin. Mr. Danford's account of the taking of this nest, which contained six eggs, by himself and party is given in 'The Ibis' for 1878 (pp. 30, 31).]
FRANCOLINUS VULGARIS, Stephens.

[§ 3066. One.—Smyrna. From Dr. Krüper, through Herr Seidensacher, 1865.]

[§ 3067. One.—Trikhomo, Cyprus, 24 April, 1875. From Lord Lilford, 1876.

Lord Lilford wrote to me, 11 February, 1876:—"There is an egg of Francolinus at 'the Den' at your disposition, if you have not already gathered it. It is one of a nest taken with these hands (the female bird shot from it by a Cypriote in my sight) containing eleven eggs hard-set, and placed on the ground in the centre of a densely matted lentisk-bush, in a valley about two miles north-west of the village of Trikhomo, near the south-east corner of Cyprus, 24th April, 1875." The egg was received by me at No. 6 Tenterden Street, on the 15th March, 1876.]

PHASIANUS COLCHICUS, Linnaeus.

THE PHEASANT.

§ 3068. Two.—Ditton, Buckinghamshire, not later than 1842.

These eggs I, in company with Sir Francis E. Scott and W. G. Mount, found in a plantation of Lord Montague's in Ditton Park, near Windsor. We nearly trod upon the mother, who rose directly from the nest, as she always does that there may be no tracks about it. We took only four of the eggs, which we agreed to keep as mementoes of our Sunday walk, two falling to my share.

§ 3069. Two.—Eton, not later than 1842.

From a batch of eggs brought by T. C. Garth to put under a hen of Trotman's [at Eton]. Two of these only were hatched, and of the young, the rats took one and the cat the other.

§ 3070. Four.—Wigwell, Derbyshire, not later than 1843.

George [Wolley] and Biden found these on the banks of a pond at Wigwell near Wirksworth.
PlIASIANUS COLCHICUS.—TURNIX SYLVATICA.

[§ 3071. Three.—Elveden, before 1848.]

[§ 3072. One.—Elveden, 1852.]

[§ 3073. Two.—Elveden, 1856.]

[§ 3074. One.—Elveden, June, 1857. "E. N."

[§ 3075. Four.—Elveden, 1846–51.

Three are dwarfs, the smallest measuring but 1:02 by .88 inch; the fourth pear-shaped, with the shell imperfect at one end.]

[§ 3076. One.—Culford, Suffolk, 1852.

A dwarf, constricted near the middle, so as to be flask-shaped.]

TURNIX SYLVATICA (Desfontaines).

[§ 3077. One.—Algeria? From M. Parzudaki, 1858.

Given to me by M. Parzudaki. Mr. Simpson tells me the bird breeds in confinement, and he knows that there are many eggs got about in this way. However, this one agrees exactly with those of a nest found by Mr. Tristram’s party in Algeria.

[This is most likely to have been one of the eggs, more than fifty in number, laid by a bird kept in confinement by Captain Loche, as mentioned by him in the ‘Exploration Scientifique de l’Algérie’ (Oiseaux, ii. p. 247).]

[§ 3078. One.—Forest near Kolcah, Algeria, 11 July, 1857. From Mr. Tristram.

This egg is from a nest which, according to Canon Tristram’s note communicated to Mr. Hewitson and by him published in ‘The Ibis’ for 1859 (p. 80), was, so far as is known, “the very first from a bird in a state of nature,” and was taken by Captain Loche as above stated. “The nest contained seven eggs, nearly fresh. It was placed on the ground in the midst of a dense thicket of underwood, most ingeniously concealed, and where no dog could penetrate to put up the bird . . . . I was out with Capt. Loche when he discovered this nest, of which he kindly allotted me three eggs.” The remaining two eggs were
figured by Mr. Hewitson (Ibis, *tom. cit.* pl. ii. figs. 4, 5). He remarked that they "bear but little resemblance to those of other gallinaceous birds. The shell is delicate and thin, and touched with a neutral purple tint, which gives them some likeness to those of the Pratincole." No mention of this particular nest is made by Captain Lochie in the work above referred to, but he describes (*tom. cit.* p. 245) the bird's mode of nesting in terms very similar to those used by the Canon.

**CREX PRATENSIS, Bechstein.**

**LAND-RAIL or CORN-CRAKE.**

§ 3079. *Two.*—Beeston, Notts. not later than 1843.

The Corn-Crake breeds rather plentifully about here. These obtained from John George, who mowed over them. I have seen the bird as it sat on a bough in a sallow bush uttering its *crex, crex.* It may be heard all the night long in the early part of summer. The markings as well as the ground-colour of the eggs vary very much: they are generally darker than in the Water-Rail.

§ 3080. *One.*—Yorkshire (?). From Mr. Arthur Strickland, of Bridlington, before 1843.

§ 3081. *Three.*—Dunrobin, Sutherland, 1850. From Mr. Bantock.

A fourth given to Mr. L. Heyworth [§§ 1225, 2890].

§ 3082. *Three.*—Beeston, 1851.

§ 3083. *Five.*—Beeston.

[§ 3084. *Two.*—Shetland. From Mr. Robert Dunn, 1850 and 1851.]

[§ 3085. *Two.*—Devizes, Wilts. From Mr. A. C. Smith, 1852.]
[§ 3086. One.—Burlingham, Norfolk, 1852. From Mr. Gurney.]

[§ 3087. Two.—Belrath, County Meath, 1852. From Mr. Newcome.]

[§ 3088. Two.—Hornby Castle, Yorkshire, 1853. From Mr. Newcome.]

[§ 3089. Four.—Rugeley, Staffordshire, 1853. From Mr. Hawkins. (Different nests.)]

[§ 3090. Five.—Sapiston, Suffolk, 1854. From a nest of seven brought by Balam, the hurdle-maker of Fakenham.]

[§ 3091. Two.—Hockwold, Norfolk, 1861. From Mr. Newcome.]

[§ 3092. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.]

PORZANA MARUETTA (Leach).

SPOTTED CRAKE.

§ 3093. One.—From Mr. Mansfield, not later than 1843.

§ 3094. Six.—Ramsey Hern, Whittlesey Mere, 1843.

Out of eight, all from the same nest. I had them from the cottage of Will Scarr at Ramsey Hern. I sent one to the Scarborough Museum.
§ 3095. One.—Whittlesey Mere. From Mr. Osborne, of Fulbourne, 1843.

Osborne snared the old bird on the nest.

§ 3096. Three.—From Dr. Frere, 1852.

[Probably from East Norfolk.]

[§ 3097. One.—England? From Mr. R. Reynolds, not later than 1848.]

[§ 3098. One.—Whittlesey, 1849. From Mr. John Baker.]

[§ 3099. One.—Valkenswaard, North Brabant, 1850. From Mr. A. Bots.]

[§ 3100. Seven.—Valkenswaard, 1851. From Mr. A. Bots.

Selected from a large number. Two are very small, one measuring only 1.1 by .83 inch.]

[§ 3101. Two.—Whittlesey, 1848. From Mr. Thomas Smith, 1851.

Selected from a good many, obtained by Mr. Thomas Smith, who was the butler of Pembroke Hall and used to receive many eggs from the Whittlesey district (cf. § 3123).]

[§ 3102. One.—Valkenswaard, 1856. From Mr. John Baker.

A very abnormally-coloured specimen, approaching those of Zapornia intermedia or Z. parva.]

[§ 3103. One.—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

[§ 3104. One.—Norfolk? From the late Mr. Scales’s Collection, 1885.]
ZAPORNIA INTERMEDIA (Hermann).

BAILLON'S CRAKE.

§ 3105. *Two.*—From Dr. Pitman, 14 March, 1846.

§ 3106. *Four.*—Valkenswaard, North Brabant, 1851. From Mr. A. Bots.

[Only one of these was ever actually in Mr. Wolley's possession. I let Mr. Green, the dealer, have two of them in 1852, and Mr. Wolley seeing them in his shop, and recognizing my marks upon them, immediately bought one of them. The other I lost sight of for nearly forty years, when in 1891 Mr. Leopold Field, into whose possession it had come, recognizing my marks upon it, most kindly restored it to me—an additional proof, if that were needed, of the advantage of inscribing eggs in ink. The remaining two eggs never left the collection of my brother and myself. All four were received by us in 1851, direct from Arnold Bots, of Valkenswaard, who sent with them the skin of the bird, which is now in the Cambridge Museum.]

§ 3107. *Two.*—Klinckorken, River Dommel, North Brabant, 1857. From Mr. John Baker, 1858.

These are extreme varieties which I saw (2 March, 1858) in a lot of from ten to twenty eggs of the same bird left in Mr. Baker's hands. One is a rather large specimen with unusually distinct markings on a light ground, but not (as at first sight might appear) faded. The other is a very dwarf specimen, but otherwise ordinary in appearance. Baker says he has several times had such dwarf eggs of Baillon's Crake. He has met with no trace of the Little Crake in Holland. He says they were taken at a place called Klinckorken, about twenty miles from Valkenswaard, on the Dommel, which is the river flowing from that place to Bois-le-Duc, where it joins the Meuse. They were sent to England after he had left the country, where he supposes they were taken in July, 1857.

[These eggs measure 1·15 by .87 and .91 by .62 inch respectively.]

§ 3108. *Two.*—East Norfolk?, 6 June, 1858. From Mr. John Baker.

One of these eggs was given to me in November, 1858, by Mr. Baker, the other, bought of him about the same time by Mr. Sealy, was given to me by the
latter, 20 July, 1853. There is no doubt that they are both from the same nest, which is alleged to have been taken on the 6th June, 1858, and the eggs, six in number, received by Mr. Baker on the 12th of July, as Mr. Sealy marked on the box containing the egg he gave me, though Mr. W. Farren declared that they did not reach Cambridge till November, when he saw them freshly blown. Owing to the jealousy existing between these two dealers, neither of whom would give the name of the person or place by whom and at which their respective nests were found, the history of each is defective. Mr. Sealy, who had most to do with them, and published a note about them in 'The Zoologist' for 1859 (p. 6329), was quite sure that they had been taken in this country, and so far as I know they are the first that have been produced in it. I think it possible that if I had been living at Cambridge at the time, I might have made out more particulars, for Mr. Sealy was not a very persistent enquirer. Mr. Baker sold the remaining four eggs of this nest, but to whom I never heard.]

§ 3109. Two.—"Isle of Ely," August, 1858. From Mr. W. Farren, through Mr. J. D. Salmon, 1859.

[One of these was given by Mr. Salmon to Mr. Wolley, and the other to myself, being from a nest of seven eggs brought with the hen bird by a fishman to Barton, a tradesman at Ely, from whom Mr. Farren had them. Mr. Salmon seems to have bought all of them, reserving three for his own collection, and giving the remaining two to Mr. Bond and Mr. Salvin respectively. Mr. Sealy saw these eggs and the bird while they were in Mr. Farren's possession and wrote in the 'Zoologist' (ut supra) that this "second nest was discovered in the first week of August, and in this instance the hen bird was taken on the nest; the eggs, seven in number, had been sat upon for some time, and had lost the usual fresh bloom, yet still are very characteristic specimens." In his Egg-book Mr. Wolley has copied a letter from Mr. Farren to Mr. Salmon concerning these eggs, but it gives no further information.]

[§ 3110. Three.—Valkenswaard, 1855. From Mr. J. Baker.

From two nests.]

[§ 3111. Four.—North Brabant?, 1857. From Mr. J. Baker.

From three nests, most likely out of the same lot as the two sold to Mr. Wolley (§ 3107).]

[§ 3112. Six.—North Brabant? From Mr. J. Baker.

Selected from a considerable number, obtained in Holland by Mr. Baker, and no doubt from the same district as the above (§ 3111).]
ZAPORNIA INTERMEDIA.—Z. PUSILLA.

§ 3113. One.—Potter-Heigham, Norfolk, 9 June, 1866.

From Mr. W. M. Crowfoot.

Mr. Crowfoot wrote to me on the 12th July:—"On the 9th of last month a labouring man discovered at Potter-Heigham, in Norfolk, a nest of Baillon’s Crake containing four eggs. These he sold to a lad named George Smith, a shoe-binder at Yarmouth, who had been in the habit of collecting local eggs for some years, and whom I had employed to collect Reeves’ eggs for me. I first saw them a few days after he had blown them. He was, of course, quite ignorant as to what they were; but thought they must be very rare as he had never seen any like them before. After considerable bargaining and some expense I managed to secure three of them—the fourth being still in Smith’s possession. If you would like a British specimen of this rare egg, I shall be happy to send you one of those which I have." Naturally, I wrote accepting this kind offer, and on the 24th July Mr. Crowfoot wrote again:—"The following meagre particulars are all that I have at present been able to learn respecting these Crake’s eggs. They were found during the first week in June at Potter-Heigham, near Hickling in Norfolk. The old birds were observed, but, of course, not recognized. The nest, which contained four eggs, was placed in a patch of reeds growing in water about a foot in depth. It was very small and loosely made, composed of dry rushes. My informant, G. Smith of Yarmouth, visited the place for the purpose of securing the nest; but found that the reeds had been cut and the nest spoilt. These particulars I received by letter." Again, on the 12th September, Mr. Crowfoot wrote:—"I have just sent off to you one of the Baillon’s Crake’s eggs taken at Potter-Heigham this year, which I hope you will receive safely. The only additional fact which I have been able to ascertain respecting these eggs is the exact day on which the nest was found, viz. the 9th of June." This nest was recorded in ‘The Zoologist’ for 1866 (pp. 389 and 442).

ZAPORNIA PUSILLA (Pallas).

§ 3114. Two.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

These were sent, the one under the name of "Orygometra pygmea" (=Zapornia parva), the other as "Rallus baillonii," of which the R. pusillus of Pallas is the Eastern representative. It would seem from Dr. Taczanowski’s latest work (Faune Orn. Sib. Orient. ii. p. 907) that the former of these species does not occur in the part of Asia where Dr. Dybowski’s collections were made, and hence that both these specimens must be referred to the latter. An examination of the passages in the former writings of these two naturalists, to which reference is given in Dr. Taczanowski’s volume just cited, shews that considerable confusion had existed in their minds as to the species; but it would seem that the egg figured to illustrate their remarks in the ‘Journal für Ornithologie’ for 1873 (pp. 106, 107, tab. iii, fig. 32) must be that of the present form, of which IIII. Dybowski and Parreux had already in the same journal for 1868 (p. 338) stated that they had found eggs."


ZAPORNIA PARVA (Scopoli).

LITTLE CRAKE.

[§ 3115. One.—From Herr Möschler, through Mr. Wheelwright, 1861.

[§ 3116. One.—"Sarepta." From Herr Möschler, 1862.

[§ 3117. Four.—"Volga." From Herr Möschler, through Mr. Norgate, 1869.

All the above were sent out by Herr Möschler under the name of "Rallus pusillus," which he, following the example of Bechstein, Brehm, Naumann, and others, misapplied to the present species.

[§ 3118. One.—Cottbus, Brandenburg, 21 May, 1863. From Dr. Kutter, through Mr. Dresser, 1903.

Given to me by Mr. Dresser, having been taken as above stated by Dr. Kutter, apparently from the nest of eight slightly incubated eggs which he found and described in the 'Journal für Ornithologie' for 1865 (p. 340). A very brief abstract of Dr. Kutter's paper is given by Mr. Dresser (B. Eur. vii. pp. 287, 288).

[§ 3119. Two.—Lower Volga. From Dr. Stader, through Mr. Dresser, 1903.

Sent to Mr. Dresser by the Doctor with the birds.

RALLUS AQUATICUS, Linnaeus.

WATER-RAIL.

§ 3120. One.—Whittlesey Mere, 1843. "J. W."

Mr. Hewitson considered this a rare egg, until I informed him

PART III.
that it is very plentiful in Cambridgeshire. Mr. Yarrell also mentions the difficulty of procuring specimens. Harvey [of Bait’s Bight] valued the eggs of the Land-Rail four times as much as these. They are less than Corn-Crakes’, and the marks not so generally distributed in streaks. The ground-colour varies from a white to a rich cream-colour, and the markings vary from small and numerous to large and thinly distributed spots.

§ 3121. Nineteen.—1843.

[Most, if not all, from Whittlesey Mere in 1843, during Mr. Wolley’s first visit there.]

§ 3122. Seven.—Cambridge or Huntingdonshire, 1844.

I have seen great numbers of Water-Rails’ eggs this year. They breed much earlier than the Corn-Crake, and winter in the Fens.

[Apparently obtained from Osborne of Fulbourne, who no doubt got them from the Whittlesey neighbourhood, where they were then so abundant, and, like those of the Spotted Crake, called “Dotterels.”]

§ 3123. Fourteen.—Whittlesey, 1848. From Mr. Thomas Smith, through Mr. A. Newton, 1851.

I value these eggs as perhaps the last we shall obtain in this country, for Whittlesey Mere is drained.

[These from a number which I bought in 1851 from Smith, the butler of Pembroke Hall (cf. § 3101). He gave fourpence each for them to Tom Rawlinson (§ 1096). The draining of the mere was completed in 1851. I let Mr. Wolley have eight of them, keeping six for our own collection.]

1 [This should rather be Huntingdonshire, but at the time Mr. Wolley perhaps hardly appreciated the difference. In the account of this species published in 1845 in the second edition of his work (Eggs Br. B. ii. p. 322) Mr. Hewitson wrote:—“Mr. Wolley, to whom I am indebted for a large series of the eggs, tells me they are so abundant in some parts of Cambridgeshire that the dealers sell them for one-third less than those of the Corn-crake; that one man near Cambridge had no less than fifty; and that he has seen many on those strings of birds’ eggs which are hung up in the houses as a trophy of the bird-nesting exploits of the boys of the country.”—En.]
§ 3124. One.—Zana, Algeria, 16 June, 1857. "W. H. S." From Mr. Simpson.

[Said by Mr. Salvin (Ibis, 1859, p. 360) to have been common at Zana.]

§ 3125. Two.—Iceland. From Herr Cristian Zimsen, 1858.

[Bought by Mr. Wolley and myself. They are from the only egg-collection we found in Iceland. One of them is inscribed "Wandrisk"—a name not otherwise known to me.]

[§ 3126. Two.—Whittlesey, 1849. From Mr. J. Baker, 1851.]

[§ 3127. Two.—Whittlesey, 1850. From Mr. J. Baker, 1850.]


Taken near the bank of the Little Ouse, by a warrener named Burgess. We had never known the species to breed there before.]

[§ 3129. One.—Feltwell Fen, Norfolk, 8 June, 1853. From Mr. Newcome.

From a nest of six, taken by a man named Ketteringham. Like the foregoing, one of the results of the Great Flood of the preceding winter, which induced so many of the long-lost species of Fen-birds to stay and breed.]

[§ 3130. Seven.—Rathlin, Ireland, 16 June, 1863. From Mr. R. Harvey.

Mr. Harvey wrote that the nest was taken in Alle Lough, by a son of Billy Anderson.]

[§ 3131. One.—South Russia. From Dr. A. Heinke, of Kamuschin, through Dr. Günther, 1863.]

[§ 3132. Eight.—Hickling, Norfolk, May, 1877. From Mr. Norgate.]
§ 3133. *Two.*—Hickling, 8 April, 1879. From Mr. A. H. Evans.

Out of a nest of nine eggs taken by Ralph Nudd, very slightly incubated.]

§ 3134. *Two.*—Heigham Sounds, Norfolk, 13 May, 1884. “E. N.”

From two nests. My brother wrote that going in a boat with a man “he shewed me a Water-Rail’s nest, all the eggs of which had been sucked by rats, he supposed, and the shells were in the nest or close by. The nest was well concealed in some thick low sedge, eighteen inches high. A little further on he shewed me a ‘Reed Pheasant’s’ [*Pamurus biarmicus*] nest. The old bird was on it and flew up close to us, so that I could see her well. She flew some three or four yards above the sedge and dropped within ten yards. The nest was well concealed and only exposed by pulling the grass and sedge aside. There were five eggs, and I left them.” Later in the day he “returned across the north end of the mere, and getting near where we had seen the Water-Rail’s nest in the morning, we met a man who had found two other nests, which he shewed me. One contained six eggs, hard-set, and the other three fresh. I took one of each, but in neither case did I see the old bird. Both nests were well concealed in a narrow strip of tallish grass and sedge, a feet or so wide, which had escaped mowing, and were not more than one hundred yards apart.”

**GALLINULA CHLOROPUS** (Linnaeus).

**MOORHEN.**

§ 3135. *Ten.*—Warwickshire, not later than 1843.

These Moorhens were taken by George [Wolley] near Rugby, where they are very plentiful. They are, however, common throughout the country, frequently being found with the Coot in a state of semi-domestication. In this neighbourhood [Beeston] they are in some numbers at Mr. Lowe’s pond, and also about Clifton. One is a variety frequently met with, all the eggs in a nest being sometimes of this form. The Water-Rail’s has also a tendency to lengthen out in a similar way.

§ 3136. *Two.*—Eton, not later than 1843.

Abundant about Eton.
[§ 3137. One.—Elveden, 1845. William Napthen.]

[§ 3138. One.—Barnham, Suffolk, 1847.]

[§ 3139. Four.—Barnham, 1848.]

[§ 3140. Two.—Elveden, 1849.]

[§ 3141. One.—Elveden, 1851.]

[§ 3142. Three.—Holland, 1851. From Mr. A. Bots.]

[§ 3143. Two.—Elveden, 1853.]

[§ 3144. Two.—Culford, Suffolk.]

[§ 3145. Two.—Dalswinton Loch, Dumfriesshire, 1854. From Mr. W. G. Johnstone.]

[§ 3146. Two.—Elveden, April, 1856. "A. & E. N."]

[§ 3147. Two.—Elveden, April, 1857. "E. N."]

[§ 3148. One.—Elveden, 10 June, 1857. "E. N."]

[§ 3149. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1862.]

[§ 3150. Six.—Gartan, Donegal, 15 May, 1863. From Mr. Robert Harvey.]

[§ 3151. Six.—Bluestone Wilderness, Heydon, Norfolk. From Mr. Norgate, 1875.]
FORPHYRIO CAERULEUS (Vandelli).

§ 3152. One.—Tangier. From M. Favier, through Mr. Williams, 1847.

§ 3153. One.—Zana, Algeria, June, 1857. From Mr. Salvin.

Brought by Arabs from the marsh of Zana. Mr. Simpson took a nest.

§ 3154. One.—Ain Zana, 15 June, 1857. From Mr. Simpson, 1858.

[§ 3155. One.—Zana, 20 June, 1857. From Mr. Salvin.

From a nest of four eggs. Notes on this species in Algeria by Mr. Salvin and Canon Tristram will be found in 'The Ibis' for 1859 (p. 361) and for 1860 (p. 150).]

FULICA ATRA, Linnaeus.

THE COOT.

§ 3156. Three.—Clifton, Nottinghamshire. Not later than 1843.

From Cutts [gamekeeper at Clifton], who gave them to my brother. In ponds where they are not disturbed they increase rapidly and become very tame. Near Eton at Salt-Hill, Two-mile-brook, and Ditton park they are in abundance.

§ 3157. Three.—Whittlesey Mere. From Tom Rawlinson, about 1845.

§ 3158. One.

[There is no note of this egg, except that it has a label marked "Coot," apparently in Mr. Wolley's writing. It is of normal coloration, but measures only 1.7 by 1.27 inch, and has doubtless been kept on account of its small size.]
§ 3159. *F. c.*—Orkney, 1851. From Mr. G. Harvey, of Stromness.

§ 3160. *S. v.*—Eastern England. From Dr. Frere, 1851.

From a great number, I could pick out no better varieties than these. It is an egg that varies very little.

[§ 3161. *Three.*—East Yorkshire. From Mr. Jones, of Bridlington, 1851.]

[§ 3162. *One.*—Hockwold Fen, Norfolk, June, 1853. From Mr. Newcome.

Taken by one of the Spencers—a relict of the great flood of the preceding year.]

[§ 3163. *Six.*—East Wretham, Norfolk, 10 June, 1853. "A. & E. N."]

[§ 3164. *One.*—Dalswinton Loch, Dumfriesshire, 1854. From Mr. W. G. Johnstone.]

[§ 3165. *One.*—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.]


Mr. Harvey's note is:—"I got this nestful myself on the small lake at Gartan, commonly called Marshall's Lake, about eight miles from Letterkenny, in the heart of the mountains."

[§ 3167. *Five.*—Barton Broad, Norfolk, 12 May, 1875. From Mr. Norgate.]
FULICA ATTRA.—F. CRISTATA.

[§ 3168. *Stev.—Hickling, Norfolk, May, 1877. From Mr. Norgate.]

[§ 3169. One.—Ranworth Broad, Norfolk, 11th April, 1884. "E. N."

Taken by my brother from a nest of two in the course of a voyage on the Broad in company with Mr. Southwell and Mr. Clement Reid of the Geological Survey, the nest being shown to them by the gamekeeper of Mr. Gurney Buxton, who had the shooting of the Broad and strictly preserved the birds upon it.]

[§ 3170. Seven.—Söborg Mosse, Denmark, 8 May, 1892. From Herr Regenburg.

Given to my brother Edward at Copenhagen.]

FULICA CRISTATA, Gmelin.

[§ 3171. Three.—Tangier. From M. Favier, through Mr. Williams, 1847.

[Of this species M. Favier, in his manuscript volume on the Birds of Tangier (kindly given by Colonel Irby to the Cambridge Museum), says that it breeds in that neighbourhood, where it is much more numerous than *Fulica atra*, with which it constantly consorts and sometimes pairs. He describes, evidently from his own observation, its mode of nesting and eggs, which seem not to differ from those of its congener. These specimens were labelled by him "*Fulica carunculata*"—an obvious misspelling of *carunculata*, by which trivial name (as Canon Tristram has pointed out to me) the species was noticed by Mr. G. W. H. Drummond-Hay¹ (Proc. Zool. Soc. 1840, p. 135), only by accident referred to the genus *Tringa*. It is also the *Foulque caronculee* of M. Barthélemy, who was the first to record it as a European bird (Rev. Zool., Oct. 1841, p. 307), though speedily followed by Ponaparte (Fauna Ital. i. Uccelli, Introd. p. 1), who without citing Barthélemy's note repeated its substance, adding instances of the bird's occurrence in Liguria and Sardinia, on the authority of the Marchese Carlo Durazzo.]

¹ [Mr. Wolley has mentioned (supra, vol. i. pp. 1, 2) M. Favier's having been employed by Mr. Edward Drummond-Hay, the former British Consul at Tangier. Mr. G. W. H. Drummond-Hay, his son I believe, gives the Arabic name of the species as "*El Gor,*" which seems to identify his *T. carunculata* with *F. cristata.*—Ed.]
§ 3172. Two.—Lac Halloula, Algeria, 1856. "H. B. T."
From Mr. Tristram, 1858.

Mr. Tristram's note is "taken at Halloula, a very local bird, but plentiful at Halloula, where [I] found no Common Coot. At Zana is only Common Coot. At Halloula and Fetzara the Crested."

[The Canon's notes on this species are in 'The Ibis' for 1860 (pp. 157, 158). Neither Mr. Salvin nor Mr. Simpson ever saw Fulica cristata, to their knowledge, in Algeria; but they did not visit Halloula.]

§ 3173. One.—Lac Halloula, 1856. From Mr. Tristram, 1858.
Lot 245 at Mr. Stevens's rooms, 9 February, 1858.]

GRUS COMMUNIS, Bechstein.

THE CRANE.

§ 3174. One.—From Mr. Green, 1852.

§ 3175. Three.—From Dr. Frere, 1853.

These, I find on reference to Dr. Frere's book, were from Herr Brandt, the Hamburg dealer, but the Doctor has had others from M. Nager-Donazain. He does not know whence they come. These four eggs are all of a different ground-colour.

[In a contribution to 'The Ibis' for 1859 (pp. 191-198), Mr. Wolley gave the results of his observations "On the Breeding of the Crane (Grus cinerea) in Lapland." Though written with his usual happy power, and abounding in masterly touches, I do not reprint it here, for nearly all the facts it records are contained in the extracts from his Egg-book given below, and these, noted almost at the time, naturally possess a greater freshness than the more considered composition. There is also the less need for its insertion here, since the greater part has been reproduced by Mr. Dresser (Birds of Europe, vii. pp. 346-350) and Mr. Saunders (Yarrell, Brit. Birds, ed. 4, iii. pp. 183-188). Though too late to procure Cranes' eggs in his first summer, I believe that Mr. Wolley's having ascertained their mode of breeding and the condition of their newly-hatched young caused him as much pleasure as any of the successes which he achieved in that year. Continental ornithologists, with the exception of Naumann (Naturgeschichte der Vögel Deutschlands, ix. pp. 376-381), who gave a good and fairly circumstantial
account of the bird's habits, had not done much in this way, and what he had written was hardly known to any in this country. Mr. Wolley himself, I am pretty sure, was not aware of it. Indeed it is most likely that no English naturalist since the days of William Turner, more than four hundred years before, had seen a Crane's nest, while it is certain that if one had done so he had kept the information to himself. Though Evelyn in his Diary (17 October, 1671) credits Sir Thomas Browne with the possession of Crane's eggs taken in Norfolk, Sir Thomas only mentions the species as a winter visitant to that county.]

§ 3176. Fragment from hatched-out nest.—Iso-uoma, 15 June, 1853.

This fragment of Crane's egg was in an old nest in the marsh [Iso-uoma] opposite to Muonioniska. We took a man with us to shew the part occupied by Trana, or Kurki in Finnish. We found the marsh with a network of strips of firm ground, perhaps three or four feet wide, covered with dwarf birch a foot high, and straggling Andromeda, sallow and other things, the spaces between these were only just passable with pieksu [half-boots], being very swampy and soft, with a few Carices or such plants growing upon them. Our man wanted to go back, as he was sure we should find nothing; but we had not gone far before I came across, upon the strip on which I was walking, an old nest which I at once felt sure was a Crane's, from the number of small sticks used in its construction. Upon it were lying two large weather-beaten leathery egg-linings, and pulling the nest to pieces I found fragments of egg-shell, of which this is one. The sticks of which it was made were very small twigs, and were intermingled with grass. The nest, perhaps two feet across, was five or six inches in depth. We had not gone many yards beyond, when I saw a Crane stalking in a cross-direction among some small birch-trees, now appearing to stoop somewhat and then holding its head and neck upright, as it paced leisurely.

1 [Some of his information was presumably from his own observations, though he says he did not live near enough to nesting Cranes to make out as much as he would have liked. Other particulars he obtained from Herr von Seyffertitz. It is curious that he describes the down of the newly-hatched young as being "grey" or "grey-brown," whereas it is certainly tawny or pale chestnut in colour.—Ed.]

2 [In his 'Ibis' article, beside the Andromeda polifolia, Mr. Wolley also names Ledum palustre, Vaccinium uliginosum, and Rubus chamaemorus. "There were also a few bushes or treelets of the common birch," Betula alba, one of which served, as will be seen, a useful purpose subsequently.—Ed.]
Presently the boys called out that they had found some young Cranes. Running up I saw a Crane rise just before me from among some thick bushes, not twenty yards from where the boys had been shouting for some time. I found the little bird standing upright and walking or running about feebly, but with some facility, and chirping. The old birds were now flying at a little height from the ground in a great circle round us, more and more distant, flapping their wings with rather a curious rhythm, throwing them suddenly, in making the return-stroke, more over the back than usual. They first made a kind of clattering noise, and then trumpeted occasionally, flying of course with legs and neck stretched out. The young were tawny beneath, changing to buff (or chestnut) upon the upper parts. They held themselves up well. As I played with one, he soon became friendly and pecked at gnats on my fingers, and when at last I went away, he followed me about half as quick as I walked for some distance, no doubt taking me for one of his long-legged parents. At a little distance I found a third young one. They could not have been hatched many days. All our efforts to find the nest were vain. When I got to some distance I saw one of the parent birds alight near where the young were left; but returning in half an hour I could not hear or see the least trace of any of the family, though before the young had been chirping (like other young birds) so as to be heard at certainly one hundred yards' distance. It is evident that these birds run as soon as they are hatched, and now the egg-skins lying in the nest is explained. We lay for many hours just by where the young had been, partly I by myself and partly with the four other people, indeed we made a bivouac on the spot and a rendezvous for the receipt of provision from the by [village]. I should add that a piece of long down in the nest, evidently [not?] a Goose's or Swan's, strengthened my conviction that it was a last year's Crane's.

§ 3177. Fragment from hatched-out nest.—Karto-uoma, 29 June, 1853.

The principal object of my going to the marsh [Karto-uoma] to-day was to see the Crane's nest, which had been found by Herr Salomon

1 [This seems to have been a mistake, and Mr. Wolley must have come across one of the birds he had seen before, which had shifted its position. There was certainly not a second pair of Cranes in the marsh, and there is no evidence that the brood ever exceeds two in number.—Ed.]
the day previously*, and which I had known to be Crane’s by the fragments of egg which he brought home. I found it precisely like the old nest in Iso-uoma [§ 3176], situated upon one of the ridges elevated not more than two or three inches above the level of the swamp. The nest composed of twigs at the bottom, covered with grass and hay, altogether scarcely two inches deep. It is three of my spans across in one direction and three and a half in another. I take away a bundle of the material. Half of one of the egg-skins with fragments of the shell attached is lying in the water near, and in the nest are many little bits of egg-shell. There are lying near so many feathers, principally large wing-feathers and such, that I almost doubt whether some large bird-of-prey has not killed the old Crane, the more so as we see no Cranes in this Karto-uoma. The position of the nest in the fen is a central one, rather towards the south end of it. Upon the ridge grows moss, a little grass, buck-bean, dark bog-Potentilla (?), and other things, also the little dwarf birch, not more than a foot or so high, with the branches inclined. About one hundred yards off are a few scattered birch bushes, eight or ten feet high.

§ 3178. Two.—Iso-uoma, 20 May, 1854. “J. W. ipse.”

O. W. tab. E.

On Friday afternoon I went with Ludwig by land to Iso-uoma to try to find the Crane’s nest, for I believe only one pair frequent it. I could not see or hear a bird of the kind, but determined carefully to beat over the strips of land westward from Trast-skog (my name), where we had found the nest last year [§ 3176]. We marked each strip as we entered and as we left it. No encouragement; but at last I suddenly saw the two eggs lying on an adjacent strip. They were placed parallel to each other, and just so that there would be room for a third egg between them. The nest was little more than two feet wide, quite flat, made of somewhat matted light-coloured grass or hay, about a couple of inches in thickness, and raised only two or three inches from the general surface of the swamp. There was higher ground close by, and many spots apparently more convenient in the immediate neighbourhood. It was just at the edge and rather under cover of the strip. There was no tree or bush very

* “When I was not with the party.”
near, but some steps to the west was a nearly dead birch. On a branch of this I hung a strip of white bark, and took a line that I might know the exact position from Thrush-wood. I had previously walked round, expecting that the bird might be crouching near, though indeed there was scarcely any cover. On feeling at the eggs I found them quite cold. I saw that there was scarcely anything between them and the rising ground of the wood, and I thought I might even see them with a glass therefrom. Quickly leaving the place, we went up and made a hut of fir-branches in which I was to lie well concealed, and so placed that as I lay upon the ground I could rest my glass on a log and watch the nest at my leisure. I had taken one of the eggs in my hand, and I wished to see whether the bird would detect the handling, and whether she would carry them off under her wing to another place, as Cranes are said to do. I now crept into my den. Ludwig gave the finishing touch, and went to the other side of the wood, where he was to make a fire to sleep by, but on no account to come to me, for fear it should just be at a critical moment. There were a good many birds about—flocks of Ruffs, one of which, with a white frill, at first seemed to me in the distance an unknown bird. Wood-Sandpipers were piping, and I once or twice heard the keet-koot of a Snipe. A cock Pintail flew near, and settled in a pool calling for his mate. Other whistling wings were heard overhead, Divers wailing in the distance, and the barking of Efverbyn dogs. I heard the suppressed hacking of wood, and the crackling of Ludwig's fire. It might be eleven [P.M.] when I lay down, and for an hour or more nothing was to be seen at the nest. Fieldfares were playing in the wood—one came pecking about my feet, and another settled just over my back, scribing so as almost to make my ears ache. Three times I heard the flap of great wings passing over me, and I think it was the Cranes, but I only thought I once or twice heard the chuckle of them. The nest might be from three to four hundred yards off—my glass constantly upon it. At last I saw a great Crane stalking from among the bushes, of which there were several beyond the nest. She came up with her graceful walk, head up, but raised it a little higher and pointed the beak to take a look at the piece of bark, which I had pegged up as a mark. She probably saw that her eggs were safe, then took a march of twenty or thirty yards in the swamp, pecking and apparently feeding. At the end she stood for nearly a quarter of an hour, sometimes pecking and sometimes still, but shewing no symptom of suspicion. Then she turned and passed back to the left of the nest; but soon came into exactly
in a line with my mark. With her beak she arranged the eggs or the nest, or both, and then sat down, putting the fore part of her breast to the ground first, facing to the north. I had a full and uninterrupted view of her as she sat upon the nest, quite unconscious of my proximity: sometimes she pecked on the ground, sometimes she preened her feathers, especially of her neck, and for a long time she sat with her neck curved like a Swan's, but principally just at the upper part. At last she turned her neck back and put her beak under her wing, just apparently in the middle of the ridge of her back. On the nest, as when she was walking, her caudal plume was generally depressed. After enjoying for a short time the sight of a Crane sleeping on her nest, the mere 1-birds being silent, the Thrushes only here and there singing, past midnight, I began to think it froze, and being sure the Crane did not mean to carry off her eggs, I crept out of my hair, and so on to Ludwig's fire.

After three hours or more, we came to the west side of the hill. There lay the Crane, head and neck invisible, and no doubt under the wing. In a few seconds she raised her head, and we went round to come on her from the north, and see how she would leave the nest. It lay just over the little ridge, and I was hardly more than twenty paces off when I first saw the bird; but even then I took her for a grey stone, and she looked nearer to my mark [than I expected]; but turning my eyes on her I saw her head drawn into her neck. She rose instantly. The cock rose once at half a mile (English) from the nest and flew over the direction in which she was going. I found the eggs now close together: the nest wet in one part to the surrace. Between this myr and Karto-uma I saw five wild Reindeer. In the latter marsh were two Cranes, which, from the way in which one cast up its wings, must have had a nest; but we could not find it. These eggs had apparently been sat upon only a day or two.

[In 1855, as Ludwig told Mr. Wolley (Ibis, 1859, p. 196), this nest was robbed by a Fulmarus (Glutton); but, later in the summer (9 August), I accompanied them both to see it, and made the sketch of the site, whence Mr. Jury executed the plate (tab. E) issued with the first part of this work, Mr. Wolf adding to it the figures of the birds. The spruce-sir clad hill in the middle of the background is the 'Thrush-wood,' where Mr. Wolley lay hidden with branches to watch the bird, and the birch tree to the right of the

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1 [That is myr in Swedish—a fen or bog, and not, as in English, a lake or pool. —Ed.]
plate is that on which he put the little strip of white bark to mark the place from a distance. We turned over the old nest and found many pieces of egg-shell imbedded in the grass composing it, and also bits of the membrane lining the eggs, proving that the nest had been used in previous years. Mr. Wolley had not been quite certain whether the nest he took in 1854 was identical with that he had found in 1853, but the result of our search in 1855 left little doubt on that subject. During our visit we saw nothing of the birds, which had probably not completed their moult and were hiding themselves.]

§ 3179. Two.—Karto-uoma, 23 May, 1854. "J. W. ipse."

These eggs were in a nest placed only a couple of feet from the spot in Karto-uoma where we found it last year [§ 3177], after the birds had done with it. It was on one of the little strips of firmer land, so abundant in these marshes, made of a handful or so of whitish dry grass or Carex, not more than twenty inches from one side to the other, the mossy ground on which it lay raised two or three inches above the water. Close to the nest, almost in it, some recumbent sprigs of sallow, and a kind of green creeping moss principally around. Placed nearly in the centre of the south-east part of the mere. Nothing yet beginning to grow there except a kind of Carex coming into flower. Gnats at present rare. Made a fire on a hillock by the side of the wood towards Carsako—smoke blowing towards the nest. See old Crane go sailing down, probably so that it could see that the eggs were safe. Two Cranes walking together, and afterwards playing and skipping. Once one throws its neck back, its beak perpendicular in the air, and trumpets. Two or three o'clock in the morning, after a great deal of walking backwards and forwards at a considerable distance from the nest, the hen comes on it. I see her sit down. I had marked the place by a muffatee on a tree one hundred yards beyond. I think I see them look at it. In a short time the hen leaves; but a second time comes on. Head visible and the neck with my glass. I may be nearly an English mile off. When we fairly start for the nest, the bird almost immediately leaves. Harrier, Crows, Goshawks, Ruffs, Pintails, Black Redshanks, &c.

§ 3180. Two.—Laho-uoma, Muonioniska, 5 June, 1857. "J. W."

In 1856, Rantio Michael found a young Crane in this myr, which is only about a quarter of a Swedish mile from Muonioniska, on the
Kangosjärvi winter-road. He took it home, but it died of an accident in which its leg was broken. In 1857 Niemin Apoo saw the birds here, as he went after the Aijävaara Ospreys' nest [cf. § 86]. He told me, and I meditated a search; but he also told the Niemi lads, and they lost no time but searched in the night of the 4th and 5th June. As they debouched into the myr they saw a Crane stalk- ing on one of the belts (for it is a belty myr) to the right. They went away and still heard the Cranes, for another one made its appearance about the same place; and, returning, they commenced a search. It was very sloppy between the belts, the boot often sinking a foot or fourteen inches in water before it came to the slippery ice bottom. They soon found the nest in a little tuft, and as a Hawk was watching them, and as they also found on trying the eggs in water that they were much sat upon, they dared not leave them to bring me [thither]; as they otherwise would have done. The next morning I went with Johan to look at the nest, and try to see the birds. It was very interesting from its peculiarly open situation. The myr is a smallish one, perhaps not half an English mile across. It has ridges of elevation on which grow small birches, dwarf-birch, and other shrubs, but some of them are only moss and would offer favourable situation for the nest. The spot chosen was in the centre of an open space, surrounded by ridges, which space might be nearly three hundred yards across. This was now covered by water, but overgrown by the scanty kind of Carex or grass, which flourishes in such situations on the top of the bog. In the middle of the space a mossy elevation of little more than one stride across, and rising only a few inches—at the highest part perhaps nine inches—above the general level of the bog. This was generally of green moss, but under the nest was a spot of reindeer moss, on which the nest was placed, and from its fresh condition proved that the nest was not from a previous year in the same spot. There were four or five sprigs of dwarf-birch, four or five inches high, close to the nest on one side, but nothing at all in the way of shelter or cover, so that the bird must have been conspicuous from every side as it sat upon its eggs, and from a considerable distance. The nest itself was made wholly of the same kind of sedgy grass which grew in the myr, sometimes plucked from the roots, whitish-looking as it lay on the ground. It was perfectly flat, about twenty-seven inches in diameter, and some three inches in substance, or some four in places. It was only elevated three or four inches out of water, indeed its bottom was dripping wet, and this may have either faded the eggs, as Divers' eggs are some-
times faded or stained, on one side. The grass or sedge is not long and of a finish kind, so that it would not catch the feet of the new-hatched young, which also would have good marching ground on the bog around, and such ground was also near the nests in Iso- and Karto-uoma of former years [§§ 3176–3179]. As we were leaving the place, the old birds came sailing overhead from the north-west, and settled on the myr, where I examined them with my glass, and saw clearly that they were the Common Crane. The lads say the birds did not cry at all while they were in the myr till they had taken the eggs—nor did they while I was there. In the eggs were young with bones newly formed, long legs and down tufts—very difficult to extract.

[This was the nest shown by Mr. Wolley some two months later to the Messrs. Godman (Ibis, 1859, p. 197).]

§ 3181. Two.—Lauli-uoma, 8 June, 1858.

Found by Carl Porainen about the 8th of June, and brought to Muoniovara the 23rd of July by Kemio Johan.

§ 3182. Two.—Almana-uoma, 1859.

Brought to Muoniovara by Johan Polju, 6 March, 1860, having been found by him the year before. He could not remember exactly when it was, but it was after the 18th May. These were blown by himself.

[The only other Cranes' eggs that I can find Mr. Wolley obtained in or from Lapland were two in 1857, which were sold at Mr. Stevens's rooms, 31 May, 1860, to Mr. Powys (afterwards Lord Lilford). These were sent from Sirka in the Ounas valley, by Mattilas Johan of that place, and did not reach Muoniovara till the 4th of August, when they were found to be "rotten inside with partly grown young." No particulars were forthcoming.]

[§ 3183. One.—Lahi-järwi, 10 June, 1862.

Found as above, by Mikkel Hendridsson Tepasto. The second egg of the pair got broken in the journey to Muoniovara.]

[§ 3184. Two.—Kittila, 1862.

Brought by Carl Kakkí, 12 July—but no information with them.]
GRUS VIRGO (Linnaeus).

[§ 3185. One.—"Sarepta." From Herr Möschler, 1862.]

[§ 3186. One.—Tarei-Nor, 20 May, 1856. From Herr Radde, through Mr. Dresser, 1861.

Given by Herr Radde at St. Petersburg to Mr. Dresser, who kindly gave it to me a few days after his return from that capital. The latter understood it to be from Amurland, but according to the table in the former's work (Reisen im Süden von Ost-Sibirien, ii. p. 19), he did not observe this species there, but only on the Tarei-Nor, and this is confirmed by what is said in the text (p. 321). The date above given is apparently according to the Old Style.]

[§ 3187. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

GRUS JAPONENSIS (P. L. S. Müller).

[§ 3188. One.—Gardens of the Zoological Society.

I am not sure in which year this egg, long bespoken by me, was laid, though it was only handed over to me by Mr. Selater in the spring of 1865. The White Cranes have, so far as I know, been always kept in an enclosure by themselves, and apart from the other Cranes. I believe that 1861 was the first year in which the species bred in the Society's Gardens (Proc. Zool. Soc. 1861, p. 360, pl. xxxv.).]

OTIS TARDA, Linnaeus.

THE BUSTARD.

§ 3189. One.—From Mr. Proctor, 1851.

Probably obtained from Mr. Cochrane.

§ 3190. One.—From Mr. Graham, 1851.

Perhaps one of Mr. Cochrane's, being blown through a single drilled hole.
§ 3191. One.—Hungary, 1850. From Mr. Cochrane, through Mr. Hancock, 1853.

Mr. Hancock has brought this to me this 25 March, 1853.

[Mr. A. H. Cochrane, a friend of Mr. Hancock's, brought many eggs from Hungary in 1850 (cf. §§ 281-283).]

§ 3192. One.—Great Massingham, Norfolk, 1833. From Mr. Salmon, 1853.

This exceedingly valuable egg has been most kindly presented to me this day (March 8, 1853) by Mr. J. D. Salmon, who is at present living at the Wenham Lake Ice Company's establishment nearly opposite St. Clement Dane's in the Strand. It is one of those taken at Massingham Heath in 1833, of which two became the property of Mr. Salmon and have remained in his possession since that time until this day. The circumstance is mentioned by Mr. Salmon in the 'Magazine of Natural History' (vol. vii. p. 458), in a communication dated Stoke Ferry, Norfolk, Dec. 28, 1833. It appears there were five eggs, the produce of three birds. Of these five [eggs] Mr. Salmon saw only three, and he does not remember anything about the other two. One day, as he informs me, he saw in the house of Mr. Ashbey of Lynn, a Bustard's egg, at which he expressed surprise and pleasure, when Mr. Ashbey said he had two more, and he went into another room and took them off a chimney-piece, and gave them to Mr. Salmon, who took them away with him, and after blowing them very carefully returned one very well packed to Mr. Ashbey. Of this one Mr. Salmon does not know the subsequent history, and Mr. Ashbey is dead. The other two Mr. Salmon retained in his possession, as stated in the 'Magazine of Natural History.' Mr. Salmon says they had probably been laid three or four months: they were full of little coagulations when he came to blow them, but he thinks it is a proof that they were good eggs when laid, and also that they had not been sat upon, otherwise they would have been much more decayed. They were all slightly discoloured on the side upon which they had rested: the one given to me appears less so than the other. Mr. Salmon heard at the time who took the eggs, but does not

1 [This is now in the possession of the Linnean Society, to which Mr. Salmon bequeathed his collection of eggs.—Ed.]
now recollect. The following he allowed me to extract from his note-book:—

"Sept. 28th, 1833.—Mr. Ashbey of Lynn sent me a pair of the Bustards (Otis tarda) eggs; they were taken from Massingham heath in the spring with three other eggs, forming two pairs and a single one, there being three females but no male bird."

Mr. Salmon keeps all his eggs under glass, with the glass fastened down with black paper, such as is used for cases of stuffed birds. To-day I saw his method of opening one by cutting through the paper with a penknife. He has very rarely opened these Great Bustards' since they were first put under glass, and so they have completely retained their freshness. On raising them the discoloration Mr. Salmon had told me of was quite perceptible upon both. They had had their holes stopped with white paper, which remained perfectly clean, shewing how little they had been handled. As this paper was larger than necessary I took it off in Mr. Salmon's presence, and put on another piece with his assistance. At my request Mr. Salmon wrote what he has upon the egg. There was no inscription before on either of them. They were lying, like Mr. Salmon's other eggs, in moss (Hypnum splendens) beautifully carded and arranged. The other egg is just the same shape as this, but is of deeper markings, and of the full brown colour, and has not that peculiar leaden tint which this one has. Yet this is characteristic of the Bustard eggs in some of its varieties, and is not due to fading from exposure, or incipient putrescence. In case at any time this account should come into the hands of anyone who does not know Mr. Salmon, I must add for their benefit that I consider it next to impossible that there should be any error or mistake of any kind in the identity of this egg with one of the pair he mentions in the 'Magazine of Natural History' as being in his possession in 1833, and taken with three other eggs at Massingham Heath the same year, that is twenty years since this spring. Mr. Salmon had had a great many applications for these eggs at different times, all which he had hitherio resisted. My obligations to him are therefore very great.

I have lately (about 7 February, 1856) had another talk with Mr. Salmon, and looked over his notes. The note copied above was written at or about the time the eggs came into his possession, as appears by the succeeding and immediately preceding entries, and by Mr. Salmon's recollection.

Mr. Ashbey was a tailor, and being in the habit of often travelling about, had seen these eggs, at Massingham probably, and coming to
Stoke told Mr. Salmon, so the latter thinks; but he also thinks he got them from Mr. Ashbey's house, for it is not likely Mr. Ashbey would trust anyone else to carry the eggs to Stoke, where Mr. Salmon was living. Mr. Salmon does not lay much stress on the word in his note being "sent." He thinks he may merely have meant "received of Mr. Ashbey," nor can he recollect all the details as he would wish.

The following I now extract from Loudon's 'Magazine of Natural History,' vol. vii. p. 458 [Sept. 1834]:—

"Of the Great Bustard (Otis tarda, L. . . .) three females resorted, last spring, to Great Massingham Heath, Norfolk, for incubation. Their eggs consisted of two pairs and a single one. These were taken away, under the impression that, as there was no male bird, they were good for nothing. I have one of the pairs. Does the male associate with the female during the period of incubation? Bewick says that the 'male is said to live apart after the females have been impregnated.' Is this the case? If it be, it may be well, should female bustards again visit the same place, not to deprive them of their eggs. . . . . . .—J. D. Salmon, Stoke Ferry, Norfolk, Dec. 28, 1833."

Mr. Salmon's letter is dated just three calendar months after the entry in his journal, or at least after the day on which he notes the receipt of the eggs. The third egg was sent to Mr. Ashbey soon after it was blown, said Mr. Salmon. In his recent list of his eggs (in Malan's printed book for the purpose) I find the following:—

"Sept. 28, 1833.—Received from Mr. Ashbey of Lynn, a pair taken from Massingham heath this spring, with three eggs, forming two pairs and a single one, being the product of three nests.—J. D. S."

§ 3193. Five.—From Herr Brandt, 1851, through Dr. Frere, 1853.

Five beautiful varieties. Dr. Frere has had a very considerable number of these, many of which passed into Mr. Gardiner's hands. It is probable that the dozen or so which he had kept for his own duplicates were the best-marked specimens.

§ 3194. One.—Germany. From Mr. Green, 1854.

Said to have been received from Leipzig.
§ 3195. Nine.—Saxony, 1855. From Herr Brandt, 1856.

Out of eleven bought by me from forty specimens, which I unpacked and carefully picked over [at Hamburg], after which Mr. Simpson selected some. I marked all mine at the time in Herr Brandt's blue ink, for he said they were all eggs of the preceding season, and came from Leipzig. With these Bustards' eggs were packed one or two Cranes'.

[§ 3196. One.—Germany. From Mr. Reynolds, not later than 1845.

The private mark on this egg shows that it came from Herr Brandt, and therefore most likely from Saxony.]

[§ 3197. One.—Andalusia. From Mr. Powys, 1855.

How Mr. Powys (afterwards Lord Lilford) obtained this egg I know not. He had not then been to Spain.]

[§ 3198. One.—“Near Bury St. Edmund’s,” Suffolk. From Mr. Yarrell’s Collection, 1856.

Bought by me at the sale of Mr. Yarrell’s Collection in Mr. Stevens’s auction rooms on the 5th of December, 1856, where it formed part of Lot 373. This egg, Mr. Yarrell told me two or three years before, was taken a long time since, perhaps thirty years ago, or more, “near Bury St. Edmund’s,”—at least he had it from some one living there or in that neighbourhood, and he was informed it was certainly taken in that district. He could not then remember the name of the person from whom he had it, nor could he when I last saw him, and the egg, in July 1856; but he promised me he would try to recollect, and if he could, would let me know. I never, however, heard anything from him on the subject, and he died unexpectedly at Yarmouth on the first of September following. As he was quite certain, however, that the egg had been laid in Suffolk, I made a point of buying it at the sale, which I did for a few shillings, as probably no one present, beside myself, and perhaps Mr. Hewitson or Mr. Salmon, knew its history. I think it was most likely from Icklingham or North Stow—those being the parts of the district most affected by the Bustard—and of those perhaps the latter the more likely, since its post town was Bury, whereas that of the former was Mildenhall. This, however, is quite conjectural, and there were several other places at that time in the neighbourhood where the Bustard annually bred.]
I obtained the first intimation of the existence of this egg, in the possession of Mr. Rodwell, from my very good friend and fellow-investigator of the Bustard’s history, Mr. Southwell, in February 1856, having only a few days before received a letter from the late Mr. Scales informing me, among other things, that a friend of his, Mr. D’Urban Blyth of Massingham, had, about ten or fifteen years before, a Bustard’s egg found in a field on his farm. I therefore wrote to Mr. Blyth, who most courteously replied, under date 20 February, 1856:—“Some years since a Bustard’s nest was found at a farm, adjoining mine, and the two eggs it contained came into my possession, one of which was soon after unfortunately broken, and the other I gave to my sister, Mrs. Rodwell, of Brancaster, for one of my nephews who had a collection of the eggs of British Birds, and would not, I think, be induced to part with it. I believe no male Bustard existed at the time the nest was found, but two or three females frequented the neighbourhood for some years previously.” I again wrote to Mr. Blyth for more information, and he again kindly complied with my request, writing a few days later:—“In regard to the time the nest was found, I regret I cannot speak with any degree of certainty—[it was] probably some twenty years since; but I think if you write to Mrs. Rodwell, you can hear the very time the eggs were found in a wheat field on the Abbey Farm, the property of the Marquis of Cholmondeley.” Some time passed without my receiving any more positive information on the subject.—Mr. Blyth’s warning as to the probability of his nephew being unwilling to part with the egg, making me careful not to precipitate events; but in the meanwhile Mr. Southwell kindly continued his good offices, and in the month of September he informed me that the Bustard’s egg in Mrs. Rodwell’s possession was certainly one of those which Mr. Blyth had, but that she did not consider it her own, as it was given to her for her nephew, Mr. H. B. Rodwell. Having further learnt that that gentleman seemed to care little or nothing about it, and having obtained his address in London, I wrote to him making enquiries. He was so good as to reply on the 30th December, 1856, writing:—“I recollect when a schoolboy a collection of eggs at my father’s house, which were called mine, but whether I had any property in them other than nominal I am unable to say.” Further correspondence ensued, and in January I called upon him, when he consented to a proposal I had made. A few days after he wrote, enclosing the copy of a warranty from Mr. Blyth as follows:—

“I beg to certify that the egg of the Great Bustard in the possession of Mrs. Rodwell of Brancaster was brought to me some years since by a labouring person who found it with another in a nest in a field of young wheat in the parish of Great Massingham, Norfolk.

Jan. 19, 57.

[Signed] D’URBAN BLYTH.”

A few days after Mr. Rodwell was good enough to deliver the egg and original warranty to one of my brothers in London, who subsequently brought it to Elveden, and it has never since left our collection. On the other side of the warranty was written:—“The farm on which the Bustard’s nest was found
is in the estate of the Marquis of Cholmondeley, and was at the time in the occupation of Mr. John Burgess. The fellow egg was accidentally broken." The whole of this story is eminently satisfactory, and I have little doubt that this is one of the eggs that Mr. Scales remembered as being in Mr. Blyth's possession, though some of the details differ.]

[§ 3200. Two.—Near Leipzig, 20 May, 1857. From Mr. H. Smurthwaite, 1858.

These were sent to me by Mr. Smurthwaite, who had been residing for some time in Leipzig, and wrote first that they were "taken last year on their favourite breeding ground between Leipzig and Halle," subsequently adding "by a gamekeeper's assistant, who found the nest with one egg and on his first visit saw the parent bird. On his taking the two eggs, he did not, so far as I remember, see the Bustard at all. This nest was on an open piece of ground, among rank herbage."

[§ 3201. Two.—Jaren, entrance of Wadi Kassab, 16 April, 1860. Found by Mohamed ibn Hedda.

[§ 3202. Two.—Jawen, Wadi Kassab, 24 April, 1860. Found by Mohamed ibn Hedda.


[§ 3204. Two.—Near Khorsabad, 29 April, 1860. Found by Khudder Malanchy.

[§ 3205. Two.—Tel Yacoob, near Nimrood, 2 May, 1860. Found by Osman ibn Ali.

[§ 3206. Two.—Khudder Elias (Khidr Ilyâs), 2 May, 1860.

[§ 3207. Two.—Tel Yacoob, 6 May, 1860. Found by Midlij ibn Mahmood.
[§ 3208. Two.—Naquab (Nuqb), near Nimrood. Found by Abid ibn Hassan.


[§ 3210. Two.—Naiffa, plain of Nimrood, 30 May, 1860. Found by Midlij ibn Mahmood.

All these eggs (§§ 3201-3210) from Mr. Christian A. Rassam, 1861.

Learning from Mr. Edward Blyth’s article (Calcutta Review, No. 55, March 1857, p. 151) that the Bustard hawked in Mesopotamia was the Habara macqueeni, I was anxious to get some of its eggs, and Mr. Malan recommended me to write to Mr. C. A. Rassam, the British Consul at Mosul. This I did in February 1860, and in due time heard from him that he would do his best for me. In the course of the following winter, I received a box containing 24 eggs, all numbered or ticketed, the tickets being attached to the eggs by pink silk, passed through the holes at which they were blown. Unfortunately I had not known that Habara or Habara in Arabic was a generic name for all Bastards, and consequently all but one of the specimens sent were those of Otis tarda. The delay in these eggs reaching me was caused by the disturbances at Damascus, by which way they were sent, and there they ran great risk of destruction. The kindness of Mr. F. C. Burkitt, a competent Arabic scholar, has enabled me to transcribe correctly from the tickets the names of the persons and places thereon written.]

[§ 3211. One.—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

[§ 3212. Two.—Near Seville, Andalusia, 21 April, 1869. From Mr. Howard Saunders.

A pair. Mr. Saunders had several other pairs, all of which were carefully marked so as to be distinguished.]

[§ 3213. One.—“Norfolk, 1824. From the Rev. William Turner’s Collection,” through Mr. John Clarke, 1891.

Of this egg I first heard in 1885 from Colonel Feilden, who wrote to me that he had been to see a collection of eggs belonging to Mr. John Clarke, formerly (as it afterwards appeared) of Wigston Hall in Leicestershire, but then living at Great Yarmouth:—“The best egg, which is marked in Mr. Clarke’s handwriting, is a Bustard’s from Norfolk, taken in 1824, which was in the collection
of the Rev. W. Turner, and was given by that gentleman to Mr. Clarke a few years afterwards. Mr. Turner (fide Clarke) had several Norfolk Bustards' eggs in his collection." Some days later Col. Feilden wrote that he had again been to see Mr. Clarke about the Bustard's egg, but that it was difficult to fix his memory—"he is not really such an old man, but he seems to have had a terrible stroke"; and he could give no particulars as to what Mr. Turner, the rector of Barholme in Lincolnshire, told him of the history of the Norfolk Bustard's egg in his possession, but, so far as his memory went, Mr. Turner had two if not three more Norfolk Bustards' eggs in his collection. On the 18th of January, 1886, my brother Edward and I went to Yarmouth, and Col. Feilden took me to call on Mr. Clarke, who very readily let him show me the collection—he himself being in the room, but confined to his chair or the sofa. I saw this egg, but I could not get Mr. Clarke to say whether the handwriting upon it was his own or not. He had previously told Col. Feilden that it was, but he had much difficulty in understanding what was said to him or making his replies intelligible. He said, however, and this is important, that this egg and those in Mr. Turner's collection were bought of some one, a dealer he thought, at Norwich. Nothing more could he tell me. It was unfortunately not a good day with him, but he evidently remembered several of the specimens in the collection, and this one, I thought, certainly. Mr. Clarke, who was formerly of Emmanuel College, died in 1889, and thereupon I opened communication with his representatives, Mr. Southwell most kindly aiding in the negotiation, which eventually terminated in his procuring this specimen from Mr. Clarke's widow, and sending it to me in 1891. It is without the slightest doubt the very egg I saw, with Col. Feilden, in Mr. Clarke's possession and present in 1886. I have no reason to doubt that the handwriting upon it is Mr. Clarke's, though I could not get him to say so to me, as he had before said to Col. Feilden. It is extremely unlikely that anyone else should have been at the trouble of writing upon it, or that if anyone had been so disposed, Mr. Clarke would have allowed it to be done. The dealer, if such he was, at Norwich, from whom Mr. Turner obtained it, may have been Hunt, long well-known as a bird-stuffer there and author of an unfinished 'History of British Birds.' He always bore a good character.]

OTIS DYBOWSKII, Taczanowski.

[§ 3214. Ove.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

Under the name of Otis tarda, for the Eastern form was not differentiated till a year later (Journ. fur Orn. 1874, p. 331), Dr. Dybowski gave (op. cit. 1873, p. 100) a description and measurements of the eggs of three nests of this bird, one of which seems to have contained three eggs. The specimen I received from M. Verreaux bears a label, apparently by the Doctor, on which is written "Otis—Sundook," which last word looks like the local name of the bird, spelt Soodok by Palkas (Zoogr. Rosso-Asiat. ii. p. 97).]
OTIS TETRAX, Linnæus.

LITTLE BUSTARD.

§ 3215. Five.—Tangier. From M. Favier, 1845.

This I consider a beautiful series. They vary, as do eggs of the Great Bustard, from green to brown. Is the latter colour the result of incubation? The brown one with the markings at the large apex is remarkable, so is the elongated specimen, and it appears that all in the same nest were similarly elongated.

[It is not certain that all these five were brought from Tangier in 1845, though two of them certainly were. The others may have been received from M. Favier in 1847, but two of them bear his well-known label. A note in the Egg-book, written apparently in 1847, shews that Mr. Wolley had had fifteen eggs of this species in his possession altogether, but he must then have parted with most of them, though to whom is not clear, except that Mr. Milner and Mr. Clennell Wilkinson seem each to have had one.]

§ 3216. One.—From M. Lefèvre, 1847.

M. Hardy [of Dieppe] called him [M. Lefèvre] a thief, and said he would change the name of eggs to suit his customers (?). He is publishing a work on eggs. Dr. Pitman named him to me.

[Whatever character M. Lefèvre might bear, there can be no mistake about this egg. His work was the little-known and incomplete 'Atlas des Oufs des Oiseaux d'Europe,' of which only seventeen parts seem to have appeared (1845–8).]

§ 3217. One.—"Caithness," 1848.

This egg I obtained in the year 1848 from Mr. Cramond, the dancing master at Thurso. He let me take any of his eggs I chose, as he did not value them. He had few eggs, all taken either in the neighbourhood or in Orkney, and there were none among them of which this could be thought a variety. I saw how like it was to a Little Bustard's, but I thought no more of it for a long time afterwards, having made up my mind without much consideration that it must be a variety of the Common Gull or Whimbrel. It was not till a year or two afterwards that I began to think it might really be a Little Bustard's, and only this present year, 1853, in consequence of
Mr. Salmon and several other good judges of eggs pronouncing it to be a Little Bustard's, that I determined to write to Dr. Sinclair of Wick 1.

Soon after leaving Thurso I was a day or two at Wick, where I was shewn by Dr. Sinclair there, in the month of July or August, a bird which he at first called a Bittern; but upon seeing which I at once pronounced to be a Little Bustard. It was then stuffed, though not quite completed, by the Doctor. In the meantime I had been to Shetland and had thought no more of the egg.

On the 8th of March, 1853, I wrote to Dr. Sinclair to ask him what he could recollect of the bird's capture. He answered me as follows:—"I have made every enquiry about the Little Bustard, but have been completely foiled and cannot learn any one thing of her. I shall tell you how she came into my possession. One day in the middle of June, 1848, I went into the bar of the Caledonian Hotel here [Wick] as I was told a rare bird was there. To my great delight and surprise I found this rare and beautiful bird laid with some dead domestic fowls. I took it up and walked home with it and sent Mr. Leith [the hotel-keeper] three hens for it, which he thought was a good exchange. On further enquiry I found that she had been shot by a 'poacher' in the parish of Halkirk, sixteen miles from this and five miles from Thurso, or otherwise—almost in the middle of the county; and that part of the country being very flat and swampy with a good river running through it, I have not the least doubt but she had a nest."

The egg was broken badly when I got it. At the time I was distinctly given to understand that it was taken in Caithness, but with no further particulars, for which, unfortunately, I did not press. I mended it some time ago. My having obtained the egg so near to where the bird was shot appears greatly to increase the probability of its having belonged to her. In my letter to Dr. Sinclair I carefully avoided all allusion to my egg. I asked him to see the man who shot the bird and ask whether she had long been about? how she got up? on what kind of ground? and whether there was any reason to suppose there was a male bird or a nest.

1 [No doubt the "Mr. Eric Sinclair, Surgeon," mentioned by James Wilson ('Voyage round the Coasts of Scotland,' ii. p. 178) as having in 1841 a collection of Caithness birds. When in Caithness, in 1881, I made what enquiry I could touching this "Dr." Sinclair; but all I could hear was that he had died some ten years before, and that his widow had "gone south." No one seemed to know anything of his collection.—Ed.]
On the 18th of February, 1856, I wrote to Dr. Sinclair a letter in which were the following words:—"I am still extremely anxious to hear more about it, for I have reason for thinking it may have bred in the county. Do you remember anything of the sexual appearance on dissection? Is the belly denuded of feathers? The points I wish to establish are—1st. For how long the bird was seen, and how was it killed, and on what kind of ground? 2nd. Was any other of the same kind seen in company? 3rd. Was there any reason to suppose there was a nest? 4th. If there were eggs, what became of them? I think it might still be possible to get this information. What do you think of an advertisement in some Caithness paper that if the person &c.?"

Some time in March I received a 'John o' Groats Journal' of 29 February, 1856, with the advertisement.

[A copy of the advertisement was pasted by Mr. Wolley in his Egg-book, but there is no need to insert it here. It is so cautiously worded that I think it must have been his own composition. However, no result followed, and if Dr. Sinclair ever wrote again to him, the letter is not forthcoming. Wherever the egg was laid one can hardly doubt its being a Little Bustard's, and if not laid in Caithness its possession by Mr. Cramond is hard to explain, while the coincident occurrence in the district of a hen bird of that species, which might have dropped it, is too remarkable to be neglected. In Messrs. Harvie-Brown and Buckley's 'Vertebrate Fauna of Sutherland, Caithness, and West Cromarty' (Edinburgh: 1887), where extracts from Mr. Wolley's Egg-book concerning this matter are given, it is inadvertently stated (p. 209) that he was shown the bird 'a year or two after 1848,' whereas it was certainly in that year that he saw it, and, as appears from what is said above, it had not been very long killed, for Mr. Sinclair had not completed the stuffing of it.]

§ 3218. Three.—France. From M. Parzudaki, 1856.

§ 3219. Two.—Djendeli, Algeria, 16 May, 1857. From Mr. Salvin.

Two nests brought by an Arab—one of four, the other of three eggs, but mixed—with the two hen birds. The Arabs make a rush and throw their burnoose over the bird as she runs off. Mr. Salvin took one nest himself, which had only two eggs, but the birds have three or four. They build in the corn—a hole scooped, with a few bits of grass in it.

[Mr. Salvin's notes on the nidification of this bird in Algeria are in 'The Ibis' for 1859 (p. 353).]
§ 3220. *One.*—Chlemora, Algeria, June, 1857. From Mr. Simpson.

§ 3221. *One.*—Djendeli, 27 May, 1857. From Mr. Tristram.

This was Lot 153 at the sale at Mr. Stevens's rooms, 9 Feb., 1858.

§ 3222. *One.*—Algeria, 20 June, 1857. From Mr. Tristram.

§ 3223. *Two.*—Champagne, France. From M. Parzudaki, 1858.

M. Parzudaki remarked that the French specimens are generally more clearly marked than the African.

[§ 3224. *One.*—From the late Mr. Yarrell's Collection, 1856.

Bought at the sale of his Collection, 5 December, 1856. This egg was in the same Lot (373) as the Great Bustard's already mentioned (§ 3198). It is no doubt correct, but I know nothing of its previous history.]


These three eggs from the same nest had been shared by the three Algerian explorers, who at the request of my brother and myself kindly reunited them, so that we might possess the complete clutch. The nest, no doubt, was taken by an Arab.]

[§ 3226. *One.*—“South Russia.” From Herr A. Heinke, through Dr. Günther, 1863.]

**HOUBARA UNDULATA** (Jacquinot).

§ 3227. *One.*—Algeria, 1857. From Mr. Tristram, 1858.

[This was Lot 151 at Mr. Stevens's rooms, 9 February, 1858, and was, I believe, from the same nest as that forming the preceding Lot, which seems to have been taken at El Kantara, 9 June, 1857. In *The Ibis* for 1860 (p. 26) Canon Tristram says that the nidification of this bird does not call for any remark.]
§ 3228. One.—Algeria. From M. Parzudaki, 1858.

M. Parzudaki gave me no particulars, but the egg agrees with the two in Mr. Tristram's sale of which I bought one [§ 3227].

[§ 3229. One.—Aïn Boudjirah, Algeria, June, 1856. From Mr. Tristram.]

[§ 3230. Four.—Laghouat, Algeria, April, 1870. From Mr. J. H. Gurney, jun.

Writing to me with these eggs Mr. Gurney says: "I send four Houbaras' eggs, which were brought to me in the yelk at Laghouat by Arabs last April." This kind gift is also mentioned by Mr. Gurney in his paper "On the Ornithology of Algeria" (Ibis, 1871, p. 296).]

[§ 3231. Ten.—Fuertaventura, Canary Islands, 1889. From Señor Gomez, through Mr. Dresser.

Two of these are marked as being from the same nest. Mr. Meade-Waldo mentions (Ibis, 1889, pp. 9-12) the abundance of this bird in this island, where its eggs are easy to find and are taken by the people for food.]

HOUBARA MACQUEENI (J. E. Gray).

[§ 3232. One.—Tel Yacoob, Mosul, 21 May, 1860. From Mr. Christian A. Rassam, 1861.


The circumstances which led to my possessing this egg, which was found by Mansoor Saigho, have been already related (§ 3210). It is figured as above.]

[§ 3233. One.—Desert north of Saissan Nor, 4 June, 1876.

"Female killed on nest." From Dr. Finsch, 1878.

Given to me in London by Dr. Finsch, being one of the very few eggs he obtained on his recent Siberian journey with Dr. A. E. Brehm. He had a pair of them in a very box, he said, in which he had brought them from Siberia, and he kindly gave me my choice; but there was little difference between them. In my presence he wrote down the particulars of the locality, which was in the desert on the north of the Saissan Nor between the lake and the Altai Mountains. He said there was not the least doubt of the bird being the true
Otis macqueeni, and that full particulars of the event would appear in his forthcoming work.

In the narrative of his journey, 'Reise nach West-Sibirien,' published at Berlin in 1879, he merely mentions (p. 244) that he obtained eggs of this Bustard; but in his account of the Scientific Results of it which appeared at Vienna in the same year he described (Verhandlungen der k.k. zoologisch-botanisch Gesellschaft, 1879, pp. 241, 242) the single specimen obtained by his party, stating:—"Das obern verzeichnete Weibchen wurde von dem Herrn Polizeimeister von Semipalatinsk beim Nest (welches drei Eier enthalten hatte) erlegt. Ich selbst beobachtete die Art von 3. Juni in der genannten Steppe auf dem Wege nach Maitjerek, indem ich ein jedenfalls brütendes Weibchen aufscheuchte." What became of the other eggs I do not know.

GLAREOLA PRATINCOLA (Linnaeus).

PRATINCOLE.

§ 3234. Six.—Tangier. From M. Favier, 1845.

Of eleven, from M. Favier, in September, 1845. These are of the same lot as that figured in 1841 by Mr. Yarrell [Brit. Birds, ed. 1. iii. p. 5], for Mr. Drummond-Hay, the Consul, procured them from M. Favier, as his son, the present Consul, informed me. They vary very greatly, hardly two being alike. I gave one to Mr. Yarrell, and exchanged one with Dr. Pitman, Mr. Wilmot, Mr. Salmon, and Mr. Tuke.

[Two others Mr. Wolley gave to my brother and myself in 1851. They are included in the six above mentioned.]

§ 3235. Three.—Tangier. From M. Favier, 1847.

Of five, received in February, 1847. One to Mr. H. Milner and one to Mr. Bond.

[It is possible that one of these may have been received later.]

§ 3236. Twenty.—Tangier. From M. Favier, through Mr. Williams.

[Twelve of these were laid by Mr. Wolley in his cabinet, having been selected apparently for the series he intended to keep, but none of them was entered by him in his Egg-book; all, however, bear M. Favier's well-known label, and were doubtless received from him by Mr. Williams, most likely in 1849 or 1850. Four more were sold at Mr. Stevens's, 31 May, 1860—two to Mr. Whitely, one to Mr. Rake, and another to Mr. Sealy.]
§ 3237. *Two.*—Hungary. From Mr. A. H. Cochrane, through Mr. Proctor, 1851.

[For other eggs obtained by this Mr. Cochrane, see §§ 281-283.]


Found by Mr. Simpson [Hudleston] on what he called "Prat Point." This nest kept separate. Three is the complement of eggs, which are placed 90 in a hole scratched in the ground. The bird is very tame and flies round within a few yards. The lake is on about the middle of the Atlas, a little north of the Mons Aures.

[For Mr. Salvin’s notes on the nidification of this species in Algeria, see 'The Ibis' for 1859 (pp. 354, 355).]


Taken by Mr. Simpson himself.

§ 3240. *Two.*—Tz'har, Algeria, 5 June, 1857. From Mr. Salvin.

Found by Arabs, brought to Mr. Simpson on the spot.

§ 3241. *One.*—Zana, Algeria, 11 June, 1857. From Mr. Salvin.

§ 3242. *Two.*—Zana, 24 June, 1857. From Mr. Salvin.

Taken by Arabs in a place where Mr. Salvin often saw the birds.

§ 3243. *One.*—Roumila, Algeria, 4 June, 1857.

§ 3244. *One.*—Roumila, 10 June, 1857. From Mr. Simpson, 1858.


§ 3246. *One.*—Harakta, Algeria, 18 June, 1857.

PART III.
82 \hspace{1cm} GLAREOLA PRATINCOLA.—G. MELANOPTERA.

§ 3247. Three.

§ 3248. Three. \hspace{1cm} Algeria, 1857. From Mr. Tristram.

§ 3249. Three.

[§ 3250. Three.—Tz'har, 4 June, 1857.]

[§ 3251. One.—Tz'har, 5 June, 1857. \hspace{1cm} From Mr. Salvin.]

[§ 3252. One.—Zana, 11 June, 1857.]

[§ 3253. Three.—El Tharf, 4 June, 1857. Complete nest.]

[§ 3254. Two.—Tz'har, 5 June, 1857. Different nests.]

[§ 3255. Three.—Zana, 11 June, 1857. Complete nest.]

[§ 3256. One.—Zana, 11 June, 1857. Brought by Arabs.]

[§ 3257. Three.—Chott Chaboun, 15 June, 1857. Complete nest.]

GLAREOLA MELANOPTERA, Nordmann.

[§ 3258. Two.—“Sarepta.” From Herr Möschler, 1862.]

[§ 3259. Two.—“Wolga.” From Herr Möschler, 1865.]
PLUVIANUS ÆGYPTIUS.—CURSORIUS GALLICUS.

[§ 3260. Four.—"Sarepta." From Herr Möschler, 1866.]

[§ 3261. Four.—From Herr Möschler, through Mr. Norgate, 1869.]

PLUVIANUS ÆGYPTIUS (Linnaeus).

[§ 3262. One.—"Senaar." From M. Verreaux, 1859.

Possibly from Herr M. T. von Henglin, who seems to have met with many nests of this species (Orn. Nordost-Afrika’s, p. 979), though the figure of its egg given by him (op. cit. tab. ii. fig. 11) is not satisfactory. Its singular mode of nidification seems to have been first described by Dr. A. E. Brehm (Journ. für Orn. 1853, Extraheft, p. 102), whose account has been confirmed by Captain Verner, as quoted by Mr. Seebohm (Monogr. Charadr. pp. 250, 251.).]

CURSORIUS GALLICUS (Gmelin).

CREAM-COLOURED COURSER.

[§ 3263. Three.—From M. Favier, through Mr. J. H. Gurney.

Two of these I received in 1858, the third in 1861. Probably all are, and certainly the first two, the produce of the famous bird which M. Favier kept in confinement from April, 1851, until 25 October, 1859, when he, being compelled to leave Tangier, entrusted her (for she would not accept of liberty) to the care of a Moor, but on returning in the April following, found she had died of cold in the winter. During that period she laid thirty-six eggs, of which one had an imperfect shell. These eggs were generally laid, a pair at the interval of a few days, and then again with the intermission of a week or more — so as to suggest that two is the normal number of the clutch. Thus, in 1853, the first year that the bird laid, eggs were produced on the 15th, 16th, and 30th May, 1st, 11th, 14th, 23rd, and 26th June. Neither in 1855 nor in 1858 were any eggs laid, and in 1859 only four—6th and 7th July and 9th and 10th August. These particulars I take from M. Favier’s interesting manuscript account of the Birds of Tangier, before mentioned in this work, which, after his death in December, 1867, was bought from his successor, M. Oleese, by Colonel Irby, who generously gave it to the Museum of Zoology of the University of Cambridge, it having in the meanwhile served him considerably in the composition of his excellent ‘Ornithology of the Straits of Gibraltar,’ of which two editions have appeared.]
[§ 3264. Two.—Aïn Oosera, Algeria, 1865. From Mr. Tristram.

While staying with me in 1865, Mr. Tristram told me of four wild Coursers' eggs, which had been offered to him, and asked me if I would take a pair. I assented, and the eggs arrived in the December following. He subsequently wrote to me that they were procured for him by a French official at Aïn Oosera, a post on the route between Medeaah and El Aghouat. The man had formerly been a subordinate of Commandant Loche, and was keen on Natural History. "But I cannot recall his name," continued the Canon. "He must be dead long ago. When I got my first eggs, I commissioned him to get me more."

The first eggs obtained by Canon Tristram, and the first wild eggs, I believe, made known to scientific men, were procured in 1857, and were described and one of them figured by Mr. Hewitson in the first number of 'The Ibis' (1859, p. 70, pl. ii, fig. 3). They came from the same locality, but not necessarily from the same man. I believe that Mr. Hewitson was misinformed as to the bird always laying three eggs in the nest, two being the normal number, and he was also misinformed as to the eggs laid by M. Favier's captive bird being smaller and of a paler colour than those laid by birds at liberty, for there is really no difference in size or tint of the least importance.]

[§ 3265. Two.—From M. Favier, through Mr. H. E. Hawkins, 1866.

Mr. Hawkins sent me a list which he had received from an Englishman at Tangier, from which I ordered seven eggs. When they reached me I found old M. Favier's well-known labels on three. I believe, however, that they could not have been laid by the same bird as the others (§ 3263) were, though evidently by a bird in confinement.]

[§ 3266. Five.—Canary Islands, 1889. From Señor Gomez, through Lord Lilford.

Brought, I think, to this country by Señor Gomez.]

[§ 3267. Twenty.—Canary Islands, 1891. From Señor Gomez, through Mr. Dresser.

They are all marked in pairs, by Señor Gomez, and apparently with care. I do not know whether any account of the great irruption of the species in the islands has ever been published.]
STREPSILAS INTERPRES (Linnaeus).

TURNSTONE.


From Mr. John Hancock. He considers it a very characteristic specimen.

[From the inscription on this egg, which is in pencil by Mr. Hancock, this is doubtless one of those which he and Mr. Hewitson obtained on their classical tour in Norway, as mentioned by the latter in the part of his 'British Ornithology' published 1 Dec., 1833, and being, therefore, of historical interest, an extract from that gentleman's original publication, first printed in the letterpress to plate liii. of that work, may here be given:—

"We had visited numerous islands with little encouragement, and were about to land upon a flat rock, bare except where here and there grew tufts of grass, or stunted juniper clinging to its surface, when our attention was attracted by the singular cry of a Turnstone, which, in its eager watch had seen our approach, and perched itself upon an eminence of the rock, assuring us, by its querulous, oft-repeated note, and anxious motions that its nest was there; we remained in the boat a short time until we had watched it behind a tuft of grass, near which, after a minute search, we succeeded in finding the nest, in a situation in which I should never have expected to meet with a bird of this class breeding; it was placed against a ledge of the rock, and consisted of nothing more than the dropping leaves of the juniper bush, under a creeping branch of which the eggs, four in number, were snugly concealed, and admirably sheltered from the many storms by which these bleak and exposed rocks are visited, allowing just sufficient room for the bird to cover them. We afterwards found several more nests with little difficulty, although requiring a very close search."

The gist of the above was repeated by Mr. Hewitson in his 'Notes on the Ornithology of Norway' (Mag. Zool. & Bot. ii. p. 315).]

§ 3269. Six.—"Norway." From Mr. Green, 1852.

All from the same lot of which Mr. Green had nearly twenty. He assured me they were from Norway. On the 27th January, I took them down to Mr. Hewitson at Oatlands, Mr. Hancock being with him. The former exclaimed "Snipes!" We measured them and found them considerably larger than the figure in his second edition ['Eggs of British Birds,' pl. lxxi.]. The darkest of the three Mr. Hancock thought was very like some of his; but he considered the specimens with wavy lines upon them, which he has, more
characteristic. He had seen these eggs in Green's possession, and had thought them to be 'Turnstones'; and at my rooms in the evening he again examined them and again thought them so. Placed among Snipes' eggs they look very different. They were the first Mr. Hancock had seen, besides his own, which he had thought genuine.

[A label on one of these eggs bears the private mark of Brandt of Hamburg, from whom, no doubt, Green obtained them. A seventh egg of this lot I gave to Mr. Newcome.]

§ 3270. One.—From the sale of Mr. J. R. Wise's Collection, 1853.

This was Lot 130 of the Catalogue, at Mr. Stevens's rooms, 11 February, 1853. The eggs were sold as belonging to J. R. Wise, Esq, of Lincoln College, Oxford.

[Mr. Wise was supposed to have had many dealings with Dr. Kjærbølling, of Copenhagen, from whom he most likely obtained this egg.]


After a long watch, we were just embarking, when Mr. Simpson [Hudleston] said "One look more," and again went up the islet. There was a stony tract beyond the grass to which I had watched the hen, and whereabouts he had put her up. We looked under many of the large stones, and at last he jumped up and clapped his hands. There lay four eggs just visible under a large flat stone which formed a shelf two or three inches above the ground. When Mr. Newton came we removed the eggs and nest carefully, and found that the latter was made in an old Lemming's—in fact, a Lemming's nest was, as Mr. Simpson said, just "top-dressed" a little. We found Lemmings on the islet. One of the four eggs, kept by him, shews more of the light ground-colour and is of singular beauty.

[The contents of this nest were shared between Mr. Wolley, Mr. Hudleston, and myself, the first retaining two of the eggs, but on my becoming possessed of them I gave one of them to the second, so that he and I have each half of the spoil. We were on our way by boat from Vadsø to Mortensnes, when we landed on an islet, and the Turnstones immediately attracted our attention, just as that of Messrs. Hewitson and Hancock had been, as before stated (§ 3268). So far as I remember, we had been watching the birds for nearly an hour. The islet was overrun by Lemmings.]
§ 3272. Two.—Near Vardö, East Finmark, 1855.
Out of three from Herr Reen, the Lehnsmund at Vardö.
[The third was sold at Mr. Stevens's rooms, 7 March, 1856, to a purchaser who did not give his name.]

§ 3273. Two.—Tamso, Porsanger Fjord, 1855.
Out of three sent by Herr Peder K. Ulrich of that island.
[The third was sold at Mr. Stevens's rooms, 31 May, 1860, to Mr. Braikenridge.]

§ 3274. Six.—Denmark, 1856. From Dr. Kjærbölling.
These bought at Copenhagen in July, 1856.
[A seventh was sold at Mr. Stevens's, 31 May, 1860, to Mr. Braikenridge.]

§ 3275. Two.—Denmark.

§ 3276. Seven.—Jutland.
§ 3277. Seven.—Læsø.

§ 3278. Two.—Lolland.

All these from Dr. Kjærbölling, and I believe mostly taken this year. He had them in different boxes according to the locality from which he had obtained them. I chose twenty eggs out of a great many specimens, and yet there is no extraordinary variety. Læsø is in the Cattegat.

[Two more, from Jutland (§ 3276), sold at Mr. Stevens's, 31 May, 1860, to Messrs. Burney and Gould.]


A complete nestful taken on an islet in the Cattegat by Herr Erichsen, with his own hand. He spent a fortnight on the islet in search of eggs, as Pastor Theobald wrote to me.]
HAEMATOPUS OSTRILEGUS, Linnaeus.

OYSTER-CATCHER.

§ 3280. Four.—Shores of the Wash? 1843.

These I bought of Harvey [of Baitsbight]. He had several from Lynn. One, marked by me "A," and others like it, he declared were Avosets', and very valuable. He had been misinformed. Others he said were Gulls' eggs, and of little value. I bought two of this variety, one of which I sent to Mr. Hewitson, who says he has little doubt they are remarkable varieties of the Oyster-catcher.

[Harvey no doubt had these from the bargemen who plied between Lynn and Cambridge, and the eggs were most likely taken on the shores of the Wash, particularly on the Norfolk side, on the coast of which county Messrs. Gurney and Fisher, writing in 1846 ('Zoologist,' p. 1319), said that the bird was common, and still breeding, as indeed a few may yet breed.]

§ 3281. Six.—From M. Nager-Donazain, 1846.

Sent instead of as many eggs of Himantopus which I had ordered from his list!

§ 3282. Six.—Handa, Sutherland, 9 June, 1848.

Mr. James Edge found two nests of Oyster-catcher on the island, the eggs in both hard sat on. I took them all myself.

§ 3283. One.—Great Calva, Sutherland, June, 1848.

§ 3284. Eighty.—Færoes, 1851. From Sysselmand Winther.

[In his Observations on the birds of these islands (Contr. Orn. 1850, p. 107) Mr. Wolley wrote that "great numbers of Oyster Catchers and Elder Ducks mark the abundance of the productions of the wave-washed rocks"; and, indeed, the piping of this species may be heard almost incessantly both day and night during the summer, on almost all their shores.]

§ 3285. Eleven.—Færoes, 1852. From Sysselmand Müller.
§ 3286. One.—Loch Tay, Perthshire, 1852.

From Mr. Peter Robertson, of Black Mount.

§ 3287. Two.—Haparanda, 18 July, 1853.

[These must have been obtained by Mr. Wolley on his first return from Lapland, for which he again set out immediately (cf. Memoir, p. xxvi). Though properly inscribed, they were not entered by him in his Egg-book.]

§ 3288. Four.—Porsanger Fjord, East Finmark, June, 1855.

Sent by Herr Peder K. Ulich, of Tamsö, for me to Hammerfest. In his list they are entered as “af et Rede i Fjæren.”

§ 3289. One.—“Hoy, Orkney, 1856.”

This very remarkable egg I bought at Nottingham, 19 January, 1859, of a travelling naturalist [G. King?] of Torquay. He had called at Beeston in the morning, and I had shewn him some of my egg-drawers. He told me it was brought to him as an Oyster-catcher’s, with other Oyster-catchers’, in the island of Hoy in 1856. I have mended it with great care.

[Mr. Wolley does not seem to have doubted that it was an Oyster-catcher’s egg; but I have never seen another like it, and have been inclined to suppose that it might be a Gull’s of some sort, but, even in that case, a very abnormal variety.]

§ 3290. Two.—Iceland. From Herr Cristian Zimzen, 1858.

§ 3291. Fifty.—Færoes, 1859. From Sysselmand Winther.

[These eggs appear to have been selected with some care, as some striking varieties are among them.]

[§ 3292. Two.—North Warnsey, Farne Islands, 21 June, 1851. “A. & E. N.”]

[§ 3293. Two.—South-west of Scotland. From Mr. W. G. Johnstone, 1854.]
RECURVIROSTRA AVOSETTA, Linnaeus.

AVOSET.

§ 3299. One.—From M. Lefèvre, 1847.

§ 3300. One.—[No history.]

[The name is written on it by a hand that I do not recognize. It is doubtless an Avoet's egg, but was not entered by Mr. Wolley in his book.]

§ 3301. Four.—Netherlands? From Mr. Green, 1852.

I saw these eggs at Mr. Green's before they were blown. There were perhaps a dozen or a dozen and a half altogether, and I picked out these as varieties. He had some of the birds offered him at the same time. This year twelve living Avosets were added to the Zoological Gardens in the Regent's Park, and they had "Belgium" put upon their card.

§ 3302. One.—Netherlands? From Mr. Green, 1854.

Mr. Baker told me that he visited the nest day after day, and constantly saw the bird on this egg at a short distance from him, but it laid no more eggs. He thought it was a very old bird. It is a curious variety, small and rather unusually marked. He had other quite ordinary *Avoset’s* eggs, taken at the same time.

§ 3304. *Two.*—Denmark. From Dr. Kjærboëlling, 1856.

§ 3305. *Four.*—Brielle, 15 May, 1858. From Mr. J. Baker.

§ 3306. *Four.*—Helvoirt, North Brabant, 7 May, 1859. From Mr. J. Baker.

§ 3307. *One.*—Helvoirt, 17 May, 1859. From Mr. J. Baker.

§ 3308. *Four.*—Holland, 1860. From Mr. J. Baker.

A complete nestful. With these I also obtained from Mr. Baker the skin of a half-grown bird.


These I selected from a lot of about fifty which Mr. Baker brought over from Holland the year before; but I believe that one if not two others had already had a pick of them. He told me they all came from North Holland, between the Zuider Zee and the German Ocean, where he declared the birds are yet very abundant. I chose the most opposite varieties, but the eggs did not vary much.

§ 3310. *Seven.*—Brielle, May, 1876. From Mr. J. Baker.

From three nests all taken by Mr. Baker himself. He trapped and brought back a pair of the birds, which he says are becoming extremely scarce in Holland, at which I do not wonder.

§ 3311. *One.*—Norfolk? From the late Mr. Scales’s collection, 1885.

This had with it a label in Mr. Scales’s handwriting with "*Avocet*?” upon it; but it is to my mind an unquestionable *Avoset’s*, which has been blown at the ends, and has a very large hole on one side, most likely from having been
fastened to a tablet. There is a considerable chance of this being an old Norfolk specimen, and, if so, perhaps the only one now in existence. The species, we know, bred abundantly at several localities in the county, in the days when Mr. Scales lived there, and he could have procured as many specimens as he wished from either the eastern or the northern breeding-place without difficulty, while there is nothing to shew that when in Holland he was ever at any place near which it did breed.]

[§ 3312. One.—Dybsö, Zealand, Denmark, 12 May, 1889. From Herr Conservator Scheel, 1893

Taken by Herr Robert Olsen and given by Herr Scheel to my brother Edward, who, however, suspected that it was from Rønne.]  

[§ 3313. Four.—Orum, Jutland, 26 May, 1893. From Herr Robert Olsen.

Given to my brother Edward at Copenhagen (together with a young bird in spirit) by Herr Olsen, who wrote that he found them on a point of land in the Orum Sø, which was being drained and converted into meadow. There were about thirty pairs of Avosets there then. The lake is near Vestervig, on the west coast of Jutland.]  

[§ 3314. One.—Dybsö, 26 June, 1893.

This is hardly more than a fragment found by one of the party, HH. Baagoe, Olsen, Regenburg, and others, with whom my brother Edward visited the island on the day above stated. My brother wrote of it as follows:—

"We arrived at Dybsö Fjord at 2.30 p.m. and immediately got into two boats, sailing to the island in about a quarter of an hour. We could not get within 150 yards of dry land, and the boatman carried me on his back over the shallow interval. The island I should say was originally formed by a moraine, and increased by alluvial deposit from the river Susan, which runs into the fjord opposite to the north end of the island. The moraine part is perhaps fifteen feet above high water, and the deposit has increased the size of the island to the north for about a quarter of a mile, and is there quite flat and not more than three feet above the sea-level. It is all covered with thick turf, eaten down as close as possible by the animals on it—about one hundred horses, mares and foals, one hundred and fifty oxen and cows, and some thirty sheep, all looking in excellent condition—and is everywhere covered with their droppings. It is in places broken up by shallow holes, a foot deep, caused, I fancy, by the winter high tides and gales. On this flat the birds, and especially the Avosets, breed. There are in places hummocks of coarse grass, like large mole-hills, which appear by the runs to be the home of a small rat or mouse, but none of my companions could tell me the species. The island, I should judge, is nearly two English miles long, but we did not go toward the south end, having landed about the middle and walked to the north and west. It
cannot be more than a quarter of a mile wide at the most. I was told by my companions that there was no chance of finding Avosets' eggs, as they had all hatched, and the young were mostly able to fly or were fully fledged. Also that they made their nests, or rather laid their eggs with hardly any nest, on the flat ground to the north of the island. Within five minutes of landing I saw an Avoset on the wing. It is not a graceful bird when flying, the first three primaries (as I afterwards noticed, when I had a dead bird in my hand) being of nearly equal length, the wing is heavy; the head looks large, and the slender beak is not seen unless the bird is very near, while the long legs hanging out and the half-webbed toes form quite an awkward club [foot?] look. The birds on the wing reminded me rather of Dromas ardeola than of Himantopus. The note was an incessant 'kink,' 'kink,' 'kink,' not unlike an Oyster-catcher's, but not so loud—the old Salthouse name 'Clinker' was of course from this note. Herr R. almost immediately shot one bird, as it was feeding tamely in a few inches of water. I never saw more than four birds at once, though I was told by Herr Olsen that many more had been there, but that they had gone away to other places with their young. We all looked for a nest, but could find none that was supposed to be an Avoset's. One of the party—Herr Fahrenholtz, I think—picked up and gave me a fragment of an egg. A young bird more than half-grown was caught, but at my instance was liberated, though either this or another of the same age was killed, for when we returned a dead one was produced, and I think Herr B. kept it. . . . After going over the flat part of the island, they all went over to the moraine to the south-west, and here Herr R. shot another Avoset. . . . Altogether I was much surprised at the place where the Avosets bred, so unlike what I expected it to be. All agreed that the birds always nested where the grass was shortest. The island and the land including the farm of Vijlö belong to Baron Reedtz Thott, who had given Herr B. permission to shoot and take eggs as he liked. On returning to the farm, the woman there told us that half an hour before a fox had carried off two of her fowls. . . . I forgot to mention that at Dybsö there is no shingle or sand; but a fringe of hard mud on which a good deal of seaweed has been thrown up between high and low water-marks, and above, by, I suppose, the winter storms. The grass grows quite to the edge of this deposit of seaweed."

HIMANTOPUS CANDIDUS, Bonnaterre.

STILT.

§ 3315. Two.—Tangier. From M. Favier, 1845.

Nine specimens of this very rare egg I obtained of M. Favier at Tangier in September, 1845. I mentioned in 'The Zoologist' [1846, p. 1214] that I had these and other eggs [§§ 682, 3215], and I had many applications for them. I exchanged two with Dr. Pitman, one with Mr. J. H. Tuke, one with Mr. Wilmot, and I gave two to
Mr. Yarrell, who was pleased to call this and the Pratincole's [§ 3234] the rarest eggs he had ever had. He previously had a Redshank's given to him by Dr. Thienemann for this egg. Mr. Hewitson, according to Mr. Wilmot, had almost persuaded himself he had figured a wrong egg in his work [Eggs Brit. B. ed. 2, p. 298, pl. lxxxii. fig. 2]. It is certainly too blunt, and his consequent observations on the number of eggs laid are false. Mr. Hewitson writes to me (12 January, 1846):—"Your eggs are much more like my figure than that of Dr. Thienemann ['Fortpflanzung der Vögel Europä's,' tab. xiv. fig. 2] except in shape. I have already given the same figure in the second edition [ut suprâ] as I did in the supplement to the first [Brit. Ool. pl. clxii., October, 1842], or I should have now availed myself of your kindness, for I think there is no reason to doubt your eggs being really those of the Long-legged Plover. I thank you much for your kind offer of one, but my collection of eggs is now dispersed through many cabinets."

[Mr. Wolley must subsequently have parted with another specimen, for these two only came into my hands, and apparently it went to Mr. Walter (cf. § 3318). Dr. Thienemann seems never to have figured the egg of this bird correctly, for the figures given in his later and larger work ( 'Fortpflanzungsgeschichte der gesammten Vögel,' tabb. lxiii. figs. 5 a–c, and ic. figs. 24 a–b) are obviously inaccurate.]

§ 3316. One.—Tangier. From M. Favier, 1847.

One of two received from M. Favier, 21st February, 1847. They are just like my former specimens of the egg of this bird.

§ 3317. Four.—Tangier. From M. Favier, 1848.

[These seem to have been received through Mr. Williams, but are all labelled by M. Favier.]

§ 3318. One.—Hungary. From Mr. H. F. Walter, 1852.

Brought from Hungary by Mr. Walter, who obtained it from M. Prenovitzky. A German, Herr Kunst [qu. Kunz?], looking at Mr. Walter's collection had at once pointed out the European specimens [of the eggs of this bird] and distinguished them from the African, not, as I understood, supposing them to be distinct species. I am to give Mr. Walter one of my Africans for this egg.
§ 3319. *Four.*—Zana, Algeria, 10 June, 1857. From Mr. Salvin.

A complete nestful taken by Mr. Tristram. Found by riding through the marsh, the horse knee-deep. The birds generally seen sitting on the nest, when they would walk off a few yards, and then stand looking on. Mr. Tristram's party called the locality "Stilton."

[Mr. Salvin's notes on the nidification of this bird in Algeria are in 'The Ibis' (1856, p. 360).]

§ 3320. *Four.*—Zana, 11-19 June, 1857. From Mr. Salvin.

From different nests, brought by Arab leech-hunters. The eggs are unmistakable, Avosets' being the only eggs like them.

§ 3321. *One.*—Zana, June, 1857. From Mr. Salvin.

The nest found by Mr. Simpson.

§ 3322. *Four.*—Zana, 11 June, 1857. From one nest.

§ 3323. *Two.*—Zana, 11 June, 1857. From Mr. Simpson.

§ 3324. *Four.*—Oued-Zana, 10–14 June, 1857.

From two nests.

§ 3325. *Four.*

Chott Chaboun, June, 1857. From Mr. Tristram, 1858.

§ 3326. *Four.*

Two complete nests taken by Messrs. Tristram and Simpson. The bird lays its eggs in mud on a few bits of rotten rush, or even on bare sand. The bottom of the nest is soppy, hence the discoloration of the eggs.
VANELLUS VULGARIS, Bechstein.

LAPWING.

§ 3334. Three.—Beeston, Nottinghamshire. In or before 1843.

The Lapwing breeds every year in the meadows below Beeston. It requires a little practice to find the nest, as the bird leaves it as soon as anyone appears in sight. I never myself saw the old bird feign lameness, and should fancy it only does so when it has young. The ground-colour of the eggs is sometimes of a light stone-colour like the Redshanks', at others it is yellowish.
§ 3335. Four.—Nottinghamshire, 1844.

These found by Susan and John [Wolley] as they were riding on the banks of the Trent, in a meadow between Barton and Thrumpton on this [the Beeston] side of the river.

§ 3336. One.—Whittlesey. In or before 1844.

This little deformed thing was found by Osborne [of Fulbourne] at Whittlesey Mere. He finds one or two like it every year in a nest with perfect eggs. His occupation in the early spring is getting Plovers' eggs.

§ 3337. Three.—Aberdour, 26 April, 1850. "J. W. ipse."

The bird left the nest very near me as I came suddenly round a corner, between Aberdour and Dalgety, on the peninsula opposite the Manse.

§ 3338. Three.—Orkney, 1850. From Mr. G. Harvey of Stromness.

I think these manifest their parents. They had not names upon them.

§ 3339. One.—Sutherland. From Mr. W. Dunbar, 1850.

§ 3340. Two.—From Mr. Green, 1851.

One remarkable for its large size [2·22 by 1·18 inch], the other for its rounded shape.

[The second is also of very abnormal colouring.]

§ 3341. One.—Orkney.

[A dwarf egg so inscribed, but its year not given.]

§ 3342. Four.—Thetford Warren, 29 April, 1859.

We [Mr. Wolley, my brother, and myself] met the Thetford warrener, and he had about a dozen Lapwings' eggs in his hat, of PART III.
VANELLUS VULGARIS.

which he said there were one or two complete nests. We picked out these as the only four concerning which we could have no doubt as belonging to one nest—they having a shorter shape and a darker ground than the rest. We saw plenty of Lapwings about.

§ 3343. Four.—Elveden, 30 April, 1859.

[From a nest to which we must have taken Mr. Wolley, but he has no note respecting it.]

[§ 3344. Two.—Elveden, 1845.]

[§ 3345. One.—Elveden, 1846.]

[§ 3346. One.—Weston, Norfolk, 1849.

Of very large size, 2·21 by 1·52 inch.]

[§ 3347. Three.—North Stow, Suffolk, 1851.

From a nest of four.]

[§ 3348. Five.—Elveden, 1852. From four or five different nests.]

[§ 3349. Four.—Paultons, Hampshire, 1852.]

[§ 3350. One.—Thetford Warren, 1853.]

[§ 3351. Two.—Hockwold Fen, Norfolk, 1853.

One of these is a dwarf, found by one of the Spencers.]

[§ 3352. Two.—Thetford Warren, 1854.

One is a dwarf, the other of abnormal length and coloration.]
VANELLUS VULGARIS.—CHETTUSIA GREGARIA. 99

[§ 3353. Four.—Barnham, Suffolk, May, 1856.]

[§ 3354. Three.—Elveden, May, 1856.]

[§ 3355. One.—Holland, 1862. From Mr. J. Baker. This is the darkest-coloured specimen I remember to have seen.]

[§ 3356. One.—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

[§ 3357. Four.—Leck, Donegal, 19 April, 1863. From Mr. R. Harvey.]

[§ 3358. Four.—Salthouse, Norfolk, 22 April, 1875. From Mr. Norgate.]

[§ 3359. Four.—Lyng, Norfolk, 29 April, 1875. From Mr. Norgate.]

[§ 3360. Four.—Bloxworth, Dorset, 20 May, 1876. “Saw bird. E. N.” Found on the heath there by watching the bird.]

CHETTUSIA GREGARIA (Pallas).

[§ 3361. Two.—“Sarepta.” From Herr Möschler, 1862.]

[§ 3362. One.—South Russia. From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.]

[§ 3363. Eight.—“Volga.” From Herr Möschler, 1865–1869.]
SQUATAROLA HELVETICA (Linnaeus).

GREY PLOVER.

[§ 3364. One.—Taimyr River, N. lat. 74°, 1 July, 1843.
"Middff." From Dr. von Middendorff, through Dr. Baldamus, 1861.

Proc. Zool. Soc. 1861, p. 398, tab. xxxix. fig. 2

This egg from the discoverer of the first nests of this species, and certified by a label in his own handwriting, was exhibited by me at a meeting of the Zoological Society on the 10th of December, 1861, and subsequently figured in its "Proceedings" (at suppr.). For many years it had been confessedly one of the rarest and most sought for by collectors. Until the results of Dr. von Middendorff's travels were published, nothing was really known of the breeding-ground of this bird, for it had long been evident that Sir John Richardson must have been misinformed in assigning (Fauna Bor.-Am. ii. p. 370) it to Pennsylvania 1. Dr. von Middendorff (Sib. Reise, ii. ii. p. 209 2) states that he found it breeding on the Byrangá Mountains (lat. 74") as well as on the Boganida (lat. 71°), and that it was much less common than Charadrius placidus. No bird of this species was observed before the 21st May, but on the 26th of June he found a hen sitting on her nest, which was a collection of dry leaves and lichens, containing four eggs. He does not say how many nests he obtained, but remarks that the eggs generally measure about 54 millim. by 36 mm. (the biggest he saw being 56 mm. and the smallest 48 mm.), and thus shorter than some eggs of C. placidus—but it was still 36 mm. in width, while the eggs of C. placidus are not more than 33 mm. The colouring also, he goes on to say, offers no distinctive characteristic, and this I believe may still be said, notwithstanding the number of Grey Plovers' eggs since

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1 Richardson was misled by Alexander Wilson, who, figuring and describing this species as the "Black-Legged Plover" (Am. Orn. vii. pl. lvii. fig. 4, p. 41), tells of its appearing in Pennsylvania in April and breeding there. Though he does not quote "Grey Plover" as a synonym, he could hardly have been ignorant of that name, which is also one applied in parts of North America to a very distinct bird, his "Bartram's Sandpiper," of Plover-like habits, given by him as a new species (loc. cit. pl. lix. fig. 2, p. 63) whose breeding-place he had not discovered. This, the Actitus longicauda of most modern ornithologists (cf. infra, p. 130), breeds abundantly in Pennsylvania (Warren, 'Birds of Pennslyv.' ed. 2, p. 93), and thus, as suggested by Dr. Brewer (Water-Birds of North America, i. p. 135), the confusion arose.

2 By accident, misprinted "200."
obtained, though I have never seen any that in richness of colouring approach some eggs of the Golden Plover. The present egg measures 1.87 in. by 1.44 in., or 48 mm. by 37 mm. nearly. Middendorff's figure (tom. cit. tab. xix. fig. 1) is 2.19 in. by 1.4 in., or 56 mm. by 36 mm.


This is one of a nest of four taken by Mr. Harvie-Brown himself on the Alexievka Tundra (that is, the Great Zemelskai Tundra opposite to Alexievka), and he was kind enough to copy for me this extract from his journal: "22 June... As we were slowly plodding along another Grey Plover started up close to one of the above-mentioned tarns (vide 'Ibis,' 1876, p. 223), and, marking the spot, I, after a short search, found the nest again with four eggs. The others went on, and after waiting half an hour or so, I shot the male bird within ten yards of the nest. I packed the eggs in the leather case of my binocular, and after a weary drag of two versts over the hummocks and through the peaty bogs I joined the rest of our party at the boat and we returned tired but rejoicing."


Again from a nest of four on the same moor. Mr. Harvie-Brown's note is: "Bird watched to the nest, but not shot. Mr. Seebohm fired at, and we believe wounded, the female, as only the male returned afterwards."


These also from a nest of four, in the same neighbourhood. Mr. Harvie-Brown's note is: "Shortly afterwards we saw a bird [Grey Plover] fly off just where Simeon some time before had been searching for a nest. We once lay down and in ten or fifteen minutes the bird went on to her nest—again containing four eggs. These eggs are much darker—olive-brown—and the nest was the only one we found placed in the midst of peat ground. It was near the top of a hummock, one of a ridge composed of dark peaty loam."


Again from a nest of four. Mr. Harvie-Brown wrote: "Simeon (the Samoyede) came forward with three more Grey Plovers' eggs and the two birds which he had shot at the nest. He had taken the fourth egg, and told us there was a very large live bird in it. One of these eggs has the smallest measurements of any of my sixteen specimens."

Mr. Pepham, with whom Mr. Hill travelled, wrote in *The Ibis* for 1897 (p. 102) of this species that "we came across Grey Plovers nesting near Golchika, and, after considerable trouble and annoyance from the inevitable mosquito, we succeeded in watching four birds on to their nests," from one of which these eggs are.]

**PLUVIALIS APRICARIUS** (Linnaeus).

**GOLDEN PLOVER.**

§ 3370. *Two.*—From Mr. R. Mansfield, 1844.

§ 3371. *One.*—Iceland. From Mr. Hewitson, 1844.

§ 3372. *One.*—From Mr. Proctor, through Mr. Williamson, 1846.

§ 3373. *Four.*—Sandöe, Færöe, 29 June, 1849.

The only nest of this bird I ever found was in Sandöe, on 29 June. The eggs were hard sat on; we saw the bird get off them. Golden Plovers are plentiful in Færöe.

§ 3374. *Four.*—Orkney, 1850. From Mr. George Harvey, of Stromness.

§ 3375. *Twenty.*—Orkney, 1851. From Mr. George Harvey.

§ 3376. *Four.*—Assynt, 1851. From Mr. John Sutherland.

§ 3377. *Six.*—Unst, Shetland, 1847-51. From Mr. James Smith, through Dr. Frere.

§ 3378. *Seven.*—Færöe, year doubtful.
§ 3379. Four.—Pallas-tunturi, 22 June, 1853. "J. W."

These eggs I found while walking near the top of Pallas-tunturi, between Hima-rika and Pyha-kerro. I had lately seen several of the birds about, but when this one got up a short way before me I fully thought it was a Dotterel. It fluttered its wings and came off its nest just as the bird did yesterday [§ 3410]; but Theodore saw that it was larger and had black about the head. There can be little doubt about the species. I had looked in vain for any traces of Grey Plover or any other. The nest was very simple, scarcely more than a depression in the lichen. I returned in an hour or two, but no bird was on the eggs. It was not more than a few hundred yards from the place on Pyha-kerro where I found the beautiful nest of a "Snow-Sparrow" [Plectrophanes nivalis (cf. supra, i. p. 443)] under a stone with five young, perhaps a week old. The Snow-Sparrow's nest made entirely of very fine grass-stalks, lined with feathers. The Plover's eggs were fresh. [Cf. § 2995.]

§ 3380. Three.—Kaaressuando, 2 June, 1854.

Taken by my men Larkis Abraham and Elias. They saw the bird fly off from some distance, and Elias said it was Mustarinta—his name for Golden Plover, a bird common, as I see, at Kaaressuando.

§ 3381. One.—Kaaressuando, June, 1854.  

Apparently Golden Plover. One of those found by Nälima's boy Pekka, on or before 5th June.

§ 3382. Four.—Kaaressuando, 12 June, 1854.  

Taken to the Pastor [Engelmark] by the boy Nälima Pekka.

§ 3383. Two.—Kaaressuando, 1854.

§ 3384. One.—Rowtosjärvi, 1854.

§ 3385. Four.—Siwajärvi, 1855.

§ 3386. Two.—Muotkajärvi, 1855.
§ 3387. *Four.*—Modas-lompalo, 1855.

Said by Olli to be *Puna Knovi* [Godwit], but evidently Golden Plover's.

§ 3388. *Two.*—Muonicniska, 1855.

Apparently Golden Plover's. Found by Niemis Abraham near Oilos-tunturi.

§ 3389. *Four.*—Rowa, 1855.

From one of the Puntz lads, probably Johan. Two skins of the bird probably belong to this nest.

§ 3390. *Two.*—Kaaressuando, 1855.


Sent to Knoblock by Eric as *Lahula*—Dotterel.

[Lahula seems not to be a true Finnish word, but borrowed from the Lapp Lashol or Lahol (cf. Gunner's note 111 in Leem's 'Beskrivelse over Finnmarkens Lapper,' p. 260). Knoblock wrote the word Lafalu, but Mr. Wolley as above, there being no letter f in the Finnish alphabet.]


[§ 3393. *Two.*—Holland. From Mr. R. Reynolds, before 1845.

One of these bears the date "1840"—an early instance of an inscribed egg.]

[§ 3394. *One.*—Holland, 1848. From Mr. Newcome.]

[§ 3395. *One.*—Shetland. From Mr. Robert Dunn.]

[§ 3396. *One.*—Valkenswaard, 1851. From Mr. A. Bots.]

[§ 3397. *One.*—Iceland, 1852. From Mr. Proctor, 1853.]
[§ 3398. Five.—Unst, 1856. From Mr. James Smith.]

§ 3399. Three.—Kyrkjuvogur, South-western Iceland, 31 May, 1858.

Brought to us by the village children, who said they had been given to them by the man who found them on the Heidi (heath) close by, and called them Lóa, which they seem to be. They were quite fresh. On our first arrival at Kyrkjuvogur, we found a trip of a dozen or more Golden Plovers tamely feeding on the grass among the houses. The Land-Physicus who accompanied us fired several shots at them, both on the ground and as they flew, until at last an unlucky bird was seen to drop.

[§ 3400. Four.—Gartan, Donegal, 16 May, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote that these were taken for him by his son on the mountains of Derryveagh, near Gartan, close to a Grouse’s nest (§ 2951).]

[§ 3401. Two.—Norwegian Mountains, June, 1864.

Found by Turi Aslagsen during a somewhat unsuccessful journey in search of Skuas’ eggs.]

[§ 3402. Four.

These I have had for many years, but I have no note of whence they came, and I dare not now guess at their history. But I doubt not that they are Golden Plover’s, though very abnormal in appearance.]

PLUVIALIS DOMINICUS (P. L. S. Müller).

§ 3403. Two.—Arctic Coast, east of Anderson River, 19 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1866.

The label shows that these were from a nest of four, near which one of the parent birds (No. 35995) was shot by Mr. R. MacFarlane, who remarks (Proc. U.S. Nat. Mus. xiv. p. 429) that this species “is very numerous in the Barren Grounds, from the outskirts of the forest to the shores of the Polar Sea . . . . I find one hundred and seventy nests recorded among my notes.”]
Mr. Popham, whom Mr. Hill accompanied, wrote of this species (‘Ibis,’ 1897, p. 102) that they found it more numerous than Charadrius pluvialis, and that the difference in the call-note of the two birds makes it quite easy to distinguish them when searching for eggs. Mr. Popham also states that these have a paler ground-colour than those of C. pluvialis or of Squatarola helvetica.

**EUDROMIAS MORINELLUS** (Linnaeus).

**DOTTEREL.**

§ 3405. *One.*—Cumberland, 1848. "J. H." From Mr. Hancock, 1849.

Given to me by Mr. John Hancock, who has of late received a good number from the Lake District.

§ 3406. *One.*—Skiddaw (?), Cumberland, June, 1848. From Mr. Wilkinson, 1849.

Given to me by Mr. Clennell Wilkinson, who got some during his visit to the lakes, and others were subsequently sent to him. He left these two for me on the 8th or 9th of September, 1849, in Roxburgh Terrace, Edinburgh. He afterwards told me that he obtained one of them from a sort of half guide, half sportsman, who lived in a hamlet between Loweswater and Ennerdale, and had taken the egg. It was accidentally broken before it was blown by one of Mr. Wilkinson’s party, who put his finger into it at a jolt of the carriage, as he was pointing to it. Mr. Wilkinson had gone to this hamlet in consequence of his having learnt by enquiry in the neighbourhood that this man had an egg, which he, as he told Mr. Wilkinson, had procured on Red Pike.

§ 3408. *One.*—Cumberland, 1851. From Mr. Wilkinson.

Sent to me in July, 1851, by Mr. Wilkinson, who had lately received it direct from the Lake District.
§ 3409. Two.—Skiddaw, 21 June, 1852. From Mr. Wilkinson, 1853.

These were kindly brought to me by my friend Mr. Clennell Wilkinson, this 1st February, 1853. He procured them last autumn, and has handed over to me the letter which accompanied them, dated Keswick, 9 September, in which the writer, Mr. William Greenip, states:—“I have sent you two of the Dotterel eggs; the other had got a little crack, so I kept it.” In a previous letter he had told Mr. Wilkinson that he took them himself on Skiddaw, and only that one nest all the season.

Mr. Wilkinson’s father used frequently to meet with Dotterels near Sedbergh in Yorkshire. They betrayed themselves against the ground by occasionally lifting their wings, and showing white underneath.

[Mr. Wilkinson, while on a visit to Cambridge, 21 May, 1900, confirmed the above statements as entered in the Egg-book. He was almost the last survivor of Mr. Welley’s egg-collecting friends of this period, and died in 1902, Rector of Toft-Newton near Market Rasen in Lincolnshire.]

§ 3410. Three.—Sieppi-kerro, 21 June, 1853. “J. W.”

At the top of a small mountain in the direction of Pallas-tunturi, near Sieppi, as we approached over a ridge, a bird ran from its nest ruffling up its feathers and spreading its wings, just as a Partridge would do. Using my glass I saw most distinctly that it was a Dotterel. I walked up to the spot whence it rose, and there were three eggs on a little reindeer-moss and a few dwarf-birch leaves in a little depression. Other reindeer-moss was all around, and it was not easy to say there was any nest at all. While sitting down at the nest the bird came within two or three yards, quivering its wings and crouching on the ground. This is no doubt the bird with the red breast spoken of as sometimes seen at Sieppi in the spring.

§ 3411. Five.—Skiddaw, June, 1854. From Mr. Henry Evans, 1856.

Received 4th March, 1856, from Mr. Henry Evans, who wrote “the man Greenip who took them appears to be a decent sort of fellow,” and sent also two letters from the finder, dated Keswick in August, 1854, in the first of which he said: “I found two Dottercis’
nests on Skiddaw, one had three eggs and the other two. They vary in size and also in colour. I believe they are the only Dotterels’ eggs found here this summer.” In the second letter he added that one nest was found on the 5th, the other on the 15th June.

[Mr. Wolley does not seem to have recollected that the finder of these eggs, William Greenip, was the man from whom Mr. Wilkinson had obtained eggs before (§ 3409), and the fact of their being acquainted does not seem to have been known to Mr. Evans. Of these five eggs two are so much alike as to be evidently from one nest, two more may both be from a second nest, but the fifth egg differs so from the rest that I should be inclined to attribute it to a third nest.]

§ 3412. Two.—Pallas-tunturi, June, 1855.

Martin Pekka, the Lapp, brought these, ready blown, to Ludwig on the 25th June. He had cracked two of them and mended them with white-of-egg and ‘Illustrated London News.’ They were found by Martin’s brother Johan Erki and Martin’s son Piety, on Luminikerro (Snow-peak) the north end of Pallas-tunturi.

[There were three eggs, but the third is not forthcoming.]

§ 3413. Three.—Varanger Fjord, 29 June, 1855. “With bird.”

By the Lapp Schoolmaster, at Nyborg. I hope to have time to skin the bird, which seems to be a hen.

P.S.—By dissection it is a cock!

§ 3414. Three.—Ounas-tunturi, 25 June, 1856.

Found at the south end of Ounas-tunturi by the wife of Hendrik Kaukanen, and brought by him in a handkerchief to Muoniovara on the 27th of June. He is a Lapp and named them Lahula [cf. § 3391].

§ 3415. Three.}

West Finn:ark, 9 June, 1857.

§ 3416. Two.}

Received by Ludwig on the 10th from Leski Pieti in the mountains
before one comes to Omasdal. The two nests mixed together; but by their size and shape they are easy to separate.


These eggs found by Ludwig himself, and the bird then shot. One of the eggs looks exactly like a Golden Plover's, and probably is one. The bird, now before me, was a cock. It was sitting on the eggs, and the snow was lying some three inches deep. It flew to a stone a little way off, and then cried, and Ludwig shot it at once. The wind was very cold. Ludwig blew the eggs in Tromsö; the Golden Plover's got broken before it reached that place.

[I can hardly doubt Mr. Wolley's determination of the third egg of these three; but whether the Plover laid in the Dotterel's nest, or the Dotterel in the Plover's, none can decide. No similar case among Limicoline birds is known to me.]

§ 3418. Four.—Torneå Lappmark, 18 June-1 July, 1857.

These from twenty-four eggs, which Ludwig received on the 4th of July at Kargama in Bals Fjord, from Jonin Lassi (Lars Johansen Speini) or his people, found between the 18th of June and 1st of July about Lakkomvaski at the upper end of Kumma-uoma, by Lassi himself or his children. He is a very good Lapp and the richest of all on this river [Nordkjoselv?].

[I think "Bals Fjord," as above, must be taken for the district rather than the actual place of that name or the water on which it stands. Ludwig was on his way from Tromsö to Makk-a-noma. Kargama and Lakkomvaski I cannot find on any map; but Kumma-joki is the river running by Makk-a-noma; and the mountains on which these eggs, and those mentioned in the next three sections, were taken by Norwegian Lapps are in the extreme north-west corner of Sweden.

Seven of these eggs were sold at Mr. Stevens's, 23 February, 1858, to Messrs. Burney, Bond, Marshall, and Walter (four). Five more, on 31 May, 1860, to Messrs. Bridger, Gould, Powys (two), and Troughton. M. Paruzdaki had two others, while I gave one to Mr. Newcome, and two to Pastor Theobald.]
§ 3420. Three.

Torneå Lappmark, June, 1857.

§ 3421. Three.

Found by Tuoman Nils’s lads, received by Ludwig about the same time and place as the last, but placed by him in a different box, and marked accordingly.

[There were nine eggs altogether. Two of them I gave to Mr. Salvin.]

§ 3422. Three.—Swedish and Norwegian Frontier. 6 July, 1857. “L. M. K.”

Found by Ludwig himself, as above. In the nest were old small leaves of dwarf birch. The bird crept from the nest and Ludwig shot it—a cock.

§ 3423. Two.—Varanger, July, 1857. “J. W.”

From a nest of three found by myself near Nyborg on a two days’ expedition towards the interior. Large young inside.


[These were not entered in his book by Mr. Wolley, but the inscription shews in what district he got them, and also that he took them himself.]

§ 3425. Three.—Ounas-tunturi, 14 June, 1858.

Found by Piko Heiki.

§ 3426. Three.

§ 3427. Three.

Lapland, 1858.

§ 3428. Three.

§ 3429. Three.

All these sent from Mukka-noma, and no doubt each nest kept separate, but the description of them so badly written, that Knoblock could make little of it.
EUDROMIAS MORINELLUS.

§ 3430. One.—Robinson Fell, Cumberland, 5 July, 1835.

From the late Mr. Heysham's Collection, 1859.

This formed Lot 166 at the sale of Mr. Thomas Coulthard Heysham's collection in Mr. Stevens's rooms, 16 May, 1859. There were five Dotterels' eggs in the sale, of which this seemed to be the most satisfactory, from the memorandum in Mr. Heysham's handwriting accompanying it as follows:—

"Dotterel 2 eggs taken on Robinson Fell by Cooper July 5; 1835 quite fresh 285...♂... The above two eggs were found very near the summit of Robinson, on the North West corner on the bare grass near a stone laying side by side that is not point to point." The number and symbol (285 ♂) on the ticket are inscribed also on the egg, so that I have not the least doubt it is one of the very specimens mentioned by Mr. Heysham in his classical paper (Mag. Nat. Hist. ser. 2, ii. pp. 285-304), written in September, 1835, but not published until June, 1838, extracts from which have been reprinted in many subsequent accounts of the species. Therein he stated (p. 302):—"After repeated excursions through the lake district this summer, for the express purpose, I was so fortunate as to obtain their eggs in two different localities, namely, three on Whiteside, contiguous to Helvellyn, on the 29th of June; and two on the 5th of July, on Robinson, in the vicinity of Buttermere. The former had been incubated twelve or fourteen days, the latter were only recently laid, and in both instances the birds were seen to leave their eggs; one, on quitting them, immediately spread out its wings and tail, which it trailed on the ground a short distance, and then went away without uttering a single note. On this day (5th July, 1835) a young bird, a few days old, was also captured." Mr. James Cooper, named in the memorandum above given, who was subsequently Curator of the Museum at Warrington and died in 1879, at an advanced age, himself wrote in 'The Zoologist' for 1861 (p. 7638):—

"Mr. Heysham's account as quoted cannot be taken as a guide by those who intend to look for the eggs, for nest there is none. The birds do not select the summits of the highest mountains, nor do they lay their eggs where the fringe moss grows, but in a depression upon short dense grass a little below the summit. Mr. Heysham only saw the place where I found the first egg, I believe, on record. This was on Whiteside, a short distance from the end of Swirreledge, the ridge which connects Whiteside and Helvellyn. I found another nest afterwards on Robinson, a mountain near Buttermere; the place selected was precisely the same as the first one. On the same day I found a young one, apparently only a few days old; it rose up close to my feet, and ran before me, or I should never have seen it. I may mention that the habits of the dotterel are different from the other plovers that I am acquainted with, viz., the golden and ringed plovers; these are somewhat noisy when you are

1 Of them I bought three—two for Mr. Gurney and Captain (afterwards Sir John) Orde respectively. The remaining two, one of which was described as "immature," were bought by Mr. Samuel Stevens for Mr. Braikenridge.

2 The addition of the symbol suggests the possibility of the male bird having been killed from the nest.
near their nests, the dotterel goes off to a little distance and sits quite mute; one of the old birds belonging to the last nest I found sat motionless on a stone until I approached within a few yards of it: the parent of the young bird that I found was different; it flew round me at a great height, uttering at short intervals a plaintive note, something like the call-note of the common linnet."

Mr. Francis Nicholson was so good as to inform me by letter (14 June, 1879) that Mr. Heysham never found a Dotterel's nest himself, but that all the eggs he obtained were found by this Mr. Cooper. It was Mr. Heysham's father, Dr. John Heysham, who first saw eggs of this bird which had been taken in the lake-district, on Skiddaw, in 1784, though the fact seems not to have been published till 1829 (Philos. Mag. N. Ser. vi p. 280; reprinted Mag. Nat. Hist. iii, p. 174). Mr. Yarrell, on behalf of Mr. T. C. Heysham, exhibited one of the eggs and some of the birds obtained by him in 1835 at a meeting of the Zoological Society, 12th January, 1836 (Proc. Zool. Soc. 1836, p. 1). Mr. Nicholson contributed some excellent notes on the species to Messrs. H. A. Macpherson and Duckworth's 'Birds of Cumberland' (pp. 134–136), published in 1886, and a still fuller account of the Dotterel as a native of the district is given by Mr. Macpherson in his 'Vertebrate Fauna of Lakeland' (pp. 348–358), published in 1892.[§ 3131. One.—Skiddaw, 21 June, 1851. From Mr. Powys, 1855.]

Mr. Powys, afterwards Lord Lilford, wrote to me 5 November, 1855, that this was "taken by a friend," but the friend's name I never learnt.]

[§ 3132. Two.—Cumberland, 1851–5. From Mr. Salvin, 1856.]

Mr. Salvin told me that he had three from a Mr. Cooper of Keswick, who got them from the shepherds who had taken them on the mountains. I am not sure that this was the Mr. James Cooper above named, for he, I think, was, in 1856; living at Warrington, to the museum of which town he is said to have been reappointed Curator in 1855.]

[§ 3133. Three.—East Finmark, 1853. From Pastor Sommerfelt, 1855.]

Given to me at Nyborg, being, the Pastor said, the complete contents of a nest taken between Tana and Lebesby.]

[§ 3134. Three.—Lapland, 5 June, 1860.]
[§ 3435. *Two.—* Lapland, 8 June, 1860.

Received from Eric of Mukka-uoma, 5 August. This nest and the preceding found by the Lapp, Ole Nelsen Labba.]


Brought by Martin Pekka, 2 July, two nests taken by his brother Johan Eric. The eggs of the second nest are remarkable for having the ground-colour so pale as somewhat to resemble eggs of *Eyjalisit hiatricola.*]

[§ 3438. *Three.—* Pyha-kerra, Ounas-tunturi, north side,


[§ 3441. *Three.—* Sidosojvi,

[§ 3442. *Three.—* Tapporilahki,

All brought by Martin Pekka on the 2nd of July, and apparently found by him as above.]

[§ 3443. *Two.—* Lapland, 18 June, 1860.

From Eric Mukka-uoma, and found by him.]}

[§ 3444. *Three.—* 5 June, 1861.

Taken by Lars Persen Tomma.

[§ 3445. *Two.—* Kerta-varasta, 8 June, 1861.

Found by Elen Jonsdotter Pangi. Curious-looking eggs, like some Terns'.

PART III.]

EUDROMIAS MORINELLUS. 113
EUDROMIAS MORINELLUS.

[§ 3446. Three.—Termeivaara, 9 June, 1861.

Found by Oluf Nilsen Labba. Also curious-looking eggs.

[§ 3447. Three.]

12 June, 1861.

[§ 3448. Three.]

Found by Johan Nilsen Labba. All the above (§§ 3444–3448) sent from Eric Mukka-guna, having been collected by Lapps on the frontier, and received at Muoniovara, 5 August.]

[§ 3449. Three.—Borgavaara, 13 June, 1861.

By Anders Nilsen Eira.

[§ 3450. Three.—Saravaara, 14 June, 1861.

By Johan Persen Penta.

[§ 3451. Three.—Noksapista, 17 June, 1861.

By Mortin Clemesen.

[§ 3452. Three.—Narivaara, 18 June, 1861.

By Anders Nilsen Eira.

[§ 3453. Three.]

Peljasvaara, 18 June, 1861.

[§ 3454. Three.]

By Clemed Iaksen Hätta. All these (§§ 3449–3454) brought to Muoniovara, 1 July, by Piko Heiki, having been collected as above by the Kuotokeino Lapps.]

[§ 3455. Three.—Suokalaisen-levästa, 19 June, 1861.

[§ 3456. Three.—Karvas-varasta, 20 June, 1861.

Both by Oluf Nilsen Labba, and sent from Mukka-una, with the former (§§ 3444–3448), by Eric.]
EUDROMIAS MORINELLUS.—ÆGIALITIS VOCIFERA. 115

[§ 3457. Three.—Nivlo-uoma, West Finmark, 1–14 June, 1862.

Found by Anders Nilsen Eira as above, and brought from Kautokeino by Martin Pekka on the 2nd of July.]

[§ 3458. Three.—Ottinga-tivasta, 14 June, 1862.

Received by Eric of Mukka-uoma, and sent by him to Muoniovara, where they arrived on the 4th of August, but the information concerning them did not reach Knoblock till the 14th. It then appeared that these came from Nils Guthormsen, the younger, and were taken (presumably by him) as above.]

[§ 3459. Three.—Peskara, 16–24 June, 1862.

Brought from Kautokeino by Martin Pekka, and found as above by Johan Isaksen Hätta.]

[§ 3460. Three.—Nailasvaara, West Finmark, 19 June, 1862.

Found as above by Martin Pekka and Thuri Aslagsen, who were birds’-nesting on my account among the mountains.]

[§ 3461. Two.—Pikas-tivasta, 20 June, 1862.

Received by Eric of Mukka-uoma from Mikkel Nilsen Kaup; taken as above. Remarkably fine eggs.]

ÆGIALITIS VOCIFERA (Linnaeus).

KILLDEER-PLOVER.

[§ 3462. Four.—St. Catharine’s, Canada West. From the Smithsonian Institution, through Prof. Baird.

The accompanying label shews that they were obtained by Mr. D. W. Beedle.]
ÆGIALITIS ALEXANDRINA (Linnaeus).

KENTISH PLOVER.

§ 3463. One.—From Mr. Green, 1844.

It bred in tolerable plenty near Margate last year.

§ 3464. One.—Lydd, Kent. From Dr. Plomley, through Mr. E. B. Fitton, 1846.

From Mr. E. B. Fitton, of Trinity College. It was given to him 4 July, 1844, by Mr. Plomley, of Lydd, who takes them himself in plenty, at or near Romney Marsh.


They are exactly like our eggs of the Kentish Plover.

§ 3466. Three.—Lydd. From Dr. Frere, 1849.

Obtained probably through Mr. Fitton, who has them from Romney Marsh or the neighbourhood.

[§ 3467. Two.—“Romney Marsh,” Kent. From Mr. H. Benson, 1852.

No doubt from Lydd Beach.]

[§ 3468. Seven.—Rye Harbour, 1857.]

[§ 3469. Six.—Rye Harbour, 1858.

Received through Mr. Percy Godman, who went to Rye that year, and got several nests of the species himself.]

§ 3470. Three.—Rye Harbour, 23 May, 1859.

Mr. Kent’s note is: “One of two nests, the first found this season. The others sent to Mr. E. Newton.”

[§ 3471. Three.—Rye Harbour, 23 May, 1859.]


§ 3475. *One.*—Lydd Beach, Kent, 18 June, 1859.


Mr. Kent's note is: "The last likely to be obtained this season."

[All the eggs entered in the last ten sections (§§ 3468-3477) were obtained by Mr. R. Kent, at that time of St. Leonard's-on-Sea, to whom my brother and I recommended both Mr. Godman and Mr. Wolley.]

[§ 3478. *One.*—Dungeness, Kent, 30 May, 1871. From Mr. J. H. Gurney, jun.

From Mr. Gurney’s letter, this appears to have been taken by one Bates of Rye.]


Taken by Mr. Baker himself.]

[§ 3480. *Two.*—Lydd Beach, 1878.

These I obtained from Mr. George Blacklocks, of Lydd, on the occasion of my visiting the wonderful beach on the 15th May, 1879, in company with Mr. H. A. Dombrain; but though we saw and for some hours watched several pairs of Kentish Plovers in their home, they had evidently not begun to lay eggs. We had with us a dog deservedly celebrated for finding nests, but not a single Kentish Plover's did she discover, and we could only admire her scenting faculty, in weather which was most unfavourable for its exercise, applied to the commoner species of birds. From what I could learn of the people I met, some of whom knew the beach and its birds intimately, there were only two places, and those of limited extent, in the whole of its length on which the Kentish Plover ever bred, while on these two spots the pebbles, both in size and colour, were remarkably like eggs of this species.]
ÆGIALITIS HIATICOLA (Linnaeus).

RING-PLOVER.

§ 3481. Ten.—Shores of the Wash, not later than 1844.

I got these from Harvey, of Baitsbight, who had a great many brought up by barges from Lynn. The varieties in colour are from a dingy yellow to a clear cream. They also differ considerably in marking, one having all the spots thickly clustered and confluent at the larger end, and another with only a few large spots scattered over its surface, while some are covered with short hair-like streaks.

§ 3482. One.—North of Scotland. From Mr. William Dunbar, 1850.

§ 3483. Four.—Orkney, 1851. From Mr. George Harvey, of Stromness.


A complete nest, and a very curious variety of the Ringed Plover, the only bird in that neighbourhood which could lay such eggs.

¹ The fact of this species breeding on warrens far inland was first recorded by Messrs. Sheppard and Whitear in their 'Catalogue of the Norfolk and Suffolk Birds' (Trans. Linn. Soc. xv. p. 37) on Mr. Scales's information (cf. § 3510). Mr. Salmon in 1834 seems to have been the first to publish (Mag. Nat. Hist. vii. p. 574) its local name of "Stonehatch," bestowed from the bird's paving its nest, a hollow in the turf, with small flints—a singular instance of the retention of a habit, at first presumably adopted for the sake of protection, but in changed circumstances leading to the easy discovery of the nest, which is conspicuous by contrast with the surrounding green grass.—Ed.]
§ 3486. Two.—Finland, June, 1854.

Brought to me 1st July, 1854, by Kyrö Niku, with the feet and head of the bird. Large young in all the four eggs of the nest.

§ 3487. Two.—Patsjoki, 18 June, 1855. "J. W."

[Obtained by Mr. Wolley on his way to Enara, but no particulars are given by him.]

§ 3488. Four.—Jerisjärvi, 1856.

Found by Maian Apoo, and brought by Wollas Eric's lad Johan, with four eggs of the same bird found by himself. They were on the strand, and from the description Ludwig understood that they were Tyllikkä—i. e., Ring-Dotterel.

§ 3489. Four.—Jerisjärvi, 1856.

Seemed to Ludwig to be Tyllikkä, and doubtless are so. They were found by Eric Woåla, on the shore of the lake on sand.

§ 3490. Four.—Tanan-anti, 1857. "With bird."

I examined the bird with the snare still round its neck.


[Not entered in the Egg-book by Mr. Wolley.]

§ 3492. Four.—Nälina, 14 June, 1858.

Brought by Johan Kaiander's wife from Nälina; found on the shore of the lake by Nivorauta.

§ 3493. One.—Sandöe, Færøe, 29 June, 1858. From Sysselmand Winther.

Sent with the skin of the bird. Taken by Christain Mikkelsen.
§ 3494. Four.—Wassara, 5–11 June, 1859.
Brought by Johan Petter Wassara; found in Isosta Afwenuoma.

[§ 3495. One.—Barnham, Suffolk, 1847.]

[§ 3496. One.—Barnham, 1849.]

[§ 3497. Two.—Thetford Warren, 1850. Different nests.]

[§ 3498. One.—Elveden, 1851.]

[§ 3499. Nine.—Thetford Warren, 1851. (From as many different nests.)]

[§ 3500. Four.—Norfolk coast, 1851. From Dr. Frere. Received, I believe, by Dr. Frere from Blakeney.]

[§ 3501. One.—Near Hunstanton, Norfolk, 1852. From Mr. Smith.]

[§ 3502. Three.—Thetford Warren, 1852. (From as many nests.)]

[§ 3503. One.—Thetford Warren, April, 1853.]


[§ 3505. Two.]

[§ 3506. Six.—Thetford Warren, 9 June, 1854. "A. & E. N." From four nests taken by my brother and myself.]

Out of many brought to us 23 June by the people at the village, Paddeby, where, on our way from Vadsø to Mortensnes, we crossed the stream, down which flew a flock of immature Steller's Ducks.]
§ 3508. Thirteenth.—Thetford Warren, April, 1856.

§ 3509. Two.—Banff. From Mr. Thomas Edward.

§ 3510. Two.—Kyrkjuvogr, South-west Iceland, July, 1858.

Out of four taken by old Jón Gunnarsson, and brought as Sand-Lóa to Mr. Wolley, who handed them over to me. When I opened the box on my return to England I found they had all burst, and I was only able to save three, one of which I gave to Mr. Tristram at Castle Eden, where I was staying.

§ 3511. Four.—Island of Doagh, Co. Donegal, 28 May, 1863. From Mr. Robert Harvey.

§ 3512. One.—Sabine Island?, East Greenland. From the Second North-German Arctic Expedition, through Dr. Otto Finsch, 1871.

Sent by Dr. Finsch as Charadrius hiaticola, as it doubtless is. I believe no trace of A. wilsoni has been found on the east coast of Greenland. There were the shattered remains of three others with it.

§ 3513. Four.—Salthouse, Norfolk, 22 April, 1875. From Mr. F. Norgate.

§ 3514. Four.—Salthouse, 7 May, 1875.

§ 3515. Two.—Lydd Beach, 15 May, 1879. “A. N.”

The nest was found by the boy who drove the cart for us on the beach, and said he saw a Ring-Plover run up within ten or fifteen yards of him and seat itself on the four eggs, which Mr. Dombrain and I divided between us, by way of recollection of the day, for we got nothing else.

§ 3516. Two.—From the late Mr. Scales’s Collection, 1885.

Apparently very old eggs and only of interest in consideration of Mr. Scales having been the first to make known, as he did to Messrs. Sheppard and Whiticar in or before 1825 (Trans. Linn. Soc. xv. p. 37), the fact of this bird’s breeding far inland.
ÆGIALITIS CURONICA (Gmelin).

LITTLE RING-PLOVER.

§ 3517. One.—[No history.]

[§ 3518. One.—Holland, 1847.]

[§ 3519. One.—Laaland, Denmark, 1856. From Mr. E. Preston’s Sale.]

[§ 3520. Four.—Blois, 1, 2 July, 1859. “E. N.”]

My brother Edward wrote in his note-book:—“At the place where I found the two nests mentioned before this (§§ 1977 and 2088), there were three or four pairs of Little Ring-Plover. I first discovered them about the beginning of June, when I found a pair with two young ones, about two or three days old . . . . . The note of this bird is very different from that of its large relative, and when I first heard it, I had no idea that it belonged to a Plover of any species. The entirely black beak also distinguishes it from the common one. The birds were very tame, probably on account of the place they inhabit being so much frequented by people who are daily digging sand or gravel. The male bird has a ‘song’ when flying, and the movements of the wings during that exercise are in every respect the same as in the common species. I believe that when I first discovered them, they all had young, as I was not able to find any eggs, though I found several old ‘scrapes,’ where evidently they had had them; and it was not until the 1st of July that I saw a bird running which from its manner I was certain had a nest, and on looking I immediately found three eggs in a nest, in every way the same as that of the common species. On blowing one of the eggs I found that it was quite fresh, so after some little hesitation I left the other two eggs. On going to the spot the next morning I was delighted to see the old bird again run off the nest, and in it to find that there were three eggs. I remained within eyeshot of the nest for some time, in hope of seeing the bird come back; but as she could hardly be said to have begun sitting she would not do so, and remained about ten yards from her eggs on the top of a stone, now and then uttering her plaintive cry. After waiting for half an hour I was obliged to take up the eggs to go home. I have no doubt that if I had had an opportunity of visiting the place again, I should have found other nests—the second of the season. When watching these birds and remaining perfectly still, they would frequently come within five or six yards of where I was sitting, taking advantage of every tuft of grass, large stone, or inequality of the ground to approach near to me. When they stopped they would generally turn their back towards me, lowering their head, so that even though quite close they rendered themselves almost perfectly invisible.”]
CHARADRIUS GÆICNEMUS.


A complete nestful, said to have been taken as above; but Herr Hintz's note (Journ. für Orn. 1861, p. 461) suggests the possibility of an error.]

[§ 3522. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.]

CHARADRIUS GÆICNEMUS, Linnaeus.

STONE-CURLEW.

§ 3523. Two.—Fulbourne, Cambridgeshire, not later than 1843.

Breeds not uncommonly near Cambridge. These two came from Fulbourne. One is a curious variety in shape, colour, and marking.

§ 3524. One.—Tangier. From M. Favier, 1847.

§ 3525. Two.—Norfolk? From Mr. Green, 1851.

At one shilling each.

§ 3526. Eight.—Norfolk? From Mr. Green, 1852.

These eggs freshly blown by Green, I bought of him, on the 12th of June, at one shilling and sixpence each. He assures me that a man in Norfolk offered him a dozen at a shilling each, and that he cannot now get them for less. Most of the birds that come to the market have their legs broken by rabbit-traps, he says. He sends these eggs abroad, but they never come from the other side of the water to England. He brought the same day to shew me a fine set of fresh-laid Avosets' eggs [§ cf. 3301], just blown by himself, and sent over, with an offer of the birds, from the Continent.

These eggs are very interesting, as being from the district where their exterminated neighbour, the great Bustard, last existed. Mr. Alfred Newton told me the other day that he thought this species would exist for some time at Thetford, perhaps ten years. His younger brother thought they were too well preserved ever to be destroyed.


This series of eggs was given to me at Elveden, on the 30th of January, 1856. I selected them from a large number out of which the Messrs. Newton had previously taken any which seemed desirable for their own series. During my visit at this house they have pointed out to me the places the birds frequent. They have also shewn me the field where Mr. Hoy and Mr. Salmon saw the Bustard with her young in 1832 (*vide* Mag. Nat. Hist. [vi. p. 150]) and also the ground on which a hen Bustard was caught in a casting-net while sitting on her eggs (see also Mag. Nat. Hist. [vi. p. 513]).

[This was written without consulting the passages referred to. A fuller account of the two incidents is given by Mr. Stevenson (Birds of Norfolk, ii. pp. 5 and 21.)]

1 [I am happy to record the falsification of my fears as above expressed more than fifty years since. Though Stone-Curlews are greatly reduced in number and restricted in haunt, as may be seen from what Mr. Stevenson (Birds of Norfolk, ii. pp. 53–57) said in 1870, there is still enough ground left suitable for their existence, and on that they hold out. For some years before my prognostication was uttered more than 3000 acres of warren, out of about 10,500, had been reclaimed, and there was every reason to expect that much more would be so treated. To a great extent this has been done, but I learn from friends who have visited the district of late years that a fair number of Curlews still breed there. Their persistence is chiefly due to their eggs being the perquisite of the warreneres, who in consequence are careful to protect the birds while breeding as well as to see that the stock is kept up. How many nests, if nests they are to be called, a pair may have in the course of a season I was never able to ascertain, but I think certainly three or even four, if the earlier-laid eggs be taken, and it is for the warrener's interest that each pair should finally bring off its brood.—Ed.]

Given with the last.

§ 3530. **Six.**—Thetford Warren, April, 1859.

All these obtained by myself from one of the Thetford warreners, who said they were from three nests, and Mr. Edward Newton divided them accordingly, in which division I am inclined to agree. This visit to Thetford Warren was on the 29th of April.

§ 3531. **Two.**—Elveden Warren, 29 April, 1859.

These obtained by Spinks, the Elveden warrener, who said he had taken them that morning.

[§ 3532. **Three.**—Elveden, 1847. From different nests.]

[§ 3533. **One.**—Barnham Field, Suffolk, 1849.]

[§ 3534. **Two.**—Elveden, 1852.]

[§ 3535. **Two.**—Elveden, 6 May, 1852.]

[§ 3536. **One.**—Elveden, 8 May, 1852.]

[§ 3537. **Four.**—Thetford Warren, 1852. (Different nests.)]

[§ 3538. **Two.**—Elveden Warren, 1853.]

[§ 3539. **Two.**—Thetford Warren, 28 May, 1853. "E. N."

Hewitson, *Eggs of British Birds,* ed. 3, pl. lxxiv. fig. 3.

Taken by Bales the warrener, but the pairs of eggs not kept separate. Among them is the very remarkable specimen figured, as above stated, by Mr. Hewitson. I regret to say that the olive-green tint of its ground-colour is now much faded. Among all the eggs of this species that I have seen, I have never met with one like what it once was.]

[§ 3541. *One.*—Thetford Warren, 8 August, 1853. From Mr. James Isaacson.

Remarkable for having been found so late in the season, for it was not a forsaken egg. Mr. Isaacson was the Rector of Elveden.]

[§ 3542. *Four.*—Wangford Warren, 1853. From two nests.]

[§ 3543. *One.*—Wilton Field, Norfolk, 1853. From Mr. Newcome.

A very abnormally coloured egg, with a ground of pale, almost lavender-grey.]

[§ 3544. *Seven.*—Elveden Warren, May, 1854. From four nests.]


Hewitson, *Eggs of British Birds,* ed. 3, pl. lxxiv. fig. 2.

From, I believe, eleven nests taken by the warrener, but the pairs not kept separate. One egg was selected by Mr. Hewitson for figuring, as above stated.]


[§ 3547. *One.*—Wangford Warren, May, 1854.]

[§ 3548. *Four.*—Thetford Warren, May, 1855. From two nests.]
My brother's notes say:—"Two eggs which I found by seeing the bird run off them. They were on an old breck on the south side of the Warren wall, between the Brandon road and Parson's Heath. I got one egg from the same place, 8th May, 1852 (§ 3536), which egg I had left for some days in hope that the bird would lay a second; but, though she had not forsaken it, she did not. These were under a small dead brake which hung over them. It was on this breck that William Leeks, the warrener, says that he saw a Bustard's nest some years ago."

My brother notes that he found them by seeing the old bird run off them. "It was on a piece of old breck, to the south of the Redneck Heath, and close to the Thetford boundary. I found a nest at the same place, 6 May, 1852 (§ 3535). Owing to the number of brakes growing near where the nest was, it was difficult to find, as the bird was able to skulk behind them, and get some distance from the eggs before I could see her. I put her off several times before I found them, and at last I lay under a furze-bush within one hundred yards of the nest, whence I saw her directly she got off it. The eggs were incubated perhaps a quarter of their time."

My brother wrote:—"Two eggs, which I found on the same day as the above, on the old breck on the north side of the Duke's Ride plantation, about one hundred yards from the covert, and two hundred from where the Ravens built this year (§ 2790). I put the bird twice off the eggs before I found them. They were nearly fresh."
My brother's note runs:—"Two eggs, also found on the same day as the two preceding nests, on the Livermere Road breck, about one hundred and fifty yards from the Barnham Slip, and two hundred from the Albemarle plantation. Isaac Allen had found the nest the same morning, and I found it after putting the bird off twice. I saw only one bird at this nest, whereas at the three others I have found this year I have seen both birds. The eggs were very hard sat upon. My earliest recollection of a Curlew is on this spot."

My brother wrote:—"Out of three dozen taken by the warreners up to the 25th of May, on which day I brought them home. T. Smith, who is in place of Bales, now too old to attend to his banks, told me that some were taken a month ago. Several of them were hard sat, and two very nearly ready to hatch, and therefore probably a pair. There seems to be no great variety among these."

Out of ten, taken on the south-eastern part of the Warren by Adams, one of the warreners, and brought in towards the end of the month. My brother wrote that he had "paired" them according to the condition in which he found their contents—two had been incubated but one day, another two about a third of their time, and the third pair were nearly ready to hatch.

My brother's note is:—"Shewn to me by Smith, the warrener. They were about two hundred yards to the north-west of the Lodge. I saw the old bird run from them. They had been incubated about two days."

Two pairs taken by Burgess, to the north-east of the Thetford and Brandon road. My brother wrote that he "paired" them as before, in blowing, and thought they could be relied upon.

My brother wrote:—"Shewn to me by T. Smith, about a quarter of a mile to the south-west of the Warren Lodge. I saw both birds running from the nest. The eggs would have hatched in a few days."
[§ 3564. Two.—Thetford Warren, 18 June, 1857. “E. N.”

My brother again notes:—“Shown to me by T. Smith, about half a mile to the south of the Lodge. I saw one of the birds near the nest. It got up and flew. The eggs were sprung.”]

[§ 3565. Two.—Djendeli, Algeria, 14 May, 1857. From Mr. Tristram.]

[§ 3566. Two.—Elveden, 1859.]

[§ 3567. Six.—Wangford Warren, May, 1859.

Three pairs, kept separately by the warrener.]

[§ 3568. Twenty-seven.—Thetford Warren, May and June, 1859.

Thirteen pairs and a single egg, all kept separate by the warrener.]

[§ 3569. Two.—Elveden Warren, May, 1860.

Taken by Edward Spinks and brought to me.]


Seven pairs, kept separately and numbered accordingly.]

[§ 3571. Two.—Elveden, 1861.

Taken by William Leeks, one of my father’s warreners.]

[§ 3572. Three.—Elveden, 1862.

One of these greatly resembles the egg of a Chionis.]

[§ 3573. One.—Elveden, 1863.

The last, I think, that I had from that place.]

[§ 3574. One.—“South Russia.” From Herr Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]
ACTITURUS LONGICAUDA (Bechstein).

UPLAND-PLOVER

§ 3575. One.—North America. From Dr. Brewer, 1851.

[It would seem that Dr. Brewer considered that he was the first to obtain the eggs of this species. He wrote:—"I have found it breeding in Rhode Island near Narragansett Bay and on high grounds near Carlisle, Pa. In the latter place the nest was a mere depression in a ploughed field, with only a few pieces of decayed grass-stems to keep the eggs from the damp soil . . . . Wilson and Nuttall were unacquainted with its eggs, and Audubon saw them for the first time in my cabinet in 1836." (Baird, Brewer, and Ridgway, 'Water-Birds of North America,' i. p. 298.) Mr. Audubon, however, writing in 1838 (Ornithological Biography, iv. pp. 26, 27), speaks of nests which he had seen, and describes the eggs very correctly, so that he must have soon repeated Dr. Brewer's discovery.]

§ 3576. Four.—"Missouri Territory." From Dr. Heermaun, 1861.

§ 3577. Four.—Neosho Falls, Kansas, 13 June, 1861. From the Smithsonian Institution, through Prof. Baird, 1866?

The accompanying label states that they were obtained as above by Mr. B. F. Goss.

§ 3578. Two.—North America. From Dr. Brewer, before 1876.

1 [Another local name for this species in North America is "Grey Plover," and hence possibly the mistake, originating with Wilson (American Ornithology, vii. p. 41), and copied by many writers, that Squatarola hele lec t i c a breeds in open ground from Pennsylvania northward. "Bartram's Sandpiper" is a common book-name (cf. ante, p. 100, note 1).—Ed.]
TRYNGITES RUFESCENS (Vieillot).

BUFF-BREASTED SANDPIPER.

[§ 3579. One.—Barren Grounds, east of Anderson River, 29 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1866.

P. Z. S. 1867, p. 165, pl. xv. fig. 4.

The label accompanying this egg states that there were four eggs in the nest, from which the hen bird (no. 36100) was shot, and that they were part of Mr. R. MacFarlane’s spoil. He wrote (Proc. U.S. Nat. Mus. xiv. p. 428) that this species, for which he used the name of *Tryngites subrugicollis*, "is common in the Barren Grounds east of Horton River and on the Arctic coast. Between the 26th of June and the 9th of July upwards of twenty sets of eggs were secured, and there were four in every nest, which was a mere depression in the soil, scantily lined with a few withered leaves and dried grasses. When the nest was approached the female parent usually made a low flight to a short distance."

This egg was exhibited by me at the meeting of the Zoological Society on the 24th of January, 1867, and is figured in the 'Proceedings' (at supri)—being the first time, so far as I know, that the egg of this species was described or represented.]

[§ 3580. One.—Barren Grounds, east of Anderson River, 29 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1866.

Another of Mr. MacFarlane’s specimens, from a nest of four, the parent bird of which was "well identified."

[§ 3581. Two.—Barren Grounds, Arctic America, 1865. From the United States National Museum, through Prof. Baird, 1886.

These also obtained by Mr. MacFarlane, as testified by a document signed by Captain Bendire.]
TOTANUS GLOTTIS (Linnaeus) 1.

GREENSHANK.

§ 3582. Two.—Assynt, Sutherland, 1848. "J. S." From Mr. John Sutherland, 1849.

On Friday, 18th May, 1849, John Sutherland gave me two Greenshank's eggs. He gave three to Mr. St. John last year (these Mr. Hancock has) and three to the Messrs. Milner. These two he also had last year. He has at a shepherd's four eggs of this year, which he walked up himself. He promised me two of them. It was Mr. Henry Milner who first mentioned Sutherland's name to me. I saw one Greenshank's egg in Mr. Bantock's possession at Dunrobin. He had given the fellow egg to Mr. Hancock in the spring, and this with the three given to him by Mr. St. John, mentioned above, made up the four which I saw in Mr. Hancock's collection later in the year. Sutherland said that the eight eggs he had got all belonged to the same pair of birds—the second set he got very late in the year, a good deal sat upon. At this time I believe the collections of eggs just mentioned were the only ones in Britain that contained the eggs of this bird. I saw many Greenshanks, but they were wild and I could not find their nests.

[The two eggs above mentioned as being promised to Mr. Wolley were brought to him a few days later, at Inchnadamph. They were sold at Mr. Stevens's on the 31st May, 1860, to Messrs. Bond and Marshall.]

§ 3583. One.—Kinloch, Sutherland, 1852.

Donald M'Kay wrote to me from Tongue, 3 May, 1852:—"I have got four Greenshank's eggs. I found them on the right of the way we passed [by] Kinloch from Tongue to Ben Hope. I went to the side of the loch and hid myself until I was sure the bird was on the

1 [Mr. Wolley unfortunately never wrote any account of the ways of this bird, which he had abundant opportunity of observing in Lapland, though it would seem that he took only one nest of it, believing that Mr. Hewitson would be supplied with full notes by Sir William Milner, who had previously observed this bird in Sutherland. In 1847 that gentleman obtained by a Cesarian operation a specimen of the egg—fully formed but not fully coloured (Zoologist, 1848, p. 2015).—Ed.]
nest. I then got up and fired my gun, and made direct for the place where the bird got up, and to my great satisfaction I got four eggs."

[Two of the four eggs Mr. Wolley gave to Mr. Wilmot, in whose collection in the Cambridge Museum they still are. A third he gave to Mr. Salmon.]

§ 3584. One.—Loch Eriboll, Sutherland, [May ?], 1852.

The other three [eggs of this nest] I have parted with. One I gave to Dr. Frere, one I let Mr. Green have, and the third I have (31 January, 1853) presented to Mr. Clennell Wilkinson. This fourth egg enables me now to have the eggs of this bird from four different nests and from three different persons in distinct localities in Sutherland. My first four eggs were from two nests taken by John Sutherland, the gamekeeper, in Assynt [§ 3582], the next four, of which I let Mr. Wilmot have two, were from a nest by the side of Kingloch, taken by Donald M‘Kay in 1852 [§ 3583], and the present egg was taken by William Weir, the foxhunter, who lives by the side of Loch Eriboll. All these three persons ignorant previously of the character of the egg, but knowing the bird and searching specially for its nest. It is very satisfactory to find all these eggs agreeing with one another in general character. The first four were seen by Mr. John Hancock at Newcastle, and declared by him to be like his own, and so they appeared to me, though I did not place them side by side. One at least of his four eggs was from Bantock, the head gamekeeper at Dunrobin.

[This nest of eggs came into Mr. Wolley's possession through the above-mentioned Donald M‘Kay, who enclosed the letter from Weir referring to them, dated "Hielam, June 2, 1852," which letter Mr. Wolley copied into his Egg-book. In it the writer said: "I send you these few lines to let you know that I have got some eggs which are rare to be got anywhere but in Sutherlandshire itself. The name of the bird which laid them is the Greenshank. I have four of the eggs, and I was keeping them for a person who spoke for them last harvest, at least he sent me word at that time, desiring me to keep them for him this season if I could get them, and that he would give me five shillings each for them; but he is at present in Edinburgh, and I suppose he will not be down my way this season." Who this person was does not appear, but M‘Kay subsequently wrote (14 June, 1852): "I went to see the man at Hielam last Saturday, and got the eggs from him. They are a deal lighter in colour than the Greenshank eggs I sent you formerly (§ 3588), and as I am not acquainted with the Greenshank's eggs I cannot say for a certainty whether they are really the kind or not; but I went to the loch-side where he found them, and where the birds still remain. They are the very same kind as those]
I got the other eggs from, which I have no doubt is the Greenshank. I will not send the eggs till I hear from you." Sent the other eggs were, soon after, together with the Sea-Eagle's (§§ 72, 73), the Merlin's (§ 246), and the Hen-Harrier's (§ 449), all taken by the same Donald McKay.

§ 3585. Two.—Strathnaver, Sutherland, 1852.

Four eggs: two sent to Mr. Alfred Newton, or left to be called for by him, and two (broken) put into boxes: the former were blown. They were obtained by Donald McKay in Sutherland last year and received by me this 12th April, 1853. He had written 25 June, 1852: "I got word of a shepherd in Strathnaver having Greenshank eggs, and wrote to him about them"; and again 26th March, 1853: "I am sorry the eggs are not better. Two of them, as you will find, are not touched in the way of blowing, which I fancy rotted the shell. In fact I fear none of them will be worth the trouble of sending."

[Mr. Wolley, it will be seen, received these eggs only a few days before his first departure for Lapland, and hence, seeing their condition, sent the two to me to treat as I best could. They were in a lamentable state; but being very fine specimens were worth taking some trouble about. The fragments of the other two I have not found.]

§ 3586. Two.—Black Mount, Argyll, 1853.

[These two eggs, sent by Peter Robertson to Mr. Edge in 1853, would seem to have been written upon by Mr. Wolley during his short visit to England in 1854, but were never properly entered by him in his Egg-book. Robertson's letter to Mr. Edge concerning them is undated and states:—"You will receive herewith two Greenshank eggs. There was another two in the nest, but I had to give them away to another gentleman. It is the Greenshank, as the bird was shot flying off the nest to make sure." Again, in a letter from the same to the same, dated 11 July, 1853, he wrote:—"There is no mistake about the Greenshank's eggs, as the bird was shot rising off the nest." Writing on the 9th of June, 1852, Robertson had said "it beat me to find any of the Greenshanks' nests," and therefore 1853 was the first year in which he could have got them for Mr. Wolley. In 1854, he seems not to have got any Greenshanks', nor did he, so far as I know, in 1855.]

§ 3587. Two.—Kaaressuando, Torneå Lappmark, 1853.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. xei. fig. 3.

Pastor Engelmark said that these were brought as the eggs of Vikla, which I know to be the common name of the Greenshank, and there
can be little doubt that they are the eggs of that bird. It seems that J. P. Jatko found them.

[These, the first eggs of the species obtained in Lapland by Mr. Wolley, were bought of the Pastor in December, 1853. One of them was figured by Mr. Hewitson as above stated.]

§ 3588. One.—Salmojärvi, 3 June, 1854.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. xci. fig. 2.

Brought to Ludwig the day they were found, and named Vikla by the lads with confidence: hence no doubt they saw the bird, for Greenshank they evidently are.

[There were three eggs brought. What became of the other two I know not, unless they formed Lots 105, 106 at Mr. Stevens's, 7 March, 1853. These were bought by Messrs. Parzudaki and Troughton. The third was figured by Mr. Hewitson as above.]

§ 3589. Three.—Toras-sieppi, 12 June, 1854.

Hewitson 'Eggs of British Birds,' ed. 3, pl. xci. fig. 1.

Out of a nest of four found by Johan. He saw the bird fly off the eggs, and it was Vikla; coming back he again saw the bird well. These eggs, beautiful as they are, have been nearly destroyed by the decay of their contents. The fourth fell almost to pieces in drying.

§ 3590. Four.—Palojoki, 1854.

Heiki Ollen-poika and Zacharias Johanen-poika found these eggs. Heiki both saw and heard the bird well and was sure it was Vikla.

§ 3591. Four.—Saivomotka, June, 1854.

Found by a little girl, who said they were "Mustatiutti," but they are evidently Greenshank's. They were given to me there on the 22nd of June.

§ 3592. Four.—Great Lake, Patsjoki, 9 June, 1855. "J. W."

The bird put off by myself in a heavy thunder-shower, on the great peninsula, during the couple of days in which we were lost on the lake. She got up screaming under my feet, and called afterwards vikla, vikla, vikla, very distinctly.

The fourth egg of the nest is Mr. Simpson's [Hudleston]. Mr. Newton is at this moment skinning the bird, which the Lapp says he shot from this nest about a week ago, and its state of decomposition seems to agree with that of the eggs: it is a male.

§ 3594. *Four.*—Ymarinen-uoma, Nyimakka, June, 1855.

Found by Matthias's maid about three weeks before midsummer. She did not know what the nest was, but the eggs seem to me to be Greenshank's.

§ 3595. *Four.*—Nälima, Kaaressuando, 1855.

Apparently Greenshank's, found by a Lapp maid.

§ 3596. *Four.*—Salmojärvi, 1855.

Brought by Fredrik for Matthi on the 23rd of June, and named *Vikla.* A nest of great beauty.

§ 3597. *Four.*—Toras-sieppi, June, 1855.

A beautiful nest, brought on the 23rd of June by young Johan.

§ 3598. *Four.*—Kätkässuando, June, 1855.

Brought by Johan Josephsson on the 23rd of June.

§ 3599. *Two.*—Kuttainen, 1856.

Found by Adena Greta Adamsdotter, of Kurkioniska, on the Finnish side from Kuttainen, as she tended the cows. Ludwig got them already blown on the 26th of July.

§ 3600. *Four.*—Mukka-uoma, 1856.

Ludwig received these from Nyimakka Petter at Kaaressuando, 27 July.
§ 3601. Four.—Särkijärvi, 1856.

Brought by Johan Isaaksson Saari from his fishing expedition to Särkijärvi on 23 June. He called them Vikla.

§ 3602. Four.—Sadio, 1856.

Brought under the name of Vikla on the 29th June. They are much less pointed eggs than usual. I have mended them with considerable trouble.

§ 3603. Four.—Craggie, Loth, Sutherland, 22 May, 1857.

Received for me by Mr. Edward Newton, 23 June, 1857, from George M'Kay, of Moin House, who wrote that they were taken as above. Craggie is about five miles east and by south of Tongue.

§ 3604. Four.—Salmojarvi, 9 June, 1857.

Brought on the 24th of June by Hendrik Wilhelm Salmojarvi; found in Oja-letta.

§ 3605. Four.—Pulju, 1857. "With bird."

Brought with other eggs by Sadio Michael, on the 4th of August, from Johan Johansson, of Pulju.

§ 3606. Four.—Salmojarvi, 5 June, 1858.

Brought 19 June by Simon Petter, of Salmojarvi; found as above on Avankieli.

§ 3607. Four.—Oiasen-saari, Muonioniska, 17 June, 1858.

Found by Petter Tiberg, commonly known as Andragård's Peck the younger, on Oiasen-saari, the wooded island in the river. He declared they were Mustatiutti (Black Redshank), but it is clear, I think, that they are Greenshank's.
§ 3608. *Four.*—Tervajärvi-maa, 1 June, 1859.

Brought to Muoniovara, 4 June, by Piko Heiki's boy Carl, who said he found them as above, that he saw the bird which he knew to be Vikla, and that his father blew them for him.

§ 3609. *Four.*—Isokiven-maa, 1–4 June, 1859.

Brought to Muoniovara on the 23rd of the month by Maria Muotkajärvi, having been taken as above.

§ 3610. *Four.*—Salmojärvi, 12 June, 1859.

Brought to Muoniovara, 26 June, by Martin Pekka, from Abraham Korkala; found as above.

§ 3611. *Four.*—Muonioniska, 16 June, 1859.

Brought to Muoniovara the same day by Mäki's boy Abraham found in Lehä, about half a mile [Swedish] from Muonioniska.

§ 3612. *Four.*—Kätässuando, June, 1859.

Brought to Muoniovara, 23 June, by Eva, the daughter of Eiantausta Johan in Kätässuando.

§ 3613. *Four.*—Kyrö, 1859.

Received at Muoniovara, 23 August, from Kyrö Jakob, without any information.

§ 3614. *Four.*—Mukka-uoma, 1859.

Sent from Mukka-uoma, as found by Persen Marakat, a Lapp.

[§ 3615. *Two.*—Loch Maddie, Sutherland, 20 May, 1857.

Out of three eggs received by my brother Edward from George M'Kay together with the four for Mr. Wolley (§ 3603). M'Kay wrote that they were from "one nest, and got at the west end of Loch Maddie, north of the road leading from Strathmore to Aultnaharrow." The third egg was given to Mr. Salvin.]
TOTanus GLOTTIS.

[§ 3616. Two.—Loch Maddie, 10 May, 1859.

§ 3617. Four.—Loch Hope, Sutherland, 12 May, 1859.

§ 3618. Two.—Farr, Sutherland, 16 May, 1859.

All these received by me from the same George M'Kay on the 6th of June. He wrote that the complete nest of four was "got at the south end of the top of Loch Hope, about a quarter of a mile distant from the banks of the Strathmore River, and half a mile from Casheldhu in the parish of Durness." These are extremely fine eggs, of a character almost unlike any others I have seen. The eggs taken on the 16th (§ 3618) were, M'Kay wrote, from "the south end of Loch Maddie, but on the Sutherland side of the burn, and in the parish of Farr."]

[§ 3619. Four.—Black Mount, Argyllshire, 28 May, 1860.

Peter Robertson, writing to me the 15th July, told me that these were taken "in the forest at a place called Leitbeg, near a little lake on the moors."


Brought by Martin Pekka, on the 2nd of July.]

[§ 3621. Four.—Joki-rowa, 16 June, 1860.

Brought by Piko Heiki; found as above, about half a mile (Swedish) from his new building.]

[§ 3622. Four.—Kalliojänkä, 6 June, 1861.

Brought to Muoniovara on the 22nd by Nicolai Wassara.]

[§ 3623. Four.—Teuras-selka, 8 June, 1861.

Brought with the last by the same man.]

[§ 3624. Two.—Niva, 1861.

Brought to Muoniovara, 23 July, with other eggs from Karessuando and Kuttainen; these from Johan Johansson Niva. A third from this nest given to Mr. Newcome.]
140 TOTANUS GLOTTIS.

[§ 3625. Four.—Enontekis, 1861.
  Brought to Muoniovara, 5 August, by Peter Johansson Enontekis.]

[§ 3626. Three.—Sadio, 2 June, 1862.
  From Matthias Johan; taken near Sadio as above.]

[§ 3627. Two.—Keimelaisenvaara, 18 June, 1863.
  From Stina Keimoniemi, on the 23rd; found as above.]

[§ 3628. Two.—Kyrö, 1863.
  From Johan Eriksson Kyrö, on the 16th of July. Strange-looking eggs.]

[§ 3629. Three.—Lompalo, 1863.
  From Hendrik Lompalo, on the 16th of July.]

[§ 3630. Three.—Zatsa-pceannoma, 4 June, 1864.
  Brought by Martin Pekka, on the 23rd; found as above; the first part of
  the name seems to be Lappish.]

[§ 3631. Four.—Pippo-uoma, 5 June, 1864.
  Brought with the last by Martin Pekka; found as above.]

[§ 3632. Two.—Muotka-järvi, 8 June, 1864.
  From Gabriel Eliasson; found as above.]

[§ 3633. Four.—Paaku-uoma, 8 June, 1864.
  Brought by Martin Pekka, on the 23rd; found as above.]

[§ 3634. Four.—Rowa, 16 June, 1864.
  From Johan Eric; found as above.]

[§ 3635. Four.—Lapland, 1864.
  Another of Martin Pekka's nests, with strangely rounded eggs.]
TOTANUS FUSCUS (Linnaeus).

SPOTTED REDSHANK.

I expect that henceforth the Spotted Redshank will always start up in my memory at the first mention of Lapland. It is so peculiar to the country, so remarkable in its appearance in summer, and so often calling attention to itself by its striking actions—whilst my ignorance of its nest and eggs for a whole year after my arrival in the far north kept up in me during that time the liveliest interest concerning it. A bird with so much character was easy to talk about. I soon found that it was known amongst the people by several names, all more or less expressive; and in my drives about Finland and into Norway during the winter, I had heard from so many quarters accounts of its nesting peculiarities that I only waited for its return here to see them confirmed. It does not keep one long in suspense. It comes as soon as the snow is off the ground, and lays its eggs with very little delay. At this time one may hear a singular call in the marshes which the Finns express by the sound *recvat*, corresponding to a word in their language meaning an evil spirit, and one of the names of the bird is taken from it—a name always spoken with a spiteful emphasis by Reindeer-stalkers, for this *Rivättu*¹ is as mischievous to them as a Grey Crow to a Highland forester, or a Gull to a seal-shooter. But the cry with which it spoils their sport is "*tjenty,*" and from this another name is derived, generally coupled with [*musta*] the distinctive epithet corresponding to *black*, or with one [*palo*] meaning *burnt wood*—but whether this last is taken from the colour of the bird, or from a common place of resort for it, or from both, I am not sure. Certain it is that this black bird not unfrequently lays its eggs in a part of the forest which has formerly been burnt; and here is one of its most unexpected singularities—a marsh-bird choosing the driest possible situation, even hills of considerable height and covered with forest-timber. I have myself seen two nests so placed, and one of them at least was on ground which from the charred wood lying about had evidently been burnt at some former period. They were nearly at the top of long hills, many hundreds of yards from any marshy places, [with] good-sized fir-trees on all sides; but they were not in the thickest parts of the forest, and the vegetation on the ground about was very scanty, diminutive

¹ [Properly *Rivättu*, rendered by Lönrot (Finskt-Svenskt Lexikon, ii. p. 405) *rasande, besatt, fortrollad, fordömd*, or frantic, possessed (by an evil spirit), bewitched, damned.—Ed.]
heather and such-like plants, growing thinly amongst short Reindeer-
lichen. Slight depressions in the ground, placed near some little
ancient logs, so nearly buried, however, as to afford no shelter—the
bedding only a few dry leaves of Scotch fir. The bird sits some-
times so close that one is tempted to try to catch it in the hand.
Its white back is conspicuous as it crouches with its neck drawn in.
It either gets up direct or runs a short way before it rises, and then
it flies round with an occasional "tjenty," or stands upon the top of
a neighbouring tree, shewing the full length of its slender legs,
neck, and bill. But it is not until it has young that all its powers
of eloquence are fully brought into play. It then comes far to meet
any intruder, floating over him with a clear cry that echoes through
the forest or that is heard over a great extent of marsh, or it stands very
near one, bowing its head and opening its beak quite wide in the energy
of its gesticulation. The eggs, four in number, are of a rich green
ground-colour when fresh, or sometimes of a bright brown. This
year they were laid hereabouts at the end of May. The young are
probably carried into marshy land as soon as they are hatched, for
they are there whilst they are still very small. I am told that dry
mounds rising out of swamps are sometimes chosen as breeding-
places. The nests I have described were found quite by good luck—
stumbled upon in walking through the forest, where the bird is
scattered usually at rather wide intervals. One may see two or three
pairs in the course of a long day's walk. It is so wary that I have
never succeeded in watching it to its nest.

[The foregoing, written by Mr. Wolley, at Muoniovara, on the 17th October,
1854, for Mr. Hewitson's use, was by that gentleman printed in his 'Eggs of
British Birds' (ed. 3, ii. pp. 326-328), wherein he also figured (pl. lxxxviii.)
three specimens of the egg of this species, the part of his work containing both
text and plate appearing in February, 1855. Though in 1851 Dr. Thienemann
figured two eggs as belonging to Totanus fuscus (Fortpflanzungsgeschichte der
gesammte Vögel, Taf. lxiv. 2 figs. a, b), and in 1852 Dr. Kjærbølling (Danmarks
Fugle, p. 290) professedly described its eggs, which he said he had received from
Norway, I must take leave to doubt whether any ornithologist had seen a
genuine specimen before Mr. Wolley. Those figured by Dr. Thienemann are
unlike any in the large series herein recounted, and the fact that no text was
published leaves us in ignorance of their origin, while the egg described by
Dr. Kjærbølling is said to be "short and at the blunt end thicker than a
(common) Redshank's, which it otherwise resembles, except that the colour is
more of a reddish-brown." III. Main and Schrader in 1841 and 1842
traversed part of Lapland, where they found this species abundant, and the
latter announced (Journ. für Orn. 1853, p. 242) that it was said to breed near
Enara; but they certainly never found a nest, and the former only mentions it]
TOTANUS FUSCUS.

(Naturhist. Tidsskr. ser. 2, i. p. 205) as inhabiting marshes in the fir-woods—a misleading statement commonly repeated by subsequent writers, shewing that they did not know its peculiar choice of a nesting-site. In like manner Prof. Collett must certainly have been misinformed ( Vidensk. Selsk. Förhåndl. 1868, p. 55) as to its breeding in no small numbers in the northern parts of Norway, as well as on the islands ¹, even the Lofoten, for on none of them, nor, as has been asserted, in East Finnmark (except possibly in the very small fir-growing district of the South Varanger), can such localities be found as it affects, of which fact Scandinavian ornithologists still seem hardly aware.]

§ 3636. One.—Out of bird sent from Holland. From Mr. Green, 1852.

I gave Green ten shillings for this egg, 6 January, 1852. He cut it out of the bird two or three years ago, and in all probability it had not come to the full colour. Green asked Mr. Milner a pound for it, and he offered ten shillings which Green refused. Green has some years had a good many of the Spotted Redshank in the flesh from Holland, and the egg was in one of them. They are sent over in the spring in their breeding-dress, and some in autumn in their more sober habit. Green shewed me one of the birds.

[Mr. Wolley seems to have entertained no doubt of Mr. Green's veracity on this occasion; but from what we now know of the breeding-localities of Totanus fuscus, it is curious that an egg so completely formed as the present should be found in the oviduct of a bird taken in Holland, unless indeed the bird had been kept alive for some time, as may have happened. It seems unlikely that a bird actually on passage should contain an egg fully developed as to size. In colour it is remarkably wanting, being of a very pale greyish-blue, with a few specks of dark brown, not in the least resembling the large blotches or spots usually characteristic of the eggs of this species. I should add that Mr. Green bore a far higher character than most of those in his trade.]

§ 3637. Three.—Palajoki, 28 May, 1854.

The fourth had been smashed. Found by Adam Hauki on a dry hill near a marsh—reindeer-moss about. He said he saw the bird quite near, and it was doubtless Mustalutti, otherwise Riiivattu.

¹ [No importance can be attached to the statement in the Catalogue of a Collection that it contained a specimen of this bird taken at "Kjeringsø, Norway, July, 1852, on nest with eggs." I mention it only lest it might be supposed to have escaped my notice.—Ed.]
TOTAXUS FUSCUS.

[This nest must have been, by a few hours, the first of the species taken through Mr. Wolley's means. The day the eggs were taken is marked on them by him as the 28th, but in the Egg-book it is entered as the 29th. Mr. Wolley was himself at Palajoki on the 30th (§ 1240) and doubtless then received these eggs from the finder. On the 29th another nest was taken, the contents of which apparently did not reach him till some days later. That was "found by the young Wassaras (Lapps) near Jerisjärvi or Serkijärvi on dry ground. They called the bird Palotutti—Palo is Finnish for burnt ground." The three eggs from this last nest were sold at Mr. Stevens's, 26 January, 1855, to Mr. Gurney, Mr. Walter, and Mr. Milner. A third nest with three eggs was found on the 31st at Modas-lompolo by Olli, but not brought till the 11th of June. He called them Mustatiutti and said that he saw the bird fly off at one or two fathoms' distance and it was not to be mistaken. These eggs were also sold on the same day as the last at Mr. Stevens's to Mr. Burney, Dr. Frere, and Mr. Gurney.]

§ 3638. *Four.*—Muoniovaara, 1 June, 1854. "Bird snared."

Hewitson, 'Eggs of British Birds,' ed. 3, pl. lxxxviii. fig. 2.

Found by Anton on the hill here. He did not think to find it just then; but said "Here flew Mustatiutti, but where are its eggs? Can it be so high up on the hill? Yes, here are four eggs." Ludwig and he went home for a snare, and when they came back the bird would not leave the nest, but there it lay, shewing the white on its back, and its head drawn in. They went away not to frighten it too much, and came back breaking sticks, but it would not go. At last it flew with *tjut, tjut* and so round, and it also sat on trees. Ludwig set the snare, then went away. There came much rain, so he took the eggs and left the snare. The next morning there was the bird fast by the foot. The skin, a very good one, is now before me. He saw that when the bird went to the nest it alighted at a little distance, and went dotting its head.

On the 15th October I saw the nest, on about the highest part of the hill, in a triangle of old sticks, each two feet long: the nest made of fir-leaves, in the open part of the wood, with small trees about.

§ 3639. *Three.*—Viksi, 3 June, 1854.

Found by Ludwig, beyond Viksi, on a continuation of Muoniovaara. The bird flew up about a fathom from him, and so began to cry *tjut, tjut*, flying around and also high up, at last sitting on a tree, but he could not shoot it, and he tried in vain to take it with
a snare. It was about three o'clock in the afternoon of a fine day. The nest was high up on the hill, and just between three burnt stumps a foot or two off, made of Scotch-fir leaves, but very little. No marsh within five or six hundred yards or more. I must go to see the place.

I have seen the nest this 15th of October. It is by the side of a log, heath and moss near. Large trees, but open.

§ 3640. One.—Muonioniska, 13 June, 1854.

Found by Keimio Michel at the Efivreby, or rather on the top of Mielmooka-vaara, the hill at the back—high and perfectly dry ground. He said there was a little tallris—i.e., leaves of Scotch fir—in the nest. He was quite certain that it was Mustatiutti—the black bird that cries tjut, tjut. The eggs were much sat upon. Ludwig put them in a box underground. Two have perished, in company with all the four eggs of Toras-sieppi's nest of this bird.

§ 3641. Four.—Naimakka, 16 June, 1854.

Found by Ooly or Olli [Olaf], the father of the family, on the Finnish side of the river. Four eggs of Spotted Redshank, with large young inside. I managed to crack one badly. Ooly was certain the bird was Riivattu.

§ 3642. Four.—Muotkajärvi, June, 1854.

Hetwitson, 'Eggs of British Birds,' ed. 3, pl. lxxxviii. fig. 3.

Fine fresh eggs, brought to me 26th June by a lad, and called Mustatiutti or Riivattu—the latter the more common name of the Spotted Redshank.
§ 3643. *Four.*—Jerisjärvi, June, 1854.

Hewitson, *Eggs of British Birds,* ed. 3, pl. lxxxviii. fig. 1.

Out of ten, of which three were badly broken, and one subsequently thrown away. They were brought on Midsummer-day by the sons of Wassara, the Lapp, from the Jerisjärvi district. There were four nests containing four eggs each, but unfortunately a servant-maid sat upon the basket and crushed many. Five they at once threw away. Every one of these eggs seems beyond doubt what it pretends to be—Spotted Redshank.

[One of these was selected by Mr. Wolley for Mr. Hewitson to figure, another was given to my brother and myself and is now included in the above. What became of the rest I do not know.]

§ 3644. *Four.*—Rautusjärvi, 1854.

By Keimio Michel. Brought from Hanhi-maa, 11 July, just before my journey.


Found by Anton in company with Ludwig on the upper end of Muoniovaara, just by the Modas-lompalo road, somewhere between Kaakkuri-lammas and the river. Ludwig saw the bird about several days before. At last it got up close to Anton's foot, and he saw the three eggs. The next day they caught the bird with a snare, and its skin is here, examined by me. The eggs were sat upon. It was dry, old burnt land, with ling about. The spot was only one hundred fathoms from the nest of last year [§ 3638], also found by Anton, from which a bird was snared.

§ 3646. *Two.*—Muoniovaara, 6 June, 1855. "L. M. K."

About halfway between here [Muoniovara] and Kiima-leikki—the Capercally playing-hill. Ludwig thought it looked like good ground for *Mustatiutti,* so he fired a shot, and up came the bird—*tjut, tjut, tjut*; but they could find nothing. Ludwig had before seen the bird in a little marsh near. The next day the bird flew up on their shooting, and they looked a long time for the nest. Then when they
had lain some time on the ground, Anton said "Let us go and look for some other nest." But Ludwig determined to go once more. He went very gently, till he actually saw the bird fly up from the nest. It was by an old rotten tree, scattered on the ground, and raised very slightly from it—on old burnt ground, as indeed is most of Muoniovaara. They tried to snare the bird, and took the eggs on the evening of the second day. There were only two, and those a good deal sat upon.

P.S.—This 15th August [1855] I have been with Ludwig to look at the place, Mr. Newton in company. The snares were still lying about it. There was scarcely any hole; a few Scotch-fir needles in a depression of the rotten wood—an open place with a southerly aspect; short heather growing here and there with reindeer-moss, sprigs of lingon [Vaccinium vitis-idaea] and the like: the logs shewing marks of fire. The trees near mostly young.

[On the occasion just mentioned, I began a drawing of the nest, though there was really not much to represent. Reflecting, however, that during the time which had elapsed the appearance of the spot must have considerably changed from what it bore when the eggs were there, through the growth of the surrounding vegetation, scanty as it was, I gave up the intention. The charred soil and the white lichens were sufficiently evident, and when the nest was made there was most likely hardly a green thing near it.]

§ 3647. Four.—Liepima-järvi, F., 10 June, 1855.

A nest of four Mustatutti, brought under this name by Johan, a good man; but found by his sister.

§ 3648. Four.—Muotka-järvi, F., 1855. "With bird."

Brought on the 10th June by the daughter of Elias Muotka-järvi, an honest man. On the 25th August, the bird from the nest, skinned by Elias and in fine black plumage, arrived. It had been forgotten on the former occasion.

§ 3649. Four.—Lahti-Rowa,

§ 3650. Four.—Mänty-Rowa,

Two nests found by the Lapp, Martin Piety. "Rowa" means an extensive flat back [ridge] of land. Both districts are to the south
of Pallas-tunturi, and the nests were on old dry burnt ground. One on highish land, the other, also in a dry place, but just by a little swamp. They were in the open parts, where there was reindeer-moss, with stumps and old decayed logs on the ground. In both cases the birds flew high, but Piety saw them several times, and wished to have shot them, but they were shy. He is quite certain of the species, with which, of course, he is very familiar. He marked the eggs of the two nests severally "1" and "2," and blew them himself, very neatly, washing them well inside.

§ 3651. Two.—Närva, S., 1855.
Out of three. Soloman of Närva said these were Mustatintti, as they seem to be.

§ 3652. Four.—Kaaressuando, 1855.
Nälima's Eva and her husband found these on the Russian side, up the river, early in the season and said they were Mustatintti.

§ 3653. One.—Idiouoma, 1855.
Found by a lad, Johan Petari, who said it was Tiutti, as Nälima's Eva told me. In a series this egg looks larger than perhaps any other Spotted Redshank's.
[It measures 1:92 by 1:3 inch, which is less than one obtained later (§ 3679).]

§ 3654. One.—Modas-lompalo, June, 1855.
Out of three brought to Ludwig by Modas Olli on the 10th June, perfectly fresh, but two of them broken. The fourth egg Olli had completely smashed and thrown away. He found them on a palo-maa [burnt ground], and the bird was very noisy. He knows the Spotted Redshank well.
[Two of them were sold at Mr. Stevens's rooms, 7 March, 1856, to Messrs. Hewitson and Bird, for Mr. Wilmot and Lord Garvagh respectively.]

§ 3655. Four.—Keras-sieppi, 13 June, 1855. "Bird snared. L. M. K."
Found by Ludwig near Keras-sieppi. He and Piko Heiki were
walking on a cow-track, when the bird got up a couple of yards from the track, so Ludwig saw there were four eggs. Then they set four snares, two in each stick, for they set up two like gateposts, with the snares meeting in the middle, and then they made a hedge round the nest. They went away and ate, and when they came back the bird was strangled. It is now (15th August) before me, a black cock bird. Ludwig saw the hen also. Two of the eggs had already holes in them, the beak of the young bird shewing.

§ 3656. Four.—Rowa, June, 1855.
Brought by Nils Punz on 23rd of June—a fine nest.

§ 3657. One.—Peldouoma, 1855.
Out of three brought by Michael Sadio.
[Another was given to Mr. Wilmot, the third I cannot trace.]

§ 3658. Four.—Meras-järvi, 1855.
Brought by Christine Andersdotter Blind, a Lapp girl, on the 23rd June, under the name of Tiutti.

§ 3659. Three.—Wassara, 1856.
Out of seven, which seem to be from three nests, mostly broken. He brought them on the 12th July, and called them Mustatiutti.

§ 3660. Four.—Salmojärvi, 1856.
Brought by Fred on the 23rd June. He said they were Mustatiutti.

§ 3661. Four.—Sadio, 1856.
Brought by Michael.

§ 3662. Four.—Michnuka, 13 June, 1856.
Found by Solomon Hietalla, who lives at Michnuka-uoma, where I was two days ago looking for bears' spoor. He brought them to Ludwig as Mustatiutti on the 24th.
§ 3663. *Four.*—Toras-sieppi, June, 1856.

Brought by Toras-sieppi's girl on the 23rd June, soon after they were taken. Large young inside.

§ 3664. *Four.*—Kaaressuando, 1856.

Two or three of them badly broken. Found by Pieton Josa, and obtained by Ludwig on 27th July. Josa called them *Mustaliutti*, as they evidently are.

§ 3665. *Four.*—Marranen, S.

Obtained by Ludwig in Kuttainen, 26th July. They were found by Anti, a lad of Rodos-niemi's gård, in Marrases, which lies two Swedish miles to the west of Kuttainen.

§ 3666. *Four.*—Muoniovaara, 6 June, 1857.

Found by Herr Forsström's dräng [servant], Abraham Wollson Kangosjärvi, as he was leading horses, in the south end of Muoniovaara, near the marsh which is on the Muonioalusta winter-road. The bird flew up, but he did not recognize it. He put them in his handkerchief, and two are slightly dented. They are evidently Spotted Redshank's and were slightly sat upon.

§ 3667. *Four.*—Salmojärvi, 1–6 June, 1857.

Brought on the 10th of June by Hendrik, with the name *Riivattu*, but found by his brother Matthias. Paly-marked eggs and small; but seem probably right. The colour, a greenish ground, and the early date of the capture are favourable.

§ 3668. *Four.*—Salmojärvi, 8 June, 1857.

Brought with the last by Hendrik Salmojärvi, but found by himself in Ahven-kielinen on Sirkijärvi river-strand. The bird rose two culls from his feet, crying *tjut, tjut*, and he knew with certainty that it was *Riivattu*. Though the eggs are so small I have little doubt that they are, as stated, Spotted Redshank's. I have found the lad trustworthy, so far as I can remember. He spoke with
an air of certainty and of truth. As the eggs lie before me (11th June) fresh blown, their greenish colour seems to exclude Redshank from the question. They have not the style of Reeves' and they are too large for Snipes'. The season, too, is unusually late.

§ 3660. One.—Niuvunki, 21 June, 1857.

Of four brought with other eggs to Knoblock by Piko Heiki on 11th July, and laid aside, as containing large young, to be blown by me. Found by Ankkuri-Niemin Johan's son Matthias, on the 21st June in Korkia-maa, between Niuvunki and Särki-lompalo. He saw the bird and knew it to be Mustatiutti.

[One of them was sent by Mr. Wolley to the Museum at Berne.]

§ 3670. One.—Mellavaara, 22 June, 1857.

Out of four found by Niemi's Abraham [Apoo] on Mellavaara as late as the 22nd of June. I myself saw birds at Saivoi very late, but apparently scarcely yet breeding. Abraham said he saw Mustatiutti near the nest; but also some other kinds of swamp-birds. I have blown these eggs with the exception of one, that I failed in.

[I know not what is become of the remaining two.]

§ 3671. Four.

§ 3672. Four.

Ounas-tunturi, June, 1857.

Found and named by the Lapp, Johan Eric Marti (brother of the well-known Martin Piety), as he himself told me at my visit to his kota [hut] in June. He had sent off these eggs a day or two before by the hand of Joel, son of Nālima Niku, who brought them to Knoblock on the 5th July. Four were broken on the way by the carelessness of a woman, and these [broken] four, according to the boy, were a complete nest; but it is evident by the character of the eggs that he was wrong, and that the nests were as I have classed them—the ground-colour and the character of the spots both shew this. A very trustworthy Lapp; he said he recognized the birds of both nests.

[As Mr. Wolley rightly determined, two eggs of each nest have been injured.]

Received by me at Kaaressuando of Picton Josa, and called *Mustakwori* [Black Whimbrel] by his lad Josa, who found them himself some weeks before midsummer on Sirma-vaara on the way to Syajärvi, in Finland. It is over a mile from Kaaressuando, on the top of a hill under a little juniper—reindeer-moss ground.


Brought 4th August, by Sadio Michael. They came with Johan Johansson Pulju to Sadio while Michael was away, with the skin of the bird now in my possession.


Brought to me 18th June at Peldouoma, by Peter Angili, with the bird snared from the eggs.


Brought to Muoniovara on 5th August, by Carl Johansson Nulusjärvi, the post-lad for the occasion. He received them in Rauhulla of the Kittila postman, who had brought them from Sirkka, and said they belonged to Johan Mathila there.

§ 3677. *Four.* — Palovaara-lompalo, 4 June, 1858.

Brought to Muoniovara, 6th June, by Ligawaini Eric's daughter, who said they were *Mustatjåtti*, which the girl Stina had found as above on dry burnt ground (*tört*). There was nothing else in the nest than dry leaves, and forest round about. The bird flew up from the nest and cried *tjut, tjut*.

§ 3678. *Two.* — Kyrö, 7 June, 1858.

Out of four sent to Muoniovara, 4th July, found by Olaf Johan Kyrö in Lantantakki-pulasta. The other two broken.
§ 3679. *One.*—Pippo-uoma, 8 June, 1858.

Out of a nest of three brought to Muoniovara on the 24th by Martin Pekka, and found on the 10th on the shore of Pippo-uoma.

[This seems to be the largest egg in the whole series, measuring 2:5 by 1:31 inch. The other two from this nest were given to the late Mr. Newcome and Mr. A. C. Smith.]

§ 3680. *Four.*—Pippo-uoma, 10 June, 1858.

Brought with the last and taken at the same place on the 10th.

§ 3681. *Four.*—Pippo-uoma, 9 June, 1858.

Brought to Muoniovara, 4th July, as *Mustatiultti.* Found by Brita, the wife of Hendrik Kaukaniemi.

§ 3682. *Four.*—Pissivaaran-tiwi, 10 June, 1858.

Brought to Muoniovara on the 6th July by Piko Heiki. Found as above by Abraham Korkela.

§ 3683. *Four.*—Kangosjarvi, 13–19 June, 1858.

Brought to Muoniovara on the 26th by Olaf Ollila Kangosjarvi; found between the 13th and 19th at Kiima-leikki, between Kangosjarvi and Huippu.

§ 3684. *Four.*—Willimaa, Rowa, 14–19 June, 1858.

Brought on the 23rd June to Muoniovara by Petter Rowa [otherwise Punz or Punch], who said that they were found between the 14th and 19th in Willimaa and were the eggs of *Mustatiultti,* but gave no other information, and Knoblock thought they were not rightly ascribed. They contained large young.

[I see no sufficient ground for Knoblock's doubt.]

§ 3685. *Four.*—Rowa, 1858.

Brought on the 15th June by Aron Palojoensu, but found by Isaak Johansson of Rowa.
§ 3686. *Four.*—Hätta, 24 June, 1858.

Brought by Nils Petter on the 11th July, having been found as above on the other side of Hätta lake.

§ 3687. *Four.*—Vuontisjärvi, 1858.

Brought, 4th July, by Aron Vuontisjärvi, found there near the river-shore.

§ 3688. *Four.*—Rowa, May, 1859.

Brought by Nils Rowa on the 23rd June, found two or three weeks before the 6th.

§ 3689. *Four.*—Ounas-tunturi, 8 June, 1859.

Brought to Muoniovara, 26th June, 1859, found on the 8th by Martin Piety and his boy Petter at Sittila sallenjanka, while employed at daily wages.

§ 3690. *Two.*—Wassara, 13 June, 1859.

Out of four, brought to Muoniovara, 25th June, 1859, by Johan Petter Wassara, who found them about the 13th on the shore of Aven-uoma, "full of young."

[Another was broken, the fourth given to Mr. Salvin.]

§ 3691. *Four.*—Sieppi, June, 1859.

Brought to Muoniovara, 5 July, by the wife of Sieppi's Pekka, having been found by her daughter Greta before midsummer.

§ 3692. *Four.*—Kyrö, 1859.

Brought to Muoniovara on the 3rd of August by a man from Jacob Kyrö.

[These were thought by Knoblock possibly to belong to *Iso-Tuivamjaara* (that is *Scolopax major*, of which he had heard tell); but there is no evidence of the occurrence of that species in the district.]

Brought to Muoniovara, 2 July, 1860, by Martin Pekka; found, apparently by himself, at Kulmesaja by Ounas-tunturi between the 3rd and 9th June.]


Brought with the last and found about the same time, but on the shore of Pippo-uoma.]

[§ 3695. *Four.*—Kertavaara-aldu, Kyrö, 7 June, 1860.

Brought to Muoniovara on the 15th by Per Ratamavaara from Kyrö, having been found as above.]

[§ 3696. *Four.*—Wassen-tieva, Kätkässuando, 9 June, 1860.

Brought to Muoniovara on the 24th, having been found by Johan Petter, the son of Petter Peikkola, as above.]

[§ 3697. *Four.*—Hirsi-maa, 10–16 June, 1860.

Brought to Muoniovara, 30 June, by Maria Muotkajarvi.]

[§ 3698. *Four.*—Muoniovaara, 15 June, 1860.

Brought this same day by Tiberg's Johan, who found them at Kaakkuri-lammas.]

[§ 3699. *Four.*—Kyrö, 1860.

Brought to Muoniovara, 23 June, 1861, by Johan Salunki of Kyrö, but found the summer before in Majtajarvi strand, and blown out by himself.]

[§ 3700. *Four.*—Wassara, 5 June, 1861.

Brought to Muoniovara, 22 June, by Nicolej Wassara, having been found on the 5th in Suopa-uoma.]

[§ 3701. *Four.*—Kätkässuando, 6 June, 1861.

Brought to Muoniovara on the 8th June by Petter Fredriksson Alatalla, who said that they were *Mustatidtti*, found on the 6th, when there were two eggs in the nest, and that the bird was black. Knoblock wrote:—"I cannot myself be quite certain about these eggs, for they are thicker than those of
Mustatit's commonly are; but the boy asseverated that he knew Mustatit well, and found it three times on the nest, so must I trow that these are its eggs. He described the bird's cry. The boy is little, and I cannot think him to have been instructed by anyone."

These eggs are curious enough to have justified Knoblock's doubts, but I see no reason why the boy's story should not be believed.]

[§ 3702. *Four.*—Wassara, 10 June, 1861.

Brought to Muoniovara, 22 June, with those of the 5th (§ 3700), having been found in the same place, but on the 10th.]

[§ 3703. *Four.*—Ounas-tunturi, 10 June, 1861.

Found by Martin Piety on Russis-rowa-weri.]

[§ 3704. *Four.*—Kyrö, 12 June, 1861.

Sent to Muoniovara by Martin Piety from Matthis Mattheson Kyrö, having been found on Rutima-uoma.]

[§ 3705. *Two.*—Mellavaara, 29 May, 1862.

Brought to Muoniovara, 9 June, by Olaf Johansson Mella, found by him near his gård.]

[§ 3706. *Four.*

Pippo-uoma, 3 June, 1862.

[§ 3707. *Four.*

Two nests found by Johan Ericsson Kyrö and brought to Muoniovara, 2 July.]

[§ 3708. *One.*—Tepasto, June, 1862.

Brought 2 July, found by Mikel Hendrik Tepasto.]

[§ 3709. *One.*—Siivomutka, 28 May, 1863.

Brought on the 31st, by Anonis Calli, found near Siivomutka.]
§ 3710. **Four.**—Muoniovaara, 14 June, 1863.

Found and brought the same day by Petter Persson behind Muoniovaara. The ground-colour of one of these eggs is of a very pale greyish blue, with what would have become the deeper markings faintly indicated in cloud-like fashion, as though the egg had been prematurely laid: yet the shell is strong.]

§ 3711. **Three.**—Sodankyla, June, 1863.

Brought by Martin Piety from Sodankyla.

§ 3712. **Four.**—Kätkässuando, June, 1863.

Brought on the 6th of July, having been found near Kätkässuando, about three weeks before, by Pekkola of that place.

§ 3713. **Two.**—Kyrö, June, 1863.

Brought on the 16th July by Martin Piety from Johan Erik Martensson.

§ 3714. **Four.**—Kyrö, 12 June, 1864.

Brought by the same, found on Kylämesen-järvi.

§ 3715. **Four.**—Kyrö, June, 1864.

Brought with the last, but from Johan Erik Kyrö.

**TOTANUS CALIDRIS** (Linnaeus).

**THE REDSHANK.**

§ 3716. **Two.**—Whittlesey, not later than 1844.

From Osborne, of Fulbourne. They breed regularly at Whittlesey Mere.

§ 3717. **One.**—From Mr. Yarrell, 1845.

A beautiful variety.
§ 3718. Twenty.—From Dr. Frere, 1849, 1850.

Bought in Leadenhall Market.

[Most of the Redshanks' eggs in those days that found their way to Leadenhall Market came, I believe, from the Netherlands, and in hundreds. It was thought, though wrongly, that the species had then ceased to breed in the southern parts of England.]

§ 3719. Four.—Orkney, 1850.

From Mr. George Harvey, of Stromness. Entered in his list as "Red Legs," and evidently little valued; still they are of interest to shew the locality.

§ 3720. Eight.—1851.

These I bought in Leadenhall Market, at the end of May, mixed up with Reeves', Godwits', and perhaps other eggs. Many of them were nearly rotten, and I blew them at 4 Holles Street, where I was staying with Mr. Edge and Sysselmand Müller.

§ 3721. Thirty.—Orkney, 1851.

From Mr. George Harvey, as before. Two of them are very large.

§ 3722. Eight.—[Not later than 1851.]

[These were apparently picked out by Mr. Wolley for a cabinet series; but there is nothing to shew whence they were obtained.]

§ 3723. Twelve.—From Dr. Frere, 1852.

These selected from a very great number in Dr. Frere's duplicate drawers. All probably from Leadenhall Market.

§ 3724. Four.—Spynie, Sutherland, 4 May, 1853. From Mr. Hancock, 1854.

Given to me by Mr. Hancock, 24 August, 1854. They were taken at Loch Spynie, near which Mr. St. John lives.
§ 3725. *Tetanus Calidris.*

*Varanger Fjord, June, 1855.*

Brought to Mortensnäs by a Lapp, 25th June—half-grown young inside. Herr Nordvi had an interview with the man and came to the conclusion that they were the eggs of *Tetanus calidris.* I have seen the bird hercabouts.

§ 3726. *One.—Gauða-þaur, East Finnmark, 28 June, 1855.*

"W. H. S."

Found by Mr. Simpson [Hudleston] alone in the night.

[This lake is about three English miles to the north of Mortensnäs, where we were staying at the time.]

§ 3727. *Four.—Föra, Öeland, 6 June, 1856.* "J. W."

No doubt Redshanks', of which several pairs were complaining about the marsh when I took these eggs.

§ 3728. *Four.—Iceland.* From Herr Cristian Zimzen, 1858.

[§ 3729. *One.—Valkenswaard, North Brabant, 1851.*]

[§ 3730. *Four.—Hockwold Fen, Norfolk, 17 June, 1853.*

"E. N."

Watching from the top of a straw-stack, my brother saw the bird go to this nest, and walking up to it she rose at his feet.]

[§ 3731. *Two.—Hockwold Fen, June, 1853.* From different nests.

Attracted by the great flood, in this district, which followed the bursting of the river-bank in November 1852 and lasted for half the following year (Trans. Norf. & Norw. Nat. Soc. v. pp. 500–508), a good many pairs of Redshanks appeared, and, for the first time for many years, even bred. Most of the nests were taken, but my brother and I knew of one, at Wangford in West Suffolk, which escaped, for we heard a young bird, which we were unable to find, call to its parents, who were piping in great excitement round us.]
§ 3732. *Four.*—West Norfolk, 1854. From Mr. Thomas Southwell.

§ 3733. *One.*—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.

§ 3734. *Four.*—Salthouse, Norfolk, 14 May, 1875. From Mr. F. Norgate.

§ 3735. *Four.*—Barton, Norfolk, May, 1877. From Mr. F. Norgate.

§ 3736. *Four.*—Aldeburgh, Suffolk, 27 April, 1878. “A. & E.N.”

From a nest shewn to my brother Edward by one Fisher, a man some thirty years old, and by his own account a great “egger” at and about the place, of whom we heard on our arrival there the day before. The nest was on the border of the “haven” or “mere” to the north of the town, between the marsh-land and the beach or “craig-path.” I went with my brother and the man to see it and we took the eggs. The nest seemed to have had a good many fingers in it and was, I believe, deserted. It was deep in a tuft of coarse grass and rushes, but on quite dry ground, and formed of a good deal of dry grass. We were shewn also another nest with two eggs, in a “whin”-bush (the first time I have met with the word whin, for furze, in Suffolk), and also on dry ground, between the marsh and the “craig-path.” We saw some Redshanks about, but no great number, though more of them than of Lapwings. The next day we walked to the wet ground, to the westward of the railway, and saw at least twenty-five pairs of Redshanks. To the southward we walked some three miles and a half, between the sea and the river, and saw only two pairs, but Fisher told us that had we gone a little further we might have picked up Redshanks’ eggs as fast as we liked. On the 25th, between Brightlingsea and Wyvenhoe, we had counted twenty-six Redshanks from the railway carriage as we went along.

§ 3737. *One.*—Hickling Broad, Norfolk, 13 May, 1884. “E. N.”

From a nest shewn to my brother. There had been four eggs, but three were found to have been sucked by rats when he went to it. The egg was about half-incubated. The nest was about thirty yards from the Broad, and well concealed in a tuft of coarse grass. There were a few Redshanks flying about.
TOTANUS FLAVIPES.—T. STAGNATILIS.

§ 3738. Two.—From the late Mr. John Scales's Collection, 1885.

Most likely Norfolk specimens.

TOTANUS FLAVIPES (Gmelin).

YELLOWLEGS.

§ 3739. Two.—Barren Ground, Anderson River, 25 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1866.

P. Z. S. 1867, p. 166, pl. xv. fig. 5.

The label accompanying these eggs shows that they were from a nest of four, very near which the female bird (no. 36005) was shot by Mr. R. MacFarlane. They were exhibited by me at a meeting of the Zoological Society in 1867, and one of them was figured in its 'Proceedings' as above. Mr. MacFarlane himself states of this species (Proc. U.S. Nat. Mus. xiv. p. 428) that it is "Probably the most abundant and certainly the noisiest of all the waders met with. Nests were found at Fort Anderson, on the Lower Anderson, in the wooded country to and along the rivers which flow through the Barren Grounds. In many instances the male bird was seen perching on trees in the vicinity, but when young were present both parents were particularly noisy, and did all that was possible to attract away intruders, while the former soon learned to run and screen themselves from view in the grass. Over thirty nest entries are recorded, while it is among the earliest of the waders which arrive and breed in the region."

TOTANUS STAGNATILIS, Bechstein.

MARSH-SANDPIPER.

§ 3740. Two.—"Hungary." From Herr Möschler, 1862.

Herr Möschler wrote to me, on my remarking on the close resemblance between the eggs ascribed to this species and those of Terekia, that he did not believe the latter ever bred in Hungary, whence he received the present specimens.

§ 3741. One.—Apaj, Pester Comitat, Hungary, 1858. From Mr. Dresser.

Mr. Dresser informed me that he obtained this egg at Buda-Pest in 1866.
from Herr Johann von Frivaldsky. In 1902 Mr. Dresser himself took eggs of this species in the same county, as he mentions in 'The Field' newspaper of 7 March, 1903 (p. 398):—"The nests were on a grassy patch between two small pieces of water . . . Each nest was a cup-shaped depression in a tuft of grass, scantily lined with a few dry bents." The eggs vary greatly, even those in the same nest differing from each other."

TOTANUS GLAREOLA (Gmelin).

WOOD-SANDPIPER.

§ 3742. One.—Valkenswaard, North Brabant, 1851. From Messrs. A. & E. Newton.

This supposed egg of Totanus glareola I received from Mr. Alfred Newton, who [with his brother] had obtained direct from Holland a number of eggs [§ 1466], and among them about a dozen marked "Whitestart Sandpiper," which Mr. Yarrell, Dr. Frere, and I have pronounced to be Dunlins', and five others sent as "Grey-legged" and "Red-legged" Sandpiper, four of which Mr. Yarrell and others believe to be T. glareola, and one which he decided to be a Common Sandpiper's; but I incline to the belief that all are T. glareola.

Mr. Newton writes of these last:—"They are like what I have received in other years as Whitestart Sandpipers', and have hitherto believed to belong to T. ochropus. No skin of the last has been sent, but several of T. glareola."

[There has been no question for a long while that this and some of the eggs sent with it, four of which are entered below (§ 3775), are Wood-Sandpipers'. They all came to us direct from Arnold Bots, the old falconer, well known to Mr. Hoy, who himself found the species breeding in the district, though he obtained only one nest with eggs (cf. Hewitson, 'Brit. Ool.' iii. text to pl. cl. No. 37, published 1 June, 1838); but Bots got them from the country-people, who were not careful to distinguish the different nests, and so the eggs were mixed with those of the Snipe, Redshank, and Dunlin. As the great amount of variation to which Wood-Sandpipers' eggs are subject was not appreciated in 1851, the hesitation expressed by Mr. Yarrell and others as to these specimens is not surprising.]

§ 3743. Four.—Muonioniska, 16 June, 1853.

These eggs were brought to me by a little boy as belonging to "Ranta-tiutti" [Shore-Sandpiper]. He had found the nest a week
ago. I went with him to the spot, and saw that it was very simple and slight in its construction, on a raised sod or tuft, with two or three sallow-sprigs near. The boy declared the bird which belonged to it was of the same kind as one whose nest he found three or four hundred yards off later in the day, as hereafter related, from which I shot it.

[I am bound to mention that during his first summer in Lapland (1853) Mr. Wolley thought that the Sandpiper which was so numerous there was *T. ochropus*, and marked its eggs accordingly; but, having been careful to procure and preserve specimens of the bird, the mistake was easily rectified.]

§ 3744. Four.—Muonioniska, 16 June, 1853. "J. W."

These were found by the same boy as the last, I being in company. I did not see the bird at the first visit, nor at one perhaps an hour later; but going up a third time, the bird was sitting upon the top of a little fir-tree near, and I saw her clearly with my glass, indeed she allowed me to approach within a few yards. She sat with one foot placed higher than the other, and piped constantly. Still an hour or so later I again visited the nest, and saw that the bird was on it. Though her eye was full upon me, she allowed me to approach within a yard, when she flew off a few paces and settled, and then a few paces further. I shot her to preserve proof of the eggs. The nest was slight, but still with a good deal of material for a bird of this kind—mostly short pieces of bent—and I have kept it. In the same marsh, at no great distance, a nest of three eggs nearly hatching was trodden upon, which appeared to be Reeve's, and a bird like a Reeve flew overhead. Whimbrels were there sitting on tree-tops, and perhaps *T. fuscus*, and I thought I heard (and am pretty sure rightly) the Common Snipe, both clicking and bleating. It rained heavily, a very good time for finding Waders on their nests.

§ 3745. Four.—Muonioniska, 17 June, 1853. "J. W."

I did not myself flush the bird, but the boy was sure it was the same as that whose nest I took yesterday. While at the nest I several times saw the bird fly round and alight at a short distance, so that I could see as well as possible what kind it was. I did not therefore attempt to shoot it.
§ 3746. One.—Muonioniska, June, 1853.

Of four eggs which we found collected for us on our return to Òlvabyn, 27 June. They were taken by one of the two girls who brought the eggs of Redstart [§ 1410].

[The three other eggs of this nest were sold at Mr. Stevens's rooms, 17 February, 1854, to Lord Garvagh.]

§ 3747. Four.—Kaaressuando, 5 June, 1854.

Found to-day by a Lapp boy near Maunu. He calls them Liro, that is Wood-Sandpiper.

§ 3748. Four.—Muoniovaara, 6 June, 1854.

Found by Anton in Kaakkuri-lammas, at the back of Muoniovaara. He tried in vain to snare the bird.

§ 3749. Four.—Muoniovaara, 8 June, 1854.

Found by Anton in a marshy spot, a few ells across, near the other house. The bird flew up, and he thought nothing of it till afterwards, but then he went back.

[These eggs have a pale green ground.]

§ 3750. Four.—Muoniovaara, 14 June, 1854.

Apparently Wood-Sandpiper's, found by Andragárs Maria [Maria of the other house] and blown by Ludwig during my absence—largish young inside. The nest was on a tuft just by the fence. I often see birds there.

§ 3751. Four.—Muoniovaara, 15 June, 1854.

Found by Ludwig just at the back of the fence, between Herr Forsström's house and the lake. The bird he was sure was Liro, which he knows well, and I see the birds about there every day and hear them at this moment that I am writing (5 July). Ludwig laid snares, and three Fieldfares' eggs in the nest, all blown and filled with water. He saw a Hawk-Owl almost directly afterwards fly to the nest and carry off an egg—a dainty meal!

By Ludwig in Kaakkuri-lammus. The skin of the bird lies before me.

[These eggs have a very conspicuous zone.]

§ 3753. *Four.* — Palojoki, June, 1854.

From Johan Matthias Johanempoika of the *gästgīfscaregārd* at Palojoki. I got them on the 22nd of June, on my way southward, but did not see the lad himself. P.S. 6 Nov. Wood-Sandpiper’s.

§ 3754. *Four.* — Kātkāssonando, 1854.

Lira’s eggs from Anna Greta.


Found by Anton and Ludwig just after they got into the *myr* from Akka-Mella. He shewed Mr. Newton and me the exact spot when we were in the *myr* with him [in August]. They laid a fence with snares round the nest, and caught the bird in little more than an hour. Its skin is here.

§ 3756. *One.* — Äkäs-lompalo, 1855.

Of three brought by a lad, Henrick, on 23 June. On comparison with a series of 28 Wood-Sandpipers’ eggs, these three look so large as to suggest the idea of a distinct species.

[The alleged discovery of *Totanus ochropus* breeding in Lapland always rendered Mr. Wolley suspicious of eggs which might belong to it, until Ludwig’s expedition to Kop Vand in 1857 put an end to all uncertainty on that point. Though some eggs of the Wood-Sandpiper closely resemble those of the Green Sandpiper, this one shews no particular similarity.]

§ 3757. *Four.* — Mukka-uoma, 1855.

From Josa’s wife, in a marsh near the house. Apparently Wood-Sandpiper’s, but an interesting Ring-Dotterel-like variety.
§ 3758. *Four.*—Nilimaa, June, 1856.

Wood-Sandpiper’s, brought to Ludwig on the 26th, by Salomon Pehrsson.

§ 3759. *Four.*—Nyimakka, 1856.

Found on Kivi-ranta, Vittangi-järvi near Nyimakka.

§ 3760. *Four.*—Lapland, 1856.

Seem to be Wood-Sandpiper’s. They have been kept separate, and Ludwig is pretty sure that they are the four entered in his book as found on Kivijärvi-strand in Vittangi—the Vittangi near Nyimakka [cf. § 3759].

§ 3761. *Four.*—Nyimakka, 1856.

Found near Nyimakka.

§ 3762. *Four.*—Sadio, 1856.

Said to be *Liró’s,* but probably Common Sandpiper’s, though they are of somewhat unusual appearance.

[To my eye they are much more like Wood-Sandpiper’s, and I have little compunction about entering them here as such.]

§ 3763. *Four.*—Mielmuka-uoma, 23 June, 1857.

Brought by Teuran Anti’s lad, Johan, on the 24th. He called them *Mustatintti* [Black Redshank]. The nest was on a tuft. From the appearance of the eggs, as well as the locality, there can be no reasonable doubt that they are those of *Totanus glareola*.


Laid separate with the bird, in the same tray with two other birds and nests, namely, one of Common Sandpiper [*§ 3820*] and one of King-Plover [*§ 3490*].

[It is not stated by whom these birds were snared and their nests taken. Mr. Wolley must have obtained them on his way to Norway. The Wood-Sandpiper’s eggs are very warmly coloured specimens.]
§ 3765. *Four.*—Kätkässuando, 1857.

Brought on 5th July by Anna Greta Frederiksdotter, belonging to Elias Vanha-piha, who said he did not know what they were.


Brought on the 19th, and said to have been *Vikla* [Greenshank], found in a *myr* as above. Olaf has since told me that it was he who found them.

§ 3767. *Three.*—Utkaniem, West Bothnia, 7 June, 1858.

[Brought, as Jack Snipe's eggs, to Knoblock on the 15th, by Lars Larsson, of Muonioalusta, who said he found them on the 7th in a *myr* on the Swedish side near Utkaniem, and that he saw the bird, which flew not far from the nest, and he knew it was not a Reeve. Knoblock seems to have been in doubt as to what these eggs were, and there is nothing to shew what Mr. Wolley thought of them, but I have no hesitation in ascribing them to the Wood-Sandpiper, though they are remarkable eggs, with a very fine deep green ground-colour.]

§ 3768. *Three.*—Perilä-uoma, 10 June, 1858.

[Brought to Knoblock on the 19th, by Simon Peter Sahmojarvi, who said he found them in a *myr* as above, and that he saw the bird, which he knew to be *Liro* (that is, Wood-Sandpiper). The fourth egg was broken. These are also remarkable specimens, of a pale, almost white, ground-colour.]

§ 3769. *Four.*—Lompalo-uoma, 3 June, 1859.

[Brought, 6th June, by Olaf Olufsson Hietases, as Greenshank's, found as above; but Knoblock rightly judged them to be Wood-Sandpiper's.]


Brought by Kyrö Niku, who found them by the shore of a lake.

§ 3771. *Four.*—Muoniovaara, 13 June, 1859.

Brought the same day by Tiberg's Carolina, who found them in a *myr* behind the enclosure.
§ 3772. *Four.—* Pippo-uoma, 12–18 June, 1859.

Brought by Martin Pekka on the 25th of June, having been found as above, apparently by his daughter Elsa.

§ 3773. *Four.—* Wirne-uoma, 23 June, 1859.

Brought on the 25th by Carl Liljela, found as above.

§§ 3774. *One.—* Valkenswaard, 1848. From Mr. Newcome.

Given to us by Mr. Newcome, who himself brought several eggs of the "Whitestart Sandpiper" (which in those days we took to be *Totanus ochropus*) from Holland, whither he had been for the hawking at The Loo.

§§ 3775. *Four.—* Valkenswaard, 1851.

These are from the number, already mentioned, received by us direct from Arnold Bots, of which we gave Mr. Wolley one (§ 3742). 'There can be no doubt as to their being Wood-Sandpipers'; but one of them is that which Mr. Yarrell thought was a Common Sandpiper's.

§§ 3776. *One.—* Paddeby, East Finnmark, June, 1855.


These brought to us at the places named. *Totanus glareola* was by no means uncommon on the higher part of the Varanger Fjord, and Mr. Hudleston caught a young bird not many days old, which he brought for me to sketch.

§§ 3778. *One.—* Heeze, 13 May, 1856.

From Mr.

§§ 3779. *One.—* Valkenswaard, 20 May, 1856.

John Baker, 1857.

§§ 3780. *One.—* Domel, 6 June, 1856.

These three eggs were bought at Mr. Stevens's rooms, where Mr. Baker had a sale, on the 24th July, 1857, by my brother, who obtained the particulars above given from Mr. Baker a few days after (cf. §§ 1470 and 1600).

Mr. Theobald's note is:—"Twelve eggs of *Totanus glareola*, collected by an honest man in the northern part of Jutland in the middle of May, 1859." In one of the collections (Mr. Fischer's, I think) at Copenhagen, where these eggs were put into my hands, I saw some wonderful varieties of this bird's egg. Four of the twelve I sent to Dr. Heermann.]


The note accompanying these states that they were from one nest, "taken by a collector of Mr. Fischer's, a true man, in Jutland, at the end of May, 1861."]

[§ 3783. *One.*—Norway, not later than 1840. From the late Mr. Dann's Collection, 1888.

Bought for me by Mr. Edward Bidwell at the sale of Mrs. Wise's collection at Mr. Stevens's rooms, 12 March, 1888, being lot 191 of the Catalogue, which consisted of a Broad-billed Sandpiper's egg (§ 4174) and this, the Catalogue stating that "Both these eggs were given to Yarrell by Mr. Dann." The present egg also is inscribed, in handwriting to me unknown, "R. Dann—Yarrell," shewing that its former possessor had tried to preserve its identity, and I think successfully. In this case it must be the specimen mentioned by Mr. Yarrell (Brit. Birds, ed. 1, ii. p. 536) in his work as follows:—"One egg of the Wood-Sandpiper in my own collection measures one inch seven lines in length, by one inch and half a line in breadth; pointed in shape, of a pale greenish white, spotted and speckled, particularly over the broad end, with dark reddish brown. This rare egg was given me by Richard Dann, Esq., who obtained two or three in Norway, with the eggs of some other very rare birds to be hereafter referred to." This description accords well with the present specimen, though I find the transverse diameter to be almost precisely one inch. At the sale of Mr. Yarrell's collection, 5 December, 1856, when this egg was presumably bought for Mrs. Wise (then Miss Holland), Lot 380 consisted of two eggs of the Wood-Sandpiper, the second of which was very likely one which he had from my brother and myself, for I am pretty sure we gave him one of those we had from Valkenswaard in 1851 (§ 3775). At any rate, I see no sufficient reason for doubting the identity of this egg with that given to Mr. Yarrell by Mr. Dann, and this is an additional reason for regretting that so little is known of the latter's achievements in Scandinavia. He must have obtained this not later than 1840, as the description of it appeared in Part xxiii. of Mr. Yarrell's work, published in March, 1841.]
TOTANUS OCHROPUS (Linnaeus).

GREEN SANDPIPER.

[Notwithstanding all his efforts, Mr. Wolley was unable to obtain any trace of this species in the parts of Lapland visited by himself or his collectors—though the most careful of them, Ludwig Knoblock, was especially sent to examine the valley of Kop Vand in Nordland, which we had been assured was a certain locality for the Green Sandpiper. Whatever might have been asserted to the contrary, Mr. Wolley was confident that it does not occur there, nor in any of the valleys in Norway, Sweden, and Finland within the Arctic Circle, and I believe this confidence was well grounded, since it has been confirmed by the equally negative evidence of more recent investigators¹. On his first arrival in Lapland, being but little familiar with this species or the Wood-Sandpiper, he thought he had found it breeding about Muonioniska, and even marked some eggs accordingly, but his regular practice of procuring the bird from the nest, and so determining the eggs, enabled the mistake into which he had fallen to be corrected, for on the skins of the specimens he obtained being sent home and examined they proved to belong to Totanus glareola, which he subsequently found to be perhaps the most abundant and widely-spread species of the group in Lapland. Other travellers, less cautious, may have made the same mistake without being able to rectify it.

I think I may also state, without fear of contradiction, that the breeding-habits of the Green Sandpiper were at that time absolutely unknown to any person in this country, and to very few on the Continent. On a former occasion I gave some account of them (Proc. Zool. Soc. 1863, pp. 529–532), and as they are, so far as I know, almost singular among those of the whole group of Limicola², I may perhaps be excused from recurring to the subject—the more so since some of the eggs to be presently mentioned were obtained by two of the three men who, each independently of the other, made this very remarkable discovery—Herr W. Hintz and Mr. Wheelwright. In 'Naumannia' for 1851 (Heft ii. p. 50) Herr Pässler

¹ [I myself doubt whether the species ever reaches lat. 62° N. Herr Wallengren (Naumannia, 1855, p. 137) gives lat. 67° as its northern limit, but cites no authority for the statement. The district assigned to it, between Bodø and Qvikjoek (cf. Hewitson, Eggs Br. B. ed. 3, ii. p. 334*), has since been explored by Ludwig, as above, the Messrs. Godman (Ibis, 1861, p. 87), and Mr. Wheelwright (Spring and Summer in Lapland, p. 350), without meeting with the bird, and, from what we now know of its nesting-habits, is wholly unsuited for it. In Russian Lapland the birds observed by Mr. Henry Pearson's party and attributed to this species (Ibis, 1806, p. 212) really were Wood-Sandpipers, as he has since stated (Beyond Petsora Eastward, pp. 12, 318), though unfortunately the error has misled some recent authors. It is very desirable that the northern limit of the Green Sandpiper's breeding-range in Scandinavia should be known.—Ed.]

² [There are the exceptional cases of T. glareola recorded by Mr. Popham (Ibis, 1897, p. 104); and, as I revise this sheet, news comes that the American T. solitarius has the same habit (Ottawa Naturalist, 1901, p. 135).—Ed.]
mentioned that he had, through the Oberförster Wiese, obtained an egg of Totanus 
glaresola, with the remark that this species "nested upon trees"; but in the same 
periodical for 1852 (Heft i. p. 95) he stated that Herr Engen F. Homeyer had 
informed him that the egg in question was not that of T. glaresola but of T. ochropus, 
and added that during his stay at the Haff, in Pomerania, he had seen many 
nesting-places of the latter, which were on the borders of Elsenbrüche)—alder-
swamps, in the middle of the forest, where the trees stand upon hillocks. In the 
'Journal für Ornithologie' for 1855 (p. 514), writing on the birds of Pomerania, 
this same Herr Wiese (grown to be a Forstinspektor) stated that he had heard from 
an old Jäger that this species laid in Thrushes' nests, but naturally did not believe 
his informant. However, some time after, in 1845, he obtained from the same 
man four of its eggs, from a nest in a beech-tree, and next year he himself had the 
pleasure of finding a nest with four eggs in a pine-tree some twenty-five or thirty 
feet from the ground. Similar evidence was offered in 'Namnannia' for 1856 
(p. 34) by Dr. Altum, and that magazine for the next year contains a valuable 
series of observations on the birds of Western Pomerania by the Forester Hintz I., 
in which he said (p. 14) that in May, 1855, he found three eggs of T. ochropus on 
an alder-tree in an old nest which he thought was a Dove's, though it might have 
been a Jay's. Formerly, he added, he had only observed this Sandpiper to breed 
in old nests of the Song-Thrush. Not long after appeared the fourth part of 
Herr Bädeker's 'Eier der Europäischen Vogel,' treating of this bird (pl. xxx. 
no. 5), wherein a brief and imperfect statement to the foregoing effect was given, 
and a notice of this in 'The Ibis' for 1859 (p. 405) first made known the curious 
facts to English readers. In 1860, Mr. Wheelwright, writing in 'The Field' 
newspaper 2 of 18 August (p. 146), under his well-known pseudonym of "The Old 
Bushman," described his own experience in Sweden, which was precisely similar. 
The then natural-history editor of that paper (the late Mr. Edward Newman), 
not knowing of the German evidence, expressed his scepticism on this subject, 
whereupon Mr. Wheelwright reiterated his statement (Field, 15 Sept. p. 228, and 
10 Nov. p. 393), saying that "there is no doubt about the matter," and added that 
he "never took the nest on the ground." 3 A further most interesting com-
unication was made by Herr Hintz to the 'Journal für Ornithologie' for 1862

1 [I originally mistranslated this phrase, and now correct the mistake.—Ed.]
2 [To Mr. Harting I am indebted for some of the references to 'The Field.'
—Ed.]
3 [The assurance was of course accepted by Mr. Newman, who briefly mentioned 
the facts in an article in 'The Field' of 9 December, 1865 (p. 425), of which a 
translation appeared in the 'Svenska Jägarforbundets Nya Tidskrift' for 1866 
(pp. 84–89), and seems to have been the first publication of this peculiar habit in 
Scandinavia, though the Editor of that journal added in a footnote (p. 86) that it 
had been before observed in Sweden—several times by the Jämätser Lundborg, 
who on one occasion at least obtained eggs of Totanus ochropus from a nest 
apparently a Squirrel's. This was referred to by Herr Westerlund in 1867 
(Skandinavisk Oologi, p. 201) and in 1870 by Herr Holmgren (Handbok i Zoologi,—
Skandinaviens Fåglar, ii. p. 81), since when it has no doubt become generally 
known, though Mr. Wheelwright's connexion with it and that of Herr Högndahl 
(of which more presently) have been ignored.—Ed.]
(pp. 460, 461)\(^1\), wherein he stated that he had known of this remarkable habit of *T. ochropus* since 1818, in which year he had discovered it, but having in those days no correspondents with whom to exchange eggs, he had contented himself with taking only a few for his own collection, and, as it would seem, never gave publicity to his observations\(^2\). Even when this wonderful habit of the bird did become known it seems to have excited little interest among the ornithologists of his country.

Equally obscure are the facts of the independent discovery, made, it would seem, by Mr. Wheelwright, who in his 'Ten Years in Sweden,' published in 1865, says (p. 373):—"I do not believe any naturalist had seen the really authentic egg of this bird until I discovered its breeding habits [in Värmland] some few years since. In Sweden the Green Sandpiper never makes a nest on the ground, like the nest of its congeners, but invariably lays its four pyriform large eggs . . . in an old deserted nest of a Squirrel, Jay, or Crow (I have, however, seen them in a new common Thrush's nest) in the forest, often far from water, always in a fir tree, sometimes forty feet from the ground." In what year that capital observer first ascertained this fact I know not, but it was certainly unknown to Professor Nilsson in 1858, when the third edition of the ornithological portion of his 'Skandinavisk Fauna' appeared, for he was particularly unhappy in the account he gave (Foghärna, ii. p. 220) of the nidification of this species. Dr. Prinz, of Valders in Norway, may, however, have anticipated Herr Högdahl and Mr. Wheelwright, but his reticence on the subject seems to have been complete.]


P. Z. S. 1863, p. 552.

Exchanged with me [at Copenhagen, 6 October, 1857] by Dr. Kjærbölling for a Greenshank's egg. He says that the name "*Totanus glareola*" on one of them is through the ignorance of the collector, who has succeeded the more knowing Apothecary Högdahl in Värmland.

[When Dr. Kjærbölling wrote his account of this species for his 'Danmarks Fugle' (p. 292), published in 1852, he evidently had no knowledge of its peculiar breeding-habits; nor could he, five years later, have mentioned them to Mr. Wolley, or the latter would have been sure to notice them in this entry. Herr Högdahl, who lived until 1904, as I learn from Dr. Ottosson, never published anything on the subject.]

§ 3785. One.—From Mr. Tristram, 1858.

Mr. Tristram told me that this was one of those taken by him in Norway in 1852, of which some were sold at Stevens's, 9 May, 1854, and was one of

\(^1\) [It appeared in Heft vi., which was only received in England in 1863.—Ed.]

\(^2\) [His silence has since been redeemed by a series of excellent annual Reports on the birds of his neighbourhood, published in the 'Journal für Ornithologie,' reference to several of which is made further on.—Ed.]
TOTANUS OCHROPUS.

the four eggs which he retained and afterwards sent to Mr. Hewitson, who figured three of them in March 1855 (Eggs of Br. Birds, ed. 3, pl. xi*). Those three remained in Mr. Tristram's cabinet. The present egg has been blown at the ends, and had no mark upon it until I inscribed it. I think that on a former occasion Mr. Tristram told me that he had bought some Green Sandpipers' eggs of Dr. Kjerbølling or some other dealer, and from the mode of blowing and the absence of identifying marks this may be one of those so obtained. It appears from the catalogue of the sale just mentioned that six specimens of this bird's egg were put up (Lots 135–140), of which Mr. Gurney bought two, and the remaining four were, I suspect, those which I saw in Mr. Tristram's Collection at Castle Eden, 5 August, 1858, this being one of them."

§ 3786. Two.—From Dr. Kjerbølling, 1859.

P. Z. S. 1863, p. 532.

Bought by me at Copenhagen, 24 October, 1859, of Dr. Kjerbølling. One of them bears the name of "Printz" written by him, as well as a ticket with "Land" on it by an unknown hand. In the bill he has put down "Norge" as the locality for this egg, and, as I found afterwards, Dr. Printz was a resident in the district in that country known as Valders, from which Land, on the Hands-fjord, is not far distant; but when I first saw Dr. Kjerbølling, he said "Pomern," and assured me that they were from the forester who first discovered this bird's eggs, as recorded by German writers (ut suprā) some years ago, namely Hintz—but from the similarity of sound perhaps he confounded the two names. These eggs are possibly referred correctly to T. ochropus, but there are some varieties of those of T. glareola which are very like them. I should, however, imagine that the eggs of one species would be as liable to variation as those of the other. These were the only eggs attributed to T. ochropus that the Doctor then had."

§ 3787. Four.—Cartzin, Pomerania, 9 May, 1861. From Forester Hintz, through HH. Erichsen, Fischer, and Theobald.

P. Z. S. 1863, p. 531.

In sending me these eggs Pastor Theobald copied the account given to him in 1861 by the Forester Hintz, as already published (Proc. Zool. Soc. 1863, pp. 531, 532): "This year I succeeded in finding the nest of Totanus ochropus. On the 9th of May I took four eggs of this bird (with my own hand) — they were found in an old nest of Turdus musicae, and seemed to have been incubated about three days. The very same day there were brought to me four other

1 [The words within the parentheses were omitted by an oversight from the paper as printed.—Ed.]
eggs of this bird, also found in a Thrush’s nest. . . . . The 10th of May there was shewn to me a nest, thirty feet high, in an old birch, the bird having chosen the decayed nest of a Squirrel. This nest was the highest I have ever seen. Three young ones had just been hatched; in the fourth egg the bird was about to break the shell. One jumped down and concealed itself on the edge of a water-pool. The 11th of May a nest with four fresh eggs was found, but they did not come into my hands; this was in an old Pigeon’s nest on a Pinus rubra, and full of dry pine-leaves. The 20th of May two eggs, almost burst by the young, were found in an old Thrush’s nest, the two missing birds having most likely already left the nest. The 22nd of May four young ones, apparently but a few hours old, were found in the old nest of a Lanius collaria, in a juniper three feet high. The 24th of May four young ones were found in the hole of a Populus tremulina thrown down by the wind. The year before Muscicapa luctuosa had its nest in the trunk as it lay on the ground; this year Totanus ochropus had chosen the same opening. When I approached the trunk, the young ones, perhaps four-and-twenty hours old, jumped away and hid themselves in the grass among the branches. All these nests were near the water—two on the edge of a rivulet, the others on wet morasses, the distance from the water being at most six feet.”

Pastor Theobald further wrote that the Forester added: “Knowing now better the breeding places and time, I hope to be next year more successful in getting their eggs, but I am almost inclined to think, that on an area of 26,000 acres of woodland all the nests of T. ochropus that were there this year have been discovered.” The nest of the 9th of May is recorded by Herr Hintz in the ‘Journal für Ornithologie’ for 1863 (p. 428), and the eggs said to have been incubated about three days. They are dark full-coloured specimens.]

[§ 3788. Four.—Cartzin, 13 May, 1862. From Forester Hintz, through III. Erichsen, Fischer, and Theobald, 1863.

Herr Theobald’s note is: “Taken in Pomerania by the Forester Hintz in the very same old nest of Turdus muscicus in which there were found four eggs the year before.” These eggs have all the appearance of being, as is said, from one nest, but I think they were not laid by the same bird as the preceding, being pale in colour, somewhat resembling Woodcocks’, and one leaning towards a Common Sandpiper’s.]


The Pastor wrote that these were from the same source, and were found in an old nest of Turdus muscicus. They are doubtless the produce of one bird, and are more like Wood-Sandpipers’ in appearance. The Forester’s notes on the breeding of this species in Pomerania in 1862 were printed in the ‘Journal für Ornithologie’ for 1864 (pp. 108, rectis 92, & 59 bis). He found four nests in 1862 against six in 1861.]
Herr Theobald informed me that these were also found in an old nest of *Turdus muscivorus*, adding that "The Forester has promised to send me one or two old nests, in which the eggs of *Totonus ochropus* were found, and you will get them later." Herr Hintz’s notes on the nesting of this bird in 1863 are in the 'Journal für Ornithologie' for 1864 (pp. 186, 193). He seems to have found six nests in 1863 and four in 1862.

All the above I had from Mr. Wheelwright not very long after they were taken. Those of the first nest (§ 3791) were sent by him to Mr. Stevens to be included in a sale of birdskins and eggs on the 7th July, 1863, but arriving too late were obtained from him by me without going through other hands: of the remaining eight eggs, being the contents of two nests, seven came to me direct, and the eighth, which Mr. Wheelwright at first thought too much damaged to send, followed shortly after. Writing to me from Gårdsjö near Carlstad in Sweden, on the 7th of June, 1863, he said:—"Now as regards the Green Sandpiper, they went to nest very early this year, and now most of the eggs are hatched. I got one fine nest and four eggs just when I came home" (towards the end of May) "and shot both old birds . . . . . Last week we got two more nests of four eggs and shot both old females. They were all so hard sat on that the bills of the young birds in one or two were protruding. I managed, however, with much trouble to pick the young out of six, only with large holes, and when laid in the nest the blemish is not apparent . . . . . . . The nests are very shabby, one apparently an old Squirrel’s." On the 2nd of August he wrote that he had that day sent off to me these "two old nests and seven eggs of Green Sandpiper, with two old female birds, and in each nest is written full particulars of its taking, &c." These duly reached me, but I found to my regret that all the eggs bore the same number, whence I fear that they may have been mixed, and the particulars were very scanty, being merely to the effect that the nests were in fir-trees in Bakka Wood, which is part of the forest near Gårdsjö, from twenty-five to thirty feet from the ground. One of them looked like a Dove’s, being wholly of fir-twigs, the other was mostly of moss and a mere ruin. The skins were undoubtedly those of *Totonus ochropus*. The eighth egg, or what remained of it, came subsequently. The nest with the eggs which I received through Mr. Stevens had a coarse foundation of green moss, and might well have been a Squirrel’s."
§ 3794. *Four.*—Pomerania, 5 June, 1865. From Forester Hintz, through Herr Theobald, 1866.

The Pastor wrote:—“I am glad to send you another nestful of *Totanus ochropus*, with the nest of *Turdus* in which the eggs were found. They came from the Forester Hintz in Pomerania, and he is of opinion that they belong to a second breeding. I am inclined to think the nest is that of *Turdus merula*.” The nest does look like that of a Blackbird, as the Pastor suggests. In this year Herr Hintz obtained seven nests of this species between the 30th of April and the 8th of June (Journ. für Orn. 1866, pp. 151, 158).

§ 3795. *Four.*—Pomerania, 5 May, 1866. From Forester Hintz, through Herr H. S. Hawkins.

§ 3796. *Four.*—Pomerania, 12 May, 1866. Mr. H. S. Hawkins.

These two complete nestfuls were sent me by Mr. Hawkins, who received them direct from Hintz, whose handwriting they bear. From his ‘Bericht’ (Journ. für Orn. 1867, pp. 170, 175) it appears that he got only four nests of the species in 1866—the first on the 15th of April and the last on the 17th of May.

§ 3797. *Four.*—Gardsjö, 2 June, 1867. From Herr O. E. Stenström, 1868.

Given to my brother Edward with the information that they were taken as above from an old nest of *Columba palumbus* built in a Scotch-fir twenty-five feet from the ground. Herr Stenström continued to avail himself of the services of some of the lads or men whom Mr. Wheelwright used to employ, and the bird was well known to them, so that there is no doubt about the genuineness of these specimens.

**TOTANUS BREVIPES,** Vieillot.

§ 3798. *One.*—“Hakodadi, Japan.” From Mr. H. Whitely, through Mr. J. E. Harting, 1870.

Though I am inclined to believe that this specimen is genuine, I unfortunately failed to get any further particulars of it, and though it was doubtless sent to Mr. Whitely from Hakodadi, it does not at all follow that it was taken there or even thereabouts. I have not seen or even heard of any other specimen with which I could compare it. Through his son, who joined
Capt. Blakiston in Japan in 1864 (Ibis, 1867, p. 193), Mr. Whitely continued for several years to receive collections of birds and eggs from that country, even after his son quitted it.

This egg, clearly that of a Limicoline bird, does not closely resemble that of any other that I know. It has a pale clay-coloured ground with many (though not large) blotches and spots of two shades of liver-brown, and a few of greyish-lilac—the whole somewhat recalling the look of eggs of Scoplopex or Actiturus, but the shape is truly pyriform, and it measures 1.68 by 1.2 inch.

**ACTITIS HYPOLEUCA** (Linnaeus).

**SUMMER-SNIPE OR COMMON SANDPIPER.**

§ 3799. *One.*—Sedberg, Yorkshire. Not later than 1843.

Found by Mr. Biden, of St. John's College. He saw the bird on the nest.

§ 3800. *One.*—Assynt, Sutherland, 22 May, 1849. "J. W. ipse."

I went with the landlord's boat and two hands to examine the islands of the loch. Found some old Goose's eggs, and a nest of Gobarleery, as the Common Sandpiper, from the noise it makes in the breeding-season, is called in Gaelic in Sutherland. At a second visit in the evening the bird was on the nest, and allowed me to approach to within a foot of it. The eggs I marked, and I saw the bird quite distinctly to be the Common Sandpiper.

§ 3801. *Two.*

§ 3802. *One.*

Assynt, 23 May, 1849.

§ 3803. *Three.*—Inchnadamph, Sutherland, 1849.

Brought to me.

PART III.
§ 3804. Four.—Inchnadamph, 1850.

From Mr. John McGregor, brother of the inn-keeper at Inchnadamph, and the person who, according to Mr. St. John ['Tour in Sutherland,' i. p. 16], looked like a spider at the end of its thread. He is now a Veterinary Surgeon, and dates his last letter from Dingwall.

§ 3805. Three.—Assynt, 1851.

From John Sutherland. I found the bird breeding very abundantly in Assynt in 1849, and no other species except the Dunlin, of which I saw only one small flock.

§ 3806. Six.—Orkney, 1851.

From Mr. George Harvey, of Stromness, apparently the "Stone-turners" of his list.

§ 3807. Two.—Kihlangi, 10 June, 1853. "J. W."

These were slightly sat upon. I saw the bird leave the nest, a neat hollow among two or three short willow-sprigs in a little meadow, a few yards from and above the edge of the river. A man at the gustgifveregårds took me to the nest, which he had found a day or two previously. Kihlangi is the last stage, seven Swedish miles, below Muonioniska. This bird is abundant on the Torneå and Muonio rivers, and also further south. The Finns call it Ranta-tirra, and up here Sipi.

§ 3808. Two.—Jorakovaara, 1853.

Collected for me during my stay in the north. When I called on my way down, they had also some Teals' eggs beside these. The Sandpipers' were found by children, and called Ranta-tirra. I saw many of the birds about, indeed it is the commonest bird on the Torneå and Muonio rivers, and its note is very characteristic.

§ 3809. Two.—Muonionalusta, 7 June, 1854.

Found by Piko Heiki.
§ 3810. Four.—Torvi-koski, Jerisjoki, 16 June, 1854.

From Likavainio Erky: the nest under a juniper-bush.

§ 3811. One.—Palojoki, 1854.

Found by the two boys, Heiki Ollenpoika and Zacharias Johanenpoika.

§ 3812. Two.—Torasieppi, 1854.

Brought at midsummer by the lad Johan.

§ 3813. Six.—Enontekis, 1854.

Apparently Common Sandpipers', found about Kaaressuando, of which the old name is Enontekis. The Pastor calls the eggs Iso Liro's, evidently mistaking them for those of the Wood-Sandpiper.

[Recent maps show that the name Enontekis has now been transferred to a site on the northern shore of Ounasjärvi.]

§ 3814. Seven.—Lapland, 1854.

Apparently Common Sandpipers': many of them brought to me under that bird's name—Sipi. Many others thrown away—unblowable.

§ 3815. Four.—Patsjoki, 11 June, 1855. "J. W."

I saw the bird distinctly, as it was leaving the nest, on an island in the river below the Russo-Finnish frontier.

§ 3816. Four.—Enara, 14 June, 1855.

I took this nest myself on an island in the river, under a bush still without leaves, a short while before getting into the lake.

§ 3817. Four.—Patsjoki, June, 1855. "J. W."

[Not entered in the Egg-book by Mr. Wolley, but the inscription shews that they were taken by him on his journey to or from Lake Enara.]
§ 3818. Four.—Sadio, 1855.

§ 3819. Four.—Nyimakka, 1856.

§ 3820. Four.—Tanan-anti, 22 June, 1857.

[Obtained by Mr. Wolley, during his journey to East Finmark.]

§ 3821. Three.—Repo-niemi, 15 June, 1857.

§ 3822. Four.—Repo-niemi, 19 June, 1857.

Both the above nests brought to Muoniovaara on the 23rd of the month by Oluf Hendriksson Vettainen.

§ 3823. Three.—Haapasaari, Kangosjärvi, 18 June, 1857.

Found by Ankkuri-niemi Johan's boy Matti, as above.


Found by Valus Lars's boy Johan.

§ 3825. Three.—Nieriranta, 28 June-4 July, 1857.

Brought by Isak Aransson Nulisvaara, taken as above.

§ 3826. Four.—Kätkässuando, June, 1857.

Brought on the 24th, by Pekkala of Kätkässuando.

§ 3827. Four.—Near Mukka-uoma, 7 July, 1857.

Brought by Ludwig on his return journey from Norway. The nest on the shore [of Peranjärvi, apparently], under a birch-bush.

§ 3828. One.—Kihlangi, 1857.

[A specimen remarkable for the large blotch of colour it bears.]
§ 3829. *Four.*—Jerisjärvi, 1857.

§ 3830. *One.*—Sodankyla, 1857.

[Apparently one of five, sent by Karl Leppajärvi, together with the first eggs of *Mergus albeccens* obtained by Mr. Wolley (Ibis, 1859, pp. 69-76.)]

§ 3831. *Four.*

§ 3832. *Four.*

Kätkässuando, 1857.

From three nests found by Elias's son Lars, each nest marked by the lad.

[The third nest given to Mr. Salvin.]


Received by me of Elias, ready blown.

§ 3834. *Seven.*—Muonioniska, June, 1857.

From three nests found by Joel's boy Abraham, before St. John's day.

§ 3835. *Two.*—Nulusjärvi, 10 June, 1858.

Brought under the name of *Tylikkä*; found by Abraham, of Nulusjärvi, on an island in the lake.

[Tylikkä is more properly *Ægialitis hiaticola* (cf. §§ 3488, 3489).]

§ 3836. *Four.*—Palaraisen-oja, 10 June, 1858.

Brought on the 20th by Johan Larsson, of Muonioalusta.

§ 3837. *Four.*—Muonioniska, 13 June, 1858.

Brought by the shoemaker's boy Salmon, found by him on the bank of the force.
§ 3838. *Four.*—Utkujoki, 18 June, 1858.
Found and brought by Pawe Motka's widow.

§ 3839. *Three.*—Kangosjärvi, 18 June, 1858.
Found and brought by Hendrik of that place or Haapasaari.

§ 3840. *Three.*—Muonioiska, 19 June, 1858.
Found on Kaivasesta and brought by Niva Louisa.

§ 3841. *Four.*—Muonioiska, 1858.
Brought on the 4th of July under the name of *Tyllikkä* by Johan Ratama's daughter.

§ 3842. *Three.*—Lapland, 1858.
Brought by Mikkel Mikkelsson Kyrö on the 6th of July.

§ 3843. *Three.*—Kyrö, 1858.
By Per Matthisson.

§ 3844. *Two.*—Kautokeino, 1858.
From Lars Jensen Keino, but unknown to him.

§ 3845. *Four.*—Mukkanoma, 1859.
Sent as eggs of *Suokulainen* [Reeve], but properly thought by Knoblock to be Common Sandpiper.

§ 3846. *Four.*—Kangosjärvi, June, 1859.
Brought by Aukkuri Heiki.

§ 3847. *Four.*—Lapland, 1859.
Brought, 5 July, by Mikkel Vettainen.
§ 3848. One.—Swalwell, Durham. From Mr. J. Robson, through Mr. Reynolds, before 1848.

§ 3849. Three.—Bearpark, Durham, 29 May, 1851. From Mr. Proctor.

§ 3850. One.—Durham. From Mr. Proctor, 1853.

§ 3851. One.—Cumberland. From Mr. T. C. Heysham, 1854.

§ 3852. Four.—Banffshire. From Mr. T. Edward, 1855.

§ 3853. Five.—East Finmark, 1855.

These picked out from a great many that were offered to us at several places, from Vadsø to Nyborg, by the children, who gather numbers by the sides of the streams, for the bird is very common.

§ 3854. Four.—Gartan, Donegal, 5 June, 1862. From Mr. Robert Harvey.


§ 3856. Four.—Kaaressuando, 1862. From Peters Johan.

§ 3857. One.—“Sibérie.” From Dr. Dybowski, through M. Jules Verreaux, 1873.

There is a note (Journ. für Orn. 1873, p. 102) of Dr. Dybowski’s finding a nest of this bird with two eggs, which he left undisturbed, hoping to obtain the rest of the complement; but found two days after that the bird had removed them to a new nest not far off! Possibly this is one of the eggs so treated.
ACTITIS MACULARIA (Linnaeus).

SPOTTED SANDPIPER.

§ 3858. One.—From Mr. Yarrell, 1846.

This was given to me as the egg of the Sanderling \textit{[Calidris arenaria]} by Mr. Yarrell, 1 November, 1846. I believe he had it from Green. It agrees exactly with the one he had given him by Dr. Pitman, and also with an original picture sent him by Thienemann, which he shewed to me, except that the spots in the picture are rather dark brown than black. \textit{Sed quærendum est}, J.W., 1 November, 1847.

[The above note shews the kind of doubts and difficulties which beset the oologists of a former generation. The specimen agrees wholly with the now well-known eggs of \textit{A. macularia}, and I refer it without hesitation to that species. The three eggs figured in 1851 by Thienemann for the Sanderling (Fortpflanz. d. gesam. Vögel, tab. xliii. 2, a-e) seem to be Dunlings’. His eight Spotted Sandpipers’ (tab. xlvi. 4, a-h) look right enough.]

§ 3859. One.—From Dr. Brewer, of Boston, through Mr. James H. Tuke, 1846.

§ 3860. One.—From Mr. Green, 26 November, 1846.

§ 3861. One.—From Dr. Brewer, 1848.

[§ 3862. Two. \{ From Mr. R. Downes, of Halifax, Nova Scotia, 1852.\}]

[§ 3863. One. \}]

[§ 3864. Two.—From Mr. R. Downes, 1853.\}]

[§ 3865. Four. \} Fort Rae, Great Slave Lake. From the Smithsonian Institution, through Professor Baird.

The labels accompanying these eggs shew that they were obtained by Mr. L. Clarke, during the expedition of Mr. B. R. Ross. With the first set the female bird was sent (no. 27744).]
TEREKIA CINEREA (Güldenstadt).

TEREK SANDPIPER.

[§ 3867. Two.—Grand Manan, Bay of Fundy. From Mr. Henry Osburn, 1867.]

[§ 3868. Two.—"Archangel." From Dr. Kjærbölling, 1859.
Most likely obtained from Herr Möschler.]

[§ 3869. Two.—"Archangel." From Herr H. T. Möschler, 1862.]

[§ 3870. Four.—"Archangel." From Herr Möschler, 1866.]

[§ 3871. Eight.—Islands in the Dvina River, June, 1872.
From Mr. E. R. Alston.

In giving me these eggs, Mr. Alston told me that they were all taken by Nicolai Gregorovitch and Jakob Mikailovitch on the outer islands of the delta of the Dvina. Messrs. Alston and Harvie-Brown afterwards visited these islands and got more eggs. They saw no other Waders there that could possibly be the parents of them—certainly not Actitis hypoleuca. The Terek is the commonest Sandpiper near Archangel, and all other Sandpipers are called Kuleeki, after its cry. They found it both in the bare and in the wooded islands. It was fond of perching upon trees and running along the branches, and an interesting account of its habits is given by those gentlemen (Ibis, 1873, p. 68). Eggs were brought on the 15th of June, having been taken some days before, and so on to the end of the month.]

[§ 3872. Four.}
Ermakovo, Jenisei River,
20 June, 1895.

[§ 3873. Four.}
From
Mr. C. B. Hill.

[§ 3874. Four.—Ermakovo, 1895.

All these obtained by Messrs. Popham and Hill (cf. Ibis, 1897, p. 105). The latter assured me that the different sets were kept carefully separate. The birds shot from the nests were, in every case, males.]
MACHETES PUGNAX (Linnaeus).

REEVE.

§ 3875. Two.—From Mr. R. Mansfield, 1844.

These two eggs from R. Mansfield. They were marked "Ruff," which they undoubtedly are—see Mr. Hewitson's figures [Brit. Oology, pl. cxxiv., and Eggs Brit. B. pl. lxxiv.]. He had numbers of them.

[Mr. Mansfield was a dealer living at Birmingham, but travelling a good deal about the country, and these eggs appear to have been bought of him at Cambridge, in January, 1844. But for the fact of his having so many of them, they might well be British specimens, for in 1843—the latest year in which they could have been taken—a few Reeves still bred in Cambridgeshire (cf. § 3904) and Huntingdonshire, where he had many acquaintances among the fenmen: but even at that time great numbers were imported into England from the Continent, as they continued to be for a good many years after.]

§ 3876. Twelve.—Leadenhall Market, 1849.

Bought for me by Dr. Frere: no doubt from Holland, or the neighbouring countries.

§ 3877. Ten.—Leadenhall Market, 1850.

§ 3878. Nineteen.—Leadenhall Market, 1851.

Out of twenty-two. I bought altogether six dozen eggs [Reeve, Redshank, Snipe, &c.], which I was allowed to pick, for a shilling the dozen.

§ 3879. Sixteen.—Leadenhall Market, 1851. From Dr. Frere.

§ 3880. Four.—Karto-umia, Muonioniska, 18 June, 1853.

"Bird shot. J. W."

These from the same fen as before mentioned [§ 4177], late in the evening. The bird did not fly, but ran from the nest before Theodore, who said it was Brushane, from his knowledge of that bird about Haparanda. Some time afterwards I returned, and the bird flew off.
before I reached the nest, but settled almost immediately on the flat rushy part. I fired, and it ran, when I gave it the second barrel and it fell dead. A short time before, while waiting, I had seen several little flights of two or three Ruffs, and watched them with my glass as they alighted. I saw two spread their ruff's and run at each other like fighting cocks. They are white under the wing and fly rather like Pigeons, shewing thickish necks. Early in the afternoon I had, with my glass, watched a Reeve which also Theodore recognized. Two or three days ago we found a Reeve's nest with the eggs very hard sat upon, but they were all accidentally trodden upon. These eggs had formed young, but so that it was possible to blow them through holes of moderate size. The nest was made of short bits of grass and so forth, in one of the belts of ground intersecting the marsh, deep and like the nests of Jack Snipe and other such birds.

§ 3881. Three.—Kaaressuando, 19–20 June, 1853. "J. W."

These are three of the four which I found on a low island in a lake near Kaaressuando, on the night of 19–20 June, during a thunder-storm. I flushed the hen and afterwards snared her with horsehair nooses stuck round a hoop. Her yellow legs, short beak, browny throat, and chequered back were at a glance decisive of the species. One toe as well as her neck being caught, she fell into the water. When released from the snare, she alighted after flying a short distance.

§ 3882. Two.—Kaaressuando, June, 1853.

Supposed by Ake Engelmark, the priest's son, who found them, to be Suokulainen, that is Reeve, as they apparently are. The bird is abundant here, and much snared. The other eggs were broken, these a day or two incubated.

§ 3883. Two.—Muonioniska, June, 1854.

Seem to be Reeve's: brought by Lantas Johan Matthias on or about the last day of June: the eggs quite fresh and newly found in Talvela-hu-úoma.

[After his second summer's experience Mr. Wolley wrote to Mr. Hewitson, 27 November, 1854, of the species as follows.]

The Ruff, like many other fine gentlemen, takes much more trouble
with his courtship than with his duties as a husband. Whilst the Reeves are sitting on their eggs, scattered about the swamps, he is to be seen far away flitting about in flocks, and on the ground dancing and sparring with his companions. Before they are confined to their nests it is wonderful with what devotion they are attended by their gay followers, who seem to be each trying to be more attentive than the rest. Nothing can be more expressive of humility and ardent love than some of the actions of the Ruff. He throws himself prostrate on the ground with every feather on his body standing up and quivering, but he seems as if were afraid of coming too near his mistress. If she flies off he starts up in an instant to arrive before her at the next place of alighting, and all his actions are full of life and spirit. But none of this spirit is expended in care for his family. He never comes to see after an enemy. In the marshes a Reeve now and then flies near with a scarcely audible ku-ku-kuk, but she seems a dull bird, and makes no noisy attack on an invader. She sits pretty close, and the eggs are found by walking her up. They are generally amongst dry grass in low-lying places; very little nest: one that I came across was in a small islet in a lake [§ 3881]. The eggs are hatched up here about midsummer or a few days after.

§ 3884. Two.—Salmojärvi, 1855.

Matthias Adolph sent them, as Suokulainen.

§ 3885. Four.—Salmojärvi, 1855.

Apparently Reeve's, but brought for Mustatiutti [Black Red-shank] by Fridrik.

§ 3886. Four.—Föra, Öland, 6 June, 1856.

No doubt Reeve's, of which there were dozens about, and I saw one very near this nest.

§ 3887. Four.—Ormöga, Öland, 6 June, 1856.

Found by Mr. Simpson [Hudleston] in my company. I telescoped the bird and took the eggs.
§ 3888. *Three.*—Muonioniska, 10 June, 1857.

By Anti’s Abraham’s lad from Rokoma-saari 10th June, and brought to Knoblock on the 11th. Called *Liro*, but look like Reeve’s, which are the birds most likely to be found abundant on that island.

§ 3889. *Four.*—Peltouoma, June, 1857.

Brought as *Suokulainen*, which they evidently are, and blown at once by me.

§ 3890. *One.*—Kottivaara, June, 1857.

Of three brought by Kyrö Niku as Jack Snipe’s, found some days before midsummer on a *myr* in Kottivaara.

§ 3891. *Four.*—Nulusjärvi, 6–12 June, 1858.

Found by Nulusjärvi Maria in a *myr*, and brought by Powe Motka’s widow as Black Redshank’s, but Knoblock rightly thought them more like *Suokulainen*.

§ 3892. *Three.*—Muonioniska, 12 June, 1858.

Brought by Gabriel’s widow’s boy Johan, having been found as above by his brother Carl on Rokoma-saari in the Muonio lake. He could not see the bird well, but thought it might be *Liro*.

[These eggs seem to be Reeve’s, as did the three found on the same islet the year before (§ 3888) to Mr. Wolley.]

§ 3893. *Three.*—Muonioniska, 17 June, 1858.

Brought by Anna Greta as Whimbrel’s [*!] ; found in the garth by the parsonage.

§ 3894. *Four.*—Nilijärkkä, June, 1858.

Brought on the 19th by Kyrö Niku; found in a *myr* as above, and apparently Reeve’s.
§ 3895. *Four.*—Muonioniska, 20–26 June, 1858.

Brought by Niemi's widow's boy Johan; found on the strand at Kirwesoja.

§ 3896. *Three.*—Peltonoma, 1858.

Sent by Eric, unknown to him, but apparently Reeve's.


[Through a mistaken entry the history of these eggs is doubtful.]


Brought by Ranta Matti's boy Isak; found by him as above on Rokoma-saari.

[These are large eggs, with large blotches, and might well be taken for those of Gallinago major; but that species is not known to have occurred in the Muonio valley, and Mr. Wolley's note as to the prevalence of Reeves on this particular island in the river (§ 3888) contents me.]


Brought by Lars Larsson, of Muonioalusta, but he did not see the bird.

[Knoblock thought that these were Snipe's, and the late day is in favour of his view; but I incline to believe they are Reeve's.]


Sent as Suokulainen, from Jacob of Kyrö.

§ 3901. *Two.*—Mukka-uoma, 1859.

From Eric as Suokulainen.

[§ 3902. *One.*—From Mr. Reynolds, before 1848.

Most likely obtained from Mr. Manfield (cf. § 3875).]
§ 3903. *Four.* — From Dr. Frere, 1851.

Bought in Leadenhall Market (cf. §§ 3876, 3878.)]

§ 3904. *One.*—Cambridgeshire, May, 1842. From Mr. John Hancock, 1853.

Mr. Hancock did not give us the name of the place where this was taken or that of the correspondent from whom he had it; but he assured us it was from Cambridgeshire in 1842 (cf. § 3875.)]

§ 3905. *Three.*—Hickling Broad, Norfolk, June, 1855. From Mr. Thomas Southwell, 1856–1903.

Mr. Southwell, writing to my brother Edward on the 18th July, 1855, said:—
“A friend of mine has just received four Reeve’s eggs from Hickling”—and one of these he sent to me in the following year. He was subsequently good enough to give me two more, as he believes, from the same nest, but certainly from the same place and in the same year. He also informed me that his friend was the late Mr. F. Atkinson, and that the eggs were taken by one of the Nudd family, who was then gamekeeper at Hickling.]

§ 3906. *Two.*—Ilceze, North Brabant, 16 May, 1856.

§ 3907. *One.*—Hamont, Belgium, 7 June, 1856. From Mr. J. Baker.]

§ 3908. *One.*—Hamont, 13 June, 1856.

§ 3909. *Two.*—Valkenswaard, North Brabant, 1856.

§ 3910. *Four.*—Lapland, 1861.

Brought by Lars Hendrik Palojarvi, as Mustatintti, but to all appearance Reeve’s.]

§ 3911. *Four.*—Muonianiska, 1862.

Sent by Simon Hendrik Sieppis, not known by him, but rightly, as it seems to me, attributed by Knoblock to Suokulainen.
§ 3912. Four.—Muonioniska, 1862.

Brought by Johan Erik Sieppis as Black Redshank, which they certainly are not, but most likely Reeve's.]

§ 3913. Two.—Rammi-noma, Kyrö, 1862.

Sent as Black Redshank's by Johan Anti of Kyrö, but to all appearance Reeve's.]

§ 3914. Four.—Kaaressuando, 1862.

Sent by Peter Johan, as Suokulainen, which they doubtless are.

§ 3915. Two.—Hickling, Norfolk, 3 June, 1884. "A. H. Evans." From Mr. A. H. Evans.

My brother Edward wrote in his notes that on the 13th May, 1884, after having taken a Redshank's egg (§ 3737), he went over to the south-west side of Hickling Broad to the Rush Hills, "the only place where Reeves were ever seen, and where Joshua Nudd had seen ten or a dozen on two occasions lately. Almost immediately on landing some nine or ten birds got up, much like Redshanks, but I think a trifle smaller and more yellow-looking, shewing no white. They rose in a flock when we were nearly one hundred and fifty yards from them, and after they had gone a single bird flew up somewhat nearer, and went off in the same direction. We walked up to the place whence the birds rose, but could see no sign of a nest. The birds went on to a piece of very wet ground, which was divided from where we were by a ditch, and we could not have got across it without a boat or a pole. We then returned to the boat and poled across the Broad, a high sea running which splashed into the boat, and saw nothing of interest but a Coot and a few Herring and Lesser Black-backed Gulls. Nudd said he had seen Rulls twice this year, but he did not think the Reeves would lay for a fortnight. The last egg he ever heard of was taken seven years ago. Last year there were several Reeves at the same place; but they left shortly after some cattle were turned out on the Rush Hills. He said they always make their nests in very wet places. We did not see a single Duck of any description throughout the day."  

On the 31st of May my brother was again at this place (which is a perfectly flat marsh), where the Reeves were said still to be, but he did not see them, though the man with him said he saw one. On the 3rd of June my brother again met this man, who told him "he had found a Reeve's nest on the Rush Hills, at the place where we had seen the birds before, and where both he and I had seen one fly in a peculiar manner, whence he expected she had a nest. There were four eggs and he had taken two, but that he could not shew it to me as there was a boy placed to watch, and he was sure that if we stopped to look at the nest the boy would find it and take the eggs. Nudd told me that
after he had seen the Reeve fly up, near where he afterwards found the nest, she settled down and was joined by a Ruff with a white ruff. He was then convinced there was a nest, and after closely walking the ground for about two hours he found it. It was on the spot just where we had looked on the 31st of May, and I must have walked a few yards from it. Nudd said the nest was much concealed, and there was a sort of run under the grass made by the bird. We then set off in the boat, and soon saw the boy on the watch, so we merely poled along the shore, Nudd pointing out to me exactly where to look, and when within seventy yards of the place, and quite opposite to it, I saw the bird rise. She flew low at first, after the manner of a Rail, and her tail had a very narrow appearance, as if the feathers were drawn inwards, and not spread out as they generally are when a bird rises from the ground. We poled on some bit further, and then landed on a wall, and walked back towards the nest. The boy poled his boat exactly opposite to where the nest was and landed. I think he went to it, but Nudd thought not. He then came to us and told us there was a Reeve's nest there, which his grandfather had found, and that no one was allowed to go on the ground. As I did not want to get anyone into trouble, I reluctantly came away. Nudd showed me the two eggs he had already taken. They were of a very dark greenish brown, with deep green blotches and spots.

As my brother was coming away he met Mr. A. H. Evans, who at once went to the nest with Nudd, who had found it for him, and brought away the remaining two eggs. The next day he revisited the nest and found the bird upon it, though empty. He then put in it two Redshank's eggs, on which the bird continued to sit up to the time of his departure three days later, as he subsequently told my brother, when giving him, as he kindly did, the two eggs entered above. "He did not know whether they were taken by Nudd or by himself, as he mixed all four together. He went over all the likely ground in the neighbourhood of the Broad, but did not see another Reeve, and thinks that those I saw were either shot or had left. It was notorious all over the country that they were there, and they were much looked after." The next year Nudd told my brother that the Reeve's nest in which the Redshank's eggs were placed was mown over before they were hatched.

§ 3916. Three.—Norfolk? From the late Mr. Scales's Collection, 1885.

These are obviously very old specimens, inscribed by Mr. Scales in ink "Reeve," and were most likely taken in Norfolk, as he would hardly have been at the trouble of bringing from Holland eggs which he could in his time have easily obtained in his own neighbourhood, for from 1808 to 1812 he lived at Halvergate, near Acle, on the borders of the Broad-country (cf. Trans. Norf. & Norw. Nat. Soc. iv. p. 84). Unfortunately two of them are very seriously damaged.]
PHALAROPUS HYPERBOREUS (Linnaeus).

RED-NECKED PHALAROPE.

§ 3917. One.—Oefjord, North Iceland, 1842. From Mr. Proctor, 1844.

§ 3918. One.—Iceland, 1846. From Mr. Graham, 1847.

[Mr. Graham was taken to Iceland by Mr. Henry Milner in 1846. This is a curiously rounded egg.]

§ 3919. One.—Orkney, 1848. From Mr. Dunn.

I bought this of Mr. Robert Dunn at Hellister near Weesdale in August, 1848. He took several of the eggs the preceding spring in the Orkneys, whither he went in a little boat accompanied by his son, in consequence of information received from Captain Drummond, of the Forty-second Highland Regiment. He killed many of the birds, which he shewed to me, and he observed that the female is larger and more brightly coloured than the male. See his note on the subject in 'The Zoologist' for 1848 (page 2230).

§ 3920. Two.—Sanday, Orkney, 1851.

These brought to me 8 December, 1851, by Mr. Charles Hubbard, of Dickleburgh in Norfolk, the inventor of a portable boat exhibited at the Great Exhibition, with which he has been in Lewis, Sutherland, and Orkney. He visited Sanday, where he saw Mr. Strang, of Lopness. There were then very few Phalaropes, and he paid strict attention to the wishes of the proprietors. These were the only two eggs of the bird he received this year. They were both in the same nest in the isle of Sanday, and his correspondent could find no more.

1 [Subsequently Colonel Drummond-Hay, of Saggieden in Perthshire, first President of the British Ornithologists' Union, who died 4 January, 1896, aged 81 (cf. Ibis, 1896, pp. 206-208).—En.]
§ 3921. *Three.*—Sanday, 1853.

Sent to Mr. Edge in that year by Mr. William Kirk, the keeper of the Start Point Lighthouse, who wrote that they were all he was able to obtain, as a man had been there shooting the few pairs of birds that were there.

§ 3922. *Two.*—Sanday, 1854.

Mr. Kirk wrote from the Start Point Lighthouse, 7 October, 1854:—"I am sorry that I have only found two eggs this summer, as the bird has become very scarce."


Three eggs of the Red-necked Phalarope which I took myself on a little knob of ground in a pond not many miles above Nyimakka. There were three or four pairs of the bird about, very tame. The nest was in a tuft of longish grass, dried; itself very slightly made of bits of hay, close to the water, but raised above it on a banket, so as to be quite dry. I cannot obtain any trace of the Grey Phalarope.


Taken on the night of 19–20 June, by my man Elias, in the marsh Heatennas-oma, on the Finnish side. He saw the birds, *Vesipääskynen* [Water-Swallow], swimming about. The eggs fresh.

§ 3925. *Four.*—Nyimakka, 1854.

Brought to Ludwig by Nyimakkas Hendrik, under the Finnish name of the bird, *Pohjasen Uima* [-lintu, Northernmost Swimming-bird].

§ 3926. *Two.*—Kaarejärvi, 1854.

Out of five found by the boy Tuorimaa Fricka on an island in a lake called Kaarejärvi, to the north or north-west of Kaarevaara,

1 [This name (cf. §§ 3926 and 3933), taken down no doubt by ear, and in each case wrongly spelt, troubled me much, till Dr. Ottosson, from a correspondent in Finland, kindly supplied the probable orthography and meaning as given above. It seems to be unknown to Finnish ornithologists.—Ed.]
being on Kaarejoki. From two nests blown by the Pastor [Engelmärk] or his children, and called by him *Pohjasen Uima.* I saw the birds on another small lake by Kaarevaara in June.


Out of a nest of four found by Mr. Simpson [Hudleston], who was so placed that he saw the bird fly up from the sea on to the nest in the grass. Both birds were very tame, and I examined them carefully with and without the glass, to ascertain the species, thinking the situation might suit the Grey Phalarope. We were watching for a Turnstone’s nest [§ 3271].

[I well remember this nest, the first Phalarope’s I ever saw. The other two eggs are in Mr. Hudleston’s collection.]


The first was shot by the Lapp schoolmaster (the artist), who brought it to me with the eggs. It is a female. He found it something like a Norwegian mile from Nyborg.

[The same man brought also a Dotterel and its eggs (§ 3413), obtained on the same excursion.]

§ 3929. *Four.*—Varanger Fjord, June, 1855.

A nest brought to Nyborg by a Lapp woman on or about the 29th June.

§ 3930. *Five.*—Muna-lanta, Nyimakka, 1855.

No doubt Red-necked Phalaropes’, for Peter says they are those of *Vesi-pääiskyven* from the same pond where I took a nest last year [§ 3923].

§ 3931. *One.*—Enontekis, 1856.

An incomplete egg from the inside of the bird, which is sent with it by Markinas Johan.
§ 3932. Two.—Saarijärvi, 1856.

Out of eleven, found by Hendrik Tuorimaa about Saarijärvi and Roiska-järvin-ranta, eight miles north of Kaaressuando. Ludwig received them from Hendrik himself on the 28th of July.

[One of these was sold at Mr. Stevens's, 23 February, 1858, to Mr. Shepherd. Four I sent to Dr. Heermann in 1861.]

§ 3933. Three.—Nyimakka, 1856.

From a myr at the back of Nyimakka by Peter, and sent under his name of Pohjasen Uima.

§ 3934. Two.—Orkney, 1856.

Sent by Mr. Kirk, 17 November, 1856, and no doubt taken in Sanday.

§ 3935. Four.—Tatcha-järvi, 2 July, 1857.

Found by Johan Mukka-uoma, by the lake-side.

[Very dark-coloured specimens.]

§ 3936. Two.—Kolpojärvi-saari, 13 July, 1857.

Found by Ludwig on his journey back from Norway. The nest of old hay-stalks in a hillock close to the water. The young ready to hatch. He had to wade to the islet up to his arms, and so could not take a gun to shoot the bird, which walked and crept about the nest.

§ 3937. Four.—Nyimakka, 1857.

Found shortly before I came to Nyimakka in a myr not far from the house. Had large young inside. I saw birds in Muna-lanta there both this year and in 1854 [§§ 3923, 3930].

§ 3938. Four.—East Finmark, 1857. "J. W."

[Not entered in the Egg-book by Mr. Wolley, but certainly belonging to this year and taken by himself near the Varanger Fjord.]
§ 3939. *Four.*

§ 3940. *Four.* Sandgerdi, South-western Iceland, 18 June, 1858. "J. W."

§ 3941. *Four.*

§ 3942. *Four.*—Sandgerdi, 6 July, 1858. "J. W."

§ 3943. *Four.*—Sandgerdi, 12 July, 1858. "J. W."

[All the above (§§ 3939-3943) taken by Mr. Wolley himself, but not entered by him in the Egg-book. I was with him on all these occasions, and took eggs of this species on two of them (§§ 3948-3951). One of the eggs in the nest taken by him on the 6th of July is very abnormal.]

§ 3944. *Seven.*—Sandgerdi, 1858.

[I do not know how these eggs came to be mixed; but a note in Mr. Wolley’s handwriting, in the box with them, states that he saw the bird fly from the nest which held the three largest.]

[§ 3945. *Two.*—Orkney, 1850. From Mr. Robert Dunn.

Almost unquestionably from the Snauday locality.]

[§ 3946. *Five.*—Iceland, 1851, 1852. From Mr. Proctor.

I believe that all Mr. Proctor’s specimens came from the north of the island.]

[§ 3947. *Four.*—Rævö, Varanger Fjord, 27, 28 June, 1855. "A. N."

I found and took this nest on a little island on the south side of the fjord, about midnight. Mr. Wolley and I had crossed over from Nyborg, to see what we could find, but the only other thing of interest that presented itself was a grand old Sea-Eagle, which, with its head looking almost white in the sunlight, sat motionless on a low rock at the eastern point of the islet, and I watched it for some time with my glass, until the approach of one of our boatmen made it take flight.]
PHALAROPUS HYPERBOREUS.

§ 3948. Four.—Sandgerdi, 18 June, 1858. "A. N."

Though I waited for some time without seeing the bird come to this nest, I have no doubt as to the species to which it belonged. Phalaropus hyperborens was very plentiful at Sandgerdi, as shewn by the fact that, even so early in the season, we found seven completed nests, besides two or three more containing one or two eggs. P. fulicarius we had seen nothing of, and the bird which seems to answer to its description comes, according to the son of the bonde, not sooner than Jónsmessa (24 June). This nest was some eighty yards from the place where we found so many, and nearly in the middle of a large grassy expanse.

§ 3949. Four.—Sandgerdi, 18 June, 1858. "A. N."

A complete nest from which I saw the bird run off, with comparatively light head, and small patch of red on the neck, smaller and more striped on the back. This nest was on a small islet in the mere, only to be reached by bridging over the intervening channels by a plank. There were at least two other nests on the same islet, besides several Eider-Ducks. I plucked away some of the grass and herbage to enable me the better to see the bird leave the nest. I do not know whether this nest was known before to the proprietor's son as the last was.

§ 3950. Four.—Sandgerdi, 18 June, 1858. "A. N."

I could not be quite sure that I saw the bird run off this nest; but I certainly saw a pair of Phalaropus hyperborens within a few feet of it, and no other species about which could have been the owner of it. The eggs of this and the two preceding nests I marked, as I took them, with the first three letters of the alphabet, and these marks are, as I now write, sufficiently distinct. I therefore know they could not have been mixed. Mr. Wolley marked his nests with numbers.

§ 3951. Four.—Sandgerdi, 6 July, 1858. "A. N."

A complete nest of four eggs, shewn to me by a little girl, daughter of the bonde, as that of Odinskani (P. hyperborens), which it undoubtedly is. The people declared that they had not seen Randheystingr, as they there call P. fulicarius, this year, nor had we seen it there, though we did see two pairs the day before and that very day at U'tskálur (cf. § 3958).]

§ 3952. Three.—Yukon, 16 June, 1861. Mr. Kennicott, through the Smithsonian Institution, 1863.

Professor Baird wrote that with these eggs the parent bird was sent (no. 27694), snared.
PHALAROPUS HYPERBOREUS.—P. FULICARIUS.

[§ 3953. Three.—Egedesminde, North Greenland, 1864. From Pastor Thieobald, 1866.

The Pastor wrote that these were taken by Herr Zimmer, with his own hands, and sent as being from the very same locality as the eggs of the other species (§ 3959).]

[§ 3954. Four.—Benbecula, Outer Hebrides, 12–15 June, 1868. From Captain Elwes.

A complete nest taken by Murdoch Macdonald at the little marsh.]

[§ 3955. Four.—Anderson River, Arctic America, June, 1863. Smithsonian Institution, through Prof. Baird.

From Mr. MacFarlane's spoils. The ticket bears the remarkable statement: "Parent no. 39033 shot on tree near nest." Nothing, however, as to the, so far as I know, hitherto unrecorded, fact of a bird of this species perching on a tree is said by him in his notes (Proc. U.S. Nat. Mus. xiv. pp. 425, 426).]

PHALAROPUS FULICARIUS (Linnaeus).

GREY PHALAROPE.

[§ 3956. Three.—Egedesminde, North Greenland, 1861. From Prof. J. T. Reinhardt.

Prof. Reinhardt wrote to me, 14 December, 1861, that he had no doubt as to the authenticity of these eggs, as he had the greatest confidence in the correspondent from whom he received them. I confess that I was not satisfied with their appearance, for I thought them too small, whereupon, though still convinced of their correctness, he was so good as to send me the two next to be entered. He did not name his correspondent to me, but it was probably Herr Zimmer (cf. §§ 3953, 3959).]

[§ 3957. Two.—Hunde Eiland, Disco Bay, July, 1861. From Herr Olrik, through Prof. J. T. Reinhardt, 1862.

Sent, as above stated, in consequence of the doubts I had ventured to entertain as to the preceding. Professor Reinhardt wrote to me, 3 June, 1862, that these were received at Copenhagen, 17 December, 1861, from Herr Olrik, the Inspector or Governor of North Greenland, who was positive in stating these to be really the eggs of the greater species; but it does not
appear that he took them himself, and I consider there may still be some hesitation as to accepting them as genuine. Still it would seem from the testimony of others that there is really no constant difference in appearance between eggs of these two species, which is curious when the manifest difference in structure is considered. These specimens did not come into my possession till some time after those mentioned in the next section, which I take to be genuine. Herr Hertluf Winge (Grönlands Fugle, p. 175) states that the Royal Museum of Copenhagen received eggs of this species from Hunde Eiland taken in July, 1861.]

[§ 3958. Four.—U’tskálar, South-western Iceland, 1862. From Pastor S. B. Sivertsen.

P.Z.S. 1867, p. 165, pl. xv. fig. 1.

Sent to me by the Pastor and referred to in his letter of 3 July, 1862. That they are really eggs of this species I have scarcely a doubt. On the 5th and 6th of July, 1858, I found two pairs of this bird by the side of the tarn at U’tskálar 1, close to the parsonage. I watched them for several hours and reluctantly came to the conclusion that neither pair had a nest. They were exceedingly tame as they ran on the short turf or occasionally swam on the water. I took the Pastor and others to look at them, and bade them observe the difference between these birds and the common Odlisshani, or Red-necked Phalarope, though, indeed, they seemed to be well-known to everyone, and were called by the name Raudbrystingr—which, I believe, is more commonly applied to the Knot, but its meaning (Redbreast) suits either species in breeding-plumage. I kept up communication with the Pastor from time to time and besought him to obtain me eggs of this bird, which was believed to breed there in some seasons, though not regularly. On the 15th August, 1862, I received from him the letter above mentioned, which Mr. E. Magnusson subsequently translated for me as follows:—

"I have been very desirous of being able to accomplish your request in getting and despatching the eggs of Phalaropus platyrynchus, for which the late Mr. Wolley reiterated the request in a letter to me of 13 May, 1859; but in this I have not succeeded until this hour, for the bird is very cautious and does not breed except in small hillocks in bags near lakes or pools, and therefore the eggs are not at all easy to be discovered. Now this spring I charged several people to search both here and at other places, and one night they at last succeeded in finding one nest containing four eggs; but, strange to say,

1 [It was at Sandgerdi (which he writes Sangjer), a little to the southward, where we saw only P. hyperboreus (§ 3951), that Faber (Prodromus der isländischen Ornithologie, p. 38; Isis, 1824, p. 462; and ‘Dag-Bok’ MS. p. 567), 22 June, 1821, found some pairs of this species breeding. Eggs he did not then get, but the people living there (who called the bird by the same name as they used for it to us) told him they were very like those of the other species, only a little bigger. On the 9th of July following, being near Eyrarbakki, he shot a cock-bird anxiously tending the newly-hatched young, which were able to run and hide in the grass.—Eb.]
the next morning, when I intended to take them away, they had disappeared. Two days later another nest was found with three eggs, which I ordered the discoverer to take away immediately. This done, I packed them in a tin box and smooth ashes, and sent them to Reykjavik. But when my son had opened the box in Reykjavik, to pack the eggs, according to Geir Zoega's directions, they were all broken on account of the oscillation caused by forwarding them on horseback. When I heard this I was vexed and ordered a new search on the spot where the birds had been seen. At last after considerable trouble one nest and three eggs were found, of which I was very glad. To-day I send these eggs to Keflavik together with a letter to Zoega, in case there should be communication by sea with Reykjavik, and I have asked him to pack them up better, and take care that they may reach you as soon as possible...... I should like to hear from you and know if this packet reaches you all safe.

"Your friend,

"S. B. Sjövertsen."

Four eggs, however, arrived, whence I conclude that Geir Zoega thought that one of the first lot was good enough to send, but they were in a deplorable condition, unblown and half putrid, and as I was immediately leaving home for the continent I put them into spirit, where they remained until the following summer, when Mr. Salvin took them in hand, and mounting their shattered shells on eggs of Temminck's Stint, selected to fit them, made very respectable specimens of them. I exhibited them at a meeting of the Zoological Society, 24 January, 1867, and one of them was afterwards figured in its 'Proceedings' (at supra). I mentioned them also in the "Notes" which I contributed to Mr. Baring-Gould's 'Iceland, its Scenes and Sagas' (London: 1863, p. 412).]

[§ 3959. Three.—Egedesminde, June, 1864. From Herr Zimmer, through Pastor Theobald, 1866.

P. Z. S. 1867, p. 166.

The Pastor wrote:—"You will find three eggs of Phalaropus rufus, with the birds, in the box. They are from Egedesminde, a station in the northern part of Greenland, where this species is the most common. Mr. Zimmer, formerly Administrator of the above-named Danish colony, brought them from that place last year. Inhabitants, instructed by him, caught the parent birds on the nest, at the end of June 1864, and there cannot be the least doubt that they [the eggs] are well authenticated and identified. They were laid in a separate box together with the birds. Besides, Mr. Zimmer is a very honest man and a good friend of Mr. Erichsen. As the skins are of no value, in this case I thought it proper to let them [go] in company with the eggs. Perhaps the eggs and parent birds may still be interesting to you, although I think the egg is no rarity at all now." Herr Theobald sent at the same time a nest of eggs of the other species of Phalarope, taken also by Herr Zimmer (§ 3953).]
§ 3960. *Four.*—Upernivik, North Greenland. From Herr Olrik, through Mr. H. S. Hawkins, 1867.

Mr. Hawkins wrote to me:—"Among the eggs sent me, but not yet arrived, though I am expecting them daily, are those of the Grey Phalarope, of which I had especially asked Mr. Olrik, the Inspector of North Greenland, to try and get me as large a series as possible, thoroughly and carefully identified. This he tells me he has done, and that he can guarantee the eggs sent, the bird having been in every case carefully watched, and in most cases shot off the nest, and several skins are sent with the eggs. It has struck me that you might like to have some of these, as, if I remember rightly, you are not well off for this species. They are sent in nests of three or four eggs each generally." A few weeks after he wrote again:—"I intend sending you to-morrow a box with the Phalaropes' skins and one nest of eggs, off which two of the birds were shot—the taking of which nest Mr. Olrik particularly describes, so that if the skins are those of *Phalaropus plathyrynchos* there can be no doubt as to the eggs; but I am curious to hear from you when you have seen the skins." The skins sent were unquestionably those of *Phalaropus plathyrynchos* or, to use the older name, *P. fulicarius*; but I do not feel so confident as to all the four eggs belonging to the same nest."


Sent by Capt. Bendire at Prof. Baird's request. They had been received by the Smithsonian Institution from the United States Signal Service, as having been taken as above, and their catalogue number is 18654. In the account of the Birds observed by the International Polar Expedition to Point Barrow, under the command of Lieut. P. H. Ray, of the United States Army, which was contributed by Sergeant Murdoch, the Naturalist of the Expedition, to the 'Report' published at Washington in 1885, it is said (p. 115) of this species:—"The nest is always in the grass, never in the black or mossy portions of the tundra, and usually in a pretty wet situation, though a nest was occasionally found high and dry, in a place where the nest of the Pectoral Sandpiper would be looked for. A favorite nesting site was a narrow grassy isthmus between two of the shallow ponds. The nest is a very slight affair of dried grass and always well concealed."

"Some of the pairs have their full complement of eggs laid by the middle of June, but others are much later, as fresh eggs were obtained as late as June 29, in 1882. Four is the usual number of eggs in a complete set, although sets of three incubated eggs are to be found."

Mr. Murdoch also states that "The whole duty of raising and taking care of the brood, after the eggs are laid, falls upon the males, who hatch the eggs and take care of the young brood, while the female spends her time away feeding. We never found a female sitting on eggs, or took one with her breast plucked. It was invariably the male bird that was started off the eggs."
CALIDRIS ARENARIA (Linnaeus) 1.

SANDERLING.

§ 3963. One.—Iceland. From Herr Cristian Zimsen, 1858.

This egg is out of the only collection which Mr. Wolley and I saw or heard of in Iceland. Some days before our departure from Reykjavik we were told of an egg-collector in the person of a young man in the employment of a merchant there. We called upon him and he shewed us what he had, the whole consisting, as he told us, of eggs taken in the island, but we refrained

1 I may here observe that the egg figured by Mr. Hewitson on plate lxxxii. of his Second Edition as that of the Purple Sandpiper from Mr. Wilmot's collection is now, with the rest of that collection, in the Museum of the University of Cambridge. His catalogue states that he had it, with another, "from Leadbeater, who had them
from making him any offer for it. Going to him soon after, on the 20th July, we found that he had parted with the greater portion of it to the mate of the steamer which was to take us back, but he gave us the choice of what was left, whereby we became possessed of a few useful specimens. But there were several we had seen on our first visit, which we should have liked to possess, among them two Water-Rails' (§ 3125), and this egg, the parentage of which was very problematical, neither of us having before seen anything exactly like it. When we reached the steamer we soon arranged for the possession of the collection, which we divided, and this egg fell to my share. It had somewhat the look of a dwarfed Snipe's, yet I could not believe it to be so, and both of us rather indulged the hope that it might be a Sanderling's—a species which, there is every reason to think, may occasionally breed in Iceland. This hope I maintained until I received from Prof. Baird a Sanderling's egg from the first known identified nest (§ 3364), when the want of resemblance between them seemed fatal; but it was curiously revived and even rendered a certainty a few years after by the receipt through Dr. Finsch from the North German Arctic Expedition of a series of specimens (§ 3065) supplying the mean terms of which these had been but the extremes.

Herr Zimsen was about sixteen or eighteen years of age, and was the only person we met in Iceland who shewed the least taste for ornithology. He had begun his collection about two years before, being incited thereto by Dr. Krüper, who left with him a manuscript list of the birds of Iceland. As a Reykjavik shopman he had no chance of indulging his taste, and was, I believe, glad to get rid of his collection, the possession of which, looked on as a boyish fancy, rather injured him in his employer's opinion.

from Capt. Sabine after his return from an arctic expedition." Now the last arctic expedition on which Sabine was engaged was in 1823, when he was landed from H.M.S. 'Griper' (Commander Clavering, R.N.) on the Pendulum Islands (lat. 74° 30' N.), one of which now bears his name, off the east coast of Greenland, for the second half of August. Notwithstanding the lateness of the season one may not unreasonably suppose that there eggs—perhaps from forsaken nests—were obtained during his stay at this place, which is that whence the Second German North-Polar Expedition brought eggs (§ 3905) that, by a process of exhaustion, cannot be other than Sanderlings'. Be that as it may, the egg figured by Mr. Hewitson, the connexion of which with Sabine need not be doubted, since I knew Mr. Leadbeater to be a trustworthy man, is quite unlike any Purple Sandpiper's I possess or have seen, while it so closely resembles an ordinary Sanderling's that I can hardly refrain from believing it to be one. The only account of this voyage that I know, and for a knowledge of it I am indebted to Col. Feilden, is Clavering's "Journal," communicated, after his loss at sea in 1827, by Mr. James Smith, of Jordanhill, to the 'Edinburgh New Philosophical Journal' for April–June, 1830 (vol. ix. pp. 1–20), and unfortunately the only birds there noticed as seen are Rock-Grouse and Swans (p. 23). But there is no mention of what Sabine may have obtained while separated from Clavering from the 16th to the 28th of August.—Ed.]


The label accompanying this egg shews that it was one of a nest of four, from which the hen bird was shot (no. 36080) by Mr. R. MacFarlane during his stay on the Anderson River. The nest is described as being of "Hay and decayed leaves." That gentleman's note (Proc. U.S. Nat. Mus. xiv. p. 427) is as follows:—"On 29th June, 1863, we discovered a nest of this species, 'the only one at that time known to naturalists,' on the Barren Grounds about 10 miles west of Franklin Bay. The nest was composed of withered hay and leaves placed in a small cavity or depression in the ground, and it contained four eggs, which were quite fresh. The female was snared. It is a very rare bird in that quarter, and we never afterwards succeeded in finding another nest." The discrepancy of the statement as to how the hen bird was killed may have arisen from indistinct writing. Prof. Baird undoubtedly wrote in the first instance 'shot,' perhaps a misreading of the word "snared," which may have been less expected. It is, however, clear that this egg is from the first nest ever taken and identified by a competent authority, though I think not the first of the species ever figured. I exhibited it to the Zoological Society, 17 January, 1871."

[§ 3965. Ten.—Sabine Island, East Greenland, 1870? From the Second German North-Polar Expedition, through Dr. Otto Finsch, 1871.


These, with other eggs (§§ 3419, 3512) collected by Dr. Adolf Pansch in the Second German North-Polar Expedition, were kindly transmitted to me by Dr. Finsch, with the assurance that they had been obtained on Sabine Island, where only four species of Limicola—namely, Aegialitis hiaticola, Strepsis hypolophus interpres, Tringa striata, and Calidris arenaria—were observed. As they obviously could not belong to any of the first three, it followed they must be those of the fourth. Some of them correspond remarkably with the eggs from the first identified nest taken on the Anderson River (§ 3964), while others shew, as already stated, a likeness to that which Mr. Wolley and I procured in Iceland (§ 3963). These eggs reached me in very bad condition—one had not been blown at all, and others were little more than half shells. They were taken in hand by Mr. Salvin, who, mounting the worst on selected Dunlings' eggs, made their remains presentable. They were exhibited by me at a Meeting of the Zoological Society on the 20th of June, 1871, and are fully described in the Zoology of the Expedition (ut supra). Unfortunately Dr. Pansch seems to have made no notes concerning them, but a young half-fledged specimen obtained on Sabine Island in August, 1869, was included in the collection.
formed as stated by Dr. Finsch (tom. cit. p. 204). All these eggs also generally agree very well with the specimens obtained by Colonel Felden, 24 June, 1876. (Cf. Nares, 'Narrative of a Voyage to the Polar Sea,' ii. pp. 210, 211, pl. 1.)

TRINGA CANUTUS, Linnaeus.

KNOT.

[§ 3966. One.—Lilford Aviary, 14 June, 1893. From Lord Lilford.

With this egg Lord Lilford wrote to me on the 14th June, 1893:—"I am sending you an egg found in the aviary this morning by Cosgrave. It is unfortunately cracked, but what the dealers call a fair cabinet specimen. I fear that it must be a Reeve's production, but it strikes me as very small for that species, and not like my recollection of its egg. The only other possible (parent) birds in the compartment are Knots, a pair of Australian Wattled Plovers (of which I sent you eggs last year), and a solitary Cayenne Lapwing, but I feel certain that this egg belongs to neither of the latter birds—can it be T. canutus?" Comparing the egg with a series of about one hundred and fifty Reeves', I found, as I had judged from the first sight of it, that it was not at all at home among them, and the nearest likeness I could see was to one or two very dark Turnstones'. The possibility of its being from either of the Plovers named was, of course, out of the question. I accordingly wrote to that effect to Lord Lilford, who replied the next day—"About the egg (which is yours, be it what it may) I have very little doubt, as although some of my Reeves have laid in previous years, they have generally attempted some fashion of nest, and I have never seen an egg of theirs that in size or markings resembled this. I have only one Turnstone, and he, or she, is not in the compartment in which this egg was found. For the first time in my pretty long experience with Knots in the aviaries, I this year observed symptoms of sexual excitement among them, and they have all been here since December, 1884. . . . Per contra I have repeatedly seen the Ruffs in coitu with their proper mates, and have not actually seen the Knots consummate the act." On coming to inscribe this egg a few days after, I was sorry to see that it had lost much of the bright green hue it had when it first reached me, presumably the day after it was laid, when it reminded me as to ground-colour of a fresh Spotted Red-shank's (the green form), and had now become more olive, though it was still a rather striking egg with a good deal of character about it. It was not only quite possibly a Knot's, but I believe it was one, though proof may never be obtainable. It measures 1-05 inch by 1-2 inch or nearly so.

On the 5th of July, 1893, I was at Lilford, and visited the aviary in which this egg was laid. The Knots were about a dozen in number, none of them in very bright plumage, but still red enough. Cosgrave, the man who looks after the birds, whom his master considers a credible witness, told me that he had more than once seen Knots trying to tread, if not in coitus. No Reeve had that year attempted to make a nest as they usually do, nor had the Australian
TRINGA CANUTUS.—T. MINUTA.

Plover laid. This egg was empty when found, the contents having run out through the broken shell. It was lying in the grass, and how it came to be broken he did not know. He pointed out to me the individual Knot which he believed was the parent.

In May, 1894, one of Lord Lilford's Knots died, and he sent the body to the Museum here, asking that it might be carefully examined, for (as subsequently appeared) it was the very bird that Cosgrave believed to have laid the egg the year before. Dr. Gadow willingly undertook the examination, and drew up a report, from which I extract the following:

"Conditions of generative organs:—as usual, left ovary only developed, left oviduct contains a large number of the ordinary unripe eggs, but also a smaller number of eggs much further developed. These latter, however, were not intended to be laid this year, but indicate that some considerable propagative excitement had been passed through by this bird. Moreover, I feel justified in saying that it is my opinion that this bird has laid at least one egg, because of the presence of one calyx remnant in the ovary among the ovula. Such a calyx indicates the previous bursting out and setting free of an egg. There may be several calyces in this ovary, but I have found only one. Lastly, the oviduct is so well developed that it might easily be supposed to have performed its function. However, all this must have happened several months ago, because ovary and oviduct have had time to return to their normal condition. . . . Summary: Although there are no absolute proofs, it is my opinion that the Knot sent to the Museum of Zoology and examined by me has some time ago laid one, or may be several eggs.

"26 May, 1894.

I was at Lilford again in July, 1895, and saw the remaining Knots, eight or nine in number, some of which were fairly red; but Cosgrave said he had seen no indications of breeding in any of them. He had become positive that the bird that died in May, 1894, whose body was examined by Dr. Gadow, was the mother of the egg found in the aviary on the 14th of June, 1894, and sent to me the same day.

The impression produced on me at the first sight of the egg, even before the corroborative evidence of Cosgrave and Dr. Gadow was given, still prevails, and I believe it to be a Knot's, for it is so unlike that of any Reeve known to me, and one or the other it must be; but I admit that I may be rash, in my ignorance of what a Knot's egg is really like; for I have not seen one that can be indubitably declared to belong to that species."

TRINGA MINUTA, Leisler.

LITTLE STINT.

§ 3967. One.—Taimyr River, N. lat. 74°, 1 July, 1843.

From Dr. von Middendorff, through Dr. Baldamus, 1861.

TRINGA MINUTA.

This from what was apparently the only nest of the species found by Dr. von Middendorff, who states (Sib. Reise, ii. ii. p. 221) that on the Taimyr he first observed the species on the 17th June, but found almost complete eggs in a female then shot. On the 22nd what appeared to be a cock bird rose up before him and hovered like a Falcon, trilling its song, raising its wings high over its back and beating them down again. On the 1st of July he saw a hen, with puffed up feathers and head drawn in, run away from him. She was so hot in the defence of her nest that he was able to take off his game-bag and put it over her. The four eggs were found in a hollow in the moss of the swampy low ground, hardly twenty yards from a large pool. In the nest there were only willow-leaves as a bedding, and these seemed to have been blown by the wind, rather than collected by the bird. He goes on to say that the eggs exactly resembled those figured by Thienemann (Fortpflanzungs-geschichte der gesammten Vögel, Ixiii. 1 a, b); but it is to be remembered that, from what we know of the breeding-range of this species, it is hardly possible that Thienemann’s specimens could have really been those of *T. minuta*, so that I cannot but regard Dr. von Middendorff as the discoverer. This was sent by him as an “*nudium*” to Dr. Baldanus, from whom I received it. I exhibited it at a Meeting of the Zoological Society on the 10th December, 1861, and should have had it figured, had it been in better condition.

[§ 3968. One.—Dvoinik, Lower Petchora River, North-east Russia, 22 July, 1875. “J. A. H.-B.” From Mr. Harvie-Brown, 1876.

The gift of Mr. Harvie-Brown, being from a nest of four, the first of the species obtained by him and his companion Mr. Seebohm, and found simultaneously by the former and Potttuch, their interpreter, who had been with Mr. Harvie-Brown on his former expedition to Northern Russia in 1872. That gentleman has been so good as to favour me with a copy of an extract from his journal, afterwards printed *in extenso* in ‘The Ibis’ (1876, pp. 302, 303), whence it appears that having just found some young birds of this species we proceeded to search for another nest, or more young, offering Simeon two rubies if he found a nest of eggs. Almost immediately Potttuch and I ran forward, he being a little in advance, and in a trice we had three more young, a little older than the first. Within fifteen yards of where we got these, a bird rose and we again ran forward. ‘Hurrah! Monsieur, les œufs! les œufs!’ (cried he, joyously) and the next instant we were sitting one on each side of the nest, the (parent) birds of both eggs and young flying round us, and alighting within twenty paces, neither of them so tame and fearless as the parents of the first nest of young. And the eggs?—miniature Dunlins’, three dark and richly marked, the fourth lighter and more faintly streaked, but also just like one Dunlin’s in our collection at home taken in South Uist. And the nest?—rather untidy, rather rough and uneven round its rim, very shallow, sparingly lined with dry grasses, and a little leaf or two which might have been plucked by the bird as she sat on her nest. Round it a deep spongy, but not wet, yellow moss (*Sphagnum*), the dark green leaves and empty calices of the PART III. p]
Rubus arcticus, a tuft of round-stemmed green Carex (C. rariflora). A little further off, the now flowerless plants of the sweet-scented Ledum palustre, and branches and patches of long white grass, and plants of small Eríophoron vaginatum and E. polystachyum var. latifolium... Simeon coming up again, having left in search of another nest, caught the fourth young of the other [pair of] birds. Mr. Seebohm had come up some time before, and we all four sat echoing the sentiments uppermost in our thoughts at the time... Both birds were shot, the bird of the nest with the eggs and the bird of the four young. The turf, a foot square, holding the nest, was cut out carefully with a knife, and the mass, including the Rubus arcticus, the yellow Sphagnum, and the tuft of Carex, placed carefully in a handkerchief, with a piece of cloth rolled up and put in the nest, and the three old birds put in paper bags carefully numbered.” These last, I regret to say, perished in the fire at Dunipace, which in 1897 destroyed all Mr. Harvie-Brown's fine collections, and it is sad to think that the present, and the Grey Plover's eggs before entered (§§ 3365-3368), are all that remain of his Russian spoils.]

[§ 3969. Four.—South Goose Cape, Nova Zembla, 8 July, 1894. From Mr. Arnold Pike, through Mr. Tristram.

These were given to me by Canon Tristram, with whom they had been left by Mr. Arnold Pike, and that gentleman subsequently wrote to me:—"The Little Stints were breeding on a marsh, and also on a dry hill-side, near South Goose Cape. The nests containing three and four on July 9th. I took eleven eggs in the course of a short walk. I could doubtless have taken more had I wished to do so, as I saw more birds which were evidently breeding there. I saw none on the Northern Island; but I was ashore only along the coast about Admiralty Peninsula.” Canon Tristram informed me that with these eggs Mr. Pike left with him for determination the skin of a hen Tringa minuta, marked "shot off the eggs sent"; but it seems that the different sets were not kept separate, and it is therefore not certain that these four are from the same nest. The discrepancy between the 8th and the 9th July is immaterial, where an Arctic summer is concerned.]

[§ 3970. Two.—Golchika, Jennesei River, 10 July, 1895. From Mr. C. B. Hill.

Mr. Popham, whom Mr. Hill accompanied on this occasion, wrote in 'The Ibis' for 1897 (p. 103) of this species that it passes through Jenisseisk on the spring migration, and did not occur to them till latitude 71° N. was reached, when they captured down-clad young. "Eggs and more downy young were afterwards found at Golchika, where the birds were fairly numerous and extremely tame.” He goes on to say that the eggs obtained differed a good deal from those of Tringa temmincki, which they found breeding further to the southward than T. minuta, being of a much darker buff ground-colour, and slightly smaller. "Of T. minuta two females were shot from their nests."]
[§ 3971. Four. — Dolga Bay, Waaigat Island, 6 July, 1897.
From Mr. H. J. Pearson.

Mr. Pearson wrote to me: — "The eggs I sent you were found by my men (crew) near 'Stint Lake,' so named from the number of this species we saw there, about two miles inland from Dolga Bay in the north-west corner of Waaigat. The nest in marshy ground among coarse grass: the eggs fresh." In his note on this species as observed during his voyage in 1897 (Ibis, 1898, pp. 200, 201), Mr. Pearson states that next to the Snow-Bunting it was the commonest in Waaigat, "and especially numerous at the heads of Dolga Bay and other inlets of the sea." The birds "did not confine themselves to the neighbourhood of the shore, a number breeding round the lakes, two to three miles inland." His party took 183 eggs, of which he figured a dozen as a frontispiece to his work 'Beyond Petsora Eastward,' besides giving a view (plate 24) from a photograph of "Stint Lake," and in the narrative (pp. 88, 89) mentioned finding at least nine nests of this bird on the day this nest was taken. The series of Little Stints' eggs in his collection, obtained on this, as well as his voyage of 1896, which he was so kind as to shew me, is, of course, unrivalled."

From HH. J. Koren and H. T. L.

[§ 3973. Four. ] Schaanning, through Mr. Marsden.

In November, 1903, Mr. Marsden wrote to me that he was expecting some eggs of the Little Stint and other birds, taken during the last summer in Nova Zembla by two Norwegian collectors, and kindly offered to send me some on approval. I gladly availed myself of the opportunity, and in due course of time four complete nestfuls of this species reached me, from which I selected two and returned the others. He afterwards gave me the name of the collectors, and kindly sent me the copy of an interesting account of their doings by one of them, Herr Koren. Subsequently, through the kindness of Prof. Collett, who knew them both, I was able to enter into communication with the other, Herr Schaanning, who favoured me with the particulars I here translate from his letter: — "These eggs were found on the 16th of July at Matotschkin Shar. They lay on a grassy marsh, beset with dry bare ridges, on which we obtained altogether seventeen nests with eggs—fifteen being found on the same night. The nests were spread about some 300 to 500 metres apart from one another. The eggs, which in all the nests were four in number, lay in a hollow furnished with fine dry grass-stalks, on one of the above-named bare ridges on the borders of the marshy tract. At each of the seventeen nests only one bird was observed and shot. In fifteen of them it was certainly the cock, and in two only the hen, and in three nests the eggs were almost fresh-laid. The hen at the nest was shy, always rising from it and flying a long way off, and was sometimes an hour before she came back to the eggs. The cock, on the other hand, was extraordinarily little shy, but got off the nest in a run, sometimes walking, round it, and by
sitting down close to the nest we caught several cocks with our hands, when they would again seat themselves on the eggs." Of the two clutches of eggs which I chose, one is of normal appearance, the other remarkable for being conspicuously undercoloured, though a single one of its eggs bears a large dark blotch on one side. This very peculiar-looking specimen was noticed by both the collectors, Herr Schaanning writing to me, on the 2nd of January, 1904, that he remembered it well. It was taken by a little water-pool, where there were also two pairs of *Phalaropus fulicarius* and a pair of *Cygna bewicki* breeding. These two collectors were members of the Norwegian Government Expedition, which, under the direction of Prof. Birkeland, wintered in Nova Zembla for the purpose of making observations on the Northern Lights; and most of the instruments used being automatic, they had plenty of time for natural history pursuits. They were exceptionally fortunate in that the summer of 1903 proved to be a great season for Lemmings, and consequently many kinds of predaceous birds abounded.

**TRINGA TEMMINCKI, Leisler.**

**TEMMINCK’S STINT.**

I have found it breeding in several localities north of the Bothnian Gulf; but it is scarce, and, as far as I have seen, confined to a few favourite spots. Grassy banks and pastures by the waterside are the kind of places where it takes up its breeding-quarters, and it seems to delight to be near houses.

Nothing can be more interesting or pretty than this little bird in the early part of the summer. It is so tame that one could often catch it in a net at the end of a stick. At one time it is hovering with it wings raised over its back, or floating about, and it reminds one rather of some insect than of any other bird. At another time it may be standing on the top of a stone, or stake, or the gable end of a cottage; and, whether hovering or standing on its perch, it makes a constant trilling, of which I can best give an idea by saying that it brought to my recollection the Grasshopper-Warbler, though the resemblance is perhaps slight. When its eggs are very near, it sometimes runs about one's feet; and though it cannot but be anxious, it seems as busy as ever picking gnats and other insects off the grass. One nest I found was a short stone's throw from a cottage where children were playing about in all directions; another was only a pace or two from a spring, from which women drew water every day and passers-by often stopped to drink.
TRINGA TEMMINCKI.

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The nest is very simple—a few short bits of hay in a little saucer-shaped hollow, placed among thin grass or sedge, generally not far from the water's edge, but sometimes in the middle of a meadow. The eggs were laid this year (1854) about midsummer-day.

[The foregoing passages, written by Mr. Wolley at Muoniovara in December, 1854, for the use of Mr. Hewitson, were printed by that gentleman in the third edition of his well-known work, and were published in May, 1855. Mr. Wolley's subsequent experience, especially that gained by him in East Finnmark in the following summer, would doubtless have led him to modify somewhat his expression as to the scarcity of this species in Lapland, for in certain localities it might be called plentiful. On the other hand, no exception can properly be taken to his statement, which will be found immediately below, that the eggs obtained by him on the 23rd of June, 1853, were the first he had ever heard of attributed to this bird. True it is that in 1851 Thienemann had given four figures as those of Tringa temmincki (Fortpflanzungsgeschichte der gesammten Vögel, lxiii. 2 a–c), but there unfortunately was nothing (nor is there now) to show that they were authentic, while four other figures on the same plate (professing to represent the eggs of Himantopus) are manifestly wrong. The discoverer of the breeding-ground of this species was certainly Von Middendorff, who, in 1840, found it once near Vadsö in East Finnmark, as stated in the Report of the ornithological results of his journey in Lapland (Beiträge zur Kenntniss der Russischen Reichs, viii. pp. 206, 207) published in 1843, but he evidently did not meet with a nest, much less see an egg. In 1843 Löwenbjelm met with a pair of old birds and two down-clad young at Alkajaur, on the 22nd of July (K. Vet.-Akad. Handl. 1843, p. 402), but still no eggs. They were left to be discovered by Schrader, though the precise year in which he first obtained them is not stated, and indeed the fact that he had found them was published only by Pastor Passler in the Journal für Ornithologie' for September, 1853 (p. 308), at least two months after Mr. Wolley had obtained his first nest. It thus appeared that Schrader, who went first to Lapland in 1841, and was for several summers on the Varanger Fjord, staying especially at Nyborg (where he left, as we ten years after found, a very good reputation), had in all that time collected, as he easily would, a considerable number of this bird's eggs, which he had brought or sent to Germany, and it is presumable that the specimens figured by Thienemann may have come from him, in which case there can be no doubt of their genuineness, and as through the delay in making known his discovery, particularly in this country, some injustice has been done to Schrader, it is the more necessary that the fact should be fully acknowledged here.]

1 [It may be observed that Tringa temmincki is not mentioned among the species met with by him during his first year in Lapland, according to the list given by Oken (Iais, 1812, p. 617), nor were its eggs exhibited by Drs. Naumann and Baldamus at the ornithological gathering at Köthen in September, 1845 (Rhea, i. p. 3), but the same list contains "Tringa minuta (r)," which no doubt should have been T. temmincki. Malm, who was Schrader's companion in 1841, included the latter in the list of birds he observed (Naturhistorisk Tidskrift, ser. 2, v. p. 205), but says nothing of eggs.—Ed.]
§ 3974. *Four.*—Muonioniska, 24 June, 1853. "J. W."

These four eggs are the first I ever heard of attributed to this bird. They were found on the 23rd and taken on the 24th of June, just between the water and a group of houses below the church. Some children ran up to me with the eggs when I had passed the place in a boat. The father of one of them had found the nest the day before, as he left his boat for the house just above. The fourth egg, they told me, had (translated [from Finnish] into Swedish) "gone asunder." The first thing was to enquire for this fourth egg. They took me back several hundred yards, and there stood in a group round the broken egg lying in the footpath. I then gave the child a fourth bit of silver, in addition to the other three bits. Next they were to shew me the nest. It was made up of a few last year's leaves in a depression, scraped in the level grass, about thirty-five paces from the water's edge, and perhaps twice as many from the houses, also not far from a stack of firewood. At this spot, or perhaps nearer to the water's edge, on the 12th of June I had searched for the nest and watched the birds for some hours, at which time probably the eggs were not laid, for they had been only a day or two sat upon on the 24th. The birds came close to us on that occasion, and even allowed a man to walk within two or three feet of them as they sat upon the firewood, so that both with and without my glass I examined them carefully. They were decidedly of the same species as the bird I had shot at Niemi and elsewhere down the river, which appears to be the same as that from Haparanda, in the Stockholm Museum, labelled "Tringa Temmincki." Besides, their manner and notes were exactly like those of the bird whose skin I have. They uttered an incessant trilling note, coming hovering over us for several minutes together: their flight rather like that of a Sand-Martin. Every now and then they disappeared upon the ground, running after gnats among the grass. At that time I called many persons from the houses above to look at them, and offered the reward of a dollar for their eggs.

When I first met with this species at Niemi, it was with great surprise that I heard and saw it trilling and twittering upon a projecting piece of wood on the roof of a building. Afterwards below the *gästgiverigård* [inn], one came up flitting and hovering, and sat trilling upon a large stone. This was the first I shot. Some days later I saw several together, exceedingly tame, so that the boatmen struck at them with their poles;
but they were not yet breeding. The name Theodore and Ludwig knew it by, talking with us, is *Minske Strandtricka*; but Ludwig says it is called here *Ranta-siepi*, and that his uncle used to get its skins, and say they were rare birds—indeed there seem to be very few of them. Several men down the river have said they knew them, but none have ever seen the nest. This one was in a perfectly even piece of grass, though there were hummocks and more likely-looking ground near. It must be very difficult to find even where the bird is. Hence the great value of these eggs.

§ 3975. *Two.*—Kaaressuando, 1853.

These I bought of Pastor Engelmark at Kaaressuando on the 8th of December. His son Lassi said they were *Liros*¹ 1, and that some of them had been found by Nälima’s lads. I sent over for these boys, and on their arrival they said that each of the two had found a nest, that it was the little marsh-bird called *Liro*, that it sat upon stakes or buildings and hovered in the air very near over their heads. The nests were not far from the houses. The boys at once selected the eggs from a considerable number, perhaps with one or two mistakes, but it was by candlelight, and they shewed satisfactorily that they knew them. The other nests of this bird were found by the side of the lake which is in front of the *prestgård* [parsonage]. On first seeing the eggs I recognized them as being of the same kind as I had obtained at Muonioniska [§ 3974]. There is a specimen of *Tringa temmincki* in the Stockholm Museum from Kaaressuando.

[There were fourteen of these eggs thus bought, of which the above two, having been given to my brother and myself, alone remain in the collection. The remaining twelve formed Lot 145 to 155 at Mr. Stevens’s sale-room, 26 January, 1855, where they were sold to Messrs. Burney (2), Gurney (3), Milner (2), Walter (4), and Wilmot.]

§ 3976. *Four.*—Kaaressuando, 20 June, 1854. "J. W.

Nest found by Salomon Johansson, alias Anonti’s Salko, a little boy in Ala-pallo, or the lower part of Kaaressuando, placed in a hole the bird had formed in a tuft, in a kind of cup or valley in the pasture-land a long way from the water. He at once brought them

¹ *Liro* is properly Wood-Sandpiper, as Mr. Wolley afterwards found (§ 3747).—Ed.]
to me, and I took a circle of snares, and soon the bird was unfortunately throttled. It turns out to be, as I anticipated, *Tringa temmincki*. Others are about, trilling something like a Grasshopper-Warbler. The eggs quite fresh.

§ 3977. *Three.—Muonioniska, 27 June, 1854.*

Hewitson, *Eggs of British Birds,* ed. 3, pl. ci. fig. 1?

Found by Regina's son, and brought to me just afterwards. I went to see the place, and after some search we found the nest itself, made of hay or fine grass, slight and placed three or four paces from the water, among long grass, on the *niemi* [point], opposite Regina's house, which separates the river from the Muonio-träsk [lake]. The bird got up close to the nest, with its characteristic call, so that I could not hesitate as to the species. We, however, set a snare, but without effect. The eggs were quite fresh. My visit was made about midnight.

[A fourth of these was lent to Mr. Hewitson to be drawn, but Mr. Wolley doubted whether the figure 1 in his plate was really taken from it; and as the specimen is not now forthcoming, I cannot decide the point, though I cannot understand from whom else Mr. Hewitson was likely to have obtained an egg.]

§ 3978. *Three.—Muonioniska, 29 June, 1854.*

Hewitson, *Eggs of British Birds,* ed. 3, pl. ci. fig. 2.

Found by Carolina Knoblock on the south promontory of the great island, Oiasen-saari, in the river here. Ludwig and Anton went to snare the bird, and it went into the snare while they sat not more than six feet from the nest. They brought it alive to me, and I put it into a cage for the night, expecting it would lay a fourth egg. In the morning I made a more careful examination and found it was a cock-bird of *Tringa temmincki*, with no bare space on the belly. The dark blotches on its back were numerous. I let it fly through the window. Next night I went to see the nest, and found it towards the top of a sloping bank, made of grass with a few dead last year's sallow-leaves in the middle. I saw also one of the birds not far off. In the meantime I had blown out the eggs and found them several days sat on. Carolina had also found another nest not far from the first, with a single faded egg, which exploded on being touched. It had been covered with water during the [recent] floods.
Obs. that the bird in its second nest did not complete the proper number of eggs.

[One of these eggs was selected by Mr. Wolley to be figured as above by Mr. Hewitson.]


Found by Anton in Putharu-puoli, Muonioniska, scarcely two fathoms from the spring which rises there and runs into the river below the painter woman's house. Many persons, as they go by, stop to drink at this spring. The tame little bird ran about our feet almost, but shewed an objection to go into the snares we laid, till last setting some further from the nest we caught it. Anton observed that on leaving its nest it first rose at some little distance from it, so that he had some difficulty in finding the eggs. The nest was made of a little grass, just by a flat stone.

§ 3980. *Four.*

§ 3981. *Four.* Kaaressuando, 1854.

§ 3982. *Four.*

§ 3983. *Four.*

These appear to be complete nests, blown and laid separately from one another by the Pastor Engelmark, protected from the light. All these nests were found in and about Kaaressuando, after I had left—that is to say, about the end of June.


Collected and brought with other eggs to Kaaressuando by one-handed Lassi.

§ 3985. *Four.*—Vadsö, 1855.

Brought to me. I can hear the bird trilling as I sit in my room, and I have examined specimens of it.
§ 3986. *Four.*—Vadsö, 1855.

In a nest brought by a boy or girl. The rounded egg is remarkable.


"Bird shot."

The bird was shot by Mr. Simpson [Hudleston] from the nest at Gaudo-jauvre.

§ 3988. *Four.*—Nyborg, East Finmark, 29 June, 1855.

Brought by a Lapp boy at Nyborg at the bottom of Måsk Fjord.


Brought to us at the entrance of Måsk Fjord. Mr. Newton and I went to look at the nest, but did not see the bird. There were three eggs hard sat upon, from one of which we hatch a young one, and he draws it in colour.


Left at our lodgings for us, and we got them on our return to Vadsö. They were brought by a Lapp with the nest in an Echinus-shell. At the same time were brought four eggs of the same bird in a very neat ladle-like basket, which with its contents I handed over to Mr. Newton [§ 4631]. The former nest was of a little grass and a few dried leaves.

§ 3991. *Four.*—Vardö, 1855.

From Herr Lehnsmund Reen in Vardöhus. In a letter he called them *Tringa minuta*; but from having seen *T. temmincki* at Vardö, from want of the slightest evidence of *T. minuta* breeding there, and from Herr Reen's almost entire want of knowledge of birds, I and my friends have no hesitation in considering these to be the eggs of *T. temmincki*.

[Herr Reen sent a variety of eggs on two occasions to Mr. Wolley while at
Vadsö, including in all nine named *T. minutu*. I have ventured to unite, as above, one from the first consignment to those from the second, feeling confident, from their strong likeness, that they must have belonged to the same nest, which was doubtless that of *T. temmincki*.

§ 3992. *Four.*—Saarijärvi, West Finmark, 1855.

Found and named *Piko Liro* by the lad Nälima's Pekka.

§ 3993. *Four.*—Kaaressuando, 1855.

Out of seven, received on our way down the river.

[Three others sold at Mr. Stevens's, 7 March, 1856, to Messrs. Burney, Shepherd, and Troughton.]


Out of twelve from the [Norwegian?] mountains or upper parts of the country, where the Palojoki people were fishing this summer.

[Three of these are rather curiously rounded, and it is only by conjecture that Mr. Wolley put them together. Four others were sold at Mr. Stevens's rooms, 7 March, 1856, to Messrs. Bond, Holland, Simpson, and Thurnell, while two more were given by me to Mr. Salvin in 1860.]

§ 3995. *Four.*—Muonioniska, 1855.

Brought at midsummer by Ada, the daughter of Priest Pfaler, who found them on the shore in front of the house.

§ 3996. *Four.*—Lia, Muonioniska, 23 June, 1855.

Found by Niemi's Johan on the promontory, called Lia, between the lake and the river. They seem as if they had been exposed to water, a peculiarity which Ludwig observed when they were brought. The boy found four nests on this same day.

L. M. K."

[Though these eggs are carefully inscribed as above, they were never entered in the book. The island where they were found was a well-known haunt of this species (§§ 3975, 4004, 4005).]
§ 3998. *Seven.*—Kautokeino, 1855.

Out of eight, apparently from three nests of 1855-6, brought to Muoniovara by Käsi puoli Lassi (Lars Johansen Keino).

§ 3999. *Four.*—Muonioniska, 26 June, 1856. "A. K."

[Not entered in the Egg-book, but no doubt taken by Anton Knoblock at the time and place inscribed on the eggs.]

§ 4000. *Four.*—Muonioniska, 27 June, 1856. "L. M. K."

With the skin of the hen-bird. Found by Ludwig and Anton on Rakoma-saari, an island belonging to Finland, between the river [Muonio] and Putas. The nest was opposite to Olli's house. The bird struggling in [the snare] broke one of the eggs.

§ 4001. *Three.*—Palojoki, 1856.

From Pehr Matthisson Bas, of Palojoki. There were five, of which one of the two destroyed was very like the remarkable egg now remaining.

[The specimen thus particularised by Mr. Wolley is very boldly marked, and when fresh was, I doubt not, of singular beauty.]

§ 4002. *Five.*—Palojoki, 1856.

Out of eleven brought by Zacharias, blown by him, and in bad condition.

[A sixth given to Mr. Newcome in 1861.]

§ 4003. *Four.*—Muonioniska, 1856.

Found by a little boy, Herman Anti, opposite to Anti's *gård* in Muonioniska, and brought on the 6th of July.

§ 4004. *Four.*—Oiasen-saari, 26 June, 1857.

Brought on the 27th by Niemin Greta's boy Johan, and kept separately from [others brought at the same time]. They were found on Oiasen-saari.
§ 4005. *Four.*—Oiasen-saari, 26 June, 1857.

Brought at the same time [as the last], but mixed with [others]; but I see it is easy to separate them, the eggs of this nest being much blunter at the small end than the others.

§ 4006. *Four.*—Rakoma-saari, 29 June, 1857.

Brought on the 5th of July by the Niemin Greta’s lad Johan.


As the last.

§ 4008. *Four.*—Hieta-niemi, 1857.

Also by Niemin Johan by the side of the parsonage. These three nests, of which the second and third have much smaller eggs than the first, are evidently faithfully kept separate by the lad.


Brought on the 15th by Maria Hellena Muotkajärvi, with the head and wings of the bird, which she called *Pieni Jänkkö-lintu* [the ordinary name for *Limicola platurrhyncha*]. The place was by a great marsh.

§ 4010. *Four.*—Above Palojoki, 1857.

Out of nineteen which I received on the 26th of July at Palojoki of Fredrik Mattisson, all unblown and many in a very bad condition, and I have had to throw some away. I gave two to the Messrs. Godman, one of which was a curious variety with a large blotch of colouring. The first twelve were found near a lake in the mountains at a place called Wuontis-noma. The others also towards the mountains at a place whose name I do not remember. The people did not begin to find them till most were incubated. One of these eggs is remarkably small and curiously marked.

[Two more were sold at Mr. Stevens’s, 23 Feb., 1858, to Messrs. Marshall and Milner. Others were given away at Stockholm and elsewhere.]

Of a nest found by the lame boy, Anonti's Elias.

§ 4012. *Four.*—East Finnmark, 1857. "J. W."

[These were among some eggs sent to me in 1857 direct from East Finnmark, and never entered by Mr. Wolley, whose initials inscribed upon them testify to his having taken them himself. They are no doubt a complete nestful.]

§ 4013. *Seven.*—Vadsö, 1857.

[Received by me with the last, but merely inscribed Vadsö.]

§ 4014. *Four.*—Muonioniska, 19 June, 1858.

Brought to Muoniovara the same day by Kyrö Niku, who had found them at Tähys Knuutin in Hättä.

§ 4015. *Four.*—Muonioniska, June, 1858.

Brought to Muoniovara, 20 June, by Eva Lovisa; found on Koskivainio-strand.

§ 4016. *Four.*—Muonioniska, June, 1858.

Found by Kalle [Charles] Maki's little boy, at the back of his bath-house, the week before the 20th of June.

§ 4017. *Three.*—Lia-uoma, Muonioniska, 20 June, 1858.

Found by the same boy, as above, and brought on the 23rd.

§ 4018. *Two.*—Kaarssuando, 1858.

Brought to Muoniovara, 3 August, by Anonis Johan, but found by Anonis Elias.

[Curiously rounded in form.]

§ 4019. *One.*—Mukka-uoma, 1858.

[Somewhat abnormal; brought with the last, but without particulars.]
§ 4020. Two.—Kaaressuando, 1858.

§ 4921. Four.—Liikavainio, Muonioniska, 16 June, 1859.

Brought the next day, by Liikavainio's daughter Fredrika; found on the shore there.

[Very curious-looking eggs.]

§ 4022. Five.—Liikavainio, 17 June, 1859.

Out of six found as above and brought by Carl Liikavainio on the 22nd.

§ 4023. Two.—Liikavainio, 1859.

Brought on the 25th June by Eva Lovisa; found on the shore of Liikavainio.

[These seem to be the complement of those in the preceding section.]

§ 4024. Four.—Muonioniska, 23 June, 1859.

Brought to Muoniovara the same day, by Kyrö Niku, who found them on the Finnish side.

§ 4025. Five.—Muonioniska, 23 June, 1859.


§ 4026. One.—Muonioniska, June, 1859.

Brought by Koski Niku's daughter Eva on the 25th of June.

§ 4027. One.—Liikavainio, June, 1859.

Brought by Liikavainio Erik's daughter on the 26th.

§ 4028. Four.—Lia-niemi, 14 July, 1859.

Brought by Abraham, Greta Niemi's boy, on the 17th. Found as above.
TRINGA TEMMINCKI.—T. MINUTILLA.


Taken by myself, but I kept no note of the particulars.]

§ 4030. *One.—* Nyborg, July, 1855.

With two others, brought to us there, where the bird was common enough.]

§ 4031. *Four.—* Vadsø, July, 1855.

Brought to us by one of the children in the ingeniously-constructed ladle-like basket, mentioned in Mr. Wolley's note (§ 3990), formed by the interweaving of a single long root of (apparently) *Betula nana.*]

§ 4032. *Four.—* Muonioniska, 17 June, 1860.

Brought to Muoniovara, by Johan Gabrielsson, on the 5th of July.]

§ 4033. *One.—* Allasaari, 15 June, 1861.

Found by Lars Hendrik Pallajärvi, and brought to Muoniovara on the 30th by Piko Heiki.]

TRINGA MINUTILLA, Vieillot.¹

§ 4037. *Two.—* Sable Island, Nova Scotia. From the Smithsonian Institution, through Prof. Baird, 1866.

The label states that they were obtained "with parent" by Mr. P. S. Dodd.]

¹ [To this species belong, I believe, several eggs received from Labrador, some under the name of *Calidris arenaria,* which they certainly are not, and others through Herr Möschler under that of *Tringa bonapartii* (i.e. *T. fuscicollis*) assigned to them by Herr F. W. Bädeker, though it seems that Dr. Thienemann had pronounced them to be those of *T. minutilla,* or *T. wilsoni* as he called it. As their determination is doubtful, I do not include them in the text.—Ed.]

§ 4034. *Two.—* "Labrador." From Mr. Wilmot, 1856.

[These eggs were sent to Mr. Wolley by Mr. Wilmot, who obtained one at least of them from Mr. Green, the dealer, as a Sanderling's, which it evidently is not. They were said to be from Labrador, and are to all
TRINGA ALPINA.

§ 4038. Three.—Arctic Coast, east of Anderson River, June, 1863. From the Smithsonian Institution, through Prof. Baird, 1866.


The label shows that these were from a nest of four, on which the hen bird (no. 33063) was snared, and were part of Mr. MacFarlane's spoils, while that gentleman writes (Proc. U.S. Nat. Mus. xiv. p. 427) that "This species was found breeding abundantly at Fort Anderson, on the borders of as well as in the Barren Grounds, and on and near the Arctic coast. Upwards of twenty nests were secured, and in all respects the latter were similar to those already described under this genus." One of these eggs is figured as above.

TRINGA ALPINA, Linnaeus.

DUNLING.

§ 4039. Two.—From Mr. R. Mansfield, 1844.

Mansfield had several of them. They perfectly agree with Mr. Hewitson's figures [British Ornithology, pl. lxxiii.], and I know no egg for which they may be readily mistaken.

§ 4040. One.—Burgh Marsh, near Carlisle. From Mr. Hewitson, 1844.

[Most likely received by Mr. Hewitson from Mr. Heysham.]

appearances of the same species of Stint as those received by Herr Möschler, from whom they were very likely received in the first instance. Mr. Wilmot wrote to Mr. Wolley: "They are more likely to be identified in your possession than in mine."

§ 4035. Two.—"Labrador." From Herr Möschler, 1862.

Herr Möschler wrote to me that these had been assigned to Tringa bonapartii by Herr F. W. Bödeker, and that the late Dr. Thienemann called them T. wilsoni; for his own part he could say nothing else.

§ 4036. Four.—"Labrador." From Herr Möschler, 1866.

Like those in the last section, these were received from the Moravian missionaries in Labrador, and nothing more is to be said of them.

PART III.
§ 4041. Ten.—Orkney, 1850. From Mr. George Harvey, of Stromness.

These eggs were especially wanting to my cabinet, to form a series of so characteristic a species.

§ 4042. Nineteen.—Orkney, 1851. From Mr. George Harvey.

Out of thirty-four received.

§ 4043. Six.—Færöe, 1851. From Sysselmand Müller.

Out of eight received. These eggs are very acceptable, both from their being pleasantly varied and for comparison with the other Tringa [striata, § 4064], while they also "show the locality."[1]

[Of this species in Færöe, Mr. Wolley's note is:—"I could not find the nest. It was plentiful up in the moors."

§ 4044. Four.—Færöe, 1853? From Sysselmand Winther.

[The year in which these eggs were taken is doubtful.

§ 4045. Four.}

\] Vadö, East Finmark, 20 June, 1855.

§ 4046. Four.}

Two nests, brought to me by different people. The birds abundant all about here, crying or calling like Hares.¹

§ 4047. Two.—Near Vadsö, July, 1855.

Found by a lad, the son of Daniel, living in Quän-by. I have the

¹ [I have met with no author who mentions this cry or call of the Hare. It is certainly but seldom heard—by myself hardly half a dozen times, and then only by night, so that I could not be sure that it did proceed from a Hare, though in my younger days I was so told by an old warrener. At this distance of time I hesitate to say more of it than that, according to my recollection, it was a short, shrill whistle. Very few ornithologists have attempted to do justice to the song-note uttered in flight by the Duing, though many must have heard its loud ringing sound, something between that of a small bell and of a metal pipe, continuous and musical, but very high in tone. To describe it more particularly seems impossible, yet Naumann (Naturgesch. d. Vogel Deutschlands, vii. p. 444) essayed to syllable it.—Ed.]
four eggs, apparently Dunlin's, hard sat on. They seem to have been found in the same district as the apparent Purple Sandpiper's

§ 4048. Two.—Wedby, Øeland, 9 June, 1856. "J. W."

Out of four, hard sat upon. I saw the bird close, and examined it with a glass. It had a fully black belly. The nest on a tuft in a marsh, *Primula farinosa* in flower growing round it.

§ 4049. Four.—Dal, Sandöe, Færöe, 19 June, 1858. From Sysselmand Winther.


[§ 4051. One.—From Mr. R. Reynolds. Not later than 1847.]

[§ 4052. One.—Orkney. From Mr. R. Dunn, 1850.]

[§ 4053. Two.—Valkenswaard, North Brabant, 1851. From Mr. A. Bots.

Out of four, very light in colour, almost like Sanderlings'.]

[§ 4054. Six.—Valkenswaard, 1851. From Mr. A. Bots.]

[§ 4055. Two.—Cumberland. From Mr. T. C. Heysham, 1854.]

[§ 4056. Four.—Holland, 1854. From Mr. Bots, through Mr. Reynolds.]
TRINGA ALPINA.—T. MACULATA.

[§ 4057. Two.—Vadsö, 22 June, 1855. "W. H. S. and A. N."

From the nest before mentioned (§ 1943), found by Mr. Hudseton and myself. One of us shot the bird, and its skin is in the Cambridge Museum. The species, as Mr. Wolley has above remarked (§ 4046), was abundant on the low ground to the north-east of Vadsö, and the beautiful ringing note of the cock bird, while executing his love-flight, was constantly heard.]

[§ 4058. Two.—Holland, 1855. From Mr. J. Baker.]

[§ 4059. Three.—Sanday, Orkney, 1856. From Mr. C. Hubbard.]

[§ 4060. One.—"J. S." From the late Mr. Scales’s collection, 1885.

The mark shows it was taken by Mr. Scales himself, and therefore most likely near Valkenswaard.]

TRINGA MACULATA, Vicillot.

PECTORAL SANDPIPER.

[§ 4061. Two.—Point Barrow, Alaska, 7 July, 1883. From the United States National Museum, through Prof. Baird, 1886.

Obtained as above by the expedition under Lieut. P. H. Ray, of the United States Army, and certified by Capt. Bendire in charge of the Oological Department of the Museum. Mr. Murdoch, the naturalist of the party, gives an interesting account of the very peculiar habits of the species, and of the discovery of its nidification, hitherto unknown, in the 'Report of the International Polar Expedition to Point Barrow' (Washington: 1885), wherein he states that it is one of the commonest of the waders occurring in the district and that "The nest is always built in the grass, with a decided preference for high and dry localities like the banks of gulleys and streams. It was sometimes placed at the edge of a small pool, but always in grass and on a dry place, never in the black clay and moss, like the Plover and Buff-breasted Sandpipers, or in the marsh, like the Phalaropes. The nest was like that of the other waders, a depression in the ground lined with a little dry grass . . . The eggs may be distinguished from those of the Buff-breasted Sandpiper, which they
TRINGA BAIRDII.—T. STRIATA.

closely resemble, by their warmer color. Most of the eggs were collected in 1883. The first nest was taken on June 20, a full set of eggs slightly incubated. Although eggs were found to contain large embryos as early as June 28, perfectly fresh eggs were found July 6, and the last eggs brought in, July 12, contained only small embryos.” (Op. cit. pp. 111, 112.)

TRINGA BAIRDII, Coues.

[§ 4062. One.—Arctic Coast of America, 1866–2. From the Smithsonian Institution, through Prof. Baird, 1886.

One of Mr. R. MacFarlane's prizes. The Smithsonian ticket merely has "Parent 39082 shot near nest," and the Smithsonian number for this much shattered specimen is 3382. Mr. MacFarlane (Proc. U.S. Nat. Mus. xiv. p. 426) states that a nest of this species was found on the Barren Grounds on the 24th of June, 1864, and goes on to say that "It is very uncommon in any northern quarter through which he passed, although nests were subsequently discovered in the same as well as in other localities."

[§ 4063. One.—Franklin Bay, Arctic Coast, 1865. From the United States National Museum, through Prof. Baird, 1886.

Obtained by Mr. R. MacFarlane as above, the Smithsonian Catalogue number being 14087, and vouched for by Capt. Ch. E. Bendire, in charge of the Zoological Department of the United States National Museum.]

TRINGA STRIATA, Linnaeus.

PURPLE SANDPIPER.

Of Purple Sandpipers I shot the young, just beginning to fly, with one of the old birds, very near the top of Loysinga Fjaal [13 July, 1849]. The nest, as a man declared it was, formed by a round

1 [The wonderful habit of the male in the breeding-season to inflate its throat, first noticed by Dr. Edward Adams, Surgeon of H.M.S. Enterprise’ (Proc. Zool. Soc. 1859, p. 130), was observed in 1879 by Mr. E. W. Nelson, who described and figured a bird so behaving (Auk, i. p. 220, and 'Report upon Nat. Hist. Collections made in Alaska,' pp. 108, 109, pl. viii. Washington: 1887).—Ed.]
hollow in the moss at the very top. I saw the bird, I believe, near where the Skuas breed on Sandöe.

[This paragraph is from an entry in Mr. Wolley's 'Egg-book,' made from the original notes of his Færöese excursion some time after his return.]

§ 4064. Three.—Trodum, Sandöe, Færöe, 1851. From Sysselmand M. A. Winther.

These rare and satisfactory eggs arrived at Beeston from Færöe in the autumn of 1851, and I opened the box on the 22nd of December. They were carefully wrapped in tow in a box by themselves, within the great box, and with them was a bit of paper with the word "Tringa" written in pencil. They were all blown alike in Herr Winther's fashion, with two holes on one side. He evidently distinguishes the Purple Sandpiper from the Dunlin, as he writes (12 August, 1851): "I am sure there are two kinds of them [Tringa], which breed near the Skua-Gulls in Trodum." I myself saw the Purple Sandpiper perched on stones at that spot in 1849; but I do not remember to have seen the Dunlin exactly there. These eggs measure 19 lines by $12\frac{1}{2}$ and 18 by 13 about.

[Mr. Wolley, as his notes show, instituted a careful comparison between these eggs and others—Dunlings' and reputed Purple Sandpipers',—coming to the conclusion that these might safely be attributed to the latter.]

§ 4065. Four.—Trodum, 1853. "With bird." From Sysselmand Winther.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. ciii. figs. 1, 3.

Sent, with others, by Herr Winther: these wrapped up in a coil of paper, upon which is written "Tringa belonging to the bird." They were still safely contained in the paper, and cannot have been mixed in any way since they were packed. In his letter, dated Trodum, 28th of November, 1853, Herr Winther says:—"I have got several [nests] of Tringa, and if it should happen to be of different kinds, I have packed the eggs of each single nest in a cornet [cone of paper] by themselves, and in one of these cornets or packets you will find the bird together with its eggs. You can be quite sure of its identity because I took the eggs from the nest myself, and shot the bird too after I had seen it actually leaving the nest." The only
skin sent in the box was one of *Tringa maritima*, which, of course, I knew at once, but also took care to compare in detail with Mr. Yarrell's description of the Purple Sandpiper, and such it undoubtedly is. Mr. Edge received the box from Leith, just opened the lid, peeped in without touching the eggs, and locked it up till this 2nd of August, 1854.

[Two of these eggs were sent by Mr. Wolley to Mr. Hewitson, who figured them as above, but he, as Mr. Wolley remarked, has in both cases drawn the side with the holes in it.]

§ 4066. *Two.—* Trodum, 1853. From Sysselmand Winther.

In the same box as the last. On the "cornet" in which they were wrapped is written by Herr Winther "*Tringa* both of one nest."


On this cornet was written "*Tringa* all of one nest."

§ 4068. *Two.—* Trodum, 1853. From Sysselmand Winther.

In a cornet written on by Herr Winther "*Tringa* both in one nest."


Marked "*Tringa*" in pencil by Herr Winther, and on the cornet in which they were wrapped is written "*Tringa* all of one nest."

[Mr. Wolley thought that it was necessary to compare these with Snipe's eggs before accepting them: I have done so, and see no reason to doubt their being correctly assigned to this species.]


Apparently Purple Sandpiper's. Found by a lad, the son of Daniel, living in Quän-by. He was with his father cutting peat some way over the hills. No description of the bird.

[The same boy also brought four Dunling's eggs (§ 4047).]
§ 4071. *Four.—Greenland.* From Captain Holbøll, through Mr. S. Stevens, 1855.

The box in which these were is now before me. On it is written, in Holbøll's writing apparently, "4 *Tringa maritima* taken from one nest: the bird is marked N 3. L." The four eggs inside were those upon which I have just written, but one of them is blown differently from the other three, and being more greasy to write upon, I have little doubt it is from a different nest. These eggs are all bigger than my Færøese and supposed Norway [§ 4070] ones. I have the skin belonging to these Greenland eggs and must compare it with European specimens to see whether it is not larger.

[There seems to me to be no difference in size worth regarding, but the egg blown from one hole at the side does differ from the other three, blown by holes at the ends, and certainly justifies Mr. Wolley's suspicion. Other eggs bought at the same time are mentioned (§§ 184, 185, and 2188).]

§ 4072. *Three.—Háfafléití, South-western Iceland, 15 June, 1858.*

Found by one Jón, commonly called Jón Hird (being a shepherd), a boy in the service of Gunnar Haldorsson [of Kyrkjuvogur]. He said that it [the bird] was not *Lóa-prell* but *Selningar*, and he knew it because it was spotted on the breast as on the back. On being shown a skin of Dunlin he said it was certainly not that, for it was not black on the breast. In fact the eggs look like Purple Sandpiper's, and probably are so. The birds were abundant on the coast [at Kyrkjuvogur] till the end of the first week, and even to the present day (23rd June) there may be seen as many as seven or eight on the shore. We went with the boy to the place where he found the eggs: it was a stony flat with a few scattered heath-plants, on the side of the hill to the north-east of the inner end of the fjord here, not very far from old Kyrkjuvogur church—say a mile or more. The three eggs brought, which he said were all he found, were two or three days, sat upon. The weather has been extremely stormy and usually cold throughout the summer. From the 24th of May to the 2nd of June Knots were abundant, but not one has shewn itself since Mr. Newton saw one on the 10th of June.

[On the 22nd of June, 1821, Faber shot a male Purple Sandpiper which was tending its down-clad young at Fuglavik, a place on the shore immediately below Háfafléití (Prodromus der islandischen Ornithologie, p. 28, and MS. Dag-Bok, p. 570).]
§ 4073. *Four.*—Tredum, 22 May, 1858. Joen Joensen.

§ 4074. *Four.*—Skaalevig, Sandoe, 22 May, 1858. Joen Trondisen.


§ 4078. *Four.*—Tredum, 2 June, 1858. Mikael Joensen.

§ 4079. *Four.*—Husevig, Sandoe, 8 June, 1858. Ole Magnusen.

§ 4080. *Three.*

Two nests mixed together, but easily separable.


Hard sat upon.


§ 4086. One.—Sands, 2 July, 1858. Ole Hansen.

[Perhaps the largest egg in the series, measuring 1.55 by 1.05 inch. A second from this nest was given by me to the late Mr. Scales.]

§ 4087. Three.—Færøe, 14 July, 1858.

[All the above (§§ 4073 to 4087) were from Sysselmand Winther, to whom Mr. Wolley, touching at Thorshavn on our way to Iceland in April 1858, wrote, asking for some Purple Sandpipers' eggs to be collected against our return. Somehow they missed us then, and did not reach Mr. Wolley in England till several weeks later, when to his disappointment he found many were broken, though information as to place, time, and finder was carefully recorded. On their arrival he wrote again to Herr Winther, whose reply dated Trodum, 29 November, contains some particulars which may be given here. He said that "there were at first four eggs to almost every nest; but some were broken by the finder, and some I did break myself in taking the inside out," and that "nearly all the eggs were found by shepherds, because they have their dogs to help them, as the bird is very difficult to find else. They are found on the tops of the hills or at least near to the tops."]


§ 4089. Three.—Trodum, 7 June, 1859. Joen Joenscn.

§ 4090. Two.—Skuöe, 14 June, 1859.

Two of them [there were three] had at least one grub of upwards of half an inch alive inside each, which I have to-day, 11 October, blown out.


One of these eggs is so curious on the side at which it is blown, that I have only used pencil marks on the other.


§ 4096. *Three.*

The former rather large eggs, the latter of ordinary size.


§ 4099. *Four.*—Ejröe, 1859.

[Apparently from at least three nests.]

These [§§ 4088 to 4099] were sent to me by Sysselmand Winther from Ejröe and reached me at Beeston on the 3rd of October, 1859. They were generally very well packed, each egg carefully rolled up in tow, and all the eggs that were found in one nest kept together in what he calls a "cornet"—a hollow roll of paper.

[As before, Herr Winther wrote the name of the place and finder, as well as the day of taking, on each paper, all of which was copied by Mr. Wolley into his Egg-book on the 11th of October; and a melancholy interest attaches to the specimens of this contribution, as they were the last received by him, and the entries in the Egg-book shew unmistakable sign of the effects of the fatal disorder which was so soon to end his life.]

[§ 4100. *One.*—Greenland. From Captain Holbøll, through Mr. S. Stevens, 1855.]


On the arrival of Mr. Hudleston and myself at Hammerfest in 1855, we found there Messrs. Wilson Sturge and Edward Evans who were preparing for a voyage to Spitsbergen, on which they sailed before we left. On their return they were good enough to give me these two eggs taken from as many nests, and they subsequently recorded their ornithological experiences in 'The Ibis' (1859, pp. 166–174). There they state that this species "was very abundant in Coal Bay . . . . and we found four of their nests on the high field. Beautiful little nests they were, deep in the ground, and lined with stalks of grass and leaves of the Dwarf Birch (Betula nana, L.), containing mostly four eggs of an olive-green handsomely mottled with purplish brown, chiefly at the
larger end. We watched this elegant little bird—the only one of the *Gratulatores* we saw—with much interest, as it waded into some pool of snow-water or ran along the shingle, every now and then raising its wings over its back and exhibiting the delicate tint of the underside, at the same time uttering its loud shrill whistle."

§ 4102. *Four.*—Iceland, 1856. From Mr. W. Proctor.

From the northern part of the island, I believe.]

§ 4103. *Two.*—Cape Reykjanes, Iceland, 24 June, 1858.

Brought to us at Kyrkjuvogur on the 3rd of July (the day after our return from Reykjavik) by Gudmundur Sigurdsson, a *vimnaudr* of Gunnar Hallursson, who said he had found them on the 24th June, very near the sulphur-springs at Reykjanes, where he had been to look for horses. He told me, without my suggesting any names to him, that they were those of either *Mycispsa* (*Snipe*) or *Selbing* (*Purple Sandpiper*), that he saw the birds, and they were bigger than *Loo-voell* (*Dunling*). He further said that there were only these two *eggs*, and they were laid on the sand, with scarcely any nest. Mr. Wolley considers them very typical of *Tringa maritima*. I do not think them, except in size, unlike those of the Dunling. *Snipe's* they certainly are not, and on the whole I believe them to be *Purple Sandpiper's*.]

§ 4104. *One.*—Greenland. From Sysselmand Müller, 1859.

Given to me in October, 1859, at Copenhagen, where Herr Müller was attending to his legislative duties as "Folkethingsmand" for the Faeroes. This seems to me a very typical egg of *T. maritima*, as he declared it to be, but he did not tell me from whom he had it.]


Brought to Knoblock at Muoniovara, on the 8th April, 1862, having of course been taken the preceding year, by Nils Andersen Eira, together with four Dotterels' eggs, but no account of either. To Knoblock they were quite unknown, naturally enough, though he thought they might perhaps be Wood-Sandpipers, which they clearly are not. I know nothing of this Nils, except that in the following year he and two of his family (sons, I imagine) took nearly fifty nests of Buffon's Skua, at least one of which he said he had got on the Qvamanger-fjeld, and I suppose him to have been a Lapp living at Eira, which is on the Alten river, whence, according to the custom of his people, he wandered in various directions, though as year after year they take the same beat, it is very likely that these *eggs* may have been found also in the Qvamanger district. That these are *Purple Sandpiper's* eggs I can hardly doubt from their appearance; but, except the four from the hills above Vadsø in 1855 (§ 4070), neither Mr. Wolley nor I obtained any others in Lapland.]
TRINGA striata.—EREUNETES pusillus. 237

[§ 4106. Three.—Æolus-cross, Treurenberg Bay, Spitsbergen, 3 July, 1873. From Mr. A. E. Eaton.

Mr. Eaton accompanied Mr. Benjamin Leigh Smith on his voyage in 1873, and kindly gave me these, with other eggs, on his return. They were found, he said, by either Mr. Smith or Mr. Potter. His notes on the species as observed by him are in 'The Zoologist' for 1874 (p. 3809).]

[§ 4107. Two.—Fujóskadálr, North-eastern Iceland, 25 June, 1885. From Mr. Thomas Carter, 1903.

Obtained by Mr. Carter during his visit to Iceland in company with Mr. H. H. Slater.]

[§ 4108. One.—Eyjafjördr, Northern Iceland, May, 1891. From Conservator Scheel, 1893.

This was given to my brother Edward at Copenhagen by Herr Scheel, who is Conservator of the Zoological Museum there, and said it was one of two brought to him by a young man, who said he took it as above and described the bird as being reddish. Herr Scheel accordingly thought that it must be the egg of Tringa canutus; but to both my brother and myself it seems to be that of a Purple Sandpiper, though a conspicuously coloured one. It is also above the usual size, measuring 1 6 by 1 60 inch.]

EREUNETES PUSILLUS (Linnæus).

SEMIPALMATED SANDPIPER.

[§ 4109. Two.—Fort George, Hudson's Bay, July, 1860. From the Smithsonian Institution, through Prof. Baird, 1866.

The Smithsonian ticket states that these were obtained as above "with parent" by Mr. C. Drexler.]

[§ 4110. Two.—Arctic Coast, east of Anderson River, 3 July, 186–? From the Smithsonian Institution, through Prof. Baird, 1866.

Obtained by Mr. R. MacFarlane as above. The accompanying ticket has "two eggs, two broken, nest on marsh near sea, ♀ Parent 3 072." In his
LIMICOLA PLATYRHYNCHA.

notes (Proc. U. S. Nat. Mus. xiv. p. 427) he writes of this species:—"Fairly abundant in the Barren Grounds, but more so on the shores of Franklin Bay, where a number of specimens were secured. The female when disturbed frequently glides from the nest, pretending to be disabled, and thereby endeavors to draw away intruders. Occasionally the nests are hidden by tufts of grass.
"

LIMICOLA PLATYRHYNCHA (Temminck).

BROAD-BILLED SANDPIPER.

The Broad-billed Sandpiper differs from other wading birds in the situation of its nest, choosing open soft places in the marsh where there is little else than bog-moss with a light growth of a kind of sedge, and on a low tuft just rising above the water its nest may be found, often without much difficulty. If the bird is not seen to leave it will at all events be heard in the air making a kind of faint twittering noise; and when once it is discovered what neighbourhhood it frequents, a careful search with plenty of beaters seldom fails of success. But it must not be supposed that this kind of birdnesting is easy work. The marshes where the Broad-billed Sandpiper is to be found are few and far between. They are soft and full of water, and often every step is a struggle, whilst the swarms of hungry gnats require almost undivided attention. Satisfactory food is not easy to get; whilst eating, and having to expose one's face to the attacks of the insects, is necessary, though extremely provoking. The sun is scorching at midday, but at midnight has not enough power to keep away an unpleasant chill. The country to be gone over is of vast extent, the egg-season very short. Sleep is seldom attainable, a feverish feeling comes on and present enjoyment soon ceases; but one works away in the conviction that the greater the difficulty, the greater the satisfaction in success.

It is just where the thickest clouds of gnats rise from the water, which is so generally spread over the recently thawed land, that the Broad-billed Sandpiper has its eggs, and this is just before midsummer, about the third week in June. Many empty nests are found for one that is occupied, and I suppose them to be nests of former years, for the moss in which they are usually worked long retains any mark made in it, being hard frozen for more than half the year. They are neatly rounded hollows, and have a few bits
of grass at the bottom. The bird sometimes flies and sometimes runs off her eggs, and if she has sat for a day or two she will come back even whilst men are standing all around. The eggs are usually very deeply and richly coloured when fresh, but they fade sadly soon after they are blown. As Swedish ornithologists consider the Broad-billed Sandpiper only in the light of an accidental visitor to their country, I suppose its breeding-grounds to be confined to this far northern region.

[The foregoing paragraphs, written at Muoniovara, on Christmas day, 1854, by Mr. Wolley for Mr. Hewitson's use, were by him printed almost wholly, though not quite accurately, in the Third Edition of his work. The discovery of the nidification of this species is commonly attributed to Mr. Dann, who gave full notes of it, together with two eggs (of which more presently § 4174), to Mr. Yarrell, by whom the account was published, and an egg figured (July, 1841), in the First Edition of his 'British Birds' (ii. pp. 639, 640). However, it seems that Mr. Dann's travelling-companion, Herr Lagesen, of Itzehoe in Holstein, must share with him the credit of the discovery, which was made near Fogstuen, on the Dovrefjeld, in June, 1838, and the details being communicated by him to the elder Reinhardt, were by the latter published in the 'Naturhistorisk Tidsskrift' for 1839 (ii. p. 432; translation 'Isis,' 1841, pp. 416, 417). In a previous journey, in 1835, Herr Lagesen had been struck by the promising appearance of the wide, watery moor stretching eastward from Fogstuen, and then only refrained from exploring it through the tales of the neighbours as to its difficulties and dangers. On revisiting the district three years later he wandered over the moor, quite alone, he says, and was rewarded for his trouble by meeting with this species, hitherto thought so rare, in considerable numbers. He shot twenty-six of the birds, and found several nests, containing two or three eggs each; but he described them as being in colour like those of Tringa alpina, which shews that he was not much of an oologist. He, however, rightly remarked on the resemblance in habits and flight which L. platyrhyncha bears to the Jack Snipe. He also mentions that Mr. Dann had found the Broad-billed Sandpiper in the north of Sweden, but not its nest. On this last point he must have been misinformed, for Mr. Dann says that he "found eggs not sat upon on the 24th of June," in Lappmark, beside having "procured one nest with four eggs in it" near Fogstuen, where he also shot five birds, and might have killed as many more had he wished it (cf. Yarrell, ut suprà).]

§ 4111. Four.—Iso-uoma, 15, 17, and 27 June, 1853. "Bird shot. J. W."

[16 June, 1853.] These two eggs were in a nest which we found yesterday in Iso-uoma (the great marsh) at Ölåvre Muonioiska on the Swedish side. The boy Ludwig saw the bird leave it, and it was
afterwards pointed out to me, there being then only one egg, which several hours later I exchanged for a Trast's [Redwing], and in the afternoon of the same day I found a second egg laid to the Trast's. I could not get a sight of the bird. Ludwig said it ran from the nest, but there was scarcely any cover near. The eggs were on a little knob, projecting from the bog, a little grass and so forth growing upon it; but there was scarcely anything added to form a nest. Two hundred yards off I saw a pair of Totaums [glareola] anxiously flying near me, and one sat piping on the top of a Scotch fir, close to where the young Cranes [§ 3176] had been; and this was the most common species of Wader in the marsh, but there was a colony of Tringa platyrhyncha in another part of it. We also saw a Snipe or two, one Totaums fuscus, and possibly another species of Wader.

[17 June.] This is a third egg out of the nest above mentioned. Again today I failed in seeing the bird upon the nest, though it was raining heavily. The Redwing's egg still remained in it.

[27 June.] This from the nest in Iso-noua which I have already robbed three times. Ludwig found it again accidentally as I was on my way to it. The bird flew off, and was again on the nest when I returned in half an hour from our dinner-rock. It flew a yard or two, and then settled and ran among the Equisetum and short sedge. I fired where I guessed it was, and it got up with a broken leg, but settled again a few yards further on, and I shot it as it rose for the third time. The nest seemed to me rather fuller than I before described it, made of a few short bits of dried grass, and old dwarf birch leaves. The Redwing's egg was still in the nest, and I find a large young one inside it, whether so when put into the nest I cannot say. The Sandpiper's egg has also a young one forming in it. It was not laid ten days ago. Today I see only three or four Broad-billed Sandpipers, and, I think, only one twittering in the air, in that subdued way which is characteristic of the bird. I see several Jack Snipes, making that galloping or cantering noise, which I have before observed and likened to hammering [cf. infrì, pp. 253, 254]. Also some full Snipes—or at least bleating and clicking birds. I fire at a Hen-Harrier, of which I see three 1, in the course of the day here and at Nederbyn [the lower village]. Also I knock a feather out of an Owl, which has young somewhere near. It drops

1 (It was not till 1857 that Mr. Wolley obtained a nest of this species in Lapland [cf. § 453], the only one he procured there; but I think he made no particular effort to get any.—Ed.)
in the air, clapping its wings and keeping them close to its body, or flapping them like a fan. It beats also with them raised high. It dashes upon the ground, making a screaming noise, almost like a dying Hare. It also hangs motionless in the air overhead, but flapping its wings as if it were advancing. *Totanus glareola* was numerous in the marsh, very clamorous and bold, no doubt having young.

§ 4112. *Four.*—Iso-uoma, 15 June, 1853.

These four eggs were found in the marsh above mentioned [§ 4111] by Theodore [the Finnish interpreter] and the native, who were walking together. The bird left them, but they could not describe it. They managed to crack one or two of the eggs, which were a good deal sat upon. Looking afterwards for the nest to shew it to me, they could not find it.

§ 4113. *One.*—Iso-uoma, 17 June, 1853. "J. W."

This 17th of June I have been again to the great marsh with four beaters beside myself and Herr Salomon. We took the likely places regularly in line; and I soon saw one of the birds, that I had previously had no doubt was *Tringa platyrhyncha*, fly once or twice over the ground, in such a way as to convince me it had a nest. Carefully quartering this piece of ground, which might be rather more than an acre in size, and examining only the eminences, for the rest was under water from the heavy rain of yesterday and this morning, I was the first who came upon the nest. It was not at all concealed, and was made only of a little grass placed in a hole, such as we saw several other unoccupied holes like. The four eggs pointed to the centre. I put two Thrush's [Redwing's] eggs into the nest, having failed in finding the old bird upon it, but I did not return to it.

27 June. I revisited this nest: the two Thrush's eggs were gone.

[Two of these four eggs were sold at Mr. Stevens's room, 17 February, 1854, to Mr. Gardner, and one to Lord Garvagh. The fourth was given to my brother and myself, and therefore remains in the collection.]

1 [All this exactly describes the behaviour of the Short-eared Owl, of which Mr. Wolley found a nest a few days later (cf. § 512).

PART III.
§ 4114. Three.—Iso-uma, 17 June, 1853. "J. W."

These curious varieties of the egg of Tringa platyrhyncha we found the same day as those last mentioned. I shot a bird of that kind not more than one hundred yards from where they were. Nevertheless a bird rose from these eggs which appeared to Theodore to be of the same kind as the last he saw—that at the previous nest \[§ 4112\]. The eggs were quite fresh. I saw part of another lying in the wet, a foot or two off from them, and it was undoubtedly that of Tringa platyrhyncha. A little bent was used in the make of this nest.

[Mr. Wolley never doubted that these eggs were those of the Broad-billed Sandpiper, but among the many obtained by him they remain unique in appearance—the drab ground-colour being wholly free from marking. The fourth egg of the nest, doubtless that of which he saw the broken remains, seems to have been normally coloured.]

§ 4115. Four.—Karto-uma, 18 and 29 June, 1853. "Saw bird on nest. J. W."

This nest was found by Theodore; the bird leaving it. The position was in the swampy level part of the bog, now nearly overflowed by water, as the nests we found in Iso-uma. The two eggs were freshly laid. The other two were taken on the 29th from the same nest, and must therefore have been laid since the 18th, yet they seem to have been a good deal sat upon. I sent him to look at the nest, thinking it possible there might be two more eggs in it. It was composed principally of small twigs, not common for this bird, and I think it had been slightly raised since we had seen it last. While we were at the nest [the second time] with our weight depressing the ground, so as to leave the nest itself, on its little point, an island in a pool, the little bird was seen walking round and coming within a few feet of us, as the cover was not at all thick, and we could see it perfectly now stopping to pick a fly, and once commencing the chirping noise which it makes in the air. Going a yard or two from the nest we watched the little fellow walk round and round, and at last run into it; but it came out again almost immediately looking about. It presently flew a short distance; but the lads could only make it rise again by throwing handfuls of turf at it.

This same morning we tried a marsh on the Finnish side, where
we saw Greenshank, Whimbrel, *Totanus fuscus, T. glareola*, Reeve, Broad-billed Sandpiper, but all seemed to have young. I found a Fieldfare which was just old enough to fly, and in the wood I shot a *Picus tridactylus*. I shot a Curlew¹, which we ate for dinner today (30 June), with a hen *Dal-Ripa* [Willow-Grouse] and two Reeves. The *Dal-Ripa* cock I had shot two days before at Karto-uoma, and the same day I found a brood attended by both birds, which of course I spared; but meat is very rare here.

§ 4116. *One.*—Karto-uoma, 18 June, 1853.

Found by Ludwig on the bird leaving the nest, the position of which was more elevated than usual. The eggs were some days sat upon. The birds were flying overhead. I shot one, which certainly had a nest, a few hundred yards from this spot. Ludwig saw that the bird [which left the nest] was *Tringa platyrhyncha*.

[Of the four eggs which this nest contained, one was sold at Mr. Stevens’s, 17 February, 1854, to Mr. Burney. That which is now in the collection was given to my brother and myself. I know not what became of the remaining two.]

§ 4117. *Four.*

Karto-uoma, 28 June, 1853. "Bird shot. J. W."

§ 4118. *Four.*

On the 28th of June, with a party consisting of Herr Salomon, Ludwig, Theodore, two men and two boys, I went to Karto-uoma, and beating the likely parts pretty closely, we found two nests of *Tringa platyrhyncha* and three of *Scolopax gallinula* [§§ 4180–4182]—all five with four eggs each. We found a young *Brushane* [Ruff] which could nearly fly, the old bird flying about with a low "bark" like that of the Great Black-backed Gull, very much subdued. *Totanus glareola* was very clamorous, no doubt with young, also in a corner of the marsh several pairs of *Totanus fuscus*, exceedingly noisy, and dashing at our faces—a few Curlews¹ in the same part. These were all the marsh-birds I saw; but when I was not with the

¹ [It must have been by inadvertence that Mr. Wolley here wrote Curlew for Whimbrel. In the very last of his Sale-Catalogues (1858–9) he stated of the latter:—"Replaces the Curlew entirely in those parts of Lapland with which I am acquainted."—Ed.]
LIMICOLA PLATYRHYNCHA.

party Herr Salomon found a *Tranqua-bo* [Crane's nest, § 3177]. In the wood I shot a young *Lanius*, probably *excubitor*. In the fen were also common Titlarks, of which we found several nests, and a few Grey-headed Yellow Wagtails. Over it I saw a Buzzard of some kind and a pair of small Hawks attacking it. The first nest of *T. platyrhyncha* Herr Salomon found, hearing the bird get up from it, just after he had passed. It was not more than twenty paces from a nest of *Scolopax gallinula*, found at the same moment by a boy [§ 4182]. I took the eggs and returning in half-an-hour to the Snipe, the *T. platyrhyncha* got up close to its own nest, and I shot it just as it was settling again. The eggs were a good deal sat upon. The second nest was found by a boy in an exposed place. He shewed me where the bird had flown, and I shot it running upon the ground, a few yards from its nest.


§ 4120. *Four.*

The first nest I found, seeing the bird fly off in great trepidation. It was, as most of the nests of this species are, upon a little knob or tuft in the swampy part of the marsh, where grow *Equisetum, Carex*, and so forth. I shot the bird: the eggs were quite fresh. The second nest was found by Theodore. I heard the bird making a plaintive noise, like a chick, some little way off in the direction in which it was said to have flown, and I shot it as it just skipped into the air for a short flight. This day there were only two boys and a big lad, beside Theodore and Ludwig, with me.

§ 4121. *Four.*—Palojoki, 3 July, 1853.

These four eggs of Broad-billed Sandpiper, Ludwig found in our beat at Palojoki on the Russian side. The bird left the nest and I saw it several times, but I did not succeed in shooting it. There was not many of its kind in the marsh; but there was *Totanus glareola* (most numerous), Ruffs, Greenshank, Whimbrel, and Black Redshank. I shot a Whimbrel and also a Black Redshank, which was exceedingly clamorous as usual, and at the same time I caught a young Black Redshank, half as big as the parent—perhaps three weeks old. It was near the middle of the marsh. The nest of the Broad-billed Sand-
piper was as usual on a nearly bare tuft, and made of bits of grass. There were large young in the eggs.

[The skin of the young Black Redshank was sold at Mr. Stevens's room, 17 February, 1854, to Mr. Milner.]

§ 4122. Four.—Lompalo-uoma, 17 June, 1854.

Hewitson, 'Eggs of British Birds,' ed. 3, pi. c. fig. 2.

Found by Ludwig in a marsh above Lompalo-träsk, I suppose Lompalo-uoma, where we afterwards found two nests [§ 4126].

[One of these figured by Mr. Hewitson as above.]

§ 4123. Three.—Lompalo-uoma, 17 June, 1854.

Found by Ludwig in Lompalo-uoma, on the winter-way to Jerisjärvi. The same marsh to which I went with him and Piko Heiki on the 27th.

[The fourth egg of this nest is not forthcoming.]

§ 4124. Four.—Kaaressuando, 19 June, 1854.

Hewitson, 'Eggs of British Birds,' ed. 3, pi. c. fig. 1.

These eggs of Tringa platyrhyncha—for Elias says that the bird was the same as one I pointed out to him in a marsh a day or two ago, and that the nest was placed as I shewed him—were found in Hietenna-uoma on the Finnish side of the river. One nest with three eggs was found by Herr Engelmark's dräng. Three other nests were found—two by Elias and one by Larti's Abraham. One was slightly sat upon, the rest fresh.

[There were fifteen eggs in all. One still in the collection was figured as above by Mr. Hewitson. Six were sold at Mr. Stevens's, 26 January, 1855, to Dr. Frere, Messrs. Gardner, Gurney, Knapp, Milner, and Simpson respectively.]

§ 4125. Three.—Muoniovaara, 21 June, 1854.

Found by Anton in Kaakkuri-Lammas. The fourth egg broken.
§ 4126. *Six.—Lompalo-uoma, 27 June, 1854.*

Found by Piko Heiki in my company, and I took the eggs with my own hands. I shot a *Tringa platyrhyncha* in the marsh and saw several others. The same marsh in which Ludwig found two nests [§§ 4122, 4123].

§ 4127. *Two.—Salmojärvi, 1854.*

No doubt Broad-billed Sandpiper's. One egg appears to be faded, but the Salmojärvi boy says it was so in the nest.

[A third egg from this nest given to Mr. Dresser in 1861.]


From Ollos-uoma, the marsh which last year we called Lompalo-uoma [§§ 4122, 4123, 4126]. Ludwig snared the bird, which is now before me.

§ 4129. *Four.—Ollos-uoma, 19 June, 1855. "With bird."

Four eggs with a beautiful skin of the bird. They were first found by Anton, Ludwig in company. One of the eggs is of great beauty, like the Jack Snipe's from Kaakkuri-lammas [§ 4186].

§ 4130. *Four.—Ollos-uoma, 19 June, 1855.*

Found by Anton, on a very rainy day, when he and Ludwig got four nests in this marsh.

§ 4131. *Four.—Iso-uoma, 20 June, 1855.*

Found by Anton.

§ 4132. *Four.—Iso-uoma, 20 June, 1855.*

Found by Niemi's Johan, a lad who went to the marsh with Ludwig and Anton.
§ 4133. One.—Iso-uoma, 20 June, 1855.
From a nest of four, found by Anton, after a long search—perhaps of an hour.

§ 4134. Two.—Karto-uoma, 21 June, 1855.
Out of four, found by the boy Niemi’s Kalle soon after midnight, 20, 21 June. Ludwig was with him in the marsh.

§ 4135. Two.—Kuttainen, 1855.
Another from this nest given to Mr. Simpson. The finest of my series this year.

§ 4136. Four.—Kangosjärvi, 1855.
By Gabriel Heina Niemi. Doubtless from one nest, though the eggs vary much. No other eggs of the kind have come from Kangosjärvi this year, and Gabriel said he found only one nest.

§ 4137. Four.

§ 4138. Four.
Ollos-uoma, 20 June, 1856. “L. M. K.”

§ 4139. Four.

§ 4140. Four.
All these [with another nest of four] found by Ludwig on the same day, and the several nests kept carefully separate.

§ 4141. Four.

§ 4142. Four.


§ 4144. Four.

§ 4145. Four.
Five nests of four eggs each, found like the last on the same day, and in the same marsh, but by Anton, in company with Ludwig, who received all the eggs, and put each nest separately and marked them. Each of these five nests has eggs more or less different from those of the others. Those of No. 6 are small eggs, of No. 7 light coloured with the markings collected at the large end. No. 8 has one egg with large blotches at the large end, the others belonging to it being ordinary. No. 9 has beautifully light variegated eggs, while No. 10 has three of dumpy form and rich colour, the fourth being ordinary. Nos. 9 and 10 are most markworthy.

§ 4146. *Four.*—Iso-uma, 23 June, 1856. "A. K."

Found by Anton Knoblock.


From a nest of four, found by Anton in Ludwig's company.

§ 4148. *Four.*—Pallas-uma, June, 1856.

Found by Kyrö Niku, and brought to Ludwig on the 24th. A dark-coloured nest.

§ 4149. *Four.*—Pallas-uma, June, 1856.

Found and brought with the last, but the nests mixed.

[Out of twenty-four, nine of which seem to have been sold at Mr. Stevens's, 12 May, 1857, to Messrs. Braikenridge (2), Burney, Milner (2), Seely, and Walter (3). One I gave to Dr. Walker in 1860, another to M. Hardy, and a third to M. Verreaux.]

§ 4150. *Four.*


By the boy Carl Moatka, mixed together, but as four are much smaller than the others, and of a different colour, I separate the nests with confidence. He brought them on the 6th of July, saying that
one nest was in Mielmuka-uoma, the other in a small marsh at the back of Utkovaara. He is the lad who several times in previous years has found this bird's eggs.

§ 4152. Two.—Kaaressuando, 1856.

From two nests found by the Nälima children.

§ 4153. Two.—Muonioniska, 7–13 June, 1857.

Brought on 24th June by Carl Kokko's lad Peter; found in Talve-lahten-uoma. He said he recognized the bird, of which he has several times brought the eggs in former years.

§ 4154. One.—Rauhula, 1857.

One of four. An interesting chocolate-coloured egg.

[It seems that another from this nest was given by Mr. Wolley to the Messrs. Godman. A third I gave to Mr. Newcome in 1864, and the fourth was broken and thrown away.]

§ 4155. Two.—Kalko-uoma, 19 June, 1858.

Brought by Petter Rowa [Punch] on the 23rd, having been found as above.

§ 4156. Three.—Kotivaara, 14 June, 1858.

Out of six, found by Johau Anti as above.

[These are curious-looking eggs. The other three were given to Mr. Salvin in 1860.]

§ 4157. Four.—Kotivaara, 15 June, 1858.

From two nests mixed, brought by Kyrö Niku, 19 June.

§ 4158. Seven.—Yli-Muonioniska, 18 June, 1858.

From three nests, mixed together, and brought by Carl Lanta.
§ 4159. Four.—Kotijänkä, June, 1858.

From a number mixed together from Kotijänkä and Nilijänkä, brought by Kyrö Niku on the 19th June.

[Five more were sold at Mr. Stevens's, 8 March, 1859, to Messrs. Braikenridge, Godman, Marshall (2), and Turner.]

§ 4160. Six.—Nilijänka, soon after 24 June, 1858.

From two nests mixed together, brought by Kyrö Niku, 11 July.

§ 4161. Four.—Muonioniska, 18 June, 1859.

Brought on the 19th by Carl Kokko's boy Gustaf; found the day before in Talvelahten-uoma.

§ 4162. Four.—Muonioniska, 18 June, 1859.

From two nests the eggs of which were blended; found as the former.

[The other four I sent to Dr. Heermann in 1861.]


§ 4164. Four.

Brought on the 23rd by the same boy; found in the same place.

§ 4165. Four.—Mielmukka-uoma, 20 June, 1859.

Brought on the 23rd by Lanta's boy; found as above.

§ 4166. Four.—Muonioniska, 20 June, 1859.

Brought on the 23rd; found by Lanta's girl Anna in Koskimaperasä.

§ 4167. Four.—Kyrö-uoma, 13 June, 1859.

Brought by Kyrö Niku; found as above.

[Another nestful with the same history I gave to Mr. Elwes in 1860.]
§ 4168. *Four.*—Wassara, 5–11 June, 1859.
Brought on the 25th by Johan Petter Wassara in Iso Afven-uoma.

§ 4169. *Four.*—Muonioniska, 24 June, 1859.
Brought on the 9th July by Sepi Ollo's daughter Fredrika.

Brought with the last, but by Sepi Hendrik's daughter Anna.

Brought to Muoniovara, on the 25th, by Petter Hendrik Kyrö having been found as above.

§ 4172. *Four.*—Muonioniska, 10 June, 1862.
Brought on the 16th by Gustaf Kokko, who found them in Talvelahten-uoma.

§ 4173. *Four.*—Kyrö, 1863.
Out of nine, brought to Muoniovara by Martin Pekka, 16th July: the mixed contents of at least three nests, taken by Hendrik and Petter Kyrö.

§ 4174. *One.*—Scandinavia, not later than 1840. From the late Mr. Dann's Collection, 1888.

Hewitson, 'British Oology,' pl. clvii. fig. 2, and 'Eggs of British Birds,' pl. lxxxvii. fig. 2.

This egg was kindly obtained for me by Mr. Edward Bidwell at the sale of Mrs. Wise's collection at Mr. Stevens's room, 12 March, 1888 (Lot 191 of the Catalogue), being one of the specimens given by Mr. Dann to Mr. Yarrell, and sold with his collection 5 December, 1856, when I was present. I cannot say which lot in that sale it was (381 or 382), but there is no doubt of its being the identical specimen which Mr. Hewitson drew for the "Supplement" of his 'British Oology,' published in 1842 (which plate was again used in his 'Eggs of British Birds' of 1846), as the two dark spots on the otherwise uniformly mottled surface are unmistakable. The two lots at the Yarrell sale were described as "Broad-billed Sandpiper from Mr Dann"; and doubtless rightly, for I had seen them in Mr. Yarrell's possession more than once, and, moreover, he was very proud of them, as being two of the first ever taken, and,
MACRORHAMPHUS GRISEUS (Gmelin).

RED-BREASTED SNIPE.

§ 4175. One.—Arctic Coast, cast of Anderson, 3 July, 1863. From the Smithsonian Institution, through Prof. Baird, 1867?

The label shews that this egg was one of four, from which the hen bird (no. 36063) was shot after leaving the nest by Mr. R. R. MacFarlane. The nest was described as being "a few dead leaves." This specimen was very much shattered when it reached me, and needed all Mr. Salvin's skill to restore it.

Mr. MacFarlane's note (Proc. U.S. Nat. Mus. xiv. p. 423) calls the species *M. scolopaceus*, and states that the few nests "were taken between the 21st of June and the 1st of July, the eggs were always four in number, but it is not a very abundant bird in the Anderson section of the Polar regions. *M. griseus* (Gmel.) probably breeds in the same quarter." The slight inconsistency between the dates mentioned may be due to accidental mistake; but I cannot consider that Prof. Baird would have sent me this egg as that of *M. griseus* had he been in any doubt as to the species to which belonged the hen bird shot at the time. It is true that, according to American authorities of today, it would be *M. scolopaceus*; but I cannot recognize any valid distinction between that and *M. griseus*.

GALLINAGO GALLINULA (Linnaeus).

JACK SNIPE.

I scarcely like to tell you about the Jack Snipe; anything I can say must be so poor an expression of my real exultation at the finding of this long-wished-for egg. It was on the 17th of June, 1853, in the Great Marsh at Muonioniska that I first heard the Jack Snipe, though at the time I could not at all guess what it was. An extraordinary sound unlike anything I had heard before. I could not tell from what direction it came, and it filled me with
a curious surprise. My Finnish interpreter [Theodore] thought it was a Capercally, and at that time I could not contradict him; but soon I found that it was a small bird gliding at a wild pace at a great height over the marsh. I know not how better to describe the noise than by likening it to the cantering of a horse in the distance over a hard hollow road: it came in fours, with a similar cadence and a like clean yet hollow sound. The same day we found a nest which seemed to be of a kind unknown to me. The next morning I went to Kharto-noma with a good strength of beaters. I kept them as well as I could in line, myself in the middle, my Swedish travelling companion [Herr Salomon] on one side and the Finn talker on the other. Whenever a bird was put off its nest the man who saw it was to pass on the word, and the whole line was to stand whilst I went to examine the eggs, and take them at once or observe the bearings of the spot for another visit, as might be necessary. We had not been many hours in the marsh when I saw a bird get up before Herr Salomon, and I marked it down. In the meantime the nest was found, and when I came up the owner was declared to have appeared striped on the back and not white over the tail. A sight of the eggs as they lay untouched raised my expectations to the highest pitch. I went to the spot where I had marked the bird, put it up again, found that it was indeed a Jack Snipe, and again saw it after a short, low flight drop suddenly into cover; once more it rose a few feet from where it had settled, I fired, and in a minute had in my hand a true Jack Snipe, the undoubted parent of the nest of eggs. I walked as composedly as possible back to my friend; he said "A common bird, I suppose?" I replied "Yes, very"; but I shook him warmly by the hand, and told him that common birds sometimes lay very rare eggs. As usual, I took measures to let the whole party share in my gratification before I again gave the word to advance. In the course of the day and night I found three more nests, and examined the birds of each. One allowed me to touch it with my hand before it rose, and another only got up when my foot was within six inches of it. It was very fortunate that I was thus able satisfactorily to identify so fine a series of eggs, for they differ considerably from one another. I was never afterwards able to see a nest myself, though I beat through numbers of swamps. Several with eggs, mostly hard sat upon, were found by people cutting hay in boggy places in July. I have spent a good many hours this present year (1854) in the same Kharto-noma without finding one, though I had
plenty of men and boys in good working order. There have certainly been but few Jack Snipes in the country this season. The nest of the 17th and the four of the 18th of June were all alike in structure, made loosely of little pieces of grass and *Equisetum* not at all woven together, with a few old leaves of the dwarf birch, placed in a dry sedgy or grassy spot close to more open swamp. I found them generally at the best time for walking birds up from their nests, that is in rainy weather or about midnight. The gnats, however, are there so terrible—voracious—destructive—no word is too strong—that tar oil, Templar caps, veils, and thick leather gloves are indispensable.

It was not long after I first heard it that I ascertained that the remarkable hammering noise in the air was made by the Jack Snipe; but I have not yet quite satisfied myself whether the *keet koot, keet koot* on the ground, and the *baa-aa-aa* in the air, which are constantly to be heard in the same places, are made by one and the same bird at different times. At a considerable height it is not easy to distinguish a Jack Snipe from another Snipe, and the clicking and bleating seem to my ears exactly like the Common Snipe's. However I did not find a single nest of the latter bird in Iso- or Kharto-uoma, though I have met with one or two elsewhere in the neighbourhood. Few of the country people recognize two kinds; they consider that all the sounds proceed from the same bird, the "Ram of the Heavens": they take them for signs of the weather, or they adapt them to words pretending to be the lamentations of transmigrated girls, who have died in their maidenhood and are bewailing their hard fate; but the lads generally get the worst of it in a trial of wit with their fair companions.

[The above, written by Mr. Wolley from Muoniovana, 27 November, 1854, to Mr. Hewitson, was by him printed, with a few omissions (now restored), in the Third Edition of his work. It must not be claimed for Mr. Wolley that he was the first discoverer of the eggs of this species, though certainly the first to describe its mode of nidification. The former distinction seems due to Mr. Hoy, who is stated to have brought specimens of its eggs from Valkenswaard in North Brabant, one of which, from Mr. Yarrell's collection, Mr. Hewitson figured in 1842 (Brit. Ool. Suppl. pl. clxviii.), and a second, from Mr. Tuke's collection, in 1845 in his Second Edition (pl. lxxxvi. fig. 3). About the genuineness of the former some doubt may perhaps be entertained, but the latter appears to be true. Through Mr. Hoy's premature death particulars of them were never published, and it is to be said that the Jack Snipe has been over and over again unsuccessfully sought as a breeding bird in the district in which he was reported to have obtained its nest, and that I]
have seen hundreds of eggs received thence without any one of them possessing the characteristics of a Jack Snipe's.

Mr. Wolley subsequently satisfied himself that the Jack Snipe did not "bleat" in the air, or utter the keet keet call-note on the ground, those noises being exclusively due to the common species; but both are called indifferently Taivean-juara, meaning the Ram, or, I believe more strictly, the Wether of the Heavens.]

§ 4176. One.—Iso-uoma, 17 June, 1853.

Four eggs taken in the Great Marsh. The bird flew just before Herr Salomon [the Swedish interpreter], but he did not look at it particularly, and in several subsequent visits I could not see it. It was raining very heavily.

P.S.—There can now be little or no doubt that these four eggs are Jack Snipe's. The nest was made partly of fragments of Equisetum, and in situation and every respect agrees with the three nests of the 18th of June [§§ 4177—4179]. The size of the eggs also exactly corresponds with that of the eggs of the second nest of that day.

[This was the first Jack Snipe's nest obtained by Mr. Wolley. Of the four eggs it contained there remains only one in the collection, which was given by him to my brother and myself. Two others were sold at Mr. Stevens's, 17 February, 1854, to Messrs. Burney and Milner: the fourth I am unable to trace.]

§ 4177. Four.—Karto-uoma, 18 June, 1853. "J. W. shot the bird."

Hewitson, 'Eggs of British Birds,' ed. 3, pl. xcix. fig. 3.

On the 18th of June I started with a large party of men and boys from Muoniumiska (Eivre-byn for Kharto-uoma'), the marsh on the Swedish side some distance north of Iso-uoma. We had not been long on the bog, before I saw a Totanus fusces which shewed great solicitude and kept near us as we were quartering the ground for

1 [This is the first time the name of this marsh, so frequently mentioned by Mr. Wolley, is given in the Egg-book. I feel sure it is wrongly written, but I am unable to set it right. The first word may be Kortu, which has several meanings, though none very applicable. I suspect Korte, as afterwards (§ 4201) written by Knoblock, to be more likely—Korte being the Finnish name of the plant we know as Marestail or Equisetum, which grows abundantly in the marsh, though perhaps not more so than in some of its neighbours.—E.R.]
a very long time. It was some hours after this that Herr Salomon called to me that he had found a nest, and just before I had seen the bird fly from it and settle, but at the distance I was I could only see that it was not white over the tail—Herr Salomon saw that it was striped on the back. Walking up I at once saw that the eggs were such as a Jack Snipe might lay, and they reminded me of an egg Mr. Alfred Newton had from Holland. Going immediately to the place where I had seen the bird drop, I put it up, and it shortly settled again, dropping suddenly among the herbage as a Jack Snipe would, and I had no doubt it was that bird. Whenever it settled it ran a few feet and remained quite concealed. At last I fired at it as it rose, and to my great delight I picked up a veritable Jack Snipe. Returning leisurely to Herr Salomon, he said to me "A common bird?" and I answered "Very common"; but immediately afterwards I congratulated him on finding a previously unknown egg, such a great desideratum to English collectors. The nest of this and of those I found subsequently was very simple. One that I brought away was of grass in short bits, old fragments of Equisetum, and last year's leaves of dwarf birch, which grows so abundantly over these morasses. I was not able to ascertain with precision whether the clicking and neighing which I frequently heard in the course of this and the preceding days came from the Jack Snipe or the Common Snipe, to which it appeared to belong. I have not yet had positive proof of the existence of the latter bird here, but I am pretty sure that one at least got up before me during the day.

§ 4178. Four.—Karto-noma, 18 June, 1853. "J. W. shot the bird."

This nest was found by one of the boys not long after the last. The bird was on the nest. I marked the place and retired. In about an hour's time, taking my lines by one or two dwarf trees, I walked, in company with Ludwig, in the exact direction of the nest. I did not know to a foot or two where it was, when suddenly the bird rose under my feet. Standing perfectly still I shot it, and then looked downwards, when I found that my left foot was only six inches from the nest, and must have been planted there, or nearly so, before the bird flew up. I picked up the bird, which, as

1 [I cannot remember this particular egg, but it could hardly have been a Jack Snipe's.—Ed.]
well as the other [§ 4177], I propose to preserve. The situation
was like the other, on a not depressed part of the marsh, with the
usual plants about—the strongly-scented rhododendron-like shrub
[Ledum palustre] with white flowers, the dwarf birch, the pink
Andromeda, grass, rushes, &c.

§ 4179. Four.—Karto-umna, 18 June, 1853. "J. W. shot
the bird."

Hewitson, 'Eggs of British Birds,' ed. 3, pl. xcix. figs. 1, 2.

These are from the third nest of which I shot the bird. Ludwig
found it and pointed out to me the place to which the bird had
flown. I walked up and shot it as it flew. The nest was like the
others: the eggs are somewhat longer. Two out of this nest were
figured by Mr. Hewitson in the second edition of his "Coloured
Illustrations of the Eggs of British Birds." I have marked them
accordingly.

§ 4180. Four.—Karto-umna, 28 June, 1853. "Bird well
seen. J. W."

These were in the first nest found on this day. It was found by
a boy who put up the bird, and was in the usual situation, on a
ridge. I left the place for half an hour, and on my return could not
at first find it; but presently the bird got up from the nest, a yard from
Ludwig's feet. I was three or four paces off, and saw with surprise
that it was a Jack Snipe, for I had previously been inclined to think
that the eggs were Wood-Sandpiper's. The bird soon pitched down
short, as usual with Jack Snipes, and in this way I flushed it twice,
and fired two shots at it without hitting it, for when Ludwig went
again to the nest to fetch a pencil with which I had been marking
the eggs, the bird was also returned to it. The eggs were nearly
ready to hatch. They are a good deal smaller than any of the Jack
Snipes' I have yet met with. The nest was made of short bits of
fine round grass.

§ 4182. Four. } J. W."

Eight eggs from two nests. After one of the boys had found the
PART III.
first of these nests, by the bird flying off, I marked the spot with great accuracy, and returned with Ludwig in three-quarters of an hour. I came to the exact place and no bird got up, nor could I see the eggs; but looking closer there sat the bird close to my feet. I gradually lowered my hand and touched it before it moved. Making a grip to catch it, I badly cracked one of the eggs. They were not so much set upon as might have been expected. The bird flew a short distance, and I shot it as it rose again. The skin is preserved. This nest was made of the dried flat blades of grass, softer and more complete than usual. The situation a ridge, a hole made in the moss and grass.

The second of these nests was found at the moment when Herr Salomon found his nest of Tringa platyrhyncha [§ 4117]. He did not see his bird, but he distinctly saw his neighbour's bird, and declared that it was Scolopax gallinula before he had seen the eggs; and so it proved to be, for having marked the nest and returned, I shot the bird, and afterwards skinned it.

§ 4183. One.—Toras-sieppi, July, 1853.

Brought to me by the boy who climbed to the Osprey's nest. He called it Taiwaan-jaara.

[Mr. Welley seems to have thought this to be a Snipe's egg, and if so, from the lateness of the season—he must have got it about the 4th of July,—it can hardly be otherwise than a Jack Snipe's; but it differs very much from any other in the series. I find no other notice of the Osprey's nest above mentioned. It was most likely one in which the young had been already hatched, and therefore there were no eggs to take and enter in the book.]

§ 4184. Four.—Elvre-Muonioiska, 1853.

Four eggs, supposed to be Jack Snipes', brought to me on the 7th of August by a boy, Saari's Pekka, who lives in Elvre-byn. On the 14th of August, Modas Lompalo, the man who knows so many birds' names, brings me four eggs, old and with large young inside, which young appear, from the network at the end of the beak, to be Snipes, and no doubt Jack Snipes. These last eggs are like those sent to me from Mielmuka-uoma on the 30th July, or like one of Pekka's eggs. I cannot make anything of Lompalo's: they are so brittle.

[The Mielmuka-uoma eggs were sold at Mr. Stevens's, 26 January, 1855—two to Mr. Gurney, one to Mr. Walter, and the fourth to Lord Garryagh.]
§ 4185. One.—Palojoki, F., 1854.

Of two taken by Heiki Ollen-poika and Zacharias Johanen-poika.

[The second of these I sent with another to the Norfolk and Norwich Museum, at the request of Colonel Irby, in 1875.]

§ 4186. Four.—Kaakkuri-lammas, Muoniovaara, 14 June, 1855. “Anton.”

Anton saw the bird distinctly on the eggs. He looked at it for some time almost under his feet. He said when he came home that it was Pieti Taivaan-jaara [Jack Snipe], though Ludwig suggested that it was Pieti Jianiki-liatu [Broadbill], and six days afterwards on snaring a Jack Snipe from the nest [§ 4187] he declared it to be the same bird he had seen on the nest in Kaakkuri-lammas. The bird flew quietly from its eggs and dropped down at a short distance, without shewing itself again. A Wood-Sandpiper, or almost any other marsh-bird, would have made itself heard.


Anton and Ludwig were together in Karto-uoma about nine in the morning when a bird got up by Anton’s feet. Ludwig set a snare and caught a Jack Snipe, whose skin I have examined. He was not at first certain as to the species of the eggs or bird. Anton said it was exactly the same kind of bird as that whose nest he had found in Kaakkuri-lammas about a week before [§ 4186]. Ludwig had to draw the young out with a hook.

§ 4188. Four.—Nālima, 1855.

Nālima Niku’s girl brought these eggs with the name (Taivaan-jaara) I have written upon them. In size they do not differ from Jack Snipe’s, but they are of the largest size, on comparison of a series of forty eggs.

[The largest of these is 1·58 by 1·08 inch. They are somewhat abnormal in colouring; but there are other Jack Snipe eggs not unlike them.]
§ 4189. *Four.*—Palojoki, 1855.

Apparently all from the same nest, though one was blown when I got it at Palojoki [1st of August]. They are clearly Jack Snipes'.

§ 4190. *Four.*—Keras-sieppi, 1855.

Called *Möättölä* [Bleater] by the man who brought them on the 25th August. They do not often distinguish the two species from one another. These are clearly Jacks'.

[These seem to be the largest specimens in the whole series, measuring from 1·6 to 1·54 by 1·06 to 1·05 inch. Their coloration is strictly normal.]

§ 4191. *One.*—Pallasjärvi, F., 1856.

Of two found by Kyrö Niku and brought to Ludwig 24 June. One is remarkably beautiful.


Brought 2nd August by Carl Kokko's lad Gustaf, who said they were found by his brother Carl on the 28th July. A willow bush stood close by the nest, and Gustaf Beck (Pakkin Gustaf), his brother's comrade, saw the bird, and it seemed to steal away from the nest. I blew the eggs: three of them were very blowable, the fourth had a large young one inside. These eggs, if Jack Snipe's, are very large examples.

[These vary from 1·5 to 1·58 by from 1·13 to 1·1 inch, and I am inclined to doubt their being Jack Snipe's, though the lateness of the season is in their favour.]


Brought on the 18th of August by Ollis Matti, who said they had been found the week before by Lisa Fetto or Joensuu Fetto's boys as they were cutting hay in Vaija-niemi, about three-quarters of a mile from the Oevreby.


Brought to Muoniovara, 31 July, by Salomon Tore; found in Rastinjänkä on the 27th.
§ 4195. Two.—Saukkajäkä, Sieppi, 25–31 July, 1858.

Out of six, brought to Muoniovara, 18 August, by Erika, Matti Sieppi's daughter; found as above.

§ 4196. Four.—Lapland, 1858.

Brought to Muoniovara on the 13th of July, by Kyrö Niku, who said they were *Pieni Taivaan-jaara,* that he saw the bird and knew it quite exactly, especially its cry in flight, from *Iso Taivaan-jaara.*

§ 4197. Four.—Lapland, 25 July, 1859.

Brought to Muoniovara 27 July, by Niemi's Abraham [Apoo] as *Pieni Taivaan-jaara.* He did not see the bird very near, but thought it was that. He said that he knew *Iso Taivaan-jaara,* but this was not that and had not the same cry as *Möttäjä.* He found the nest on the 25th in Laaha-uoma, a quarter of a mile from Nivi, on a little mound with hay round it.

[Knoblock remarked on the resemblance between these eggs and those of the preceding section, and I do see a certain likeness to them. It is creditable to his power of observation and attention to his business, that he should have preserved the memory of them for a whole year, without seeing them in the meanwhile.]

§ 4198. Four.—Viksi-rota, 6 August, 1859.

Brought to Muoniovara, 7 August, by Musta Johan, having been found as above.

[Mr. Wolley, writing in 1857 of an undetermined nest of Jack Snipe found in this marsh, so late in the season as the 30th of July, remarks:—"The number of nests obtained in Viksi-rota, and the young Jack Snipes found there by Mr. Simpson [Hudleston] in August, 1855, leave no reasonable doubt as to the bird that laid these eggs. The people as usual, when eggs have been found about Viksi, were hay-making; but in spite of constant attention they could only find this one nest in 1857. Young birds, probably of this species, were met with." The eggs from that nest went to Messrs. Marshall, Bond, and Parzudaki in 1858. It will be seen (§§ 4193, 4210) that eggs of this species have been found in the middle of August.]

§ 4199. Four.—Muonioalusta, 3 August, 1859.

Brought to Muoniovara, 3 August, by Muonioalusta Moses's boy
Adam, having been found by Moses himself that same day. Knoblock was in doubt at first whether they belonged to the big or the little kind of Snipe, but the man said to the latter.

[§ 4200. *Four.—Kyrö, 15 June, 1861.*

Sent to Muoniovara by Martin Piety, 25 June, from Matthis Mattissen Kyrö, having been found in Okan-uma.]

[§ 4201. *Four.—Korte-uoma, July, 1861.*

Found as above, and brought to Muoniovara on the 27th by the shoemaker's boy Carl. I believe the place to be that whose name was written Kharto- or Karto-uoma by Mr. Wolley (cf. § 4177, note 1).]

[§ 4202. *Four.—Licho-uoma, 30 July, 1862.*

Brought to Muoniovara, 3rd August, by Olaf Johan Kangosjärvi.]

[§ 4203. *Four.—Viksi-rota, 1 August, 1862.*

Brought on the 3rd by Mathis Larsson Muoniolusta, having been found as above.]

[§ 4204. *Four.—Kangosjärvi, 7 August, 1862.*

Brought to Muoniovara, on the 10th, by Carl Monas from Kangosjärvi. Found in a marsh near by.]

[§ 4205. *Four.—Viksi-rota, 23 July, 1864.*

Brought on the 20th by Lars Larsson, of Muonialusta, having been found as above.]


Brought to Muoniovara 10th August by Martin Piety, who himself found them as above, and said he saw the bird, which he knew well. These eggs were remarked on at the time by Knoblock, for except in size they are curiously like those of *Limicola phaethusa*; but Piety's known trustworthiness, to say nothing of the time of year when they were taken, forbid all doubt.]

[§ 4207. *Four.—Lapland, 28 July, 1864.*

Brought to Muoniovara, 1 August, by Johan Matthisson Kätkesuando, who
said he found them in a marsh where he was working, and saw the bird, which he knew well, and described it as *Pieni Taivas-maaru*, so Knoblock believed him, though at first suspecting from their appearance, which is abnormal, that they were not. In further confirmation Knoblock sent the bill of one of the embryos which he extracted.

[§ 4208. *Four.*—Vaksi-rota, 5 August, 1864.

Brought on the 7th by Johan Muonioalusta.]

[§ 4209. *Four.*—Kätkäsuando, August, 1864.

Sent to Muoniovara on the 15th from Kätkäsuando, having been found some days before by Johan Lahti.]

[§ 4210. *Four.*—Muonioalusta, 16 August, 1864.

Brought the same day by Adam Mosesson, of Muonioalusta (cf. § 4199).]

**GALLINAGO CÆLESTIS,** Frezcl.

**THE SNIPE.**

§ 4211. *Two.*—Burwell Fen, Cambridgeshire, 1843.

§ 4212. *Four.*—Whittlesey Mere, Huntingdonshire, 1843.

I procured these myself from the fenmen. For an explanation of the Snipe's very remarkable bleating noise, see Mr. Herbert's note in Bennett's Edition of White's *Selborne* ([page 166])¹. Does it bleat except at breeding time? A Snipe once dashed down at my feet and appeared to be in the agonies of death. I could hardly persuade myself that it was shamming.

§ 4213. *Seven.*—Whittlesey Mere, 1844.

I have this year seen many series of Snipes' eggs from Whittlesey

¹ [Mr. Wolley was afterwards satisfied that the explanation of Herr Meves (*Efvers. K. Vet. Ak. Förhandl. 1856*, pp. 275-277), based upon actual experiment, was the correct one. "The mysterious noise of the wilderness was reproduced in a little room in the middle of Stockholm. First the deep bleat now shown to proceed from the male Snipe, and then the fainter bleat of the female, both most strikingly true to nature, neither producible with any other feathers than the outer ones of the tail." (*Proc. Zool. Soc. 1858*, p. 201.)—Eb.]
Mere. We caught a young bird, 13th June, at least my companion Mr. Miller did.

§ 4214. One.—Caithness, 24 April, 1849.
I found a single egg in a swamp, I believe, near Thurso. The birds were very abundant in Sutherlandshire.

§ 4215. Three.—Widerœ, Færœ, 18 July, 1849.
Snipes were very tame in Færœ. I took one nest, from which the bird flew when close to me.

§ 4216. One.—Sutherland, 1850. From Mr. Bantock.

§ 4217. One.—Sutherland, 1850. From Mr. W. Dunbar.

§ 4218. Two.—Sutherland, 1850. From Mr. J. McGregor.

§ 4219. Eleven.—Orkney, 1850. From Mr. George Harvey.

§ 4220. Seven.—Færœ, 1850. From Sysselmand Winther.

§ 4221. Twenty.—Orkney, 1851. From Mr. George Harvey.

§ 4222. Two.—Færœ, 1851. From Sysselmand Müller.

§ 4223. Ten.—Færœ, 1853 [?]. From Sysselmand Winther.
[Only four of these certainly belong to 1853; but I believe that the rest do, and all are from this Sysselmand.]

§ 4224. Four.—Karto-noma, Muonioniska, July, 1853.
Brought to me about 12th July from Öfvre-byn by a lad who said he found them in Kharto-noma, saw the bird fly up and thought it was Ranta-Tjutti, and it appeared to him to have a black head. I have enquired much at Öfvre-byn for the eggs of Totanus fuscus; but these appear to be those of Scolopax gallinago,
of which I have shot one (or S. brehmi) within the last day or two. The eggs were ready to hatch.

§ 4225. Four.—Kaaressuando, 3 June, 1854.

Taken by Nālima’s Lassi or his boys, and the bird, snared upon the nest, brought to me. It is now before me—bill two inches and three-quarters long; belly white; fourteen feathers in the tail; from the end of the bill to the end of the toes, the bird stretched out, about thirteen inches; from the end of one wing to the end of the other about seventeen inches.

§ 4226. Three.—Kaaressuando, 18 June, 1854.

The fourth egg broken. Found by the men and believed to be Taivaan-jaara, i.e. Snipe. I believe both species are here, and I have had this common one snared [§ 4225].

§ 4227. Six.—Nullasjärvi, 1854.

Brought by Nullasjärvi Eric, from two nests. Olli found one of them on a tuft in a marsh and says that it was Taivaan-jaara. They look like Snipes’.

§ 4228. Three.—Palojoki, 1854.

Brought with other eggs by Pekko Salko, who said they were from three nests—two were Tjutlii, and they appear to be Wood-Sandpiper’s; two more Piko Taivaan-jaara, Jack Snipe; and four Iso Taivaan-jaara or common Snipe. I have talked about little and great Snipes, but few, if any, of the people know there are two kinds.

§ 4229. Two.—Viksi, 1854.

The other two eggs were broken, said Lassi Johan, of Under Muonio, who found these eggs himself, and called them Taivaan-jaara.

1 [In those days the minds of ornithologists were disturbed by a supposed Scolopax or Gallinago brehmi, which had been announced by Sir William Jardine (Contr. Orn. 1849, p. 135, pl. xl.) as having occurred in this country, as well as on the Continent. Mr. Gould took much trouble to find out whether such a species existed, and came to the conclusion, now generally accepted, that it did not.—Ed.]
bringing them to Ludwig on the 23rd of July, together with a nest of *Pieni Taivaan-jaara* (Jack Snipe) taken at the same time.

§ 4230. Three.—Kuttainen, 1855.

§ 4231. Three.—Nyimakka?, 1856.

Ludwig is not quite certain whence these came. They were with eggs from Kaaressuando and up the river, and he thinks they are from Nyimakka.

§ 4232. One.—Lapland, 1857.

Sent by Kyrö Niku.

§ 4233. Four.—Okavaara, 3 June, 1858.

Brought to Knoblock by Elsa Lovisa Matthisdotter, who found them in a marsh and thought they were *Liro*, but did not see the bird.

§ 4234. Two.—Mukka-uoma, 1858.

Sent thence with other eggs to Knoblock.

§ 4235. Three.—Iceland. From Herr Cristian Zimsen, 1858.

§ 4236. Four.—Trodum, Færøe, 1 June, 1858.

Taken by Joen Joensen.

§ 4237. Two.—Sandöe, Færøe, 2 July, 1858.

Found by Harold Joensen.

§ 4238. Three.—Færøe, 16 July, 1858.

Taken by Joen Joensen.
§ 4239. *Two.*—Sandöe, Færöe, 17 June, 1859.
Taken by Juliana Thomasdatter.

Taken by Johan Olesen.

§ 4241. *Two.*—Færöe, 1859.
Taken by Mikkel Joensen.


[§ 4243. *One.*—Barnham, Suffolk, 13 May, 1847.]

[§ 4244. *One.*—Barnham, April, 1849.]

[§ 4245. *Three.*—Barnham, 24 April, 1850.]

[§ 4246. *Three.*—Barnham, April, 1851. From three different nests.]

[§ 4247. *Two.*—Valkenswaard, North Brabant, 1851. From Mr. A. Bots.]

[§ 4248. *Three.*—Barnham, 28 April, 1852. From two nests.

One of these measures only 1.4 by 1.04 inch, being smaller than many Jack Snipes' eggs (§§ 4188, 4190); and, if I remember right, the others in the same nest, which was found by my brother and myself, were of about the same size. Yet they were assuredly those of a full Snipe. It is, however, rather curious that not many days after we took them, namely on the 4th of May, we flushed an undoubted Jack Snipe at Wilton in Norfolk, which is not much more than ten miles off.]
§ 4249. Three.—Barnham, 18 May, 1855.

These eggs are under-coloured, and one is almost spotless.

§ 4250. Four.—Cavenham, Suffolk, April, 1861. From Mr. G. H. Waddington.

A fine dark-coloured set.

§ 4251. Four.—Leck, Donegal, 11 June, 1862. From Mr. Robert Harvey.

§ 4252. Four.—Viksi, 27 July, 1863.

Brought as Jack Snipes' to Knoblock by Abraham Larsson, of Muonioalusta.

§ 4253. Four.—Bloxworth, Dorset, 29 April, 1876. "E. N."

My brother's note is:—"While walking on the heath here the day before yesterday, a Snipe got up close in front of me from her nest of four eggs in a small tuft of heather and moss. The place has been pared, some two or three years ago, I should think, so that the heather is short, and, where it has been pared deepest, water is standing in little pools, by one of which was the nest, composed of leaves of grass. The eggs were about three-fourths sat upon. There are several pairs of Snipes on the heath, certainly three or four near the 'decoy.' On the same day I heard at least two Grasshopper-Warblers and saw one."

GALLINAGO STENURA ("Kuhl" fide Bonaparte).

§ 4254. Three.—"Siberia." From Herr Dode, 1871.

The information promised concerning these eggs was not supplied. If genuine, they are most likely from Przevalski, who alone of Russian explorers seems to have found nests of the species and, to judge from Dr. Taczanowski's remarks (Faune Orn. de la Sibérie Orientale, p. 900), met with it nesting in great numbers in the marshes and by the lakes in the valley of the Yellow River. It is stated that Godlevski, who had opportunities of observing it in the breeding-season, said that it has no love-song. Though Drs. Dybowsky and Parrex met with it, they make no mention of its nest (Journ. fur Orn. 1868, p. 338; 1873, p. 105).
GALLINAGO MAJOR (Gmelin).

GREAT SNIPE.

§ 4255. One.—From Mr. J. Green, 1844.

§ 4256. One.—From M. Nager-Donazain, 1847.

§ 4257. One.—Bodø, Nordland, Norway, 1852. From Mr. Tristram, 1854.

Mr. Tristram gave me this egg at Castle Eden, 25 August, 1854, and wrote upon it in my presence.

[Mr. Tristram's note on his finding this species in vast numbers on the coast of Nordland, especially near Bodø, is in 'The Zoologist' for 1853 (p. 391).]

§ 4258. One.—“Denmark,” 1856. From Dr. Kjærbölling.

Of three bought at Copenhagen in July, 1856.

§ 4259. Five.—“Jylland, 1857.” From Dr. Kjærbölling.

Of six bought in 1857.


Mr. Alfred Newton and I sent Ludwig on an expedition from Tromsö with the express purpose of finding this species and Totanus ochropus, and perhaps one or two others of Mr. Tristram's rarities. I copy the following from Ludwig's notes [translated]:—

"I went to Bodø and came there on the 26th (June) in the evening, and I got not to know anything of the place which is hight Rörstad, but here is a place a bit from the town hight Ronvik, and I trowed it was that which was meant. Furthermore there is a marsh in [the] triangle to the east, a great marsh, and there are

1 [Ludwig's instructions, founded on information furnished by Mr. Tristram the preceding year, were to "take the apex of an equilateral triangle whose base is a line between Bodø and Rörstad i Salten, and near that point, the second week in June, you ought to find Scolopax major breeding." Mr. Tristram seems to have been misled by the map (Roosens') I shewed him. There is no place marked Rörstad on the Salten Fjord, but there is Rörstad Fjeld above it, and the proximity of the name as written on the map produced the confusion.—Ed.]
some Englishmen here, but I cannot get to hear whether they seek eggs or not . . . So I went straightway to the marsh, and I sought the whole night, and in the morning I found a Snipe's nest, where-over I was quite glad, and began straightway to catch the bird, but it went not into the snare, and I must shoot it. When I went to it I was so tired that I could nearly not stand. I found not anything afterwards, so I slept for an hour, till in the morning of the 28th I went to Ronvik and skinned the bird. Towards evening I went again to the marsh and sought the whole evening and night, and day of the 29th, but I found no more of anything, and saw only one Snipe, which bleated aloft, and now the steamer will go early in the morning."

The eggs were just ready to hatch and have immense holes in them. This nest was the only result of Ludwig's extra trip to Bodö and Kop Vand. In the meanwhile the Messrs. Godman [the aforesaid "Englishmen"] had found sixteen eggs of the Great Snipe in the same place, as afterwards appeared, of which they gave me a complete nest and another to the Newtons. They got the birds from one or two nests and these were compared together with my bird at Cambridge [in November, 1857].


The following is an extract from Mr. Percy Godman's note-book:—

"After dinner looked for Great Snipe. Our dog put up another bird, and found a nest with four eggs. We went to fetch our guns, and on coming to the nest the bird was again on it. My brother went inside the stuff to shoot her. He had a double shot and missed; however, the bird was so well seen both by him and myself that there could be no doubt about the eggs. She ran along the ground, dragging her wings and making a noise like a Turkey-cock. This nest was placed on the top of a tump in green herbage, slightly lined with green grass and moss. It was about twelve or fifteen yards from a green road that leads from the church to the farm under the hill. We must have passed by the nest, that is within seven yards of it, at least six times in going to and fro to look at a scraping we had found."

Given to us at Cambridge, on the 10th of November, 1857, and I extract the following from Mr. Percy Godman's note-book:

"Out all the morning at the upper end of the marsh close under the mountains to look for Great Snipe . . . After dinner went out towards the church and looked over a piece of willows where we had taken a Redshank's nest. Here the dog put up a Great Snipe, and on going to the place we found she had a nest with four eggs. I immediately went home for the guns and we then went up to the nest. My brother was to have the first shot, as he saw the nest first. The bird got up and his gun missed fire, and the bird went so far we could not mark it down exactly, so we were obliged to leave the nest. We then looked further up the marsh and found a Whimbrel's nest with three eggs and a young bird . . . We then returned to the Great Snipe's nest. The bird was again on it. This time we both shot and killed her. My brother took the eggs and blew them in the evening. They had been sat on about two or three days."

This was the first Great Snipe's nest found by the Messrs. Godman. The duly labelled skin of the bird shot from it was shewn to the ornithologists who met in Cambridge in the following November, when it was admitted by all to be undoubtedly that of Gallinago major.]

[§ 4263. Two.—Toorukkansk, Jennesei Valley, 18 June, 1895. From Mr. C. B. Hill, 1896.

I understood Mr. Hill to say that they also met with the Pintailed Snipe, but did not find its nest. These two eggs do not look as if they came from the same nest; but Mr. Popham states (Ibis, 1897, p. 103) that though certain swamps in the forest seemed full of Great Snipes, only two clutches of their eggs were found, "both in dry places among the trees."

SCOLOPAX RUSTICULA, Linnaeus.

WOODCOCK.

§ 4264. One.—New Park, New Forest, Hampshire. From Miss Hurt, in or before 1844.

This valuable egg was presented by the Miss Hurts, of Alderwasley, from their collection. It came originally from New Park in the New Forest, the seat of Colonel Thornhill, whence it was brought by Miss Anne Hurt. I am informed by Mr. Dawson¹ that

¹ [Of Ventnor, in the Isle of Wight, a well-known entomologist of those days.—Ed.]
the Woodcock is well known to breed in the New Forest. In 1844 a nest of young was found in Monk’s Wood [Huntingdonshire] by Harvey’s boy.

§ 4265. One.—Burwash, Sussex. From Mr. Wilmot, 1846.

Mr. Wilmot wrote:—“The Woodcock’s has the merit of being a British-taken egg. The old bird was flushed off the nest and shot by Mr. Fuller Meyrick’s keeper, in the parish of Burwash, in Sussex. Mr. Meyrick gave me the eggs.”

[Mr. Wilmot’s collection, now at Cambridge, contains a fellow egg to the above, and his catalogue states that a third was given to Mr. Hewitson, from whom it most likely passed to Mr. Hancock.]

§ 4266. One.—Loch Naver, Sutherland, 1850. From Mr. W. Dunbar, through Mr. Page, 1850.

Mr. Dunbar told me in 1851 that this is one of his eggs, and that he took two nests by the side of Loch Naver.

§ 4267. Four.—Lindholm, Strangnäs, Södermanland, 1856. From Herr Alfred Hartmann.

Given to me at Gefle, 1st September, by Herr Alfred Hartmann. They were taken by his brother Victor in the spring of this year. He has also taken Great Snipes’ eggs in the same neighbourhood.

[§ 4268. One.—Riddlesworth, Norfolk, April, 1848. From Mr. Thornhill.

The nest was in a carr, near the river which here divides the two counties.]

[§ 4269. Three.—Buckenham, Norfolk, April, 1853.

These were brought to me unblown by Woodrow. Mr. Francis Baring’s gamekeeper.]
[§ 4270. Two.—Rugely, Staffordshire, 1853. From Mr. R. W. Hawkins.

From different nests.]

[§ 4271. Two.—Ireland. From Dr. Frere, 1861.

Sent to Dr. Frere from the south of Ireland by "a Mr. Davis"—most likely the well-known Dr. Davis, of Clonmel.]

[§ 4272. Two.—Norway. From Mr. Baker, 1866.

These were brought by Mr. Baker: one is marked in pencil "Hoff 4. 6/6/62"; the other, apparently in the same handwriting, "Huberg 4. 4/7/62."]

[§ 4273. One.—Culford, Suffolk, 1867. From Mr. E. R. Benyon.

Given to my brother Edward in the autumn of 1867, with the nest found in the South Wood at Culford the preceding spring. Mr. Benyon had a bit of ground round the nest enclosed by wire netting, thinking to catch the young, which he wanted to have stuffed, but they fortunately escaped. This egg was, I believe, rotten and left in the nest. It was unblown and the contents dried up when given to my brother. Going to Culford in April 1868 they told me they believed there were no Woodcocks breeding there that year. I had heard of them doing so several years before.]

[§ 4274. One.—France? From the late Mr. Scales's collection, 1855.

Evidently a very old specimen, which has been varnished at some time. The old inscription "Bécasse" indicates a French origin, and it was perhaps obtained from Dufresne when Mr. Scales was in Paris in 1816 or 1817.]

[§ 4275. One.—New Forest, 1855. From Mr. Sealy, 1893.

From the ruins of Mr. Sealy's collection. The first he said he had from Mr. W. Farren, but could not recollect the name of the man through whom he got the other two, but, as the inscription upon them shews, they were certainly taken at or near Attleborough.]
LIMOSA BELGICA (Gmelin).

BLACK-TAILED GODWIT.

§ 4277. One.—From Mr. Sadd, 1843.

§ 4278. One.—From Mr. Mansfield, 1844.

§ 4279. Two.—From Mr. Green, 1846.

§ 4280. Fourteen.—Leadenhall Market, 1850. From Dr. Frere.

§ 4281. Twenty.—Leadenhall Market, 1851.

These I bought at the end of May, 1851. They had arrived packed in hemp-seed, and were called "fancy eggs."

§ 4282. Eighteen.—Leadenhall Market, 1852.

§ 4283. Thirty.—Leadenhall Market, between 1845 and 1851. From Dr. Frere, 1852.

Selected from some hundreds in Dr. Frere's possession, all from Leadenhall Market.

§ 4284. Four.—Marsjö, Öland, 30 May, 1856. "W. H. S."

Mr. Simpson [Hudleston] took the eggs, and looked well at the bird, within ten or twelve yards. He saw it leave the nest. I saw birds of this kind at Marsjö, but did not positively identify them. Mr. Simpson shot one at Ormöga.

[§ 4285. One.—Holland, not later than 1845.]

[§ 4286. Six.—Holland. From Mr. Newcome, 1854 and 1858.]
§ 4287. One.—Cambridgeshire (?), 1847. From Mr. Salvin, 1856.

This egg was given to us by Mr. Salvin, who had it from a member of his own College (Trinity Hall), Mr. Joshua King, as having been bought by the latter in 1847 in the Cambridge market-place of a countryman, who had procured it in the Fens, and had also with him a young Short-eared Owl alive. Mr. King fully believed the man's story, as I was assured by Mr. Salvin, and though undoubtedly Godwits had given up the practise of breeding in the Fens before 1847, yet they occurred in some numbers every spring, and it is quite possible that eggs were occasionally dropped.]

§ 4288. Two.—"Reedham, 1857." From Mr. E. S. Preston's Sale, 1858.

These, with one other, formed lot 95 at Mr. Preston's sale at Mr. Stevens's room, 23 March, 1858, when they were bought for Mr. Braikenridge, who kindly allowed me to become possessed of two of them. Mr. Preston expressed himself very confidently in their having been taken in Norfolk so late as 1857.]

§ 4289. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

§ 4290. Four.—Holland, 1860. From Mr. J. Baker.

A complete nestful.]

§ 4291. Three.

Holland, 1876. From Mr. J. Baker.

§ 4292. Three.

Both nests taken by Mr. Baker himself.]

§ 4293. Two.—Iceland, 1872. From Mr. Robert Gray, 1885.

Mr. Gray wrote that he received these unblown from Mr. Jón Árnason, of Reykjavík, having been brought thence by Mr. A. J. Symington, who delivered the package containing them unopened. Mr. Gray did not include them in his exhibition of Icelandic birds' eggs to the Glasgow Natural History Society in February, 1872, as stated in its 'Proceedings' (ii. part 2, p. 184).]

§ 4294. Two.—Norfolk? From the late Mr. Scales's Collection, 1885.

These two eggs, each inscribed by Mr. Scales "Red Godwit," are most likely...
of British, not to say Norfolk, origin. They are evidently old specimens, and in bad condition from, apparently, having been gummed to tablets. When a lad he lived with his father, who was much attached to Natural History, from 1808 to 1818, at Halvergate, whose marshes extending to Breydon Water formed part of the district where the species used to breed in plenty (cf. Trans. Norf. & Norw. Nat. Soc. iv. p. 84).]

LIMOSA LAPPONICA (Linnaeus).

BAR-TAILED GODWIT.

Of the Bar-tailed Godwit I left with Mr. Alfred Newton some eggs for you to figure if you please. I did not get the bird with them, but I had a long talk with the [finder] . . . . . . It is known to the Finns hereabouts by a name [Puna Kuori] corresponding to the English words Red Curlew, but it is far from common; I have not found the Black-tailed Godwit at all. On comparing my eggs with some in Mr. Tristram's Collection . . . . but which also wanted confirmation, I found that they agreed perfectly. The Bar-tailed Godwit breeds in marshes, chiefly in the neighbourhood of mountains, not at all about Muonioiska. Like most other birds, it came in smaller numbers than usual this year. It gets warily from its nest, which is therefore difficult to find. My eggs are from Rowa near Kittila in Finland.

[The above passage was written to Mr. Hewitson (who, as stated below, figured two of the eggs) from Muoniovara on the 17th of November, 1854, and thus expresses Mr. Wolley's knowledge of the nesting of the birds up to that time only. It was not until four years later, after he had left Lapland, that his collectors obtained for him another nest. This, containing three eggs, was found by some of the Salmojärvi people in Laiva-noma, on the 29th of June, 1858. They saw the bird, which they called Puna Kuori, describing it as red on the breast and belly, and tried to snare it, but failed. "There can be little doubt," Mr. Wolley wrote, "that these are eggs of Limosa rufa, Bar-tailed Godwit, for which I had made frequent enquiries of the Salmojärvi lads, and the 'Puna Kuori' as well as its breeding-place was well known to them—this very marsh Laiva-noma was often mentioned." One of the eggs was bought at Mr. Stevens’s, 8 March, 1850, for Sir W. Milner; the other two were sold, at the same place, 31 May, 1860, to Messrs. Simpson (Hudleston) and Powys (Lord Lilford).

Mr. Wolley was never in the way of seeing this bird actually breeding, though he met with it on several occasions at various places when, apparently, on passage. He never found any trace of the Black-tailed Godwit in Lapland, and it now seems almost certain that the Bar-tailed species does not breed so far westward as the valley of the Muonio, or anywhere in Norway.]
§ 4295. *Four.*—Rowa, in Kittila, 12 June, 1854.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. xciv. figs. 1, 2.

By one of Pungi's lads. He had much trouble to find the nest, and watched for a long time in a large mere. To-day (25 June) a lad has brought me three skins of hen birds, and in Kaaressuendo I got snared a cock and a hen, and I saw several on the wing. The Punsi's call the bird *Lutika* [Woodcock], as they do in Kittila, from its cry. At first sight I saw what the eggs must be, and on asking their name the answer was, as I expected, "Lutika." I previously gave not the slightest hint. There were large young inside.

P.S. 1855. The lad has since told me he had the skin of the bird [from the nest] with him, but forgot to leave it.

[Mr. Wolley in 1857 gave one of these eggs to Mr. Wilmot, who subsequently most generously allowed me to redeem it, that this first nest of the species obtained by Mr. Wolley's means should not be broken up. Two of the eggs were figured by Mr. Hewitson (*ut suprâ*).]

§ 4296. *Four.*—Kittila, 2 June, 1859. "With bird."

Found by Martin Piety in company with Abraham Korkalo in Nuoki-jänkä, on the east side of Korkilo-talla, in the parish of Kittila. The bird brought with them by Martin on the 26th.

[The skin of the bird, duly labelled to correspond with these eggs, was sent to Mr. Wolley in England. Before it came into my hands, however, it had fallen a prey to *Dermestes* and had to be destroyed. There was no doubt of its being a *Limosa lapponica*. Two eggs from another nest taken by Martin on the 22nd in Pippo-uma Pajampâa on Ounas-tunturi were brought by him at the same time. There had been four eggs, but two were already hatched, while a third was in such a shattered condition that Knoblock forbore to send it to Mr. Wolley. I subsequently gave the fourth to Mr. Wilmot.]


Brought by Martin Piety on the 26th June, having been found by his daughter Elsa, by the shore of Kylmesenjärvi. The bird was sent with it.

[Knoblock's entry does not state how the bird was obtained; but no doubt on the matter is expressed by him, and Piety's known character is sufficient guarantee for the accuracy of this statement. The eggs also tell their own story.]
[§ 4298. *Four.*—Ounas-joki, 12 June, 1860.

Brought by Martin Piety on the 2nd of July, having been found in Kasken-pakka-uoma on the east side of the Ounas-joki. He did not take the bird, for he thought that it was not wanted after his having taken the two birds the year before (§§ 4296, 4297).

[§ 4299. *Four.*—Ounas-tunturi, 5 June, 1861.

[§ 4300. *Four.*—Ounas-joki, 7 June, 1861.

Two nests brought by Martin Piety, 25 June, and found by him, the first in Salangi-uoma, and the second in Kasken-pakka-uoma (§ 4298).

[§ 4301. *Four.*—Ounas-joki, 7 June, 1861 (?).

Knoblock numbered these eggs wrongly, but I believe them to have been from a second nest taken by Martin on the same day as the last here entered, though on the west side of the *uoma*.

[§ 4302. *Two.*—Pippo-uoma, Enontekiö Lappmark, 10 June, 1861.

Brought to Muoniovara 25 June, found as above by Petter Pettersson Kyrö.

[§ 4303. *Four.*—Lapland, 12 June, 1861.

Brought with the last to Muoniovara, but found as above by Johan Johansson Keinovaara, without the locality being named.

[§ 4304. *Four.*—Lapland, 3 June, 1862.

Sent to Muoniovara by Johan Keinovaara, and taken as above.

[§ 4305. *Four.*—Kaira-uoma, June, 1862.

Brought on the 23rd of June by Johan Eric Wittainen, and found by him about two weeks before in Kaira-uoma. Knoblock thought they were rather small for *Puna Kuovi*; but Johan said he saw the bird upon the nest.

[§ 4306. *Four.*—Keino-uoma (?), 1863.

Received from Johan Keinovaara, with no other information.]
§ 4307. Four.—Sallangi-iioina, 12 June, 1864.

§ 4308. Four.—Pippo-iioina,

Two nests found as above by Martin Piety, and brought on the 23rd of the same month.

§ 4309. Two.—Wassara, Enontekiis Lappmark, June, 1864.

Out of three eggs from Olaf Wassara, who said he saw the bird upon the nest, and that it was Puna Kuori. The fourth egg got broken, but one of the three I gave to Mr. Dresser.

**NUMENIUS ARQUATA** (Linnaeus).

**CURLEW.**

§ 4310. One.—Bought at Liverpool, not later than 1843.

§ 4311. One.—From Mr. R. Mansfield, 1844.

§ 4312. Seven.—Muirfoot Hills, 1851. From Mr. Daniel M. Falconer.

Mr. Falconer, of Loanhead, wrote that they were from the Heriot Moor, and "most of them I took myself."

§ 4313. Five.—Assynt, Sutherland, 1851.

Sent by John Sutherland, the gamekeeper at Ledbeg, whom I had asked for some of these eggs. The bird was plentiful in Sutherlandshire; but I did not find the nest myself.

§ 4314. Four.—Tamsö, Porsanger Fjord, June, 1855.

[Madam Ulich, an English lady, wife of Herr Peder K. Ulich, of Tamsö, writing from that island, 6 June, 1855, to Mr. Wolley, in reply to his request for eggs (especially Geese's eggs, which are, or were, taken there in great numbers), said:—"There is one bird which you do not mention in your letter, which we call Goose buce. That bird comes here every year, one or two days before the Geese. She lays four eggs. These you shall have, but I do not..."
think I can get the bird.” The eggs were accordingly sent for Mr. Wolley to Hammerfest, where Mr. Hudleston and I received them, and packed them to go to England. They were marked, apparently by Herr Ulich, “Gjaes Boe”; and I am not sure that Mr. Wolley ever set eyes on them, for the box which contained them was not sent to Beeston, but remained in my keeping. On examining them soon after his death, their appearance puzzled me, as did the name they bore. We had hoped they might be Pomatorhine Skua’s—a species which was plentiful off Berlevåg, at no great distance from Tamso, but the acquisition of its egg put that out of the question, and so the mystery continued. Quite recently I found Bishop Gunner, in a note (99) to Leem’s ‘Beskrivelse over Finmarkens Lapper’ (p. 249), had given Gasspon or Guasespon as a Norwegian name of Numenius phaeopus. Then the whole thing became clear. These eggs are not indeed those of that species, but of N. arquata, which Prof. Collett had found breeding in Tamso (Forhandl. Vidensk. Selsk. Christiania, 1872, p. 271), and the Ulichs had merely misspelt the name—very pardonably, for they had most likely never seen it written.]

[§ 4315. One.—From Mr. R. Reynolds, before 1848.]

[§ 4316. One.—Holland. From Mr. A. Bots, 1851.]

[§ 4317. Four.—Banffshire (?). From Mr. T. Edward, 1854.]

[§ 4318. Two.—Dumfriesshire, 1854. From Mr. W. G. Johnstone.]

[§ 4319. One.—Unst, Shetland, 1854. From Mr. James Smith.]

[§ 4320. Two.—Unst, 1855. From Mr. James Smith.]

[§ 4321. Three.—Unst, 1856. From Mr. James Smith.]

[§ 4322. One.—Hornby Moors, Yorkshire, 15 June, 1862. From Mr. Newcome.

Seems to have been sent to Mr. Newcome by Anthony Savage, the Duke of Leeds’s gamekeeper at Hornby Castle.]
§ 4323. One.—Arne, Dorset, 2 May, 1877. From Mr. T. M. Pike.

This was received by me on the 5th of that month from Mr. Pike, of Wareham, with a letter dated the 3rd, in which he said:—"Enclosed you will find an egg which is one of four taken on the 2nd instant, at about a mile to the westward of the place you landed at down the harbour last year. Thinking you might like to see one, I have forwarded you a specimen, which I hope will arrive without a smash." Unfortunately it was very much shattered, and, as I at first thought, hopelessly; but Mr. Salvin most skilfully made a presentable egg of it again. It was unblown, and contained a nearly half-developed embryo, which I bottled and sent to Professor Parker, who expressed himself pleased therewith. The place at which my brother Edward, Mr. James Panton, and I, in company with Mr. Pike, landed in 1876 was on the west or north-west side of Arne, in Poole Harbour; and by "a mile to the westward," Mr. Pike must mean to the southward or south-westward. We had heard of Curlews breeding on Arne, and that gentleman kindly took us there from Wareham in his boat, on the 12th July in that year. My brother saw several birds—two at once. I thought I saw only one. Mr. Pike told us he had killed Curlews on the Wareham water, with pen-feathers hardly grown. Charles Orchard, a gunner and fisherman, said he caught a young Curlew, half-grown, there in 1875. About a week later, 18th July, my brother and I went to Arne by land, with Mr. Mansel-Pleydell, and having heard from the gamekeeper there that he had found a Curlew's nest, he was sent for and he shewed them the spot on the heath, some way from the water and to the west or south-west of the Heronry. From it they got fragments of the hatched-out eggs, and a very characteristic feather, which we kept. They saw the birds and the gamekeeper said there might be twenty pairs of them breeding there, but this I greatly doubt.

Mr. Pike sent another egg from the same nest to Mr. Mansel-Pleydell (cf. Birds of Dorsetshire, pp. xiii and 100), who kindly gave me the remains of it on the 21st July, 1877—in a hopeless condition, however.]

§ 4324. One.—Arne, 27 April, 1879. From Mr. J. W. Pike.

This gentleman, brother of Mr. T. M. Pike (§ 4323), wrote to me on the 24th of April, saying that another of his brothers and Charles Orchard, before mentioned, "found between them to-day a Curlew's nest with four eggs in it in one of the bays along the Arne shore of the harbour. Orchard says you want to see a nest in the locality, and I shall be very much pleased to go down with you to the nest, or to any other part of the harbour." I replied that I was unfortunately unable to go, and therefore Mr. J. W. Pike wrote again on the 27th, saying that he had been to the nest that day, which he was kindly sending to me. It arrived next day, but was unhappily broken. The embryo, far less advanced than that of 1877, I reserved for Professor Parker; and Mr. Salvin successfully mounted the shell upon another Curlew's egg. Orchard, I believe, is the man who was the first to find the Long-billed Curlew breeding in Dorset, a discovery little expected.]
NUMENIUS PHÆOPUS (Linnaeus).

WHIMBREL.

§ 4325. One.—Iceland. From Mr. Hewitson, 1844.

§ 4326. One.—From Mr. Wilmot, 1846.

§ 4327. One.—Iceland? From Mr. Graham, 1847.


I took these three eggs on the island of Naalsöe. Naalsöe, the joiner, first found them. I observed that the bird was less abundant than the Oyster-catcher. However, it was very plentiful on all the islands. We had some for dinner soon after our arrival in Thorshavn. Its note is peculiar, and very different from that of the Curlew's.

§ 4329. Two.—Færöe. From Sysselmand Müller, 1849.

Out of four which Herr Müller gave me.

§ 4330. Thirty.—Færöe. From Sysselmand Winther, 1850.

In 1850 Herr Winther sent me about thirty-nine Whimbrels' eggs. There is one I have marked as doubtful, as it might possibly be an Arctic Gull's.

§ 4331. Thirty.—Færöe, 1851. From Sysselmand Winther.

I have made a note of 125 Whimbrels' eggs. I have reserved about twenty and put them in a box by themselves to form a series from. Some of them are very interesting varieties. There
were about ten in the whole\(^1\) which I could hardly with certainty decide whether they were Whimbrels' or Richardson's Skuas', and I have no confidence in my reference of them to either one or the other species in such case. The Whimbrel is perhaps the most common land-bird of Færøe.

\[\text{It seems to me quite impossible to judge, in many cases, whether an egg is an Arctic Gull's or a Whimbrel's. Mr. Wolley's last remark may seem somewhat inconsistent with what he wrote in 1849 (§ 4328), but he evidently did not regard the Oyster-catcher as a "land-bird." To the abundance of both species in the islands I can myself bear witness (cf. § 3284).}\]

\[\text{§ 4332. One.—Færøe, 1852. From Sysselmand Müller, 1853.}\]

One or two more were given to Mr. Salmon.

\[\text{§ 4333. One.—Pallas-tuuturi, 29 May, 1854.}\]

From Solomon Hiattralla. In a little marsh up the mountain. He was not quite certain about the bird, but believed it to be the common \textit{Kuovi}—\textit{i.e.}, Whimbrel.

\[\text{§ 4334. Two.—Lapland, 1854.}\]

One of them from Modas-lompoalo.

\[\text{§ 4335. Eight.—Kautokeino, 1854.}\]

Collected and brought to Kaaressuando by one-handed Lassi, with a list in which nearly every egg was wrongly named. These were called \textit{Puna Kuovi}, that is Godwit, but most if not all are the common \textit{Kuovi} or Whimbrel.

\[\text{\footnote{\textit{\cite{Winther} wrote that he was sending 484 eggs of \textit{Tjegva} and \textit{Spegva} (Arctic Gull and Whimbrel), but that he had not marked them "because I am not able to distinguish between them. I have bought all the eggs, and the people of whom I have bought them have brought me many of different kinds together, and do not exactly know whether they are \textit{Tjegva} or \textit{Spegva}. I therefore believed you to be the best judge of all, and I did not mark the eggs." Sixteen of the above-mentioned twenty have always been kept apart by me, and for variety they form a wonderful series. Indeed in variety of colouring Færøese eggs of the Whimbrel far excel thos from Lapland, as they do on an average in size, so that when specimens from the two localities are laid in separate drawers the difference is conspicuous.—Ed.}}}\]
\[ \text{\textsection 4336. \textit{One}.—Närva, 1855.} \]

Said by the men to be \textit{Puna Kuovi}, that is Bar-tailed Godwit; but apparently Whimbrel.

\[ \text{\textsection 4337. \textit{Three}.—Kätkasuando, 1855.} \]

Apparently Whimbrel's, brought blown to me at Kätkasuando by Elias, son of the steersman.

\[ \text{\textsection 4338. \textit{Three}.—Kyrö, 1855.} \]

Apparently Whimbrel's. There were four of them sent to me by the dishonest Kyrö Pekka, with the skin of a Bar-tailed Godwit, to which he represented that they belonged.

\[ \text{\textsection 4339. \textit{Four}.—Rowa, 1855.} \]

From Johan Eric at midsummer.

\[ \text{\textsection 4340. \textit{Three}.—Sarempi. \textquoteright{} \textit{J. W.}\textquoteright{} } \]

[Not entered in the Egg-book, but the inscription shews they were taken by Mr. Wolley himself, though in what year I cannot say.]

\[ \text{\textsection 4341. \textit{Four}.—Muonioniska, 2 June, 1857.} \]

Brought at two different times, and by two different boys (Johan Eric Rautio's son Carl and Kirsti Maia's son Abraham), but said to be from the same nest at Lehta, a quarter of a mile (Swedish) from Muonioniska, on dry land. The eggs much sat upon.

\[ \text{\textsection 4342. \textit{One}.—Muonioniska, 1857.} \]

Brought with two of the last by Kirsti Maia's boy Abraham.

\[ \text{\textsection 4343. \textit{Four}.—Kihlongi, 13 June, 1857.} \]

Brought on the 21st by Kihlongi Matthi's boy Carl, found in Virnivomen. He saw the bird. They were much sat upon.
§ 4344. *Four.*—Lapland, 1857.

Brought 25 December, by Matthias Adamsson Hanhimaa, but they had been found and blown by Eric Lintula.


§ 4346. *Three.*—Kerasjärvi, June, 1858.

Brought by Johan Hendriksson Keras-Sieppi on the 19th June. They were found a week and a half before near the shore of Kerasjärvi. Though so little larger than the previously entered three eggs of *Puna Kuovi* [*cf. supra* p. 276], they are probably what they were said to be—Whimbrel's.

§ 4347. *Four.*—Muonioalusta, June, 1858.

Brought by Johan Larsson, of Muonioalusta, 20 June.

§ 4348. *Four.*—Modas-lompalo, 1 June, 1858.

Brought by Matthi's Nekkola.

§ 4349. *Four.*—Hetta, 1858.

Brought, 11 July, by Nils Petter from Hetta; found in Sisangi-ranta.

§ 4350. *Four.*—Toras-sieppi, 1859.

Brought by Johan Eric from Sieppi; found behind his garth in a marsh.

§ 4351. *Four.*—Lapland, 2 June, 1859.

Found by Martin Pekka.

[§ 4352. *One.*—From Mr. R. Reynolds, 1847.]

[§ 4353. *Two.*—Iceland, 1852. From Mr. Proctor, 1853.]
[§ 4354. Three.—Unst, Shetland, 1855. From Mr. James Smith.]

[§ 4355. Two.—Unst, 1856. From Mr. James Smith.]

[§ 4356. One.—Unst, 1857. From Mr. James Smith.]

[§ 4357. Three.—Toras-sieppi, June, 1862.
Brought by Johan Eric Sieppi, 24 June, found a week and a half before in Pitkijänkä.]

[§ 4358. Four.—Sallangi-uoma, 1863.
Brought by Martin Piety from Johan Eric Mortensson as Puna Kuovi, but evidently Whimbrel's.]

[§ 4359. Four.—Terva-uoma, 20 June, 1864.
Brought by Simon Peter Salmojärvi as Puna Kuovi—that is, Godwit,—who said that he saw both birds at the nest. He is an honest man, Knoblock wrote; but the eggs look like Whimbrel's.]

[§ 4360. Three.—Norwegian Mountains, 1864.
Taken by Turi Aslag-en Turi, of Kautokeino, in the course of a very unproductive journey, the third he had taken in that summer, in search of Snowy Owls, of which, owing to the absence of Rats or Lemmings, he could not find a trace.]

[§ 4361. Three.—Iceland, 1893. From Mr. J. Backhouse.
Out of a collection brought from Iceland, and given to the York Museum.]
leaves on the level, and that the hen bird (no. 36119) was shot from the nest by Mr. MacFarlane, who subsequently wrote (Proc. U.S. Nat. Mus. xiv. p. 429) of the species that it "breeds abundantly in the Barren Grounds to the eastward of Fort Anderson. . . . The nests in every observed instance were mere holes or depressions in the ground. Great difficulty was frequently experienced in finding them, as the eggs closely resembled the surrounding vegetation, and the mother, as a rule, glided off while we were still at some distance. Thirty sets of eggs were gathered, including several from the aforesaid Lower Anderson 'Barrens.' Among the many joyous bird-notes which greet one while crossing these grounds, especially on a fine sunshiny morning, none seemed more familiar or pleasanter than the prolonged mellow whistle of the Esquimaux Curlew."

§ 4363. One.—Barren Grounds, east of Anderson River, 26 June, 1863. From the Smithsonian Institution, through Prof. Baird, 1870.

The label sent with this egg shews that it was one of three, obtained by Mr. MacFarlane, in a hole on decayed leaves. The hen bird was seen, but not shot.

§ 4364. Two.—Arctic Coast, east of Anderson River, 1865. From the Smithsonian Institution, through Prof. Baird, 1870.


These are from three eggs also obtained by Mr. MacFarlane as above, with, it would appear, the parent bird (no. 52130). One of these I exhibited to the Zoological Society 17 January, 1871, and it is figured (ut supra).]

STERNA NIGRA, Linnaeus.

BLACK TERN.

§ 4365. One.—Not later than 1843.

Bought of Mr. Chapman [of York]. It had formed part of Mr. Hoy's extensive collection.

§ 4366. One.—"Whittlesey Mere," Huntingdonshire. From Mr. Hewitson, 1844.

[I think this is more likely to have been from Crowland Wash in Lincoln-
shire, whence Mr. Hewitson says (Brit. Ool. text to pl. xlviii.) he was supplied with "a large series of the eggs" of this bird by Mr. Salmon, who was there 19 May, 1832 (cf. Stevenson and Southwell, Birds of Norfolk, iii. p. 314).]

§ 4367. Two.—Holland, 1851. From Mr. Alfred Newton.

[These eggs, with others (§ 4376), were sent to me direct by Arnold Bots.]

§ 4368. Nine.—Holland, 1852. From Mr. Green.

These I saw quite fresh at Green's; they are from the other side of the water.

§ 4369. One.—Feltwell Fen, Norfolk, 8 June, 1853. From Mr. Newcome, 1854.

One of eight eggs out of three nests brought to Mr. Newcome, of Hockwold, by one Ketteringham, of Feltwell, who stated that he found the three nests near together in the Southery Fen district. He called them Starns, the Norfolk name of this Tern. About Peterborough they are called Blue Dowar. The great floods of that year (1853) were then subsiding. Both Mr. Newcome and Mr. Alfred Newton had observed the six birds about the fen. The eggs were brought to Mr. Newcome unblown, and Mr. Newton has one egg from each of the nests [§ 4377], which were somewhat unlike one another. Mr. Newcome has some of the eggs in a case with a pair of the birds which were shot in the fen in the same spring. The Black Tern had, until a few years previously, been constantly in the habit of breeding in vast numbers in this fen. Its eggs were used by the fenmen as nest-eggs for Lapwings and Redshanks. [Cf. Stevenson and Southwell, B. Norf. iii. p. 313.]

§ 4370. Twenty.—Öföra, Öland, 6 June, 1856.

Found by myself between Ormöga and Öföra. There were from one to three eggs in the nests, all nearly fresh. Of the first I saw

1 [More commonly written Blue Darr, which, I suppose, means Blue Daw; but this was rather the name in East Norfolk. In Lincolnshire, and one would think also near Peterborough, the bird was the Carr-Swallow or Carr-Crow, miswritten sometimes, as by Willughby (Orn. p. 209 Lat.; p. 353 Engl.), on Johnson's authority, Scare-crow!—Ed.]
the birds—indeed they dashed at my head while at the nest. The others were in another pond, where I saw no other species of Tern. The nests mostly floating, supported slightly by grass or sedge. Small snails often crawled upon the eggs.

[The different nests, eleven in number, were carefully distinguished by Mr. Wolley. Two contained three eggs, five had two, and the rest had one apiece.]

§ 4371. Ten.—Marsjö, Öland, 7 June, 1856.
All taken by myself.
[From at least six nests, as shewn by Mr. Wolley’s markings.]

§ 4372. Light.—Jurstang Mosse, Öland, 13 June, 1856. “W. H. S.”
[Two complete nests of three each, and one of two. All taken by Mr. Simpson (Hudleston).]

§ 4373. Two.—Ornöga, Öland, 16 June, 1856. “W. H. S.”
[Also taken by Mr. Simpson. These eggs are so darkly-coloured that it was hard to find a place on which the inscription should be legible.]

[§ 4374. Two.—From Mr. Reynolds, not later than 1849.]

[§ 4375. One.—Holland, 1850. From Mr. A. Bots.]

[§ 4376. Six.—Holland, 1851. From Mr. A. Bots.
Belonging to the lot from which Mr. Wolley had two (§ 4367).]

§ 4377. Three.—Feltwell Fen, 8 June, 1853. From Mr. Newcome.
[Three, from as many nests found as before stated (§ 4369), and given to me a few days after. The three nests contained respectively, three, three, and two eggs. On the 21st of May preceding, the great flood which had existed from November, 1852, being then rapidly subsiding, my brother and I, being in Mr. Newcome’s company, saw four pairs of Black Terns in Hockwold Fen, but they had evidently not then found a home there, for they passed on swiftly. Their appearance, however, induced Mr. Newcome to cause a look out to be]

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kept for them, and eventually they were found by Ketteringham to have settled in Feltwell Fen. I rather think, too, that others were seen and some even shot in the district about the same time. I am not aware of more than one reported instance of this species having bred in this country since (cf. Stevenson and Southwell, B. Norf. iii. p. 315.)

[§ 4378. Three.—Marsjö, 7 June, 1856. "W. H. S." From Mr. Simpson.

Taken at the same place and time as those above mentioned by Mr. Wolley (§ 4371), but by Mr. Hadleston.]

[§ 4379. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1862.]

**STERNA LEUCOPTERA, Schinz.**

**WHITE-WINGED BLACK TERN.**

[§ 4380. Two.—From M. Lefèvre, 1846.

[These must have been bought at Paris by Mr. Wolley on his way back from Switzerland, and were subsequently shewn to M. Hardy, of Dieppe, who doubted their genuineness; but the latter had a poor opinion of M. Lefèvre's honesty.]

[§ 4381. Two.—"Sarepta." From Herr Möscher, 1862.]

[§ 4382. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1862.]

[§ 4383. Three.—Csziget-csep, Hungary, 8 June, 1902. From Mr. Dresser.

Mr. Dresser informed me that these were taken by himself, and carefully identified, in the Pester Comitat, near the place named. Writing in 'The Field' newspaper (7 March, 1903, p. 398) he says of it:—"About twenty to thirty pairs were breeding there, all White-winged Black Terns (Sterna leucoptera), and so far as I could see not a single pair of Black Terns. Donning a pair of peasant's shoes, I waded into the marsh. The nests were on the floating herbage in about three feet of water, and closely resembled those of the Black Tern. I took a dozen nests, selecting the best marked eggs."]
STERNA HYBRIDA, Pallas.

WHISKERED TERN.

§ 4384. One.—From M. Nager-Donazain, 1847.

This is exactly like Mr. Hewitson's figure [Eggs Br. B. ed. 2, pl. cxx.*] of an egg given by Dr. Thienemann to Mr. Yarrell. It is also very like an Arctic Tern's, and as the writing on it, "St. leucopareia," is in the same hand as that on "Larus leucopterus" and "Larus glaucus" [sent at the same time, but apparently not kept by Mr. Wolley], I am inclined to fear they are all false. M. Nager, of course, had received it in exchange.

[Very likely both Thienemann and Nager obtained their eggs from M. Crespon (§ 4385), and I see no need to doubt this.]

§ 4385. One.—From M. Crespon, through Mr. H. F. Walter, 1852.

This, given to me by Mr. Walter, was one of a lot of eggs of this bird which he procured from M. Crespon, of Nimes, who is an amateur collector. Mr. Walter procured others at Genoa, but he believes from the same source as those at Nimes.

[M. Crespon seems to have been the discoverer of the eggs and nidification of this species. In his 'Faune Méridionale,' published at Nimes in 1844, he says (ii. pp. 118, 119) that hitherto nothing had been made known on the subject, and that it was only in August, 1841, that he learnt from a fisherman that the bird bred in the neighbourhood. He met with many nests, each containing three or four eggs, which resembled those of the Common Tern in size, had a green or sometimes a cinereous ground-colour, with blackish and brown spots and streaks, often confluent at the large end. The nests were shallow hollows, resting on the remains of broken reeds in the water, in no way fastened, and capable of changing their position.]

§ 4386. One.—From Mr. A. H. Cochrane, through Mr. Hancock, 1854.

[This was given by Mr. Hancock to Mr. Wolley during his flying visit to England in August, 1854. Needless to say that Mr. Cochrane's eggs were trustworthy.]
§ 4387. Five.—Lake Halloula, Algeria, 1 July, 1857. From Mr. Tristram, 1858.

Taken by Captain Loche, and very certain.

[Three of these were in Canon Tristram’s sale at Mr. Stevens’s, 9 February, 1858, where they formed lots 258, 259, and 264. The remaining two were given by the Canon. In his Sale Catalogue he says that this bird “seems always to lay its eggs in the old nests of the Eared Grebe, which it slightly repairs, as soon as the original proprietors have left”; and again, recounting his experience of Lake Halloula, he says (Ibis, 1860, pp. 164, 165): “I was surprised to find the whole colony of Whiskered Tern (Sterna hybrida) breeding in the nests of the Eared Grebes above described,—and that, apparently, without having at all repaired the nests, which could have been only a few days evacuated by their constructors, as we saw hundreds of young Eared Grebes paddling about and diving in the open lake with their parents. My series of eggs of Sterna hybrida shews a decided tendency to pale green as the ground-colour, and a type clearly distinguishable from that of any other Tern, though somewhat approaching the character of the eggs of Sterna leucopetra, which, however, are much smaller, and only exceptionally of a greenish ground. The markings are rarely so large as in the eggs of the Common Tern.” Loche’s account of the breeding of this species (Explor. Scient. Alger., Ois. ii. p. 209) is in great part borrowed from Crespon’s, already quoted (§ 4385).]

[§ 4388. One.—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1862.]

[§ 4389. Eleven.—Southern Spain, 1863. From Lord Lilford.

§ 1390. Four.—Spain, 1872. From Lord Lilford.

Lord Lilford’s notes on the nidification and habits of this species in Spain, furnished to Mr. Dresser (B. Eur. viii. p. 319), state that “We found this Tern breeding in great numbers in company with Sterna nigra on the small lakes of Santa Olaya, in the Coto de Doñana, during the first fortnight of May 1872. The nests are merely a few scraps of weed pulled together and placed on the open water, with no attempt at concealment; in almost every instance the water had penetrated the bottom of the nest, and the eggs were quite wet. In one instance we found four eggs in a nest; but the usual complement is three.” Subsequently in the text in his ‘Coloured Figures of the Birds of the British Islands,’ Lord Lilford wrote (vi. pp. 5-7):—“I became intimately acquainted with this bird in a certain wild district of Southern Spain, where we found it in great abundance nesting in company with the Black Tern and many other birds of various species, upon some small freshwater lakelets. It was more than pleasant to lie amongst the rushes on the sandy banks of
these waters in the splendid sunshine of an Andalucian May, and to watch the birds; of these the most abundant were the Whiskered and the Black Tern, whose nests were on the water amongst thick masses of a white-flowered weed, or on the rubbish left on the banks by the subsidence of winter floods. Here were also at the time of our visits many Grebes of three species, their nests interspersed with those of the Terns on the tangle of weed that covered considerable portions of the water-surface. ... the Terns disturbed at our appearance rose in a cloud, and dashed about us with great clamour till we had satisfied our greed by taking some of their eggs by riding into the water and ladling them out of the nests; but they took very little notice of our presence as we sat about the margin of the tarns after this operation, and many of them settled finally down upon their eggs within a few yards of us, whilst others hawked about unconcernedly after flying insects, or dipped for the leeches and water-beetles that swarmed amongst the weeds.

STERNA ANGLICA, Montagu.

GULL-BILLED TERN.


§ 4392. Four.—Thye, Nord Jylland, 1857. From Dr. Kjærbölling.

These were said by Dr. Kjærbölling to be Sterna anglica, and some of them to have been taken, as all were procured, by himself this past summer. I received them of him 6th October, at Copenhagen. He said they were on a little holm—the nest made of grass-straw, and of considerable size, while S. cantiana breeding in the same place made little or no nest. He observed that the Gull-billed Tern pounced upon insects on the cows' backs. He shot two of the Terns. I observe that two eggs from Algeria, placed in my keeping by Mr. Osbert Salvin and believed by him and those with him to belong to S. anglica, are something like very small eggs of S. cantiana, and so differ considerably from these eggs of Dr. Kjærbölling's, which are nearly as large as those of S. cantiana, but in colour and markings like Common Tern's. As an illustration of the Doctor's defective accuracy, I may observe that one of the eggs of S. cantiana [§ 4495] I had from him has that name written on one side and S. anglica on the other, both by himself.
§ 4393. Two.—20 May, 1858.

§ 4394. One.—29 June, 1858. Mesolonghi, Greece. From Dr. Krüper, through Pastor Theobald, 1859.

§ 4395. Four.—10 July, 1858.

§ 4396. One.—13 July, 1858.

§ 4397. Six.—Smyrna. From [Herr von Gonzenbach ?], through Dr. Baldamus and Pastor Theobald, 1859.

[All the above (§§ 4393-4397) were given into my charge at Copenhagen in October, 1859, to be conveyed to Mr. Wolley, and I accordingly took them with me to Beeston and left them there, but he was far too ill to heed them, and after his death I found the box containing them had not been opened.

In Dr. Krüper's 'Catalog,' edited by Dr. Hartlaub (Griechische Jahreszeiten, v. p. 304. Schleswig: 1875), the lagoons of Mesolonghi and Smyrna are named as breeding-places of this species, but the details given refer to later years than 1858. The breeding-season is said to last from the end of April to the middle of June.]

§§ 4398. One.—Gulf of Smyrna, 1857. From Mr. Simpson, 1860.

Given to Mr. Simpson (Hudleston) by, I believe, Herr von Gonzenbach, who, in his earlier notices of the ornithology of Smyrna (Naumannia, 1852, p. 19, and 1857, p. 140), did not mention this species, but a later communication (Journ. für Orn. 1859, pp. 308 and 393) contains an account of its breeding-place, though not so much to the point as that by Mr. Hudleston which immediately follows.]

§ 4399. Three.

§ 4400. Three.—Mesolonghi, 24 May, 1859. From Mr. Simpson, 1860.

§ 4401. One.

§ 4402. One.—Mesolonghi, 29 May, 1859.

§ 4403. Three.—Greece.
Writing in 'The Ibis' (1860, p. 391) of this place and time Mr. Hadleston says:—"The most numerous of all the birds during the latter half of May on the lagoon of Mesolonghi are the Terns, and notably Sterna hirundo, minuta, and anglica. If unmolested, their numbers would be enormous, as there are probably few places in the Mediterranean more adapted by nature for these birds, if innumerable flat islets and sandy spots, washed by an immense extent of very shallow salt water abounding in fish, can be any inducement to their undertaking the labours of incubation. But now that the towns of Mesolonghi and Etolico are beginning to stir, and the fisheries to be more looked after, all the birds will suffer from the increase of activity. The eggs of Sterna anglica especially are much eaten by the natives. It was from this circumstance that I came to discover their principal colony, as the following extract from my note-book will show:—On the 23rd I started in a monoxylon with Vitalis and a native to search the salt lagoon and the islets south-east of the town, my chief object being to discover the quarters of Sterna anglica, which was to be seen flying about in every direction. This bird had caused me many a fruitless ride across the high plains of the Atlas during the summer of 1857; and it now seemed likely that I was to have another wild-goose chase across the lagoon and mud-flats of Mesolonghi under the equally powerful sun of Greece. Already several days had elapsed since we first noticed them, and still we were unable to gain any satisfactory tidings of their mysterious retreat. My associates became very mutinous in consequence of our prolonged ill-success; so I directed the boat to be landed at a fisherman's hut outside the main group of islets, while some fish was roasted to appease their hunger and ill-temper. Whilst this was being prepared, the usual question was of course put, and elicited the usual reply in the negative. "Where do these broken shells come from, then?" "Oh! they come from a long way off; and the birds won't lay any more." "Wouldn't 20 lepta per egg induce the birds to alter their determination?" "They couldn't lay upon trust; part of the money must be paid down." So the fisherman's boy agreed to try; and our monoxylon set off towards the outer spit, which was searched without success. On returning to the islet, I was much surprised at seeing a straw hat filled with eggs of S. anglica awaiting our inspection. Late as it was, I made the boy take me to the place, where I had the satisfaction of seeing the bird itself in great numbers, and succeeded myself in finding four nests, two of which, with their full complement of eggs, were taken then and there. The boy was directed to find all the eggs he could, and to leave them for me to inspect on the following day. The greater number of the nests were on two of the innermost islets of this group. Generally they are placed on the raised outer edge, which in case of a flood would remain longest high and dry. The eggs are deposited upon the sand or soil, in a depression slightly lined with a few bits of dead grass, and are not easy to see, as the colours blend with surrounding objects. The birds appear to commence incubation simultaneously, or nearly so, as most of the nests contained eggs pretty fresh. They did not excite the anxiety which many Terns do about their eggs, but simply contented themselves with flying in a body, at a great height, over the islands. I strongly suspect that in these hot countries the Terns do not care to sit upon their eggs throughout the day; and this may be the reason why one often sees flocks of Sterna anglica feeding miles away from head-quarters."]

In the text to his 'Coloured Figures' (vii. p. 10) Lord Lilford wrote:—"In Spain the Gull-billed Tern breeds not only on the sandy sea-shores, but also in very great numbers upon the islets left in the 'Marisma' of the Guadalquivir by the subsidence of the winter floods."

[§ 4405. *Two.*—Island of Warba, Persian Gulf, 3 April, 1878. From Capt. Butler, through Mr. Howard Saunders, 1879.

Mr. Eugene Oates (Hume's *Nests and Eggs of Indian Birds,* ed. 2, iii. p. 305) quotes Colonel Butler as writing:—"On the 3rd April, 1878, Mr. Huskisson, Telegraph Department, at my request kindly sent a boat to the island of Warba, in the Kore Abdulla at the head of the Persian Gulf, and procured a fine series of the eggs of this species. There were two species of Terns breeding in separate colonies in different parts of the island, viz. *Sterna caspia* and the present species. In each case the nests which were very abundant, were built about a foot apart and consisted of a small mound of sand scraped together by the birds, from 3 to 5 inches high, with small twigs and sticks laid on the top for the eggs to rest upon. Most of the nests contained three eggs, all more or less incubated."

**STERNA MINUTA, Linnæus.**

**LITTLE TERN.**


§ 4407. *Two.*—Tangier. From M. Favier, through Mr. Williams, 1847.

§ 4408. *Nine.*—Blakeney, Norfolk, 1851. From Dr. Frere.


[§ 4410. *One.*—England? From Mr. R. Reynolds, before 1848.]
Sterna Minuta.

Northumberland Coast, 23 June, 1851.

Two days after our visit to the Farne Islands (§§ 4421-4423), my brother and I set out from Bamborough to try and find the breeding-place of the Lesser Tern, mentioned by Mr. Hewitson (Eggs Br. B. ed. 2, p. 432) as being on the coast opposite Holy Island. We found the birds much less numerous than we had been led to hope, and two nests, one of which contained but two eggs, were all that rewarded us for a long day's work, in the course of which we must have walked along a good many miles of coast. We may have seen a couple of pairs of birds more than the two of which we found the nests. Mr. Hewitson, twenty years before, had seen from thirty to forty pairs, and he and his companions, the brothers Hancock, found between twenty and thirty nests of this bird, within the circuit of a few yards (Brit. Ool. no. vii. 1832).

Covehithe, Suffolk, 1854. From Mr. J. Farr.

"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.

Wells, Norfolk. From Mr. J. H. Gurney, jun., 1872.

Mr. Gurney informed me that these were taken by a Mr. Barrett, but not the entomologist of that name.

Salthouse, Norfolk, 29 May, 1875. From Mr. Norgate.

Taken, said Mr. Norgate, by one Gabriel Piggot.

Brancaster, Norfolk, June or July, 1877. From Mr. Norgate, 1878.

Orford Beach, Suffolk, 2 June, 1885. "E. N."

It having been rumoured that the Sandwich Tern had recently bred on Orford Beach, my brother Edward and I wished to ascertain whether there was any truth in the story, setting aside the desire of seeing a very remarkable
locality. We accordingly met at Aldeburgh on the 1st of June, and next morning taking a boat we were rowed down the river and landed on the Beach, which there forms its left bank, about a mile to the southward of the high lighthouse. To quote my brother's note:—

"The beach there may be a quarter of a mile wide, and is formed in waves—the large stones being in the bottoms and the smaller on the tops, through which a little coarse grass occasionally forces itself in single stems, and hardly ever as a tuft. Between the beach and the river there is generally salt-march, from fifty to two hundred yards wide. We walked for a about a mile towards the high light, the dog we had with us hunting for eggs. It was a small liver-coloured spaniel and had belonged to one of our boatmen. It found one or two places where eggs had evidently been laid and taken. The whole beach was covered with footprints. We presently met a brother of one of our boatmen, who told us that he had left Aldeburgh at one o'clock that morning, that there were about ten men looking for eggs, and that three or four had come over from Orford the night before and slept there. He had got about thirty (Terns') eggs which we saw, all of the same size. He told us that one part of the ground, that to the westward, had not been looked over. We went there and the dog soon found one egg, then another, and then three eggs. Of the last, two were dark-coloured and one light. There were no nests, but simply about half a dozen short bents, strewed without form, by the eggs. I also found a Plover's, which had evidently been used as a nest-egg as it was quite rotten. We did not see many (Arctic or Common) Terns at once—I think not more than ten, and they were very wild, seldom coming within gun-shot, and it was impossible to make out which species they were. The Lesser Terns were less numerous and tamer, and they often came so near that their white foreheads were conspicuous. Another man, one J. Smith, of Aldeburgh, met us. He is said to be the most keen-eyed egg-finder, and did not require a dog. He had got about sixty eggs, all Common or Arctic Terns', and one Ring Plover's. While talking to him, A. watched a Lesser Tern alight some two hundred yards off, and we thought it was on its nest, so we walked towards it. The dog found a Redshank's nest, with three eggs, in a tuft of grass close to the edge of the marsh, and we saw the bird. The Tern got up, and the dog found its nest, which was perhaps twenty yards from where we had seen the bird, and it contained these two eggs. We then returned to the boat. One of our men had walked to the southward and got nine eggs—he said he put his foot on a nest of three. We started on our way back sailing with a good southerly wind. Talking to our men they said they had never seen Terns' eggs larger than those we had seen or of the colour of Sandwich Terns', and I think it is pretty clear that the latter do not now breed here. The man Smith, who may have been from thirty-five to forty years old, told A. that his father had found 'Gulls' eggs years ago, and these possibly may have been Sandwich Terns', but the oldest of our men, who said he was seventy-five, had never seen or heard of any larger bird or eggs than those we had. The men said that Avosets came there every year, and that they saw one about a month ago, but did not shoot it. There were a few Ring-Plovers on the beach, but not many, and we saw a few Redshanks. The dog found what we believed to be a Titlark's nest, with young in it some days old."
STERNA DOUGALLI, Montagu.

ROSEATE TERN.

§ 4419. One.—From Mr. Hewitson, 1844.

Sent by Mr. Hewitson as a present.

[More likely than not this came from either Coquet Island or the Farnes, the only places, as Mr. Hewitson wrote in 1834 (Brit. Ool. text to pl. lxvi.), where he had seen the species, and remarked that the only way of obtaining genuine eggs "with certainty is by watching the bird settle upon them. They seem, however, from the specimens I have examined to be more constantly of a light colour, and more covered with minute dots than the eggs of the other Terns." This I believe to be true, but one of the eggs he figured at the same time is exceptionally dark for a Tern's of any kind, and marked with very few dots, so that any intermediate form might be expected to occur. The present egg is inscribed "Roseate" in handwriting which I recognize as Mr. Hewitson's.]

§ 4420. One.

[Whence Mr. Wolley obtained this specimen I cannot say, as I cannot find it entered in the Egg-book by him. It has the word "Roseate" written upon it, though in a hand unknown to me, and has all the look of being rightly named.]

[§ 4421. Two.]

[§ 4422. One.} Inner Wide-open, Farne Islands, 21 June, 1851. "A. & E. N."

[§ 4423. One.]

For some years my brother Edward and I had cherished a very strong desire to visit the Farne Islands, whose ornithological riches the pages of Yarrell and Hewitson had made known to us. In the summer of 1851, the kindness of an uncle, Mr. Milnes of Fryston, enabled us to realize our fond wish; and, provided with the necessary permission from Archdeacon Thorp, on behalf of the Trustees of the Crewe Charity (who then bore absolute sway over the islands—no one being able to land upon them without leave), we arrived at Bamborough on the evening of the 20th of June. Very early the next morning we proceeded to North Sunderland, or rather Sea-houses, whence we took a boat to our destination, and passed the whole of a glorious day among the birds, only returning late in the evening. It was the first time that either of us had ever seen a sea-birds' resort of the kind, and our expectations were
fulfilled to the uttermost. The joy of the whole thing was indescribable, as those must know who have had experience of it, and even after more than fifty years, in the course of which I have been at many bird-stations, some of them vastly more thronged, there has not been one to surpass this in beauty or interest—the last in some measure due to the great variety of species there present. It is hardly possible elsewhere on the coast of Western Europe to find four species of Tern, three of Gull, two of Cormorant, beside Puffin, Guillemot and Razorbill, Eider-Duck and Oyster-catcher—to say nothing of Rock-Lark—all breeding within so small a space. We did not, it is true, find eggs of the Shag, but to the best of our belief there was at least one nest, and we took moderate spoil of the rest, Razorbill excepted. The Terns were naturally our chief object, and the Roseate Tern chief among them\(^1\). We had not been long on one of the islands\(^2\) before we recognized several birds whose call-note—*crake*—was so unlike that of the rest as at once to attract attention, and when the individual bird that uttered it was made out from the cloud of others that hovered or darted overhead and circled round us, the difference in appearance and action was easily perceptible, for it would often come close enough to show its black bill, while generally it looked far whiter in colour, particularly beneath and at the bend of the pinions, it had a longer tail, and its flight seemed more buoyant; but the roseate colour of the breast was seldom perceptible. The number of birds shewing these characters was very small in proportion to the others, and I think we could not satisfy ourselves that there were more than eight or ten. The next thing was to watch one of them to a nest, and we soon made the discovery that to do this successfully we must lie down to windward of the birds, for hardly a Tern of any sort would alight, or sit on the ground, except with its head to the wind, nor would it do so if we were behind it. After waiting for some time we had the extreme gratification of seeing first one, and then a second, Roseate Tern settle on what we presently found to be a nest—in the former case there were two eggs, in the latter one; but we were not satisfied without putting the birds up and letting them return more than once, while we steadily and repeatedly examined them through a field-glass, when, the distance not being great in either case, we could see the owners sitting on their nests as plainly as though we held them in the hand. In this way we determined beyond all doubt the first three of the eggs above entered (§§ 4421, 4422), while the fourth (§ 4423) is one on which we did not actually see a bird sit, though one alighted more than once close to it, and from its similarity to the other three we were

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\(^1\) [In 1850 I was at the Cumbraes in the Firth of Clyde, where Dr. MacDougall got the specimens of the species described by Montagu not forty years before; and though my visit was not in the breeding-season, I had satisfied myself that it could no longer breed there.—Ed.]

\(^2\) [This was called by our boatmen Kettle Island, a name I do not find on any map, being replaced in all I have seen by Inner or West Wide-open. At low water it is connected by land with Outer or East Wide-open, as well as with Knocks Reef, otherwise called Nokeys, and the bay formed by the bank laid bare by the falling tide is marked The Kettle on the last Ordnance Map (Survey of 1861, revised 1889).—Ed.]
STERNA DOUGALLI.

preparing to accept it as a true egg of the same species. While watching these Terns we had also the opportunity of identifying in like manner a Common Tern's nest and two or three of the Arctic Tern's. The Sandwich Tern's eggs alone gave no trouble beyond that of avoiding treading upon them, as with them mistake is impossible. It may be added that all these eggs were procured without firing a single shot; indeed it was understood from the first that we were not to use a gun at the islands, nor was one wanted.]

[§ 4424. One.—Inner Wide-open, Farne Islands, 23 June, 1856. "A. & E. N."

This was the only Roseate Tern's egg that fell to our share, on our second visit to the islands, when Mr. Salvin and Mr. Percy Godman were with us. We saw fewer of the species than we had done on the former occasion, but were equally careful to watch the bird to every nest we took.]

[§ 4425. Two.—Farne Islands. From Mr. Charles Adamson, 1863.

Given to me at Newcastle-on-Tyne, by Mr. Adamson, as having been taken by himself, but he could not say in what year.]

[§ 4426. One.—North America. From Dr. Brewer (1864?).]


From the Smithsonian Institution, through Professor Baird, 1870.

Received under the name of "Sterna paradisea." The Smithsonian number is "9919," and they appear to have been obtained from O. N. Brooks.]

[§ 4428. One.—Norfolk Coast, 24 June, 1886. From Mr. A. H. Evans.

This was kindly brought and given to me on the 27th by Mr. Evans, who told me that while botanizing a few days before on the sandhills of the coast of Norfolk, he stopped to watch some Little Terns that were breeding there and found three or four of their nests. Presently he noticed two larger Terns, and from their note—"crake"—and appearance he began to suspect that they were Roseate Terns. He then lay down and watched one of them attentively, becoming more and more sure that it was Sterna dougalli. Presently it alighted on the ground and he saw that it was on its nest. Going to the place he put the bird off and found three eggs (of which this is one); but, still further to satisfy himself, he went back and lay down again, when the bird
returned to its nest as before, and he, walking it up, saw it again most distinctly. He then took the eggs, and began to look out for the other bird, the nest of which, also with three eggs in it, he at length found; but he did not succeed in seeing this second bird so well as the first, though he has no doubt that it was also a *S. dougalli*, and he saw no other Terns larger than *S. minuta* about. He brought all the six eggs to show me, but those of the second nest are not at all like what I have always supposed Roseate Terns' eggs to be: they were much blotched, and one had a pale blue ground-colour—as though laid by an exhausted bird. The eggs from the second nest were fresh; those from the first nest, on which he saw the bird so well, were very hard-set. They are more like ordinary Roseate Terns', but are still somewhat small, being less than any we have in our short series, and have not many of the fine circular spots, or dots, which have always seemed so characteristic of the rarer species. On the other hand, it must be said that Mr. Evans ought to know the Roseate Tern well, from his experience at the Farne Islands, where he tells me that though he never found but one nest with eggs and one with young, yet he declares that by their peculiar note and flight, as well as the colour of the bill, the two large Terns he saw on this occasion were nothing else. After he had found the first nest, there came by a man looking for Little Terns' nests, and from him Mr. Evans borrowed a pair of binocular glasses (not having any with him), and with the help of these glasses he made himself still more certain as to the species. He saw only these two birds, and thinks their mates must have been away fishing.

I may remark that on the 12th of July, 1850, the late Mr. George Hunt shot an adult Roseate Tern off this part of the coast, which he sent to Lord Lilford, who wrote to me about it at the time and subsequently recorded it (Zoologist, 1881, p. 26). This fact, which I think was unknown to Mr. Evans, gives colour to his view that the species may breed there, but it must assuredly be in very small numbers, and not every year; for on the 13th of June, 1887, my brother and I, in company with Mr. Howard Sanders and Mr. Evans, went to the place indicated by the last. We saw a few Terns, all *S. minuta*, and not one that we could fancy was a *S. dougalli*.]

**STERNA FLUVIATILIS**, Naumann.

**COMMON TERN.**

§ 4429. *Four.*—England (?), before 1843.

[These were in Mr. Wolley's collection before he began his Egg-book, and are likely to be correctly assigned, though they have no other history.]

§ 4430. *Twenty-three.*—Blakeney, Norfolk, 1847. From Dr. Frere, 1853.

I have selected these because Dr. Frere said that of all the Terns
he and his brother shot at this breeding-place there was not one other than the Common Tern. Three were marked "Self" in his Catalogue.

§ 4431. Two.—Blakeney, 1851. From Dr. Frere, 1853.

§ 4432. Three.—Hörn, Eland, 10 June, 1856.
A nest from an islet where no other Tern seemed to me and Mr. Simpson [Hudleston] to be.

[§ 4433. Two.—Inner Wide-open, Farne Islands, 21 June, 1851.
Taken by my brother and myself on our first visit to these islands, and from the only nest, of the many Terns' we found, that we could feel sure was of this species (cf. § 4423).]

[§ 4434. Two.—Blakeney, 1851. From Mr. Sayer, of Norwich.]

[§ 4435. Four.—Holland, 1851.
Received direct from Bots, of Valkenswaard. I believe Sterna macrura does not breed in that country.]

[§ 4436. Three.—West Norfolk, 1854. From Mr. Southwell.]

[§ 4437. Two.—Inner Wide-open, 18 June, 1856. "Bird seen on nest. E. N."
Taken on our second visit to the islands, and the only eggs of this species identified by either of us on that occasion.]

[§ 4438. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1862.]

[§ 4439. Three.—Brancaster, Norfolk, June 1877. From Mr. Norgate, 1878.]
STERNA FLUVIATILIS.—S. MACRURA.

[§ 4440. Six.—Nova Scotia. From Mr. R. Downes, 1853.

Sent to me as eggs of the “Great Tern,” *i.e.* the *S. wilsoni* of those days, now said to be identical with the European bird. Mr. Downes was a careful man.]

[§ 4441. Four.—New Jersey. From Dr. Heermann, 1861.

Whether Dr. Heermann or his collector was as careful to determine the parentage of his Terns’ eggs as he ought to have been is more than I can say; but in the case of these he most likely assigned them to the right species.]

[§ 4442. One.—Dybsö, Denmark, 26 June, 1893.

My brother Edward wrote that having gone to this island he found there very many Common Terns and their young. “‘I picked up,” he continues, “an egg, marked like a Sandwich Tern’s, which must belong to the Common or Arctic Tern, but both 111. Olsen and Fahrenholtz,” his companions on this occasion, “assured me that the Arctic Tern is not in Sjælland, only in the north of Jylland. I was afterwards told by Herr Winge that the Arctic is found near Copenhagen in summer.” Herr Grönvold informs me that he has shot *S. macrura* at Dybsö, but he could not say that it was breeding there. Herr Scheel’s statement (Næstvedegnens Fugle, p. 45) that its downy young are found there is hardly convincing, since he thought they were distinguishable by their colour from those of *S. fluvialilis*, which I believe is not so.]

*°* [The collection contains an extensive series of Terns’ eggs, taken in various places, which it is impossible to refer to either the Common or the Arctic species, but they undoubtedly belong to one or the other, and no person, so far as I know, has ever been bold enough to discriminate between the eggs of the two. The series shews some very beautiful variations from the ordinary types, and I much regret that the specimens in it were not determined.]

STERNA MACRURA, Naumann.

ARCTIC TERN.

§ 4443. Two.—“ Farne Islands, June, 1842.” From Mr. G. Emmerson, through Mr. Proctor, 1844?

§ 4444. One.—From Mr. Hewitson, 1844.

§ 4445. Four.—Hoyvik, Færøe, 26 June, 1849.

Of the Arctic Tern we saw several breeding-places [in Færøe], but we found no other species. The first was near Thorshavn. We went there on the 26th of June. There was almost too much sea for landing, and Mr. Edge got his nail trapped off between the boat and the rocks. There was only one egg in each nest, or rather spot, for of nest there was little or none. The Amtmand or Governor (*pro tempore*), Herr Lundahl, afterwards sent us some of the eggs for eating, from which those I kept were selected.

On the 2nd of July, in the little Eider-Duck island off Kirkebøe is a colony of Terns. Those which I shot are Arctic.

§ 4447. *Two.*—Færøe, 1852. From Sysselmand Müller.

Arctic Tern, no other species in Færøe.


§ 4449. *Seven.*—Færøe, before 1857.

§ 4450. *Two.*—Jerisjärvi, 1853.

Bought from a boy at Muonioniska. At Jerisjärvi I saw many, and shot three or four of the birds, and no other species of Tern.

§ 4451. *Two.*—Nyimakka, 16 June, 1854. "J. W."

Two eggs, a little sat upon, in a small island in the pond. The old birds swooped fiercely at me in my cloak-boat.

§ 4452. *Two.*—Nälima, 1854.

Brought by the painter's wife. Of the species I have no doubt, as there is no other here.

§ 4453. *One.*—Jerisjärvi, 1854.

Brought by Daniel as a *Tirvi's egg* from Rauhala. No other Tern breeds at Jerisjärvi or elsewhere up here.
§ 4454. *One.*—Ilako-kongas-koski, Patsjoki, 9 June, 1855.

From one of the islands in the wide part of the river. I did not shoot a specimen of the bird on the Patsjoki, where the Tern was probably more plentiful than the Gull [cf. § 4563].

§ 4455. *One.*—Kuttainen, 1855.

§ 4456. *Two.*—Palojoki, 1855.

§ 4457. *One.*—Wuontisjärvi, 1855.

§ 4458. *Two.*—Nyimakka, 1855.

From Munalausta, the same lake or pond above Nyimakka where I got eggs in 1854 [§ 4451].

§ 4459. *One.*—Tanan-anti, June, 1857.

§ 4460. *Four.*—Rauhala, 1857.

From Johan of that place [cf. § 4453].

§ 4461. *Two.*—Kyrkjuvogur, South-western Iceland, June, 1858.

Appear to be Arctic Tern’s, which is very common here, and the only species we have seen up to this 23rd of June. These eggs were brought in from the side of the fjord by one of the boys. Only a few Terns had two eggs at Sandgerdi, on the 18th.

[On the 13th of June, among a large company of Terns at Sandvík, between Kalmanstjorn and Reykjanes, we saw a bird which looked different from all the rest. Mr. Wolley shot it and it proved to be an Arctic Tern with a black bill, possibly a last year’s bird that had not for some reason assumed the full colouring. The specimen is now in the Cambridge Museum.]

§ 4462. *Three.*—Sandgerdi, South-western Iceland, 6 July, 1858.

§ 4463. *Two.*—Sandgerdi, 7 (?) July, 1858.

[Most of these are of the pale hue characteristic of eggs gathered towards the end of the season in great egg-taking places, and are presumably from Videy or the other island off Reykjavik.]

§ 4465. *One.* — Shetland. From Mr. Dunn, 1851.

§ 4466. *Two.*

§ 4467. *One.* — Wide-opens and Brownsman, Farne Islands, 21 June, 1851.

§ 4468. *One.* — All the above taken by my brother and myself on our first visit to the Farne Islands, and in each case the parent bird well determined (cf. § 4433.).

§ 4469. *One.* — North Iceland. From Mr. Proctor, 1851.

§ 4470. *Two.*

§ 4471. *Two.*

§ 4472. *Two.* — Wide-opens, 18 June, 1856. "E. N."

§ 4473. *Two.*

§ 4474. *One.* — All these taken by my brother at our second visit to the Farne Islands the birds being well identified by him, and the eggs of the several nests kept carefully apart.


§ 4476. *Five.* — Unst, 1857. It seems to be admitted that the Arctic Tern alone breeds in Shetland.]
While we were sitting down to eat near the water we saw an Arctic Tern flying at a cow that was feeding, and having driven it away, the bird sat down on the grass. Having marked the spot, which was on the other side of the pool, I went and took this egg, the only one laid. Not only have we not seen any other species of Tern about, but this bird seemed to give such unequivocal proof of ownership, that I do not doubt that this is an extremely satisfactory egg. There was no other nest near.

I feel confident that all these belong to the species to which I ascribed them. I had a capital opportunity of observing the occupants of some or all the nests, and I am sure there were no Common Terns among them. I marked the several sets as I took them. The first are dark-coloured and large, the second very oppositely coloured and of moderate size, the third are small in size and roundish. All these nests with about as many more were in the grass of a little islet in a pool, close to the house, where were also a pair of Horned Grebes breeding.

From the place where, as before said (§§ 4461, 4477), only Arctic Terns were to be seen.

These were kindly sent to me from the Baron’s ship then lying in Safe Haven (where also was Sir Edward Birkbeck’s yacht, on board which I was), by the hands of Prof. Dunér, the astronomer of the Swedish Expedition, as having been taken that day near the entrance of the Sound.
The yacht 'Sultana' having come to anchor near this island the evening before, I went ashore next morning with Ludwig, hoping to find a Grey Phalarope's nest, but though we saw and watched what was apparently a hen bird sitting by the side of a little pool of water, all our efforts were unsuccessful. There were a quantity of Terns on the island, and walking across a dry bit of ground, we found some half-dozen nests, most of them containing two eggs, and all hard-sat on, and there were some half-grown young, one of which, after being handled by me and liberated, swam across the pool, a distance of about fifty yards, encouraged all the time by a flock of old birds, which kept successively stooping within a few inches of it during the whole of its voyage. A Skua threatened it, but, seeing me prepared with my gun, let it alone. The islet was strewn with large blocks of stranded ice, and a vast quantity of drift timber.]

[§ 4488. Two.—Mouth of Porcupine River, Yukon. From the Smithsonian Institution, through Prof. Baird, 1863.

The label with them states that they were from Mr. Kennicott.]

[§ 4489. Two.—Arctic Coast, east of Anderson River. From the Smithsonian Institution, through Prof. Baird, 1870.

The label with these gives Mr. R. MacFarlane as the collector, and the Smithsonian number of the parent is 44558.]

[§ 4490. Two.—Moffen Island, Spitsbergen, 1873. From Mr. A. E. Eaton.

[§ 4491. One.—Treurenberg Bay (?), Spitsbergen, 1873. From Mr. A. E. Eaton.

Mr. Eaton accompanied Mr. Leigh Smith in the 'Æolus' to the polar regions, and on his return kindly let me have these eggs among others. His notes on this species in Spitsbergen are printed in 'The Zoologist' for 1874 (pp. 3809, 3810). Beside the localities above named, he found it breeding in Wide and Loom Bays.]
STERNA CANTIACA, Gmelin.

SANDWICH TERN.

One of these was given to me by Mr. Williamson, of Scarborough.

§ 4492. *Two.*—Farne Islands, 1854. \{From Mr. Hancock, 1854.

§ 4494. *Two.*—Coquet Island, "J. H."
These four eggs given to me by Mr. Hancock at Newcastle. If I remember right, he had taken the Coquet eggs with his own hand.

Taken this year by Dr. Kjærbølling himself.

[§ 4496. *Two.* Inner Wide-open, Farne Islands, 21 June, 1851.

[§ 4497. *Eighteen.* All taken by my brother and myself. The nests were so close to one another that one could select a series of beautiful varieties almost without moving from the spot where one was standing.]

[§ 4498. *Two.*

[§ 4499. *Two.*


[§ 4501. *Two.*

[§ 4502. *Fifty-one.* All taken, I believe, by my brother and myself, Mr. Osbert Sulvin and Mr. Percy Godman being in company. For the most part we chose the series as the eggs lay in their nests, as we had done in 1851.]
STERNA MEDIA.—S. CASPIA.

STERNA MEDIA, Horsfield.

[§ 4503. Two.—Island near Arabé, Persian Gulf. From Colonel Butler, through Mr. Howard Saunders, 1879.

Mr. Eugene Oates, in the second edition of Mr. Hume’s ‘Nests and Eggs of Indian Birds’ (iii. p. 248), says that Colonel Butler wrote of the nidification of this species that he had received a magnificent series of its eggs “from an island close to the Island of Arabé in the Persian Gulf in 1878, numbering about 400. They are in character a good deal like the eggs of Sterna bergii, but of course considerably smaller.” A long and minute description of their appearance, by Mr. Oates, follows the above note.]

STERNA CASPIA, Pallas.

CASPIAN TERN.

§ 4504. One.—From M. Nager-Donazain, 1847.

This egg, I should have thought, might be a Common Gull’s, as it is marked in the same handwriting as the Sterna leucopareia [§ 4384], Larus leucophaeus, and L. glaucus [sent at the same time]; but Mr. Hancock saw it in London, and at a first glance assured me it was that of Sterna caspia, appealing to Mr. Hewitson who was standing by, and he confirmed what Mr. Hancock said. This last is the great importer of Caspian Terns’ eggs (vide ‘Eggs of British Birds’).

§ 4505. Fifteen.—Sylt, 1855. From Dr. Kjærbölling, 1856.

§ 4506. Ten.—Sylt. From Dr. Kjærbölling, 1857.

Of the last year or two’s taking. If I remember right, none were of the present year, for Dr. Kjærbölling said that the Terns had been expelled from their breeding-place this year by a number of Richardson’s Skuas. The bird lays three eggs on bare sand, on highish ground about fifty yards from the Western Ocean.

[§ 4507. One.—From Dr. Frere’s collection, through Mr. Powys, 1855.

This egg, given to us by Mr. Powys (Lord Lilford), bears one of Dr. Frere’s tickets, and I doubt not that it was received by the latter, most likely through Herr Brandt of Hamburg, from one of the Cimbric localities.]
STERNA CASPIA.—LARUS SABINII.

[§ 4508. *Sir.*—Sylt. From Dr. Kjærbølling, 1856.

Bought for me, if I remember right, by Mr. Wolley, and, if so, at the same time as the fifteen above entered (§ 4505.)


These I obtained from Mr. Baker soon after his return from the island, to which he went in that year. His marks show that they were all from different nests, and I selected them out of his booty, consisting of more than one hundred, though I believe Mr. Sealy had the first choice.


Of this species Mr. Reeks, in his "Notes on the Zoology of Newfoundland" (Zoologist, 1869, p. 581), observes:—"A tolerably common summer migrant, and breeds on many of the islands along the coast: I obtained eggs in the Bay of St. Paul. The settlers call it the 'Mackerel bird.'"

[§ 4511. *Tw.*—Warba, Persian Gulf, 3 April, 1878. From Colonel Butler, through Mr. Howard Saunders, 1879.

Part of Colonel Butler's note furnished to Mr. Oates has been already given (§ 4405), and there is no need to print it twice, as that gentleman has done (Nests and Eggs of Indian Birds, ed. 2, pp. 296 and 305.)

LARUS SABINII, J. Sabine.

SABINE'S GULL.


[§ 4512. *One.*—Taimyr Peninsula, 10 July, 1843. From Dr. A. T. von Middendorff, through Dr. Baldamus, 1861.

This is one of the treasures, marked "Unicum," which Dr. Baldamus was so good as to obtain for me. In his work (Sib. Reise, II. ii. p. 244) Dr. von Middendorff says that this Gull appeared on the Taimyr (N. lat. 73° 75') on the 5th of June, and thence spread about so that he found it breeding abundantly on the lakes of the tundra and the alluvial islets in the river, in company with
**Larus minutus.**

*Sterna macrura.* On the 10th of July the eggs were hard set. They were laid in pairs in a depression on the moor lined with the grass-stalks of former years. Good big young birds were observed on the 17th, and on the 15th of August full-grown, though hardly feathered, birds. The species was only seen on the flat alluvial shores. In his work (*ut suprâ, tab. xxiv. fig. 5, and tab. xxv. fig. 1*) he figured a young bird and an egg. I exhibited this specimen at a meeting of the Zoological Society, 10th December, 1861 (*ut suprâ*); but its shattered condition forbade me from having it figured.

[§ 4513. Three.
Franklin Bay, Arctic Coast of America, 1865.

[§ 4514. Two.

From the Smithsonian Institution, through Professor Baird, 1869-1875.

[§ 4515. Two.


These are from Mr. MacFarlane's spoils. The labels sent with them shew that from the first two nests the hen bird was procured, and from each of the three I have lent a specimen to Mr. Oswin Lee to draw, while from the first a specimen was exhibited by me at a meeting of the Zoological Society, 17 January, 1871, and subsequently figured (*ut suprâ*). Mr. MacFarlane writes of this species (Proc. U.S. Nat. Mus. xiv. p. 419) that "Quite a large number of nests were found on the shores of Franklin Bay, and a few eggs were also received from the Esquimaux of Liverpool Bay. Several specimens of this beautiful gull were shot at the former point."

**Larus minutus,** Pallas.

**Little Gull.**


During a visit I paid to this well-known collector at Dieppe on the 2nd of June, 1859, I was kindly received by him, and he gave me this egg as well as one attributed to _L. melanoccephalus_ which had been sent to him by a correspondent, and assured me he could trust them. In the latter I have no confidence; but this may be right, for he had some ten or eleven eggs, together with skins of _L. minutus_ in fine breeding-plumage, which he said came with them. I was quite unable to see any difference between these eggs and a series of Terns'."]
The Doctor wrote that these were collected in the lagoons twenty English miles from Smyrna, where this species as well as Larus melanocephalus and Sterna hirundo bred—the last in great numbers. He added that he had received with them beautiful specimens of the bird in full breeding-plumage; but for all that I do not find that Herr von Gonzenbach mentions Larus minutus as occurring near Smyrna in the account of his excursions to the breeding-places of Sterna and Larus (Journ. f. Orn. 1859, pp. 308-310, 366-368).

With skin of bird.” From Dr. W. H. Cullen.

Writing to me from Kustendje on the 15th of October, 1866, Dr. Cullen said he was sending some things to me “and what I believe will be the most interesting of all, a specimen of Larus minutus, shot on rising from the ground where was found the accompanying egg.” In due time the box arrived. The skin of Larus minutus was indubitable, and it had a label tied to it—“She, June 5, 1866, on nest and under it was found the egg enclosed separately,” while the egg was in a box inscribed “Egg taken with bird, Kustendje, June 5, 1866.” The fact he also recorded in ‘The Ibis’ for 1867 (p. 248). Six years before Mr. Huddleston had seen large flocks of this species at Kustendje towards the end of April, but believed that they did not stay to breed there (Ibis, 1861, pp. 362, 363).
They had a fine reddish-orange colour, while that of *S. hirundo* was ochreous or dull yellow. This afforded a sufficiently distinctive mark on emptying the eggs. The number in each clutch was three or four, but many nests as yet held but one or two. The general form was a long or short oval, but others were spool-shaped, and a few pear-shaped. The ground-colour was pea-green, grey-green, olive-green, buff-brown, and grey-brown: a grey-white as in *S. hirundo* I never found. The faint shell-spots were blackish, the larger and more conspicuous spots—which were often confluent, sometimes forming a wreath at the thick end,—as well as the smaller points, were all black or liver-brown. The different nests often held eggs much unlike in form and colour." Herr Meves adds a list of measurements shewing how they varied in size, and remarks that in nowhere else during his journey did he meet with this species, and that on his return he revisited Dubno on the 22nd of August, but found that all the birds had left the place, which, he elsewhere (p. 733) states, is 25 verst, or two Swedish miles and a half (about 15 or 16 English miles), from Novaja Ladoga. He furnished Mr. Dresser with a statement practically the same as the above, with perhaps a few more details, which the latter has printed in his "Birds of Europe" (viii. pp. 378-380).]

**LARUS PHILADELPHIA, Ord.**

**BONAPARTE'S GULL.**

[§ 4522. One.—Fort Anderson, 18 June, 1863. From the Smithsonian Institution, through Professor Baird, 1866.

The accompanying label shews that this was from Mr. MacFarlane—one of three eggs, the nest, in a tree, of sticks, hay, and down. The "parent shot, & 36339."

[§ 4523. One.—Anderson River Fort, 1865. From the Smithsonian Institution, through Professor Baird, 1870.

Proc. Zool. Soc. 1871, pl. iv. fig. 6, p. 57.

The label shews that this, as well as the parent of it (no. 44307), was also from Mr. MacFarlane, who writes of this species (Proc. U.S. Nat. Mus. xiv. p. 418):—"Thirty-seven nests are recorded as having been taken with eggs in them between 10th June and 10th July, in the wooded country in the neighborhood of Fort Anderson and on Lower Anderson River; they were all built on trees at various heights (from 4 to 15 and even 20 feet) from the ground, and, with one exception, which was composed of down and velvety leaves held together by some stringy turf, they were made of small sticks and twigs lined with hay and mosses, etc. . . . . . They seldom lay more than three eggs." I exhibited this egg at a meeting of the Zoological Society, 17 January, 1871, and it was subsequently figured as above.]
LARUS RIDIBUNDUS, Linnaeus.

PEWIT or BLACK-HEADED GULL.

§ 4524. One.—From Mr. Williamson, of Scarborough, 1843.

§ 4525. One.—From Mr. Yarrell as "Larus capistratus," 1845.

Looks like a Moorhen's.

§ 4526. One.—Orkney, 1848. From Mr. George Harvey, of Stromness.

§ 4527. Two.—Orkney, 1850. From Mr. George Harvey.

With reference to this "Hooded Gull, L. capistratus," for which Orkney is, I believe, the original locality, though very few Gulls with a black head do breed in Orkney, I may here enter an observation communicated to me, I believe, by Dr. Frere, that Mr. Dowell had ascertained by careful observations made at a great breeding-place (I think Scoulton Mere) that L. ridibundus and L. capistratus are one and the same species.

[Larus capistratus (the Masked, Hooded, or Lesser Brown-headed Gull of some English writers) was a phantom species described by Temminck in 1820 (Man. d'Orn. ed. 2, ii. p. 785) as being "commun aux Orcades"; but though admitted to a place by Yarrell even in 1856 (Brit. Birds, ed. 3, iii. p. 566), it has been long since consigned to deserved obscurity. While it was supposed to exist it caused a good deal of trouble to ornithologists, some of whom were always seeing it in slightly undersized examples of L. ridibundus.]

§ 4528. Thirty-three.—Scoulton Mere, Norfolk. From Dr. Frere, 1851.

Out of six dozen from Scoulton Mere. Dr. Frere has some very remarkable varieties of this egg selected out of some ten thousand. A few of those given to me are probably from Holland, says the Doctor.

[Among these are two dwarfs.]

[This selection was sent to Mr. Wolley at his particular request with a statement nearly as follows:—"Six present the normal appearance of the egg, and the varieties indicated by the several specimens occur in about equal numbers—the very darkly-marked and light-grounded being in a slight minority. Of the rest the Sandwich-Tern like variety is not unfrequent, nor is the light blue and dark-spotted one—these two being perhaps in the proportion of one to thirty. Two others exhibit varieties which occur towards the close of the season, and are probably produced by the exhaustion of the bird's powers. (One of these is very like the egg of a Kittiwake.—J. W.) The remaining two are accidental varieties of shape and size, and in one case of colour—the coffee-coloured ground being of rare occurrence. These last two were taken in the years 1849 and 1851 respectively, all the rest having been selected in May 1852. On the last-mentioned occasion, upwards of three thousand eggs were collected, but it is difficult to say from how many the present specimens were chosen, owing to the eggs being packed in baskets of from one to twenty score, and many of these were left undisturbed. However, this may be taken as a good series, though one variety—a deep brown mottled all over with a darker shade of the same colour,—being rare, is omitted. Eggs of monstrous shapes are also often met with, such as specimens having two great ends, and others shaped like flasks."]

§ 4530. *Two.*—Horn, Öeland, 10 June, 1856. "J. W."

From the place where especially the Little Gull, *Larus minutus*, has been said to breed to the exclusion of *L. ridibundus*.

1 [Colour entirely gone now. July 1904.—Ed.]
2 [As stated in the 'Memoir' (page xxxii) prefixed to the first volume of this work, Mr. Wolley was induced to go to Öeland and Gottland in 1856 by the report, which he heard the autumn before in Göteborg, of the successes obtained in those islands by a Swedish naturalist, and especially of his having found *Larus minutus* breeding in the former of them. This information was received from Herr Malm, and, I believe, had not then been published; but it soon after appeared in print (Götheborgs K. Vet. och Vitt. Samh. Handlingar, Heft 3, 1855, pp. 64–71), the author being Herr Carl Agardh Westerlund, who a dozen years afterwards (Skandinavisk Öeologi, pp. 134, 135) repeated the statement, though then adding that having found the species breeding in Öeland in 1852, it had vanished when he revisited the locality in 1865. But Herr Westerlund did not refer to the fact of his not having met with *L. ridibundus* breeding in the island in 1852, when he seems to have considered it only an autumnal migrant. It did not appear to Mr. Wolley that this species had replaced the other, but only that the commoner one had been mistaken for the rarer. Both he and Mr. Hildeston in 1856 searched for the latter in every likely spot, and particularly in those named by Herr Westerlund, but all in vain.—Ed.]
§ 4531. One.—Leadenhall Market, 1844.

A specimen with both ends nearly equal, as in that of a Pterocles.

§ 4532. Three.—Scoulton Mere, 1849.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxxxvi. fig. 2.

One specimen figured as above.

§ 4533. Six.—Scoulton Mere, 1851.

One of them very small, another a dwarf, and a third flask-shaped.

§ 4534. Twelve.—Scoulton Mere, 1852.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxxxvi. fig. 3.

One specimen figured as above.

§ 4535. One.—Scoulton Mere, June, 1853. "E. N."

With a pale blue, almost colourless, ground.

§ 4536. Two.—Feltwell Fen, Norfolk, 16 May, 1853.

This nest was one of the effects of the great flood of the preceding year (§ 3731). A nest with a single egg had been found in Hockwold Fen on the 5th of the month. I am not sure that the species had ever been known to breed in either of these Fens before—certainly not for many years.

§ 4537. Two.—Rollesby Broad, Norfolk, 1854. From Mr. Southwell.

§ 4538. Twenty-four.—Scoulton Mere, May, 1854.

§ 4539. Eight.—Scoulton Mere (no year recorded), 185—?

One of these flask-shaped.

§ 4540. One.—South Russia. From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.
From a nest of three found as above by my brother Edward during an excursion, arranged for us by the late Mr. Cordeaux, who met us at Kirton-in-Lindsey and gave us his company during the day. As we drove from the railway station he pointed out to us the field in which the Honbarca macqueenii now in the York Museum was killed (Zool. 1889, pp. 2065, 2146). We took the road to Scotton, where we expected to have met the gamekeeper, but he was not there, so we went on to the moor, turning to the northward along a green trackway, the ground on each side being open and boggy, with Pinunicula, Droséra, and other such plants growing more or less abundantly, but the moor had been much pared and burnt in places. A considerable number of Black-headed Gulls were flying about and not a few Lapwings. When we came to the green road, my brother and Mr. Cordeaux got out and walked, while I continued in the carriage. There was generally a ditch on each side of the road, and a few pools of water were visible, and on which were more Gulls—"Brownheads," as Mr. Cordeaux said they were here called—and on the margin of one of these pools, some two or three hundred yards to the north-east of the trackway, my brother found the nest from which this egg came. By-and-by we met the gamekeeper, who among other things told us that a Jack Snipe's nest had been found on the moor not long before, and promised to send one of the eggs from it to Mr. Cordeaux, who subsequently informed me that it seemed to be a Dunlin's. At last we reached the wood which now covers Twig Moor, the once celebrated Lincolnshire Gallery, on the water of which we saw any number of Gulls, old and young, the latter chiefly on muddy islands or promenotaries, besides a pair of Sheld-drakes, with their brood of seven young—only a few days old. The gamekeeper told my brother that hundreds of the Gulls had died this year from some uncertain cause. My brother believed this to be true, as he saw several dead on the ground in various stages of decomposition.

Out of two or three dozens kindly sent to me, unblown and the greater number broken in transit. These I picked out as being striking varieties, and one of them had a beautiful green ground. The Gullery is, I believe, near the Culbin Sands, on which in 1888 the "rabbit man" got two eggs which he thought were those of Syrhaptes, but to my eye they seemed to be Moorhens'. It was, however, from this locality that, thanks to Major Chadwick, a young Syrhaptes, the first described and figured (Ibis, 1890, p. 207, pl. vii.), was taken.
LARUS MELANOCEPHALUS, Natterer.

[§ 4544. Two.—"Grèce." From Herr Möschler, 1862 and 1866.

[§ 4545. Two.—From Herr Möschler, through Mr. Norgate, 1869.

The country assigned for the first two of the above four eggs is probably wrong, for there is no evidence that this species has been found to breed in Greece. The last two were most likely received by Herr Möschler from Herr von Gonzenbach, who is believed to have found it breeding near Smyrna.]

[§ 4546. Fifty.—Islets at the mouth of the Maeander, Asia Minor, June, 1904. From Mr. F. C. Selous.

Through the kind intervention of Mr. Dresser, this beautiful series of eggs was most generously given to me by Mr. Selous, who at the same time wrote to me to the effect that on the 26th of May, 1901, he went with Mr. Hodder, the superintendent of a liquorice-factory at Sochia (which I suppose to be the Soke of the maps), to some islands in the sea at the mouth of the Maeander in Asia Minor. "There was a large colony of Adriatic Gulls, a few pairs of Yellow-legged Herring-Gulls (with young, as they nest in Apr.1), besides Pratincoles, Kentish Plovers, and an odd pair of Avosets; but no Slender-billed Gulls, whose eggs I have taken in Southern Spain. The Adriatic Gulls were only beginning to lay, and we found but a few nests, with one and two eggs. We asked the fishermen to take some for us later, and sent down for them on the 10th of June, when we got a good series, but no clutches, as the men go round every day and take them to eat, and I think will drive away the birds from these islands before long, as the birds do not get much chance to hatch off. The eggs I am sending to you were sent to me last summer by Mr. Hodder, who thought I might like to have some more. He went down to the mouth of the Maeander about the middle of June, 1904, and got them from the fishermen. You will see that, as a rule, they do not at all resemble those of the Slender-billed Gull. Some, however, which are whitish or white in ground-colour, are indistinguishable from eggs of that species. The Adriatic Gull used to breed in large colonies not long ago at the salt-lagoons near Smyrna; but I think they have now left that district as a breeding-station, at least I could not find them, though I have been there several times."]
LARUS ATRICILLA, Linnaeus.

§ 4547. Two.—From Dr. Brewer, 1848.

§ 4548. One.—From Dr. Brewer, 1851.

[§ 4549. Three.—Charlotte Harbour, Florida. From Dr. Heermann, 1861.]

[§ 4550. Two.—From Dr. Brewer (1864?).]

LARUS ICHTHYAEATUS, Pallas.

[§ 4551. Two.—“Sarepta,” Volga. From Herr Möschler, 1866.

[§ 4552. Two.—From Herr Möschler, through Mr. Norgate, 1869.

I believe there can be no doubt as to the genuineness of these eggs, but some doubt may be entertained as to the precise locality whence they came, and it seems more likely to have been from the islands of the Caspian Sea, where the species has been known to breed since the days of Pallas, than near Sarepta on the Volga. It is not included in Herr Möschler’s list (Naumannia, 1853, p. 303), but he may have met with it after that was drawn up. To the evidence adduced by Mr. Dresser (B. Eur. viii. p. 371) may be added the statement of Jakovlev in 1872 (Bull. Soc. Imp. Nat. Moscou, xlv. p. 358), which, as interpreted for me from the original Russian, runs thus:—“Breeds in companies on the islands of the Caspian Sea; occurs, but much more rarely, in the delta of the Volga, and on the steppe-lakes of the Government of Astrakan”; while Herr Henke seems to have especially named “the Seal Islands” in that sea to Mr. Seebohm (Ibis, 1882, p. 230) as a breeding-place.]

1 [Evidently a mistake for atricapilla, but one that it is too late now to correct.—Ed.]
**LARUS GELASTES,** “H. Lichtenstein,” _fide_ Thienemann.


Writing to me from Southampton on the 20th of August, 1870, Mr. A. S. Cullen enclosed a list of eggs sent to him by Dr. W. H. Cullen, of Kustendje, in which the name of _Larus tenuirostris_ (=gelastes) was included. I therefore asked him to let me have a complete sitting, and in due time received these. I made further enquiries of him, and he wrote to me on the 30th that “The three light-coloured eggs of _L. tenuirostris_ that I sent you were all found in the same nest, and therefore I conclude they are the produce of one bird.” He went on to say that “The birds were caught with a peculiar kind of horsehair mouses, especially adapted to catching birds on the ground. I have myself employed them on numberless occasions with never-failing success. . . . _Sternia anglica_ and _S. cantiaea_ were both observed in the neighbourhood of where _Larus tenuirostris_ was found breeding, and a few of their eggs were taken; but I do not think that any were seen on the ground actually occupied by the Slenderbill. As to the genuineness of the eggs, you must not have any doubt on that score, for especial and very great care was taken in collecting them. The eggs of _L. tenuirostris_ when fresh have a beautiful roseate tinge about them, and this characteristic is not, I believe, observable in any other bird of the same class, and would alone be almost sufficient to distinguish them from those of any other Gull or Tern. As to the eggs I sent you as _L. tenuirostris_ being those of _S. anglica_ or _S. cantiaea_, as your remark would almost imply, that seems to me quite impossible, as they are a great deal too large . . . I am sorry to say that I cannot give you any particulars at present as to the nesting of _L. tenuirostris_, as I have sent the paper I received on that subject to Dr. Bree, of Colchester, preparatory to its being inserted in ‘The Field.’” This paper was published in that newspaper for 10 September, 1870 (p. 236), and, in 1876, reprinted by him in the Second Edition of his ‘Birds of Europe not observed in the British Isles’ (v. pp. 73–75), when he also figured three of the eggs sent to him. The breeding-place is described as being on small islets, partially covered with reeds, in lagoons of brackish water separated by low sandbanks from the Black Sea. The nests, made of seaweed, covered a space thirty feet long by fifteen feet broad. All contained eggs, but not more than three in each. At first the birds were not at all shy, but several having been caught on their nests on two occasions, the next day the spot was entirely deserted by the survivors.]


Mr. Dresser wrote:—“Herewith I send a clutch of two eggs of _Larus gelastes_, which I took when with Mr. Hanbury Barclay on the Guadalquivir. We found a small colony on a piece of dried mud at Lúcio Reál, and took several clutches. In almost every nest there was a feather or two of the Flamingo. This clutch is the most characteristic of those I have.”]
**LARUS CANUS, Linnaeus.**

**COMMON GULL.**

§ 4555. *One.*—From Mr. Reid, of Doncaster, 1844.

Mr. Reid says it came from Hornsey Mere in Yorkshire, but I think the bird does not breed there. He is thinking of the Black-headed Gull.

§ 4556. *One.*—From Mr. Hancock, 1846.

§ 4557. *Twenty-six.*—Loch Urigil, Sutherland, 19 May, 1849.

On the large island in this loch, which has somewhat short grass or vegetation, I took about forty Common Gulls' eggs. They were mostly a few days sat upon, and in most of the nests were three eggs. I shot one or two of the birds to examine. Four of the eggs given to Dr. Frere in 1850.

§ 4558. *Five.*—Loch Assynt, Sutherland, 22 May, 1849.

On the little island, with celery, daffodils, Wild Ducks' nests, and Goose-droppings, were a few nests of Common Gulls. I selected five of their eggs as varieties, or the best marked as specimens. Here three was the number of eggs in the nest. I shot some of the birds, if not at this island, certainly from the old castle. I saw no Kittiwakes on these lochs.

§ 4559. *One.*—Sutherland. From Mr. W. Dunbar, 1850.

§ 4560. *Six.*—Orkney, 1851. From Mr. G. Harvey, of Stromness.

§ 4561. *Three.*—Assynt, 1851.

Sent by John Sutherland. These are probably from Loch Urigil, where I took their eggs in 1849 [§ 4557]. No other Gull except the Lesser Black-backed breeds there, or in the neighbourhood.

[A fourth egg given by me to Mr. A. C. Smith, in 1862.]
§ 4562. One.—Shetland.

[Inscribed but not entered in the Egg-book by Mr. Wolley.]

§ 4563. One.—Patsjoki, 9 June, 1855. "J. W."

A few Common Gulls breed on the islands of the wide part of the Patsjoki. I shot one, and saw others well [cf. § 4154].

§ 4564. Four.—Tamsö, East Finmark, 1855.

Sent by Herr Peder K. Ulieh as Krykke [Kittiwake], which they certainly are not. Said to have been found "on the strand," which is likely enough.

[§ 4565. One.—From Mr. R. Reynolds, before 1848.]

[§ 4566. One.—Shetland. From Mr. Dunn, 1851.]

[§ 4567. One.—Unst, Shetland, 1854.

From Mr. James Smith, the schoolmaster there.]

[§ 4568. Two.—Henörnce, Russian Lapland, 1855.

These I bought in East Finmark of one Dahl, who had them from some fishermen who were just come from these islands, the reported breeding-place of Somateria stelleri.]

**LARUS AUDOUINI**, Payraudeau.

[§ 4569. Two.—Toro, Balearic Islands, 25 May, 1874. From Lord Lilford.

Lord Lilford wrote to me from London on the 6th of July following, announcing his return from the Mediterranean, where he had met with "what I think I may, without vanity, call a great ornithological success, having inter alia obtained three fine adult specimens of Larus audouini, with eleven eggs, and two young birds, now alive in the Zoological Gardens," and offering me two of the eggs, which duly came into my hands. Lord Lilford subsequently published his notes on the finding of these eggs in 'The Ibis' for 1875 (p. 31).]
LARUS CACHINNANS, Pallas.

[§ 4570. One.—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1862.]

[§ 4571. One.—Greece, 3 May, 1863. From Dr. Krüper, through Herr Seidensacher, 1864.

Received under the synonym of L. michaellesi. The only notes published by Dr. Krüper on this bird that I can find are in his Catalogue (Griechische Jahreszeiten, 1875, pp. 301, 302), wherein it is regarded as specifically identical with Larus argentatus, and stated that it breeds on rocky uninhabited islands about the middle of April.]

[§ 4572. Three.—Island of Marmora, Turkey, 19 May, 1866. From Mr. Robson, of Ortakeuy, near Constantinople.]

LARUS ARGENTATUS, Linnaeus.

HERRING-GULL.

§ 4573. Five.—Yorkshire Coast, 1843.

From Wilson, of Bridlington, who had numbers of them from some of the cliffs in the neighbourhood. It is almost impossible to distinguish them from the eggs of the [Lesser] Black-backed Gull, which fortunately very rarely breeds there. In September the Herring-Gulls were abundant at Scarborough, and but very few Kittiwakes. The one in our garden [at Beeston] was born at the South Foreland, and kept at St. Margaret’s, in 1841. Every intermediate variety of the egg may be found.

§ 4574. One.—Treshenish, Argyll, 1844. From Mr. G. D. Rowley.

Taken by Mr. Rowley in Treshenish Island, near Staffa.
§ 4575. _One._—Badcöll, Sutherland, 5 June, 1849.

I saw a Herring-Gull leave its nest on a cliff. I climbed to it from the boat, took the egg, and descended by the mast, nearly capsizing the boat in so doing. One egg only.

§ 4576. _One._—Orkney, 1850. From Mr. G. Harvey, of Stromness.

§ 4577. _Three._—Ekkerö, East Finmark, 29 May, 1855.

"J. Wolley."

[Not entered by Mr. Wolley, but bearing his name as taken by himself.]

§ 4578. _Three._

Hornö, East Finmark, 31 May, 1855. "J. W."

§ 4579. _Two._

§ 4580. _Three._—Reenö, East Finmark, 2 June, 1855. "Bird well seen. J. W."

I took them as being fine large eggs, the bird having been watched on them by myself.

§ 4581. _One._—Reenö, 2 June, 1855. "Bird well seen. J. W."

§ 4582. _One._—Vardö Islands, East Finmark, 1855. "J. W."

§ 4583. _Two._—Tamsö, East Finmark, 1855.

[Sent by Herr Ulke as those of the "Lille blaa Maage," which should mean _Larus canus_, but these are so big that they can scarcely be other than _L. argentatus_.]

[§ 4584. _Two._

South Warnsöy, Farne Islands, 21 June, 1851.

[§ 4585. _One._

Taken by my brother Edward and myself, and considered to be most likely Herring-Gulls.]
§ 4586. One.—Unst, Shetland, 1854. From Mr. James Smith.


Taken by Mr. Hudleston on our midnight visit to the islands off Vardø.

§ 4588. Two.—South Warnsey, 23 June, 1856.

These identified by my brother and myself.

§ 4589. Two.—North America. From Dr. Heermann, 1861.

§ 4590. Three.—Rathlin, Ireland, 25 May, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote that these were taken at the same place and time as those of Larus fuscus which he also sent me (§ 4593), and by the same man.

§ 4591. Three. Freshwater, Isle of Wight, 1886. From Baron Anatole von Hügel.

The three were from one nest: the single egg is a curiously pear-shaped specimen.

§ 4592. One.

LARUS sp. incert.

§ 4593. Four.—Reenö, East Finmark, 1855.

These are of the red-spotted variety of Gull's egg which is found in the islands off Vardø—namely, Reenö and Hornø, and also, according to Brandt, sometimes on the Lofoten. Near Vardø all the naturalists have been taught to believe that these eggs belong

1 [Apparently the Danish Lieutenant Thor Brandt, Dr. von Middendorff's fellow-traveller in Siberia in 1843-5 (cf. Von Middendorff, 'Reise' u. s. w. I. 1. p. xiv), is here intended. Herr Nordvi met him at Copenhagen in 1846; but when he was at the Lofoten Islands I know not.—Ed.]
to *Larus glaucus* and *L. islandicus*, and Herr Nordvi shewed me eggs so marked by Dr. Kjærbölling which had been sent to him thence for identification. However, I could see nothing nearer the supposed species than the Herring-Gull during my visits to the islands, and indeed at my last interview with Herr Nordvi he asserted that they were Herring-Gulls'. It is said that occasionally there will be eight or ten nests with eggs of this character found in a season on Hornö. They are much valued by the people for exportation.

[Pastor Sommerfelt subsequently came to the same conclusion (Elv. K. Vet.-Akad. Förhandl. 1861, p. 84); but some of the eggs from the islands off Vardö seem to be too big for *Larus argentatus*, and are quite big enough for *L. marinus*, to say nothing of the fact that *L. fuscus* breeds also in the same islands. I therefore prefer leaving them as uncertain, but they are much too beautiful and curious to omit. A series may be traced beginning with the almost colourless or extremely pale blue examples, not unfrequently occurring in Gulleries where the eggs are very much robbed, to examples shewing a slight blush of pink in the ground-colour, intensified in the spots or blotches into light red, and so till highly ruddy hues are reached. A similar style of coloration is presented by the ordinary eggs of *Anous* and *Sterna fuscina*; and the case seems analogous to that of certain *Corvidae*, as before mentioned (§ 2796).]

§ 4594. Two.—Tamsö, 1855. From Herr Peder K. Ulich.

[Sent as "Blaae Maaye," that is *Larus argentatus*, which they most likely are.]

§ 4595. Two.—Reenö, 1856.

[From Herr Sommerfelt.]

§ 4596. Two.—Reenö, 1857.

[Three of the above lent to Mr. Lee for him to draw.]

[§ 4597. One.—Fuglö, West Finnmark, June, 1894. From Colonel Feilden, 1895.]

Colonel Feilden wrote to me:—"In July last I saw a basket full of eggs exposed for sale to tourists in a shop at Tromsö. The owner told me they were brought from Fuglö and Arnö. In the basket which contained only Guillemots' and what might be either Lesser Black-backed and Herring-Gulls', I detected the accompanying red egg... The man could not possibly have any object in saying that the eggs came from Fuglö if they did not do so.
Therefore I think we may accept the locality as correctly given. I paid two-pence each for the ordinary eggs, but he asked me a krone for the red one. Had this egg come from Vardö he would, if a rogue, have expatiated on the distance it had been brought and so on."

LARUS AFFINIS, Reinhardt.

[§ 4598. Three.—Golchika, Jennesci Valley, 10 July, 1895. From Mr. C. B. Hill, 1896.

Mr. Hill accompanied Mr. Popham, who wrote of this species (Ibis, 1897, p. 106):—*It is by far the commonest Gull on the lower reaches of the river, nesting in colonies, mostly on small grassy islands in lakes, occasionally on dry ridges in swampy ground. We obtained a good series of their eggs, which varied considerably, and also specimens in various stages of plumage, from the young in down to the mature bird. The eggs measure: 2.66 to 3 in. by 1.8 to 2.05 in." Mr. Popham considers that this species more nearly resembles Larus fuscus than L. argentatus.]

LARUS FUSCUS, Linnaeus.

LESser Black-Backed Gull.

§ 4599. One.—Northumberland, June, 1843. From Mr. Proctor, 1844.

Mr. Proctor wrote that this was taken by himself on some moors twenty miles to the north-west of Hexham, belonging to Mr. Charlton, of Hesleyside.

§ 4600. Two.—Coast of Northumberland. From Mr. Tuke, 1846.

§ 4601. Two.—Loch Urigil, Sutherland, May, 1849.

I found two nests on Loch Urigil, where I saw no Herring-Gulls; but afterwards John Sutherland told me he had seen a Herring-Gull on another loch. There is little doubt that these are Black-backed.

§ 4602. Two.—Færöe. From Sysschnand Müller, 1849.

I took a nest of the Lesser Black-backed Gull on the 18th of July on a hill between Kirkeboe and Thorshavn. Lykka is the native name of the bird.
§ 4603. *Three.*—North of Scotland. From Mr. W. Dunbar, 1851.

§ 4604. *Five.*—Assynt, Sutherland, 1851.

Probably from Loch Urigil, where the bird breeds in company with the Common Gull [§§ 4557, 4561], but, as far as I saw, no Herring-Gulls. Sent by John Sutherland, gamekeeper at Ledbeg.

§ 4605. *One.*—Færoë, 1852. From Sysselmand Müller.


[Inscribed by Mr. Wolley, but not entered by him in the Egg-book. Apparently from different tests.]

§ 4607. *One.*—Færoë, 1856. From Sysselmand Müller.


[§ 4609. *Twelve.*—North and South Warmseys, Farne Islands, 21 June, 1851.

These taken by my brother Edward and myself, and most likely all belonging to this species, not that we were able to satisfy ourselves wholly as to some of them. In cases where we did not see the bird actually on the nest, we saw one or both close to it. At low water these two islands are joined by a bank.]

[§ 4610. *Two.*—Unst, Shetland, 1854. From Mr. James Smith.]

[§ 4611. *Three.*—Pinnacles, Farne Islands, 18 June, 1856. "Bird well seen on nest. E. N."


On our visits in 1856 we took, or at least kept, no Gulls' eggs but those on which the parent bird was seen.]
Mr. Harvey wrote that I might fully rely on the genuineness of these, as of other eggs from Rathlin. They were taken as above on the cliffs of Kintruan Head in that island by John Smith, Mr. Gage's shepherd, who "first watched the bird to and from its nest, and having marked the nest brought Mr. Gage to verify it before taking the eggs."  

Of these Mr. Service wrote that they "were identified beyond all doubt, as they were in one of seven nests which formed a small colony on the north shoulder of the Craig. All the birds were sitting on the nests before we went forward. I did not see the Herring-Gull except on the cliffs, and the Lesser Black-backs were all on the open hillocks."

LARUS MARINUS, Linnaeus.

GREAT BLACK-BACKED GULL.

On the Holm of Noss I shot Black-backed Gulls, and found three of their nests—generally with two eggs. They have been robbed every Saturday—even lasses go over in the "cradle."  

[Here follows]
a rude sketch]. There are pulleys in the posts, and the ropes, which are very good, and of considerable thickness, are very firmly and securely fastened. The cradle runs rather down hill to the holm. There seemed to me a greater feeling of insecurity or giddiness than in rock-climbing, and without assistance there is some risk in getting in and out of it, for as it is on a slope it may suddenly slide away on being touched, if it is not done with great care. It was not slung in 1848 or in 1850.

§ 4616. Two.—Orkney, 1850. From Mr. George Harvey, of Stromness.

§ 4617. One.—Færøe, 1850. From Sysselmand Winther.

§ 4618. Three.—Orkney, 1851. From Mr. G. Harvey.

§ 4619. Six.—Færøes, 1852. From Sysselmand Müller.

1 [Rough as is this sketch, I doubt not it is pretty accurate, and I reproduce it here (p. 331), since, so far as I know, the only figure of the "Cradle of Noss," of which so many authors have written, is that given by Pennant in the "Introduction" to his 'Arctic Zoology' (vol. i. pl. iv. p. xxx) from a drawing taken by Low in 1774, which must be deemed rather fanciful, while the plate was wrongly lettered "Bird Catching at Orkney," though in the text Noss is rightly assigned to Shetland. In his day "the machine called a cradle" had "a bottom of ropes" (Tour through the Islands of Orkney and Shetland, &c., by George Low, edited by Joseph Anderson. Kirkwall: 1879, p. 192); but it will be seen from Mr. Wolley's sketch that bars or slats of wood had been substituted, and the pulleys appear to have been a modern improvement. According to Messrs. Evans and Buckley (Vertebr. Fauna of Shetland, p. 183) the use of the cradle was given up in 1864, but in their volume there is a fine view, from a photograph by Mr. Norrie, of the fissure which separates the Holm from the main island. The width of this chasm, as well as the height of the cliff, has been variously stated, and some of the estimates are obviously exaggerated. The former, on information kindly furnished by Sir Archibald Geikie, is 99 feet, and the latter about 160. The flat top of the Holm covers more than two acres and a half, and afforded excellent grazing for the sheep which were formerly conveyed to and from it in the cradle. This contrivance is known to have existed before 1633, being mentioned in Monteith's Manuscript of that year, published by Sibbald in 1711 (reprinted Edinburgh: 1845, p. 63); but, Mr. Wolley excepted, I am not aware of any traveller, naturalist or otherwise, having availed himself of it to reach the top. Both in 1867 and 1868 I saw Great Black-backed Gulls at the Holm of Noss; but no great number of them.—Ed.]}

[Inscribed by Mr. Wolley, but not entered in the Egg-book.]


On a crack in a flat rock I watched the birds some time, and had Herring-Gulls standing near them for comparison. One of the Great Black-backs was most undoubtedly incubating these small eggs. No other nest of a Gull near.

[One of these eggs is almost colourless.]


[This was most likely taken at the same time and place, but Mr. Wolley omitted to enter it in the Egg-book. It is very deficient in colour, like one of the last.]

§ 4623. *Two."


§ 4625. *One.*

[The two pairs of normal appearance, the single egg in colour not unlike that of a *Columbua.*]

§ 4626. *Three.*


§ 4628. *One.*

[The first five of these pale in colour and sent as those of the “Large Blue Mew,” by which Herr Ulich meant *Larus glaucus,* for the good people at Tamsö had been instructed so to call the very pale-coloured eggs not unfrequently met with there, but without any evidence, so far as I am able to ascertain, of that species breeding there or elsewhere on the Norwegian islands. The sixth of these eggs is very remarkably coloured, of a dull lavender with clouded markings of a darker shade. I ascribe them all to *L. marinus* without much doubt.]
§ 4629. Three.—Kýrkjuvogur, Iceland, 24 May, 1858.

"J. W."

I took these eggs from a nest on an island in the fjord, the two birds flying over me, and no other Gulls about the island. Mr. Newton sat in the boat, and confirms my views as to the species. We had been to dig for Great Auks' bones at Old Kýrkjuvogur.

[I must here confess that I am sure both of us were mistaken as to the species, which at the time we agreed in thinking to be *L. fuscus*, neither of us then knowing that it did not occur in Iceland, while we had no means of judging the size of the parent birds we saw. These eggs are fully as large as those of *L. marinus* usually are, and I have no doubt belong to that species.]

[§ 4630. One.—From Mr. R. Reynolds, not later than 1845.]

[§ 4631. Three.—Firth of Forth, 1846. From Mr. R. J. Thompson.]

[§ 4632. Two.—Halifax, Nova Scotia, 1853. From Mr. A. Downes.]

[§ 4633. One.—Unst, Shetland, 1854.]

[§ 4634. Six.—Unst, 1855.

All from Mr. James Smith, the school-master on that island.]

[§ 4635. Two.—Hornø, East Finmark, 17–18 June, 1855.

"W. H. S."

Taken by Mr. Hudleston, on the night indicated, when he and I visited the two islands, Hornø and Reenø, lying off Vardø.]

[It seems that Mr. Milner certainly took some eggs of this species in Iceland, but unfortunately this is not one of them. He got it from Herr Carl Siemsen, of Reykjavik, and it was said to have been taken on a small island in the Faxa Fjord; but I have my doubts whether *Larus glaucus* breeds so far to the southward, while *L. marinus* certainly does.]

§ 4637. *One.*—Greenland, 1852. From Mr. Hancock, 1853.

Sent to Mr. Hancock from the south of Greenland, and the only one sent.

§ 4638. *One.*—Iceland, 1852. From Mr. Proctor, 1853.

Like all Mr. Proctor's Icelandic eggs, this was said to come from the north of the island, for there alone had he correspondents, and I believe it is certain that *Larus glaucus* breeds in that part.


These two eggs, from, I believe, different nests, were given to me by the gentlemen above named, on their return from their voyage to Spitsbergen, for which place Mr. Hudleston and I, with somewhat envious feelings, saw them embark at Hammerfest, in June, 1855. They subsequently contributed an account of their proceedings to the first volume of *The Ibis* (1859, pp. 166–174), in which they say that they first set foot on one of the South Cape Islands of Spitsbergen about midnight of the 20th and 21st of June and found, among other birds, this species in immense numbers. "The large untidy nests of the Glaucous Gull, formed of sea-weed, and each containing usually three eggs, were to be found also on the shore, or more often on the low rocks, and in one or two instances even built on the masses of ice . . . . Their eggs seem hardly distinguishable from those of the Great Black-backed Gull (*Larus marinus*, L.), which bird, however, has never, we believe, been found in Spitsbergen, though abundant enough even in the north of Norway. The specimen so faithfully represented by W. C. Hewitson in the last edition of his *Eggs of British Birds* (pl. 141. fig. 2) was obtained by us on this occasion." In fact I sent the specimen to Mr. Hewitson, feeling sure of its genuineness.]
§ 4640. One. — Ice Sound, Spitsbergen, 28 June, 1864.

"A. J. M."

Taken by Dr. Malmgren, who was naturalist to the Nordenskjöld Expedition of that year, and given by him, on board the vessel of the expedition, in the morning of the 17th of July, to the late Mr. Graham Manners-Sutton, my fellow-guest on board the 'Sultana,' who was sub-equently good enough to let me have it. The Swedish ship sailed the same day, so that I had not the opportunity of asking Dr. Malmgren the precise position of the nest, but it was on one of the upper branches of the fjord, where he and his leader had been for some days before we met them (cf. Ibis, 1865, p. 208).]

§ 4641. Two. — Arctic Coast of America, east of Anderson River, 6 July, 1863. From the Smithsonian Institution, through Professor Baird.

The label sent with these shews that they were part of Mr. MacFarlane's spoils, and that the parent was shot from them. He writes of this species (Proc. U.S. Nat. Mus. xiv. p. 417):—"Altogether some twenty nests were gathered by our collecting-parties, chiefly on sandy islets in the bays of Franklin and Liverpool, and a few of these were also found on islands in the Lower Anderson; but the bird itself was observed in various localities. Fifteen of the nests contained two eggs each, and but five had as many as three. The nest was usually a shallow depression in the beach, while in one of them we discovered an egg of the Black Brant which was being incubated by a bird of this species. The egg of the Goose was in a more embryo-developed stage than those of the Gull, which we always considered as about the bravest of the Larideae in defence of its eggs and young."


Mr. Eaton accompanied Mr. Benjamin Leigh-Smith in his voyage that year. With this perfect specimen was sent the hatched-out half shell of another, marked by Mr. Eaton as having been taken on the 13th of the same month.

§ 4643. Two. East Greenland (1870?). From the Second North-German Polar Expedition, through Dr. Otto Finsch, 1871.

Zweite deutsche Nordpolarfahrt, ii. pp. 231, 243.

According to Dr. Pansch (at supra), the Expedition met with several breeding-stations of this species, the largest being at Walrus Island, where there were from fifty to sixty nests, placed both on and at the foot of the cliffs,
most of them containing eggs, from one to three in number, on the 10th of June. Smaller stations were observed at Cape Borlase Warren, Cape Mary, Jackson Island, and other places. Though the Expedition met with L. leucopterus, it seems not to have been found breeding, and the size of these eggs justifies their assignment to L. glaucus. Two of them are so much alike that they would appear to be from the same nest, but there is nothing to shew the precise locality where any of them were taken.]

[§ 4645. Two.—Cape Flora, Franz Josef Land, 29 June, 1895.

Jackson-Harmsworth Expedition, through Mr. Dresser, 1905.

By the good offices of Mr. Dresser I was enabled to acquire these eggs from Mr. Jackson, the leader of the Expedition, who, writing of this species in his work ('A Thousand Days in the Arctic,' ii, pp. 403, 404), says: "A couple or two of these birds we found nesting upon all the Capes reckoning from Cape Flora to Cape Neale. They built a nest on inaccessible points amongst the high basaltic cliffs. The only eggs we obtained I secured on June 29th, 1896, when I found a pair nesting upon the top of the lower tier of rocks on Cape Flora." In Mr. Frohawk's "Notes and Descriptions of the Eggs" collected by the same Expedition (tom. cit. p. 391) a fuller account is furnished:— "The nest was found by Mr. Jackson upon a precipitous grassy mound (formed of broken debris from the cliffs above and guano from the Guillemots) above the lower tier of rocks overhanging the talus of Cape Flora at an altitude of about six hundred feet above the sea. Mr. Jackson gives me the following interesting particulars: 'The nest consisted of a mass of dried grass, feathers, and moss, and was of considerable dimensions. It contained two eggs. One of the birds, on my approaching the nest, scattered some of the materials of the nest over the eggs, with intent to conceal them undoubtedly. The old birds showed considerable courage in defending the nest, swooping down within a foot or two of my head, and uttering loud screeches as they passed.'" These eggs are mentioned in Mr. Jackson's narrative (tom. cit. p. 82).

These eggs are somewhat undersized, measuring respectively 2.75 by 2.06 and 2.87 by 2 inches; but there is no evidence that L. leucopterus, the only species likely to be mistaken for L. glaucus, occurs in Franz Josef Land.]

LARUS LEUCOPTERUS, Faber.

ICELAND GULL.

§ 4646. One.—"Godthaab, Greenland."

§ 4647. One.—"Greenland."

From Captain Helbøll's Collection, through Mr. J. D. Salmon, 1855.
The above were got for me, as the last from Carl Holbøll’s lot, by Mr. Salmon.

[Capt. Holbøll’s collection was consigned to the late Mr. Samuel Stevens in the autumn of 1854, to be disposed of privately. Mr. Wolley, being then abroad, had to content himself on his return with the leavings of it (cf. §§ 184, 185).]


[§ 4649. One.—“Greenland,” 1858.

The Doctor informed me that these eggs were obtained from the Moravian settlements in North Greenland, but he had unfortunately not kept a note of whether he had them through Dr. Kjærbølling or Herr Mööchler.]

LARUS RISSA, Linneus.

KITTIAKE.

§ 4650. One.—Flamborough, Yorkshire, 1843.

From Flamborough, where they breed in abundance.

§ 4651. Sixteen.—Flamborough. From Mr. Williamson, of Scarborough, 1847.

Mr. Williamson gave me the pick of a very large number. The eggs vary much and form a fair series. The streaked variety is rare. The ten marked “Cab.” [i.e. cabinet] I have selected to keep at all events; but nearly all are desirable. Mr. Williamson stops the holes with plaster of Paris.

[There were eighteen picked out by Mr. Wolley, but two were sent by me to Dr. Heermann in 1861.]

§ 4652. Four.—Handa, Sutherland, 6–8 June, 1849.

§ 4653. One.—Handa, 9 June, 1849. “J. W.”

Of the Kittiwake I got nests in Handa, but I have a note that there it was only beginning to lay, yet on the 19th of June or thereabouts in Shetland almost all the eggs on the Holm of Noss were
hatched, and there were some large young ones. Of the five from Handa only one is marked as taken by myself. Probably the other four were taken by my men.

§ 4654. One.—Isle of May, 1850.

[This egg was inscribed by Mr. Wolley, but not entered by him in his book. It appears to have been taken on the occasion of his visiting the island with a party, one of whom, Mr. Calder, went down the cliff and gathered the eggs of this species and Guillemots (vide infra), some of which Mr. Wolley kept to “shew the station.” Earlier in the year he had been there in search of a Falcon’s nest, which he could not find.]

§ 4655. One.—Hornø, East Finnmark, 31 May, 1855. “J. W.”

[Inscribed but not entered by Mr. Wolley.]

§ 4656. Eight.—Recnø, East Finnmark. [2 June, 1855?]

[These are all inscribed by Mr. Wolley but not entered, and his marks shew that they are three pairs and two single eggs. He was on this island on the 2nd of June, 1855 (§§ 4580, 4581, 4621), and I have no doubt obtained them then.]


§ 4658. Three.—Sværholt-klubben, East Finnmark, 1855.

Obtained at Herr Skeneke’s (of Polmak on the Tana River), to whom they were sent for eating, from Hopseidet, to the south of Nord Kyn; but they were taken on Sværholt, which is the promontory between the Porsanger and the Laxa Fjords. I saw many Kittiwakes about it on my passage eastwards.

§ 4659. One.—Sylte Fjord, East Finnmark. “J. W.” [1857?]

[This egg was duly inscribed but not entered by Mr. Wolley. Sylte Fjord is a little to the north-west of Vardø, in that part of East Finnmark which was diligently explored by him in 1857, in the hope of finding the Knot breeding there, as it had been asserted to do by Herr Malm, of Gottenburg.]

[§ 4660. One.—Shetland. From Mr. Robert Dunn, 1851.]
[§ 4661. Two.—Staples, Farne Islands, 21 June, 1851.
Out of six obtained, if not actually taken, by my brother or myself.]

[§ 4662. Two.—Flamborough, 1851.
Bought of Mr. Jones, of Bridlington Quay.]

[§ 4663. One.—Hornø, 17–18 June, 1855.
Taken by Mr. Hudleston or myself.]

[§ 4664. One.—Pinnacles, Farne Islands, 18 June, 1856.
"A. & E. N."]

[§ 4665. One.—Pinnacles, 23 June, 1856. "E. N."]

[§ 4666. Three.—Rathlin, Ireland, 6 June, 1863. From Mr. Robert Harvey.
Mr. Harvey wrote that these "eggs are a nestful carefully set aside for me at Mr. Gage's desire by the climber, who took them with several dozens of the same species from the Rackheads on the north side of Rathlin."]

**LARUS EBURNEUS**, Phipps.

**IVORY-GULL.**

[§ 4667. One.—"Spitsbergen." From Herr H. Mechlenburg,
of Flensborg, through Dr. Baldamus, 1861.

The Doctor wrote to me that he got this from the lately deceased Apothecary Mechlenburg, of Flensborg, who had received five or six with birds from a whale-fisher who had obtained them in Spitsbergen. This egg I exhibited at the meeting of the Zoological Society on the 10th of December, 1861; but in the absence of more precise information concerning it I forebore to have it figured.]
LARUS EBURNEUS.

§ 4668. One.—Murchison Bay, Spitsbergen, Lat. 80° N., Long. 18° 30' E., 30 July, 1861. From Professor Sundevall, through Herr Meves, 1867.


This egg was sent to me as one of the two of Larus eburneus taken in Spitsbergen by Dr. Malmgren. Being with my brother Edward at Stockholm in July, 1867, we shewed Prof. Sundevall some Dodos' bones we had with us, for which he was good enough to say he would let us have one of these eggs in exchange. Herr Meves, however, being away at the time, the eggs were inaccessible, and it was not until September that I received this one. In the meanwhile Prof. Sundevall had written to me, on Herr Meves's return, that he regretted to say that both eggs had been dropped on the ground the year before, and were much broken. The specimen sent to me was the least injured and presents a fair show face. Unfortunately these eggs do not seem to have been ever written upon by Dr. Malmgren, so as to ensure their identity; but Herr Meves I know to have been a most careful man, and he would hardly have let specimens, the great value of which he knew as well as anyone, like these to have been mixed with others.

Dr. Malmgren's account given, as above stated, to the Swedish Academy of Sciences is as follows (cf. Ibis, 1865, p. 507):— "On the 7th of July, 1861, I found on the north shore of Murchison Bay, lat. 80° N., a number of Ivory-Gulls established on the side of a steep limestone precipice, some hundred feet high, in company with Larus tridactylus and L. glaucus. The last-named occupied the higher zones of the precipice. Larus eburneus, on the other hand, occupied the niches and clefts lower down, at a height of from fifty to a hundred feet. I could plainly see that the hen-birds were sitting on their nests; but these to me were altogether inaccessible. Circumstances did not permit me before the 30th of July to make an attempt, with the help of a long rope and some necessary assistance, to get at the eggs. On the day just named, I succeeded, with the assistance of three men, in reaching two of the lowest in situation, which each contained one egg. The nest was artless and without connexion, and consisted of a shallow depression, 8 or 9 inches broad, in loose clay and mould on a sublayer of limestone. Inside it was carelessly lined with dry plants, grass, moss, and the like, and also a few feathers. The eggs were much incubated, and already contained down-clad young. Both the hen-birds were shot upon their nests, and are now in the National Museum. The cocks were at first observable, but they vanished when we began the work of reaching their nests."

§ 4669. Two.—Storö, North-east Land, Spitsbergen, 8 August, 1888. From Herr Foslø, 1888.

Sent to me by Herr Foslø, Conservator of the Museum at Tromsø, as being from a number (nineteen, it was said) brought to that town by the master of
the ship 'Rivalen,' Edv. H. Johanssen, who took them as above stated in lat. 80° 9' N. Ten of the eggs were offered to me, and I would gladly have become possessed of all of them, had full particulars been at first forthcoming. As it was, I only succeeded, after a somewhat long correspondence, in obtaining these two, which seem not to be a pair, and they had meanwhile been sold to someone else, from whom Herr Foslie recovered them. He informed me that they were the smallest of the nineteen: indeed they are quite as small as Kittiwakes', but they may be genuine for all that. I lent both of them to Mr. Oswin Lee to draw. A nest, eggs, and two young birds, obtained at the same time as these (but by Capt. Harrison, and belonging to the Tromsø Museum), were sent by Professor Collett for exhibition to the meeting of the Zoological Society, 5 June, 1888 (Proc. Zool. Soc. 1888, pp. 291, 292).

[§ 4670. One.—Cape Mary Harmsworth, Franz Josef Land, 7 August, 1897. From the Jackson-Harmsworth Expedition, through Mr. Dresser, 1905.

Thanks to Mr. Dresser I became possessed of this egg. Notwithstanding his long stay in Franz Josef Land, it would seem that Mr. Jackson found only one breeding-place of the Ivory-Gull, and that was not until his last day in the country, and at its extreme western point. He writes ('A Thousand Days in the Arctic,' ii. p. 466):—"Immediately we landed we saw large numbers of shrieking and screaming Ivory Gulls collected in isolated colonies all over the two or three miles of bare stony ground. As we advanced we saw patches of old moss in various directions, which proved to be nests of this Gull. As we came up to them the birds became exceedingly excited, swooping down upon us with loud screeches and screams within a foot or two of our heads, and one or two of our party were even struck by them. In nearly all cases the nests were empty, owing to our late arrival, but a few contained young birds, and other young ones were running about in scores. Fortunately a few nests had eggs in them still, and I collected twelve . . . . As we advanced across the tongue of land, we came upon other patches of nests, and as we approached their owners took up the excitement . . . . The birds belonging to the previous colony quieted down as we left it, and their screeches and demonstrations ceased. In nearly all cases the nests were empty, but in some I found a single egg, and in two cases two eggs. The nests consisted of a low cone-shaped pile of dry moss, with here and there a white feather or two. They were 6 inches high with a base of from 2 feet to 30 inches, in those I measured, with a slight depression at the top where the eggs were laid. I took a number of photographs of these nests with the eggs and young birds; also one with the parent bird sitting on a nest containing two eggs, which I again photographed after it had flown off. I also took several photographs of the general aspect of the breeding ground. Had we been there a few weeks earlier we could literally have obtained hundreds of eggs." In a communication to Mr. Frohawk, printed in the same volume (p. 393), Mr. Jackson adds that the only vegetation of the ground where these birds were nesting "consisted of a few lichens, mosses, a saxifrage, and a grass growing in the
scanty soil. Here and there are a few ponds of thaw-water and swampy spots." Mr. Frohawk gives a detailed description and the precise dimensions of each of the twelve eggs, all of which were added as he found on blowing them, and three of them are figured on an uncoloured plate to face his account of them. Mr. Jackson also mentions the finding of this breeding-place of Ivory Gulls in his narrative (Tom. cit. pp. 354, 355.)

§ 4671. Two.—Abel Island, King Karl's Land, 3 August, 1901. From Herr Johan Direks.

Herr Direks wrote to me from Trondhjem (23 Sept., 1901) that he had taken these himself, the locality lying in 79° N. lat. and 30° 20' E. long. How many eggs and young birds he obtained I do not know, but he said that no nest contained more than one egg. Therefore these two were from different nests. He afterwards informed me that there were about thirty or forty nests, all of very rude construction, the eggs being often found lying on the bare stones, encircled by pieces of moss or lichen, lying loose together with splinters of wood and some feathers, without any depression but just as the ground chanced to be, though sometimes there was a substratum of earth. No other species of birds bred in the same place, but on other parts of the island were Long-tailed Skuas, Arctic Terns, and Eider-Ducks. The nests were placed from two to three metres above the sea.

STERCORARIUS CATARRHACTES (Linnaeus).

THE SKUA.

§ 4672. One.—Near Husevík, Northern Iceland, 1843. From Mr. Proctor, 1844.

[This bears the Icelandic name "Hákallu Skúrar," evidently written by a native.]

§ 4673. One.—Unst, Shetland. From Mr. Tuke, 1846.

Mr. Tuke says: "My correspondent is a schoolmaster in one of the northernmost of the Shetland Isles [Mr. James Smith, of Unst], who takes eggs from the poor people to pay for their children's schooling; and, partly to encourage the school, as I heard it was likely to be given up (the parents not being able to pay any money), I sent for a lot of eggs. Among them were a few undoubted Great Skuas', which he called so, and they were subsequently confirmed by my friend W. C. Hewitson. Indeed, there is but little resemblance to the Great Black-backed Gull [apparent] to anyone who has carefully compared the two. I hope to have another box of eggs from this
person soon, who quite understands eggs, although he is unacquainted with their relative value, and I merely send him a five pound note or so for the contents of his box.”

§ 4674. Two.—Unst, 1846. From Mr. Tuke, 1847.

Valuable and interesting as British, and from so good an authority.

§ 4675. Two.—Unst, 1849. From Dr. Frere.

These were kindly given to me by Dr. Frere, “as a bribe,” so he playfully expressed himself, to prevent my telling of his friend the schoolmaster in Unst, Mr. James Smith, from whom he obtained them. I have other eggs from the same locality presented to me by Mr. Tuke [§§ 4673, 4674]. In 1848 Mr. Edmondston referred me to Mr. Smith if I wished for eggs. I heard in Unst that the Skuas had been reduced to a single pair by the rapacity of skin-collectors; but they had been recovered by a vigorous effort of the proprietors. Dr. Frere wrote: “I don’t know that my Skuas’ are Mr. Edmondston’s . . . . but I am afraid my collector lives very near his birds, though he collected from other islands as well. I should be sorry to get him into any trouble that he may not deserve.”

§ 4676. Five.—Unst, 1850, 1851. From Mr. James Smith, through Dr. Frere, 1851.

These I value as British specimens from Unst.

§ 4677. Fifteen.—Sandøe, Færøe, 1 July, 1849.

We visited three of the breeding-places of this bird in Færøe—Sandøe, Viderøe, and Lille Dimon; Sysselmand Müller mentioned other stations to us. On the 1st of July, we [Mr. James Edge and Mr. Wolley] with the two Sysselmen to the Skuas [in Sandøe], and find fifteen or sixteen eggs. I take nearly all, but myself find only two nests. There were ten nests in all—some hard-set, others fresh. Very light-coloured eggs are said to be those of the second or third laying, not bleached as Mr. Hewitson thought. In one instance, at least, I found a dark and a light egg in the same nest. Never more than one or two eggs in a nest. The nest, a large well-formed depression in the moss, with the herbage around it
plucked. Skuas swoop from the nest—James's head nearly knocked off by them. Sometimes the loose bits of moss or grass lying near the nest, and sometimes the direction of the swoop, gave us indication of the locality. They look large birds on the ground. Their cry is not loud or constant. They do not seem flurried like other birds when people are near their nest. The top of the hill where they breed in Sandöe is an extensive flat, broken up into islands of turf, with intervening open spaces and channels of small fragments of stone, almost like the refuse of a Derbyshire mine-hillock, except in colour. These little stones were often arranged in curious chess-board patterns, probably by the action of snow or frost. This is well worthy of note. The cup-shaped hollows of nests of former years were numerous in the moss. The birds were a little shot down last year, as they began to kill sheep. I shot some by the lakes between Sands and Skohen, but not near the breeding-place. No Gulls bred near the Skuas.

[The eggs are not now separable into different nests, owing to the indistinctness of the pencil-marks originally placed on them.]

§ 4678. Two.—Videröe, Færöe, 18 July, 1849.

After dinner we walk with the pastor to see the Skuas. Last year two hundred and sixty eggs were taken. They have been much robbed this year, but the pastor kindly allows me to take two rather remarkably coloured eggs. We find some young. They run out of the nest when they are very small, and are covered with a tawny down, having blue legs. One of the old birds in making a swoop dashed its dung over the whole of the breast of one of our party.

On Lille Dimon, on the 27th of July, we took some young Skuas, which ate krang or whale's flesh or blubber most readily, but unfortunately they died on their way to Shetland.

On the 19th of July, before getting into Quanna Sound from Svinöe, I shot a Skua eating a Puffin. The first I saw was on the 25th of June, land then in full view, i.e. Færöe, seen for the first time. The white mark across the wings is a marked character of the Skua in flight. It identifies the bird seen in one of Parry's Arctic Voyages, and also one seen by Robert Goodsir in 1849.

1 [On this curious subject Mr. Wolley communicated a paper to the British Association for the Advancement of Science at its meeting at Leeds in September, 1858. He had his attention recalled to it during the previous summer, while in Iceland.—Ed.]
§ 4679. Thirty.—Sandöe, 1850. From Sysselmand Winther.

Out of forty-five kindly sent by the Sysselmand. He sent no other eggs than two Great Black-backs', so there was not the slightest risk of mistake. He lives at Sands, at the foot of the hill, where they breed, and he has a kind of right over the eggs.

§ 4680. Twenty.—Sandöe, 1851. From Sysselmand Winther.

From about fifty-four, of which I reserve a score to pick a series from. I incline to believe all to be of the first laying, as they are large specimens and fully coloured. Upon one is written by Winther "Skua of first laying," as it is a remarkably small egg.

§ 4681. Three.—Færöe [no year mentioned].

§ 4682. Four.—Færöe, 1856. From Sysselmand Müller.

Seem with little doubt to be varieties of the Skua, so abundant in the islands.

[§ 4683. Two.—Shetland. From Mr. R. Dunn, 1850 and 1851.

These eggs are most likely from Foula, as the settlement on Rona's Hill, where Mr. Dunn at first obtained them, had become extinct, and I think that Mr. Smith took care that none were supplied from Unst, except to his own customers.]

[§ 4684. Seven.—1854.]  
[§ 4685. Eight.—1855.]

Unst. From Mr. James Smith.

[§ 4686. Five.—1856.]

[§ 4687. One.—1857.]

After Dr. Frere had satisfied his own wants, he kindly put me and my
brother in communication with his former correspondent, from whom we had in successive years a good many eggs, not only of this species but those of other birds (§§ 75-79, 1958, 1962, 2185, 2186, and 2796). I did not know, till I received Mr. Wolley's egg-books, that it was Mr. Tuke who originated the connexion with Mr. Smith (§ 4673). I believe that the latter acted with Mr. Edmondston's sanction (§ 4675), and as the birds themselves were not allowed to be destroyed, the taking of their eggs to a reasonable extent in no way diminished their numbers. The last time I visited Unst (1808) I not only saw many Bonxies, but was told, and can well believe, that there were more on Hermaness than had been known within memory.

**STERCORAURIUS POMATORHINUS** (Temminck).

§ 4688. *One.*—North Greenland. From Dr. Rudolph, through Herr Conradsen, 1857.

Presented to me at Copenhagen in October, 1857, by the Conservator Conradsen. Dr. Rudolph is living in the north of Greenland, and the eggs probably arrived this year, as he has not been long out.


Pastor Theobald wrote that this was received direct by Herr Erichsen, and he thought its genuineness could not be disputed.]

[§ 4690. *One.*—Great Tundra, Taimyr Peninsula, 1843. From Dr. von Middendorff, through Dr. Baldanus, 1861.

Proc. Zool. Soc. 1861, p. 401, pl. xxxix. fig. 3.

This is another of the treasures which I obtained from Dr. Baldanus, and exhibited at a meeting of the Zoological Society, 10 December, 1861, it being afterwards figured in the 'Proceedings' of the same (at suprà). It was sent to the Doctor by Herr von Middendorff, who states (Sib. Reise. II. ii. p. 240) that the species breeds in especial abundance on the tundra adjoining the river Taimyr. He saw it first on the 6th of June, and on the 7th of July, in lat. 74° N., found the first eggs—two, lying on the moor, without any nest. He figures one in his work (Taf. xxiv. fig. 1). Beyond 74½° he did not see a bird of this species.]
Herr Koren wrote to Mr. Marsden, on the 6th of December, 1903, that Prof. Birkeland's expedition, to which these collectors were attached, took up its abode in Nova Zembla in August 1902, returning thence in July 1903. "The Lestris pomarina builds in the same terrain as Tringa minutu (cf. §§ 3972, 3973), but is a very shy bird, and it is very difficult to find the nest, quite contrary to the other species of Lestris." Subsequently Herr Schaanning wrote to me (2 January, 1904) concerning these particular eggs. Those taken on the 2nd of July belonged to a pair of birds both of which were entirely black, and were retained by Prof. Collett for the Museum of Christiania. In all the other pairs whose nests they found the male had the belly white, the female more or less spotted with black, and in two cases wholly black. The single egg of the 14th of July was quite fresh, whereas all the others were nearly ready to hatch. Herr Schaanning continues (translated):—"At the nest both birds are extraordinarily shy and wary. The female leaves the nest already at a distance of 2000 metres, when anyone approaches. It never attacks an intruder like L. parasitica and L. baffoni, but sweeps round him in great circles, alighting here and there on the marsh. The eggs are thus extraordinarily hard to find, and I do not exaggerate when I say that the longest time I ever took in finding a bird's nest is that which I spent on the first nest of L. pomarina (§ 4031). Except in two instances there were two eggs in the nests observed. They lay without bedding on a hillock, often moist, in the wettest part of the great grassy marsh, sometimes so that the hillock was a little island, being surrounded by water on all sides. In seven nests of two eggs each the first was found to have been laid on the 26th, 28th (two), and 30th (two) of June, and the 1st and 2nd of July, and in two nests of one egg each this was laid on the 12th and 14th July. In this tundra-district, intersected by numerous high ridges, and thus forming many valleys, there is scarcely more than a single pair of birds in each depression."

STERCORARIUS PARASITICUS (Tunstall, ex Linnaeus).

ARCTIC GULL.

§ 1691. One.—From Mr. Hewitson, through Mr. Wilmot, 1846.
§ 4695. One.—From Mr. Tuke, 1847.

§ 4696. Two.—Noss, Shetland, 19 June, 1849. "J. W. ipse."

I found a nest of this bird, or rather a pair of eggs, in the island of Noss. They had large young ones inside, and the grass upon which they were laid was yellow from the shadow of the bird, as in the case of the Black-throated Divers' on Loch Shin [14 May, 1849]. The old birds threw themselves into the most drunken or death-like agonies possible, opening their mouths, gasping—all of a heap, wings broken, and so on. I saw many of the birds here, and off Scalloway, as well as in Færöe, where also I saw these manoeuvres; but I could find no more eggs. I shot three or four "Scoutie-allens" in Noss—a brown one was a male, and so was a white-bellied one. Two of the brown ones turned out to be females.

§ 4697. One.—Færöe, 1849. From Judge Tillisch.

Plentiful in Færöe. I shot many of both varieties. They did not seem to me to breed so decidedly in companies as the Great Skua, but were rather scattered. On the 3rd of July, Judge Tillisch gave me an egg which he had himself taken—the day before, I think.

§ 4698. Two.—Orkney, 1850. From Mr. George Harvey, of Stromness.

There are five in Mr. Harvey’s list, but only two of these are decided by me without hesitation. The other two with Black-headed Gulls' in company, and a recollection of the Whimbrel, are not at present quite self-evident to me.

§ 4699. Twenty-eight.—Færöe, 1850. From Sysselmand Winther.

Mr. Winther sent me thirty-one eggs, but as they were not all named there is one doubtful to me whether or not it is a Whimbrel’s.

1 Qu. rather from the heat of the incubating bird?—Ed.]
§ 4700. Forty.—Færøe, 1851. From Sysselmand Winther.

Out of about two hundred and fifty, of which I received about forty.

§ 4701. Eighteen.—Færøe, 1852. From Sysselmand Müller.

§ 4702. Four.—Vardø, East Finnmark, 1855. From Lehnsmand Reen.

§ 4703. Two.—Tamsø, East Finnmark, June, 1855. From Herr Peder K. Ulich.

[Sent as Leverjo, a well-known Norski name of this species.]

§ 4704. Two.


§ 4706. Two.

[These five eggs only partially inscribed by Mr. Wolley, and not entered by him in his Egg-book; but from the marks upon them he seems to have taken them all himself, and I think he told me that Pastor Sommerfelt was with him at the time. The first two are marked "two black birds," the single egg is inscribed "bird shot," and the last two "both with white breasts and rings." The Pastor and Herr Nordvi had doubted the existence of more than one species of Skua, which they said was Buffon's, in the Varanger district, though we had some evidence to the contrary in 1855, until Mr. Wolley proved to them that the Arctic Gull was equally plentiful. Svartnæs is on the mainland, opposite to Vardø, and the breeding there of this species, as well as the varying phase of plumage, which, as he observed, does not depend on age or sex, are mentioned by Herr Sommerfelt in his notes on the Birds of East Finnmark (Colurers. K. Vet.-Akad. Förhandl. 1861, p. 85).]

§ 4707. Two.—Háfalciti, South-western Iceland, 18 June, 1858. "J. W. & A. N."

[We had been to see the spot between the head of the fjord, Osar, and the hill, Háfalciti, where a boy had said he found some eggs looking to us like Purple Sandpiper's (§ 4072), when a Skua flew towards us, and was soon after joined by another. It then became evident that they had a nest near at hand;
but as we had a long day's work before us, we were not inclined to stop, to watch them to it, and so proceeded on our way; but very soon after one of them flew back, and Mr. Wolley, turning round to look at it, exclaimed that it was on its nest. We accordingly rode back to the spot. The bird did not remain sitting very long, but flew to meet us, and, accompanied by its mate, dashed about, tumbling on the ground, taking great trouble to make us believe that it was wounded, at the same time screaming like a Cat. Both birds were dark brown all over: the one we took to be the male had a slight but visible tinge of yellow on his cheeks and a longer tail, though nothing like long enough for a Buffon's Skua, and both of us agreed that the birds were without doubt Arctic Gulls. The nest was a slight depression in the ground, containing a few bits of dead crowberry or heather sticks. I took the eggs, which were slightly sat on.]

§ 4708. Twenty.—Færoë, 1859. From Sysselmand Winther.

Out of about one hundred and fifty sent, some of which may be Whimbrels'.

§§ 4709. Two.—Unst, 1854.
From Mr. James Smith.

§ 4710. Two.—Unst, 1856.

§ 4711. Two.
Loom Bay, Spitsbergen, 11 July, 1873. From Mr. A. E. Eaton.

Mr. Eaton accompanied Mr. Benjamin Leigh Smith in the 'Eolus' on her voyage that year, and kindly gave me these on his return. The first pair are nearly as big as those of the larger species from Nova Zembla (§§ 4691-4693).

§ 4712. Two.

§ 4713. One.—Jura, 22 June, 1890. "Saw bird. E. N."

For the opportunity of taking this egg in the island, though not the precise locality upon it, where Pennant in 1772 found the species breeding (Tour in Scotland, ed. 1, p. 216; ed. 2, ii. p. 247), the first time a naturalist had known it to do so in the British Islands, my brother Edward was indebted to our kind friend Mr. Henry Evans, whose recent death (23 July, 1904) is lamented by all who have enjoyed his hospitality both ashore and afloat.¹ We arrived at his house, on the shore of Small Isles Bay, on the 21st of June, 1890, and next day, accompanied by Hugh McLeod, the under-gamekeeper, my brother set out for the haunt of the Skuas. My brother's narrative is to the following effect:—"We kept on the

¹ [For obituary notice by Sir Archibald Geikie, see 'Nature,' lxx. p. 327.—Ed.]
road to the north for about half a mile, and then turned inland to the north-west for perhaps a mile, going up to about five hundred feet above the sea. We put up a Partridge, a Blackcock, and a few Curlews, but I could not make out that the last had nests or young; and they were as wild as they would be in winter. On arriving, by a very gentle slope, at the moss where the Skuas are, one rose about a hundred and fifty yards ahead of us, and I made out that it had a white breast. It was soon joined by another, a black bird, but we did not see from whence the latter came. After waiting for some time, and looking over the knolls, of which there were a good many on the moss, some whitened by the droppings of the birds, we went and lay up behind a larger knoll, some three yards from where we first noticed the bird get up, to the north-west and to windward of it. As we were going thither I saw a third bird, which apparently rose some two hundred yards to the north; but it did not join the other two. While we were walking the black bird came very near us, and dropping to the ground, remained fluttering about fifty yards from us. From this I imagined that we were close to its young; but, on getting to the knoll and lying down, the bird flew away behind us, and we lost it. However, we soon saw the white [-breasted] bird settled on a knoll. After waiting about ten minutes, I made McLeod get up, on which we saw the black bird rise exactly where I expected the nest would be, and close to where we had seen it fluttering on the ground. I remained where I was, and sent him back to the place whence the bird had risen, to which he walked straight, and found the nest with two eggs—the nest quite exposed on the top of a grassy knoll, and the grass very short so that one could see the eggs at several yards' distance. I took one egg. We then went on to where we had seen the third bird, and found that it had been joined by its mate, which was much darker on the breast than the first one we had seen, having a sort of buff-coloured breast. The black one soon performed the same antics as the other black one, fluttering on the ground, which convinced me that it too had a nest. I then sent McLeod to a knoll about two hundred yards to the westward, and remained watching the bird, as I was sure that as soon as I moved from the spot it would go to its nest. So I waited till he was able to watch. When he got to the knoll and lay down, I went to him, and he told me he had seen the black bird alight between two parallel drains which ran in our direction, and about the same distance from where I saw the light-coloured bird sitting quietly preening its feathers. In about five minutes' time, being sure that the black one was on the nest, I made McLeod get up, I keeping my glasses on the spot, between the drains, which he had indicated, and immediately the bird rose. We then walked to the spot, and there was the nest, just like the other, but with one egg. He told me that a man over seventy years of age had told him that he had known Skuas breed on this place all his life, but that he had never seen more than three pairs; McLeod himself had never seen their eggs before, though he had found young birds. While waiting to find this last nest, a pair of Golden Plovers were running about within thirty yards of us, but McLeod said he did not think they had a nest near where we were."

In June 1891, my brother and I walked along the road that he had taken the year before. I sat down, while he struck across the moor to where he had seen the Skuas the year before. He found only two birds, which did not seem to be a pair, and neither behaved as if it had a nest near.}
STERCORARIUS LONGICAUDA. Vicellot.

BUFFON'S SKUA.

In the year 1855 I had supposed eggs of this bird given me by a gentleman of honour in East Finmark, of whose genuineness he was very confident, as he had taken them himself. I had often seen the bird upon his coast. But last summer, on again paying a visit to my friend, I found that, in fact, he did not know Richardson's Skua, which is the commoner bird of the two, and the only species I could find breeding on the coast of East Finmark [§§ 4704-4706]. In the meantime in crossing the elevated lands of the watershed between the Baltic and the Arctic Ocean in the spring of 1857, I had come upon a small colony of Buffon's Skua, and I had found a nest with one egg [§ 4714] from which I had shot both the birds. They were the first Buffon's Skuas in the fresh state that I had ever had in my hands, and I was delighted to find how distinct they were as a species from Richardson's Skua. The egg was also much less than any I have before seen attributed to this bird, whether from Norway or Greenland. The weather allowed of no delay, and I was obliged to leave this little colony with instructions to my attendants to endeavour to find some more eggs at the same spot on their journey back, and they did so find two eggs [§ 4715]. It seems, then, that this bird breeds far inland on mountain moors, where it feeds upon insects, berries, and, doubtless, lemmings when they are to be had.

[The foregoing paragraph from Mr. Wolley's Sale Catalogue of 1858, and the three entries immediately following (§§ 4714-4716), contain all that is known of his discovery of the breeding of this species in Lapland. Whether he was the first to find it there I do not take upon myself to say. The supposed eggs, two in number, given to him in 1855, by Pastor Sommerfelt, the gentleman mentioned above, were obtained—one by the Pastor himself, who shot the birds from it in a marsh near Nyborg, 3 July, 1852, and the other brought to him by a Lapp from Karlebotten, 20 June, 1853—and, as well as two more, taken at the same time and place as the last, which he gave to me in 1855, are still in my possession. They are somewhat above the average size of those of Buffon's Skua, but not so much so as to preclude the possibility of their belonging to that species, which was no doubt abundant in those two great Lemming-years. Nevertheless, I think it safest not to include them here. As before observed (vol. i. pp. 479, 480), Pastor Sommerfelt was at that time quite new to the country, and being of a hopeful temperament, was naturally given to think the best of what he met with. Moreover, and this is important, he did not know the difference between the two species until Mr. Wolley pointed it out to him in 1857, so that, without the least imputation of his veracity, he can hardly be regarded]

PART III.
to have been then a competent witness. At the same time, I am rather inclined to believe that the eggs he got in 1852 and 1853 were really those of Buffon’s Skua. His notes on the occurrence of this and the other species of Skua in East Finnmark are printed in the ‘Œlversigt’ of the Academy of Sciences of Stockholm for 1861 (pp. 85, 86.).]
been unable to examine the man. From the part of the country, as well as the appearance of the eggs, and other considerations, the probabilities seem so strong in favour of their being Buffon’s Skua’s that I have determined to place this one in the sale. The name sent to me, by the Lapp, is used, probably, for other Skuas; but Buffon’s is the bird ordinarily meant by the Lapps, as it is the one that breeds in their mountains, and to the exclusion of Richardson’s, so far as I know, when far, and this was very far, from the sea.

No eggs of this species were obtained by Mr. Wolley’s collectors in 1859.

[§ 4717. Two.—Ounas-tunturi, 25 June, 1860.

Knoblock wrote that these were brought to him 2 July, by Martin Piety, who said that he took them at a place on the south side of Ounas-tunturi, called by the Lapps Tahpor. He brought also three other eggs—two, with the bird, from a nest on Pyhakerro on the east side of the Ounas river; the third, which I gave to Mr. Percy Godman, taken 17 June, on Schillasvaara in the Ounas range. He was sure that the birds of all these nests were *Pieni Skaiti* (i.e., Little Skua), and the skin which was sent was certainly that of Buffon’s Skua. Only one of the first nest of two reached me, its fellow having been broken; and these three nests were all that, to my knowledge, were obtained in that year.]

[§ 4718. Two.—Kedädsisti, 15 June, 1861. “With bird.”

By Nils Eira.


[§ 4720. Two.—Korpojäggi, 17 June, 1861. “With bird.”

By Hans Thomasen Kaup.

All the above brought from Kautokeino by Piko Heiki. Korpojäggi is said to be five miles from Kautokeino; the situation of the other place I do not know. The skins were sent to me, and are undoubtedly those of Buffon’s Skua. That from the last nest I gave to Lord Tweeddale.]

[§ 4721. Two.—Korpojäggi, 14 June, 1861. “With bird.”

[§ 4722. Two.—Kielastasta, 18 June, 1861. “With bird.”

Brought at the same time as the previous three pairs by Piko Heiki, but found by himself. The two bird-skins I gave to Mr. Newcome and Lord Lilford respectively.]
In 1862 arrived the long-expected Lemming-year, for which Mr. Wolley
had looked in vain, as, in 1853, when he first began his operations in Lapland,
the Lemmings and other kindred rodents were just disappearing, after having
swarmed over the whole country for some two summers before. There had
been signs of its advent in 1861, as the preceding entries testify, and warned
by Knoblock of its approach, I directed him to despatch two of the best men he
could to the mountain-region, and collect the eggs of Skua, Snowy Owl, and
whatever else there might be of predatory birds. He accordingly com-
missioned Martin Piety and Turi Aslagsen for this task, and right well did
they justify his choice, as the following entries will shew. Not only did they
themselves obtain many Skua's nests during the time they were out (nearly
two months), but they incited many other Lapps to assist them, so that the
search was carried on over a vast extent of territory, chiefly in Norway, but
also in the adjacent parts of Sweden and Finland. Unfortunately maps
to shew the places named below (many no doubt in Lappish, and miswritten)
do not exist, and I am quite unable to allot most of them to any one of the
three countries. This last, however, is not a matter of great importance.
Nearly 270 eggs of Skaiti (Skua) were obtained, and the men were positive
that they were all of one and the same species, which former experience has
shown to be Pieni Skaiti (Little Skua, i.e. Buffon's). Not a single egg
of Skuoli (Snowy Owl) did they take. For that I had to wait till 1865
(§§ 591-594), and then obtained it from another district. Beside the Skuas'
eggs which Piety brought back, a great number were taken to Eric, of
Mukka-noma, who sent them to Knoblock at Muoniovara.]

[$ 4723. Two.—Sioikatjaure-ranta, 10 June, 1862.

Fourteen miles from Kautokeino, near Qvænanger.]

[$ 4724. Two.—Narspeisi, June, 1862.

Fifteen miles from Kautokeino, near Qvænanger.]

[$ 4725. Two.]

Pata-antzi, 14 June, 1862.]

[$ 4726. Two.]

[$ 4727. Two.—Siaravaara, June, 1862.

Six miles from Kautokeino.]

[$ 4728. Two.]

Siaravaara, 17 June, 1862 ]

[$ 4729. Two. ]


These ten pairs from Nils Andersen Eira, who found them as above. This
man found sixteen nests, of two eggs each, in all (cf. § 4105). I gave two pairs of the eggs to Mr. Salvin, one pair to Mr. Elwes, and sent another pair to Herr Seiden-scher.]

§ 4746. Two.

§ 4747. Two.

§ 4748. Two.

§ 4749. Two.

Nivlo-noma, 1–14 June, 1862.

§ 4750. Two.

§ 4751. Two.

§ 4752. Two.

§ 4753. Two.

All from Anders Nilsen Eira, who found twelve nests, each with a pair of eggs. Of them I gave one pair to Mr. Newcome, and sent three pairs to Copenhagen for III. Erichsen, Fischer, and Theobald.]

§ 4754. Two.

§ 4755. Two.


§ 4757. Two.

§ 4758. Two.

Out of eighteen pairs of eggs from Ole Nilsen Eira, who was in company with Anders aforesaid, his brother, I suppose, and both sons of Nils Andersen Eira, who found the sixteen nests (§§ 4736–4745).]
STERCORARIUS LONGICAUDA.

§ 4759. Two.

§ 4760. Two. Storujärvi district, 8-14 June, 1862.

§ 4761. Two. These found by Hans Thomsen Kaurp.

§ 4762. Two. Siaravaara, 8-14 June, 1862.

§ 4763. Two. Brought by Rasmus Persen Spein.

§ 4764. Two.

§ 4765. Two. Worasvaara, 1-7 June, 1862.

§ 4766. One. Found by Clemet Isaksen Hotta.

§ 4767. Two.

§ 4768. Two. Pelias-tunturi, 8-14 June, 1862.

§ 4769. Two.

§ 4770. One. From Anders Mikkelsen.

§ 4771. One.—Kotumarres, June, 1862. From Isak Anders Pongo. A fine egg.

§ 4772. Two. Siormi-antzi, June, 1862.

§ 4773. One. From Nils Larsen Bar.
§ 4774. *Two.*—Worasvaara, 1–8 June, 1862.
From Nils Johansen Tornesi.]

§ 4775. *One.*—Kalkojärvi, 8–14 June, 1862.
From Matthias Anders Spein.]

§ 4776. *Two.*
Solojärvi-ranta, about 20 June, 1862.

§ 4777. *Two.*
Found by Elias Sitsajärvi. The last pair pale-coloured.]

By Johan Isaksen Hetta.]

§ 4779. *One.*—Norwegian Mountains, June, 1862.
By Lars Keino. No place named.]

§ 4780. *One.*—Norwegian Mountains, June, 1862.
From Anders Bar. No particulars given, a curious-looking specimen.]

§ 4781. *Two.*—Near Kautokeino, about 8 June, 1862.
By Mikkel Isaksen Hetta.]

§ 4782. *One.*—Near Sepis, about 20 June, 1862.
From Adam Triumf.]

§ 4783. *Two.*

§ 4784. *Two.*
Ounas-tunturi, 18 June, 1862.

§ 4785. *Two.*

§ 4786. *Two.*
All found by Johan Ericsson Kyrö.]
§ 4787. One.—Kautokeino district, 1862.

Brought by Adam Jedda, having been sent to him without further particulars.

§ 4788. Two.—Lapland, 1862.

Sent from Kaarestaando with others from Petas Johan. Curious-looking eggs.

§ 4789. One.

Tuuli-tivasta, 13, 14 June, 1862.

§ 4790. One.

§ 4791. One.

Kilivaara, 15 June, 1862.

§ 4792. One.

Sent from Mukka-uoma by Eric. Found as above by Thomas Nilsen Kaup. The last two are fine.

§ 4793. Two.—Jumis-uoma, 10 June, 1862.

Taken to Mukka-uoma by Johan Jonsen Rasti. Strange-looking eggs.

§ 4794. Two.—Pimiää-uoma (?), 12 June, 1862.

§ 4795. Two.—Ottingitiva, 14 June, 1862.

§ 4796. Two.—Jutsumasta, 16 June, 1862.

From Nils Guthersen, the younger.

§ 4797. Two.—Kuomijärvi, 13 June, 1862.

From Nils Hendrik Omma.
§ 4798. Two.

§ 4799. Two. Suasmerivaara, 13 June, 1862.

§ 4800. One.

§ 4801. Two.—Moskanosta, 19 June, 1862.

From Ole Jønsen Pejvio.

§ 4802. Two.—Punavarasta, 18 June, 1862.

From Oluf Nilsen Labba. These seem not to be a pair.

§ 4803. Two.

Kostinjärvi-ranta, 11 June, 1862.

§ 4804. Two.

§ 4805. Two.—Kostintiva, 13 June, 1862.

§ 4806. Two.—Kostintiva, 15 June, 1862.

§ 4807. Two.—Lospijärvi-ranta, 15 June, 1862.

§ 4808. Two.—Kurtivaara, 17 June, 1862.

§ 4809. Two.—Pissivaara, 20 June, 1862.

§ 4810. Two.—Riiskuvaara, 21 June, 1862.

§ 4811. Two.—Riiskuvaara, 23 June, 1862.

§ 4812. Two.—Riiskuvaara, 25 June, 1862.

The above twenty eggs from Hendrik Hendriksen Pejvio. The pair (§ 4807) are of a very fine green, and the next (§ 4808) are also good; but the two (§ 4811) seem not to be a pair.
STERCORARIUS LONGICAUDA.

[§ 4813. Two.—Jouvavaara, 10 June, 1862.

[§ 4814. Two.—Jouvavaara, 13 June, 1862.

[§ 4815. Two.—Tuusitiva, 15 June, 1862.

All six from Lars Jansen Sikko. The second two are unlike one another, but both are splashed with dung (which is rather uncommon on eggs of this species), indicating that they were found in the same nest, and one of them is a very fine specimen.

[§ 4816. Two.—Ojakista, 2 June, 1862.

[§ 4817. Two.—Otjaki, 4 June, 1862.

[§ 4818. One.—Kittivaara, 4 June, 1862.

[§ 4819. Two.—Rikus-selm.i, 9 June, 1862.

These seven from Hendrik Persen Blind. The single egg is pale in colour.

[§ 4820: Two.

{ Rostijärvi-ranta, 7 June, 1862.

[§ 4821. Two.

[§ 4822. Two.—Tuulivaara, 11 June, 1862.

[§ 4823. Two.—Orjakivaara, 12 June, 1862.

[§ 4824. Two.—Mastanosta, June, 1862.

From Mikkel Nilsen Kaup. It looks as if there might be a mistake in numbering the last two pairs.

[§ 4825. Two.—Juovarasta, 9 June, 1862.

[§ 4826. Two.—Pikas-selmiste, 10 June, 1862.
ALCA IMPENNIS, Linnaeus.

GARE-FOWL or GREAT AUK.

§ 4832. One.—Eldey, Iceland, 1835? From Mr. D. Barclay Bevan, 12 December, 1846, through Mr. Gould.

O. W. tabb. xiv. & L.

This valuable egg I obtained from the Rev. D. Barclay Bevan, of Burton Latimer near Higham Ferrers, 12 December, 1846, for twenty-eight shillings—the price which he had given to Mr. Gould.
for it some years ago. About two years since I had called at Mr. Gould’s to ask whether he had any British eggs to dispose of, when he told me of this gentleman wishing to part with his collection in which was the Great Auk’s among other eggs. Last autumn Mr. Gould told me he believed the gentleman had not yet parted with it, and he gave me his name and address. Mr. Bevan kindly consented to let me have the egg. Mr. Gould congratulated me on obtaining an egg which is now so valuable, but could not recollect its individual history. It is differently marked from either of those in the British Museum, one of which is from Bullock’s Collection taken in one of the [Orkney] Islands. Mr. Leadbeater sold one to Mr. Wilmot for five pounds last year, as they each mentioned to me, and Mr. Leadbeater had offered three pounds each for the eggs in vain. Mr. Yarrell was so lucky as to obtain his for a franc, as he told me. It was hanging up at a door with other eggs in Paris. M. Hardy, of Dieppe, had one for which he had given four Peregrine Falcons’ eggs in exchange, and he thought he could procure me one for fifty francs. M. Perrot, of Paris, had two on sale and one old bird [in 1846]. For the cracked bad egg he wanted one hundred francs, for the other, a beautiful specimen, two hundred.

Nearly ten years passed without Mr. Wolley being able to obtain any further information concerning his specimen, but in the course of that time he had been led to suspect that Mr. Gould had obtained it from Herr Brandt, of Hamburg, upon whom he called when passing through that town, and wrote as follows:—

Hamburg, 22 April, 1856.—This day I have talked to Herr J. G. W. Brandt, the naturalist dealer, concerning eggs of the Great Auk. He has not had any for some twenty years, but at that time he had them for some three years, sometimes eggs, sometimes birds, five or six at a time. He thinks he may have sent about fifteen [eggs] to England, several to Germany. He had all that were got in Iceland at that time through Herr Siemsen, who was then travelling for a house or merchant at Flensborg, and making annual journeys to

1 [This was written in September, 1847.—Ed.]
2 [This statement is very possibly true, but rests only on tradition.—Ed.]
3 [This story has been told with so many embellishments as to carry it into the realm of romance. Really the only variation which it admits is as to the price Mr. Yarrell paid. According to my recollection it was two francs, but I have known men who ought to remember put it as high as five (Nature, xlix. pp. 412, 432, 450). The great points are that it was bought at Paris not long after 1815, and that the seller knew not what it was, or anything of its history.—Ed.]
Iceland, where he afterwards resided. I made a copy in a parallelogram of the inscription on my egg, when Herr Brandt immediately said: "Ah, yes! The inscription was on paper; in those days, square cut; afterwards Icelandic eggs had the paper lozenge-shaped. The 'Geier Ei,' you would observe, was in different writing to the scientific name, which was added by me, while the former was written in Iceland: '12 m' proves most positively that it was mine, for at that time I so marked the prices of the eggs which I afterwards represented by letters. So '12 m' meant twelve marks, the price I paid for the egg, while I sold them in England for seventeen marks, or one pound sterling. Argent, Tucker and his son-in-law Attensio, and others had dealings with me. Gould was over here and I was with him. I think I sent him two of the eggs. It must have been about 1836, as I know from the age of my son here. I will refer to my books, and I can perhaps find how many eggs I had, and also who had them all. A man at Oldenburg has an egg, for which he has been offered one hundred thalers, and he will not take it. I will write to you what I find in my books."

[Herr Brandt was as good as his word, as a note, dated the following day, from him to Mr. Wolley, and inserted in the latter's 'Egg-book,' shews; but the information was not precise. However, in April 1858, he wrote again, stating positively that on the 6th of September, 1835, he sold three eggs of *Alca impennis* to Mr. Gould, Mr. Leadbeater, and Mr. Tucker for five pounds (or £1 13s. 4d. each). Meanwhile, Mr. Wolley, in February 1858, had been furnished by Mr. Gould with a memorandum from his books to the effect that on the 1st of November, 1836, he sold to Mr. Bevan for £2 this egg, which he had bought of Herr Brandt for £1 16s.—the difference of exchange in foreign money accounting probably for the slight discrepancy; but Mr. Bevan's memory must have been at fault, since he believed he had paid only £1 8s. for the egg, and was content with that price from Mr. Wolley.

Thus the documentary history of this egg shews that it was sent by Brandt on the 6th of September, 1835, to Gould, who sold it to Mr. Bevan on the 1st of November, 1836, and that it was resold by that gentleman to Mr. Wolley, who received it from him on the 12th of December, 1846. On the 22nd of February, 1858, Mr. Wolley sent it to Mr. Hancock to be copied, and it was returned by him to Mr. Wolley on the 25th of March in the same year. It did not again leave his possession during his life, and at his death came into mine, during which time it has been always carefully kept by me. Its history before it reached Brandt's hands is not so sure; but, as it was certainly received by him from Iceland, the probability is greatly in favour of its having been

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1 [This is on a paper label in different handwritings and inks: the "Geier Ei" being in one, and the rest in another.—Ed.]
obtained by him from Herr Carl Siemsen, of Reykjavik, who must certainly have received it more or less directly from the people of Kyrkjuvogr, being part of the spoil which they year after year in those days brought from Eldey. Indeed there is not the least possibility of its having been obtained elsewhere, though the year in which it was taken cannot be surely fixed. Still it is not likely to have been retained over the winter in Iceland, and therefore the probability is that it is an egg of 1835, in which year it reached Herr Brandt."

A.—Plaster cast of the above, painted in fuc-simile by Mr. John Hancock, 1858.

§ 4533. One.—Eldey, before 1837? From Mr. J. P. Wilmot, 23 March, 1856.
O. W. tabb. xv. & L.

The first letter I received from Mr. Wilmot [dated "Clarendon Lodge, Leamington, 3d Feb. 1856"] concerning this egg, which is referred to by Mr. Hewitson (Illust. Br. B. Eggs, ed. 2, ii. p. 470) as one of those still in Mr. Wilmot's cabinet, contains the following. . . . "It was given to me by the Rev. Wm. Bree, son of my friend the naturalist, of whom this county [Warwick] has so good reason to be proud. He derived it from an uncle; but its further history he has not been able to trace." Then 25th February, 1856, Mr. Wilmot writes. . . . "If you should desire to possess it, and I could ascertain that Wm. Bree would not take amiss my parting with it, I imagine we should have no difficulty in arranging the exchange." On the 4th of March I had the pleasure of inspecting Mr. Wilmot's cabinet, and on the 12th he wrote:—"I enclose a note from Mr. Bree which makes me quite free to let you have the Great Auk's egg. . . . You have seen it by the side of an egg which certainly could not act as a foil to it" [the other specimen which was figured by Mr. Hewitson (tom. cit. pl. cxxix.)], "therefore the responsibility of duly estimating its demerits must rest with you. . . ."

From the enclosed letter of Mr. Bree's [Polebrook, Oundle, March 10, 1856] to Mr. Wilmot I extract the following:—"I received your

1 [Cf. 'Abstract of Mr. J. Wolley's Researches in Iceland respecting the Gare-fowl or Great Auk,' Ibis, 1861, pp. 374-399.—En.]
2 [This is now at Cambridge, having been given to the University Museum of Zoology with the rest of Mr. Wilmot's collection by the late Mr. Cecil Russell.—En.]
letter only late on Saturday evening, and now beg to assure you that I
have never for one moment repented parting with the Great Auk's egg
to yourself, neither have I the least wish to avail myself of your kind
offer to return it. . . . I have a strong notion of things going to their
right places, and whether you or Mr. Wolley have the possession of the
Great Auk's egg it will in either case be, in my opinion, in its right
place. If, therefore, you feel disposed for a change, I hope your own
collection will be benefited, and I shall feel equal pleasure in having
been indirectly the means of adding to so fine a collection as your
own. With the said Mr. Wolley I think I have had a few years back
some entomological correspondence, so that he is not altogether a
stranger to me. Was he not of Trinity College, Cambridge? . . .
P.S.—I will add that I am sure the head of the clan Bree will entirely
concur with me in what I have said concerning the Auk's egg."

On the 21st of March I wrote to agree to Mr. Wilmot's terms, and
I now only wait for a memorandum of the date of his obtaining the
egg from Mr. Bree, and for a copy of his letter concerning its history,
which I saw in Mr. Wilmot's possession. On the 24th of March
arrives a letter from Mr. Wilmot including Mr. Bree's to the follow-
ing effect:—"In consequence of the message I received touching the
Great Auk's egg I wrote to my son on the subject, and have this
morning got his answer. He says: 'All I can tell about it is that one
of the Robert Dudleys [our cousins] gave it me in company with
other sea-birds' eggs. I should think it is 12 or 14 years ago. I
recollect examining them about it since the time I gave it to
J. Wilmot, but they could give no account of it further than it was
given to them, but by whom they did not recollect.' I fear that the
pedigree of the egg is involved in hopeless mystery." Mr. Wilmot
says, 23rd March:—"I trust the Great Auk's egg will have reached
you in safety. . . . As I took a last look at the egg I felt some
compunctions prickings of conscience that I had put a Jewish value
on it. If on comparing it with the specimen you previously possessed
it should not appear greatly superior to the latter; or should in any
way fall short of your expectation. I will willingly either take back
the egg, or reopen the question of value. I should not have parted
with it to anyone else, but I feel with Mr. Wm. Bree that your
collection deserves to have it, and that your wonderful enterprise has
put all us stay-at-home collectors in your debt. . . . I enclose
Mr. Bree's letter [from which extracts are given above] for your
reperusal. . . . To the best of my recollection it is about ten years
since Wm. Bree gave the egg to me."
[Mr. Wolley must hereupon have written to Mr. William Bree, as the latter replied to him from Polebrook, Oundle, 27 March, 1856:—]

"I fear there is not much chance of finding anything more about the history of the egg, but at any rate I will write to Mr. Dudley again. . . . When I do so I will cross-examine him very closely and ask him to confer with his brothers, who were joint collectors with himself. I do not think they ever had a large collection, and I do not think it very likely that they had the Great Auk's egg from a dealer; but suppose that it was given to them along with some other sea-birds' eggs, all of which were transferred to me some years ago. I can answer for my father never having written upon the egg: and I do not recollect having done so myself; but, if I did, it was 'Great Auk' and nothing more. You shall hear from me as soon as I receive Mr. Dudley's answer."

[Mr. William Bree again wrote from Polebrook, 16 April, 1856:—]

"I have just received a note from Mr. Alfred Dudley, from whom it appears I received the Great Auk's egg. I send you a copy of what he writes me on the subject:—'I believe it was given me by a schoolfellow, Thomas Davies, now of the firm of T. Davies and Son, Iron Masters, West Bromwich. . . . I do not know his address, but he married a Miss Unett, of Birmingham. Perhaps this may enable you to find him, if you desire to trace the pedigree any further. I think he obtained it from some friend who bought it out of some Museum, or at some bathing-place. There were a few Gulls' eggs with it, but as it happened some twenty years or so ago, the memory becomes treacherous.' I fear this amount of information will not benefit you much, though it certainly is possible that Mr. Davies might be able to call to mind some further particulars about the egg. I seem to recollect the name of Unett as connected with Birmingham, but do not know where the family resides. Mr. Wilmot perhaps may know something of them by name, as he lived in Birmingham some years ago."

[The hint contained in the last sentence was acted upon, and Mr. Wolley having left England soon after for the Baltic, the investigation was continued by Mr. Wilmot, who in due time received a letter dated Broomhill, Great Barr 9 June, 1856, from Mr. Thomas E. Davies, as follows:—]

"Mr. George Unett has handed to me your letter of the 29th ultimo. I am sorry that my memory will not serve me sufficiently to give you any idea whence the eggs in question came from. I was, at the time referred to, a collector, but I used to obtain them from so part III."
many and such various localities that there is no chance whatever of giving you any clue to this one. I should think that one of the Welsh bathing-places would have the honour of producing so valuable a specimen, but it is all uncertain, and I repeat that I cannot give you any clue to trace it."

[Mr. Wilmot, in forwarding this letter to me, considered that the enquiry had been carried so far as it was possible; but that was not the opinion of Mr. Wolley, when a copy of the letter reached him in Lapland some months after, and, though gratefully acknowledging Mr. Wilmot's services, he himself on the 24th of April, 1857, addressed Mr. Davies directly in the following terms:—]

"At the date of your letter [to Mr. Wilmot] you could not give any clue to the history of the egg. But I do not know whether it had been especially mentioned to you that Mr. Alfred Dudley has an impression that, when you gave the egg to him some twenty years ago, you told him that a friend (doubtless then mentioned by name) had given it to you, and at the time you even related how the friend became possessed of it.

"Now sometimes when all other little particulars have slipped from one's memory, one can call to mind the friends of our schoolboy days, who have taken an interest in the same pursuits as ourselves. Therefore I venture to take the liberty of asking you whether you cannot call to your recollection who of your friends may have been likely to present to you this doubtless largest sea-bird's egg in your collection. Even in those days it was of some value, as I gather from the price of '27s.' faintly marked upon it. If the egg could but be traced one step back from you there is little doubt, from various circumstances which have come to my knowledge, that it could still be ascertained in what spot and by what man it was originally found.

"Besides an answer to the question concerning the friend there are two other points which might help to throw light on the matter.

"First: Did you ever yourself make purchase of valuable or expensive eggs?"

"Secondly: Do you remember whether you were in the habit of writing the English and Latin names upon eggs which came into your possession, for this egg is so written upon?"

"There is even a third question to which an answer would be of some help. Is there any circumstance by which you can remember either when you gave the egg to Mr. Dudley, or when you are likely
first to have possessed it, whether for few or for many years? The
questions would probably hang upon the time during which you
were an egg-collector. But the main point is, from whom did the
egg come to you?"

[Such pertinacity deserved some reward, and met with it to the extent of
tracing the specimen one step further back, for on the 21st of June, 1857,
Mr. Davies replied to Mr. Wilmot as follows:—]

"Since our former correspondence I have had some ponderings
on the subject and a sort of dim recollection has dawned upon my
mind that the egg in question formed part of a large quantity given
to me by a schoolfellow named Alfred Mason; . . . . but I have
not of late heard anything about him. You can, however, probably
trace something about it from his family. His brother Mr. James
O. Mason is now resident in Birmingham . . . . These facts may
give you a clue to investigate the history of the egg further . . .
Should this clue in any way avail you I should be very pleased to
know that I have been of service, and I beg that you will not suppose
that it is anything but a pleasure to me to be instrumental in aiding
your enthusiastic friend."

[Mr. Wilmot lost no time in acting on this information, and several letters
passed between him and Mr. James Mason, who was most obliging in assisting
the investigation, and at length wrote from Birmingham to Mr. Wilmot on the
31st of July, 1857:—]

"I have delayed replying to your last letter, as I had occasion to
visit London, and I thought I should be better able to investigate
the matter concerning the Great Auk's egg by talking it over with
my brother rather than by writing him on the subject. It appears
that Mr. Thomas E. Davies is right in his recollection of having
received a collection of eggs from my brother Alfred, when at King
Edward's School. It turns out, however, that the collection belonged
to a younger brother, named Augustus, who has a distinct recollection
of the Great Auk's egg having formed part of it, but unfortunately
he cannot remember how it came. He thinks it was given him by
one of his relations and is quite certain he did not buy it, as he was
not as a schoolboy particularly flush at that time.

"My brother Augustus is now settled as a solicitor in London,
and his address is 15 Furnival's Inn. If, therefore, you think well
to write him on the subject pray do so, and he will in the meanwhile
try to remember how the egg came into his hands; but I much fear
no satisfactory solution of the affair will be arrived at, in consequence of the length of time which has elapsed."

[Apparently Mr. Wilmot did not write to Mr. Augustus Mason, but in forwarding the letter, from which the foregoing extract is given, to my brother Edward (who in my absence abroad was then looking after Mr. Wolley's correspondence), suggested that he or Mr. Wolley, when he returned, should call upon that gentleman. Some time elapsed before such a visit was paid, as the following memorandum in the 'Egg-book' shows:—]

On or a day or two before the 4th March, 1858, I called on Mr. Augustus Mason at no. 15 Furnival's Inn. He was evidently very busy, but very obligingly attended to my enquiries. He distinctly remembered this large long egg, but could not tell me exactly whence it came. He was at school at Hale Green (qu. King Edward's School?) and had an indistinct recollection of a kind lady coming in a carriage, with whom he thought the eggs were connected. Thinks he must have got it through the Amphletts of Cleat, of whom one was at school with him, or through the Downings of Stourbridge about 1838 or 1837.—31st March, 1858.

[Thus ends all that can be said of the story1 of this egg, for a few days after Mr. Wolley left for Iceland, and, so far as I know, did not on his return renew or carry further the investigation. Getting at the approximate year in which the first owner who can be traced received it, 1837 or 1838, is a fact not without significance, for it points to its having most likely been one of those obtained on Eldey subsequent to 1831, and sent from Iceland to Hamburg (Ibis, 1861, pp. 389-392), and so to some dealer in this country, by whom it was inserted with its English and scientific name and its price. It will be seen that given, as would seem, to Mr. Augustus Mason by a lady, whose name is forgotten, it passed from him to his brother Alfred, who in his turn gave it, with other sea-birds' eggs, to Mr. Thomas E. Davies, who soon after pre-empted it to Mr. Alfred Dudley, Mr. Dudley handing it over to Mr. William Bree, and he to Mr. Wilmot, from whom Mr. Wolley obtained it by exchange. Thus for sixty-seven years it has not been in a dealer's hands. It may have suffered from exposure while in the hands of school-boys, but for the last fifty years at least it has been well treated, and I think it has never deserved to be spoken of as a badly-coloured specimen, though to the true oologist, who is not a mere collector, that makes no difference.]

B.—Plaster cast of the above, painted in fac-simile by Mr. John Hancock, 1858.

1 [Long as the story told above may be, it is much abbreviated from the original account which occupies many pages of the 'Egg-book.' In curtailing it I have been careful to omit no essential fact.—Eu.]
[§ 4834. *Oue.—Eldey, 1841? From Mr. Calvert, September, 1860.*

O. W. tabb. xvi. & L.

Being at the British Museum on the 18th of August, 1860, I was told by Dr. Gray that a dealer of the name of Calvert had been to him a week before about a Great Auk’s egg, which he had for sale, and that this Mr. Calvert, whose name was quite new to me, though Dr. Gray said he was well known, was to be heard of opposite to the Museum in Great Russell Street, at a shop with the name of Sowerby over the door. Going thither I was told that Mr. Calvert was not in, but that I should find him at a shop in the Strand, to which the “Sowerby” business was in the course of transfer. I accordingly went after him. He, however, was not there; but I found him at a house a few doors off. He told me he had advertised the egg in ‘The Athenæum’ newspaper of the preceding week (which I subsequently found to be true, cf. ‘Athenæum,’ No. 1711, p. 178, col. 1, 11 Aug. 1860), and had in consequence several applications for it. After some conversation, he returned with me to the new “Sowerby” shop, which I then perceived, to my surprise, was in the house which had formerly been the office of the Wenham Lake Ice Company, of which the late Mr. J. D. Salmon had been manager, for the front had been completely altered, and the house renumbered (107 instead of 164 A). Presently Mr. Calvert produced the egg, which bore a paper label, and he shewed me several other eggs, bearing labels in the same handwriting, which he said he had himself bought openly at the recent sale of the Natural History part of the Museum of the United Service Institution. But this egg, though he thought it had come from the same collection, he said he had bought from someone else about a fortnight before. I told him that I had learned from Mr. Leadbeater that there was no such thing in the collection, but he replied that the sale was so badly managed that whole boxes, full of odds and ends, were sold without examination, and this agreed also with Mr. Leadbeater’s account. It ended in my coming to terms with Mr. Calvert: I was to have the egg conditionally on his informing me whence he obtained it, and he was to keep it for me till my return from the Continent, whither I was intending to proceed that night—I paying a deposit upon it. On the 4th of September I went by appointment to redeem the egg, and, on my paying the price agreed upon, it was handed over to me by Mr. Calvert, who informed me that he had it from one Westall, of Porchester or Portland Terrace, Bayswater—he could not recollect which. I complained that this was not according to our agreement, for that he had promised to give me the person’s address, which he had plenty of opportunity to ascertain, had he been in doubt about it. I lost no time, however, in writing to each of the places he named, but received no reply, though the fact of my letters not being returned to me by the Post Office shewed me that they had been delivered to someone answering to the designation. Subsequently I wrote to Captain Burgess, the Secretary of the United Service Institution, to obtain the address of Captain (or Admiral, as he had become) Vidal, whose name was on the label attached to the egg, to whom I also applied; but that officer having taken up his abode in Canada, it was not till the following summer, and then only through the kind intervention of
Mr. John Barrow, that I received any reply. When it did come, it was dated Moose River, Canada West, 12 June, 1861, and was to the effect that he had never given a Great Auk's egg to the United Service Museum.

In the meanwhile I had immediately despatched the egg to Mr. John Hancock, who made some admirable copies of it, one of which he was good enough to give to me; and I called several times in the autumn and winter on Mr. Calvert, but I was only able to see him occasionally. When I told him that I had had no reply from "Westall," he said that he was not surprised, for he thought that it was an assumed name, and that he had never seen the man since he bought the egg of him. I thus came to the conclusion that the attempt to learn more from him was hopeless, and that it was impossible to treat all he said seriously, for at times he had a way of talking as though he were not in his right mind. This behaviour had already raised my suspicion, and when I received Admiral Vidal's letter, I had no longer any doubt that the supposition of the egg having been bought at the sale of the United Service Museum, by someone who thereupon sold it to Mr. Calvert, could not be entertained. I had all along been struck by the coincidence of my having bought the egg in the house formerly occupied by the late Mr. Salmon, whose egg-collection, which by common report had been bequeathed to the Linnean Society, had been some months before declined by the Council of that body (Minutes of Council, 5 January, 1861), to the great regret of myself and several other Fellows of the Society, in consequence of a condition attached to its acceptance. Mr. Salmon's specimen, Mr. Calvert told me, at the time of my buying the egg of him, was actually in the house; but, notwithstanding that I had seen it several times, I had never had the opportunity of closely examining it, and my impression was that it was a different-looking egg, though I could not undertake to recognize it. Mr. Hancock, moreover, to whom I sent the egg so soon as it was mine, wrote to me that he was sure it was not that which Mr. Salmon had. So the matter remained in uncertainty until when, more than a year after, the egg had come into my possession, Mr. Salmon's collection was accepted by the Council of the Linnean Society (Minutes of Council, 7 November, 1861), and the special thanks of the Society directed to be given to that gentleman's executor (Proc. Linn. Soc. vol. vi. p. liv.). Soon after it was found that no Great Auk's egg was contained in it, and in its place was a Swan's radially-spotted and blotched with ink. The conclusion then was not difficult to draw. It is obvious, however, that with the view of putting a

1 (This was, however, an accident. Mr. Champlcy wrote to me in August, 1862, that the egg had been shown to him two years before by Mr. Calvert "in a warehouse in Dean Street, formerly Sir J. Banks's Museum," saying that it had come from the United Service Museum.—Ed.)

2 [In the winter of 1859-60, I had more than one interview with the officials of the Society, followed by a correspondence with Mr. Kippist, the Assistant Secretary, and Professor Bell, the President, whom I urged to take action with the view of securing the execution of what I believed to be Mr. Salmon's bequest. Mr. Kippist, I believe, did cause enquiries to be made at Doctors' Commons or Somerset House; but found that the will had not been proved, and he informed me the Society had not the means to compel its proof.—Ed.)
purchaser on the wrong scent, a label had been removed from some egg out of the Unit-d Service Museum and affixed to the present specimen. Whether the substitution was effected with the knowledge or connivance of the executor, there is no evidence to shew, nor can I say whether he may not have had a perfect right to part with this or any other specimen before handing over the collection to the Linnean Society. He certainly attempted to make a bargain with the Society for it, and I suppose felt justified in doing so. Mr. Calver became possessed of Mr. Salmon's Egg-Catalogue, which he subsequently sold to Mr. Edward Bidwell, when it was found that the leaf containing the particulars of the specimen of the Great Auk had been removed! The mutilated volume was transferred by Mr. Bidwell to the Linnean Society in 1831.

Fortunately, however, that fact does not interfere with the history of this egg, for in 1858 Mr. Salmon had placed papers in Mr. Wolley's hands which shew that it was bought by Mr. Salmon in April 1842 of Mr. Robert Dunn, then living at Hull, being one of two, which, with as many skins of the bird, and the information that they had all been obtained in Iceland the year before, he had quite lately received, and though the evidence as to whom he had them from is not complete, it is nearly so. They double-s came to him from Hamburg, but not from Herr Brandt of that place. Now Mr. Wolley's investigations in Iceland in 1858 made it pretty clear that for some reason or other, which was not at first apparent, the people at Æyrkjuvogr did not visit Eldey in 1841, while that year accords with the date assigned by Stephani Sveinsson, formerly of Merknes but latterly of Kalmanstjorn, to his voyage thither, when two birds and, he said, one egg were obtained, all of which were sold to a factor at Kellavik, Carl Ferdinand Thaae, from whom, we ascertained by written evidence, three skins, a body in spirit, and three blown eggs of the Garefowl were bought, in August 1841, by Herr S. Jacobsen, a merchant, who added that, so far as he could remember, he sent them to Herr Jannach, or perhaps Herr Selning, in Hamburg—from one or the other of whom—either directly or indirectly—Mr. Dunn must have had the pair of skins and the two eggs he received in 1842.

It is to be remarked that Stephan, who I ought to say was a careful and excellent witness, could only remember that a single egg was taken on this expedition; it is therefore impossible to identify that specimen with the present, but we may be sure it was one of the three bought by Jacobsen in 1841, the other two having perhaps been obtained from the Æyrkjuvogr people, while it is quite certain that in 1858 Mr. Wolley and I must have talked with one or more of those who took part in the expedition which got it (cf. Ibid. 1864, p. 390).

On the 15th of April, 1892, Mr. Harting wrote to me that he had had a visit from Mr. Calvert, who, in the course of the conversation that ensued, declared that the egg which he sold to me in 1870 was found by him with other property which had belonged to Sir Joseph Banks, and been left to Mr. Robert Brown, in a house in Dean Street, Soho, where it was shown to Mr. Champney 1. That it had been obtained by Sir Joseph in Scotland while on his way to Iceland, that it "was a Scotch egg and therefore the most valuable of all the eggs of the bird now existing." Mr. Calvert could not say what

1 [Cf. page 374, note 1.—Ed.]
became of Mr. Salmon's specimen. It is curious to note, however, that Mr. Calvert assured Mr. Harting that Mr. Salmon's egg was quite a different-looking egg from that sold to me, being characterized by lines as well as spots, and that also agrees with my own original impression, as well as with Mr. Hancock's opinion. It remains to say, however, that these assertions leave unaltered the conclusions at which I had before arrived.

There is one other thing of peculiar interest in regard to this egg, and that is the strong family-likeness which it bears to that formerly in the possession of the late Mr. Tuke. This struck me very forcibly when, a good many years ago, I first saw his specimen, and became still more evident when I had the opportunity of comparing the two. Not only was the character of the spots and markings on each precisely similar, but each possessed at the smaller end a semispiral depression, the effect no doubt of a sphincter muscle working upon the shell when in a soft and plastic condition. No one accustomed to eggs could possibly doubt that these two eggs were the produce of one and the same parent. Mr. Tuke bought his egg, in May 1841, of Reid of Doncaster, who had it from Friedrich Schulz, then of Dresden, to whom it had been sent by Brandt of Hamburg—who had it, of course, of Siemsen, of Reykjavik. It seems pretty safe to suppose that it was taken on Eldey in 1840.]

C.—Plaster cast of the above painted in fuc-simile by
Mr. Hancock, 1860-1.]

[It would be absurd of me to ignore the fact that persons there are, even among my friends, who have been inclined to think that I was guilty of some sharp practice in possessing myself of this egg. I trust that the plain statement of facts fully given above will remove any misconception on that score. Both before and since the transaction, eggs of the Gare-fowl have turned up in a manner the most unexpected. While I was engaged with Mr. Calvert, Mr. Moore, of the Liverpool Museum, entered the shop and told me that only a short time before he had discovered a beautiful egg of Alca impennis in the Derby Collection which he, though he had been Curator of it for more than ten years, had never before seen. In or about the very same year two were found by Dr. Depierre in the Museum at Lausanne, where they had lain, since 1846 at least, unsuspected [§ 4836]; and in 1861 I myself found in the Museum of the Royal College of Surgeons of England no fewer than ten, which must have been there for fifty years or more without their existence having been recognized. There is therefore nothing at all extraordinary in the supposition that one might have been overlooked in the Museum of the United Service Institution, and it was only the facts that the alleged donor's name was allied to it, and that he many months after denied having ever made such a gift, which proved the story to be untrue, while subsequently the disappearance of Mr. Salmon's specimen from his cabinet indicated the source whence the present egg was derived. Furthermore, it is clear to me that had the Linnean Society not refused the offer of that cabinet when first made, January 1860 (though in the circumstances no blame attaches to the Council), the present egg would have remained in it, for there is no reason to suppose that its removal thence was accomplished before the following summer.—En.]
[§ 4835. Twe.—Newfoundland Seas? From Lord Lilford,
24 April, 1888.
O. W. tab. xvi.—xviii.

These two eggs, of four given to me by Lord Lilford, were bought by
him in Mr. Stevens's auction room 2nd July, 1880, whither they had been sent
for sale by Mr. Small, of Edinburgh, who himself had bought them for thirty-
two shillings at a miscellaneous sale of the property of a Mr. W. Cleghorn
Murray, of 3 Clarendon Street, in Mr. Dowell's auction room in that city,
8 May, 1880, no one else present having any notion of their value. The first
intimation I had of the discovery of these specimens, hitherto unknown to
naturalists, was contained in a letter from Colonel (then Captain) Fielden,
who by mere chance was prevented from being present. He lost no time in
attempting to trace the history of these eggs and therein was materially assisted
by Mr. Harvie-Brown. As usual, the investigation was beset by many
difficulties: at first it appeared that a former possessor had been a Mr. Little, a
literary gentleman, who some thirty years before had lived in Lauriston Lane
in Edinburgh, where, according to a Mr. Stillie, a bookseller, he had a "most
extraordinary collection of eggs"; but subsequently Mr. Harvie-Brown made
out that these eggs had undoubtedly belonged to a Mr. Joseph Moule, from
1820-40 President of the Post Office at Edinburgh, one half of whose collection
containing these specimens was sold to Mr. Murray, the possessor of them until
1880, though Mr. Grieve in his monograph (The Great Auk, &c., London:
1885, p. 109) declares that Mr. Murray bought them of a Mr. Lister.

The question of the intermediate ownership of these eggs is comparatively
unimportant. I have been informed that on their acquisition by Mr. Small,
the word "Pingouin" was plainly visible upon each, but that he (for some
reason unknown to me) did his best to efface it, so that it is no longer legible;
but he fortunately left upon them the mysterious inscription "Egal" or
"Egale"—whatever that may mean. These words plainly indicate that the
eggs had passed through French hands, and one can hardly help connecting
them with the two eggs some years since found to exist in the Edinburgh
Museum, which are known to have come from Dufresne's collection bought by
the University of that capital in 1818. The present specimens, from their
broken condition, may have been thought unworthy of a place in the Museum,
and been accordingly rejected—when they may well have fallen into Mr. Moule's
hands. This, of course, is but conjectural, though it seems likely enough, for
Dufresne is known to have had two or three specimens (vide Mr. Scales, infra,
p. 380). If so, there cannot be much doubt that these eggs, like others which
we know to have existed so long in collections, must have come from the
Newfoundland seas—as it is almost impossible that they could have been
brought from Iceland.]

[§ 4836. One.—Newfoundland Seas? From Lord Lilford,
24 April, 1888.
O. W. tab. xix.

The third of the four given to me by Lord Lilford, having been bought by
him, in the autumn of 1883, of Mr. G. A. Frank, the dealer established in London, who obtained it by exchange from the Museum of Lausanne.

This egg has been twice inscribed with the name "Pingouin"—once in red ink and once in black; but in each case the termination of the word is effaced. It also bears the number "61." It is one of two exhibited to the Société Ornithologique Suisse in 1866, as recorded in the "Extraits des procès-verbaux" of the meetings, printed in its 'Bulletin' (Tome 1st, 2nd Partie, p. 116), thus:

"Sesau du 13 avat. — M. le Dr Depierre présente à la Société deux œufs de fortes dimensions qu'il a trouvés dans un tiroir de rebuts au musée de Lausanne. Comme l'avait présumé M. Depierre, ces œufs sont reconnus pour être deux variétés de l'Aca impennis."

Writing, 25 December, 1867, in the same 'Bulletin' (Tome II, 1st Partie, p. 75), M. Victor Fatio states:

"Quant à ce qui regarde les deux œufs, des détails circonstanciés sur leur provenance manquent presque complètement; ce que je puis dire de plus certain à leur égard, c'est qu'ils sont tous deux en bon état, et qu'ils appartiennent au Musée de la ville de Lausanne."

After expressing his thanks to Dr. Depierre for his kindness in supplying all the information he could, M. Fatio continues:

"Ces œufs sont découverts, il y a 7 à 8 ans, dans un tiroir de rebut du Musée de Lausanne par le docteur Depierre, qui s'empresse de les mettre à l'abri de dangers aussi nombreux que ceux auxquels ils avaient jusqu'ici échappé. Il est probable, me dit M. Depierre, que ces œufs ont été acquis par la ville de Lausanne, quand elle fit l'emplette de la collection de feu M. le professeur Daniel-Alexandre Chavannes; peut-être même étaient-ils arrivés chez ce dernier avec les restes de la collection de Levaillant. Toujours est-il qu'ils datent d'assez loin, et que c'est leur solide constitution qui permet soit à la ville de Lausanne de se glorifier de leur possession, soit à moi de les décrire maintenant."

M. Fatio then proceeds to give a very minute description of the two eggs, whence it appears that the present specimen is that which he designates No. 2. I know nothing of the reasons which led Dr. Depierre (whom Lord Lilford informed me he knew intimately in the winter of 1851-2) to suppose that they were in the collection of Professor Chavannes, who did (I believe) in 1846, or of their connexion with Levaillant, whose death took place in 1824. M. Fatio has since obligingly informed me that they do not seem to have been discovered in 1862, when M. la Harpe reported on the rarities in the Museum of Lausanne. Professor Wilhelm Blasius (Journ. für Orn. 1884, pp. 158, 161) thinks that they seem to be from the Newfoundland seas. This is a mere conjecture, but I am disposed to agree with him."

[§ 4837. One.—

From Lord Lilford,

24 April, 1888.

O. W. tab. xx.

The fourth of the eggs given to me by Lord Lilford, having been bought by him of Mrs. Philip Hull, of Pimperne, near Blandford, in Dorset, in whose
drawing-room it was found lying on a glass plate, by the Rev. S. A. Walker, in the spring of 1884. He recognized it, and told Mrs. Hill that if it was a genuine egg and not a model it was very valuable. A few days after, that lady and her husband going to London took the egg with them to the British Museum, leaving it in charge of Dr. Sharpe, who communicated with Lord Lifford and arranged the sale of it to him. He wrote telling me of it, and it reached him on the 21st of April in that year. With the assistance of the late Mr. Mansel-Pleydell, I endeavoured to ascertain the history of this specimen, subsequently going with my brother Edward to Pinperne, where we saw Mrs. Hill. But all our efforts had very little result, the facts of the case simply amounting to this, that the egg was, to the best of her recollection, given to her daughter in the autumn of 1871, by a relative, Miss Betty Stone Way (who died in 1879 at Kenston near Winborne), it having been much prized by her brother Mr. James Henry Way (who died at the same place in 1863). Mrs. Rose, Mrs. Hill's daughter, wrote to me that she was "under the impression" that it came to Mr. Way from a ship-captain whose name she cannot remember. Various conjectures have been made as to its former history, and I am not sure whether some of them have not found their way into print; but all these I dismiss, though one cannot overlook the fact that Mr. Way lived so near Poole that he was likely to have known some of the captains of ships frequenting that port, which used to be the chief seat in England of the trade with Newfoundland. The egg bore no inscription, and I think can never have

1 | In regard to the long-established trade connexion between Poole and Newfoundland, I may mention that Mr. Reginald Johnson, of Fogo, writing to me in September, 1862, said: "I have, I believe, discovered the existence of a Penguin skeleton in England. It is in the possession of Robt. Slade, Esq., of Poole." I made all the enquiries I could about this specimen, but did not succeed in finding out more about it. More than a year later, December 1863, soon after I had received from the Bishop of Newfoundland the "natural mummy" of a Penguin from Funk Island (Proc. Zool. Soc. 1863, pp. 435–438), I learnt that a second "mummy" had been sent to Mr. William Waterman, of Poole; but I was unable to learn more of it until on the 29th of June, 1876, that gentleman informed me that it had been obtained for him by one of the "ice-hunters" on Funk Island. "Not being a very pleasant object, though he had been told it was very valuable, he put it in a box, and the box in his barn." He had had occasion to look for it some time before, possibly in consequence of one of my applications to him, for I had made many, but "could not find it, and fears it is lost." His was the only firm at Poole then trading with Newfoundland, the Shales, formerly Slade and Cox, having given up the trade some two or three years before. He had often heard Penguins spoken of, and knew that they were extinct; but he did not know of any specimen—other than his own "mummy"—having been brought home—neither bird nor eggs. The "mummy" sent to me by Bishop Field formed the subject of Professor Owen's paper in the 'Transactions' of the Zoological Society (vol. v. pp. 317–335, pls. ii., iii.). I felt bound to place it his hands, as I had obtained it by following up the enquiries originated by Mr. Wolley, and it had always been his intention that should success of the kind he hoped attend them, the Professor should have the describing of the results. The skeleton extracted from that specimen is now in the Cambridge Museum.—E.v.]
been in the hands of a dealer. The small end has been broken off, as though the contents had been sucked out. It was covered with dirt when it came into my possession, and its true markings and colour were for the most part concealed. A careful application of lather removed the accumulated dirt, and restored what must have been nearly its original appearance. For boldness of marking I hardly know any specimen that surpasses it.

[Beside the three plaster casts coloured in facsimile (A, B, C) of the eggs above-mentioned (§§ 4832–4834) the collection contains the following also made by Mr. John Hancock:—

D, D. Two.—From the egg formerly in the Collection of the late Mr. John Scales.

O. W. tab. xxi.

[The original specimen was, as Mr. Scales wrote to me (10 November, 1858), obtained by him in Paris in 1816 or 1817, by exchange from M. Dufresne (cf. § 4835), who then had two or three. This egg never left Mr. Scales's possession until 1858, when at my request he sent it to me that Mr. Hancock might copy it. I accordingly forwarded it to that gentleman, who made four copies of it—one, which he retained, is, I presume, now with the rest of his collection in the Museum of Newcastle-on-Tyne; a second for the owner, and the other two for Mr. Wolley and myself respectively. The original egg, with the copy intended for him, I returned to Mr. Scales, at that time living in Ireland, and some years after both were burnt with the rest of his collection in a disastrous fire at Cork, where he had temporarily housed his goods during a change of abode. It is fortunate that Mr. Hancock's skill should have preserved the likeness of this very beautiful specimen, and I have thought it worth while here to figure it, it being understood that the figures are taken from the copies, and not from the original, though of that they are most accurate representations, for not only had I the opportunity of comparing them with it, but Mr. Wolley also, as he wrote in his Egg-book—"Mr. Scales's egg now before me is wonderfully represented by the copies," adding in a letter to Mr. Hancock: "I went over them spot by spot, and I find each spot a map, and every mapple in its right place. The general effect is admirable. It is very satisfactory to see how the natural depressions of the shell are indicated in the casts and how faithfully you have followed them in the markings. I went over the casts individually. Each has its own merits. In one spot I have preferred mine, in another Newton's. In the general surface I have thought mine the best, and certainly in one place it has a very decided advantage, and that is at a place within the boundary of the lower third of the egg, near the same longitude as the largest black spot. There, in Newton's cast, is a little too much drawing together of the picture laterally, and there are only three spots where there should be four; but this is over-criticism, it only shews that one can tell which is the real egg and which the copy. I find the casts very inconsiderably larger than the egg itself:—Egg 4.75 by 2.96, casts 4.79 by 2.99 inches." Very few copies could stand so minute a scrutiny as this, but he
concludes by saying:—"The colours are perhaps rather richer in the original than in the copies."

Nothing more is known of the history of the original egg; but it may, I think, be presumed to be from the Newfoundland seas. When it came into Mr. Hancock's hands, he noticed that it was somewhat affected by spots of mildew; but these, by its owner's permission, he carefully removed, with the result that it appeared once more as clean and bright as it must have been the day it was laid.

E. E. *Two.*—From the egg in the Collection of the late Mr. Hancock, now in the Museum of Newcastle-on-Tyne.


[These casts were given by Mr. Hancock to Mr. Wolley and myself. The original, bequeathed with the rest of his Collection to the Museum of Newcastle-on-Tyne, was bought by Mr. Hancock, together with a skin of the bird, of Herr Meehlenburg of Flensborg, through the intervention of Mr. Sewell, in 1844 or 1845, and is more than likely one of the last taken on Eldey. It is in fine condition, and was figured by Mr. Hewitson, as above, in 1846, before it had time to lose its freshness. Mr. Hancock made many copies of this egg, which he distributed rather freely. (Cf. W. Blasius, Journ. fäir Orn. 1884, p. 162.)]

F. *One.*—From the egg formerly in the possession of Sir Walter Calverley Treveleyan, now in the Museum of the University of Oxford.

[This copy also made by Mr. Hancock was given by him to Mr. Wolley in 1858. Nothing more is known of the history of the original egg than that it had been for some forty years in Sir Walter's family, having been received by him from his relative Lady Wilson, of Charlton House, Blackheath. It has been well cared for, and from its age I should judge it to be from the Newfoundland waters. Sir Walter gave it to the University of Oxford. So far as I know, it has not been figured. (Cf. W. Blasius, ut suprà, p. 163.)]

G. *One.*—From the egg formerly in the Collection of Mr. Tristram, now in the British Museum.

[Another of Mr. Hancock's copies, and given by him to Mr. Wolley in 1859. The original was in the Collection of the late Mr. John de Capel Wise when taken over by the Canon, and is supposed to have been obtained at Copenhagen about 1851, but this is not known with certainty. If it were so, it would no doubt be from Eldey. It went with the whole of Mr. Tristram's Collection of eggs to the late Mr. Philip Crowley of Croydon, and at his death was one of those selected under the terms of his will by the authorities of the British
Museum. It is a large egg, rather abnormally shaped and somewhat poor in marking. (Cf. W. Blasius, ut suprà, pp. 154, 155.)]

[There are also four other casts or models as follows:—

[II. One. — From an egg then in the possession of Herr R. Hünnel, now in Mr. Rothschild's Museum.


I believe it was for the original of this model that my brother Edward was in treaty in 1857, through Mr. Smurthwaite, then living in Leipzig, but unfortunately the negotiation came to nothing. However, I saw it there in the summer of 1861, and obtained this copy, made of wood, but not badly painted, from the son of its owner — the father not being at home. As I understood that a well-known English collector, though one with whom I had no personal acquaintance, had made an offer for the egg, I, of course, refrained from any attempt to acquire it; but he did not buy it. About 1870 it was sold to Count Riedern at Breslau, and early in 1880 it passed into the possession of Mr. Rothschild, who was good enough shortly after to bring it and show it to me. Hünnel is said to have bought it of Schudt the dealer at Leipzig, who received it from Hamburg, on the death of a Senator of that city whose name is not known but whose collection he bought. It is supposed to have been obtained from Brandt (cf. pp. 365, 366) between 1835 and 1840, in which case it would doubtless be of Icelandic origin and would fall into the same category as that which Mr. Wolley bought of Mr. Betten. It has been believed to be one of the specimens figured by Thienemann (Fortpflanz. gesamten Vögel, Taf. iv. fig. super.), but that I hold to be impossible on account of the different style of marking. It is, however, the subject of a figure in the last edition of Naumann's work as above cited. (Cf. W. Blasius, Journ. für Orn. 1884, pp. 172, 153.)]

[I. One. — From the egg in the Grand Ducal Museum of Oldenburg, through Dr. Hartlaub, 1862.

Naumann, ut suprà, fig. 2.

This solid plaster cast was kindly sent to me by Dr. Hartlaub, but by whom made and coloured I do not know, and though some care has evidently been taken with it, photographs of the egg taken by Mr. Edward Bidwell shew that the markings have not been very successfully copied. The history of the egg is not known with any certainty, but it is reasonably supposed to have come into the Museum in 1839 with the collection formed by Graba of Kiel, author of 'Reise nach Færö' (Hamburg: 1830), in which case its Icelandic origin is more than likely. This also has been figured in the Jubilee Edition of Naumann's great work, as above stated. (Cf. W. Blasius, ut suprà, pp. 162, 163.)]
[J. One.—From the egg in the "Museum Löbbekeanum" at Düsseldorf. From Dr. W. Preyer, 1881.

Naumann, ut supra, fig. 3.

This model, the work (I believe) of Herr Pohlmeier of Dortmund, was most kindly sent to me by the late Dr. Preyer, author of the dissertation 'Ueber Plautus impennis,' subsequently published in the ‘Journal für Ornithologie’ (1862, pp. 116-124. 337-356). The original was the property of Herr Theodor Löbbeke, who inherited it with the rest of his collection from an uncle, a friend of Thienemann, through whose means the egg was bought of Perrot, the dealer at Paris, in the beginning of 1846. It has been supposed that this is the specimen represented by the upper figure of Bädeker's plate (Eier der Europäischen Vögel, Taf. lxx. 3); but, setting aside the present model, the photographs of Mr. Bidwell and Herr Klöne's figure in the new edition of 'Naumann' (ut supra)—all of which substantially agree,—show that the supposition is untenable, and the suggestion once formed by Prof. W. Blasius (Journ. für Orn. 1884, p. 158) has been abandoned by him in that later work (p. 175).]

[K. One.—From a copy made in 1849 of an egg formerly in the Museum at Boulogne-sur-Mer, and now in Mr. Rowley's possession. From Professor Wilhelm Blasius, 1885.

When sending me this cast Prof. Blasius was in the belief that the original specimen was that known to have been for many years in the Museum of Natural History at Paris, coming, according to M. O. des Murs (Rev. et Mag. de Zool.ogie, 1863, p. 4) from the historic Abbé Manesse (1743-1820). But a comparison of photographs made by Mr. Bidwell shews this to be impossible, and it is certain that the original was one of the three which until 1848 or 1849 belonged to the Museum at Boulogne. It was reported, as I well remember, that they had been stolen, and that several tolerably well executed imitations in plaster were made and some passed off to the unwary as real eggs. But Mr. Bidwell informs me that the originals were lawfully acquired in exchange for the then Mr. Gardner, of Oxford Street, who sold them to Mr. T. H. Potts, of Croydon. On that gentleman's emigrating to New Zealand he sold two of them with the bulk of his collection at Mr. Stevens's, 26 May, 1853.

[In August or September 1846 Mr. Wolley was at Perrot's shop (Place de la Pitié, 9, Rue St. Victor) and bought some eggs of him (§§ 280, 2503, 2565). He was Naturaliste Préparateur au Muséum d'Histoire Naturelle, and then had, as already stated (§ 4532), two eggs of Alca impennis, one of which he afterwards sold to Mr. Milner. In October 1849 he still had one, for which he asked 250 francs. I know not what became of it; but the one bought by Mr. (afterwards Sir William) Milner was sold 23 April, 1835, at Mr. Stevens's to the landlord of a tavern in London, in whose possession I believe it still is.—Ed.]
when they were bought by the late Lord Garvagh, and were subsequently sold to my friend the late Mr. G. D. Rowley—an old schoolfellow of Mr. Wolley's,—whose son still possesses them. According to Prof. W. Blasius (J. f. O. 1884, p. 150) they came to the Museum at Boulogne in the year 1825 from the collection of Vicomte de Barde, in whose possession they had been for some thirty years. The presumption therefore is in favour of their transatlantic origin. Considering the retranslation undergone, for the present is the copy of a copy, it is creditable to the fabricators that so much of the original marking is still recognizable, for such is the case, though as a work of art the performance is not much to be praised.

ALCA TORDA, Linnaeus.

RAZORBILL.

§ 4838. Two.—Flamborough, Yorkshire. Bought at Bridlington [?] not later than 1843.

Readily distinguished from the Guillemots with which they are intermixed, though in far less numbers, in the breeding-places at Flamborough, and thence brought to the neighbouring towns and retailed at three a penny. They are rounder at the small end, not subject to so much variety, and the edges of the markings are shaded off.

§ 4839. Nine.—Flamborough. From Mr. Williamson, of Scarborough, 1847.

Mr. Williamson says the climbers saw the birds fly off, and brought the eggs up separately for him.

§ 4840. Fifty-four.—Handa, Sutherland, 9 June, 1849.

The Razorbill bred on more secure-looking ledges than the Guillemot, often behind large stones, and nearer the top of the rocks. I caught many of the birds on their egg. Of the above, thirty-seven are marked "J. W.," meaning that I took them with my own hands; two are marked "Bird caught"; and three "Bird seen on," or "R"—these I actually saw the bird leave on my approach. By this means I determined several eggs about which I might be in doubt whether they were not Guillemots'.
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" O. Nest-box (*Holk, Uu, or Tylla*) for Ducks .............. " 610

" P. Muoniovara from the South-east ....................... Frontispiece.

MAP. Part of Lapland to Illustrate the Residence and Journeys of John Wolley, 1853-1857 .......... At end of the Volume.
§ 4841. Two.—Færøe, 1852. From Sysselmand Müller.

§ 4842. One.—Hornø, East Finmark, 31 May, 1855. "J. W."
[Inscribed but not entered in the Egg-book by Mr. Wolley.]

§ 4843. One.—Vardö Islands, 1855.
[Given to me in East Finmark by Mr. Wolley, as taken by himself.]

§ 4844. Four.—Færøe. Year uncertain. From Sysselmand Winther.

§ 4845. One.—Færøe, 1859. From Sysselmand Winther.
[A very dark-coloured egg, and no doubt sent on that account.]

§ 4846. Eight.—Flamborough, 1859.
[Bought by Mr. Wolley at Scarborough or Filey, when he was becoming seriously ill, and not entered in the Egg-book.]

[§ 4847. Three.—Flamborough, 1851. From Mr. Jones, of Bridlington.

After leaving the Farne Islands (§§ 4421-4423) my brother and I went to visit the Flamborough cliffs; but it was too late in the season to take any eggs ourselves, and we had to be content with those already procured for sale.]

[§ 4848. Eleven.—Flamborough, 1853. From Mr. James Isaacson.

Bought for us at Filey or Bridlington by Mr. Isaacson.]

[§ 4849. One.—Hornø, 17-18 June, 1855.
Obtained by Mr. Hudleston or myself, on our midnight visit to the island.]

[§ 4850. Two.—Lambay Island, Ireland. From Mr. Fickling's Collection, 1855.]
[§ 4851. Three.—Rathlin Island, Ireland, 25 May, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote that these were brought with many others for him to Mr. Gage by Donald Dan. They were taken on the cliffs of the north side of the island.]

[§ 4852. Two.—Ailsa Craig, Scotland, 6 June, 1884. From Mr. Robert Service.

Obtained by Mr. Service on the spot.]

ALCA BRUENNICHII (Sabine).

BRÜNNICH’S GUILLELOT.

§ 4853. Three —Cape Dudley Digges, North Greenland. From Mr. Green, 1846.

Mr. Green had many, sent by a gentleman who had them from Mr. John Hancock. I saw them unpacked.

[These are the eggs mentioned in the next entry. Mr. Wolley gave a fourth to Mr. Rowley. The gentleman was very likely Mr. Wilmot.]

§ 4854. Twelve.—Cape Dudley Digges. From Mr. Hancock, 1846.

If I remember right, Mr. Hancock informed me that a great quantity of these were brought to him in a ship from the north. Besides these twelve I have others [§ 4853] that I bought of Green, who had lately received them from some correspondent, who got them from Mr. Hancock, and let me have them for a trifle. I heard that Mr. Hancock received the eggs unblown. Hence probably the stains upon many of them. All these, as well as those from Green, bear the test of "shining to the light," mentioned by Mr. Hewitson (ed. 2, vol. ii. p. 403); but one or two are, I think, as "elegant in form as the eggs of" the Common Guillemot.

[Mr. Hewitson wrote (ut suprà):—"Mr. Hancock tells me, after examining several hundred specimens, that however white the ground-colour may appear to be, the shells of these eggs, upon holding them to the light, are always dyed with greenish blue, which is not the case with eggs of the Common Guillemot." It would seem (§ 4855) that these eggs, or some of them, were received by Mr. Hancock so long ago as 1839.]
§ 4855. Seventeen.—Cape Dudley Digges. From Mr. Hancock, 1851.

Two of these are marked "East side Davies Straits, 1839, [Lat.] 72\(^\circ\) 30' N. Capt. Warham." Mr. Hancock wrote:—"The eggs of *Uria bruennichi* are from the former lot [§ 4854], all taken at [Cape] Dudley Digges, nearly at the top of Baffin's Bay, where the Common Guillemot is not. The furthest north I ever knew the Common Guillemot to be is Iceland, where both species breed in the same rocks. Hence the specimens from the latter locality are not to be depended upon." And again, "I think I have good grounds for stating that the Common Guillemot is not in Baffin's Bay. I have been in the habit of receiving both skins and eggs [brought] from that country by whalers from this port [Newcastle] and others for upwards of twenty years, and during that time I have had numbers of the former [Brünnich's] bird brought me, but never in one instance the Common Guillemot."

[Cape Dudley Digges is, however, far beyond Lat. 72\(^\circ\) 30' N. According to Herr Winge (Grønlands Fugle, p. 221), Godthaab is the most northerly locality in Greenland whence our Common Guillemot is known.]

[§ 4856. Five.—Grimsey, Iceland. From Mr. Proctor, 1851.

These cannot be accepted as being absolutely free from doubt, though it is true that Icelanders who know both species of Guillemot have a distinct name for each and recognize the difference between the *Stuttenfia* and the *Langviu* or *Langnfiga*. Moreover, according to Faber's observation (Isis, 1824, pp. 967–980), the former is much more numerous in Grimsey than the latter, and he states that they occupy different breeding-stations on the cliffs of the island—statements confirmed by Herr Hantzsch (Vogelwelt Islands, pp. 68, 112–117), who was there in 1903. This is all in favour of the specimens sent to Mr. Proctor being correctly named; but there is yet the fact that the more southern species does breed there, and that unless due care were taken these eggs might belong to it, a doubt to which specimens from Greenland and other more northern countries are not so liable.]

[§ 4857. Three.—North Greenland. From Mr. Hancock, through Mr. Wilmot, 1860.

Mr. Wilmot's Catalogue shews that all these were from Mr. Hancock—one through Mr. Hewitson, the other two directly. One of these last being marked "East side Davies Strait, [lat.] 72\(^\circ\) 30', 1839," is evidently from the same lot as those before entered here (§ 4855), while the other is inscribed "Opernawick" (Upernivik).]
§ 4858. **One.**—West Coast of Baffin's Sea, Lat. 73° N. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R.Y.S., 1860.

Kindly given to me by Dr. Walker on his return from Sir Leopold McClintock's celebrated voyage; but though sent to me unhesitatingly as that of Brünnich's Guilemmot, the Doctor afterwards wrote that "*Uria troile* was associated with *U. bruefinichi* at the Cape Graham Moore 'Loomery,'" whence this egg was most likely procured (cf. Voy. 'Fox,' pp. 151, 152).

§ 4859. **Five.**—Horse Head, North Greenland, Lat. 75° N., 1861. From Dr. James Taylor, 1862.

Through Sir William Jardine I heard of Dr. Taylor, of Allanvale, Pitmuixton, who had been surgeon on board of a whaling-ship, and brought these with some other eggs from Davies Strait in 1861.

§ 4860. **One.**—Grimsey, 1885. From Mr. Thomas Carter, 1903.

That this egg came from Grimsey I doubt not, though Mr. Carter did not take it himself, but got it through Herr Hansen, who lived at Akureyri. As before stated (§ 4856), there is no doubt, however, that *Alca troile* breeds in this island, and accordingly this egg is open to suspicion.

§ 4861. **Ten.**—South Goose Cape, Nova Zembla, 8 July, 1894. From Mr. Arnold Pike.

Mr. Pike wrote to me that he took these himself, and also that on the same occasion he "took the eggs of a Glaucous Gull which was nesting among the Guilemmots—a very common thing." I believe there is not a suspicion of our common Guilemmot in Nova Zembla.

§ 4862. **Two.**—Cape Flora, Franz-Josef Land, 30 June, 1896. From the Jackson-Harmsworth Expedition, through Mr. Dresser, 1905.

The eggs of this species obtained by the expedition, mostly at Cape Flora, are described by Mr. Frohawk in Mr. Jackson's work ('A Thousand Days in the Arctic,' ii. p. 305), and that gentleman himself has some notes on the birds *(tom. cit. pp. 409-411)*, of which he says that he "shot many hundreds for food for the winter." As might be expected, our common Guilemmot was not met with.
ALCA TROILE (Linnaeus).

THE GUILLEMOT.

§ 4863. Fifteen.—Flamborough, Yorkshire. Bought at Bridlington [?] not later than 1843.

One of these is remarkable as having a yellow ground-colour, a variety not mentioned by Hewitson or Yarrell. Others may be considered to show the most usual appearances of this Protean egg in respect of colour and markings, and the two extremes of size, while one of them is said to have been doubled yelked.

[It is not certain that these, as well as the Razorbills' entered above (§ 4838), were bought at Bridlington, but they were assuredly obtained at one of the places on that coast, and came from the well-known Flamborough cliffs. The large egg measures 3·8 by 2·22 in.]

§ 4864. Nine.—Flamborough. From Mr. Williamson, of Scarborough, 1847.

Mr. Williamson told me this autumn that the climbers of Flamborough distinguish the Ringed Guillemots' eggs from the others. He has three or four in the cabinet of the Scarborough Museum, all of which are white and unspotted, or nearly so.

[Mr. Wolley was subsequently able to prove the fallacy of this belief, and for the past fifty years no one with any experience of the subject has recognized the Ringed Guillemot as a good species.]

§ 4865. Ten.—Handa, Sutherland, June, 1849.

On the 6th of June Mr. Edge and I started for Handa from Scourie with four men. Two more joined us on the island. On the 9th we went there again. On the first of these visits I took about fifty eggs, and on the second about one hundred and sixty, including Guillemots', Razorbills' [§ 4810], Puffins' [§ 4939], Scarfs' of two kinds [§§ 5194, 5214], and Kittiwakes' [§ 4653]. I saw some Black Guillemots, but not, I think, in Handa [cf. § 4897]. We searched in vain for an Eagle's nest said to be there, but the exact station was not pointed out to us 1. The mode of climbing adopted

1 [It would seem to have been a mistake on the part of the people for a Falcon's nest, which they found containing young birds.—Ed.]
here was for one man to sit on the edge of the rock hauling the climber up and down as might be required. The other end of the rope was fastened to the body of the man at the edge, and a third man held it at a convenient distance behind him, so as to secure him from overbalancing, while a fourth was sometimes useful to take in the slack of the rope. When I was climbing, which I did mostly the first day, and entirely the second, to the exclusion of anyone else, I had a basket which I filled, and it was generally hauled up by Mr. Edge with string.

There was a urinous kind of smell down the rocks. The ledges were coated with a slimy covering of white dung on which lay the eggs without any regular arrangement. This dung was dry in places. Sitting on their eggs the birds were down on their breast. In seating themselves they put the egg under their chin, and so kept it under their abdomen, or rolled it under, to prevent it slipping away. They sat on their egg transversely, that is with the long axis of the egg at right angles to the long axis of the body, and as they sat their heads pointed mostly seaward. They were to be seen on the ledges in coitū. I do not remember¹ catching any Guillemots alive; but they let me get to within a foot or two of them. The eggs were mostly somewhat advanced in incubation, while the Razorbills' were more fresh; but in one place that I went down the Guillemots' were more recent, as they had already been robbed once. They were generally much stained by the dung.

I got several severe bites from ticks of large size. I climbed generally without shoes. The old man who held the rope was pleased to say he had never felt anyone so light upon the hand. This was because I took care to be as little dependent upon him as possible, climbing wherever I could stick in my toes and fingers. The geological structure of the island, the horizontal narrow strata of sandstone, is remarkably favourable for the birds and for the fowler. It is an interesting fact that down the face of the rocks, though exposed to the full force of the west wind, it was nearly calm during a storm of wind. I was quite warm, while my companions could scarcely hold the ropes from cold. The barometer ought to be high from the increased pressure on the superficial layer of air. A new precaution in climbing was here forced upon my notice, for I nearly got my neck broken by my head hitching under a ledge as they were hauling me up. Luckily they heard my invectives.

¹ [This account was not written out till some months after the visit.—Ed.]
This lesson proved useful in the vigorous updrawings of the Færøese, where there was risk of the same accident.

The sublime feelings of this rock-climbing to the ornithologist and the lover of scenery and romance I will not venture to describe. I went down at a great number of spots in Handa, nearly all along the cliffs. Here generally I simply had the rope tied under my arms, which is far better for climbing than the stick system, and safer. It is advisable always to keep one arm [by] the side to avoid any risk of slipping through.

§ 4866. Five.—Handa, June, 1849.

These belong to the Ringed Guillemot [which] at Handa was in the proportion of at least one to ten of the Common Guillemot, of which I have no doubt it is a variety, either from age or accident. I marked very carefully several of the eggs as the birds left them. Some of these I took myself and others I watched till they were taken by a man sent down. I shot two birds sitting together, but one of the eggs was broken. On a shelf where were perhaps a dozen eggs, the only nearly white one, taken with my hand, was that of a Ringed Guillemot, so there may be some foundation for the notion of the Flamborough climbers that the Ringed birds lay a white egg. Yet the eggs I got shew that they lay the same variety as other Guillemots. They were mixed promiscuously with the common birds on the ledges and did not keep separate either in Sutherland, Caithness, Shetland, or Færøe. On the Holm of Noss, in Shetland, and in Færøe their proportion was at least that of Handa. In Caithness I calculated them at about one in five or six. This last happened on the Cleat at Holborn Head, on the 22nd of April, 1849. There was a large assemblage on the level ground on the top of that stack—a cluster of some hundreds apparently; closely huddled together, probably engaged in matchmaking, as they were bowing and scraping to each other. In Færøe, in the island of Fugløe, on the 19th of July, I opened two which turned out to be male and female, and disproved the notion of the inhabitants that the Ringed were the females of the others—though some said they were the males. On making a careful comparison between the Ringed birds and the others I could see no difference. We should remember that very nearly similar markings formerly led to the making two species of *Alca torda*.

October 1850. Unfortunately I cannot now distinguish between
those I took with my own hand and those I watched; but it does not signify. One only is certain to have been seen and taken by me. All the pencil inscription was put on them directly they were got. Two are perfectly certain as taken or watched by myself. Two others were taken by myself after I had killed the two old Ringed birds at one shot, but as there were also unringed birds sitting close by, and as I broke one or two eggs with the shot, I cannot be so confident of these.

[Mr. Wolley's opinion on this subject is briefly expressed to the same effect in his "Observations on the Birds of the Færöe Islands," read before the British Association at its meeting at Edinburgh in 1850, and subsequently printed in Sir William Jardine's 'Contributions to Ornithology' for that year (pp. 111, 112). He also published in 'The Zoologist' for 1852 (pp. 3477-3479) some admirable remarks with much fuller particulars. No one after reading them should have had any doubt as to the specific invalidity of the "Ringed" Guillemot.]

§ 4867. Two.—Isle of May, 1850.

In a visit to the Isle of May with a party from North Berwick (on which occasion we got over to Cellardykes in a fog), I had an opportunity of seeing the Bass Rock mode of climbing. Adams [the keeper of the Bass Rock] planted his feet firmly against a stone, and let down the climber with a rope twice twisted round his waist, while another rope, called the hand rope, was fastened round Adams's waist for the climber to assist in hauling himself up. Mr. Calder went down and gathered eggs of the Kittiwake [§ 4654] and Guillemot, of which I have two to "shew the station." We had very little time on the island.

§ 4868. Four.—Shetland, 1850. From Dr. Frere.

[These almost certainly sent by Mr. James Smith from Unst (cf. § 4675).]

§ 4869. One.—From Mr. William Dunbar, 1851.

§ 4870. Three.—Vardö Islands, East Finnmark, 1855. "Bird seen."

[Taken by Mr. Wolley and marked "Common Guillemot", but not entered in the Egg-book.]

1 [It is marked "Rd. Guillemot. Bird seen on when J. W. was on the same ledge." Two others are marked "Ringed Guillemot—seen on."—Ed.]

§ 4872. *Four.*—Reenö, East Finnmark, 2 June, 1855.

[Taken by Mr. Wolley, and marked by him "Ringed Guillemot" and "Bird well seen" or "carefully seen"; but not entered by him in the Egg-book.]

§ 4873. *One.*—Tamsö, Porsanger Fjord, 1855. From Herr Ulich.

§ 4874. *One.*—Færöe, 1859. From Sysselmand Winther.

[A dwarf, and doubtless sent for that reason. It measures 2·48 by 1·64 inch.]


[Inscribed by Mr. Wolley as bought of several of the dealers at Filey and adjacent places, in the autumn of 1859, but not entered in the Egg-book.]


I believe that at that time Guillemots' eggs were novelties in the London markets. The seller gave them no name.]

[§ 4877. *One.*—Staples, Farne Islands, 21 June, 1851.

Taken by my brother Edward or myself at our first visit (§ 4423).]

[§ 4878. *Two.*—North Warmsey, Farne Islands, 21 June, 1851.

Taken by ourselves, and one, if not both, certainly belonged to a "Ringed" bird. They were noted by me in 'The Zoologist' for 1853 (p. 3425).]

[§ 4879. *Five.*—Farne Islands, 1851.

Not taken by ourselves, but obtained from Mr. Darling of the lighthouse or some of the men.]
§ 4880. *Six.*—Flamborough, 1851. From Mr. Jones, of Bridlington.

One of these is a dwarf, measuring 2·61 by 1·75 inch.]

§ 4881. *Two.*—Lambay Island, Ireland. From Mr. Fickling’s Collection, 1855.]

§ 4882. *Six.*—Rathlin Island, Ireland, 6 June, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote:—“Taken with several dozens of the same species by Mr. Gage’s climbers on the north side of Rathlin. I have selected these for the beauty of their markings. I may mention here that Mr. Gage has failed this year in obtaining for me a single authentic specimen of the *Uria lacrymans.* A few were taken about which there was a doubt, but he would not send them.”


§ 4884. *Three.*—Ailsa Craig, 4 June, 1884. “R. S.”


Brought ready blown by the people alongside of Mr. Henry Evans’s yacht ‘Erne,’ on board of which my brother Edward and I were, 9–11 July, 1887. When rowing round the main island we saw the usual proportion of “ringed” birds, say one in twenty or twenty-five, among the Guilems that were near enough to be distinguished. On one shelf I saw four sitting side by side. This was on the morning of the 10th, when we went in the gig round to the north and north-west.

§ 4886. *One.*—Saltee Island, Ireland, 30 May, 1888. From Mr. Ussher, 1896.

§ 4887. *One.*—Saltee Island, 22 May, 1896. Eggs with reddish-brown markings, kindly sent to me by Mr. Ussher, of Cappagh House, near Lismore.

§ 4888. *One.*—Fair Island, Shetland, 1905. From Mr. Norman B. Kinnear.
Taken by a boy, George Stout, and obtained by Mr. Kinneir during his stay on the island with Mr. W. Eagle Clarke (cf. Ann. Scott. Nat. Hist. 1906). A dark-coloured variety.]

§ 4889. Five.—Flamborough, June, 1834. "C. Waterton."
From Mr. Waterton's Collection, through Dr. Norman Moore, 1906.

These were given to Dr. Moore, as he informs me, by Mr. Waterton in 1864, the year before he died, and are all inscribed by him. Unfortunately they are so discoloured as to possess little value except that of sentiment, for they were all taken and inscribed by him during his visit to the Yorkshire cliffs in the first week of June 1834, as recounted by him the following year (Mag. Nat. Hist. viii. pp. 162-165). It is curious that from the time of Pennant ('Tour in Scotland, 1769,' ed. 1771, p. 15) no zoologist seems to have published any notice of the locality and the birds which throng in the breeding-season until Waterton did so. Pennant was there 3 July, 1769, but his account was passed over by all his successors, and thus by far the greatest resort of sea-fowl on the English coast remained practically unknown until the appearance of Waterton's paper, which was subsequently included in his 'Essays on Natural History;' and having been several times reprinted there is no need to quote from it here, but it may be remarked that, according to Mr. J. Stuart Menteath (Mag. Nat. Hist. viii. p. 31), Waterton was let down the cliff eleven times. Deplorable as is the condition of the eggs, it can be seen that his selection of specimens to shew the chief varieties was good, and one of them from its size and shape is unlike any other that I have seen, measuring 2:55 by 1:94 in., while 3:25 by 2:9 in. may be taken as the average dimensions. I am indebted to Mr. Harting for a reference to an older notice than Pennant's of the "Whillocks" and other sea-fowl at Flamborough, contained in a letter from Dr. Richard Richardson (1663-1721), of North Bierley in the West Riding of Yorkshire, to Dr. James Sherard, the botanist, dated 7 January 1724-5, and printed in 'Extracts from the Correspondence' of the former (pp. 210, 217) which appeared in 1855, with a preface and notes by Mr. Dawson Turner.]

§ 4890. Four.—Farallones, California. From Dr. Heermann.

§ 4891. Two.—Farallones. From Dr. Heermann, 1861.

§ 4892. One.—Farallones. From the Smithsonian Institution, through Prof. Baird, 1870.

The note accompanying this egg shews that it was obtained by Dr. Grüber. It will be seen that all the specimens in §§ 4890-4892 belong to the so-called Catharactes californicus of Bryant, which is now admitted by American authorities not to differ specifically from the Atlantic Calonbta troile of Linneaus.]
CEPHUS GRYLLE (Linnaeus).

TEISTY or BLACK GUILLEMOT.

§ 4893. One.—Bought at Liverpool before 1843.

§ 4894. One.—From Mr. Green, 1844.

Bought of James Green, Poulterer, 10 Mulberry Court, White Cross Place, Finsbury, a man who understands birds and eggs well. He was recommended to me by Mr. Leadbeater [cf. § 3636].

§ 4895. Two.—Shetland. From Mr. Tuke, 1847.

[No doubt received from Mr. James Smith, of Unst (cf. § 4675).]

§ 4896. One.—Oxna (or Papa), Shetland, 22 June, 1849.

"Saw bird on. J. W."

§ 4897. Seven.—Shetland, 22 June, 1849.

I took one egg [§ 4896] in an island off Scalloway, and I bought from a boy seven which were fresh, and probably of the second laying. I believe I caught the bird on the egg mentioned above, at all events it was under the large stone where I found it. I saw some of the birds off Handa [cf. § 4865], and I have seen one or two on the Bass Rock. They are very abundant round Shetland.

§ 4898. Two.—Færøe, 1850. From Sysselmand Winther.

Herr Winther writes that the eggs of this bird as well as those of the Shearwater are "difficult to get, as the people like the young so well" [to eat]. We saw and shot plenty of the adults; plumage beginning to change at the end of July, or sooner. We also found their two black young under a stone, the old birds sitting near with long, little fish in their mouth, making a plaintive noise.

§ 4899. Six.—Shetland, 1850. From Dr. Frere, 1851.

[These no doubt from Mr. Smith, of Unst.]
§ 4900. *One.*—From Mr. Green, 1851.

Selected from a great number, on account of its yellowish tinge and general beauty.

§ 4901. *Two.*—Orkney, 1851. From Mr. George Harvey, of Stromness.

§ 4902. *Six.*—Head of the Gulf of Bothnia, 1853. From Dr. Wretholm.

[These were not entered by Mr. Wolley in his Egg-book. The inscriptions shew that they were obtained by him on the 20th of July on his short visit to Haparanda (cf. Memoir, p. xxvi) from a Dr. Wretholm, of whom I know nothing. No doubt they were taken from some place on the shores of the head of the Gulf of Bothnia, where this species is not uncommon.]

§ 4903. *One.*—Hornö, East Finmark, 1855.

[Not entered by Mr. Wolley, though inscribed and most likely taken on the island by him, 31 May.]


Selected out of twenty-seven brought to me [at Vadsö] for sale, under the name of *Teiste*.

§ 4905. *One.*—Vardö, 1855. From Lehnsmand Reen.

§ 4906. *One.*—Naalsöe, Færöe, 1856. From Sysselmand Müller.

§ 4907. *One.*—Iceland. From Herr Cristian Zimsen.


[§ 4909. *One.*—Shetland. From Mr. Dunn, not later than 1848.]

[§ 4910. *Three.*—Shetland. From Mr. Dunn, 1853.]
[§ 4911. *Two.*—Iceland, 1852. From Mr. Proctor, 1853.]

[§ 4912. *Seven.*—Unst, Shetland, 1854. From Mr. James Smith.]


Taken by Mr. Simpson (Hudleston) on our visit to the island.]

[§ 4914. *Two.*—East Finnmark, June, 1855.

Boought by me at Vadsø, I think out of those from which Mr. Wolley as above (§ 4904) took five.]

[§ 4915. *Five.*—Unst, 1856. From Mr. James Smith.]

[§ 4916. *Two.*—Isle of Doagh, Co. Donegal, 5 June, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote:—"Taken from a hole in a precipitous rock in my presence by Paddy Donald Veaghall (cf. § 3511). I have seen seven nests of this species taken, and I have never known them to contain more or less than two eggs."]

[§ 4917. *One.*—Flamborough, June, 1834. "C. Waterton."

From Mr. Waterton’s Collection, through Dr. Norman Moore, 1906.

Given to Dr. Moore with the Guillemots’ eggs before entered (§ 4889), and inscribed by Mr. Waterton “Razorbill”; but it is so evidently that of a Black Guillemot that I include it here without hesitation. This species was not named by him in the “Notes” of his visit to Flamborough (Mag. Nat. Hist. viii. pp. 162–165), but that paper leaves the impression that he had had but little acquaintance with sea-fowl; and, seeing that this egg was not that of the common Guillemot, he might well have set it down as that of the next abundant species—the Razorbill. Pennant (Tour in Scotland, ut supra cit.) mentions his having observed “a few Black Guillemots very shy and wild,” on his visit to Flamborough, 3 July, 1769, while Messrs. Rechuck and Clarke, in their *Vertebrate Fauna of Yorkshire* (p. 87), state that Mr. Allis was told in 1844 by Mr. Arthur Strickland that thirty years before he had killed one in summer plumage out of a small flock there, and Mr. Harting (Handb. Brit. Birds, ed. 2,
pp. 281, 282) says that a few pairs used formerly to breed at Flamborough, whence he, in the summer of 1863, received an adult bird in full breeding plumage.]

CEPPHUS MANDTI (H. Lichtenstein).

§ 4918. One.—Spitsbergen [1856 ?]. From Pastor Sommerfelt, 1857 [?].

[There is some little doubt as to the history of this egg, which was not entered in his book by Mr. Wolley; but I believe it was brought from Spitsbergen in 1856, by a jagt (the name of which is not clearly to be read, but looks like "Shedila"), and given to Mr. Wolley by Herr Sommerfelt together with the Rotche's (§ 4928), in which case it unquestionably belongs to the northern form of Teisty (C. mandti).]

[§ 4919. One.—West coast of Baffin's Bay. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R.Y.S., 1860.

This egg was sent to me by Dr. Walker as that of a Kittiwake taken in Lat. 73° N., which it clearly is not, and is as clearly that of the Teisty or Dovekey of that coast, which I suppose to be C. mandti. It was probably taken in 1858.]

[§ 4920. Two.—Safe Haven, Ice Sound, Spitsbergen, 10 July, 1864. "With bird."

These brought to me in the evening of that day with a bird knocked down with an oar. Campbell, the mate of the 'Sultana,' and one of the men had been on shore on the east side of the bay and got them. They said the eggs were lying on the rock and not in a hole; and Herr Malmgren afterwards told me that in Spitsbergen, both this species and the Little Auk often lay their eggs on the rocks instead of in a hole. The bird which I had from this nest has no black bar on the wings. The skin is now in the Museum of the University.]

[§ 4921. One.—From the late Mr. Scales's Collection, 1885.

This egg is inscribed in Mr. Scales's handwriting "Sabine . . . Illemot," and I can hardly doubt was obtained by him from one of the brothers Sabine, in which case it was most likely brought home by one of the old Arctic Expeditions, and therefore would belong to C. mandti, for it is obviously that of one of the forms of Black Guillemot.]
CEPPHUS COLUMBA, Pallas.

[§ 4922. Four.—Farallone Islands, California. From Dr. Heermann, 1861.]

[§ 4923. Four.—Farallone Islands. From Dr. Heermann.]

BRACHYRHAMPHUS WUMIZUSUME (Temminck).

[§ 4924. One.—West coast of Japan. From Dr. Isao Ijima, through Canon Tristram, 1891.

Given to Canon Tristram at Tokyo, by Dr. Ijima, who said he had taken it himself, from a rock on the west coast near the Seven Islands. There were several specimens of the birds obtained at the same time. The egg of this species seems not to have been described. The present one is of a clay-brown colour, with streaks, mostly vermiciform, but occasionally coalescing to form a blotch, of a deeper shade. In shape it is elongated, with both ends nearly similar, as in a Sand-Grouse's egg. It measures 2½ by 1½ inch.]

URIA ALLE (Linnaeus).

ROTCHÉ or LITTLE AUK.

§ 4925. One.—"Baffin's Bay." From Mr. Hewitson, 1844.

[Apparently received from the north by Mr. John Hancock.]

§ 4926. One.—Grimsey, Iceland, 1843. From Mr. Proctor, 1844.

§ 4927. Two.—Melville Bay, 24 June, 1849. From Mr. Robert Good sir, 1850.

These two eggs were cut out of the birds, shot in Melville Bay, as mentioned in Mr. Good sir's 'Arctic Voyage' (p. 56), where he says he has more than once killed four or five hundred in an hour. Eggs were fully developed in almost all the females. He very kindly gave me these two, drilled with a piercer with which I had provided him.
May he be successful in his second expedition this year (1850) with Captain Penny in his search for Sir John Franklin and his brother Harry!

§ 4928. *One.*—Spitsbergen, 1855. From Pastor Sommerfelt [1857 ?].

[§ 4929. *One.*—Grimsey. From Mr. Proctor, 1851.]

[§ 4930. *Two.*—Cape York, North Greenland, Lat. 76° 30' N., 2 July, 1858. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R.Y.S., 1860 and 1861.

Kindly given to me by Dr. Walker with other eggs (§§ 242, 4858, *etc.*) on his return from his voyage with Captain McClintock. One of these eggs is inscribed by the doctor "laid upon a stone, in crevices among stones." The other is the most beautifully and strongly marked egg of this species that I have ever seen.]


[§ 4932. *Three.*—Magdalena Bay, Spitsbergen, 1873. From Mr. A. E. Eaton.

These, kindly given to me by Mr. Eaton, were said by him to have been taken by some of the crew of the 'Æolus,' Mr. Leigh Smith's yacht, on board of which Mr. Eaton was.]

[§ 4933. *Two.*—Grimsey, 1885. From Mr. Thomas Carter, 1903.

Obtained, Mr. Carter informed me, while he was in Iceland, from Herr Hansen, of Akureyri.]


Inscribed by and formerly in the collection of Inspektor Fencker, who,
according to Herr Winge (Grönlands Fugle, p. 231), found the species breeding abundantly on this island. An egg beautifully marked with pale reddish-brown blotches, and kindly sent to me on that account by Herr Schiöler.]


Received, as its donor informs me, from Herr Havsteen. [This egg is much freckled at the larger end with fine brownish-red spots.]


These are unmistakably Rotches’ eggs, but they came to me under the name of "Uria mandtii", which species Mr. Jackson says (Thousand Days in the Arctic, ii. p. 408) he found "nesting in small numbers amongst the Rotches, whose company it seemed to prefer as a rule"—the mistake could hence be easily made by anyone unacquainted with the eggs of the two species. He adds (tom. cit. p. 409) of the latter: "We found incubated eggs at Cape Grant on July 14th, 1895."]

FRATERCULA ARCTICA (Linnaeus).

PUFFIN.

§ 4937. Three.—Flamborough, Yorkshire. Not later than 1843.

These are from Flamborough Head, where the birds breed in clefts of the rock. The specimens are unusually strongly marked.

§ 4938. One.—Flamborough. From Mr. Williamson, 1847.

§ 4939. Thirteen.—Handa, Sutherland, 9 June, 1849.

The Puffin was far advanced in incubation. I got many of its eggs in holes in sloping banks on the sides of the cliff—little or no nest—the egg generally exceedingly dirty. The birds were easily
caught on the eggs*. One of them inscribed "N.B.?" is, I think, the most highly marked one I ever saw.

[This egg is certainly extraordinary for its amount of marking, and, like Mr. Wolley, I never saw its equal. It is also inscribed "Bird caught. J. W.," and his initials are written on eight others, shewing that he took them with his own hands.]

§ 4940. Twenty.—Færøe, 1850. From Sysselmand Winther.

The Puffin [in Færøe] was in myriads, literally looking like swarms of bees about the cliffs. Lille Dimon, where are the black Sheep, is perhaps the greatest station. This island is nearly inaccessible from the sea; but when once you get up the south-west corner, by a rather dangerous clamber, it is easy enough, as it slopes gradually to the top with intervening ranges or terraces of low cliffs. The ground in many parts of this island is completely undermined by the Puffins. I caught some of their young covered with very long grey down. We descended from the island by another track easy for us strangers as we were let down partly by ropes. In their flight these birds often cannot turn quickly enough to avoid the hand-net which is suddenly raised before them. [A rude sketch follows.] We saw parties engaged in this way in bird-catching down the cliffs at Enneberg, the north cape of Videröe. The minister was away watching the proceedings. We rowed home in

* "Cogebantur tamen sibi canere, ne rostris quibus magnis admodum adnunc praeidite sunt, vel in brachio vel crureprehenderetur, quod viribus valeentes morsus inferre non leves solerent."—De Bry, Pars IX.

[This note is an extract from the account given by De Bry in 1613 (Suplementum nonae Partis Indicie Orientalis, p. 22) of the voyage under Pieter Willemsz.-Verhuff or Verhoef in 1607-1610, which Mr. Wolley must have read and copied during his Dodo researches (Memoir, p. xvi), for Dodos are the birds therein referred to. The passage is not quoted from De Bry by Strickland in his 'Dodo and its Kindred,' but he gives (p. 18) what he says is the earliest account in the original German from Hulsius. It was put together from the information of Johann Verken, a Saxon, according to Heer P. A. Tiele (Memoire bibliographique sur les Journaux des Navigateurs Néerlandais, p. 178. Amsterdam: 1867), the compiler being Gotthard Artus.—Ed.]
his boat, women-servants pulling. They were very particular in preventing us from firing for fear of startling the climbers, who remain on these ledges for several days or even weeks, and provisions are let down to them. Boats go out to take the birds they throw down. On a holm, like the Doreholm in Shetland, between Tindholm and the main island Vaagoe, is a chain hanging down like a bell-rope, to assist in climbing to the slope where Lundis breed. They are dressed and dried.

[It appears that Mr. Wolley's visit in 1849 was too late in the season for him to obtain any eggs himself. I have had the sketch of the hand-net copied and inserted here, though Landt (Beskrivelse over Færøerne, tab. ii. fig. 7) figures it well; because I believe that its use is being given up.]

§ 4941. Twelve.—Orkney, 1851. From Mr. George Harvey, of Stromness.

§ 4942. Six.—Færøe, 1851. From Sysselmand Winther.

Out of about fifty-six sent me by Mr. Winther. Very few well marked.

§ 4943. Three.—Færøe, 1852. From Sysselmand Müller.

§ 4944. Five.—Færøe, 1853. From Sysselmand Winther.

§ 4945. Two.—Hornó, East Finmark, 31 May, 1855.

"J. W."

[These were not entered by Mr. Wolley in the Egg-book. They are inscribed "Common Puffin," no doubt to shew that he was sure that they did not belong to the northern form Fratercula glacialis.]

§ 4946. One.—Wardó Island, East Finmark, 1855. From Lehnsmand Reen.

§ 4947. Four.—Færøe, 1859. From Sysselmand Winther.

[One of these is curiously shaped, measuring 2.77 by 1.74 inch, but cannot well be anything else than a Puffin's.]
FRATERCULA ARCTICA.

§ 4948. One. — Staples, Farne Islands, 21 June, 1851.

“A. & E. N.”

The only egg of this species taken by us on our first visit to the islands. The bird was drawn from its hole clinging by its beak to the back of my hand. Our men made merry with its futile attempts to rise from the level grass—“Ah, Tammy, ye canna’ fly fra aff the plain!”—till it scrambled to a place whence it could drop a short distance, and then sped away.]

§ 4949. Four.— Flamborough Head, 1851. From Mr. Jones, of Bridlington.]

§ 4950. Two.—Unst, Shetland, 1854. From Mr. James Smith.]


Taken by myself. The bird, which I let go, was decidedly not P. glaucialis.]

§ 4952. One.—North Warmsey, Farne Islands, 18 June, 1856. “Bird caught. A. & E. N.”

The only egg of the species taken by us on our second visit to the islands.]

§ 4953. Four.—Bull Rocks, Rathlin, 25 May, 1863. From Mr. Robert Harvey.

Taken, wrote Mr. Harvey, by Donald Dan.]

§ 4954. One.—Dun, St. Kilda, 22 May, 1868.

“H. J. E.”

From Mr. Elwes.]

§ 4955. One.—Barra Head, Outer Hebrides, 13 June, 1868. “H. J. E.”

Both the above obtained by Mr. Elwes himself, whose notes on the birds of the last-named island are in ‘The Ibis’ for 1869, pp. 26, 27.]
FRATERCULA ARCTICA.—COLUMBUS GLACIALIS.

[§ 4956. One.—Grand Manan, Bay of Fundy. From Mr. Henry Osburn, 1867.]

[§ 4957. Four.—Ailsa Craig, 6 June, 1884. From Mr. Robert Service, 1886.

Mr. Service wrote that they were all obtained by himself on the island.]

FRATERCULA GLACIALIS, Stephens.

[§ 4958. One.—Grimsey, Iceland. From Mr. Proctor, through Mr. Tristram, 1867.

This is one of two eggs which had been for a long while in Mr. Tristram's collection. Mr. Proctor had told me of his having formerly received skins of the larger Puffin from Grimsey. This egg is certainly much bigger than the average of our Puffins', but it is equalled in size by one or two. Herr Hantzsch (Vogelwelt Islands, pp. 105 et seqq.) treats the Icelandic Puffin as belonging to the large Northern form, but I do not feel quite sure that the smaller and more southern F. arctica may not also be there.]

COLUMBUS GLACIALIS¹, Linnaeus.

GREAT NORTHERN DIVER.

§ 4959. One.—Near Myvatn, Iceland, June, 1843. From Mr. Proctor, 1844.

The Icelandic name [Himbrimi] was written on this egg.

§ 4960. One.—From Mr. Green, 1846.

§ 4961. One.—From Mr. Argent, 1852.

¹ [Mr. Wolley wrote in his Egg-book of this species in Sutherland in 1849:—
"Great Northern Diver—I saw many pairs on the saltwater Loch Eribol—
'not known to breed there—not seen with young; leave soon.' This was on the
8th of May. I nearly shot two Ember Geese with ball." The name " Ember
Goose" (Danish Imber) is from the Icelandic Himbrimi.—Ed.]
§ 4962. **One.**—From Mr. Williams, of Oxford Street, 1852.

§ 4963. **Two.**—Sandhvass-holmi, West Iceland. May or June, 1858.

These eggs of *Himbrimi*, found about a month and a half ago, were brought on the 14th of July, 1858, by Jón Gislasson, of Akratúnga in Hraunhrepp in Myra-Sýsla, to the Apothecary Randrup in Reykjavík, while we were there, and we bought them of him for one mark each, the price the apothecary had given on former occasions.

[§ 4964. **One.**—North Iceland. From Mr. Proctor, 1851.]

[§ 4965. **One.**—Dartmouth, Nova Scotia. From Mr. Andrew Downs, 1857.

Obtained by me from Mr. Downs at Halifax, when I was there in August, 1857. I understood him to say that it was an egg of that year.]

[§ 4966. **Three.**—Iceland, 1860. From Mr. J. W. Clark, 1868.

Given to me by Mr. Clark, who brought them from Iceland, whither he went in Lord Fitzwilliam's yacht in 1860, and wrote an account of his voyage in 'Vacation Tourists' for that year (pp. 323-361).]

[§ 4967. **Two.**—Newfoundland. From Mr. Henry Reeks, 1868.

Mr. Reeks has some interesting notes on the breeding of this species in Newfoundland in 'The Zoologist' for 1869 (pp. 1852, 1853). These two eggs differ so much in shape that they can hardly have been laid by the same bird.]


From Inspektor Fencker's collection and inscribed by him, as the kind donor informs me. According to Herr Winge (Grönlands Fugle, p. 137), skins of a male and female shot on a lake at this place are in the Museum of Copenhagen.]
COLYMBUS GLACIALIS.—C. ARCTICUS.

[§ 4969. Two.—Lyosavatn, North Iceland, 9 July, 1885.]
From Mr. T. Carter, 1903.

[§ 4970. One.—Myvatn, North Iceland, 13 July, 1885.]

COLYMBUS ARCTICUS, Linnaeus.

BLACK-THROATED DIVER.

§ 4971. One.—Loch Scatavagh, North Uist, 5 June, 1847.
From Mr. Henry Milner.

Brought to me this 26th of October, 1847, and [the name of the place] written on it by Mr. Henry Milner at Beeston. This valuable egg is one of the only pair the Messrs. Milner met with on this loch, though they found the bird on many of the large lochs [in Sutherland and Ross (‘Zoologist,’ 1848, p. 2017)]. Mr. Milner wrote of this egg on the 21st that “It was taken by my own hands.” Sometimes the bird makes a considerable nest, often scarcely any. The eggs vary in colour. Mr. Milner did not find this bird in Iceland. I hear that Mr. Strickland has attempted to prove that the Norwegian Black-throated Diver is different from ours—see British Association Report.

[In Mr. (afterwards Sir William) Milner’s paper in ‘The Zoologist’ for 1848 (p. 2061), Loch Ean is given as the place where this egg was taken; but Mr. Harvie-Brown kindly informs me that that loch, the name of which is more correctly written Loch nan Ean (Lake of the Birds), may be easily and pardonably mistaken for Loch Scatavagh, the name inscribed on the egg by Mr. Henry Milner, owing to their proximity and the extraordinary ramifications of the latter, though the two are not connected.

I find nothing in the Reports of the British Association to bear out the truth of the rumour which Mr. Wolley mentions; but there may have been some communication by one or other of the Messrs. Strickland to the effect stated, and it may have been noticed in some newspaper of the time. In 1824 C. L. Brehm described (Lehrbuch der Naturgeschichte aller europäischen Vögel, ii. p. 888) a “Colymbus balticus, Hornschuch et Schilling,” from information given to him by those naturalists; but from what he subsequently wrote (Handbuch u. s. w. p. 976) it seems that the supposed new species had its home in South-eastern Russia, only visiting the Pomeranian coast of the Baltic in winter, and nothing is said of its occurrence in Norway, though the rumour, if true, probably had its origin in this alleged species, which has been
by almost everyone else referred to *C. arcticus*, and no doubt properly. The rumour, however, seems to explain Mr. Wolley's desire to identify the eggs he took in Sutherland by shooting the parents, which would otherwise have been needless.]

§ 4972. Two.—Loch Shin, Sutherland, 14 May, 1849.
"J. W."

The first nest of this species I found was by the side of Loch Shin. Half a mile on, after finding a Goose's nest and a Wild Duck's, I come across a Black-throated Diver's pair of eggs. I do not see the bird, but on my going away it comes in sight, and I make it out well with my glass. On my returning it is on or close to the nest, and swims out to about eighty yards, where it stops. The nest is a mere depression of some size in the very short grass. Round it there are scattered bits of willow growing about six or eight inches high, and in it are broken bits of willow. The grass growing in it is yellow, shewing that the bird has been sitting some little time—several days from the appearance of the contents of the eggs. The island may be twenty yards long, and has on it two or three scattered bunches of heather. I see no track to the water's edge, which is about four yards off—large stones reaching halfway. The "islet" was connected with the mainland by a ridge of sand, along which I walked. I visited it as appearing likely for a Diver's nest. Ferguson, the gamekeeper at Lairg, thought us wonderfully lucky in finding the nest. The islet or peninsula on which I found the eggs was in a kind of bay just opposite the island or islands in Loch Shin.

§ 4973. Two.—Loch Awe, Sutherland, 17 May, 1849.

After dinner at Altnagallagagh I walk to the gamekeeper's, John Sutherland. He is not in, but there I see two shepherds who tell me that the two Mr. Clarkes¹ have just got their boat into Loch Awe, and want the keeper to search the islands. I start for it, and they arrive about the same time. Having stated my case I am carried out in the boat, a Norwegian skiff bought at Stornaway, to an island near the middle of the loch; but before I get there I have broken an oar. Mr. Clarke takes one side of the island, I the other. I find the nest almost immediately—two dark, dead-looking eggs about four feet

¹ [The tenants, as Mr. Harvie-Brown informs me, of a farm near Ledbeg, where Sutherland lived.—Ed.]
from the water's edge, lying head and foot together. Close to them and rather overhanging is a bit of willow. No nest, but a little of the dry thin ribband-like grass pressed down. After rowing after the birds, which are seen near, fishing a bit, I lie in wait. They come close together round a corner within shot, but see me as I move my gun, and gradually sink themselves in the water, till their beak disappears. There are no weeds near. They come up and remain at from eighty to one hundred yards' distance, as in the case of the bird at Loch Shin [§ 4972]. They frequently put their head under water, a kind of symptom of anxiety I supposed. I have observed this habit in others and it is mentioned by Yarrell [Brit. Birds, iii. p. 331]. I draw my charge and put in a bullet, but nearly break my ramrod in forcing it home, for the gun is much "leaded." With a steady aim [resting] on a grassy stone, the two birds being close together, I fire. I fancy that both disappear. One, however, is lying on the water. I put in another bullet, and presently send it within an inch or so of the head of the survivor, which does not dive for a second after. It then comes up far away. On picking up my bird it is found to be shot through the back of the head, and a great beauty it is, but I regret its fate. The captain says with a grimace "What will the keeper say?" I shewed him my paper [permission to shoot]. The bird's skin is preserving for me at Newcastle.

Next day I walk with John Sutherland to a loch over the hill in which last year were a pair of Divers which reared a young one undisturbed. A small island in the loch, but a shepherd's lad told me he had once found the eggs on the shore of the mainland there. In it I see Otter's dung.

§ 4974. Two.—Loch Urigil, Sutherland, 19 May, 1849. "Bird shot. J. W."

We drag the landlord's boat [from Altnagallagagh] over to Loch Urigil. In a little island with hummocks is a Black-throated Diver's nest, two feet from the water's edge. A little grass and mayblobs [Caltha palustris] gathered into it. The eggs very pale, one scarcely spotted. John Sutherland found them almost before the boat touched the land. He proposes to lie in wait, which I then volunteer to do, with his gun. After a little time the Divers were driven to the windward side of me, and I get a shot at one. The bird turns and floats to me, apparently quite dead. I see it to within a
few yards of me, but I am watching for another shot, which I get at last at a great distance, and with no effect. The crew have been searching for Goose’s nests on the shore by my direction. We could not find the bird, which we supposed must have recovered itself. The island was covered with high hummocks, which made lying in wait very easy and agreeable. It was not more than twenty yards across.

I saw a Black-throated Diver on Loch Assynt near the island where I found the Mergansers. I also saw a pair on Loch Maddie, where Mr. St. John [Tour in Sutherlandshire, i. p. 40] found them breeding. On the 1st of June a bird was brought to John Sutherland, which had been caught on the road between Loch Urigil and Loch Camaloich, and believed to be my Diver shot at and stunned, as mentioned above. Its beak was broken, but that appeared to have been done last year. Sutherland skinned it for me.

§ 4975. Two.—Sutherland, 1850. From Mr. Bantock.

Mr. Bantock is the head gamekeeper to the Duke of Sutherland at Dunrobin, whose Museum I saw in 1849. Mr. Heyworth has brought a specimen from Sweden, precisely like other eggs of the Black-throated Diver, which, however, it is merely supposed to be from its appearance.

[One of these eggs is curiously pear-shaped.]

§ 4976. One.—Assynt, Sutherland, 1851.

Of a pair received from John Sutherland. I wrote to ask him in which loch they were taken, but I had no answer. The other egg I gave to Mr. Salmon.

§ 4977. Two.—Kaarressuando, Sweden, 1853.

From Pastor Engelmark, who said they were those of Colymbus arcticus. He does not at all know eggs by their appearance, as this is the first year he has paid any attention to them.

§ 4978. Two.—Salmojärvi, Finland, 1854.

Brought to me at midsummer.

Brought by Nalis Aaron, under the name of Tohtaja, that is Black-throated Diver. He lives at Kangasjärvi, a little distance from Nälima.

§ 4980. *Two.*—Palajoki, 1854.

From Johan Matthias, son of the gästgifvare [innkeeper].

§ 4981. *Two.*—Unkari-niemi, Kangasjarvi, 1854.

[Inscribed by Mr. Wolley, but not entered in his Egg-book.]

§ 4982. *One.*—Hakkokangas-koski, Patsjoki. 8 June, 1855.

"J. W."

Nest on the level of the water, out of which it was built, on a margin of the island in a branch of the lake projecting into Russia, just above the fos [rapid]. The bird fluttered off and I shot at it, but apparently missed it. I had a good sight of it.


Given to us as specimens of the largest size of Diver found here. I myself have only seen Colymbus arcticus and C. septentrionalis about; but to-day [10 July, 1855] a C. glacialis in full summer-plumage, shot at Mortensnäs, has just been brought in.

§ 4984. *Two.*—Wuontisjärvi, 16 June, 1855 (with skin).

Obtained by Ludwig at the Wuontisjärvi of Wuontisjärvi Anti, between Keras- and Toras-sieppi, on the morning of the 16th of June. The bird had been snared, and Ludwig bought the skin of the head and neck which he now shews me. It is clearly Colymbus arcticus. The eggs were fresh and taken that morning.

§ 4985. *Two.*—Kontajärvi, 1855.
§ 4986. *One.*—Sudijärvi, 1855.
Taken by Olli Nyimakka between that place and Mukka-uoma.

§ 4987. *Two.*—Salmojärvi, 1855.
Brought to me 5 August by Fredrik Vilhelm.

§ 4988. *One.*—Keras-sieppi, 1855.
From a nest of two brought to Knoblock 7 July by Matthias Hendriksson.

§ 4989. *One.*—Kangasjärvi, 1855.
Brought by Piko Heiki, 11 June.

§ 4990. *One.*—Kätkessuando, 1855.
[A very large specimen, inscribed but not entered by Mr. Wolley in his Egg-book. It measures 3.57 by 2.27 inches.]

§ 4991. *Two.*—Mukka-uoma, 1855.

§ 4992. *One.*—Kangasjärvi, 3 July, 1857.
Brought on the 4th by Olof Johansson, who said he found the nest on Kossari on the 2nd, and snared the cock bird from it. A very dark egg.

Brought 6 August, by Zacharias Erkinpoika, who said he snared one of the birds.

§ 4994. *One.*—Pyhajärvi-strand, 22 June, 1858.
Brought the next day by Maria Muotkajärvi.

§ 4995. *Two.*—Linkosaari, 15 June, 1858.
Brought on the 23rd by Michael Andreas Malkovaara.
§ 4996. *Two.*—Lapland, June, 1858.

Brought 2 July by Johan Hendrik Johansson Kunkasi, having been found about two weeks before.

[§ 4997. *One.*—Loch na-hulish, Argyll, 2 June, 1856.

From Peter Robertson, of Black Mount.]

[§ 4998. *One.*—Loch Bah, Argyll, 1857.

From Peter Robertson, who wrote, on 20 July, that so far as he recollected it was taken from an island in the loch on the 16th of May.]

[§ 4999. *Two.*—Lapland, 1862.

Brought to Muoniovara, 7 July, by Sippi Olle's daughter, with no history.]

**COLYMBUS SEPTENTRIONALIS,** Linnaeus.

**RED-THROATED DIVER.**

§ 5000. *One.*—"Iceland." From Mr. Proctor, through Mr. Hewitson, 1844.

§ 5001. *One.*—From Mr. Hewitson, through Mr. Wilnott, 1846.


On a small piece of water between Tongue and Altnaharrow (Zoologist, 1848, p. 2014). The only egg of this bird the Messrs. Milner found in Scotland. The old bird was shot and an egg inside her broken by the shot. Mr. Henry Milner says it is abundant in Iceland.

§ 5003. *One.*—Sutherland. From Mr. William Dunbar, 1849.
§ 5004. *Colybus septentrionalis.*

*Two.*—Loysninga Fjall, Strömöe, Færöe, 13 July, 1849. "J. W. saw bird."

We saw nests of this bird at Ini-âmirum, near Vestmanskavann, in one of which were two eggs newly laid, placed at one end of the nest. The bird was in the water close to this nest, and within very easy shot. Instead of diving in so small a pool, it took flight; but I saw it as clearly as if it had been in my hands. These nests had mostly been previously robbed, and this is probably a second laying. The nest was raised to some height, made of moss and weeds. I saw two birds in a pond in Sandöe, for which I lay in wait, but missed at a long shot with cartridge.

[The Egg-book contains a rude outline of the nest, nearly oval, with the two eggs at one end of it parallel to one another, and to the minor axis of the ellipse. It seems not worth reproducing.]

I saw the Red-throated Diver between Scourie and Badcol, and I made one or two shots with ball till they rose in Færöe. Mr. Henry Milner gave me a Sutherlandshire egg [§ 5002] and Mr. Dunbar sent me one as a present with some other eggs. I saw many in Shetland [and heard them] making their curious noise as they fly high overhead. I have so seen them in Sutherlandshire and Færöe. I heard one (probably a Great Northern) in Orkney, rushing like a falling star many hundreds of yards overhead: I was standing in the yard of the Bishop’s palace, and the noise startled me. They are abundant in the winter and spring (and perhaps autumn) in the Firth of Forth. They fish near the shore and may be shot by lying in wait for them.

[I do not find in print any mention of the astounding noise made by Divers when suddenly shooting down from a great height in the air, and I never had the good fortune to hear it; but I have been told of it by several good observers, and among them the late Mr. Henry Evans, of Jura, who was well acquainted with it, and used to liken it to the roar of a sky-rocket. How it is caused is unknown, but it is not vocal and is quite distinct from any of the varied cries uttered by the birds.]

§ 5005. *One.*—Sutherland, 1850.

From John M’Gregor, of Inchnadamph.

§ 5006. *Two.*—Orkney, 1851. From Mr. George Harvey, of Stromness.
§ 5007. One.—Sutherland, 1852.

From Donald M'Kay in 1853. A second given to Mr. H. Harpur-Crewe.

§ 5008. Two.—Karto-uoma, 18 June, 1853. "J. W."

These two eggs on a little point surrounded by water in Karto-uoma on the Swedish side opposite Övre Muonioniska. I saw the two birds fly away, and from their appearance, and also because I have seen no other species, I had no doubt they were Black-throated Divers. A boy offered to swim to them for twelve skillings each egg, and as the bog was very heavy, I some way off, the gnats very numerous, and the sun in the north, I accepted his offer. He brought them to me just after I had shot the Brushane [§ 3880], about midnight, the sun shining.

[Mr. Wolley, as just stated, at the time believed these to be the eggs of *C. arcticus*, chiefly because he had not then seen *C. septentrionalis* in Lapland; but he was mistaken, as not only does their size shew them to belong to the smaller species, but the Finnish name *Kaakuri* (Red-throated Diver) was applied to them by the people, who, as he afterwards found, perfectly distinguish it from the larger *Tohtaja* (Black-throated Diver).]

§ 5009. Two.—Jerisjärvi, 1853.

A pair of the eggs of *Kaakuri*, bought at Jerisjärvi; but I am not clear which species it is. I am told that a larger sort, whose eggs are eaten, is called *Tohtaja*.

§ 5010. One.—Jerisjärvi, 1853.

Bought from a boy at Muonioniska, who called it *Kaakuri*, and had brought it from Jerisjärvi two days previously. A second egg got broken.

§ 5011. One.—Haparanda, 1853.

[Inscribed by Mr. Wolley as obtained at Haparanda 20 July, but not entered in his book. He must have got it there with other eggs (§§ 3287, 4902, etc.) during his short visit, when he decided upon returning to Lapland for the winter.]
In the same pond [as the Phalarope's nest (§ 3923)]. A track as usual to the eggs. I examined the bird, which often flew up and alighted again on the other side. Sometimes I was very near it.

Brought to me on the 24th by Lassi Johan, with the bird lately killed. I preserve the skin of the head and upper part of the throat. The red patch is very beautiful.

Brought to me by Joel, the clerk.

I do not remember from whom these came.

Found by Ludwig. He saw the bird perfectly well, and says it was just common Kaakuri. The nest was large and high. He wrote on the eggs "Jag" [I] in pencil.

From Peter of that place.

[Brought, while we were at Muoniovara, with a third, which was given to Mr. Hudleston, by a boy, brother to Samuel the smith. One of these is curiously fashioned.]
§ 5021. Two.—Tamsö, Porsanger Fjord, 1855. From Herr Ulich.

Out of five sent with other eggs [§§ 3273, 3288, 4564, etc.] to Hammerfest.

§ 5022. Two.—Nyimakka, 1856.

From Nyimakka Peter, in the same spot where I took the eggs of this bird in 1854 [§ 5012].

§ 5023. One.—Kaakurijärvi, 20–24 June, 1857.

Brought to Muonivara. 12 July, by Hendrik Sepi, found as above.

§ 5024. One.—Torasjärvi, 30 July, 1857.

Brought, 9 August, by Wollas Lassi, who found it in Ruono at the upper end of the lake. He was not sure as to the species.

§ 5025. Two.—Kaakurijärvi, 16 June, 1858.

Brought by Lars Lassi, of Muonio-alusta, as Tohtaja [Black-throated Diver], but he said that the bird was at such a distance that he could not describe it.

§ 5026. Two.—Kaakurijärvi, 6–12 June, 1858.

Brought, 19 June, by Johan Hendriksson Sieppi.

§ 5027. Two.—Härhälanta, Kyrö, 22 June, 1858.

Brought by Michael Kyrö, found as above.

§ 5028. Two.—Pelsijärvi-ranta, by Pallasjärvi, 26 June, 1858.

Brought by Piko Heiki, found by himself as above.

§ 5029. Two.—Kaakurijärvi, 16 June, 1859.

Brought by Simon Keimionemi, 23 June, found as above.

§ 5030. One.—Færøe, 1859. From Sysselmand Winther.
COLIMBUS SEPTENTRIONALIS.—PODICIPES CRISTATUS. 419

§ 5031. Three.—Shetland. From Mr. R. Dunn, 1849–53.

§ 5032. Seven.—Unst, Shetland. From Mr. James Smith, 1854–6.

§ 5033. One.—Greenland. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R.Y.S., 1860.

§ 5034. Two.—Wide Bay, Spitsbergen, 1873. From Mr. A. E. Eaton.

Obtained by Mr. Eaton during his voyage with Mr. Leigh Smith.

PODICIPES CRISTATUS (Linnaeus).

GREAT CRESTED GREBE.

§ 5035. One.—From Mr. Chapman, of York. 
§ 5036. One.—From Mr. Sadd, of Cambridge. 

§ 5037. Ten.—Norfolk. From Dr. Frere, 1850–51.

[These were picked by Mr. Wolley out of Dr. Frere's series ("a good few") at several times, and the tickets affixed to them shew they were obtained in different years, beginning with 1849, mostly, I believe, from Mr. Sayer, of Norwich, who received them from one or more of the Broads, where they could then be taken in great numbers. Mr. Wolley's note states that he chose "the principal varieties."]


§ 5039. Four. 

§ 5040. One. 

§ 5041. Three.—Norfolk. From Mr. Sayer, 1854.
PODICIPES CRISTATUS.

§ 5042. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.

§ 5043. One.—Tomston Mere, Norfolk, 19 April, 1873.

"Birds seen. A. N."

Lord Walsingham drove me from Merton to Tomston. Here we speedily made out a pair of Grebes at one end of the water, and a single bird at the other. The gamekeeper said there was a nest last year at a place he showed us on the east side, and he had seen the birds affect the same place this year. Thither we went by land, and, arrived at the spot, we heard a splash among the reeds which grow in the water, and Lord Walsingham, going to the nearest bit of mainland, said he saw a Coot's nest with eggs. Before I could get to him he called out that he had found the Grebe's nest and saw four eggs in it. When I came up to him, he waded to the nest (the water was not knee-deep) and I saw him uncover the nest, in which the eggs were only partly concealed, and take one out which he brought to me. Then we called for the boat, and getting into it went to the nest, from which I took another egg—the present specimen. The nest was of the usual Grebe-kind, perhaps fifteen inches in diameter, very little above the water, and consisting of a mass of wet weeds. Meanwhile I had seen the bird, which was soon after joined by its mate. They kept at a good distance from us, but I saw them plainly with my glasses, as they swam to and fro, rather uneasily, but occasionally turning over on one side to wash and preen their feathers, after the manner of Grebes. The water at Tomston, like that at Stanford, is not a natural mere, but was made by the late Lord Walsingham, who put up a dam, and thereby flooded some low-lying ground. On blowing the egg I found it to have been slightly insculptured, perhaps for twelve hours."

§ 5044. Four.—Hickling Broad; Norfolk, April, 1877. From Mr. Frank Norgate.

§ 5045. Two.—Runworth Broad, Norfolk, 11 April, 1884.

"E. N." (Different nests.)

My brother wrote that having met Mr. Southwell and Mr. Clement Reid, of the Geological Survey, at Norwich, they drove together to Runworth Broad, the shooting of which was let to Mr. Gurney Buxton, who strictly preserved the birds upon it. Arrived there they found the gamekeeper waiting for them. "We at once got into his boat and he rowed us on to the Broad ... He said there were seven pairs of Great Crested Grebes on the Broad, and that he knew of two nests, one with eggs and one without ... We soon made out a Grebe on the water about one hundred and fifty or two hundred yards ahead, and then two others nearer to the north shore, and one nearer to the
south shore, and also five Wigeons and a few Wild Ducks. About halfway up the broad on the south side, the keeper backed the boat into a somewhat thin bed of bulrushes, the withered stems of which were at this season broken down, and what remained of them did not stand more than a couple of feet above the surface of the water, and not far in was the Grebe's nest, very like a Dabchick's only larger, placed between the dead stems of the bulrushes, and formed of them and other aquatic plants, with finer materials as a lining. There were five eggs, quite warm and only partially covered with aquatic plants, of which one was the young leaf of a water-lily that must have been fished up from the bottom by the bird, as the plant has not yet grown up to the surface. Mr. Southwell tells me that he has never seen the eggs quite covered up as the Dabchick covers her eggs, and these were visible through the rushes at some yards from the nest. The gamekeeper told us that Mr. Edward Bidwell had taken an egg out of this nest a few days ago, so the bird must have laid six eggs. The keeper let me have one egg, which I have marked 'No. 1,' and immediately after we saw a Grebe close by, probably the owner of the nest, as it seemed very uneasy, swimming backwards and forwards very fast, and occasionally diving for a short time, coming up again some way off, and then swimming back to the same spot. We counted seven more in the middle of the broad.

"We rowed along the north side, the keeper shewing us a Wild Duck's nest on the shore, from which he said the eggs had been taken by rats, and presently he backed the boat to the other Grebe's nest, which now contained two eggs. These were easily visible at some distance. They were quite warm, and as it was cloudy the bird must have just left them. I took one egg, which I marked 'No. 2.' He then shewed us near by the 'false' or 'play' nest, made, he said, by the birds to sit on and preen themselves. It was a raft of reed-stems, of a foot or eighteen inches long, crossed irregularly one over the other, and floating between contiguous stems of bulrushes, which kept it in its place. It was broad at the top, gradually decreasing in size as it was deeper in the water."

[§ 5046. One.—Horsey Mere, Norfolk, 31 May, 1884. "Saw bird on nest. E. N."

My brother Edward wrote that on the day above named he met Joshua Nudd by appointment at Hickling. With some other eggs, he had a Great Crested Grebe's, and getting into his boat they proceeded to Horsey Mere "without seeing anything of interest. We crossed the north end of the mere and turned into the bulrushes, which are now some three feet above the water, to see the Grebe's nest. We were going up wind, and he made straight for the nest, and we got within five yards of it before the bird saw us. I had a fair view of her as she tried hurriedly to cover up her eggs, and she slipped off into the water and disappeared. There were three eggs in the nest and I took one. He had some wild idea that the bird was not the ordinary Great Crested Grebe, but was what he called a 'Double-crested Grebe.' He could not tell me the difference between the two, and I have no reason to doubt that it was a Great Crested Grebe."]
PODICIPES GRISEIGENA (Boddaert).

RED-NECKED GREBE.

§ 5047. One.—From Mr. J. Green, 1844.

Intermediate in size between the Crested and Horned Grebe.

§ 5048. Three.—Kalix, June, 1854.

From two nests on a piece of floating ground in a lake near Kalix, whereabouts Mr. Dann found the Red-necked Grebe some years ago breeding plentifully [cf. Yarrell, Brit. Birds, iii. pp. 305, 306]. In the course of last winter I sent to the Pastor Schmaltz, through his daughter Hilda, a coloured drawing of the bird by Mr. Alfred Newton, and the following is an extract [translated] from one of the letters of Madame Schmaltz [to her daughter] in which the matter was mentioned:

"Now at last I think we have made out about the eggs of the bird you sent for. I have sent out in all possible directions, and I think I have got three eggs. In one nest were two eggs, and in another one egg. It is said that it never has more than two young. They made out about the nest with much trouble, in a lake, on a little hillock, among bulrushes on a floating swamp, where it was almost impossible to reach. The boy went under the arms [i.e. the water came up to his arms] to get there. Now you must ask your Englishman [Mr. Wolley] how I shall send the eggs. According to directions I have blown out two, but as yet not the third for that is fresh. I send it not until you write . . . Flora . . . 13 June."

In consequence of another letter from Mlle. Hilda, the third egg was also blown, and I found the three waiting for me, carefully packed and sealed, on the 26th of September, in the hands of Herr L. O. Lindbäck, at Haparanda. I now (6 October) have them safe at Muoniovara, where I have arrived after a long and troublesome journey up the river. In the box, with the three eggs, was also enclosed the drawing of the bird.

Obs. At Enanger, near Hudiksvall, I saw a drawing of the bird, done by the clerk Herr Brunlöf, among the drawings of other birds killed near there.

§ 5049. Four.—Kalix, 1855.

Received at Haparanda in September with a letter from Fru
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Schmaltz, and a skin of the Red-necked Grebe. The letter [translated] is as follows:—

"My daughter Hilda has charged me to procure this bird, but it has unhappily not been in my way to treat it as wished. The bird could not be got before the moulting-time, and is consequently not in full plumage. The eggs were also found, and I send them though not asked for.... This bird is dear, as I had to send a long way to have it shot, for they are bad to find and only in distant lakes... Florentine Schmaltz, Neder Calix, 22 July, 1855."

The eggs came from two nests, as Fru Schmaltz subsequently told me at an interview at Kalix. The name by which the bird is known is something like Skrind-lom. There were in the box fragments of two or three other eggs. She said she had tried to clean them!

[One of the eggs thus received was sold at Mr. Stevens's, 7 March, 1856, to Mr. Hudleston, a second 31 May, 1860, to Mr. Marshall. Out of the fragments above mentioned, which were given to me by Mr. Wolley, Mr. Salvin, with his remarkable skill, built up two fairly presentable specimens. I well remember the interview of Mr. Wolley and Fru Schmaltz which took place on board the steamer 'Berzelius,' on which we were returning down the Gulf of Bothnia in September, 1855.]

§ 5050. Two.—Kalix, 1857.

These eggs of Red-necked Grebe, collected as the former (§§ 5048, 5049) by Mlle. Hilda Schmaltz, are from the neighbourhood of Mr. Dann's old locality. I received them at the Post-Office in Haparanda in September.

[Four eggs were received, but two were sold at Mr. Stevens's, 23 February, 1858, to Mr. Braikenridge. These have since passed into the collections of Mr. Parkin and Mr. Ticehurst.]

§ 5051. Two.—8 May, 1857.

§ 5052. Four.—1857.

§ 5053. Three.—1857.

§ 5054. Two.—Söborg Sö, Zealand, 21 May, 1857.

§ 5055. Three.—1857.

From Pastor Theobald.
All these seem to have been taken by the Pastor himself, and in a lake or lakes where no other species, as he declared, is found. Of all the last are the only three of which it is not certain that they came out of the one nest, as the Pastor said he was careful to mark or keep them separate as he found them. They were all taken this year and principally for me.

[A fifteenth specimen, from another nest, was sold at Mr. Stevens's, 31 May, 1860, to Mr. Braikenridge, and is now, I am informed by Mr. Parkin, in the latter's collection.]

§ 5058. Two.—Söborg Sö, 4 June, 1857.
From Herr H. C. Erichsen, 1859.

All the above given me at Copenhagen by Mr. Erichsen, who seems to have taken them himself. The lake is about five English miles from Copenhagen.

§ 5059. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.

§ 5060. Three.—Söborg Mose, 8 May, 1892.
From Herr J. S. Regenburg.

§ 5061. One.—Söborg Mose, 19 June, 1892.

Given to my brother Edward when in Denmark, the last picked out of the water by Herr Regenburg on the occasion of his visit to Söborg in company with Herr Herlaf Winge and my brother, whose account of the place is as follows:—"On arriving at the kro (public house) we walked down to the mose (moss) and got into a boat. We soon saw a Red-necked Grebe, Black Terns, and Black-headed Gulls. The land round the mose is cultivated down to its edge. It is perhaps half a mile long, running from north to south, and is mostly edged with common reed, then thick masses of a large species of Equisetum, with vast quantities of water-lil'ies and the curious pine-like weed (Stratiotes aloides?) which grows at South Walsham, and floats upright, the roots only touching the bottom. The whole of the mose is nearly covered with this, and there is consequently very little open water. We tried to force our way to the east, but were prevented by the mass of weeds. There were in this part about four Black Terns. I could never see more at a time. They evidently had eggs,
as they came quite close, screaming angrily; but we were not able to get within one hundred and fifty or two hundred yards from where they settled down, and where their nests probably were, though we passed over where my companions said they had nests last year. There were also about one hundred Black-headed Gulls, which evidently had nests, but we could not get near to them. After some labour we got the boat into a sort of canal where the water was deeper and the weeds fewer, and went about a quarter of a mile, landing on a small island covered with high grass, and having a mound of earth about ten feet above the level of the mose, from which we could see over it. Here were more Black Terns, different birds, we thought, from those we had seen before, about four old Red-necked Grebes and two broods of young—one and two,—and one or two Coots. After remaining about a quarter of an hour, we rowed across to the land about a hundred yards off, and then walked along the north-west side. Here we counted eleven Black Terns at one time. Herr Regenburg picked up a cracked Grebe's egg out of the water and gave it to me. The mose, Herr Winge said, could not be drained, as it is part of the scheme for flooding the neighbourhood of Copenhagen, in the event of invasion by an enemy on the land-side."

PODICIPES AURITUS (Linnaeus).

HORNED GREBE.

§ 5062. *One.*—Iceland. From Mr. Proctor, through Mr. Hewitson, 1844.

§ 5063. *One.*—Myvatn, Iceland, 1846. From Mr. Henry Milner, 1847.

They did not see the Eared Grebe in Iceland. The Horned was abundant.

§ 5064. *One.*—Myskemyr, Gottland, 10 June, 1854. From Herr Meves, 1855.

Given to me at the end of September by Herr Meves, Conservator of the Museum of the Academy of Sciences at Stockholm. He took it himself on a lake in the south of the island from which all the specimens of this Grebe in the Museum were obtained. It is Prof. Sundevall's opinion that Linné's *auritus* is *cornutus*, auctorum, and that *Pod. arcticus* is the summer dress of the same bird.
§ 5065. Two.—Marsjö, Öland, 7 June, 1856. "J. W. and W. H. S."

Out of a nest of five eggs found by Mr. Simpson [Hudleston], who was wading a little to my right. The eggs were covered, and the nest floating among sedges where the water was nearly up to the fork. We could not get a sight of the bird; but as the Sclavonian Grebe is known to breed in Gottland (texte Meves and the Stockholm Museum [§ 5064]) we supposed the nest might belong to that species. Of the eggs three were hard sat upon, and two apparently fresh. I kept the feet of the young Grebes in spirit.

§ 5066. Three.—Knise Mosse, Öland, 11 June, 1856. "W. H. S."

Found by Mr. Simpson [Hudleston] in a nest of six. He saw the bird close, and saw it twice leave the nest. He has a stuffed specimen at home and is certain this was the same, namely Sclavonian Grebe. On the 17th I went with him to the moss, and saw a Sclavonian Grebe distinctly with my glass. He found another nest in the same place with young birds, of which he caught two or three.

[One of the above was given to us by Mr. Hudleston on his return.]

§ 5067. Two.—Ormöga, Öland, 17 June, 1856.

§ 5068. Two.—Ormöga, 18 June, 1856. "J. W."

Out of two nests which I visited, 18 June, the second still untaken. It was among bog-beans in a piece of water with very little cover. Here I saw and watched three pairs of Sclavonian Grebes swimming about, with their crest up. After the eggs were taken I saw one of the birds fly up towards the spot. The first nest had six eggs, of which Mr. Simpson [Hudleston] has three, as well as one from the second nest, which is white and nearly round. It was laid the night before.

[One egg from the first nest was given to us by Mr. Hudleston and two others were sold at Mr. Stevens's, 31 May, 1860, to Mr. Braikenridge, one of which has since passed into the possession of Mr. Parkin. The following extract which Mr. Hudleston has allowed me to make from his
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journal of 18 June, 1856, renders the history of these specimens more complete:—

"My boys having found a Sclavonian Grebe with six eggs yesterday, and also another nest close by containing two eggs, which they left, we started for the place this morning. It proved to be a pool of water lying in a depression in the large common which extends from the back of the Merlin wood to the west coast. No aquatic vegetation covers this pool except a thin fringe of bog-bean on one side. In a little bay, where this fringe was thickest, were the two nests, one of which now contained three eggs, the one laid this morning being fresh and of a curious round shape. There were three pairs of the birds floating on the pool, and we lay down to watch them for some time—an interesting sight. They were not very shy, and appeared quite unconcerned, floating smoothly along, and sometimes taking a short flight."

§ 5069. Three.—Flánkastadir, South-western Iceland, 7 June, 1858. "A. N."

From a nest built on a floating bog-bean off a little islet in a small pond close to the house at Flánkastadir. The day we came here first (21 May) we saw some Grebes on this and the adjacent pond at Sandgerði; and passing it again on returning from our visit to Pastor Sivertsen at Utskála, we thought it best to enquire of the inhabitants respecting this and other kinds of birds. While Mr. Wolley was talking to the man through Geir Zoega, and trying to make him understand what we meant by our enquiries, I saw a Grebe quietly sitting on its nest, as above described, not forty yards from us. The man brought a plank, and we got on to the islet, the bird leaving its nest as we approached, and Mr. Wolley holding me by one hand I reached out and took these eggs out of the nest. The bird continued in the pond for some time, and several times rose to the surface. It appeared to me to have a full amount of feathering round the head, and therefore not to be the supposed P. arcticus. The native called it Flánaskitr. The nest was truly a floating one, and composed of plants newly gathered, as seen from their freshness. There were several pairs of Red-necked Phalarope about; but they did not seem as yet to have got nests, also on the adjacent bigger pond of Sandgerði there were three more pairs of Grebes and the beginning of a nest."

§ 5070. Three.—Flánkastadir, 18 June, 1858. "A. N."

Out of four from the same nest as before (§ 5069). I had a still better view of the bird than I had the last time, as I was within five yards of her when she left the nest, and I could plainly see her crimson eye. I have no doubt she was positively the Horned Grebe. I got out to the nest as before, and took the eggs myself. The little islet close to which the nest was built was now much grown up with grass, among which were some six or eight nests of Arctic Tern. Four of them contained two eggs each and these I took (§§ 4478–4481). The fourth Grebe's egg I gave to Mr. Salvin."

1 [A wood in which Mr. Hudleston had taken a Merlin's nest.—Ed.]
§ 5071. *Two.*—Sandgerdi, South-western Iceland, 18 June, 1858. "J. W."

§ 5072. *Five.*—Sandgerdi, 6 July, 1858.

[These two sets (the first from a nest of three) were taken and marked as above by Mr. Wolley, but not entered by him in the Egg-book, the pool at Sandgerdi being, as already mentioned, very close to that at Flánkastadr. At the former place I saw on the 18th of June a nest built among and on a patch of bog-bean, in a broadish channel between two islets. The proprietor's son got out to it, and took the two eggs it held, which I afterwards gave to Mr. Percy Godman. I could just see one of them as I stood on the brink. I afterwards saw a Grebe come quite close to the nest, and it appeared, as all the Grebes on this and the adjoining water at Flánkastadr, to be a Horned Grebe. The third egg of Mr. Wolley's nest of the 18th of June was sold at Mr. Stevens's, 31 May, 1860, to Mr. Braikenridge.]

[§ 5073. *Three.*—North Iceland. From Mr. Proctor, 1851, 1852.]

**PODICIPES NIGRICOLLIS,** Brehm.

**EARED GREBE.**

§ 5074. *One.*—From the Geneva Museum, 1846.

All the man's eggs, if I remember, were of the neighbourhood, and this bird probably breeds in the Swiss lakes. It is rather smaller than the egg of the Horned Grebe, as is the bird itself.

§ 5075. *Three.*

§ 5076. *One.*—"Sardaigne."

[The three were most likely from Algeria.]

§ 5077. *Two.*—Lake Halloula, Algeria, 20 May, 1856. From Mr. Tristram, 1858.

Lot 248 at Mr. Stevens's rooms, 9 February, 1858. The note on the species in the Sale Catalogue says:—"Breeds in society on
artificial islets raised in the centre of the lakes. Some of the nests examined were piled more than a yard under water; none were taken in 1857.” It is said that in Algeria no other Grebe can be confounded with it.

§ 5078. Four. Lake Halloula, 20 May, 1856. From Mr. Tristram, 1858.

§ 5079. Four.

Complete nests, all taken by Mr. Tristram, who said that he took some 86 in about half an acre of pond, by means of a boat extemporized with rushes and worked by a pole. The other Grebes of the country are Great Crested and Little Grebes. Mr. Tristram did not see the Sclavonian anywhere. The Great Grebe is always in company, while the Little Grebe is solitary. The Whiskered Terns take the nests of the former afterwards [cf. § 4387].

[§ 5080. Two.—Lake Halloula, 20 May, 1856. From Mr. Tristram.

Given to me by the Canon on his return in the same year.]

PODICIPES FLUVIATILIS (Tunstall).

DABCHICK OR LITTLE GREBE.

§ 5081. Four.—Eton, not later than 1842.

Common on the Thames. I have also seen and shot the Dabchick on the Cam. It is also found on the Trent, and I have frequently seen it fly early in the spring. The egg marked has the calcareous surface scraped off by the assistance of water with the edge of a quill.

[Mr. Rowley's note (Memoir, p. xi) shews that “hunting Dabchicks” was one of Mr. Wolley's amusements at Eton.]

§ 5082. Four.—Tangier, June, 1847. From M. Favier.

I saw one of these birds in one of the Tortoise-pools in September, 1845. Another specimen sent to Dr. Brewer.
§ 5083. *Two.*—Eton, 1850.
From G. Hall.

§ 5084. *Two.*—Eton, April, 1852.
These were from a nest of seven eggs which Fisher, of Eton, had on the 1st of May. They were taken somewhere about Boveney. He says that there is no great demand for eggs at Eton now, in consequence of the numberless impositions practised on the boys.

§ 5085. *One.*—Thetford, 1836. "J. D. S." From Mr. Salmon.

[No doubt taken by Mr. Salmon himself; but there is no note of when he gave it to Mr. Wolley. It appears to have been in his old cabinet.]

§ 5086. *Two.*—Barnham, Suffolk, 1847.

§ 5087. *One.*—Barnham, 1848.

§ 5088. *One.*—Barnham, 1849.

§ 5089. *Three.*—Barnham, 1851.
The above seven, with several more, all brought to my brother or myself by the same man, William Baker.

§ 5090. *Three.*—East Wretham, Norfolk, 18 June, 1853. "A. & E. N."
Taken by ourselves as above, on a mere.

§ 5091. *Four.*—Isle of Doagh, Donegal, 11 July, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote:—"I had nearly given up hope of these eggs when my nephew sent me this nestful, and three others, all taken by Paddy Donald Keaghal, on a small lake, where I had seen the birds in June; but could get no eggs. I believe the delay was caused by the heavy rains, which had flooded the lake and prevented the cover for the nest from growing up."
§ 5092. Five.—Bloxworth, Dorset, 19 May, 1876. "Saw bird. E. N."

My brother’s note, written at Bloxworth, is:—"I have noticed a Little Grebe, and once two, on the Oakermire pond here ever since I first went to it, on the 27th of April, and having seen a nest with two eggs at Littlesea, near Studland, on the 15th of May, I thought it was time to look for their nest. On the 10th I accordingly went to the most likely spot, the sallow bushes on the south side, and on getting up a few feet into one, I saw the nest below me, resting on a bough of the tree which was submerged. The eggs were entirely covered up with the weeds of which the nest was made, but were warm. I saw what I believe was the male bird on the pond just before. Two of the eggs contained young within a few hours of hatching, the others were addle."


This was given to me by Mr. Evans, 2 June, being one of a pair sent to him by Mr. J. H. Dixon, of Poolewe in Ross-shire, and the produce of the Grebes that breed in a loch above that place, and have been supposed by Mr. Booth (Rough Notes, iii. sub cap. Sclavonian Grebe) and others to be Horned Grebes (P. auritus). Mr. Evans was at the place about six weeks before, and saw the birds well. He then satisfied himself that they were only Dabchicks; but waited till the eggs had been taken before declaring himself. Having compared this egg with those of other Podicipedes there cannot be a doubt that he was right. Indeed he told me that he had been near enough to the birds to see not only that they were not horned or tufted, but also to see the little white spot at the gape, so that I feel pretty sure that the story, which has also been published in Mr. Dixon’s ‘Gairloch,’ (p. 253), must be founded in error (cf. Ann. Scott. Nat. Hist. 1892, pp. 171, 172). It was said that there was never more than a single pair of Grebes breeding on this loch.

PUFFINUS KUHLI (Boie).

§ 5094. One.—Desertas; Madeira, 1850. "With bird."
From Dr. Frere.

Dr. Frere, in a letter of 24 September, 1850, says:—"I have promised to send him [Mr. G. R. Gray, of the British Museum] an egg of the Great Shearwater which I have, also with the bird, and which I showed to him. I don’t know whether I ever gave tongue to my intention of sending you an egg also; but if I did I fear it must not be this year, though next I hope to have some more
specimens. Can you wait?" Again, writing 8 October, 1850, he says: "I will send also (for I have received two more since I wrote to you) the egg of the big Shearwater."

The following is a copy of another letter to me from Dr. Frere, dated 9 Queen Street, Mayfair, 12 October, 1850:—"You are quite right in your wish to learn more about the eggs. What I have told you is, I dare say, far from conclusive to your sceptical mind; but I felt that I had no right, and have no right, to make you, whether you will or no, the depository of a fact that I do not want generally known, till after next season at least. I have been at some trouble and it has cost me something to get at these eggs, and I do not wish to be forestalled, as I might be, did it get more known than it is at present. A friend who was travelling promised to look out for eggs for me. He reported that on a certain rocky island there were four kinds of Shearwaters and Petrels, that he saw a fifth which he knew was the Common Petrel, out at sea, but he did not see it on land. He believes that he was the first Englishman who ever landed there. He gives me the Portuguese name for these four birds, and also the address of a bird-killer, I cannot call him a naturalist, in the neighbourhood of it. I wrote to him for what he can send. He sends me, with their country-names (he knows no other), four kinds of birds from this place—the Great Shearwater, the [Puffinus] obscurus, Bulwer's Petrel, and Leach's Petrel, besides a young Tern—also eggs which he asserts belong to each of these birds. They correspond with what the eggs of the birds ought to be, at least the large Shearwater does (so much so, indeed, that I received the egg first and never doubted that when I sent for the skin I should find it to be the Great), the Leach's Petrels' eggs are exactly like other Leach's Petrels' eggs, and some of the Bulwer's my friend took himself, kicking the bird off the egg.

"The man has no object in deceiving me. I should have paid him, for all he knew, just the same under all circumstances, and for my own part I am certainly quite satisfied, though I cannot say that this particular egg was laid by the bird that owned that particular skin, and if I were not so, I should begin to think whether, provided I shot a bird off the nest, that bird were the parent, a visitor, or a hired wet nurse. I can understand a man being doubtful with an egg like the Roseate Tern's or any of the Ducks, when the mere fact of the eggs coming in the same box would not be sufficient; but, if one is to believe anything, I believe these eggs to be, I don't say Great Shearwaters' eggs or Bulwer's
Petrels' eggs, but eggs of birds with jackets similar to those that lie in that drawer that Gray tells me are Great Shearwater and Bulwer's Petrel."

[I believe that Dr. Frere's friend, through whom he obtained these Petrels' eggs, was the late Mr. T. Vernon Wollaston (cf. § 5147), the well-known entomologist—a friend also of Mr. Wolley's. At that time the large Shearwater which bred in the Desertas was fully believed to be Puffinus major, Faber, that is P. gravis, O'Reilly, with which it was so long confounded, while the "Leach's Petrel" is now separated as Oceanodroma castro.]

§ 5095. Two.—Desertas, 1851. From Dr. Frere.

"Grey Shearwater, P. cinereus, Steph. Briciano, 1851," in Dr. Frere's book. These two valuable eggs among a number of the kind sent to him with the birds from Madeira.

[§ 5096. One.—Desertas. From Dr. Frere, 1861.

Given to me by Dr. Frere, on breaking up his collection. This was the last of the large Shearwaters' eggs he had left.]

[§ 5097. One.—Desertas, 15 June, 1892. ]

[§ 5098. One.—Ilha de Fora, Porto Santo, 20 June, 1892. ]

[§ 5099. One.—"Graecia," 1863. From Dr. Krüper, through Herr Seidensacher, 1864.]

Inscribed by Dr. Krüper "Puff. cinereus," and under that name its breeding-habits in the Cyclades are described by him (Journ. für Orn. 1863, pp. 326–339). He found an egg on the 31st of May, 1862, and the beginning of June can be regarded as the regular time for laying, while at the end of July the young are still small and covered with down, and they had not left the nest at the beginning of October. The old birds are neither seen nor heard during the daytime at their breeding-place, but become active at night, flying to and fro with fearful cries in the most varied tones (cf. etium Griechische Jahreszeiten, iii. p. 298). It is to be noted that this egg is much smaller than the average of P. kuhli, and its reference to that species is hardly free from doubt.]
PUFFINUS ANGLORUM (Temminck).

MANKS SHEARWATER.

§ 5100. One.—[Shetland?] From Mr. Hewitson, 1844.

Of two, the other given to Dr. Brewer. They are very like Hens' eggs, but may be distinguished by the more chalky feel, the greater thinness of the shell, and the greenish appearance on being held to the light, so as to shew the inside.

[Apparently obtained by Mr. Hewitson in Shetland, where he states (British Oology, text to plate xxxix.) that he procured about fifteen specimens:— "These I had some difficulty in obtaining, from the very high estimation in which they are held by the fishermen as food." He adds that Dr. Edmondston told him that the knowledge of their breeding-places is kept as a family secret, and handed down from father to son. This was in 1832.]

§ 5101. One.—From Mr. Hancock, 1846.

§ 5102. One.—From Mr. Robert Dunn, 1848.

§ 5103. Four.—Hoy, Orkney. From Mr. George Harvey, 1848.

Mr. Harvey had a large stock of the eggs of this bird, of which I took the half.

§ 5104. One.—Sund, Strömöe, Færöe, 7 July, 1849.

"J. W. ipse."

Of the Shearwater we examined two holes on the 7th of July, near Sund. A boy knew the holes and he carefully worked down to them through sands carefully packed. In one was a young bird covered with very long Ostrich-feather-like, grey down. The other nest had one egg in it, on which was the bird, which I caught and examined. The egg had a largish young one in it. The nest made of grass and moss. There were other holes, but I did not care to examine them, as it was so late in the year. In Naalsöe the old joiner could not find them for us. I saw many of the birds between Strömöe and Æsteröe. Their flight is very peculiar.

I saw several Shearwaters in the Firth of Forth off Kinghorn in August, 1850.
§ 5105. *One.*—Orkney, 1850. From Mr. George Harvey.

Out of seven. There is one with a slight appearance of marking such as there is on one of the Fulmar’s eggs I got in Færöe.

§ 5106. *Nine.*—Orkney, 1851. From Mr. George Harvey.

§ 5107. *One.*—Unst, Shetland, 1852. From Dr. Frere.

Sent by Mr. James Smith, the schoolmaster [cf. § 4675]. This egg I chose in consequence of its very distinct markings, principally at the larger end. On holding the egg so as to let the light of a candle fall very obliquely upon it, it will be seen that these linear markings are, in many instances, little depressions in the shell itself.


[There were eight sent. One was sold at Mr. Stevens’s rooms, 23 February, 1858, to Mr. Braikenridge, and has since passed into the possession of Mr. Parkin. Two others I sent to Dr. Baldamus, in 1860.]


[§ 5111. *Two.*—Unst, 1854. From Mr. James Smith.]

[§ 5112. *Four.*—Unst, 1855. From Mr. James Smith.]

[§ 5113. *Ten.*—Unst, 1861. From Mr. James Smith.]


Mr. Harvey’s note says that these were taken by Donald MacCarter “at some part of the cliff on the north side of the island which he is not willing to mention. He goes at night, as he says the birds are out at sea, fishing, all day and return to the nest at night, at which time he takes both bird and egg. Mr. Gage’s observation and my own corroborate this statement. We never see these birds in the cliffs or find them fishing like other rock-birds close to land. It is only at early morning or evening twilight we ever see them, and then (so far as we have observed) they seem to be going from the island in the morning and returning at evening.”]
PUFFINUS YELKOuan.—P. ASSIMILIS.

[§ 5115. One.—"Græcia," 1863. From Dr. Krüper, through Herr Seidensacher, 1864.

Inscribed by Dr. Krüper "P. obscurus," under which name the species is included by him and Dr. Hartlaub in their account of the birds of Greece and Ionia (Griechische Jahreszeiten, iii. p. 299); but they there identify it with P. yelkouan, and the former states that it is found in the same places as "P. cinereus" (that is P. kuhli), but is somewhat scarcer. Its single egg is usually laid so deep among loose stones that it is hard to reach. It breeds two or three weeks earlier than the other species (cf. etiam J. f. O. 1863, pp. 335, 336).]

PUFFINUS OBSCURUS (Gmelin).

DUSKY SHEARWATER.


One of two received by me from Captain (now Colonel) Feilden with five skins—one that of an adult marked "male," and four of young birds with more or less down upon them. I immediately sent the former and two of the latter to Mr. Salvin, and he wrote that they certainly belonged to Puffinus auduboni, though he could not then pledge himself as to its specific distinctness from P. obscurus. In his catalogue of the specimens of Tubenaires contained in the British Museum (Cat. B, Br. Mus. xxx. p. 383), published in 1896, he united P. auduboni to P. obscurus. These eggs are, naturally enough, very like those which Dr. Frere used to receive from the Desertas (§ 5117) as those of P. obscurus, but are now referred to P. assimilis. The other egg and three of the skins I returned to Colonel Feilden, whose notes on the breeding of this species (under its synonym P. auduboni) will be found in 'The Ibis' for 1889 (pp. 60-63 and 503).]

PUFFINUS ASSIMILIS, Gould.

§ 5117. Five.—Desertas, Madeira, 1850. From Dr. Frere.

Dr Frere writes, 8 October, 1850: "Would you like a specimen (badly blown) of Puffinus obscurus? I have it with the bird"; and more recently he says that Mr. G. R. Gray believes the bird to be
P. obscurus, but that it was not left for him at the British Museum, as Dr. Frere intended some day to make a closer examination for himself. Mr. Yarrell seems to think the P. obscurus and P. cinereus one and the same; but these eggs are vastly different from those of the Great Shearwater above mentioned [§ 5094]. In the same letter of 8 October, Dr. Frere wrote:—"With regard to the genuineness of these particular eggs, the skins are here, and Gardiner and Mr. Gray both speak to this Great Shearwater, while Mr. Gray told me that the other was Puffinus obscurus; but that he would look at it again if I would leave it at the Museum. . . . Is it not a hard egg for a Shearwater?" Mr. Gould figures a small Shearwater in his 'Birds of Europe' (pl. 444) as the P. obscurus, and says it is precisely like P. anglorum, except in being much smaller in size. He gives no particulars of its history.

[Three of the above, with a down-clad bird (now in the Cambridge Museum), given to my brother and myself by Dr. Frere, were from the same consignment as those to which the two eggs given to Mr. Wolley belonged.]

[§ 5118. One.—Porto Santo, 30 January, 1893. From Padre E. Schmitz, through Mr. Borrer.

[§ 5119. One.—Porto Santo, 22 February, 1893.]

Sent with two other eggs and the skin of an adult bird to Mr. Borrer, to whom I returned the skin and the other two eggs. They correspond accurately with those formerly received by Dr. Frere (§ 5117).]

**FULMARUS GLACIALIS** (Linnaeus).

**FULMAR.**


Mr. Henry Milner told me that they had great difficulty in blowing the Fulmars' eggs on their way home, as most of them were hard sat upon, and this at a time when the Common Storm-Petrels had only just begun to lay—say about the 10th of June. St. Kilda is very seldom visited. The natives could not speak a word of English, but
luckily the Messrs. Milner had a minister with them. One oldish man could remember seeing the Great Auk very many years ago.

[Mr. Graham, afterwards a well-known bird-stuffer at York, was taken by the Messrs. Milner with them on their visit to St. Kilda in 1847, an account of which was given by the elder of the brothers, afterwards Sir William Milner, in 'The Zoologist' for 1848 (pp. 2054-2062). This egg was one of those then obtained, but from which of the islands which make up the group known as "St. Kilda" there is no evidence to shew. The species breeds in vast numbers on Soay, but there are a good many on St. Kilda itself.]


§ 5122. Four.

From Sandöe. "Boat betimes for Store Dimon. Psalms [sung] on starting. Færöese shoes for rocks. Magnificent perpendicular cliffs. Cattle hoisted up perpendicular about forty fathoms. We climb another place. Rotten ropes not to be trusted, so fingers [inserted] in holes chiselled in rocks. Certainly precarious." This is evidently the track by which Grabä' [Reise nach Färö, p. 173] left the island; but a basket could not be let down exactly into a boat, though it almost might be at the spot where the cattle are hauled up (ride 'Iceland, Greenland, and the Faroe Islands, etc.' [By James Nicol], p. 313). "Farmer, coffee, dried Puffins. Ropes down rocks near thirty fathoms for Hedæhestur (Sea-horse) [i. e. Fulmar]. I took two on eggs, one of them got off with my red handkerchief, to the great delight of the Færöese. I gathered eight of their eggs—nest made of fragments of stone in a slight depression. Rock rotten, Fulmars bite hard—spewed on my approach. Have only built in Færøe the last ten years. Grindaboe on our return. Smoke seen in Skarvenes just as we are passing Skuöe, near the shore. Signal soon returned from Skuöe. Row hard-on for Sands." I gave the men a pound to their great delight, as they had not seen gold before.

There was in the face of the cliffs of Store Dimon the most curious foot-path formed by a ledge at the junction of two beds of trap [rock]. It was very narrow, but extended some hundreds of yards to a slope where the people went to catch Puffins or to gather Angelica. It is just like the imaginary scene in Sir Charles Fellows's 'Ascent of Mont

1 [Mr. Wolley's knowledge of what Graba wrote must have been limited to what is said in the English work cited in the next few lines.—Ed.]
Blanc' [Privately printed, 1827]. The whole cliff is of amazing height and perpendicular both above and below this narrow track. Near the commencement of it I was let down to the Fulmars. They looked like Kittiwakes, and at first I declared that they were so. One man, a regular giant, playful too, let me down, passing the rope round a short stake behind his back. Several men assisted in hauling up, pulling in time, bending their backs, like rowers. The rope was tied with tarred twine into a circle. This was put round the loins, and then an endless worsted band is put round one thigh over the rope and round the other thigh. For my own satisfaction

1 [I have not seen this work; but Dr. Bonney kindly tells me that the "scene" is that depicted in the fourth of the unnumbered plates.—Ed.]

2 [Here is inserted in the Egg-book a rough sketch intended to shew the arrangement described in the text; but though quite correct it is not very intelligible, so that instead of reproducing it I have availed myself of a more finished drawing, with which I have been favoured by a friend. This will be easily understood. The endless thigh-band is marked by a, and β is the loop of rope that goes round the loins, while the way the combination of the two is worn is shewn by the human figure. A simpler and more effective contrivance for rock-climbing can hardly be devised.—Ed.]
I had an additional splice under the arms. In climbing the feet are used very much at right angles to the rock, both in ascent or descent. Accidents are rare with the rope; but one or two narrow escapes were related to me. The rope had not been used that year, as it was the very beginning of the Lomria [Guillemot]-catching, and a party were over for the harvest in Store Dimon. There was one weak place in the rope of which I did not like the looks. It was a good thick tarred rope polished by rubbing on the rocks.

The dark spot in front of the eye gives a peculiar expression to the Fulmar’s face. After I had got to the house, one of the men went back with a bit of string and got another Fulmar. We consigned the two to the tender mercies of our sailors, but they soon died. The eggs were, with one or two exceptions, on the point of hatching, the young having even broken a hole in most of them. Sysselmand Müller gave me one or two beside those that I took myself. In flight the Fulmar is very marked among the other birds, its wings stretching out perfectly straight. The day turned out very windy and we were hurried from the rocks, or I should have made other descents. The men, however, were very greedy, making bargains about their pay.

[It will have been seen that the first part of this long entry, not completed till 1850, is mostly made up of a transcript of the original notes, which need expansion to be formed into regular sentences; but I have thought it better to leave them as they stand than to attempt any amplification.]

§ 5123. One.—Færøe, 1851. From Sysselmand Winther.

§ 5124. Five.—Færøe, 1853. From Sysselmand Winther.

§ 5125. Three.—Qvalboe, Suderöe, Færøe, not later than 1856. From Sysselmand Müller.

When I was in Færøe in 1849, the Fulmar bred on Skuøe, the Great Dimon, and perhaps Sandøe. I took eggs on the Great Dimon [§ 5121]. Of these eggs extremes in the texture may be observed in two, one of so fine a texture that it might almost be suspected if it were not for the smell of the inside.

[There were seven of these sent, but one was sold at Mr. Stevens’s, 22 February, 1858, to Mr. Burney, a second, 31 May, 1860, to Mr. Braikenridge, which is now in Mr. Parkin’s collection, and I sent two to Dr. Heermann in 1861.]


§ 5128. *Fulmarus glacialis.* *One.*—Grimsey, Iceland, 1860. From Mr. Proctor, 1861.

Mr. Proctor assured me that he had this from his correspondent in the north of Iceland. Its locality may therefore be pretty safely put down as Grimsey, as I do not know that the bird has ever been found breeding on the mainland of the north.


Given to me in Spitsbergen on the 16th of July by Dr. Malmgren, and I understood him to say that he took it himself; but there can be no doubt as to either species or locality. The Swedish Expedition was able to stay only a short time at Bear Island, as the anchorage is very bad. He subsequently wrote (Cfvers. K. Vet.-Akad. Förhandl. 1864, p. 393) that the bird was found breeding in great plenty on the steep cliff of the south-east of the island, and that at the time of his visit there were already some young flying though fed by their parents, but a great many of the eggs were not yet much incubated.


O. W. tab. M.

This was found as above by Ludwig, who went up to a place on the side of the cliff to look for his pipe, which he had lost the day before while attempting an ascent. It had evidently been carried off and sucked by a Fox, a Skua, or a Glaucous Gull, and has a couple of dents on its show-side. It was quite dry inside, but smelt as strong as it well could, and the scent is satisfactory evidence as to the species. According to Dr. Malmgren's experience it had not been previously known to breed in Spitsbergen except on the north side of Brandywine Bay, but there were a considerable number haunting the cliffs which are terminated by the grand peak of the Alkenhorn, and we shot several specimens (cf. "Ibis," 1865, pp. 203, 209, and 511).


Taken as Mr. Elwes assured me by himself, as above. His notes on the birds of St. Kilda are published in "The Ibis" for 1869 (pp. 28-37).]
Fulmarus Glacialis.—Bulweria Anjinho.

[§ 5132. One.—Handa, Sutherland, 25 June, 1904.

This egg I owe to the kind intervention of Mr. Harvie-Brown with Mr. D. Morrison, the gamekeeper at Scourie, who sent it to me direct and wrote that it was the only one they could reach, as the place where the birds breed is overhung by the rock above. He added that he had been gamekeeper in Scourie for twenty-two years, but he never saw the Fulmar Petrel in Handa until 1902, and the first of its eggs taken there was obtained in 1903. He went on to say "the Fulmars do not lay on the rock, but on the grass among the ledges, where they scrape out a hollow and lay the egg on the bare ground, no nest being found." To the best of my recollection, when I was in Handa in 1890 with Mr. Henry Evans and my brother Edward, we saw no Fulmars; but since then I have more than once seen them on and about the cliffs, particularly in 1898, when there were many, and we felt sure that they must be breeding. Mr. Harvie-Brown has given further details, with a view of their nesting-place, in 'A Fauna of the North-West Highlands and Skye' (p. 356).]

Bulweria Anjinho (Heineken).

Bulwer's Petrel.

§ 5133. Eight.—Desertas, Madeira, 1850. From Dr. Frere.

Four of these very valuable eggs were sent to me by post. On 3 August some of these birds were 'just' sent to Dr. Frere, with the eggs; but he unfortunately parted with them. I immediately sent as a small part return one Leach's Petrel's and five Whimbrels', but I shall have others of his desiderata to supply. Mr. Henry Milner wrote to me in April, 1849:—"I expect some eggs and young birds of Bulwer's Petrel shortly from Madeira. I procured some old birds from there last year." The history of these eggs will be found in the letter copied above [§ 5094].

24 September, 1850. Dr. Frere has handsomely given me one of the birds, which I have labelled and carefully put by, after I had examined it and found its measurements to correspond with those of the Bulwer's Petrel as given in Yarrell [Brit. Birds, ed. 1, iii. p. 515], who seems to have had access only to a single specimen. "Gray at the [British] Museum has seen them, and has a pair of skins from the same source, and eggs from mine though not directly."—R. T. Frere [in litt.], 24 September, 1850.

[Of the remaining four, two were given to Mr. Wolley by Dr. Frere in 1851, and the other two by him to me in 1850 and 1861 respectively. This last is stained of an orange colour, and, so far as I know, the only one I have ever seen in that state, but all are of the first consignment that the Doctor received.]
OCEANODROMA LEUCORRHOA.

§ 5134. Seven.—Desertas, 1850. From Dr. Frere, 1861.

These, as the Doctor's tickets upon them shew, were part of the second lot of eggs received by him, and were given to me by him when he discontinued collecting.

§ 5135. Two.—Santa Ursula, Canary Islands, 12 June, 1889. From Señor Gomez, through Mr. Dresser.

OCEANODROMA LEUCORRHOA (Vieillot).

LEACH'S PETREL.

§ 5136. One.—St. Kilda, June, 1847. From Mr. Graham, of York.

Mr. James Tuke wrote me word that Graham had been in Scotland with some gentlemen, and among other eggs had met with that of Wilson's Petrel. In consequence of this mistake I ordered one, but on its arrival not only was it a Leach's Petrel's, but it was cracked from the box being too small. I mended it as well as I could, and as Mr. Tuke kindly offered, I sent it back accompanied by one of mine, which I had obtained from M. Hardy [in 1846], and resembled it in every particular, proposing that Graham should retain my perfect specimen and send me back his St. Kilda one, to which he agreed, so that I have Leach's from two distinct sources. Graham was with Mr. Henry Milner, who says to me [that they got] "Leach's Petrel with the eggs in St. Kilda. It breeds earlier than the common Storm-Petrel, but in the same sort of place, and in one instance I found them breeding in company—at least their burrows were contiguous. I could only obtain one Storm Petrel's egg, as the others had not commenced laying on the 10th of June."

§ 5137. One.—From M. Hardy, 1847.

These eggs—Mr. Henry Walter had another at the same time—M. Hardy informed me he had with the birds, from (I think) Feröe, and were of course beyond all doubt. The one I had last year, which was exactly like the St. Kilda specimen in my cabinet [§ 5136], I exchanged for it. This is a longer egg.

[Mr. Wolley may have misunderstood M. Hardy, for this species is not yet
known to breed in Færøe, but M. Hardy was, as I myself afterwards found, liable to make great mistakes in his geography. He most likely obtained these eggs from the Newfoundland seas (cf. § 5139).]

§ 5138. Seven.—From M. Hardy, 1847.

[§ 5139. One.—“La Terre neuve.” From M. Hardy, 1859.

Given to me at Dieppe, with some other eggs (§§ 640, 4516), by M. Hardy, as having been brought to him from Newfoundland. I think I did not then know that he had supplied other specimens of this bird's eggs to Mr. Wolley.]

[§ 5140. Six.—Grand Manan, New Brunswick, 1864. From Mr. H. E. Dresser, 1865.

Given to me by Mr. Dresser, having been received by him from his brother Arthur, and taken either by him or by Mr. George Boardman as above. One of them is inscribed “Bird also shot,” and Mr. Dresser assured me that the bird was a Leach's Petrel.]

[§ 5141. Four.—Bay of Fundy. From Mr. H. E. Dresser, 1866.

Mr. Dresser's note is:—“Taken on an island near Grand Manan, Bay of Fundy, by men sent by Mr. Boardman. The men brought back a lot of birds also.”]


Given to me at Duniance, September 1885, together with the skin of a Leach's Petrel marked "♀ & egg J. A. H.-B. No. 2," in fulfilment of a promise made in a letter to me of 16 June, 1885, when Mr. Harvie-Brown wrote:—“I think you will like tokens of our success at last in reaching Rona. After a week's most inclement and unseasonable weather, and four tries, today we did it. Mr. Hugh Barclay and I spent two hours on Rona, took Fork-tailed Petrels' eggs, and caught every bird on her egg. We found Storm-Petrels there also, and caught two birds, but they had no eggs.... It took us two, with three men, an hour and a half to dig and scrape and work out in all twenty-three eggs of Fork-tailed Petrel from the ruins of the former habitations. I hope to blow all these eggs securely, as I do not think they are hard set. I took three birds and Mr. Barclay three, and we let all the rest away, and watched their remarkable and beautiful flight.... I hope to send you a Rona Fork-tailed Petrel and egg in course." This letter was accompanied by a pencil sketch of the island, shewing the exact position of the breeding-place, of which a fuller account was subsequently published by Mr. Harvie-Brown in 'The Vertebrate Fauna of the Outer Hebrides' (pp. xlv-li and 151).
These are a kind gift from Mr. Barrington, who wrote:—"I reached home safely from Rona. It is a difficult island to get at, being thirty-nine miles from the Butt of Lewis—more difficult to reach than St. Kilda. We had to go in a large open fishing-boat, and were sixteen hours sailing from Ness. We almost gave it up, as a thick fog came on and we could see nothing for twelve hours. However, at 10.30 p.m. the mist rose slightly, and we sighted breakers five miles away. It was just a chance, and we were actually on the return journey when, to our great relief, land became visible. The seven men in the boat did not know where we were, and only two of them had been to Rona before. It is uninhabited. Two men died there in the winter of 1884-5, having been there five or six months. The sailors with us would not sleep in the house they died in, and two of us had to lie in a stone hut on the clay floor, six feet by fifteen or thereabouts, the roof full of holes and the door four feet by two. Immediately on landing the boat had to be hauled with a differential pulley (specially brought) up rocks at an angle of 45°. It was quite light at midnight, and the men went at once in search of birds, returning in a few minutes with a dozen young Shags, which they plucked, singed, and ate with great gusto. The Shag is more abundant in Rona than at any rock or island I have visited. There were no Cormorants, and Shags formed the principal food of the men during the three days we remained on the island, being much preferred to Puffins, Razorbills, or Guillemots. . . . The first thing which struck me when we landed at midnight was the chirruping of the Stormy Petrels, under almost every stone. There was quite a 'churr' all round at the north-west end of the island. Then the note of the Oyster-catcher, which ran about everywhere, became very monotonous. The Fork-tailed Petrel did not breed with the great colony of Stormy Petrels; but at the opposite end of the island in holes in the old fences round the now long-deserted habitations of former dwellers on this distant isle. Here a few Stormy Petrels bred also, and in the old houses themselves, about 150 yards from the sea, a colony of Black Guillemots had established themselves. Perched on the grassy roofs, they greatly astonished me, as I never saw them up in fields before, but always along the cliffs, breeding in cracks and fissures, and hard to get at. Yet here were a couple of dozen breeding in the stone walls of deserted sheep-houses and hovels used long ago by man. Here we got one or two Fork-tailed Petrels and a Stormy. On the island of Borrera, one of the St. Kilda group, the Fork-tailed Petrel was breeding among the clods of dry turf which were stowed away for fuel, by the natives in their 'cleats'—low stone houses to keep the peat from getting wet. . . . We took [in North Rona] eight Fork-tailed Petrels' eggs, three old birds, and two nestlings—little lumps of oil covered with the darkest blue-grey down." A few days after he wrote:—"I send you two Fork-tailed Petrels' eggs from North Rona, also two Stormy Petrels' (§ 5167). Between us we have eight of the former. I did not like making a great haul. I dare say I might have procured three or four dozens, but I did not wish to turn into an egg-dealer. They were taken 1st July. . . . They are a little dirty, partly due to sandy clay and probably Petrels' feet.""]
[§ 5144. One.—Dun, St. Kilda, 11 July, 1887. "With bird."

Brought to my brother Edward and myself, on board Mr. Henry Evans's yacht 'Erne,' with the bird, which had been caught in the hole with it, and was produced, alive, from a stocking into which it had been thrust. After having looked at it sufficiently to satisfy ourselves that it was a real Leach's Petrel, we let it go, rather to the astonishment of the bringer, and were pleased to see that it flew off apparently none the worse for its temporary captivity. We had arrived off the village of St. Kilda late in the evening of the 9th, after steaming all round the group of islands. The next day, being Sunday, the people held no communication with us, but very early in the morning of the 11th, a party of them went to the Dun, over which we saw their ropes spread in various directions, and a few hours later they returned bringing their spoils, of which this egg and its parent were chief—the rest consisting mainly of Puffins. This was the only Petrel's egg that was brought to us, for according to the men all the Fulmars' were hatched. It was much incubated and I did not empty it till my return to Cambridge three days later, when I placed the almost fully developed embryo in spirit, to be kept for Dr. Gadow's use.]

[§ 5145. One.—St. Kilda, June, 1895.

Brought with a second, and some other common eggs, all ready blown, on board Mr. Evans's yacht 'Aster,' 25 June, 1895. I did not see the man or boy who brought them; but I doubt not it is, as it was said to be, a Leach's Petrel. Sir Archibald Geikie, who was with us, took all the rest.]

[§ 5146. Three.—Dun, St. Kilda, 1896.

Brought on board the 'Aster,' as the custom is, soon after our arrival there 7 July, by the people, some of them, particularly McQueen, of Gare-fowl celebrity, I had seen before. They brought five, and Sir A. Geikie took the other two. These from the Dun. We were told that the Messrs. Kearton had procured a good many.]

OCEANODROMA CASTRO (Vernon-Harcourt).

[§ 5147. One.—Desertas. From Dr. Frere, 1861.

This was given to Dr. Frere, as he told me, by Mr. T. Vernon Wollaston as having been taken by himself. The species was at that time supposed to be Leach's Petrel, from which the present was first distinguished in 1851 by Mr. Edward Vernon-Harcourt (Sketch of Madeira, pp. 123, 166); but a few years after (Ann. & Mag. Nat. Hist. ser. 2, xv. pp. 430, 437) he seemed to doubt his former discrimination and included it in his list of the Birds of Madeira as Leach's Petrel.]
PELAGODROMA MARINA.—OCEANITES OCEANICUS. 447

[§ 5148. One.—Porto Santo, 26 June, 1894. From Mr. Dresser, 1896.

Obtained, I believe, from Padre E. Schmitz, of Madeira.]

PELAGODROMA MARINA (Latham).

FRIGATE PETREL.

[§ 5149. One.—Grand Salvage Island, 27 April, 1895. From Mr. Dresser, 1896.

Obtained by Mr. Ogilvie Grant, whose interesting discovery of a breeding-station of this species at the Salvage Islands is described in 'The Ibis' for 1896 (pp. 51-53).]

OCEANITES OCEANICUS (Kuhl).

WILSON'S PETREL.

[§ 5150. One.—Jessie Bay, Laurie Island, South Orkney, 28 January, 1904. From the Scottish National Antarctic Expedition, through Mr. W. Eagle Clarke, 1906.

Most kindly given to me by Mr. Clarke, with the approval of Mr. Bruce, being one of the eight specimens obtained by the Expedition. Writing from the materials placed at his disposal by the various members of it, Mr. Clarke, in his "Account of the Birds of the South Orkney Islands," states (Ibis, 1906, pp. 166-168) that this species is a common summer-visitor to them, resorting by thousands to breed in the cliffs of Laurie Island. "There was no attempt at nest-making, the egg was simply laid in a hollow in the earth in narrow clefts and fissures in the face of the cliffs, under boulders, and sometimes under stones on the screes sloping from the foot of the precipice, at heights varying from 20 to 300 feet above the sea-level.... Some of the eggs were laid at such a distance from the entrance that a spoon had to be lashed to a long bamboo in order to reach them. The searchers could hear the low whistle uttered every few seconds by the sitting bird, but on reaching the spot whence it seemed to proceed the sound would appear to come from an entirely different direction.... Eight eggs average 33.7 x 24 mm. The largest is 36 x 24 mm., and the smallest is 32 x 23 mm." A photograph of a bird sitting on its egg—the only one taken, and that by a happy chance—is also given by Mr. Clarke (pl. x.), who afterwards, writing to me, said the precise spot whence this egg came was the rocks at the north end of East Glacier in North Bay, a small indentation of Jessie Bay.]
PROCELLARIA PELAGICA, Linnaeus.

STORM-PETREL.

§ 5151. One.—"Handa," Sutherland. From Mr. George Harvey, of Stromness, 1848.

§ 5152. Three.—Naalsöe, Færøe, 9 July, 1849. "J. W."

Of the common Storm-Petrel I took three eggs in the island of Naalsöe, in the undercliff on the east side, 9 July. It is called Drunquiti or White-rump. At the same time we caught about twenty birds, so that few had then begun to lay. On our previous visit, 27 June, we had not found a single egg. On this undercliff a vast extent of cliff fell down several years ago. Hymenophyllum grows on the stones amongst which we found the Petrels. By remaining perfectly still, the spinning-wheel noise of the birds soon betrayed their whereabouts. It was often impossible to get at them, the stones were so large. I afterwards caught birds in burrows on Lille Dimon, and under stones on Tindholm, but did not find eggs. I am not certain whether I caught any in Store Dimon, but they breed there in the walls made of turf and stone, as the people said and as the musky smell proved. In all these places I looked in vain for Leach’s Petrel.

§ 5153. One.—Fuglœ, Færøe, 19 July, 1849.

In Fuglœ, 19 July, two Petrels’ eggs were found under a barn-floor—the birds caught. Others also breeding under stones. No Leach’s. This at Hattervig.

§ 5154. Ten.—Orkney, 1850. From Mr. George Harvey, of Stromness.

Out of twelve, one of which I cracked in washing. This is a nice lot of eggs and some of them must be kept for the cabinet. The presence of a larger or smaller crown of specks is, of course, a principal character.
§ 5155. *Townly.*—Orkney, 1851. From Mr. George Harvey.

Out of forty-two, of which I proceed to make a careful examination, and to select some to be kept for my cabinet. First, as to their general condition, all are more or less stained, apparently in the nest, differing therein from the very fresh ones I took in Færøe [§ 5152]. Beside the general stains there are on some of them small specks, very similar in aspect to the genuine markings, but sometimes smudged, and more easily rubbed off. These are perhaps the dung of parasites. (Adams, of the Bass Rock, knows the age of the Solan Geese's eggs by the droppings of parasites upon them.) After these specks are rubbed off with a bit of wet silk, a faint brownish stain remains; but I have only tried the experiment on one or two—the others have not been touched with water since they came into my hands. The extremes in size differ considerably; the largest might almost be a Leach's Petrel's, only that bird has not yet been detected in Orkney. In shape there is no great variety: some are wider in proportion to their length than others. There is usually a slight difference in the size of the two ends, but it is not much marked. With respect to markings, nearly all have them more or less, and there are only three or four free from them. The others have a zone, more or less defined, of dots toward the larger end in all except one, where it is toward the smaller end. In some this zone is so diffluent as to be scarcely recognizable; in others it is very distinct, even to the extent of having the appearance of being a stain on the shell itself. The diameter of the inner circle of this zone is very variable and may almost disappear. Again, the zone may be nearly equidistant from the equator or the pole. In width it may be about one-fifth of this distance. It ceases less suddenly in its large than in its small circumference, and specks are frequently scattered from it over the whole egg. The size of the specks differs both in the same and different eggs. The largest are generally in the middle or towards the inner circle of the zone. These specks appear generally black, but in one at least they are brown. In three eggs there is an appearance of a secondary larger kind of marking of a bluish or ash-colour, as in eggs of the Puffin. It is very distinct in one of them. There are eight others of these eggs which I may keep, in the meanwhile marked "Cab."

§ 5156. *One.*—Færøe, 1851. From Sysselmand Winther.

Four others given to Mr. Proctor.

**PART IV.**

2 g
§ 5157. *Two.*—Færöe, 1852. From Sysselmand Müller.

One or two more given to Mr. Salmon.


[This is the last entry in the Egg-book made by Mr. Wolley, and the entry is incomplete.]

[§ 5159. *Two.*—Shetland. From Mr. Robert Dunn, before 1848.]

[§ 5160. *Two.*—Unst, Shetland, 1854. From Mr. James Smith.]

[§ 5161. *Four.*—Unst, 1855. From Mr. James Smith.]

[§ 5162. *Four.*—Unst, 1856. From Mr. James Smith.]

[§ 5163. *One.*—Unst, 1857. From Mr. James Smith.]

[§ 5164. *Four.*—Færöe, 1859. From Sysselmand Müller.]

[§ 5165. *Ten.*—Unst, 1861. From Mr. James Smith.]

[§ 5166. *Four.*—Tory Island, July, 1863. From Mr. Robert Harvey.

Mr. Harvey wrote:—“I had quite given up all hope of these eggs, when I had a letter from ‘the King of Tory,’ Mr. Patrick Harrison (*Hiberniæ Paddy Herraghty*), to say he had got me twenty-five eggs. His majesty is a schoolmaster, also a dwarf, being 35 inches in height.”]


Kindly sent to me by Mr. Barrington, having been obtained during his stay on the island as above recorded (§ 5143).]
PELECANUS ONOCROTALUS, Linnæus.

THE PELICAN.

§ 5168. One.—"Germany." From M. Parzudaki, 1858.

M. Parzudaki said "Allemagne"; but perhaps this referred to the general idea of the country whence it was sent. How far do Pelicans breed in Germany?

[There seems to be no evidence of Pelicans breeding in Germany.]

[§ 5169. One.—"South Russia." From Herr A. Heinke, of Kamuschini, through Dr. Günther, 1862.]

PELECANUS CRISPUS, Bruch.

DALMATIAN PELICAN.

[§ 5170. One.—Mesolonghi, 29 February, 1860. "Nests visited on day of capture by W. H. S." From Mr. Simpson.

Mr. Hudleston (then Simpson) writing in 'The Ibis' for 1860 (pp. 394, 395) on the Birds of Western Greece directed attention to this species as forming a conspicuous feature on the lagoon of Mesolonghi, "and the more so as it is likely soon to disappear from the district, because it is too good a fisherman to be allowed a cast without paying any rent."

He continues:—"Time was, and not so long ago, when Pelecanus crispus lived in hundreds all the year round, from the rocky promontory of Kourtzolari, hard by the mouth of the Acheloïs, on the western extremity of the lagoon, to the islands of Ætolico, up its northern arms, and, on the east, to the great mud-flats which mark the limits of the present delta of the Phidaris. Now-a-days a solitary individual may be seen fishing here and there throughout the lagoon, but the small remnant of this once mighty host have made their last stand upon the islands which divide the Gulf of Procoapanisto from the Gulf of Ætolico. Here, towards the end of February last, the community of Pelicans constructed a group of seven nests,—a sad falling-off from the year 1858, when thirty-five nests, the remains of which had not then disappeared, were grouped in contiguous proximity upon a neighbouring islet. It needs not the nose of a pointer to discover the locality, even if the large white birds themselves were not a sufficient guide. As we approached the spot in a boat the Pelicans left their nests, and taking to the water, sailed away like a fleet of stately ships, leaving their newly-built establishment in possession of the invader. The boat
grounded in 2 or 3 feet of mud, and when the party had floundered through this, the seven nests were discovered to be empty. A fisherman had plundered them that morning, taking from each nest one egg, all of which we of course recovered. The nests were constructed in a great measure of the old reed palings used by the natives for enclosing the fish, though with these were mixed such pieces of the vegetation of the islet as were suitable for the purpose. The seven nests were contiguous, and disposed in the shape of an irregular cross,—the navel of the cross, which was the tallest nest, being about 30 inches high, the two next in line on each side being about 2 feet high, the two nests forming each arm of the cross a few inches lower, and the two extremes at either end being about 14 inches from the ground. These latter, it is presumed, were intended for the junior partners of the firm, in the same way that the great bear of nursery tales has a big seat, his wife a middling seat, and the little bear a small seat. The eggs are chalky, like those of the Pelecanidae generally, very rough in texture, and some of them much streaked with blood."

[§ 5171. Four.—"Sarepta." From Herr Möscher, 1866.]

[§ 5172. One.—Above Rassova, Bulgaria, 11 April, 1869. "T. E. B." From Mr. Buckley.]

[§ 5173. One.—Above Rassova, Bulgaria, 11 April, 1869. "H. J. E." From Mr. Elwes.] Messrs. Elwes and Buckley, writing on the Birds of Turkey in 'The Ibis' for 1870 (p. 335), say of this species: — "We were told that Pelicans bred in the great marsh of Janitza, which is quite impenetrable, except in one or two narrow channels. On the 11th of April we visited a lagoon which runs back from the Danube three miles above Rassova, whither a great number of Pelicans resort to breed. We had much trouble in getting a boat, as the Circassians who lived there would not allow us to go in theirs; but at last we brought a dug-out canoe in a cart from Rassova, and launched her on the lake, which was surrounded by a deep bed of tall reeds. We paddled up to the top of it, disturbing numbers of Geese, Grebes, and Ducks, and came at last to the breeding-place of the Pelicans. The nest consists of a shallow depression in a large strong platform formed by reeds broken down and heaped together in the water; and on this great heap of decaying matter the eggs were laid. Many of the nests contained two or three; but all of them were quite fresh, and in some instances covered with bloody marks, as if they had cost a severe effort to lay. The old birds, when disturbed by our approach, flapped off heavily and began soaring about above us. It is wonderful to see the ease and grace with which they fly when once fairly on the wing, mounting up with hardly a motion of the wings until almost out of sight, and soaring round and round like Vultures."]
§ 5174. _Three._—Bass Rock, 10 June, 1848. "J. W."

Bought from George Adams of Cantey Bay near North Berwick, 10th of June, 1848, on which day I visited the Bass. He rents the rock, and beside the profits arising from the sheep and rabbits, and parties visiting it, he makes a good sum from the sale of the feathers, and of the young birds themselves, which, I was told, yield a considerable quantity of oil. He values them at a shilling each, and sells the eggs at the same price. They begin to breed at the beginning of May, but do not appear to be regular, for I saw young birds of very various sizes, some well covered with white down, while most were still in black. In a large proportion of nests the egg was still unhatched; but I saw none that was not very much discoloured, though I believe the men knew of some that were newly laid, probably by birds that had their nest robbed previously. The nests were mostly placed upon the ledges of the cliff, but in several places there were patches of them on nearly level ground above; and it was very interesting to sit among these without disturbing the birds, further than by exciting them to menacing cries and gestures. I lifted one off her nest, merely holding out a ram-rod to avert her beak. Many of them disgorged the half-digested contents of their stomach on our approach. The young seemed very helpless and even unable to raise their head, or at least I did not see any of the smaller ones do so. They were trodden upon, or rather covered by the webs of their mother's feet, without injury. In one instance I saw a Gannet alight by a nest on which another was sitting, which then immediately left it and waddled to a nest, at a couple of yards' distance, containing an egg and took its seat upon it, while the newly-arrived Gannet occupied the nest left. Are Gannets socialists? The nests were made of seaweed, almost entirely, and are small for the size of the bird. We saw many of them still engaged in building or enlarging their nests; at least we saw them flying overhead with streamers of seaweed in their beak. The young squirt their excrement some distance over the side of the nest. The smell all round the Bass is strong of guano. There are not many birds beside these Solan Geese. I saw one nest of the Eider Duck containing
two eggs. I shot a Lesser Black-backed Gull, and saw many Kittiwakes and I believe some Herring-Gulls. I saw a White-winged Guillemot [Teisty] and plenty of Common Guillemots, also Puffins, and I believe the Razorbill breeds there, but all these birds are in greater plenty on the Isle of May. I was very lucky in meeting with a most agreeable party [of visitors] with whom I dined. Only two or three Geese were to be shot.

§ 5175. Twelve.—Bass Rock, 30 April, 1850. "J. W."

On the 30th of April, 1850, I visited the Bass Rock and took twenty-four eggs of the Solan Goose, about half of which I gave to Dr. Frere, at sixpence each, the cost price. Mr. Marcet¹ was with me. We each shot a Goose with ball, with permission from George Adams the keeper. Some of the eggs, he said, had been some time sat upon, but all those we took were quite fresh. They appear to be soiled in the act of laying, as we could find none quite clean. At this time there was very little nest; but the birds continue adding to it. Later in the year Adams told me that all the nests we robbed had eggs in them again, but this does not prove that the same birds breed again.

I visited the rock again the first week in August in the 'Pharos,' the steamer of the Commissioners of Northern Lights, with a party of Members of the British Association. We had been over the Bass Rock lighthouse, and came down by the Isle of May and afterwards went to the Inch Keith. On this occasion I made Mr. H. E. Strickland's acquaintance². He remarked that the young Solan Geese were very like Dodos. The people were soon going to commence catching the young, though one or two that I saw were only just hatched.

On the 8th of March, 1851, I rowed round and landed on the Bass, it being a beautiful day and an early season. Nearly all the Gannets

¹ [This seems to have been Mr. William Marcet, of Genevese extraction, at that time a fellow-student of Mr. Wolley's at Edinburgh, who subsequently became celebrated as a highly scientific physician in London. He died on a visit to Egypt in 1900, aged 71. See his obituary in the Year-book of the Royal Society for 1903 (pp. 242-246).—Ed.]

² [As already stated (Memoir, p. xvii), Mr. Wolley had for more than two years been in correspondence with Mr. Strickland on the subject of the Dodo, but this was their first meeting.—Ed.]
were there, mending their nests. Not a single egg laid: 1700 young were taken in 1850, about half.

[Two of these eggs, marked "J. W. iype," are very small, measuring 2:75 by 1:67 inch, the largest of the whole is 3:26 by 2:01 inches.]

§ 5176. Twenty-four.—Bass Rock, 1851.

I received twelve dozen Solan Goose eggs from George Adams in the summer of 1851. When they arrived at Beeston they had been taken for some weeks, and most of them were more or less tending to rottenness. Inside, many of them had assumed in the skin, or parts of it, a beautiful carmine colour, which had affected more or less the soft parts of the egg. I did not examine it with the microscope.

[Mr. Wolley notes that about a dozen of these eggs were broken in the journey. Mr. Walter and Dr. Frere had each three, and Mr. Hancock two dozen. Others of the remaining three dozen must have been otherwise distributed, but the twenty-four now in the collection no doubt sufficiently represent the original large number.]

§ 5177. Twelve.—Myggenæs-holm, Færøe, not later than 1856. From Sysselmand Müller.

The Gannet we failed to visit at Myggenæs-holm. The men considered the sea too rough, though this might be an excuse, as they were afraid of the fever [reported to be raging on Myggenæs itself]. We got nearly halfway out to Myggenæs, and saw some of the birds flying over. Landt says [Beskrivelse over Færörerne, p. 259; Engl. Transl. p. 237] that if they had good luck they caught two hundred in the spring, and as many of the young in autumn. It seems therefore that it is not so numerous as on the Bass.

[The above was written by Mr. Wolley on his return from the Færøes in 1849. These eggs are the first that he received from that locality, of which a good account, attributed to Sir George Dasent, was given in 'The North British Review' for May, 1864 (no. lxxx. pp. 321-323). One was sold at Mr. Stevens's, 23 February, 1858, to Mr. Shepherd, and I gave one each to Mr. Percy Godman, Dr. Heermann, and Mr. J. H. Gurney.]

[§ 5178. One.—Bass Rock, 1854. From Mr. Evelyn Fairlie.]

[§ 5179. Two.—Bass Rock, 1855. From Mr. Southwell.]
[§ 5180. Two.—"Gannet Rock, 23 June, 1860. J. K."
From Dr. Heermann.

The initials are those of Mr. John Krider, from whom Dr. Heermann doubtless obtained these eggs; but the rest of the inscription points to their coming from Dr. Bryant, who, on the day named, arrived at the "Bird Rocks" in the Gulf of St. Lawrence (Proc. Boston Soc. N. II. viii. p. 67), one of which, called "Gannet Rock", and known as a breeding-station of this species since the time of Jacques Cartier (1534), he minutely describes (pp. 68-70), computing that there were 50,000 pairs of Gannets nesting on the summit, an estimate perhaps too great. The place seems now in a fair way of being made desolate through their destruction during the last forty years (cf. H. K. Job, 'Among the Water-birds', part ii.).]

[§ 5181. One.—"Stack Rock, South Wales," not later than 1864. From the late Mr. Sealy's Collection.

This is also inscribed by Mr. Sealy "taken by Ed. Walker"; but owing to the loss of his Catalogue nothing more is known of it. Mr. Saunders has informed me that the locality was most likely Grasholm (cf. § 5186); but the existence of a Gannet's breeding-place off the Welsh coast was quite unknown to me and most ornithologists so long ago as 1864, and this egg must have been taken before Mr. Sealy's departure for India in 1863 or 1864.]


Taken by Mr. Service himself, as he kindly wrote to me.]

[§ 5183. Two.—Bull Rock, Co. Kerry, June, 1884. From Mr. J. H. Gurney.

Bought by Mr. Gurney at the sale of Mr. Ussher's Collection, at Mr. Stevens's rooms, 21 October, 1902, where they formed Lot 136, and kindly given to me. In 1899 Mr. Henry Evans took me in his yacht to the Bull Rock, but the number of Gannets frequenting it appeared to be very small. According to Mr. Ussher (Birds of Ireland, p. 156), the existence of this settlement was not made known until 1868.]


Obtained by my brother and myself at St. Kilda, 11 July, 1887; but from which of the three Gannet-stations in that little group of islands it came the people did not say, though most likely from Borrom. Thanks to the kindness of the late Mr. Henry Evans I have made five visits to St. Kilda, and my admiration of its scenery and the abundance of its bird-life has continually increased each time that I have been there. Mr. Evans used to say that a number of Gannets equal to that frequenting the Bass or Ailsa might be taken away from St. Kilda without the population of the last being sensibly
diminished. Certainly its number is prodigious, and I have never attempted to estimate it, but I am prepared to believe that there may be more Gannets there than in all the rest of the world beside.]

[§ 5185. One.—Lundy Island, 1887. From Mr. Howard Saunders.

This was kindly brought for me from Lundy Island, where Mr. Saunders had been staying during the summer, and reported, to my regret, that there were not more than fifteen or sixteen pairs of Gannets then breeding there. Even this number, I understand, has now seriously decreased.]

[§ 5186. Two.—Grasholm, South Wales, June, 1887. From Mr. Wilkinson, 1901.

Kindly sent to me by Mr. Wolley’s old friend, Mr. Clennell Wilkinson (cf. §§ 3406–3409), after a second visit he had paid to the Collection in 1901. He wrote with the egg:—“I cannot make out from any books I have when the Gannets first came to Grasholm; but they were there when I first went into Pembrokeshire about thirty years ago.” It is a bare rocky island, about twenty miles from the west coast of Pembrokeshire, he adds, and not likely for visitors to make excursions to it. The eggs “were taken by the son of our village blacksmith, who had a small steam launch of his own, and sometimes took parties out for a cruise, but usually on Sundays, and so I was unable to go with him. He sometimes got other eggs beside the Gannets’, such as IJazorbills’, Guillemots’, Puffins’, and Gulls’. These I send you I marked in pencil as to date and locality, lest they should get mixed with others. They were quite fresh and were blown by myself.” The history of this settlement is very obscure. Its existence was practically unknown to ornithologists (cf. § 5181) until 1890, when a wanton massacre of its inhabitants attracted general attention, though it is to be hoped that the accounts of it published in the newspapers were exaggerated. According to Mr. Murray Mathew (Birds of Pembrokeshire, pp. xxix and 60), there were in 1886 at least 250 nests “in four separate colonies” on the island, of which he gives a photographic view.]

[§ 5187. One.—Sulisgeir, 1887. From the late Mr. T. E. Buckley’s Collection.

This is one of three received by Mr. Buckley from Mr. Harvie-Brown, and taken by the latter on his visit to this locality so difficult of access (cf. Vertbr. Fauna of Outer Hebrides, p. xlix).]

[§ 5188. Two.—Little Skellig, Co. Kerry, 4 May, 1891. From Mr. J. II. Gurney, 1905.

Kindly given to me by Mr. Gurney, who obtained them at the sale of
Mr. Ussher's Collection, at the same time as those from the Bull Rock, which is not far distant (§ 5183). The gentleman last named gives (Birds of Ireland, p. 157) a figure of this fine station from a photograph taken by Capt. Barrett-Hamilton from Mr. Evans's yacht when we visited it in 1899.

[§ 5189. Two.—Eldey (Melsækken), S.W. Iceland, 7 June, 1879. From Herr E. Lehn Schiöler, through Herr Herluf Winge, 1905; and Dr. Otto Ottosson, 1906.

Herr Schiöler has since been so good as to inform me that these eggs were received from Herr Nielsen, of Eyrrarbæki, who told him that one Hjalti Jónsson with four other men, two of whom were professional fowlers from the Westman Islands, went out to Eldey, and when near the rock rowed to it in their boat. The weather being fairly calm they landed—their object being to ascertain the quantity and quality of the "guano" upon it. They hammered big iron nails into the steep side of the cliff so as to reach the top. This was accomplished by one man standing on the shoulders of his companions, and by a jump throwing himself over the edge. Then a rope was lowered and all the others followed. There they collected a vast quantity of eggs, thirty of which came to Herr Nielsen, who blew them himself. The men told him that they thought there were 10,000 pairs of Gannets; but upon Herr Schiöler asking whether it was not rather 10,000 birds, Herr Nielsen said he could not be sure. I feel very grateful to all concerned for the possession of these specimens, obtained at so much risk and from a locality so interesting as the last home of _Alca impennis_, which was most likely ascended on this occasion for the first time, as the Kyrkjuvogr people, in their several expeditions after the Gare-fowl, never thought of going further than the sloping undercliff frequented by that bird, above which rises a sheer wall of rock.]


Received by Herr Schiöler from Herr Hafstein, of Oddeyri.]

[§ 5191. Two.—Grimsey, North Iceland, 27 June, 1903. From Herr Bernard Hantzsche, 1905.

Most kindly sent to me by Herr Hantzsche, author of 'Vogelwelt Islands,' who himself obtained them with two other specimens at Grimsey, the most northern breeding-station of the species known. One of them, he wrote, was fresh with a pale yellow yolk, and weighed 104 grammes, the other had been incubated perhaps two or three weeks and weighed 108 grammes. Its shell is much soiled. In Herr Hantzsche's work (p. 67) is a view of the Grimsey Gannet-cliffs.]
PHALACROCORAX CARBO (Linnæus).

THE CORMORANT.

§ 5192. Two.—Speeton Cliff, Yorkshire. Not later than 1843.

These from the Buckton rocks, where the Cormorants occupy one side of the cliff, and the Shags the other, according to Mr. Williamson. They were sold to me as Cormorants' by Wilson, of Bridlington; but I do not feel sure about it. Cormorants look like black Geese as they fly.

[These eggs are inscribed "Speeton."

§ 5193. Two.—Handa, Sutherland, 9 June, 1849. "Cormorant seen on nest. J. W."

Of the Cormorants I took one nest in Handa. Foolishly I fired at the bird with ball and broke three of the five eggs. These were fresh, but many of those about were even hatched. The nests were quite white-washed with dung. It was a very awkward place to get down to, perpendicular and perhaps fifty yards from the top. I climbed almost entirely, and this made the feeling of insecurity greater even than necessary. Shags were breeding near or among the Cormorants [cf. § 5214].

§ 5194. Two.—Orkney, 1851. From Mr. George Harvey.

Cormorant and Shag. Twenty-four specimens, several having been thrown away as broken. There are in Mr. Harvey's list fifteen of one and fourteen of the other. I do not think it possible to separate all these with certainty. The spots upon them I imagine to proceed from the lice with which the old birds are frequented; as I was told at the Bass Rock that they recognize fresh eggs of the Gannet by the absence of such specks.

[Wholly agreeing with Mr. Wolley as to the impossibility of always separating the eggs of our two species of Phalacrocorax by their appearance, I have only selected two of the largest as representing P. carbo and two of the smallest as representing P. graculus (§ 5215). Mr. Wolley's later experience in 1855 in East Finnmark entirely justified his former hesitation.]

§ 5196. Two.

§ 5197. Three.—Hornö, 31 May, 1855. “J. W.”

§ 5198. One.

§ 5199. Five.


§ 5201. One.

§ 5202. One.—Reenö, East Finmark, 1 June, 1855. “Seen. J. W.”

§ 5203. One.—East Finmark, 1855. “J. W.”

[The above (§§ 5195–5203), though inscribed by Mr. Wolley, were not entered by him in his Egg-book. I remember his telling me he had taken no eggs of either this species or P. graculus, without determining to which they belonged. Those for which no precise locality is given were, I think, from Reenö, but the distance between that island and Hornö, both lying off Vardö, is inconsiderable.]

[§ 5204. One.—From Mr. Hancock, through Mr. Reynolds, before 1848.]

[§ 5205. One.—North Ronaldshay, Orkney. From Mr. Robert Dunn, 1850.]

[§ 5206. Five.—North Warmsey, Farne Islands, 21 June, 1851.

Taken by my brother and myself on our first visit, from four nests.]
PHALACROCORAX CARBO.—P. GRACULUS.

§ 5207. Two.} North Warmsey, 23 June, 1856. "E. N."

§ 5208. Two.

§ 5209. Two.—North Warmsey, 23 June, 1856. "A. N."

The last six taken by my brother and myself on our second visit, when Mr. Salvin was with us.

§ 5210. Four.—Women's Islands, Greenland. From Dr. James Taylor, 1861.

Dr. Taylor's label states that these were from the northernmost of this group of islands, lat. 74° 30' N.

§ 5211. One.—From the late Mr. Scales's Collection, 1885.

Marked by Mr. Scales "From A. Hamond, Esq." A specimen neatly blown with two holes at the side.

PHALACROCORAX GRACULUS (Linnæus).

THE SHAG.

§ 5212. One.—Shetland. From Mr. Tuke, 1846.

§ 5213. Three.—Handa, Sutherland, 9 June, 1849. "Bird seen on nest. J. W."

§ 5214. Five.—Handa, 9 June, 1849. "J. W."

I took several nests in Handa. The first towards the north, not very far from the top, between a "drong" and the main island. The bird I tried for some time to snare with a noose of string. Afterwards Mr. Edge shot it as it flew past. The nest was quite fresh, not whitewashed, and was made mostly of heather and grass. I took all the eight eggs I have from Handa with my own hands. The Shags bred mostly in less exposed places than the Cormorants [§ 5193], but there were nests very near those of the latter.
§ 5215. Two.—Orkney, 1851. From Mr. George Harvey, 1851.
[These are two of the smallest of those received (cf. § 5194).]

§ 5216. One.
§ 5217. Three.

§ 5218. Four.—Hornö, 31 May, 1855. "Bird well seen. J. W."

§ 5219. Three.—Hornö, 31 May, 1855. "Tried to catch bird. J. W."

§ 5220. Two.—Reenö, East Finmark, 1 & 2 June, 1855. "J. W."
[Apparently from different nests.]

§ 5221. Two.—Reenö, 1-2 June, 1855.

§ 5222. Three.
§ 5223. Two.

§ 5224. Three.—East Finmark, 1855.
[None of the above (§§ 5216-5224) entered in the Egg-book by Mr. Wolley, but they are all inscribed. Those for which no precise locality is given were, I believe, from Reenö, where he was on the night of the 1st and 2nd June. The last three eggs are remarkably large, the smallest measuring 2·69 by 1·59 in.]

[§ 5225. One.—Hornö, 17-18 June, 1855. "Bird well seen on nest. A. N."
Taken by myself in company with Mr. Hudleston before we joined Mr. Wolley.]
PHALACROCORAX GRACULUS.—P. PYGMAEUS. 463

[§ 5226. One.—Orkney. "J. D. S." From Mr. Salmon, through Mr. Reynolds, before 1848.

Most likely of Mr. Salmon's own taking during his sojourn in Orkney in 1831 (cf. Mag. Nat. Hist. v. p. 422).]

[§ 5227. One.—Shetland. From Mr. Robert Dunn, 1850.]

[§ 5228. Two.—Unst, Shetland, 1854. From Mr. James Smith.]

[§ 5229. Five.—Unst, 1855. From Mr. James Smith.]

[§ 5230. Two.—Farne Islands, 23 June, 1856. "E. N."

Taken by my brother on our second visit.]

[§ 5231. Two.—Island of Marmora, Turkey, 4 May, 1862. From Mr. Robson, of Ortakuy near Constantinople, 1867.

These would belong to P. desmaresti of Payraudeau, if that be a good species, which Mr. Dresser thinks it is not.]

PHALACROCORAX PYGMAEUS (Gmelin).

PYGMY SHAG.

§ 5232. Two.—Africa, 1857. From M. Parzudaki, 1858.

I have seen these eggs before, that is, eggs of the same species, a year or two ago, but I thought they were said to be from the south-east of Europe.

[§ 5233. One.—Lake Fetzara, Algeria, 20 June, 1856. From Captain Loche, through Mr. Tristram.]

[§ 5234. Four.—Kustendje, 30 May, 1876. "W. C. E. C." From Dr. Cullen, 1877.]
[§ 5235. Three.—Utovo-blato, Dalmatia, 2 June, 1902. "H. E. D." From Mr. Dresser.

Marked as being from the same nest, and taken by Mr. Dresser. Below (§ 5294) will be found his description of the locality, published by him in 'The Field' newspaper of 7 March, 1903.]

**BOTANUS STELLARIS (Linnaeus).**

THE BITTERN.

§ 5236. One.—From Mr. Hoy’s Collection, through Mr. Chapman, not later than 1843.

This rare egg I bought of Mr. Chapman, of York. It was obtained at the sale of Mr. Hoy’s collection. Bitterns are now rare in England. They used to be plentiful in the Fens within the memory of man. A fenman with whom I conversed remembered having found their young in Burwell Fen, and having heard them answering each other from every side, many years ago. I had the good fortune to see Burwell Fen before the new steam-engine began to work. It will soon be one vast cornfield. My fenman considered the Bittern very good eating. It appears to be a migratory bird; eight or ten years since [1843] there were a great many killed near York, and later than that there was a great arrival in Cambridgeshire one winter, as I am informed.

[It is impossible to say where Mr. Hoy obtained this egg, and I see no great chance of its being an English specimen, as Mr. Wolley seems to have thought, for though the Bittern undoubtedly bred in Norfolk, to say nothing of other counties, in Mr. Hoy’s time, it cannot have been plentiful in any of the places where he used to go bird-nesting—Holland excepted.]

§ 5237. One.—From Mr. Green, 1844.

[Most likely from Holland, whence Mr. Green used to have many eggs.]

§ 5238. One.—"Holland." From M. Nager, of Andermatt, 1846.

§ 5239. One.—Tangier, June 1846. From M. Favier, through Mr. Williams, of Oxford Street, 1847.

This bears a label, in M. Favier’s well-known handwriting, "Ardea
Nycticorax pris au mois de juin, 1846"; but in spite of that it is evidently the egg of the Common Bittern. It is very likely that the natives should cheat him intentionally or by accident.

[From M. Favier's manuscript account of the Birds of Tangier (p. 129) (given by Colonel Irby to the University Museum of Zoology) it would seem that he knew the Bittern only as a bird of double passage near that town; but Colonel Irby has added in a note that "Some Bitterns remain to nest in the lakes near Rabat, as I have seen eggs obtained near there.

§ 5240. *One.*—Wilstone Reservoir, Hertfordshire, 1849.

From Mr. James Williams, of Tring, 1853.

This is one of four eggs which were taken in the year 1849 (or possibly 1850) in the great reed-beds bordering the above-named reservoir. The keeper, by name Norris, shot one of the birds and took the eggs to his master, the Reverend James Williams [cf. § 1553], who rents the shooting of the place of the Canal Company. Mr. Henry Harpur Crewe heard of the circumstance at the time and subsequently mentioned it to me. Soon after they were taken and blown, Mr. Williams let them all fall, but I have succeeded in mending them all. Mr. Alfred Crewe was staying with his grandfather in the immediate neighbourhood at the time the nest was found. This egg was kindly given to me by Mr. Williams in return for the mending of the rest. Two pairs of Pochards bred at the same place the year after. Mr. Crewe has one from a nest of seven eggs. Teals also breed there.

[By some mischance the late Mr. Clark-Kennedy (Birds of Berkshire and Buckinghamshire, p. 188, and Zoologist, 1868, p. 1256) attributed this nest to the wrong parish and county—Drayton-Beauchamp in Buckinghamshire; but the error is not serious, as Wilstone is contiguous, and, though belonging to Hertfordshire, is almost surrounded by Buckinghamshire.]

§ 5241. *Two.*—Holland. From Mr. Green, 1851.

Mr. Green had five or six, and Dr. Frere told me there were some in Leadenhall Market this year.

§ 5242. *One.*—Holland, April 1852. From Mr. Green.

On the 30th of April I saw three Bitterns' eggs, unblown, which Mr. Green had lately received from the other side of the water.
Inside this egg I found a young bird far advanced—the down very long, the beak comparatively short, as in young Herons and other birds. I saw a dead Bittern in a shop a day or two afterwards.

§ 5243. One.—Holland, 1854. From Mr. Green.

§ 5244. One.—"1818." From the late Mr. Scales’s Collection, 1885.

Given to me by Mr. Robert Scales with the remains of his late father's collection, by whom it was marked in pencil "Bittern 1818." It is blown by two irregularly shaped holes in the side, and I attach considerable value to it, for it is most likely a British, if not a Norfolk, specimen. Though we know that Mr. Scales was in Paris in 1816 or 1817, the inscribed date precludes his having obtained it there, and I have no evidence of his having been in Holland before 1825. The chances are considerably in favour of its having been by far easier for him to procure a Bittern's egg, as this certainly is, in Norfolk or from the Whittlesey country in 1818, than in or from Holland or elsewhere on the Continent at that time.

§ 5245. One.—"Horsey, Norfolk, 1841." From Mr. E. Preston, 1858.

This egg, blown at the ends, formed lot 77 at the sale of Mr. Preston’s collection at Mr. Stevens’s rooms, 23 March, 1858, and was described in the Catalogue as taken at "Horsey, Norfolk, 1841." Mr. Preston in replying to enquiries I made of him wrote a few days after assuring me, that he had obtained it from the late Mr. Smith, librarian to the Yarmouth book-club, and that it was taken as stated. In estimating the value of this egg, it must be borne in mind that there were several statements in the Catalogue which greatly needed explanation. Nevertheless, it is reasonable to suppose that the Bittern did continue to breed at Horsey so late as 1841.

§ 5246. One.—Holland. From Mr. A. Bots, of Valkenswaard, 1854.

§ 5247. One.—Schiedam, 5 May, 1859. From Mr. J. Baker.

§ 5248. One.—Naarden, 30 May, 1859. From Mr. J. Baker.
All from one nest, but not necessarily the whole of its contents.]

§ 5250. *Three.*—Near Lakkerkerk, May, 1876. From Mr. J.
Baker.
Marked as taken from one nest, by Mr. Baker himself.]

**BOTaurus LENTIGINOSUS** (Montagu).

**AMERICAN BITTERN.**

§ 5251. *One.*—Toronto, June, 1854.
"Hen shot from nest. G. Had- graft."

§ 5252. *One.*—Toronto, June, 1854.
"G. Hadgraft."

§ 5253. *One.*—Toronto, 5 June, 1855.
"G. Hadgraft."

These three beautiful specimens of the egg of the American
Bittern were bought by me in November, 1855. Mr. Hadgraft, who
has been for two years or so stuffing for the Museum at Toronto in
Canada, found one at least of them himself. He had kept them
carefully separate and gave me a special account of each nest, of
which I unluckily did not keep the memoranda. A half-blood
Indian employed by him found one or so. I saw a bird or two with
him at his shop in Museum Street [in London]; but Mr. Sealy, of
Cambridge, had the one shot from the nest, and he also bought the
remaining eggs, seven or eight in number. They are all of one size.
The eggs in the nest from which the bird was killed were all of the
colour of my specimen. The nest which Mr. Hadgraft described
was simple enough.

§ 5254. *Three.*—Canada. From Mr. Hadgraft, through
Mr. Sealy, 1856.
I did not hear of Mr. Hadgraft and his eggs in time to see him, as I believe
his stay in London was short; but Mr. Sealy was kind enough to let me have three of those he bought of him as stated above (§ 5253). Their history would be the same as that of those Mr. Wolley had of him.]

[§ 5255. Two.—St. Stephens, New Brunswick, 1865. From Mr. Dresser, 1866.

Taken as above by Mr. G. A. Boardman, of Milltown, New Brunswick, who sent them to Mr. Dresser.]

NYCTICORAX GRISEUS (Linnaeus).

NIGHT-HERON.

§ 5256. One.—From Mr. Green, 1844.

§ 5257. One.—North America. From Dr. Brewer, through Mr. Tuke, 1845.

Mr. Tuke wrote: "as far as I am able to gain information, this is the same as the European species."

§ 5258. One.—From Mr. Hoy's Collection, through Mr. Wilmot, 1846.

Mr. Wilmot wrote that Mr. Hoy "had others more nearly approaching the common Heron's eggs in shape and colour." He doubtless obtained them in Holland.

§ 5259. Two.—Hungary. From Mr. A. H. Cochrane, through Mr. Hancock, 1849.

On an egg at Mr. Carfrac's in Edinburgh, supposed to be from the same source, is written "May 29, 1848, Adoni Island," which is between Foldvar and Pesth. [Cf. §§ 281, 4386.]

§ 5260. Seven.—Leadenhall Market, 1850–1851. From Dr. Frere.

Sent from Holland.

[§ 5261. One.—Holland. From Mr. Reynolds, before 1848.]
§ 5262. **One.**—Holland. From Mr. Newcome, 1851.

§ 5263. **Two.**—Between Maison Carrée and Rovigo, Algeria, 23 May, 1856. From Mr. Tristram.

§ 5264. **Two.**—Dort, 27 May, 1856. From Mr. J. Baker.

§ 5265. **Four.**—Holland (1856?). “With bird. J. B.” From Mr. Sealy, 1893.
Bought of Mr. Baker by Mr. Sealy, but in what year is doubtful.

Taken, Mr. Baker says, by himself from a nest thirty feet high in a poplar tree. The gamekeeper had a new gun, which he asked Mr. Baker to try, whereupon the latter went and shot both the birds, which I have seen, and a beautiful pair they are. The gamekeeper looked much disgusted, and no wonder.

§ 5267. **Two.**—Lekkerkerk, May, 1876. From Mr. J. Baker.

**ARDETTA MINUTA (Linnaeus).**

**LITTLE BITTERN.**

§ 5268. **One.**—From Mr. Hoy’s Collection, through Dr. (now Sir Henry) Pitman, 1845.

§ 5269. **One.**—From Mr. Green, 1851.
No doubt from Holland.

§ 5270. **One.**—Zana, Algeria, 9 June, 1857. From Mr. Salvin.

§ 5271. **Five.**—Zana, 15 June, 1857.
All the above from four different nests brought by Arabs.
Mr. Simpson took a nest, but Mr. Salvin had not the same luck, though he saw numbers of the birds. They nest on the flags, building with the dead flag-leaves.

§ 5272. *Four.*—Zana, June, 1857. From Mr. Tristram.

Two are marked 9 June.


From Mr. Simpson.

[§ 5275. *Two.*—Holland, 1848. From Mr. Newcome.]

[§ 5276. *Four.*—Holland, 1854. From Mr. J. Bots.]

[§ 5277. *Four.*—Zana, 9 June, 1857. From Mr. Tristram.

Mr. Tristram's note was "complete nest of four eggs, 9 June."

[§ 5278. *Four.*—Zana, 10 June, 1857. From Mr. Salvin.

Mr. Salvin's note is "Four eggs, from one nest."

[§ 5279. *One.*—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.]

ARDEA RALLOIDES, Scopoli.

SQUACCO HERON.

§ 5280. *Three.*—From M. Parzudaki, 1856.

§ 5281. *Two.*—"Save, 24 Mai, 1854." From Herr Zelebor, through Dr. Kjærboëlling, 1856.

Bought of Dr. Kjærboëlling at Copenhagen, July 1856. The eggs
are inscribed in pencil apparently by Herr Zelebor, of Vienna, and his name in a contracted form ("Zeleb.") is written on one [cf. § 5335].

§ 5282. Six.—Lake Halloula, Algeria, 13, (or -16) 14 June, 1856. From Mr. Tristram, 1858.

Two of these formed Lot 194 at Mr. Stevens's rooms 9 February, 1858, the others from Mr. Tristram direct. Three of them from the inscription seem to be from the same nest, and all taken by himself.

[For Canon Tristram's description of the Heronries at Halloula, see 'The Ibis' for 1860 (pp. 163-165).]

[§ 5283. Four.—Lake Halloula, 12-15 June, 1856. From Mr. Tristram.

Taken at the same time as the preceding (§ 5282).]

[§ 5284. Two.—Lake Halloula, 13 June, 1856. "II. B. T." From Mr. Sealy, 1893.

Apparently received direct by Mr. Sealy from Mr. Tristram.]

[§ 5285. Two.—Lake Halloula, 1856. From Mr. Sealy.

Bought by Mr. Sealy at Mr. Tristram's sale, 10 February, 1857, one being lot 115.]


Taken by Dr. Cullen's son on the same expedition as the eggs of the Great Egret (§ 5307) and some others.]

[§ 5287. One.—Utovo-blato, Dalmatia, 2 June, 1902. "H. E. D." From Mr. Dresser.

Taken by Mr. Dresser, in circumstances to be presently described (§ 5294).]
ARDEA GARZETTA, Linnaeus.

LITTLE EGRET.

§ 5288. Two.—"Athēnes." From M. Parzudaki, 1856.

M. Parzudaki told me they were obtained by a medical student or doctor friend of his at Athens, whence he had them direct.

§ 5289. Two.—"Algeria." From M. Parzudaki, 1858.

These are said to be from Algeria, while the last [§ 5288] were said to be from Greece, and yet one has the same number, "330," written in a different manner.

§ 5290. Four.—Lake Fetzara, near Bona. From Captain Loche, through Messrs. Salvin and Simpson, 1857.

These from Captain Loche, who said he took the eggs every year. Mr. Salvin shot one of the birds at Zana [§ 5293, and Ibis, 1859, p. 358], a long way down the country, from which he thought that they were much earlier breeders than Ardea russata; and this Captain Loche confirmed. None of Mr. Tristram's party found A. garzetta breeding. Captain Loche produced these eggs from a different box or drawer from that in which he kept the Buff-backed Herons', and these seem to be rather larger and whiter than those of the other. The birds bred on the far side of Lake Fetzara.

[Dr. Buvry gives at some length (Journ. für Orn. 1857, pp. 120-135) his recollections of Lake Fetzara and its birds, but he does not seem to have seen this species there.]

§ 5291. Two.—Lake Fetzara, about 13 June, 1857. From Captain Loche, through Mr. Tristram, 1858.

These are out of two dozen obtained by Mr. Tristram from Captain Loche, who took them from different nests about the 13th of June, 1857, when they were slightly sat on. One formed Lot 183 at Mr. Stevens's rooms, 9 February, 1858.
[§ 5292. One.—Lake Fetzara, about 12 June, 1857. From Captain Loche, through Mr. Tristram.

Given to us by Mr. Tristram, the history being the same as that of the preceding.]

[§ 5293. Two.—Lake Fetzara, 1857. From Captain Loche, through Mr. Salvin.

Procured at the same time as the preceding. My brother wrote that Mr. Salvin, who obtained ten specimens, had full confidence in them. Mr. Salvin's note as subsequently transmitted is:—

"These ten eggs I obtained from Capt. Loche, in Algiers, who took them himself in Lake Fetzara near Bona in the spring of 1857. He also found breeding there the Ardea veranyi [A. ibis], but there was a considerable interval between the times of the two species laying their eggs; and they occupied places quite separate from each other. In the general characters of the eggs of the two species, the egg of A. garzetta is longer and larger, and appears never to present the rounded shape so common in the eggs of A. veranyi; but this difference is not to be taken as a specific distinction. On the 14th of March I shot one of these birds on the lake of Bizerta near the city, but it was said to be more numerous near a place called Teemija at the south-western extremity of the lake. I was in the habit of seeing six of these birds in the marsh of Zana. Their quick, active, and almost Rail-like movements render them by no means difficult to distinguish from the slow and deliberate motions of the Buff-backed Herons. On the 22nd of June I shot one, a female; it presented every appearance of having hatched its young—the moult was considerably advanced, and the eggs in the ovaries small. This goes to confirm the statement of Captain Loche as to the respective dates of breeding of this bird and A. veranyi, which latter species, I have strong reason to believe, had not laid its eggs at Zana even at the advanced date of my shooting the A. garzetta."

[§ 5294. Three.—Utovo-blato, Dalmatia, 2 June, 1902.  
"H. E. D." From Mr. Dresser.

Marked as being from the same nest, and taken as above by Mr. Dresser, who described the locality in 'The Field' newspaper for 7 March, 1903 (p. 398):—

"We paddled some distance up a small, rather swift, river, the Krupa, which flows into the Narenta, and soon reached the marsh, or, rather, a lake covered with a rank growth of rushes and flags, with here and there a small island covered with flowering shrubs and plants, and the large open pieces of water were covered with white and yellow water-lilies. This, the Utovo-blato, is about nine or ten miles long and very broad, full of springs, so that the water was as clear as crystal. The boatmen had already located the breeding colony, which was at the end of the Utovo-blato, at a place called Deromski-lug, but
as we had to thread through the tortuous channels which were not overgrown with aquatic herbage we must have traversed fully sixteen miles before we arrived there. . . . Overhead a constant stream of Pigmy Cormorants (Phalacrocorax pygmeus) was passing from and to the breeding-place, and also many Lesser Egrets (Ardea garzetta) and Squacco Herons (Ardea ralloides). . . . When we approached the colony the continual noise told us that a great number of young were hatched, which we found to be the case, but they were chiefly those of the Pigmy Cormorant and comparatively few Herons. . . . We did not penetrate into the middle of the colony, as there were lots of nests on the outskirts and the bushes were very thick, so that it was difficult to force the canoes through. The bushes were chiefly those of Salix cinerea and Fraxinus excelsior, and were growing in water from 4 ft. to 5 ft. deep, and extending to from 5 ft. to 7 ft. above the surface. We only found three species breeding here, viz. the Lesser Egret, Squacco Heron, and the Pigmy Cormorant, and there were probably 100 to 150 pairs of each of the former, and several hundred pairs of the Pigmy Cormorant. The nests of all were constructed of small sticks and twigs, and from four to six nests were on some of the larger bushes, and were, as a rule, not placed higher than I could look into or reach by standing in the canoe. I only took a few clutches of fresh eggs, as I did not want to disturb the colony more than it was strictly necessary to do.

ARDEA IBIS (Linnaeus).

BUFF-BACKED HERON.

§ 5295. Two.—From M. Parzudaki, 1856.

[These have the look of being genuine; and M. Parzudaki had many opportunities of receiving eggs of this species from Algeria; but he did not give Mr. Wolley any information as to whence these came.]

§ 5296. Three.—Lake Halloula, Metidja, 13, 14 June, 1856. From Mr. Tristram, 1858.

Lots 185 and 191 at Mr. Stevens's rooms, 9 February, 1858.

§ 5297. Four.—Lake Halloula, 13 June, 1856. From Mr. Tristram, 1858.

[Canon Tristram's all too brief notes on this species at this locality are in 'The Ibis' for 1860 (p. 163); but in his Sale Catalogue of 10 February, 1857, he stated that "The only known breeding-places of this bird in North Africa are Lake Halloula and a lake between Bona and Tunis. Here the Buff-backed, Squacco, and Night Herons and the Glossy Ibis all breed in
communities—at Lake Halloula this year probably for the last time, as the French Government has begun to drain this paradise of Herons, employing vast numbers of soldiers, and in the middle of June last the waters were already reduced by seven feet. It is remarkable that though there are trees and rising ground on the north of the lake, yet none of these birds frequent that side, the favourite haunts of the various Salicarice, but all remain on the south side, sheltered in a pestilential morass by a jungle of reeds, and all deposit their eggs on nests heaped on the ground. The Buff-backed Heron builds a little further back from the water in general than the Squacco, but neither of them elevate their nests more than two feet from the swamp.

§ 5298. Four.—Lake Fetzara, Algeria, 1857. From Captain Loche, through Mr. Salvin.

Mr. Salvin said that Captain Loche kept them in separate boxes and said that this species bred in a different locality [from Ardea garzetta (§ 5290)] near the great Lake Fetzara.

§ 5299. Two.—Lake Fetzara, June, 1857. From Mr. Simpson.

[Apparently obtained at the same time as the last from Capt. Loche.]

[§ 5300. Four.—Lake Halloula, 12–15 June, 1856. From Mr. Tristram.]

[§ 5301. Two.—Lake Halloula, 13 June, 1856. “H. B. T.” From Mr. Sealy, 1893.

Apparently received direct by Mr. Sealy from Mr. Tristram.]

[§ 5302. Two.—Lake Halloula, 1856. From Mr. Sealy, 1893.

Bought by Mr. Sealy at Mr. Tristram’s sale in 1857, being lots 107 and 109.]

[§ 5303. Two.—Lake Fetzara, June, 1857. From Captain Loche, through Mr. Salvin.

With the same origin as the six before included (§§ 5298, 5299).]
ARDEA COROMANDA (Boddaert).

§ 5304. One.—India. From Mr. Gould, 1859.

Given to me in March 1859 by Mr. Gould, having been sent to him, he tells me, by his son in India.

§ 5305. One.—Ceylon. From Mr. Layard, through Dr. Frere, 1854.

For Mr. Layard's account of his visit to a nesting-place of this and other birds, between Tangalla and Matura, in Ceylon—when he most likely took this egg—see 'Annals and Magazine of Natural History' (ser. 2, xiv. pp. 111, 112).

ARDEA ALBA, Linnaeus.

GREAT EGRET.

§ 5306. One.—White Morass, Banat, Hungary, 23 June, 1847. From Dr. Baldamus, 1861.

P. Z. S. 1861, pp. 308, 309, pl. xxxix. fig. 6.

In the account of his bird-nesting journey in Hungary in 1847, published by the Doctor in 'Naumannia' for 1851 and 1852, he described the "Weisse Morast" (I. Hft. 2, pp. 73 et seqq.) and its Heronries, and especially (Heft 4, pp. 41-44) that occupied by Ardea alba. Writing to me, 20 April, 1861, he says further:—"Ardea alba have I myself, at the risk of life and with unspeakable exertion, obtained out of an almost impenetrable reed-thicket in the White Morass in Southern Hungary, and occupied the whole of a hot day in taking twelve eggs—the only genuine ones I ever saw. They were hard sat on, and in many nests were young in snow-white down, which the young while in the egg, some of which I put in spirit, also shewed. I have since given away seven specimens; but some fifty have been sent into the world with my private mark, so that I had to publish a warning on that account in 'Naumannia' (I. Heft 4, p. 43, nota). I am glad that you have so immediately recognized their difference from (those of) A. cinerea. All earlier and later collectors in Hungary have let themselves be imposed upon by Wallachs and Illyrians, as they also tried it on with me, so as not to have to go with me to the hard-to-reach breeding-place in the midst of very great, high reed-forests, only to be penetrated by quite small canoes (Schinakels). Nor
for much money could I possibly induce them to make a second attempt. This is truly a rare egg!"

Accompanying the egg, which Dr. Baldamus was so good as to send me, was a memorandum of which the translation is as follows:—

"The eggs of Ardea alba were found on the 23rd June, 1847, in the great marsh on the 'White Morass' adjoining the Ecska, near Nagy-Becserek, in the Royal Banat (South Hungary). In all there were twelve specimens, the whole ready to hatch. The young had white down. The very large nests stand on the luxuriant stems of a forest of reeds, which are about 12 feet high, and some hundred yards from the margin. Altogether there were eleven or twelve pairs breeding, and pretty near to one another. Most of the nests contained small young clothed in white down."

Later in the year (16, 17 August, 1861) I had the pleasure of paying the Doctor a visit at Osternienburg, when he shewed me the single egg he yet retained, and naturally spoke with exultation of his triumph in taking them. Subsequently I exhibited the present specimen at the meeting of the Zoological Society of London (10 December, 1861) and it was figured in its 'Proceedings' (at supra); but it should be mentioned that on his return from Hungary Dr. Baldamus exhibited all his oological spoils at the third meeting of German Ornithologists held at Halle, 28-30 September, 1847 (Rhea, ii. pp. 184, 190). I wish I could afford space to give here a translation of his account of the enchanting wonders of the "White Morass" above mentioned, for it must be little known to English readers, and it is much to be feared that its glories are things of the past."

[§ 5307. Six.—Delta of the Danube, 13 May, 1876.

"W. C. E. C." From Dr. Cullen, of Kustendje, 1877.]

Dr. Cullen, writing to me from Kustendje on the 6th July, 1876, informed me that his son had been spending the last two months in the delta of the Danube, where he had been tolerably successful in obtaining eggs of this and other species of Herons, as well as of Pygmy Cormorants, Glossy Ibis, and Spoonbill, "all of which have been taken by himself and marked accordingly on the day of capture." I asked him to send me some of these which I named, but they did not reach me till the 7th of April, 1877. Besides the eggs the box contained two fine skins of Ardea alba (male and female) and two skeletons of the same, but to my regret the eggs were inscribed by Dr. Cullen himself and not by his son, unless the words on one, "Taken out of the bird's body," be in the handwriting of the latter. This specimen as to colouring and substance resembles the other five. All these eggs are slightly larger than any of Ardea cinerea with which I have compared them, but not so big as that which I had from Dr. Baldamus (§ 5305)—the largest of A. cinerea measuring 2:36 by 1:77, while the average of these six is 2:468 by 1:678, the smallest being that marked as taken out of the bird, 2:38 by 1:69, and Dr. Baldamus's specimen measures 2:51 by 1:83 in.]
§ 5308. One.—[Holland?] From Mr. Hoy's Collection, through Mr. Tuke.

[As shewn by Mr. Hewitson (Brit. Ool. pl. cxix.), Mr. Hoy had visited the breeding-quarters of this species before 1837.]

§ 5309. One.—From M. Hardy, of Dieppe, 1846.

§ 5310. Ten.—Holland, 1850. From Dr. Frere.

Out of forty, bought by Dr. Frere in Leadenhall Market, at nine shillings the dozen.

§ 5311. Four.—Ouderkerk, Holland, 9–12 May, 1857. From Mr. J. Baker, 1858.

These bought of Mr. Baker, at Cambridge, 2 March, 1858, and taken all, he said, with his own hand. There were no Common Herons in the district. The nests were mostly on the ground; but a few were in trees—fallen trees, a few feet from the ground. He caught many birds on their nests, letting them go again, and he described to me their great beauty. His method was that adopted by the falconers at Valkeuswaard, especially in catching Herons for training the Hawks. A simple open knot [qu. noose?] is laid round the nest, with a piece of string many yards in length, one end of which is securely fastened to some stake or other at one side of the nest, while the other end is brought away to any distance. It is then left for a time, and the person who sets it, returning and pulling the end sharply, is almost certain to snare the bird. I find the name Ouderkerk on the map, a few miles north of Rotterdam, and this is probably Baker's station. The eggs in Leadenhall Market have been said to be from the neighbourhood of Rotterdam. The birds are preserved, says Mr. Baker, both by the proprietors and by the law. I selected these four eggs out of some twenty or thirty, as varieties in point of size. On comparing them with those in my
cabinet they seem to agree exactly with the Leadenhall eggs in being paler than any specimen of the Common Heron.

[§ 5312. *Four.* — Holland. From Dr. Frere, 1852.
Bought in Leadenhall Market, perhaps at the same time as those above entered (§ 5310), but perhaps a year or two later.]

Marked as coming from one nest taken by Mr. Baker himself.]

[§ 5314. *Six.* — Holland, 1856. From Mr. Sealy, 1893.
Obtained by Mr. Baker and probably at the same place as the last.]

[§ 5315. *Two.* — Holland. From Mr. J. Baker, before 1862.]

[§ 5316. *One.* — "South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1862.]

[§ 5317. *One.* — From the late Mr. Yarrell's Collection, 1856.
Inscribed by Mr. Yarrell "Ardea caspica." Writing in 1840 he says (Brit. Birds, ed. 1, ii. p. 452) that eggs of this species were not unfrequently sent to the London market from Holland.]

In the account of his bird-nesting excursion in this year which he published in 'The Field' newspaper of 7 February, 1903 (p. 222), Mr. Dresser only states of these that the men he was with "took us to a large colony of Purple Herons, where I examined many nests, and took several clutches of fresh eggs. The nests were built of sticks and flags, and were placed in bushes standing in the water at about a foot above the surface."}
ARDEA MELANOCEPHALA, Vigors and Children.

[§ 5319. *One.—South Africa.* From Mr. T. E. Buckley, 1896.

The entry in Mr. Buckley's Egg-book is only "S. Africa. From E. Layard, Cape Town." In his 'Birds of South Africa' Mr. Layard stated (p. 306) that "Three eggs, said to be of this species, were sent to me from Verloren Vley"; and from the second edition of that work, revised by Dr. Sharpe, it would appear (p. 710) that he afterwards obtained other specimens from the Berg River.]

ARDEA CINEREA, Linnaeus.

THE HERON.

I used frequently to go to the Heronry in Windsor Park. It is situated in two separate clumps of very tall trees. There were about thirty nests in 1842. The Heron now in the garden [at Beeston, 1843] was procured for me by the keeper who lives near the Horse-barracks. The Heronry at Clifton [Nottinghamshire], being destroyed by Sir Robert Clifton, removed itself to Colwick Hill, where some young oaks were occupied. Mr. Musters at first protected them by putting crooked nails on the trees, but he afterwards gave them up, and they removed to the tall trees that overhang his house; in 1842 there was only one occupied nest on the hill. At Lord Spencer's in Northamptonshire [Althorp Park] there is, or was, a Heronry built on very low trees. It would not be difficult to re-establish the Heronry at Clifton, which Sir Juckes Clifton is anxious to do, for Herons will breed in confinement, or at least when pinioned—see Yarrell [Brit. Birds, ed. 1, ii. p. 446]. We once had three in the garden, two from Colwick and one from Windsor. They were very quarrelsome, and did not seem to enjoy good health, probably owing to the want of a regular supply of fish. The one that we had first amused itself with carrying about bits of stick in the spring. It was killed by the Raven, and another on being seriously hurt by the same bird was given to Mr. Sibson of the Hospital [at Nottingham]. We kept the first about two years. In fighting they used to seize each other by the neck. I have seen twenty or thirty standing together in an open space in Burwell Fen.
ARDEA CINEREA.

[Cambridgeshire], and am told they always frequent the same spot during the day, winging their flight in different directions about sunset. It is curious to see them first rise, some of them keeping their neck stretched out like Geese or Cormorants for a few seconds. I got a shot at them, by lying on my back in the sedges, and sending my companions round, but they were at too great a height for the shot to tell. In the Museum at this house [Beeston] is a Water-Rat that was taken whole from the inside of a Heron, and of the pellets which they reject, as all birds-of-prey do, and which are plentifully strewed under their nests, the chief ingredient is Water-Rats' hair. It appears that if they let fall a fish from their nests they do not come down to pick it up, as I have several times seen fresh fish lying on the ground. I once, not long ago, found a piece from the middle of a two-pound eel, about eight inches long and still moving, and the Heron had probably been scared from its repast by my approach; but the most curious thing was that it was cut by the razor-like bill almost as neatly as it could have been by steel. Some shepherds assured me that it was the work of a Hernshaw.

[The above is from the Egg-book, following the entry of a specimen which Mr. Wolley notes as having been afterwards "broken to pieces."]

§ 5320. One.—From Mr. Reid, 1844.

Mr. Reid had it from Northampton.

§ 5321. Two.—Isle of Mull, 1844. From Mr. G. D. Rowley.

Taken under Mr. Rowley's superintendence from cliffs in the Isle of Mull, during his reading excursion in 1844.

§ 5322. Three.—Dalgety, Fifeshire, 26 April, 1850. "J. W. ipse."

Mr. Marcet [cf. § 5175] and I discovered a Heronry at Braefoot, Dalgety, just opposite to Inch Colne. At the time I was his guest at Aberdour. We walked along the shore with our guns as far as the old church at Dalgety. On our return, after I had shot a Godwit, I heard a Heron scream as we approached the wood, and

PART IV.
from its action I suspected a nest. As we climbed up into the wood, we came to several nests from which the birds rose. I eagerly commenced swarming up a fir-tree where there was a nest at the height of, maybe, forty feet. After very great exertions I at last reached it and found in it three eggs which were nearly hatching. All the other trees appeared inaccessible; but I found several eggs which had been sucked by Crows.

§ 5323. *Four.*—Dalgety, 27 April, 1850. "J. W. ipse."

The next day we paid the Heronry another visit. Mr. Marcet nearly gets up to another nest with the help of a strap round his waist, but turns sick. I try the strap and string to climb to another nest; but the strap breaks. At last, as we were coming away, on the seaside to the south-east, we looked into some nests from the ridge of rocks, which are quite easy to get at, for the trees are low, and branches or stumps of branches come to the ground, the trees being Scotch firs. Mr. Marcet climbed to a nest and took out two young birds nearly full-grown. I climbed to another in which were four eggs, quite fresh, larger than the three of yesterday. The latesness is no doubt owing to previous layings having been robbed by Crows. One of the eggs I broke on my way home, my cap with the unblown eggs in it falling to the ground as I stumbled. Another nest to which I climbed had four young in it, not so big as Mr. Marcet's. One fell to the ground and was killed, and the other three soon died in John [Arthur]'s private room [in Edinburgh], first casting up the lining of their stomach. Mr. Marcet, leaving Edinburgh early in August, bequeathed to me his two Herons, one of which I gave to Mr. Calder. We afterwards heard that these Herons are carefully preserved by Lord Moray's keeper, who happened to be absent when we were there. A sea-faring boy from Burnt Island tumbled from one of these trees soon after we were there and was seriously hurt. It is an old-established Heronry, and the trees used always to be considered inaccessible. There might be a dozen inhabited nests altogether. The ground beneath an occupied nest is completely whitewashed for a considerable space, even before the eggs are hatched. The eggs in the nests I took were placed widely apart. The nest is a shallow platform, but of considerable size and substance; made entirely of sticks even to the lining, if there is anything that can be so called.
§ 5324. One.—Dalgety, 3 April, 1851.

On the 3rd of April Mr. William Dumbreck and I went to visit the Heronry at Dalgety. We only climbed to one nest in which were five eggs—all addled, though the Heron was on them. There was a large stone in the nest which had probably been thrown from the cliff above. The tree was a Scotch fir. None of the trees near had inhabited nests.

§ 5325. Three.—Diedlington, Norfolk, 1851. From Mr. Newcome.

This heronry is said to have been of comparatively modern establishment, as in 1853 I was told by William Spencer, of Feltwell in Norfolk (whose great-grandfather, grandfather, and uncle had been successively gamekeepers to the Clough family of that place and Hockwold), that the ancestors of the birds composing it used formerly to have their nests in low willow-bushes in that part of Feltwell Fen which is towards the Brandon River and Hockwold Fen. He did not know when they discontinued the practice, but it was before his time, and he was born about 1800 (cf. Stevenson, 'Birds of Norfolk,' ii. p. 132.)

§ 5326. Two.—Diedlington, 1851.

§ 5327. Three.—Dalswinton Loch, Dumfriesshire, 1854. From Mr. W. G. Johnstone.

§ 5328. Three.—Loch Dochart, Argyleshire, 26 May, 1856.

Sent by Mr. Peter Robertson, of Black Mount.

§ 5329. Six.—Loch Meadie, Sutherland, May, 1859.

From Mr. George MacKay, who wrote that they were "bred on islands," of which there are four or five in the loch.

§ 5330. Three.—Cavenham, Suffolk, April, 1860. From Mr. G. H. Waddington.

I had long known that Herons bred at Cavenham, and on more than one occasion had searched the Ash Carr, finding nests but never anything in them. These were taken in the Sheepskin Plantation there, my cousin being present at the time. Perhaps half a dozen pairs may in some seasons breed there.] 2 1 2
§ 5331. One.—Beaulieu, County Louth, 1849. From Mr. R. J. Montgomery, 1862.

The Heronry at Beaulieu and Mr. Montgomery's visit to it are mentioned by Mr. Thompson (B. Ireland, ii. p. 143 and note). This egg is one taken at that time and given to me by Mr. Montgomery in Dublin in 1862.]

§ 5332. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1862.

§ 5333. Two.—Fox Hall, Donegal, 9 March, 1864. "R. H."

Mr. Harvey wrote that these are the contents of a nest taken as above about four miles from Letterkenny. "The nest was on the umbrella-shaped top of a very tall, straight, and naked old Scotch fir. I had to procure a long ladder to enable the boy who was with me to reach the short stumps of broken branches, by which he was enabled to get to the nest. The eggs were quite fresh: had I waited a few days there would probably have been more."

PLEGADIS FALCINELLUS (Linnaeus).

GLOSSY IBIS.

§ 5334. One.—From Mr. Green, 1844.

This egg, of which I nowhere find any description, Mr. Green assured me was an undoubtedly authentic specimen. Mr. Yarrell had bought one of them. One or two specimens of the Glossy Ibis were shot on a pool by the side of the Nottingham Railway near the Derby station in 1843.

[When Mr. Yarrell published his account of this species in the first edition of his 'British Birds' (January, 1841) he knew nothing of its nidification or eggs, nor did Mr. Hewitson venture to figure the latter in its place in the second edition of his work, though he did so (March, 1846) in a supplementary plate (lxxviii *.) from a specimen in Mr. Wilmot's collection, the catalogue of which states that it was obtained from Mr. Green not later than 1845, and it was therefore probably of the same lot as the present; but whence it came there is nothing to shew. It seems to be genuine. As regards the bird or birds killed near Derby, one is said by Mr. Montagu Browne ('Birds of Leicestershire and Rutland,' p. 126) to be preserved in the Bickley Collection of the Leicester Museum, only the year of its death written on the case is 1842 instead of 1843. Which is right I cannot say. It is also mentioned by Mr. Whitlock ('Birds of Derbyshire,' p. 159).]
§ 5335. One.—"Save, 24 Mai, 1854.” From Dr. Kjærbölling, 1856.

[This egg is inscribed in pencil, and I recognize the handwriting as that of Herr Zelebor, from whom no doubt Dr. Kjærbölling had it (cf. § 5281). "Save" is the Slavonian frontier-river so called.]

§ 5336. One.—“Sarepta, Volga.” From M. Parzudaki, 1858.

§ 5337. Two.—“Africa.”

§ 5338. One.—From the late Mr. Yarrell’s Collection, 1856.

This was part of Lot 373 at the sale by Mr. Stevens, 5 December, 1856, of Mr. Yarrell’s Collection, and being the only one assigned to this species included, it is doubtless that mentioned in the second edition of his work (ii. p. 576) published in 1845 as having been lately obtained by him, most likely, as above stated (§ 5334), from Mr. Green.


Given to me at Paris by M. Edouard Verreaux. It bears a pencil inscription which I read as above in Herr Zelebor’s writing, with his name in the usual abbreviated form (cf. § 5335).]

§ 5340. One.—Sarepta. From Herr Möschler, 1862.

§ 5341. Four.—Delta of the Danube, 30 May, 1876. "W. C. E. C.” From Dr. Cullen, of Kustendje.

Taken by the Doctor’s son (cf. § 5307).]


The kind gift of Mr. Clarke, who wrote that they were a clutch from a nest which he took as above. His description of the locality where he found it and many others is given in ‘The Ibis’ for 1884 (pp. 133-135). He therein states that “in one bush were noted one nest of Common Heron, two of Pigmy Cormorant, three of Night-Heron, two of Little Egret, one of Squacco, and three of Glossy Ibis.” He goes on to say that the nests of all these species were very similar in structure and materials, those of the Egret and Ibis being formed of sticks and a few reeds.]
§ 5343. One.—From Mr. Chapman, not later than 1843.

The Spoonbill is common in Holland. This is undoubtedly its egg, which is very commonly brought to this country.

§ 5344. One.—From Mr. Mansfield, 1844.

This Spoonbill's egg from Mr. Mansfield, who says he has them from Yarmouth, and that they breed there; of course a great lie. It is nevertheless correctly named.

[That this species should have bred in England in Mr. Mansfield's lifetime is hardly likely; but his assertion was not quite so wide of the mark as Mr. Wolley believed, for the bird has changed names with what is now called the Shoveler-Duck, which for a long while was the "Spoonbill" of Norfolk men, while the modern Spoonbill was always the Shoveler or Shovelard of the ancients.]

§ 5345. Ten.—Holland. From Dr. Frere, 1851.

Dr. Frere kindly allowed me to pick these out of his very great assortment, which had not been picked over, either before he got them or since. I had not, however, time to make a careful selection. He informs me that Spoonbills used undoubtedly to breed in Norfolk in a considerable colony some ten years ago, as I understood.

§ 5346. Thirty.—Holland. From Dr. Frere, 1852.

These I have carefully selected from several hundreds in Dr. Frere's possession which he has bought in Leadenhall Market in the years 1845–51.

§ 5347. Thirty.—Holland, 1849, 1850. From Dr. Frere.

[Like the foregoing; but apparently given to Mr. Wolley later.]
CICONIA NIGRA.

§ 5348. One.—"Holland." Before 1848.

§ 5349. Three.—"Holland," 1848. From Mr. Newcome.

§ 5350. One.—From Mr. Yarrell’s Collection, 1856.
This I bought at the sale of Mr. Yarrell’s Collection, 5 December, 1856, when it was in the same lot as the Bustard’s (§ 3198) and other eggs. I know nothing more of its history.

CICONIA NIGRA (Linnaeus).

BLACK STORK.

§ 5351. One.—Pomerania. From Dr. Kjærboëling, 1856.

Taken by Herr Fischer himself.

§ 5353. Five.—Storksøv, Wend-syssel, Jutland, 2 May, 1858. From Pastor Theobald, 1859.
These were taken from one nest as above by Herr Fischer.

§ 5354. Five.—Mylenberg-skov, Jutland, April, 1859. From Pastor Theobald.
Mr. Theobald’s note is “taken in one nest in the wood, by the forester Sørensen, an honourable man.”

§ 5355. Three.—Mylenberg-skov, April, 1859. From Herr H. C. Erichsen.
Given to me at Copenhagen by Herr Erichsen.
CICONIA BOYCIANA, Swinhoe.

[§ 5356. One.—Barnaul, Upper Ob River, 6 June, 1896.
From Mr. Dresser, 1904.

Mr. Dresser wrote to me that he received this from Herr Bamberg, who informed him that it was taken as above.]

CICONIA ALBA, Bechstein.

WHITE STORK.

§ 5357. One.—Holland. From Mr. Reid, of Doncaster, not later than 1843.

Mr. Reid had it as the White Stork from Holland. Mr. Philip Hurt could not resist the temptation of shooting one this summer [1843], as it flew overhead, but he dare not pick it up.

§ 5358. Two.—From Mr. Mansfield, not later than 1843.

§ 5359. One.—Leadenhall Market, 1851. From Dr. Frere.

§ 5360. One.—From Mr. Green, 1854.

§ 5361. Two.—Dronninglund, Jutland, 17 May, 1859. From Pastor Theobald.

Mr. Theobald's note states that they were taken as above on the roof of a house by Herr Fischer. There were only these two eggs in the nest.

[The shell of each shews trace of considerable compression while in course of formation. One is slightly streaked with "Bunting lines" of a dull slate-colour, the nature of which I do not understand.]

§ 5362. One.—Holland. From Mr. Reynolds, 1846.]
PHÉNICOPTERUS ROSEUS.

§ 5363. **One.**—From the late Mr. Yarrell’s Collection, 1856.

Included in Lot 373, at the sale. It bears the word “Stork” in Mr. Yarrell’s handwriting.

§ 5364. **One.**—Ouderkerk, Holland, 2 June, 1859. From Mr. J. Baker, 1859.

PHÉNICOPTERUS ROSEUS, Pallas.

§ 5365. **Two.**—San Lucar, Andalusia, 1865. From Mr. Howard Saunders, 1869.

Mr. Saunders said that he believed this bird had not bred in this locality for the last few years. He did not see a nest; but obtained these eggs at Jeres (Ibis, 1859, p. 401).

§ 5366. **Six.**—Étang du Valcarès, Bouches du Rhône, 1870.

From M. Marius Maiffredy, through Mr. J. W. Clark.

These were obtained for me by Mr. Clark, whom I had asked to look out for some eggs of this bird in the Camargue, and he consequently left a commission with M. Maiffredy, of Arles, which was subsequently fulfilled. That gentleman wrote to Mr. Clark on the 12th of June, 1870:—“Mon silence devait vous faire croire que j’avais entièrement oublié la promesse que je vous avais faite de me procurer des œufs de Flamand du Valcarès; j’avais chargé plusieurs biacconniers of cette commission et je reçois à l’instant l’avis que l’on va pouvoir probablement remplir mes ordres.” And again on the 31st of July:—“Je viens à l’instant d’expédier à votre adresse, au Museum de Cambridge, une caisse contenant six œufs du Flamand de Camargue, parfaitement préparés et emballés. J’espère qu’ils vous arriveront sans encombre. Ces œufs ont été trouvés auprès de ma propriété sur les plages de l’étang du Valcarès. L’homme qui s’est livré à cette recherche m’assure qu’il a vu en plein midi les femelles couver sur un cône tronqué de 40 ou 45 centimètres d’élevation, un ou deux œufs, jamais plus. Le nid toujours construit sur un fond argileux est un composé de coquilles, pétris avec de l’argile et d’une grande solidité. La mère couve seule à l’exclusion du mâle en s’asseyant dessus.”

In ‘The Ibis’ for 1870 (pp. 439-442) Mr. Clark published an interesting note of his enquiries earlier in that year concerning the Flamingoes of the Camargue which led to his obtaining the eggs above mentioned. His chief informant, M. Maiffredy, who afterwards sent them to him, said he had himself seen twelve or fifteen nests twenty years before, but thought that, owing to the changes which had come over the district, the birds would not again breed there, though eggs might be laid any year. He believed that the hen-bird
while incubating sat astride of the nest, which has been shewn not to be the case (naturally enough) when it is in shallow water that would not admit of her doing so, but it remains to be proved that the old and wide-spread belief is incorrect, when the water is deep and the nest high.]

[§ 5367. Two.—Buhmir, Persian Gulf, 25 May, 1878. From Colonel Butler, through Mr. Howard Saunders, 1879.

Mr. Saunders informed me that he believed Colonel Butler did not take these himself, but obtained them from one of his friends. Seventy-one specimens taken at the same place and on the same day are entered in the 'Catalogue of the Collection of Birds' Eggs in the British Museum' (ii. p. 137) as the gift of Mr. Hume, who has some remarks upon them (Stray Feathers, x. p. 513); but the Colonel does not seem to have published any notice concerning them.]

**CYGNUS Olor** (Linnaeus).

**MUTE SWAN.**

§ 5368. One.—Eton, not later than 1843.

I much fear that this is the egg of one of Her Majesty's Swans. It was procured at Eton by a man known as "Musky," who is since dead.

§ 5369. One.—St. James's Park, 1852.

Obtained by me from Smith, the keeper of the Ornithological Society's Waterfowl in St. James's Park.

[§ 5370. One.—Hillingdon, Middlesex, 1846. From Mr. Charles Cox.

Laid by one of the pair of birds kept on the water at Hillingdon House.]

[§ 5371. One.—Culford, Suffolk. From Mr. E. R. Benyon, 1846.

From the ornamental water at Culford Hall, where one pair of Swans at least was commonly kept.]
§ 5372. One.—"Volga." From Herr Möschler, 1865.

This was sent to me as that of the wild bird, and marked "Sauvage" by Herr Möschler.]

§ 5373. One.—Abbotsbury, Dorset, June, 1891. From Mr. Nelson M. Richardson.

Kindly sent to me, through the good offices of Mr. O. Pickard-Cambridge, by Mr. Richardson, who obtained it from the swan-keeper at Abbotsbury, that I might include in this work a specimen from the greatest swannery in the world. I visited it 16 July, 1863, when the man in charge told me that in the preceding year Lord Ilchester's steward had counted 856 Swans on the water—the Fleet, lying inside the Chesil Beach; and I could well believe there were that number, excluding cygnets, when I was there; but many more are said to have been counted since. A view of this water forms the frontispiece to the late Mr. Mansel-Pleydell's 'Birds of Dorsetshire.'

§ 5374. One.—Northrepps, Norfolk, May, 1876. From Mr. Gurney.

This is an addled egg sent to me by Mr. Gurney, and laid by the hen of a pair of "Polish" Swans which were obtained by the Zoological Society some years ago, and soon after their arrival in the Gardens attracted my attention. They were very large and fine birds, agreeing in every particular, both in Mr. Bartlett's opinion and mine, with what are commonly called "Polish" Swans. They were kept in a wretched little enclosure with a shallow tank of water, and there they were expected to breed! I repeatedly asked to have them put in a better place, but to no purpose. This last winter (1875-6) I again applied on their behalf and got a promise that if any Fellow of the Society, who had a likely bit of water for them, would take them on loan, or buy them at their original price, he should have them. Therefore I wrote to Mr. Gurney, and the result was that they were transferred to Northrepps, and on the pond there, in which there is a small island, they lost no time in making themselves at home and building a nest, from which they hatched a brood of five cygnets, leaving this rotten egg, which, according to a previous agreement, was to be mine. Mr. Gurney sent a note on their nidification to the Zoological Society, which was published in its 'Proceedings' (1876, p. 406), and next year followed it by a longer communication (1877, pp. 570, 380) describing the young birds, which certainly differed not a little from those of the ordinary form, though for several reasons I here offer no opinion as to the specific value of C. immutabilis.]
The Wild Swan comes into the country surprisingly early, some weeks before the rivers and lakes are open, even as it would seem in March, the "Swan month" of the Lapp calendar, which name, however, we must remember was given under the Old Style, when March was really a fortnight later in the solar year than it is now. It selects a place for its nest in the middle of some great open marsh, and stands and waddles about the spot while the snow is going away, assisted by the bird in its departure in several ways according to the relation of eye-witnesses. Conspicuous as it thus is from a great distance at the site of its nest, and therefore so easy to trap or snare, this fine bird has little chance of remaining unmolested anywhere near man. Within a few years, however, a pair or two have bred not more than fifty or sixty English miles from Muonioniska. Now I am afraid the last of them have been trapped or shot away. I have found bones of the Wild Swan with those of Bears and wild Reindeer about the old altars of the Lapps in this neighbourhood. They are still to be found towards the head of the river Torneå, and a good many pairs breed in the district where Norway, Finland, and Russia proper come together. But most of the birds that pass over here are believed to go to Nova Zembla. The Russian sailors who frequent that land say they breed there, and a man I know, who lives on the north-west coast of the White Sea, tells me that after stopping a short time in his neighbourhood in the spring, the greater part fly right away to [paper torn off] as they would do if making for Nova Zembla. The priest of Utsjoki is, I am informed, very fond of Swans' eggs, and he eats them for his breakfast. I have not seen a nest myself, so must refer you to the well-known account of one in an early Arctic voyage, which, if I remember right, is also given in Richardson's 'Fauna Boreali-Americana' [vol. ii. p. 465]. Only fancy a preserve of Hoopers! There is in the south of Sweden an English gentleman [Mr. Dann], whose name is well known to ornithologists, who may be almost said to have such a preserve on his estate [Tjölöholm ?], for large flocks are to be seen for months together on a small bay there which he carefully prevents being disturbed. I had the pleasure under the guidance of their protector of watching them with a glass, and of hearing the delicious music
for which Swans have been at all times so celebrated, and which surpasses anything I had imagined in the richness and delicacy of the tones; while the voices of the various performers seem wonderfully regulated to increase the general effect. These flocks, of course, go far north to breed. When the young can fly the Swans collect in certain estuaries in the Gulf of Bothnia; and I am assured by a gentleman who lives on the outlet of the Piteå river that it is a most interesting thing to see each little family come swooping down from the country and to hear the congratulations of those already assembled at the new arrival.

[Nearly all the above, written from Muonioara, 2 February, 1855, to Mr. Hewitson, was by him published in the Third Edition of his work (pp. 394, 395). As will almost immediately be seen (§§ 5380, 5381), Mr. Wolley had not long to wait to be able to write of Wild Swans’ nesting from personal experience. The “early Arctic voyage” to which he refers is Parry’s ‘Journal of a Second Voyage for the Discovery of a North-West Passage (London: 1824), wherein is well figured (p. 240), from a drawing by Captain Lyon, a Swan’s nest found, in June 1822, on Winter Island, off the east coast of Melville Peninsula; but it doubtless belonged to one of the American species, and most likely to Cygnus columbianus, at one time considered to be identical with C. bernicla.]

§ 5375. One.—Iceland? From Mr. Hewitson, 1844.

[No doubt from Mr. Proctor.]

§ 5376. One.—Iceland? From Mr. Hancock, 1846.

§ 5377. One.—Iceland. From Mr. Proctor, 1851.

Inscribed “Svanúr, Anas cygnus” by Mr. Proctor’s Icelandic correspondent.

[A second was sold at Mr. Stevens’s, 31 May, 1860, to Mr. Burney.]

1 On a still earlier Arctic voyage, Button’s in 1612–3, the meagre details of which are known only from Luke Fox’s work (‘North-West Fox,’ London: 1635), a like discovery seems to have been made in Hudson’s Bay, on an island thence called “Cary’s Swansnest,” partly, it may be presumed (though this is not stated by the narrator), to commemorate some member of the Cary or Carey family, who may have had an interest in the adventure, with allusion to the Swan borne by that family as its heraldic crest, a fact not noticed by the editor of the Hakluyt Society’s reprint (i. p. 165, note).—Ed.]
§ 5378. Three.—Mattairla-järvi, Õfver Torneå. 1854.

§ 5379. Two.—Mattairla-järvi. 1855.

Got at Alcola in September, 1855. They were taken in a piece of water near Alcola. The nest said to have been there from time immemorial, supported in the middle of the water by stakes. I saw the man's brother, who, perhaps guided by a former letter of mine, had a story about there being two kinds of Swan, one with a straight beak, the other with a knob upon it. The eggs of 1854 were said to belong to the straight-billed, the other two to the knob-billed kind, but little reliance is to be placed on these stories. I hope to hear more about these Swans from Ludwig next year.

[Ludwig was better employed in 1856 than in looking after Swans' nests. There is no reason to suppose that the knob-billed Swan (C. olor) occurs in Lapland, though the locality whence these eggs came is hardly to be so accounted. A fourth egg from those of 1854 was sold at Mr. Stevens's, 31 May, 1860, to Mr. Braikenridge.]


[This nest is duly entered in the Egg-book, but no particulars are there given. The story, however, is fully told in a letter from Mr. Wolley to Mr. Hewitson dated Patsjoki, 16 June, 1855, as follows:—]

"I have found here in Russia (not Finland) a deserted Lapp hut, the first roof I have been under for ten days, and the weather being such that my boats cannot make head against it, I am taking the opportunity of writing to you—and with a Swan's quill. The immediate object of my expedition was to find a Swan's nest, and in this I have fortunately succeeded. I am at this moment between two great lakes, full of islands, an Eagle's eyrie is in a tree just over the rapids, and the Hoopers are trumpeting beautifully as they fly past between me and it. A few hours ago I counted thirty-three in sight at once, and the Eagle was almost in company with some of them—his flight not shewing to his advantage by the side of theirs. I am on my way from the Lake or "Sea" of Enare, not without hope of meeting still with another Swan's nest; but it was on my passage up that I had the supreme satisfaction of first seeing one in all its native beauty. You can fancy what solitude a Wild Swan requires in the breeding-season, and here they have a fine river with a chain of lakes, for nearly a hundred miles of which we were certain
not to see a human being beside ourselves at this time of year. This season for the first time two adventurous settlers have come to the lower part of the river [Patsjoki], and I tremble for the result to the Swans. In the large piece of water above this place on the 11th of June among the many Swans we saw, were several that it seemed to me must have nests in the immediate neighbourhood. They circled round with disturbed cries and hurried flight, and often came back and settled near some particular spot. Still this was the fourth day that I had been disappointed in all my hopes founded on such signs of finding a new nest. The islands are of all sizes and of every character, some covered with woods of Scotch fir, some high and rocky and others low and swampy. A good number of them are small with shrubby birch trees, and under foot all that exuberance of moss and sweet-smelling plants, which gives such beauty to an islet in a lake. My boat was just issuing from a narrow channel between two such islets, when there came into sight a small flat piece of ground. It scarcely rose above the level of the water which surrounded it and was covered with long-leaved grass of last year, now bleached nearly white and pressed down by the winter's snow. Conspicuous in the midst was a little even mound, somewhat flat at the top, which at once fulfilled my idea of the Swan's nest seen by the Arctic voyagers [cf. supra]. It was much darker than the surrounding grass, and till I used my glass I could not be sure it was not a stone; but then I saw clearly the small bits of which it was made. My only remaining doubt was that it might be a Diver's nest, which in such a low situation is occasionally similarly constructed. One of the men exclaimed that the other boat had been there, for he saw the track, but I observed that there were traces of this in three directions to the water's edge, and I was now pretty sure that the nest was new, and that the birds had made the track. As the boat slowly slid up the shallow margin I sprang out in the height of expectation. Three, four, five bounds, still nothing to be seen in the nest! disappointment already prepared for, as each step, rapid though they were, had plenty of time to bring its own thoughts. I was close upon it when the long side of an egg began to appear, and I stood with my feet at the base in breathless admiration when all the six eggs lay in full view. They were arranged in two rows, lying as close as possible to one another, so as to form a lozenge-shaped and not a square figure. The hollow was deep and the eggs not at all buried in the substance of the nest, as I have seen them in nests of the Mute Swan. They were hard sat upon.
"The nest was about twelve yards from the water's edge, and had evidently been mended from a former year. It was made of grass with a few loose pieces of moss, and was fully twenty feet in circumference at the base, from which it rose evenly and roundly to a height of some twenty inches perpendicular; the hollow was about eighteen inches across.

"I now, according to my custom, prepared to watch the birds on the nest, both for the pleasure of observing them and to ascertain the species beyond a doubt. To attempt either to trap or shoot such birds I could not find in my heart. I went to the neighbouring island, and spreading a deer-skin in a small hollow, for it was raining heavily, I caused myself to be covered with moss, as well as the men could manage it. I scarcely dare look up. After some time I heard a Swan, of whose approach I had not been aware, rise from the water between me and the nest. I did not think it could have seen me, and I had, of course, taken care to be well to leeward. After another long interval a loudly-whishing pair of wings came so close over me that I could fancy I felt the wind of them. Swans were still trumpeting in different directions, and though with small hopes of succeeding in my object, I still kept my cover. I am afraid I was even guilty of a few minutes' sleep upon my post, for once, on looking up, I saw a man just going from the nest. I called to him and he said that he had not seen the other boat, so that he knew nothing of my having found the nest, but that in his boat they had some time before, from a distance, seen the bird upon it, and, not being able to find me, had at last come to have a look themselves. Sending them two or three miles away, I renewed my watch, but all to no purpose. I had, however, the satisfaction of examining the birds sufficiently well to be sure they were Hoopers, and not Bewick's Swans, as they swam at some two or three hundred yards' distance. At length to summon the boats I fired a double shot, which did not cause the birds to rise, and at last I carefully secured the eggs, which I hope some day to have the pleasure of shewing you."

[The sixth egg was given to Mr. Hudleston.]

§ 5381. Four.—Salmojärvi, East Finmark, June, 1885.
"Birds carefully seen. J. W."

O. W. tab. I.

These I found in the night between Monday and Tuesday. Going
up a high hill I had, from the top, an extensive view over a district full of small pools. Examining these with a glass I soon saw a pair of Swans—one on an islet and evidently perched on a great black nest, the other on a promontory going into the pond. In another direction I saw a second pair. Coming down we stalked the Swans.

[Here the note in the Egg-book unfortunately stops, but the rest of the story is given in a continuation of the letter to Mr. Hewitson already quoted, and is as follows:—]

"Since writing the above I have found another nest. It was on an island of a deep pool in a marsh. I first saw it from a hill which I had ascended for the sake of carefully examining the surrounding country. The female Swan was asleep on the great black nest and the male was dozing on a little promontory near. I was able to get within a couple of hundred yards before they were aware of my approach. The bird on the nest then waddled off, and, after swimming about a short time with her partner, left the water and walked some distance along the marsh. To get at the nest it was necessary to carry some trunks of trees to form a floating bridge, for it was too cold to swim at midnight with a north-east wind. There were four eggs half buried in the substance of the nest at the bottom of the deep cup. It was made of tufts of black moss, apparently gathered under water. As we were coming away, the man who accompanied me, in his joy at our success, pushed away the logs, not remembering that we had still another deep part of the pool to cross, before we could get back, so that he fairly cut off our retreat. However, in time we got assistance from the mainland. Once the old birds came trumpeting towards us. There were half-formed young in the eggs.

"In the course of my expedition I saw some half dozen old nests, generally on the highest points of little islets rising out of the river or lakes. In such situations they were for the most part formed merely of the peat on which they rested scraped up into a conical mound. It is said by persons who have frequently taken Swans' nests that seven is the highest number of eggs they ever lay, four or five being the average."

[Mr. Wolley's Diary, if the fragmentary notes made at this time may be so called, contains a faint sketch of this nest, from which the plate (tab. i), published with the first part of this work was reproduced by Mr. Jury. The original has written beneath it:—]

Swans' nest birds now asleep Salmojervi midnight 17-18 June.

PART IV.
The “great lakes” mentioned in the preceding note seem to have been parts of the Koalmejaure or Coallmejaurre of the maps, through which the Patsjoki or Pasvig river runs on its way from Lake Enare to the Varanger Fjord; but no other locality can I identify. Mr. Wolley, it may be remarked, had no map of the district with him, and it was doubtless owing to that, combined with his boatmen’s want of local knowledge, and the multitude of islands, that they lost themselves on these lakes, and he was two days trying to find his way out. To this also may be attributed some confusion there is as to the precise days on which the two nests were found, but that is of little importance.]

§ 5382. Two.—Hvitásídu, Western Iceland, 1856–7. From Herr Cristian Zimsen, 1858.

Given to Mr. Newton and myself at Reykjavík, 20 July, 1858, by Herr Zimsen [§§ 3125, 3963], who told us he had them from one Bergþor Björnsson, but he was not sure whether they were taken in 1856 or 1857.

§ 5383. Two.—Iceland. From Mr. Proctor, through Mr. Small, 1858.

Mr. William Small, of 38 George Street, Edinburgh, whom I first knew when he was with Mr. Carfrae, in Frederick Street, said he had them from Mr. Proctor, and that the box containing them lay for a whole year in the Custom House.

[§ 5384. One.—North Iceland. From Mr. Proctor, 1851.]

**CYGNUS BEWICKI, Yarrell.**

§ 5385. One.—From M. Lefèvre, 1846.

[It is with some doubt that I include this egg, but on the whole I am inclined to believe it to be genuine. Mr. Wolley bought it in Paris of M. Lefèvre, then of 24 Rue Dauphin, and seems to have had no doubt of it at the time, though soon after M. Hardy, of Dieppe, expressed a very unfavourable opinion of the seller (§ 3216). About that time the dealers in Paris certainly received eggs direct from Russia.

M. Lefèvre figured an egg as that of this species in his ‘Atlas des Oeufs des Oiseaux d’Europe,’ and the figure so closely agrees with this specimen that it might have been drawn from it.]
§ 5386. One.—Jennessei Valley, 1877. From Mr. Seebohm.

This was given to me by Mr. Seebohm at his house in Broomhall Park, Sheffield, whither I went at his invitation, 3 December, 1877, to see the collections he had brought back from Siberia. He assured me that he believed all the Swans of the Jennessei Valley to belong to this species, but he promised to furnish me with further particulars of this specimen, which he said was not taken by himself. Unfortunately he never did so, but on the next evening at a meeting of the Zoological Society (Proc. Zool. Soc. 1877, p. 806) he gave an admirable though succinct account of his travels and spoils. In the notes that he afterwards published (Ibis, 1879, pp. 157, 158) he states that he did not succeed in identifying the Hooper in the valley of the Jennessei:

"Every skin which I had an opportunity of examining proved to be that of Bewick's Swan; every footprint in the sand which I measured was that of Bewick's Swan; and all the eggs I obtained agreed in size with those of Bewick's Swan which Harvie-Brown and I obtained in the Petchora, and were too small for those of the larger species." Again, after mentioning the thousands of Swans that he saw flying over, he says:—"I brought several eggs of Bewick's Swan home with me, obtained in lat. 69°. I found the correct way of identifying these birds was by measuring their footprints in the sand. From the centre of the ball of the heel to the centre of the ball next the claw of the middle toe, the impression of the foot of Bewick's Swan measures 5½ inches, whilst that of the common Wild Swan measures upwards of 6 inches. Even in very slight impressions on hard wet sand I found it easy to make these measurements." It does not appear that Mr. Seebohm himself ever saw a Swan's nest in the district.

§ 5387. Two.—Matyushin Shar, Nova Zembla, 5 June, 1903.

From III. J. Koren and H. T. L. Schaanning, through Mr. Marsden.

[These I received with the eggs of Tringa minuta (§§ 3972, 3973) and Stercorarius pomatorhinus (§§ 4691–4693). Herr Koren wrote to Mr. Marsden that this Swan was not very common, and that it built its nest about a yard high, and bedded with dry moss, without any down, and on a quite dry place in the swamps. Subsequently Herr Schaanning wrote to me of these particular eggs that there were originally four, but that two were destroyed. They were taken by Samoieds. He continues (translated): "most of the nests of Cygnus minor which I had the opportunity of examining were destroyed by Fjeld-Foxes (Vulpes lagopus). In no case did I observe down. The nest itself has the form of a huge ant-hill. It consists exclusively of dry peat mould heaped up, and is built so as to be visible from far on all sides, and always in the immediate neighbourhood of a pool of water in the marshy tract. It is about 80 or 100 centimetres high, and the bowl has a diameter of from about 45 to 50 centimetres. I saw two newly-hatched young on the 16th of July, and two young still unable to fly on the 1st of September.... I observed on many occasions that the old female became able to fly before the old male, after the shedding of their wing-feathers."]
CHEN HYPERBOREUS (Pallas).

LESSER SNOW-GOOSE.

[§ 5388. *One.*—Arctic Coast, east of Anderson River. From the Smithsonian Institution, through Professor Baird, 1870.

One of Mr. MacFarlane's spoils, but the label gives no precise place or time. He writes of this species (Proc. U.S. Nat. Mus. xiv. p. 423):—"The Esquimaux assured us that large numbers of 'White Wavies' annually breed on the shores and islands of Esquimaux Lake and Liverpool Bay, but, strange to say, we never observed any in the Barren Grounds proper or on the shores of Franklin Bay. The Esquimaux brought in to Fort Anderson about one hundred eggs, which they claimed to have discovered among the marshy flats and sandy islets on the coast of the former, as well as from similar localities on and in the vicinity of the lakes of that (Esquimaux) name." Mr. MacFarlane goes on to state that the foregoing remarks are also applicable to the larger form of Snow-Goose, *Chen nivalis,* and adds that "no doubt, owing to both species having until lately been considered as mere varieties, there has been some mixing up of their eggs, a question which future explorations will doubtless solve."

CYGNOPSIS CYGNOIDES (Linnaeus).

§ 5389. *One.*

[Entered in the Egg-book by Mr. Wolley as "China Goose," but without particulars.]

[§ 5390. *One.*—Riddlesworth, Norfolk, 1848. From Mr. Thornhill.

If I remember right, the birds kept on the water there had free use of their wings.]

[§ 5391. *One.*—1 May, 1856. From the Museum of St. Petersburg, through Mr. Dresser, 1868.

Said to have been obtained by Dr. Radde, and to be from a wild parent. That naturalist (Reisen im Siiden von Ost-Sibirien, ii. p. 353) states that it breeds at the southern end of the Tarei-Nor, on the Uldsa stream, and especially in
Mongolia, beyond the Russian frontier. The first eggs were found on the 15th of April, and others still unincubated on the 1st of May, of which this may have been one.]

[§ 5392. One.—"Sibérie." From M. Jules Verreaux, 1873.

Presumably from Dr. Dybowski, who found it very common in Dauria, and gives the measurements of eggs from two nests (Journ. für Orn. 1873, p. 108).]

ANSER FERUS (Bechstein).

GREY LAG GOOSE.

The Grey Lag I believe to be the only species of Goose which has been in the habit of spending the breeding-season in Great Britain, formerly in great numbers in the southern part of the island, and even still not having quite deserted the extreme north. During several seasons I have made particular enquiries of the most competent persons at those breeding-places in Sutherlandshire where the Bean-Goose had been said to be found, and the descriptions of the only kind of Goose known by them to breed in the country have always been referable to the Grey Lag. Everywhere I examined the bird with a glass, and in several instances shot specimens, and all I saw or obtained were Grey Lag. I am assured by one of Mr. Selby's party [Mr. James Wilson ut infra] that they only got a young bird or so, which may have been wrongly named. The Messrs. Milner [Zool. 1848, pp. 2014–2017] did not get a Goose on the mainland, and all they found in the Western Islands were Grey Lag [loc. cit. pp. 2055, 2061]. Mr. St. John, in his ornithological tour, only met with Grey Lag [Tour in Sutherlandshire, i. pp. 35, 36]. The very man on whom the Messrs. Milner relied [Ross, of Tongue (infra p. 507, note)], told me he only knew one kind of Goose, and he described to me the Grey Lag. Mr. St. John was much led by a man of very superficial knowledge of birds who travelled with him. He was the authority for the Bean-Goose breeding on Loch Shin, where I found only Grey Lag, and in several instances I have found this man not entirely worthy of credit, I mean Mr. St. John's companion.

The Grey Lag-Goose chooses various kinds of places for its nest. I have seen in Sutherlandshire nests in the open moors, but not very
far from a loch, and again within two or three feet of the water’s edge, but generally they are on islets either in the sea or in fresh water. It would be difficult to find anything more beautiful than the little islets in some of the highland lochs to the lover of nature in general; but to an ornithologist they are surprisingly so. None have made greater impression upon me than two on a retired piece of water in Sutherlandshire [§ 5398]. They were very small, rising up somewhat steeply, and were covered with long heather and other plants bedded in the most luxuriant moss. In each were two or three little trees, and in each was a huge nest of the Sea-Eagle, fixed so near the ground that a child could see into it—one nest some years old, the other repaired that season. Hooded Crows built in the branches over the newer nest, and in spite of the frequent visits of the Eagles, a Wild Duck had its eggs not many yards off, and Geese bred there regularly. The other islet [§ 5397] had been burnt several years before to dislodge a fox, and now its bright young heather again formed an excellent cover. A pair of Black-throated Divers crying on the surface of the loch, two Wild Geese flying round and round, and an old Eagle with its broad white tail slowly wafting its way between me and the neighbouring mountain, while the great nest was conspicuous from every side, made it altogether as delicious a scene as I could hope often to enjoy. I had not walked many paces when a Grey Goose fluttered from between my feet among the heather into the water; not looking at all a large bird, and not getting up with any great commotion. There were at present only two eggs in a nest made of old withered grass, like others which I afterwards saw. I gave Mr. Newton one or two of my duplicates of this bird’s eggs from Sutherlandshire, which he will be glad, I am sure, to lend to you. My impression is that they are larger than the eggs of the Bean-Goose.

[The foregoing, containing the results of Mr. Wolley’s experience, given below in some detail, was written from Muoniovara, 2 February, 1855, for Mr. Hewitson’s use, and the greater part was printed in the third edition of his work (ii. pp. 383, 384)—the chief omission being the passages of a personal nature which Mr. Wolley, out of regard to the feelings of those then living, considered it would be inexpedient then to publish, and marked in the margin as being intended for Mr. Hewitson’s private information only. Their publication now, when all concerned have passed away, can hurt no one here nayed, and they will help to explain how the confusion which so long existed arose. It was unquestionably caused by the unlucky failure of the party of naturalists who visited Sutherland in the summer of 1834 to procure an adult specimen of the Wild Goose which they found breeding in that country. The party consisted of Sir William Jardine, and his brother John, Dr. Greville,
Mr. James Wilson (author of 'Illustrations of Zoology' and various other works), and Mr. Selby, the last of whom communicated the well-known paper "On the Quadrupeds and Birds inhabiting the County of Sutherland" to the 'Edinburgh New Philosophical Journal' (xx. pp. 156–161, 283–295), extracts from which have been repeatedly reprinted. They were "agreeably surprised" to find a species of Wild Goose breeding in the district, but observed one or more pairs on Lochs Shin, Naver, and Laighal, in two instances accompanied by their young, one of which they caught. They may perhaps be pardoned for attributing the specimen to the Bean-Goose, as that in their experience was by far the commonest species in Britain, and was naturally supposed to be that which they observed. Moreover, at that time and for some years after there was very little known with any certainty as to the breeding-quarters of the different species of Wild Geese. The Grey Lag had for a long while ceased to breed in the English fen-country, and nobody suspected it would be found breeding in Scotland till a nest was obtained in the island of Lewis by the Messrs. Milner in 1847 (§ 5394), but it was the next year identified in Sutherland itself by Messrs. St. John and William Dunbar (§ 5395), the latter of whom, however, still imagined, as did the Messrs. Milner, that the Bean-Goose bred also in that county. But Mr. St. John would appear to have satisfied himself in 1849, when accompanied by Mr. Hancock (Cat. B. Northumb. & Durham, p. 147), that the supposed Bean-Goose was really the Grey Lag.

The following notes will shew the amount of trouble Mr. Wolley took to clear up the unhappy mistake of the Jardine and Selby party in 1834, and bear witness to the perseverance with which he pursued an enquiry of this sort. On that account I believe they will be read with some interest, even at the expense of the unavoidable iteration and repetition. Nor was the trouble needless, for though in 1855 Mr. Hewitson published the fact that the Grey Lag was the only species of Wild Goose breeding in Britain, yet the year after Mr. Yarrell, in the third edition of his 'British Birds,' allowed the old fallacious statements to stand (iii. pp. 154, 155), and the erroneous belief can hardly be said to have received its death-blow until the late Mr. A. G. More was able to record, in 'The Ibis' for 1865 (p. 441), Sir William Jardine's acceptance of the correction, which, but for Mr. Wolley's exertions, might never have been made, since doubtless some would have held that the positive statement of so competent an ornithologist as Mr. Se by must have been true, and even the careful investigations of Messrs. Harvie-Brown and Buckley would only have proved that the Bean-Goose did not in their time breed in the localities where it had been said to do some fifty years before.

It may be remarked that the species of Wild Goose have long been liable to confusion. Messrs. Hewitson and Hancock at first thought the Geese they found breeding in the islands on the west coast of Norway were Bean-Geese (as also did Mr. Dunn, fide Yarrell, 'Brit. Birds,' ed. 1, iii. pp. 61, 62), while they supposed that the Grey Lag occupied the high grounds of the interior—just the reverse being the case. Consequently Mr. Hewitson figured (Brit. Ool. pl. cxxxvii.) an egg of the latter for the former in 1837. Before, however, his second edition was published, Mr. Hancock had found out the mistake, and then an egg of the Grey Lag was made to act for both species (pl. xciii. fig. 1, pp. 331, 332), the same thing being done in the third edition.
(pl. cviii, fig. 2, p. 382), where a Grey Lag's egg sent by me [§ 5403] was made to serve for both; the result being that Mr. Hewitson never figured a Bean-Goose's egg at all.]

§ 5393. One.—Loch Laighal, Sutherland, 19 May, 1847. From Mr. Henry Milner.

[Given as a Bean-Goose's,] Mr. Henry Milner had said in a letter "I can get you one or two next year from Loch Laighal, where the Grey [Lag] Geese never breed." He has, however, kindly brought me this specimen to-day [26 October, 1847]. Mr. Selby [vide supra], as quoted by Mr. Hewitson, mentions Loch Laighal as a breeding-place of this Goose. For further particulars see Mr. William Milner's paper ('Zoologist,' p. 2017).

§ 5394. Two.—Loch Langevat, Lewis, 31 May, 1847. From Mr. Henry Milner (one through Mr. Graham).

I believe the bird was not known to breed in Great Britain before the Messrs. Milner found its nest in Lewis this year ['Zoologist, 1848, pp. 2055, 2061']. It is therefore a very interesting specimen, and Mr. Henry Milner has made another one equally so, for he has this morning [26 October, 1847] attached his signature to one I bought of his attendant, Mr. Graham, being well assured of the identity of the egg.

§ 5395. Three.—Loch Laighal, 15 May, 1848. From Mr. William Dunbar.

Mr. Dunbar says the Grey Lag Geese are from Loch Laighal. "Mr. St. John was with me when we got the eggs and we shot the birds. The eggs are from three to eight in number."

[The shooting of the birds at this particular loch is not mentioned by Mr. St. John in his 'Tour in Sutherlandshire,' though (i. p. 41) he speaks of the islands in it as "the breeding-places of grey geese," and of shooting Grey Lag Geese at Loch Meadie (p. 35).]

1 [An evident slip of the pen for "North" Britain, as Mr. Wolley must have been familiar with the numerous records of its having formerly bred abundantly in the English fens.—Ed.]
\[5396. \textit{Four}.—\text{Loch Shin, Sutherland, 25–27 May, 1848. From Mr. W. Dunbar.}

[These sent under the name of "Bean Goose," which was then believed by Mr. Dunbar, and through him by Mr. St. John (\textit{Tour in Suth. i. p. 36)}, to be the species breeding in this loch (cf. § 5400).]

\[5397. \textit{Two}.—\text{Loch Meadie, Sutherland, 11 May, 1849.}

"Bird shot. J. W."

On Loch Meadie I visited eight of the islands—on the northernmost one of which were Geese and an Eagle's nest [\textit{cf. supr.}, vol. i. p. 55]. Some days before my visit Mr. Donald Campbell's brother had taken off one of the islands a sitting of Goose's eggs, and they were under a hen at the farm at Moudala. The island where I found this nest had not been visited for some years, as it was believed to have too short heather to contain anything, as it had been burnt to unharbour a fox. However, we found it beautifully long. These little islets are the most lovely spots. Heather and fern perhaps three feet high growing on a delightful bed of dry moss. The Goose's nest was on one of the highest points of the island, perhaps twenty feet from the water's edge. The bird rose when I was within a yard of the nest and flapped direct to the nearest water, and I shot her just as she reached it. (She is now preserving at Mr. Duncan's at Newcastle, 3 Sept., 1850.) The nest made of down and little bits of dry heather. I saw several others of these Geese on Loch Meadie. On Loch Naver I believe a few breed at the far end.

\[5398. \textit{Four}.—\text{Loch Shin, 14 May, 1849. "J. W."}

From Lairg I walked to Shinness, a farmhouse where I saw the herd Thomson, and then by the mouth of the Flag river to Overskaig, John Oliver's. I saw several Geese, two of which I believed to be Bean; but on putting a Goose off the nest close to me, it appeared to be a Grey Lag, and just afterwards I saw some Grey Lags flying. The nest was made of thin soft grass, and there were four eggs in it newly laid. Six feet off a Wild Duck got up off nine eggs just at the same moment. It was not far from the entrance of the Flag river on a kind of large promontory. I was walking along between a low bank and the edge of the water, among a small quantity of heather, two or three feet high, I was wearing a macintosh cape, when suddenly the Goose got up at my feet. Of course the gun got
entangled in my cape, and as I was anxious to kill the bird before it got to the water I fired before I got the gun to my shoulder, and unhappily only broke a wing. Down came the bird within twenty yards of me, and seemed scarcely inclined to go away. Oh for another barrel! The wind unfortunately was from the shore, blowing from the north-west. I watched the poor bird till it was nearly at the other side. With my glass I saw it once turn face to wind and attempt to rise. I saw distinctly that it was a Grey Lag. I left the eggs till next day, when I took them on my return from Overskaig—the bird of course not near them, nor had the Duck returned to hers, having no doubt been scared by my shot. I beat some more very likely grounds, especially a peninsula with very long heather, to no purpose. I thought the yolk of the Goose's eggs remarkably sweet. They were somewhat stained by the dry grass, of which the nest was composed, becoming wet in the absence of the bird, for I do not think they were so the first day. Both these nests, the Goose's and the Duck's, were entirely concealed by the heather, as also the Goose's on Loch Meadie [§ 5397]. Oliver led me to some ponds where he said a small dark kind of Goose bred; but I found out in the course of the walk that they were Divers and not Bean-Geese. The herd, Thomson, was mentioned to me by Mr. Dunbar, and no doubt it was from him that Dunbar got the "Bean"-Goose's eggs he sold me [§ 5396]; but I did not understand from Thomson that he knew of two kinds of Geese. He shewed me the nest from which he took the eggs last year that he gave to Dunbar. It was a good part of a mile from the loch-side in a kind of swampy hollow.

On the 12th of May Ferguson, Lord Ellesmere's keeper at Lairg, told me that he had just come down the loch in a boat. He and his crew were detained a night on the island, about halfway up the loch. They had found a Goose's nest and had eaten the eggs. On the 16th I called on him again. He did not know that there were two kinds of Geese on Loch Shin—"if so they must be very like each other." I saw on that day three Geese that I could be certain were Grey Lags, and at least four the day before, seven in all on Loch Shin, certainly Grey Lags. Two, the first I saw, I took for Bean-Geese. My experience thus shews that the Grey Lag does breed on the loch-side, and so the eggs he sent me as Bean [§ 5396] are probably Grey Lag—that is, I cannot but feel doubt as to whether the Bean-Goose really breeds in Sutherlandshire. Still Dunbar believes it and it is his authority upon which Mr. St. John rests for the "facts" about
the periods of the breeding of the two on Loch Shin. It is possible that Dunbar may not have distinguished the two species accurately before he got Yarrell ['s work], and Mr. St. John's experience may be more of Shinness in winter, for he once resided there for a time—shooting, I believe. All the certain information I have is of Grey Lag—as Mr. St. John shooting it on Loch Laighal and on Loch Meadie, I on Loch Meadie and Loch Shin. It does not appear that the Milners obtained any Bean Goose*; but they shot the Grey Lag in the Western Islands. Mr. Selby's party is the original authority for Bean Goose in Sutherlandshire [Edinb. Nat. Philos. Journal, xx. pp. 292, 293]. They saw it on Loch Shin—a single pair. They captured a young bird, after a severe chase, on Loch Naver. They saw several old birds on Loch Laighal, and at Tongue some goslings hatched under a hen, which, they were told, were not in the habit, when they grew up, of intermixing or breeding with tame Geese. We do not find it mentioned that they procured an old bird, and as nothing is said of the Grey Lag Goose being seen, which we know breeds at two of these lochs, if not at all three, it is probable that all they saw were Grey Lag and that they mistook the species.

§ 5399. Three.—Loch Urigil, Sutherland, 1849. "J. S."

19 May, 1849. We dragged the landlord's boat over [from Aultnagelagach] to Loch Urigil—four men. We found no Goose's

* The Milners, I believe, trusted much to the assertion of Ross, the gamekeeper at Tongue; but Ross described the birds to me with grey fronts to the wings, and therefore as Grey Lag. Certain it is that all the Geese I saw distinctly were Grey Lags. I did not visit the island in Loch Laighal, as the boat required fetching from a distance. I saw one Goose at the far end of the loch, which I thought was Grey Lag.

Mr. Henry Milner wrote to me 24 March, 1849:—"In reference to the occurrence of the Bean-Goose at Loch Laighal [§ 5393], I should much like to have that point accurately cleared up. R. Ross, the keeper at Tongue, from whom we got some of the eggs (two we found in an addled state), assured me that the apex of the beak was black or horn colour, and those I saw on the lake from their darker shade of brown and the bright ash-colour in front of the wing, which is more conspicuous in the Bean than in the Grey Lag Goose, owing to its darker body, convinced me as to the identity of the species, and the correctness of Ross's information. Our specimens of the Grey Lag I obtained at Loch Langevat, also about a dozen eggs." This convinces me Mr. H. Milner saw nothing but Grey Lag, since it is the Grey Lag that has the conspicuous ash-coloured patch on the wing, and not the Bean-Goose as Mr. Milner imagined."
nest, but some egg-shells or fragments on an island so near the shore as to be accessible to boys. John Sutherland [the gamekeeper, cf. § 4973] had been there before this year, and found a Goose's nest. Last year he had been there just before Mr. St. John and Dunbar, having heard of their approach. I saw seven Geese flying together over the loch, which with my glass I can make out to be Grey Laggs. The keeper knows no other kind, though he has often looked for [one with] the black mark on the bill. He gives me three eggs.

At Loch Assynt, on the 22nd of May [1849], on the beautiful islet where so many plants and shrubs grow, I found some last year's Goose-eggs. On the islet further up the loch where were the Common Gull's eggs [§ 4558] and the Wild Duck's, I found some fresh Goose-droppings, and another day I saw a pair of Wild Geese in one of the little bays at the north side of the loch. They frequent Loch Urigil much more than Loch Assynt.

On the 4th of June I saw at Inchnadamph Mr. McIver, the Duke of Sutherland's factor at Scourie. This gentleman informed me that in the Duke's permission to the Messrs. Turner to shoot Wildfowl in the county "not for sporting purposes," there were excepted Ospreys and Wild Geese.

5 June [1849] walked from Scourie to Badcoll, the fishing station, where we got a boat to go to Big Calva and other islands. In the former, Mr. Gunn of Glendhu assured me Geese built last year—"Geese of a very dark kind" (in answer to my question), the darkest he ever saw. Mr. Edge found a Goose's nest, eggs broken, of this year, much sat upon, and the nest placed some hundreds of yards from the water's edge, and at a considerable elevation, in a kind of little valley or amphitheatre, very shallow, like the site of the nest Thomson [cf. ante p. 506] had taken near Loch Shin. By a fishing station on another island, or on the mainland, I detected another broken egg-shell—a good deal sat upon—perhaps from the same nest, as these people are in the habit most days of nesting on Big Calva, Gulls breeding there in numbers*.

* In the island of Calva on this day eggs of Lesser Black-backed and Herring-Gulls were plentiful. I selected some from a lot that had been collected there, for the islands had been robbed that very morning. Qu. Are these two Gulls varieties? The only difference I could detect on comparison was that one was lighter on the back and had pale legs instead of yellow.
§ 5400. *Two.*

Sutherland, 1850. From Mr. W. Dunbar.

§ 5401. *Two.*

With these Mr. Dunbar wrote from Loch Inver, 29 June, 1850:—

"I am convinced that the Bean-Goose breeds on Loch Shin, and only on Loch Shin in this country, so far as I am aware. I have seen several Grey Lags, but not one Bean in this district [Loch Inver], so very positive am I that they are the Bean Goose on Loch Shin, and also the Grey Lag; but the former are much more scarce. I believe there are not half a dozen Bean-Geese's nests on the whole of Loch Shin; but that they are or were there no person can convince me to the contrary, as I have taken the eggs and killed the birds myself."

[The first two of the above (§ 5400) were sent as Bean-Goose, and therefore must have been from Loch Shin. Mr. Wolley remarks of them "these are probably Grey Lag." Subsequently he received a letter dated Lairg Cottage, 24 March, 1852, from Mr. John Ferguson, before mentioned (*ante* p. 506), who wrote:—]

"I am now able to give my opinion about the Geese by examining and enquiring about them, and I find that there is only the Grey-legged Goose breeding on the islands and banks of the Shin. Nor can I find any trace of the Bean-Goose breeding anywhere in Sutherland. As to give the correct number of the Geese breeding on the banks of Loch Shin, it is impossible; but it is supposed there are from twenty to thirty pairs. I should have written sooner, but [I have been] always putting off the time for further search and enquiry."

[To this Mr. Wolley adds:—]

In 1849 I called Ferguson's attention to the subject. I wrote to him some weeks ago to ask for the results of his more extended experience. From what I have been able to gather of the relative values of Dunbar's assertion, Mr. Selby's and Mr. St. John's and Mr. Milner's authorities, I do not feel that there is any probability that the Bean-Goose has bred in Sutherland at all. Mr. Milner's and Mr. St. John's authorities are certainly fallacious. Mr. Selby and his party did not get a [mature] bird. Mr. Wilson, who was of their party, tells me they might easily be mistaken, and as to Dunbar I remember that he had a "Yarrell"; and I remember his Red-throated for Black-throated Diver.
§ 5402. *Four.*—Sutherlandshire, 1850. From Mr. Bantock.

Out of a dozen, received from Mr. Donald Bantock, head-keeper to the Duke of Sutherland at Dunrobin, whose museum I saw in 1849. I have not yet ascertained that any other Wild Goose [than the Grey Lag] breeds in Sutherlandshire. The under-keepers collect eggs for Mr. Bantock. Of these I have given two to Mr. L. Heyworth.

[Three more were sold at Mr. Stevens's rooms, 31 May, 1860, to Messrs. Troughton (2) and Gould. One of the two bought by the former is now in Mr. Parkin's possession. Two others were sent by me in 1861 to Dr. Heermann.]

§ 5403. *One.*—Loch Urigil, 1851.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. cviii. fig. 2.

These two eggs remaining from four sent me by John Sutherland [cf. § 5399], the Duke of Sutherland’s gamekeeper at Ledbeg, in Assynt. Since I shall perhaps get no more British Wild Goose’s eggs, these should be kept as late instances of the bird’s breeding in the country; but there will be a few for some years yet, as they breed in small numbers in four or five places in Sutherlandshire, and also in Ross-shire, and even in Argyll, as I was informed in 1851. I have never yet got authentic traces of any other than the Grey Lag Goose in Scotland.—2 February, 1853.

One given to Mr. Salmon, 7 March, 1853.

[The gift to Mr. Salmon was in part return for the Bustard’s egg (§ 3192). The remaining specimen, now in the collection, was sent by me, at Mr. Wolley’s suggestion, to be figured by Mr. Hewitson as above.]

§ 5404. *Twelve.*

§ 5405. *Six.*

Tamsö, Porsanger Fjord, West Finmark, 1855. From Herr Peder K. Ulich.

§ 5406. *Six.*

[The twelve specimens (§ 5404) from a barrelful of Goose’s eggs sent by Herr Ulich, of Tamsö, to Hammerfest, where Mr. Hudleston and I received and blew them by Mr. Wolley’s direction. The remaining twelve (§§ 5405 and 5406) came later, and were marked by Herr Ulich as being from two nests. Both in 1855 and 1857 Mr. Wolley failed to ascertain which species of Goose it was that bred on Tamsö. All the wild Geese that I saw sufficiently near
me to recognize on my way up the coast from Trondjem to Hammerfest were without the slightest doubt Grey Lags, but on landing at Tamsö we saw no Geese there. Somewhere near Nyborg on the Varanger Fjord, Mr. Hudleston saw an old Goose with a young one, which he believed to be a Bean-Goose, which Herr Sommerfelt gives (Effers. K. Vet.-Akad. Föhr. 1861, p. 86) as breeding in the interior of that neighbourhood, while he ascribes the Goose breeding on Tamsö to *Anser cinerœus*. This last statement was confirmed by Prof. Collett (Forhandl. Vidensk. Selsk. Christiania, 1872, pp. 275, 276), who states that it is “particularly numerous on Store Tamsö, where the abundance of its eggs materially increases the value of the Fuglevær on that remarkable island,” and that being strictly preserved it has there “well nigh assumed the character of a domestic bird, feeding boldly in the immediate neighbourhood of the only house on the island.” He examined a male shot there on the 3rd of July, 1872. He was, however, told of “another species somewhat smaller,” which unfortunately he did not observe. Finally, in 1893, Messrs. Henry Pearson and Edward Bidwell saw Grey Lags within 100 yards and found several nests at Tamsö (Ibis, 1894, p. 232).]


This nest is merely mentioned by Mr. Simpson (Ibis, 1861, p. 306) as “believed to be *Anser ferus*”; but I understood from him subsequently that there was no doubt as to the species.]

[§ 5408. *Two.*—Groay, Sound of Harris, 15 May, 1868.

“H. J. E.” From Mr. Elwes.

Taken out of a nest of six by Mr. Elwes as above, and kindly given to me; but the nest was not found by him. He said there were two other birds sitting close to the owner of the eggs, but no other nest on the island. His notes on the breeding of this species in the Outer Hebrides are printed in ‘The Ibis’ for 1869 (p. 22).]

**ANSER ALBIFRONS** (Latham).

**WHITE-FRONTED GOOSE.**

§ 5409. *One.*—Gardens of the Zoological Society of London.

From Dr. [now Sir Henry] Pitman, 1846.

Laid in the Zoological Gardens, where they have reared several.

§ 5410. *One.*—From M. Nager [1847?].

This egg M. Nager probably had from M. Hardy, who informed
me that he possessed duplicates from a bird in confinement, if I
rightly understood him. It agrees well with my other specimens
from the Zoological Gardens and St. James’s Park.

§ 5411. One.—St. James’s Park. From Mr. A. D. Bartlett,
1847.

This is admirably like the other two, one from the Zoological
Gardens [§ 5409] and the other from M. Nager [§ 5410].

§ 5412. One.—St. James’s Park, 1847. From Mr. E. B.
Fitton, 1849.

An addled egg.

§ 5413. One.—St. James’s Park, 1852.

Obtained by me, 12 June, 1852, from Smith, the keeper of the
Ornithological Society’s Waterfowl in the park. It had been blown
several days before.

[§ 5414. Two.—Blickling, Norfolk, 1851 and 1852. From
Dr. Frere, 1854.

Dr. Frere told us he obtained them through Mr. Sayer, the well-known
bird-stuffer at Norwich. Of course they were laid by birds in semi-captivity.]

[§ 5415. One.—Olsingen, 17 May, 1858. From
Mr. John Baker.

[§ 5416. One.—Olsingen, 7 June, 1859. From
Mr. F. Norgate, 1869.

If the assigned locality be correct, these might rather belong to A. gammeli.]
ANSER ERYTHROPUS (Linnaeus).

LITTLE WHITE-FRONTED GOOSE.

O. W. tab. N.

The White-fronted Goose is found in many places in the neighbourhood of the mountains. It breeds in company, a good many pairs being found in the same flat moor or valley. They fly over an intruder with loud cries of alarm, from which the Finns derive their name for the bird [Kilju-hanhi], but neither these nor the noise the White-fronted Goose makes at any other time seem to me much like laughing, to which it is compared in North America. When the Lapps are moving their herds, often of many hundred head of deer, if they happen to spread themselves over a valley occupied by the Geese, the flight of the birds soon betrays the situation of each nest. In this way, when last spring I went to look for them, I found the ground thoroughly beaten over before me, and it was with some difficulty I obtained a single nest. There were six eggs in it, one of which is in the hands of Mr. Alfred Newton for you to draw from if you please.

[This also was written to Mr. Hewitson from Muoniovara on the 2nd of February, 1855, when I feel sure that no suspicion had crossed Mr. Wolley's mind as to the subject of his notes not being the true Anser albifrons. But not very long after he came to hear of this small form of White-fronted Goose, described and figured by Naumann (Naturgesch. der Vög. Deutschl. xi. p. 305, tab. 290) in 1842 as Anser minutus, and also discovered, as stated in his Sale Catalogue for 1857, that it had been described in 1767 by Gunner in his notes to Leem's 'De Lapponibus Finmarchiae Commentatio' (p. 264) and there named Anser finmarchicus. But Gunner also identified it with the Anas erythropus of Linnaeus, 1761 (Fauna Suecica, ed. 2, p. 41), the Fjælghås of the West Bothnians, and since much confusion had long existed as to what that bird was, I thought it expedient to bring the facts—which had so far been adduced only in Mr. Wolley's Sale Catalogue—before the Zoological Society, not merely in justice to him, but also because the matter seemed one of general interest. I accordingly did this on the 26th of June, 1860, and my remarks will be found in the Society's 'Proceedings' for that year (pp. 339–341; reprinted 'Ibis,' 1860, p. 406, and Ann. & Mag. Nat. Hist. ser. 2, ii. p. 452). All I need say here is that I then believed the name Killio-hanhi, as Mr. Wolley usually wrote it, was a dialectic form of Kallio-hanhi—literally "Mountain-Goose," and therefore an exact rendering of the Swedish name. But I find since, from Dr. Palmén (Finlands Föglar, ii. p. 344) and others, that the Finnish name is really Kilju-hanhi, and has its origin from the bird's noisy cry—as, indeed, Mr. Wolley had before stated. ]

PART IV.
About that time the Zoological Society possessed a pair or even more of this pretty Goose, and at my request Mr. Wolf was good enough to make a drawing of one of them, for the illustration of this work, which I accordingly here reproduce as nearly as possible in fac simile, but unfortunately the drawing is only a sketch from which a plate was to be prepared. It is wanting therefore in those finishing touches which that great master would undoubtedly have added.]

§ 5418. Six.—Routio, June, 1854.

Hewitson, *Eggs of British Birds*, ed. 3, pl. cix. fig. 3.

From two Lapps, Anders and Lars (cf. § 2957). They know well the two kinds of Geese that are to be seen in the mountains, and said these are Kilju-hanhri. Of these birds I saw a great many in the mountains, and I shot one at Kaaressuando, of which the following are memoranda:—25 inches from tip of tail to end of beak, 48 inches between the tips of the wings; gape scarcely 1 inch and a half; tail tipped with white; tail-coverts white; region of breast (bone) variegated with black, belly white; underside of wings pale blacklead-colour; edges of eyelids yellow; beak when living pinky (pale), nail white horn; feet orange; forehead white, as much as in a Coot, feathers bordering the white feathers nearly black, head and upper part of the neck darker than the rest.

[Mr. Hewitson figured, as above, one of these for that of the real White-fronted Goose (*A. albifrons*), since he had unfortunately already executed the plate, when he had word from Mr. Wolley correcting the mistake before mentioned, though the latter's letter was written immediately on its discovery.]

§ 5419. One.—Palojoki, 1855.

Out of five taken by Johan Matti and Zacharias two miles (Swedish) upwards from Palojoki on the Finnish side—*Anser minutus*.

[Two from this nest were sold at Mr. Stevens's, 7 March, 1856, to Messrs. Burney and Wilmot. Two more I sent to Dr. Heermann in 1862.]

§ 5420. One.—[Nyimakka?], 1855.

Of two taken by the Lapp, Pehran Pierin Nicolaov, whom Peter of Nyimakka found just beginning to cook them.
§ 5421. *Two.*—Oggo-janka, Mukka-uoma, S., 30 May, 1855.

Out of four found by Wollin Hakun Olla, in the marsh or "common" where I tried so long to find a nest last year, the birds occasionally coming crying overhead, so that I had a good look at them, and they were certainly White-fronted Geese.

[The other two of these were sold at Mr. Stevens's, 7 March, 1856, to Mr. Hudleston.]

§ 5422. *Two.*—Tielt-uitu, Mukka-uoma, 1855.

Out of five found by Wollin Hakun Olla.

[Two others from this nest sold at Mr. Stevens's, 7 March, 1856, to Messrs. Hudleston and Shepherd.]


Antin Piety, who found them, said they were *Iso Hanhi*, but Peter of Nyimakka, who took them of him, was sure they were *Kilju-hanhi*, and they agree exactly with the series before me.


Pehr Pehrsson Notti, a Lapp, brought one to Nyimakka Peter, and Raslin Piety the other two.

[Apparently from two nests. Five more of these eggs seem to have been sold at Mr. Stevens's, 12 May, 1857, to Messrs. Walter (2) and Salmon and Milner (2).]


From Ludwig's book these were obtained by him on the 8th of June at Joni Lassi's *cota*, some two miles (Swedish) north-west from Mukka-uoma, under the large mountain Pelsama, on the way to Patsivuono (*Bals Fjord*). There were very few Geese breeding in the mountains this year.

§ 5426. *One.*—Mukka-uoma, 1858.

One of the only three eggs obtained this year, but without any special description. They are from my old locality for *Kilju-hanhi*.

[The other two were sold at Mr. Stevens's, 8 March, 1859, to Messrs. Salvin and Marshall.]
§ 5427. **Two.**—Nokka-sapis, 6 June, 1861.

Out of five found by Martin Clemesen as above, and brought from Kantokeino to Muoniovara, 1 July, by Piko Heiki.

§ 5428. **One.**—[Toras-sieppi?], 1861.

Brought to Muoniovara, 23 July, by Anonis Johan, with many eggs from Kaarssuando and Kuttainen, having been found by Per Toras's boy Isak, and sent to me by Knoblock as an unknown egg. It seems to be a White-fronted Goose's of monstrous length, 3'4 x 1'8 inch (cf. § 5438).

§ 5429. **Seven.**—Rysi-uoma, 1-14 June, 1862.

Brought to Muoniovara, 2 July, by Martin Piety, being part of the spoil collected by him and Turi Aslagesen (cf. supr., p. 350) in the mountains, when sent to look for Snowy Owls' and Buffon's Skuas' nests.

§ 5430. **Four.**—Paddajoki, 8-14 June, 1862.

Brought at the same time as the last, but found by Rasmus Persen Spein (cf. §§ 4762, 4763).

§ 5431. **Two.**—Spannivarri, June, 1862. "With bird."

Brought also at the same time, but with the bird, which was sent to me, and found by Nils Larsen Bär (cf. §§ 4772, 4773).

§ 5432. **Five.**—Rautovaara, 8-14 June, 1862. "With bird."

Brought with the bird by Anders Aslagesen Skom.

§ 5433. **Five.**—Skaitivaara, 26 May, 1862.

Found as above by Nils Pongo (cf. § 4829).

§ 5434. **Two.**—Kalkojärvi, 8-14 June, 1862.

Found by Oli Rasmussen Spein. A third egg from this nest I sent to Herr Seidenuscher in 1866.
ANSE ERYTHROPUS.

[§ 5435. *Four.*—Vorasvaara, 1–8 June, 1862.

Found by Nils Johansen Tornensi (cf. § 4774).]

[§ 5436. *One.*—Lapland, 1862.

Sent from Kaaressuando by Peter Iohan.]

[§ 5437. *One.*—Lapland, 1862.

Found by Hendrik Hendriksen Pejvio.

[§ 5438. *One.*—Lapland, 1862.

Found by Lars Jonsen Sikko. A very long egg, measuring 3'29 by 1'89 inch (cf. § 5428).

[§ 5439. *Two.*—Vuontisjärvi, 15 June, 1862.

Johan Larsen Sikko (§ 4828).

[§ 5440. *Five.*—Pansavaara, 23 June, 1862.

Nils Jonsen Pongo (§ 4829).

[§ 5441. *Two.*—Raustavaara, 15 June, 1862.

Nils Jonsen Notti.


Nils Nilsen Labba.

The above (§§ 5437–5442) received and forwarded by Eric of Mukka-noma, with other eggs (§§ 3458, 3461, 4789–4829) found by Lapps employed on my account.]

[§ 5443. *One.*—Norwegian Mountains, 1864.

Obtained by Turi Aslagsen, on a second journey that year in search of Snowy Owls'. Two other eggs from this nest I gave to Mr. Dresser.]
ANSER GRANDIS, Middendorff 1.

[§ 5444. One.—"Sibérié." From M. Jules Verreaux, 1873.

Received, I believe, from Dr. Dybowski, in whose list, written in conjunction with Dr. Parrex, of the birds of Darasun in Darah, as observed in 1866 and 1867, stands (Journ. für Orn. 1868, p. 338): "Anser grandis—selten—wie haben die Eier gefunden." The measurements of these from several nests were subsequently given (op. cit. 1873, p. 108).

ANSER SERRIROSTRIS, Swinhoe ex Gould.

[§ 5445. One.—Chayachia Zaimka, Kolyma River, 4 July, 1905. From Mr. S. A. Buturlin, through Mr. Dresser, 1906.

The locality is in North-eastern Siberia, about thirty kilometres from Pokhodskoe. I suppose that further particulars will in due time be published. I know nothing as to the validity of the species.

ANSER FABALIS (Latham).

BEAN-GOOSE.

While the Grey Lag breeds in Great Britain, Central Europe, and even the south of Scandinavia, the north only seems to suit the Bean-Goose. There it goes to the most retired districts: the small

1 [It would be out of place here to discuss (even if I had the means of discussing) the question whether the Anser grandis of Dr. von Middendorff (Sib. Reise, II. ii. p. 225, tab. xx. fig. 1) is or is not the species to which, following J. F. Gmelin, Pallas applied the name. The last says (Zoogr. Rosso-Asiat. ii. p. 221) that he never saw a specimen, and gives it on the authority of S. G. Gmelin and Steller, just as he had originally communicated the diagnosis to Pennant, who first published it in 1785 (Arct. Zool. ii. p. 570). In 1873, Dr. Severtzov (Turkestan-skie Jevotnie, p. 149)—as translated by Mr. Craemers for Mr. Dresser (Ibis, 1876, p. 416)—named Middendorff's bird A. middendorffi, stating that Prof. Brandt had considered the original A. grandis to be a large form of A. cygnoides; but it does not appear that the latter ever himself published his opinion or the grounds of it, and here I must leave the matter, confident only that Dr. Dybowski believed his A. grandis to be the same as Middendorff's.—Ed.]
flocks which pass over and stay a short time about Muonioniska appear to have left none of their wildness in their winter-quarters. It mostly spends the summer in marshes and moors towards the mountains, where men are very scarce. I have little doubt that this is also the Goose which breeds on islands of the Finmark coast. I send you an outline of the form of three of its eggs [§ 5450] now lying before me. They are three inches and a half long, by two and a quarter broad. They were taken last summer at a distance of several Swedish miles from Muonioniska.

[The above was written to Mr. Hewitson, 2 February, 1855, but Mr. Wolley had soon after reason to change the opinion herein expressed as to the species of Goose which commonly bred on the islands of the coast of Finmark, though I believe it was that entertained by the majority of Scandinavian ornithologists at the time. No evidence of the Bean-Goose's breeding in those islands, or indeed in any on the coast of Norway, could be obtained, and all the Geese observed, some of them sufficiently close to admit of their determination, seemed to be Grey Lags.]

§ 5446. One.—Myvatn, North Iceland. From Mr. Proctor, through Mr. Hewitson, 1846.

§ 5447. One.—St. James's Park. From Mr. Bartlett, 1847.

§ 5448. Two.—St. James's Park, 1852.

These from Smith, the keeper of the Ornithological Society's Waterfowl, and blown with my assistance 12 June, 1852. They were very putrid. He says that two Bean-Geese have laid eggs this year; one, paired with a Pink-footed Gander, had large young in the eggs when they were left. These were of course unblowable by him, and he says the eggs given to me are laid by uncrossed birds, breeding together. He has had long experience, and is perhaps not very likely to be deceived.

§ 5449. Two.—St. James's Park. From Dr. Frere, 1853.

These from the Ornithological Society's birds; not, I think, last year's, but probably in 1851.
§ 5450. Three.—Vuontisjärvi, June, 1854.

Delivered to me with a letter¹ by Martin Piety at Kyry on the 28th of November, during my bear-hunting expedition into Finland. Piety assured me that the eggs are those of Iso Hanhi [Great Goose], as the man Nils had told him. He and all the others here agree that there are only two kinds of Geese found in the district, the Iso Hanhi and the Kilju-Hanhi, that is, the Bean and the White-fronted. Of the former I have examined one or two specimens. They never find one with other than red feet, and black tip to the beak, and the red feet are alike in all, though some are rather smaller and darker than others, believed to be the young birds, as doubtless they are. These eggs were in a sadly rotten and hard frozen condition when they came into my hands.

2 January, 1855. Nils is now here. He says the Geese were Iso Hanhi, which has red feet and a reddish beak.

§ 5451. One.—Nälima, June, 1856. "Taken out of the bird."

Brought on the 14th of June by Kenta Johan's wife. At present I have no account of this bird.

§ 5452. One.—Palojoki, Kittila, 1856.

Found in the water of the river. Brought to Muoniovara, by Martin Piety, 31 July.

§ 5453. Four.—Peltonoma, 1857. "With wings of Bean-Goose; snared on nest."

Out of five received by me on 17 June at Peltonoma, and on enquiry the wings of the bird, still soft and fresh, were shewn to me. It was snared on the nest, which is said to be a common practice here, a hedge, in which there is an opening for the snare, being first

¹ [The letter which Mr. Wolley transcribes in the Egg-book is in Finnish, but contains no information of particular value. With Mr. Dresser's kind help, I subjoin a translation:—"I, Nils Vuontisjärvi, according to your wish, have been seeking eggs. I wandered two miles, but found none; so I went again and found several." Then comes a list of them, including "3 Great Goose," followed by "which I would send you now but I have no news from you. Be good enough to pay what you think fair, for you are sure to know. Vuontisjärvesa, 1854 20/6."
made round the eggs. One egg I took with me and cleaned out 25 June at Polmak. The others I left packed at Peltouoma, and they were brought to Muoniovara, 4 August, by Michael Sadio. They were found by Peter Ylitallon, and on his bringing them in, I asked after the bird. He said he had snared it on the nest and had the wings at home. They are before me, and seem to be Bean-Goose wings, indeed this is the only species of large Goose I have seen even at Muonioiska. It is a common practice to snare or trap large edible birds on the nest, and from the man's manner I did not doubt that these wings belonged to the mother of these eggs.

[The fifth egg from the same nest was sold at Mr. Stevens's, 23 February, 1858, to Mr. Braikenridge, and is now in Mr. Parkin's collection.]

§ 5454. Two.—Vuontisjärvi-kylä, June, 1857.
These were brought at the same time as the last, but in a different basket, and were received by Michael from Johan Jacob Vuontisjärvi, who found them.

§ 5455. Two.—Muotkajärvi, June, 1857.
Out of three, brought by Elias Eliasson, 18 June.

§ 5456. Two.—Rautusjärvi, June, 1857.
Brought from Johan Rautus, 17 June. Fresh eggs—eatable.

[Mr. Wolley in sending me one of these in November, 1858, wrote:—"This egg is just about the same size as those of which I sent one to the sale last year (§ 5453), from which I saw the wings of the bird. I have several other eggs of Iso Hanhi from Lapland, and they all agree in being somewhat less than the smallest of the twelve eggs of Grey Lag Goose in my cabinet from Sutherlandshire."]

§ 5457. Four.—Vellijoki-ranta, 31 May—5 June, 1858.
Brought to Muoniovara, 23 June, by Petter Rowa otherwise Puni.

[Two others from the same nest were sold at Mr. Stevens's rooms 31 May, 1860, to Mr. Braikenridge and Capt. Powlete-Orde respectively. The former is now in Mr. Parkin's collection.]
ANSER FABALIS.—A. BRACHYRHYNCHUS.

[§ 5458. Two.—Olsingen, 22 May, 1858. From Mr. J. Baker.

[§ 5459. One.—Olsingen, 1 June, 1859.

All laid by birds more or less in confinement.]

[§ 5460. Two.—Kettomella, 3–9 June, 1860.

Brought to Muoniovara, 2 July, by Martin Piety, and apparently found by himself.]

ANSER BRACHYRHYNCHUS, Baillon.

PINK-FOOTED GOOSE.

§ 5461. One.—From Dr. [now Sir Henry] Pitman, 1845.

Dr. Pitman had two examples exactly alike from two different sources, one being from the Zoological Gardens. This is one of them.


This was given to me, as having been taken by themselves as above stated, by the gentlemen just named on their return to England (cf. §§ 2975, 4101). In their account of the birds of Western Spitsbergen (Ibis, 1859, pp. 171, 172) they wrote:—"In this fjord a large species of Goose was very common, and we found them breeding mostly on low rocks near the coast; but some seemed to have their nests in the high cliffs a mile or two from the sea. We obtained some specimens both of birds and eggs, but unfortunately neglected to preserve the skins of the former; we cannot therefore be positive as to which species they were; but judging from our recollection, they had flesh-coloured legs and light-grey shoulders; we have not, therefore, much doubt that they were the Grey-lag Goose (Anser ferox, Steph.). The identification of this bird is a point to which, we trust, future voyagers will pay attention; it is probably the only species observed by us which is not included in J. C. Ross's list, before mentioned." Messrs. Evans and Sturge seem to have been the first to record the existence in Spitsbergen of any Goose other than the Brant. In 1859 Prof. Torell (Bidrag till Spetsbergens Molluskfauna, p. 61) gave Anser cinereus a place in the fauna of the country, but I think by mistake, as was also the case with Dr. Malmgren some years later (Cfvers. K. Vet.-Ak. Förhandl. 1863, p. 115), while he also included (tom. cit. p. 107) A. segetum. It fell to my lot in 1864 to determine the species of Grey Goose
which breeds in Spitsbergen, and that gentleman, though unwilling to admit its specific validity, acquiesced in my decision (op. cit. 1864, pp. 396, 412), as will immediately be seen.]


Given to me at our anchorage in Safe Haven, on the 14th, by Herr Malmgren, whom, with Professor (since Baron) Nordenskjöld, I had the pleasure of meeting the day before at Advent Bay. Looking then at some of his spoils I saw the wings of a big Goose freshly shot and cut off. They had light grey shoulders, and I began to think that Messrs. Evans and Sturge were right in thinking it was the Grey Lag Goose that they had met with in Spitsbergen. I asked Herr Malmgren whether he had shot this bird, and he told me he had, and that it was Anser vegetarian. I then asked if he had the head and legs, the body was lying there, and he was kind enough to shew them to me. The legs were flesh-coloured, but the moment I saw the head it was plain that the species was A. brachyrhynchos, whose breeding-quarters we had so long been wanting to know with certainty. We had not then much time for conversation, for we had to be off with the prospect of a long day's boat-voyage before us to Safe Haven through a thick fog and heavy ice; but I told him I was sure it was A. brachyrhynchos, a species he said he did not know. The next morning I went on board the Swedish Expedition's schooner, and Herr Malmgren was good enough to shew me some very interesting specimens, first of which was another perfect and undoubted A. brachyrhynchos, which he was in the act of skinning. I found he had been consulting Nilsson's 'Svenska Foglar' (ii. p. 401), which lay open at the place before him, and he was quite ready to agree that I was right in my determination of the species. That evening he, with Professors Nordenskjöld and Dunér, came to dine on board the 'Sultana,' and he was so kind as to bring and give me these two valuable specimens, writing on them in my presence:—"Af Anser brachyrhynchos, tagen på Mittelhook i Ice-sound på Spetsbergen under en homo som blef skjuten den 10 Juli 1864 af A. J. Mgrn." (Cf. Ibis, 1865, pp. 209, 210, 513 et seqq.)


This egg was given by Herr Malmgren to my fellow-guest on board the 'Sultana,' the late Mr. Graham Manners-Sutton, who was kind enough to let me become its possessor. I believe it came from the nest off which Mr. Malmgren shot the bird which I saw him in the act of skinning. At any rate he wrote in his second paper on the Birds of Spitsbergen (Öffvers. K. Vet.-Ak. Föhr. 1864, p. 398) that he shot a hen Anser brachyrhynchos from the nest on the day named in the inscription he put on the egg.
The particulars are recorded by me in 'The Ibis' for 1865 (pp. 209, 513), and I thereto added a notice of a nest of no doubt this species, containing two newly-hatched Goslings found by Ludwig 16 July, on some lowland lying just over the ridge which bounds the east side of Safe Haven.

§ 5465. Four.—Spitsbergen, 20 June, 1888. From Herr Foslie.

Herr Foslie wrote to me from Tromsö in the autumn of 1888, that no eggs of Larus eburneus had been obtained during the past summer (cf. § 4669), but that he had some of Anser brachyrhynchus. I asked him to send me four, and these arrived accordingly some time after, but he did not tell me from what part of the country they came, though I begged him to do so. I am not aware that any other species of big Goose breeds, or even occurs, in Spitsbergen.

BRANTA CANADENSIS (Linnaeus).

CANADA GOOSE.

§ 5466. One.—St. James's Park. From Mr. A. D. Bartlett, 1847.

§ 5467. One.—Riddlesworth, Norfolk. From Mr. Thornhill, 1846.

A good many Canada Geese were kept about this time and for several years after on the water at Riddlesworth, which was an enlargement of the Little Ouse, and most of them, so far as I remember, had their nests on the Norfolk side of the river. Few, if any, of the birds were pinioned.

§ 5468. One.—From Dr. Heermann, 1861.

Dr. Heermann gave me to understand that this was laid by a wild bird, but he did not tell me anything of its history.

§ 5469. Two.—Anderson River, 22 June, 1864. "Parent shot." From the Smithsonian Institution, through Professor Baird.

Sent by Mr. MacFarlane, who wrote (Proc. U.S. Nat. Mus. xiv. p. 424):—

"Nests were discovered in the vicinity of Fort Anderson and to the borders of the forest on the east and west sides of the river of that name, but none were
met with in the Barrens proper, nor on the Arctic Coast. Several deserted hawks' nests on trees were found occupied by incubating female birds of this species. We forwarded one hundred and seventy eggs of _B. canadensis_ to the Smithsonian." The label referring to these two bears the Smithsonian number 11802, and the note—"Nest on a tree about twelve feet up. It was thickly lined with down, apparently plucked by the female goose off her own body."]

**BRANTA HUTCHINSI** (Richardson).

§ 5470. _One._—Port Kennedy, Bellot Strait, 26 June, 1859. 'Fox' Expedition. From Dr. David Walker, R.N., 1860.

In Sir Leopold M'Clintock's narrative of 'The Voyage of the "Fox" in the Arctic Seas' (London: 1859) he describes (page 321) his taking the nest of a "Brent Goose", on what I find from the context to have been 26 June, 1859, between Four River Point and Cape Baird on the north shore of Bellot Strait, as follows:—"When vainly endeavouring, with felonious intentions, to climb up a steep cliff to the breeding-places of some silvery Gulls, I saw and shot a brent Goose, seated upon an accessible ledge, and made a prize of four eggs; it seems strange that this bird should have selected so unusual a breeding-place." Dr. Walker, in writing to me, 29 March, 1860, in answer to my enquiries, says:—"The egg of Brent Goose you have is from the 'historic nest.' Others we obtained in Greenland, at Frederikshaab and Upernivik."

In October, 1860, I was shewn by Dr. Carte, in the Museum of the Royal Dublin Society, the skins of some of the birds obtained on the 'Fox' voyage, among which I especially remarked that purporting to be the "Brent Goose" shot from the nest by Sir Leopold M'Clintock. It was certainly not _Anser bernicla_, but I believe _A. hutchinsi_.

I regret to find, from enquiries recently made, that the specimen is no longer forthcoming, so that I have been unable to get the accuracy of my former determination tested, which I should like to have done.]

**BRANTA LEUCOPSIS** (Linnaeus).

BERNACLE-GOOSE.

§ 5471. _Two._—St. James's Park, 1847. From Mr. A. D. Bartlett.

The egg figured by Mr. Hewitson [in his second edition] (pl. 336) was from St. James's Park. It is slightly larger than
either of these. Mr. Bartlett told me that he had one larger than any he had seen before, that he took out of the nest himself. I declined having it, as I thought a White-fronted Goose might possibly have made a convenience of the nest of the Bernacle.

§ 5472. One.—St. James's Park, 9 June, 1848. From Mr. E. B. Fitton.

Mr. Fitton said this was an addled egg, but not discoloured.

§ 5473. Two.—St. James's Park, 1852.

These from Smith, the keeper of the Waterfowl there, 12 June, 1852. They had been blown some days before.

[§ 5474. One.—Easton, Norfolk, 1852. From Mr. Gurney.

There can be no question whatever about the genuineness of this egg, on which account I sent it to Mr. Hewitson to be figured by him; but he preferred one from Mr. Wilmot's collection. There was no other bird that could have produced the present one kept on the water.]

[§ 5475. One.—Garden of the Royal Zoological Society of Dublin, 1862. From Mr. R. J. Montgomery.

Mr. Montgomery assured me that this had been laid by a Bernacle-Goose in the Garden of which he was Superintendent.]

BRANTA BERNICLA (Linnaeus).

BRANT-GOOSE.

§ 5476. Four.—Spitsbergen, 1853.

These eggs, apparently of Brent Goose, were given to me on the 8th of May, 1854, by Mr. Samuel Monk, of Raipas (Alten Copperworks), West Finmark. They had been given to him last year by Herr O. C. Fandrem, handelsmand [merchant] in Karasjock, up in the mountains. Some Englishman, enquiring for eggs, to whom Mr. Monk had shown them last year, rejected them as useless. It
happened that Herr Fandrem was dining at Mr. Monk’s, and he
told me that they were brought to Hammerfest last year by the
‘Gerda,’ Captain Eriksen. Herr Fandrem spent last summer, as he
intends to do this, in or near Hammerfest. He is said to be a
worthy man. The eggs were called simply Goose eggs, but were
said to be of the kind common in Spitsbergen, which I was told
in Hammerfest is called the Trapp-gaas, and from all the descriptions
I have heard it must be the Brent. It is called by the Quains
Piiko Hanhi [Little Goose]. They say that Kilju-hanhi, White-
fronted Goose, is also there, but in very small numbers, and they do
not find its eggs. The eggs of Trapp-gaas were at one time brought
in plenty to Hammerfest, and sold for eating at 4 skillings each.
Now the vessels go more often to the east side of Spitsbergen, where
the Walruses frequent, and they do not so often bring these eggs.
Herr Carl Knoblock, of the Custom house in Hammerfest, who has
been to Spitsbergen, tells me that the Geese and Eiders steal eggs
from one another, carrying them under their wings! “They are
not bigger than hens’ eggs.” This Goose has a black head and
neck with a white ring round the neck, but no white on the head.
Carl Knобlock has seen a White Bear putting his fore legs round
a nest, and shovelling up the eggs into his mouth with his two paws.
Herr Andreas Berger, Joseph Lombasjarvi, and others with whom
I talked could not recognize my description of Bernacle answering
to any bird they knew in Spitsbergen.

§ 5477. Fourteen.—Spitsbergen, 1857.

I obtained between twenty and thirty of these eggs, all that were
left out of fifty blown by the HH. Berger at Hammerfest, but
dreadfully damaged by mice before they came into my hands in July
or August. The Goose from all accounts agrees exactly with the
Brent, and is well distinguished by the Finnish sealers from Kilju-
hanhi, the White-fronted Goose.

[At Mr. Wolley’s request, these were collected in Spitsbergen by Joseph
Lombasjarvi (above mentioned § 5476), of the jagt ‘Hammerfest,’ and by
him handed to the Bergers, who eventually sent them to me in England.
Altogether twenty-six specimens reached me. Of these four were sold at
Mr. Stevens’s rooms 23 February, 1850, to Messrs. Braikenridge, Shepherd,
Burney, and Milner. Three more at the same place, 31 May, 1860, to
Messrs. Marshall, Braikenridge, and Tristram. In the same year I sent one to
Dr. Brewer, and two to Dr. Baldamus.]
BRANTA BERNICLA.—B. RUFICOLLIS.


Given to me by these gentlemen after their return to England. They wrote (Ibis, 1850, p. 167) that they found on landing on one of the islands, at midnight on the 21st of June, Brent-Geese, Eider-Ducks, and Glaucous Gulls “in immense numbers, and the ground was covered with their nests. . . . The nests of the Eider Ducks were hollows scooped in the pebbly ground, very scantily lined with down mixed with sea-weed, forming in this respect a striking contrast to those of the Brent Goose, whose three or four eggs were buried in a perfect mass of down and feathers.”]

[§ 5479. *Four.*—Simmonds Islands, Grinnell Land, Lat. 82° 33' N., 25 June, 1876. “♀ killed off nest. H. W. F.” From Captain Feilden, 1877.

Kindly given to me by Captain (now Colonel) Feilden, who, writing in ‘The Ibis’ for 1877 on the Birds observed during the Arctic Expedition of 1875–6, says of this species:—“During the first week of June, parties of these birds arrived in the vicinity of our winter-quarters. . . . On the 21st June I found the first nest with eggs, in lat. 82° 33' N.; subsequently many were found. When the young are hatched the parent birds and broods congregate on the lakes or in open water-spaces near the shore in large flocks; by the end of July the old birds were moulting and unable to fly, so that they were easily secured. . . . The gander remains in the vicinity of the nest while the goose is sitting, and accompanies the young brood. In one instance where I killed a female as she left her nest the gander came hissing at me.”]

BRANTA RUFICOLLIS (Pallas).

RED-BREASTED GOOSE.


Mr. Popham, whom Mr. Hill accompanied on his journey, wrote of this species in ‘The Ibis’ for 1897 (pp. 99, 100):—“The eggs of this Goose formed one of our chief prizes. Four nests were found with seven, seven, eight, and nine eggs (of a creamy-white colour) in each respectively. From all the nests the female was shot. All the nests were placed at the foot of a cliff occupied by either a Peregrine or a Rough-legged Buzzard (possibly for protection from foxes), and well supplied with down. Measurement of eggs: 2-79 in. by 1-93 in.”]
TADORNINA CORNUTA (S. G. Gmelin).

THE SHELD-DRAKE.

§ 5481. One.—From Mr. Mansfield. Not later than 1843.

§ 5482. One.—From Mr. Green, 1844.

§ 5483. Two.—Leadenhall Market, 1849. From Dr. Frere.

§ 5484. Three.—From Mr. Green, 1851.

§ 5485. Five.—Kalmar, (10 May ?), 1856.

[These were not entered in his Egg-book by Mr. Wolley; but from Mr. Hudleston’s journal I infer that the nest was found already robbed on the day above given, and I presume the eggs were recovered from the spoilers.]

§ 5486. One.—Mellböda, Öeland, 11 June, 1856. “J. W.”

Of two, deserted, in a tree upon which several weeks before I had actually seen the bird alight. They were in an horizontal branch of an old oak, on the parsonage lands.

[Mr. Hudleston’s journal of the same day has:—“The Patron then took us to an old oak, not far from the church, where a Shellduck had laid two eggs and then deserted. They were placed in the hollow of one of the large horizontal arms.”]

[§ 5487. One.—Orkney. From Mr. Dunn, 1851.]

[§ 5488. Two.—Calvend, Kirkcudbrightshire, May, 1854. From Mr. W. G. Johnstone.

Hewitson, ‘Eggs of British Birds,’ ed. 3, pl. cxii. fig. 1.

One of the above lent to Mr. Hewitson to be figured.]
TADORA CORNUTA.—T. CASARCA.

§ 5489. Two.—Waren Bay, Northumberland, June, 1856.
    Obtained by us when at Bamborough of Henry Macdonald.]

§ 5490. Two.—Dornoch, Sutherland, 30 May, 1874. From Mr. Norgate.
    Received by Mr. Norgate from one Douglas MacKenzie.]

TADORA CASARCA (Linnaeus).

RUDDY SHELDRAKE.

§ 5491. One.—Djendeli, 12 May, 1857. From Mr. Tristram’s Collection.

Bought at Mr. Stevens’s rooms, being Lot 271 of the sale, 9 February, 1858. Mr. Tristram’s notes are to the effect that it was one of four eggs, sat on for about a week, in a cliff at the south side of Ain Djendeli, in a hole of the rock about twenty feet from the ground. The nest was formed entirely of the down of the parent bird, which sat in the nest till Mohammed mounted the rock. There was a Booted Eagle sitting close by, and Black Kites hovering near. Mr. Simpson told me that he and his friends [Messrs. Tristram and Salvin] watched this bird regularly on to its nest, and it was impossible to have an egg better identified. It was at some height in a cliff, miles away from water, and had Birds-of-prey breeding close to it.

[Mr. Salvin (Ibis, 1850, p. 362) thus writes of this nest:—“One nest only rewarded our labours. The rarity of the eggs is hardly so surprising, when the situation chosen by this bird for its nest is considered. It selects a hole or crevice of a cliff for its breeding place, and associates with the Raven, Black Kite, and Egyptian Vulture during the period of the reproduction of its young. Almost immediately on encamping at Ain Djendeli we used daily to see a pair of Ruddy Sheldrakes pass over our tents, their direction always being backwards and forwards between the cliffs to the south of us and the small marsh between us and the lake. After careful investigation, the nest was discovered to be in a hole in the face of a rock, which required all the skill of Mohamed and all our appliances of ropes, &c., to reach. The result was four hard-set eggs, which are now in the collections of Messrs. Tristram, Simpson, J. Wolley, and myself. Though the Arabs were aware of the habits of this bird, we did not succeed in obtaining any more eggs.”]
ANAS PENEOPE, Linnaeus.

WIGEON.

The Wigeon was first [made] known to breed in the north of Scotland through Sir William Jardine and Mr. Selby’s expedition, more than twenty years ago, into Sutherlandshire, where the Messrs. Milner afterwards found it. It is then mentioned by Mr. St. John in his ‘Tour in Sutherlandshire,’ About the same time I had the pleasure of seeing it there, and of hearing its beautiful call as it flew by in the dusk of the summer evenings. It is very local, being found only in particular spots upon the shores of two or three of the larger lochs towards the middle of the county. The nest, as the forest-keepers told me, for all my endeavours to find it myself failed, is placed on some brae or burn-side not far from the loch. The Drakes
in small companies were swimming about in the neighbourhood, and to see them is alone worth a journey of many miles, especially as miles are got over in our island. In Lapland also several pairs are generally to be seen together, perhaps as much from the favourable-ness of certain spots as from the love of society. No Duck is so common here. Wherever there is a still bay or recess in the river with water-plants and willows, there is sure to be a pair or two of Wigeons, and near the bank they make their nest. In the lakes too they are frequently to be found. They are tamer than any of the other Ducks and often let a boat pass quite near, while they are constantly swimming about just before houses. But I am sorry to say that they are perhaps unmolested more from the want of time to disturb them than anything else. Numbers of the small flappers of Wigeons, Pintails, and other birds are caught with dogs in the sedge by the waterside. The down of the nest is somewhat like that of the Pintail, but looser looking—the same white centres softened by the transparent grey outside of each little tuft, yet the filaments are longer and their white bars larger and more distinct. A nest is an extremely pretty sight, even when separated from its native bank, and all the accompaniments of flowers, roots, moss, and lichens—of lights and shadows. Mr. John Hancock has one transplanted with great care to his choice studio at Newcastle-upon-Tyne. The eggs seem to be usually from six to ten in number. When fresh they are mostly of a rich cream colour, but some are even then quite white.

[The above was written at Muoniovara, 2nd of March, 1855, for Mr. Hewitson's use, and was in part printed by him in the third edition of his work.]

§ 5498. One.—Myvatn, Iceland, June, 1843. From Mr. Proctor, 1844.

§ 5499. One.—Iceland, 1846. From Mr. Graham, 1847.

Said by Mr. Graham to have been from the first nest Mr. Henry Milner took. Mr. Milner was inclined to recognize it.

§ 5500. One.—Loch Naver, Sutherland, 20 May, 1847. "H. Milner." From Mr. Henry Milner.
§ 5501. *Ten.—Sutherland, 1850. From Mr. Bantock, of Dunrobin.*

I was not fortunate enough to find the nest of this species myself, but I saw birds at the Altubaharra end of Loch Naver, making their very peculiar noise in the evening. The gamekeeper there said they were then (10 May, 1849) only just beginning to breed. Their nests were in long heather by the side of little water-courses, but I could not find any, and I relied upon meeting with them afterwards, which I never did, excepting at the Lairg end of Loch Shin, where Ferguson, Lord Ellesmere's gamekeeper, put me across to the tongue of land in Mathieson's ground, where he said there was sure to be a nest; but I could not find it. I saw many of the birds about on the 12th of May. I could hear of none in Assynt. Mr. Bantock, at Dunrobin, had a quantity of their eggs. Mr. L. Heyworth, to whom I have given one, tells me he saw many birds on Loch Awe, in Argyll, in June, and was shewn some of their old nests with broken eggs. They were more numerous there than Wild Ducks. He has also brought eggs of this bird from Sweden.

§ 5502. *Four.—Muonioiska, June, 1853.*

These eggs, with the name *Haapana* [Wigeon], brought with other Ducks' eggs [§§ 5573, 5830] by a woman for sale. She had only seven or eight of them. They were fresh. Theodore translated the name by *Gråand* [Grey Duck], but he is imperfectly acquainted with the birds of the neighbourhood of Haparanda, and still less does he know the local names here.

§ 5503. *Seven.—Songamuotka, 30 May, 1854.*

Nest found by boatman Elias, on the top of the high bank [up the river], some paces from its edge, just before coming to Songamuotka. The bird flew off and he said it was *Haapana* [Wigeon]. He brought me the nest—grey down with white centres. I expected Wigeons' nests there, as there were two or three pairs on the water, which is there still and favourable for the young.

§ 5504. *Six.—Muonioalusta, 7 June, 1854.*

From Piko Heiki; brought to Ludwig on the 18th.
ANAS PENELOPE.

§ 5505. Six.—Nälma, 10 June, 1854.

Brought by Kenta Johan's wife, found by the husband.

§ 5506. Five.—Idio-uoma, 1854.

Brought under the Finnish name (Haapana) by Lisa Greta on the 3rd of June. The bird is very common at Kaarssuando, from which Idio-noma is [a few] miles distant.

§ 5507. Two.—Routio, June, 1854.

From the Lapp Anders and his son on the 17th. They gave them the Finnish name.

§ 5508. Three.—Kangosjärvi, June, 1854.

From Ankori Niemi's Hendrik at midsummer.

§ 5509. Four.—Kaarssuando, 1854.

[No other particulars are given of these. There were eight originally, and one was sold at Mr. Stevens's, 7 March, 1856, to Mr. Simpson. Of those now left, one differs much from the rest, being longer and pinker.]

§ 5510. Three.—Kangosjärvi, 1854.

Brought by Neli's Aaron.

[One of these is also elongated, measuring 2·39 by 1·49 inch.]

§ 5511. Six.—Great Lake, Patsjoki, 10 June, 1855. "Bird shot. J. W."

Out of eight. The bird got up in a little island near the head of the lake, and I shot it as it rose. I preserve the wings.


Pahtonen is the third foris over Aijänpaikka, being just under Kuivanen. Here Ludwig found the nest with two eggs only. He frequently saw the bird afterwards, even so as to distinguish almost
every feather, and he is sure of the species. When he took the eggs, on the night of the 7th of June, the bird seemed to have deserted them.

§ 5513. *Eight.*—Muonioalusta, 13 June, 1855.

Found by Maria Kaisa Ranta, and brought to Ludwig on the 19th.

[One sold at Mr. Stevens's, 12 May, 1857, to Mr. Walter.]


Taken by the *fors* near the house, and brought by Johan to Ludwig the same day.

§ 5515. *Three.*—Iso Saari, Muonioalusta, 3 June, 1856.

Brought to Ludwig on the 22nd by Lars Larsson, under the name of *Haapana*.

[There were nine eggs in the nest. I gave one to Dr. D. Walker for the Belfast Museum, and sent three in 1862 to the Smithsonian Institution.]

§ 5516. *Five.*—Oiasen-saari, 18 June, 1856.

Out of seven, found by Liikavainio Erki on Syvä-lanta, and brought to Ludwig on the 24th.

§ 5517. *Four.*—Kyrö, 1856.

Brought ready blown by Martin Piety, 31 July.

§ 5518. *Eight.*—Nälima, 1856.

By Nälima Pekka, who also blew them.

§ 5519. *Six.*—Kaaressuando, 1856.

From Nälima's girl, by Ludwig, 28 July.
§ 5520. *Five.*—Muonioniska, 8 June, 1857.

Brought by two little boys, sons of Likavainio Erki and Mäki Carl. They found them on the Finnish side, near the river and called them *Tavi* [Teal], but they look like *Haapana*, and the down must decide.

§ 5521. *Seven.*—Niva, Muonioniska, 13 June, 1857.

Found by a little boy, Isak, son of Niva Johan. The nest was under a spruce just below the house, and as another nest of Wigeon was found close to this, there can be little doubt that they are, as they appear to be, Wigeon's. An eighth egg was given to the Messrs. Godman.


Found by the same lad, on the same day and very near the same place as the eggs just before entered [§ 5521]; but the present nest was under a Scotch fir.


Lars Larsson, of Under Muonio, brought these from Iso Saari. A sixth given to the Messrs. Godman.


Brought by Piko Heiki the day after Koski Niku found them, and carefully placed with wool in small boxes by Knoblock. This is the whitest of all this year's nests. The hill is beyond the church from here, in Muonioniska.


Belonging to Elias Vanha-piha. Brought by Anna Greta, 5 July, and then a good deal rotted inside.


Out of six, brought 11 July by Hietas Marie Lena's boy Olli,
who found them on Lappi-saari. One given to the Messrs. Godman.

[Two more were sold at Mr. Stevens's, 23 February, 1858, to Mr. Braikenridge.]

§ 5527. Two.—Keras-sieppi, 1857.

Belonging to Matthias, but brought by Johan Erik Hendriksson, of Keras-sieppi, 12 July.

§ 5528. Two.—Kangosjärvi, 1857.

Brought by Täpa Johan's lad Carl, 1 August; found by Isak Olafsson on an island in the lake.

§ 5529. Four.—Pallasjärvi, 17 June, 1858.

Found by Heiki, on an island in the lake as above.

[Four more from this nest seem to have been sold at Mr. Stevens's 8 March, 1859, to Messrs. Troughton and Cox—two to each.]

§ 5530. Five.— Muonioalusta, 10 June, 1858.

A nest of six, found by Johan Larsson on Iso-saari.

§ 5531. Five.—Muonioalusta, 12 June, 1858.

A nest of six found by Johan Larsson in Kommexen mantä.

§ 5532. Nine.—Ounas-tunturi, 14 June, 1858.

Found by Piko Heiki half a mile [Swedish] from the kåta.

§ 5533. Seven.—Kyrö, 1858.

Brought by Niku.

[§ 5534. Eight.—Ollaskoski, 18 June, 1862.

Brought by Abraham Kirsti; found as above.]
ANAS PENEOPE.—A. ANGSTIROSTRIS.

§ 5535. One.—Loch Garry, Inverness-shire, 25 May, 1854. From Mr. Southwell.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxiv. fig. 3.

Taken, as Mr. Southwell wrote, by Mr. D. C. Burlingham, who is said (Trans. Norf. and Norw. Nat. Soc. vii. p. 421) to have found this bird breeding in Glen Garry, just ten years before, in 1844. This specimen was figured by Mr. Hewitson as above.

§ 5536. Two.—Loch Garry, 2 June, 1855. "T. S." From Mr. Southwell, 1856.

Taken by Mr. Southwell himself, acting on Mr. Burlingham's information, from different nests.

§ 5537. Six.—Glen Luine, Ross-shire, 1872. From Mr. Edward Hargitt.

Mr. Hargitt wrote to me, 6 October, 1872:—"I promised to send you a few Scotch specimens of the eggs of Anas penelope. I have only received this nest of six this season... The particulars are enclosed in the box." The particulars only add to what is given above the name of the gamekeeper who took the eggs—Alexander MacDonald.

ANAS AMERICANA, Gmelin.

AMERICAN WIGEON.

§ 5538. Two.—Fort Yukon, June, 1861. From the Smithsonian Institution, through Professor Baird, 1863.

Prof Baird's note is: "R. Kennicott. Parent shot." The Smithsonian number is 6584. (Cf. § 5743.)

ANAS ANGSTIROSTRIS, Ménétries.

MARBLED DUCK.

§ 5539. Two.—"Siberia." From Herr Dode, 1871.

The information promised concerning these eggs was not supplied, but Herr Dode forwarded another to Mr. Dresser, saying that it was procured on the Caspian Sea (Dresser, B. Eur. vi. p. 483).]
ANAS STREPERA.


Lord Lilford furnished some notes on the habits of this species in Spain to Mr. Dresser, by whom they were published in 1872 in his ‘Birds of Europe’ (vi. p. 481), and the following are extracts therefrom:—“In 1869 I offered a high reward for identified eggs of this bird; and in the following year two nests were obtained for me, containing eleven and ten eggs respectively, with the hen bird shot from the nest in each instance. . . . . I have this year received more eggs said to be of this species; but the only proofs of their authenticity, if proofs they can be called, are their close resemblance to the identified eggs of the present species, and the fact that, as far as I know, no other species of Anas lays an egg at all like that of the present bird in Andalucia.”

ANAS STREPERA, Linnaeus.

GADWALL.

§ 5541. Two.—Zana, 12 June, 1857. From Mr. Simpson [and Mr. Tristram].

Out of eight eggs taken by “French mowers, who recognized the bird.” Mr. Simpson is pretty sure that this is a Gadwall’s.

[The above refers to one specimen given to Mr. Wolley by Mr. Hudleston: a second, from the same nest, was given to my brother and myself by Canon Tristram, whose note agrees with that of Mr. Hudleston.]

§ 5542. Two.—Zana, 10 June, 1857. From Mr. Tristram.

Taken and marked “Gadwal” by Mr. Tristram.

[A second egg from this nest was given to my brother and me by Mr. Tristram, whose note was that there were eight hard sat upon eggs in the nest, which was in long grass in the swamp at Zana.]

§ 5543. One.—Zana, 10 June, 1857. From Mr. Salvin.

Mr. Salvin’s note is that this was from a nest of seven eggs taken by Mr. Tristram, who said he nearly caught the bird on the nest. Of the species Mr. Salvin wrote:—“We found it only in the marsh of Zana, and though the bird was tolerably abundant we were able to identify thoroughly only one nest, which Mr. Tristram took, the bird allowing herself to be almost caught. Our other eggs of this species were obtained through the French mowers, some of whom, and one especially, seemed to understand the specific distinction of
the bird. Several nests which I took to be of this bird, and which were left for more satisfactory identification, were destroyed, as we supposed at the time, by *Porphyrio hyacinthinus.* (Cf. Ibis, 1859, p. 361.)

§ 5544. *Two.—Narford, Norfolk, 1857.* From Mr. J. Fountaine, through Mr. Newcome.

Mr. Fountaine, writing to Mr. Stevenson in 1875, as quoted by the latter in his `Birds of Norfolk' (iii. p. 160), stated that about five-and-twenty years before he received from the decoy then existing at Dersingham, near Lynn, a pair of birds of this species, which, having cut off a very small portion from their pinions, he liberated on the lake at Narford, where they bred, and their progeny also ever since. I had heard of this, and through my late excellent friend Mr. Newcome, who was well acquainted with Mr. Fountaine, I obtained these eggs. It was Mr. Fountaine's opinion that his original captives attracted others, for a very considerable number of Gadwalls bred in the valley of the Nar for several years after, and may do so still for aught I know to the contrary. They were safe enough on Mr. Fountaine's own property, but until the passing of the Wild Fowl Preservation Act in 1876 they were subject to persecution even after the pairing-season in the neighbourhood, and many were destroyed. Immediately after that Act came into force their numbers greatly increased, and they were heard of breeding in various parts of the county.

§ 5545. *Two.—Tottington, Norfolk, 22 April, 1884.* "A. & E. N."

§ 5546. *Two.—Tottington, 22 April, 1884.* "Saw bird. E. N."

On the day above named, Lord Walsingham kindly took my brother Edward and myself to see his meers, and I extract the following from my brother's notes of our visit, written the next day:—"..... On the Stanford mere a pair of Gadwalls were feeding on the opposite side near the bank, and near them three or four pairs of Tufted Ducks, a pair or two of Shovelers, three Dunbirds, a pair of Teal and Wild Duck. ..... Landing from the island, we walked to the reed-fen, where the gamekeeper said he had found a Gadwall's, a Shoveler's, and a Dunbird's nest. We went to the last first, the keeper, walking some yards in advance of us, saw the bird leave the nest, which was in a thick tussock of coarse grass. She shuffled off into a small pool of water, and, on our advancing, she rose within ten yards of me, so that I could see her well. The nest, containing seven eggs, was well concealed by the grass and lined with down. Lord Walsingham took up the eggs, as he wanted to hatch the birds to give away. ..... The reed-fen, which is in the parish of Tottington, is perhaps five or six acres in extent—rough flat ground, with a small stream running through it,—and is intersected by drains mostly overgrown with reeds and aquatic plants, the fen itself being generally covered with coarse grass,
and now, owing to the drought, easily accessible without having to wade, the water standing only in the drains. The keeper next took us to a Gadwall's nest he had found a few days before, when he had put the old bird off from it, and was certain she was a Gadwall. Lord Walsingham said he could be relied on. The nest was in a dry part of the fen, on the top of a tussock, not much concealed, and contained three eggs, which we took, with some of the down. These eggs I have marked 'No. 1.' They have a greenish hue and were fresh.

"The keeper then took Lord Walsingham and me to the supposed Shoveler's nest. He, as before, walked in front, and when within a couple of yards of the nest the bird rose. We were close at his heels, and we both exclaimed 'Gadwall,' which it evidently was, the small beak and the white on the wings being conspicuous. The nest, which was rather more concealed than the other, was in the same situation, and contained seven eggs, of which we took three, and I marked them 'No. 2.' On blowing them I found two hard set and one quite rotten. The keeper in explanation of his mistake said he had not before seen the bird, which he now admitted was a Gadwall, but had judged it to be a Shoveler's nest from the look of the eggs and knowing that a pair of Shovelers had a nest somewhere in the fen. These eggs are very different from those of the first nest, being of a clay-colour, and longer and larger. We saw a pair of Teal, several Mallards, and I put a Wild Duck off her nest containing nine eggs."

The difference of colour in the eggs of the two nests, noticed by my brother when they were taken, is still plainly visible; and I am not wholly free from doubt whether nest "No. 1," from which we did not see the bird, may not have been a Shoveler's, though No. 2 was assuredly a Gadwall's.

**ANAS FALCATA, Georgi.**

[§ 5547. *One.*—"Lac Baical." From M. Verreaux, 1871.

Presumably from Dr. Dybowski, who describes (Journ. für Orn. 1873, p. 100) eggs taken near Darasun, and is said to have obtained others at the mouth of the Ussuri (op. cit. 1875, p. 257), but there is no particular mention of Lake Baikal, though it would seem that he found the species abundant throughout all the country he traversed.]

**ANAS FORMOSA, Georgi.**

[§ 5548. *One.*—Chayachia Zaimka, Kolyma River, 5 July, 1905. From Mr. S. A. Buturlin, through Mr. Dresser, 1906.

The locality has been before mentioned (§ 5445). I am informed that this is one out of a nest of three, taken as above.]
ANAS CRECCA.

ANAS CRECCA, Linnaeus.

THE TEAL.

§ 5549. One.—Iceland, 1837. From Mr. Proctor, through Mr. Salmon.

[Apparently brought from Iceland by Mr. Proctor himself.]

§ 5550. Twelve.—Sutherland. From Mr. Bantock, 1850.

Teal I do not remember seeing in Sutherlandshire, unless at Shinness, where I am told they breed. Ferguson, the gamekeeper at Lairg, had their eggs, and Mr. Bantock [of Dunrobin] writes to me that he has them. I heard of them too elsewhere; but I did not find their eggs.

§ 5551. Three.—Sutherland. From Mr. W. Dunbar, 1851.

[A fourth in the sale at Mr. Stevens's rooms, 31 May, 1860, is now in Mr. Parkin's collection.]

§ 5552. Three.—Loch Ba, Argyllshire, 7 May, 1852. From Mr. P. Robertson.

From the Eagle-loch, if not the Eagle-islet [§ 74], and probably on the day Mr. Colquhoun tried to shoot the Eagle, for Mr. Robertson writes, 9 June, 1852:—“Mr. Colquhoun came to the Loch Ba Sea-Eagle, and I covered him in the island near the tree where the nest was. The Eagle came two or three times very close to him, but he was always expecting her to light on the nest. But she got his wind and made off, and never returned. So when I went to look up what was in the nest, there was the young one newly out of the shell and dying with cold, and was quite dead before we left the island. So he went away without the Eagle, but I believe he will not try it any more, which I will not be sorry for, as he scares them away every year, and will not let them take out the young.”

[The ambition of Mr. Colquhoun, author of 'The Moor and the Loch,' to shoot an Eagle was, I believe, well known, and after several attempts I was told he succeeded in taking the life of one bird.]
§ 5553. Four.—Karessuando, 2 June, 1854.

Out of eight brought by the innkeeper’s son and called Tavi [Tel]. Found a mile to the south.

§ 5554. Five.—Karessuando, 14 June, 1854.

Taken by Nivas Niku, as Tavi.

§ 5555. Five.—Karessuando, 1856.

From Tuorimaa Matthias.

§ 5556. Seven.—Laho-uoma, Muonioniska, 5 June 1857.

By Niemi’s lads. In the same marsh as the Cranes’ [$§ 3180$].

§ 5557. Three.—Tepasto, 1857.

Out of five brought ready blown by Ludwig from Kyrö.

§ 5558. Five.—Niko-ranta, Muonio, 10 June, 1857.

Out of seven from Hendrik Persson Tavala, Forsström’s dräng. On the wood side of the fence.

§ 5559. Three.—Mukka-uoma, 1857.

Out of seven, of which two were given to the Messrs. Godman. Found by Eric.


[Inscribed but not entered by Mr. Wolley.]

§ 5561. Nine.—Muonioniska, 1 June, 1858.

Found by Niemi’s Maria in a little myr below Niva’s gård.

§ 5562. Eight.—Serkijärvi, 5 June, 1858.

From Carl Hendriksson, found near Eicniska and Velcila-lompalo.
§ 5563. Five.—Olvénjärvi, 9 June, 1858.
Out of eight from Johan Pulju; found on the shore of the lake as above.
[Two were given to Mr. A. C. Smith in 1862.]

§ 5564. Seven.—Jeris-järvi, 13–17 June, 1858.
Brought by Hetases Olle; found as above.
[One of these is curiously shaped, almost like the egg of a Grebe.]

§ 5565. Four.—Lapland, 1858.
Out of six from Oluf Tuorimaa's daughter Stina.

[§ 5566. Four.—Scoulton, Norfolk, 1852. "A. & E. N."
Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxiv. fig. 2.
Out of six from a nest shewn to us by the gamekeeper in the belt of trees that surrounds the well-known Mere. One specimen was figured by Mr. Hewitson as above.]

[§ 5567. Two.—Hockwold Fen, Norfolk, June 1853. From Mr. Newcome.
From a nest found by a man named Kettringham. As there was a possibility of its being a Garganey's, one of the eggs was put under a hen and hatched, when the bird proved to be a male Anas crecca.]

[§ 5568. One.—Loch Lundie, Inverness-shirts, 1855. From Mr. Southwell.]

[§ 5569. One.—Loch Garry, Inverness-shirts, 1855. From Mr. Southwell.]

[§ 5570. Six.—Rathlin, Ireland, 6 June, 1863. From Mr. Robert Harvey.
Mr. Harvey’s note is:—"This nestful was brought to Mr. Gage by the herd boy of one of his tenants. The nest was found in Dallygill Moss, Rathlin. The 6th of June is so very late for the breeding of Anas crecca that I imagine the first eggs must have come to grief."]
ANAS CRECCA.—A. ACUTA.

[§ 5571. One.—Bloxworth, Dorset, 7 June, 1878. "Bird well seen. O. S. & E. N."

From a nest of nine eggs found on Bloxworth Heath by Mr. Salvin and my brother, the bird flying off almost under their feet. The former brought the egg unblown to Cambridge, believing it to be hard sat upon; but I found it had been incubated for only a few hours—not forty-eight, I believe.]

ANAS ACUTA, Linnæus.

PINTAIL.

A few years ago I was very much surprised at the appearance of an egg given to me by a gentleman [Mr. Henry Milner] who had brought it from Iceland in 1846, and assured me it was out of a nest from which he had himself shot a female Pintail as it rose. It seemed so small for the bird, was so different from eggs previously supposed to be genuine, and looked like what I had been accustomed to consider Long-tailed Ducks'. Others had been to Iceland long before my friend, and though I knew how carelessly eggs of the Ducks have often been named I hesitated to believe that the Pintail laid eggs so very unlike what the former voyagers had represented them to be. After a long talk I wrote more than one letter on the subject, making all kinds of suggestions as to the possibility of a mistake, till at last I had heard all the circumstances and particulars that were so kindly related to me, and I felt sure that a Pintail had actually been shot, from the sitting of which that very egg was one. The possibility still remained that the mother might have been accidentally at another bird's nest; but that its own nest had been close to [it and] unobserved, as at first seemed not unlikely, the assurances of the finder to the contrary rendered extremely improbable. This single egg from Iceland I accordingly valued very highly, and I looked upon it in the meantime as a veritable Pintail's, though this discovery of Mr. Milner's, like all others founded upon single nests, perhaps still wanted confirmation.

In common with some other ornithologists, I had long been almost in a state of desperation about the eggs of several of the Ducks, about most of those, in fact, which do not, occasionally at least, breed in Great Britain. Many a collector could produce the eggs of what Duck you please at a moment's notice, but few, very few, could give any kind of satisfactory account of them.

PART IV.
With some exceptions the best of them were those named by clergymen in Iceland, some of whom would appear to be able to procure in their island even the rarest species of Duck. Others were sorted out only after their arrival in England by persons who were supposed to have the faculty, from long experience, of distinguishing the several species at a glance; while a large number were not provided with any written name, but were suited to the convenience of those amateurs who give to some of our curiosity-shops lists of their desiderata. It was these almost hopeless Ducks that determined me more than anything else to undertake a journey to the far north; and for many reasons, not the least was the experience of Mr. Dann as recorded in the pages of Yarrell, the fenny regions beyond the Gulf of Bothnia seemed the most promising.

One morning, the 7th of June, 1853, I was some hundred English miles up the river which forms the boundary between the King of Sweden and the Czar, with whom our Queen was not yet at war, and in whose dominions I had obtained permission to travel. Stopping at a house by the waterside I could get nothing to eat but a few eggs, among which were nine of some kind of Duck. Having no means of identifying them I dropped them into the kettle without the least remorse. They were among the first eggs I had seen during my journey, and as the ground was only lately freed from snow, I had no suspicion that so early in the season they would be sat upon; but, to the great disgust of a hungry man, on hacking off the top of one of them I nearly decapitated a perfectly-formed duckling! However, I was not too much dispirited to make an examination of it, and from the form of the beak, feet, and tail I soon came to the conclusion that it was a Pintail, while the appearance of the eggs was exactly that of the one I have already spoken of brought from Iceland. A short time after some similar eggs were said to belong to a bird called here Jouhi-suorsa in the Finnish language, of which word the first part means the hair of a [horse's] mane or tail—a name, however, elsewhere applied to the Tufted Duck. I had also seen many Pintails on my way up the river. On the 14th of June, some hundred miles or so further north—in fact, within half an English mile of where I am now writing,—after a long and fruitless search for eggs, as my party was standing still holding a council of war, a Duck fluttered up a few yards off. There was a rush to the spot, greatly to the peril of the nest, sunk as it was in the moss. It was lined with down and
contained four eggs. The place was marshy, a few yards from the forest, on the rise of the hill. At midnight I went again to try to obtain the bird; it was just taking a circle over the nest, and it bent its long neck down to see that all was safe. I had a good look at it, as the sun was still shining. Twelve hours afterwards I had a shot at it, as it rose rather wildly, but it did not seem to be hurt, and, as I had to continue my journey, I now reluctantly took the eggs; but I hoped the down would serve to identify them, for amongst it were several breast-feathers. In the meantime, if I could trust my eyes, the bird was a hen Pintail. The eggs were perhaps a week sat upon, and just like the others I had attributed to the same bird. On the 18th of June, I and my line of beaters put up the old ones from three nests at different times in the course of the twenty-four hours in a large marsh. I saw two very well, one of which I examined with my glass as it stood with its neck up in an open space some sixty or seventy yards off. It was an unmistakable Pintail. All the eggs were nearly hatching, and the young, of which I preserved one or two, were apparently all of the same species. I also kept the down and scattered feathers from each nest, and now I considered I had genuine Pintails' eggs of my own taking. But the most permanent proof was still wanting—the skin of a bird I myself should obtain from the nest.

It was not till last season that I got this last proof. On the 20th of May, 1854, I visited the same marsh and in a little wooded island of a few yards in circuit a Duck rose almost under my feet and I shot it, feeling sure that it was a Pintail, as it proved to be. There were six eggs a day or two sat upon. I wrote upon them as they were blown, and entered the circumstances in my note-book, as is my usual practice. The nest was made of a few twigs mixed and lined with down from the mother's breast. It is usually made of long bleached grass or anything that comes to hand. The white-centred down with finely grained filaments, mixed as it is with grey-white feathers, is quite characteristic, though not much unlike that of one or two other Ducks. The bird breeds generally in marshes and not very near large pieces of water. The eggs seem to be usually six or seven in number. The people do not get many of them, as they are in uncertain and often distant spots, and when found are generally sat upon—the Pintail being one of the earliest breeders among the Ducks. They appear as soon as the water begins to open, and may be seen standing in pairs at the edge of the
ice—hence one of the local names of the bird. As soon as the
Ducks are hard sitting the Drakes go about in flocks, having
apparently deserted their mates.

[The above is from the same letter as that which contained the notes on the
Wigeon before given (p. 531), written by Mr. Wolley at Muoniovara, 2 March,
1853, to Mr. Hewitson, who made use of part of it in the third edition of his
work.]

§ 5572. One.—Myvatn, North Iceland, 1846. From Mr.
Henry Milner, 1847.

Mr. Milner says that this bird is not at all common in Iceland,
where they met with only two nests. He afterwards wrote:—
"I have no doubt in my own mind about the identity of the
Pintail, as I saw the bird, and on the same island I got the Scaup,
Long-tailed, Wigeon, Teal, and Sclavonian Grebe."

§ 5573. One.—Muonioniska, June, 1853.

[Out of four which a woman brought on the 12th of June with other Ducks'
eggs for sale, these being called by a name which Mr. Wolley's interpreter did
not attempt to translate. What became of the other three I know not, and
only keep this because it was the first Pintail's egg he obtained in Lapland.]

§ 5574. Four.—Nedre-Muonioniska, 13 June, 1853. "J. W."

When we were in the wood standing talking for some time at the
cedge of a rather swampy slope about 9 o'clock p.m., a Duck fluttered
up at twenty yards' distance. Running up we found four eggs
in down in a hollow of the moss, the top of the down being on
a level with it. I could not see the bird well. About 12 o'clock I
went again with Ludwig, intending to shoot the bird. It appeared
and flew round several times, so that I had plenty of time to look at it.
It was long in the neck, and might probably be Pintail, but I could
not say. It turned its head down as it flew over the marsh. Next

1 [This name is written in several ways by Mr. Wolley, not one of them, I
believe, correctly. The proper form would seem to be Hanki-sorsa, the first word
meaning the outer hard crust of snow, rendered in Swedish by skarr; but I do
not find the name recognized by any Finnish authorities, though Prof. W.
Nylander is said (Palmén, 'Finlands Fuglar,' ii. p. 378) to cite it as given to
A. boscas. The other and more general name, as also said and explained above, is
Jouhi-sorsa or snorsa, which last word signifies Duck.—Ed.]
morning, 1 a.m., I went once more, and had two shots at the bird as it flew rather wildly from the eggs, but it was not hit. The eggs were perhaps a week sat upon. In the nest were a few breast-feathers with the down, and I hope to be able to identify them. The Duck had a remarkably long neck, and I believed it to be Pintail.

§ 5575. *Four.*

§ 5576. *Four.* Karto-uma, 18 June, 1853.

§ 5577. *Four.*

Three nests of Pintail. The first, found by Theodore at the edge of the marsh, contained six eggs, of which I have blown all. They were just ready to hatch. The bird settled a short distance from the nest and I examined it well with my glass, and had no doubt it was a Pintail. The nest was with only a moderate quantity of down, mixed with a good deal of other materials.

Of the second nest I also saw the bird shortly after it left, and it was evidently of the same species. The nest contained eight eggs just hatching. I have kept five of them. They are smaller and of a more delicate colour than those from the other three nests, for I speak also of the one in the wood near Nedre-Muonioniska [§ 5574]. The nest was mostly made of grass.

The third nest, like the last in a central part of the morass, had seven eggs—four kept. I did not see the bird. The materials were in greater quantity than in the other nests. There were also the same little feathers here and there in it. Lastly, the young out of the eggs, which I very carefully examined, are all identical in the shape of the head, the length of the tail, the toes, and in every particular. Several Ducks which we saw in various parts of the morass were all Pintails. I could not with certainty come at the Finnish name; but both Ludwig and Theodore were sure it was the same bird as that in the wood before spoken of.


These six eggs in a nest in Karto-uma, Öfvre-Muonioniska,
from which the bird flew, when we were a few yards off, and was shot by me as it rose. The nest made principally of sticks and down, on a little wooded island in the myr of a few yards' circuit, raised four or five feet from the water. Eggs a day or two sat upon.

§ 5579. Six.—Viksi, 6 June, 1854.

The bird flew from the nest before Ludwig at two fathoms' distance, and he was sure it was Pintail. It was by the side of [Lake] Viksi, by Viksi-poas.

§ 5580. Three.—Karto-omega, 21 June, 1854.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxiii. fig. 2.

Found by Anton Knoblock in this marsh, where I got three nests of the same bird last year [§§ 5575–5577].

[One of these was figured by Mr. Hewitson, as above. Three more were sold at Mr. Stevens's rooms, 26 January, 1855, to Messrs. Gurney (2) and Gardner, junr.]

§ 5581. Six.—Kaakkuri-lammas-Kura, 23 May, 1855.

Found by Ludwig and Anton between Kaakuri-lammas and Viksi, the bird flying off. They set snares and went many times to look at the nest, but the bird always got clear of them. She laid her sixth egg outside the nest about five fathoms off. This they found on the 25th. It is marked with a "2," and they say they saw the bird on it also. As to the species, though they could not catch the bird, Ludwig is most positive, and I have not a shadow of doubt.

§ 5582. Seven.—Merasjärvi, 1855.

Brought by a lad to Muoniovara on the 23rd of June, and bought by Ludwig for our eating, as the lad could not say what they were. He had found them in a marsh early in the year and kept them in a cold place, but on Ludwig opening one he found it not fresh, as they had been somewhat sat upon. There seems to be little doubt
the eggs are Pintail's; the only other species that occur to me are Shoveler and common Wild Duck—both very scarce, the former perhaps more rare.

[I think that Mr. Wolley never had actual proof of the occurrence of Anas clypeata near Muonioiska, though such a bird may have been described to him by some of the people. As to A. boscas, it was very uncommon, but I remember seeing in some house the skin, with the bright green feathers on it, of the head of a Mallard, made into an ornamental watch-stand, and I myself shot a Duck at Viski in August, 1855. But there are no eggs in the collection, from Lapland, which could, I think, be rightly attributed to this species.]

§ 5583. Four.—Mukka-uma, 1855.

These look like Pintail's, and Mr. Simpson [Hudleston] shot some Pintail-flappers (a brood) [August, 1855] between Kilpisjärvi and Mukka-uma. This nest was on the lake-side, but when found I did not learn. I have compared these eggs with both Pintails' and Long-tailed Ducks'.

§ 5584. Eight.—Keras-sieppi, 13 June, 1856. "L. M. K."

Ludwig found these in a marshy spot on the banks of Raitajärvi, a quarter of a Swedish mile north of Keras-sieppi. He saw the bird well as it left the eggs, and again when it settled on the water. He is certain it was Jouhi-suorsa, and the feathers and down now before me, which have ever since been kept with the eggs, appear to belong to this species.

§ 5585. One.—Kontio-vuori, Ounas, 1857.

Out of five, by Martin Piety's boy—Jouhi-suorsa.

[The remaining four were sold at Mr. Stevens's rooms, 31 May, 1860, to Messrs. Bond (2), Burney, and Godman.]

[§ 5586. Four.—Elveden, 1852, 1853, 1854 (2).

These laid as above by one and the same pinioned bird, and taken by my brother or myself. She generally made her nest at a considerable distance from the pond on which she and her mate were kept. The last time in a roadside hedgerow. She disappeared just as the eggs were hatching, having most
likely been carried off by a dog, or some passenger, but we were able to rear most of the young, as we had done in other years. She was the mother of the male, which, mated with a farmyard duck, produced the hybrids that were the parents of the two drakes figured in the 'Proceedings of the Zoological Society' for 1860, Aves, plate clxviii.]


Pastor Theobald in sending me these eggs wrote that they were taken as above by Herr Erichsen, from a nest containing ten, and that the female was shot as she left it.]

[§ 5588. *Two.*—Rupert's House, Hudson's Bay Territory, 18 June, 1860. From the Smithsonian Institution, through Professor Baird, 1869.

The ticket has also "Parent seen. C. Drexler." The Smithsonian number is 4344.]

[§ 5589. *Two.*—Fort Yukon, June, 1861. From the Smithsonian Institution, through Professor Baird, 1863.

The Smithsonian number is 6595. Prof. Baird's note adds "R. Kennicott. Parent seen" (cf. § 5743).]

[§ 5590. *Three.*—East of Anderson River, 1863. From the Smithsonian Institution, through Professor Baird, 1866.

The ticket states that these were out of a nest of eight, from which the female was shot by an Esquimaux. They were from Mr. MacFarlane's spoils, and he wrote of the species (Proc. Am. Mus. Nat. Hist. xiv. p. 420) that it and the Long-tailed Duck are the most numerous of those that annually resort to the Anderson River and the Arctic coast, and are also among the first to arrive in spring. They were always abundant on the Barren Grounds. He adds:—"Both species desert their nests almost immediately after the young are hatched and take to the water with them. From frequent observations I feel convinced that they almost invariably select land-locked sheets of water for the purpose of rearing their young, while most of the other species of ducks give their preference to running streams." The Smithsonian number is 9518.]
ANAS ACUTA.—A. BOSCAS.

§ 5591. One.—Loch Leven, Kinross-shire, 8 June, 1898. From Mr. William Evans, 1906.

This valuable specimen is the gift of Mr. William Evans, who wrote:—
"I send herewith the Pintail's egg which I promised you last year.... You may depend on its being correct. It is from one of the nests I found, and thoroughly identified, at Loch Leven, Kinross-shire, on 8th June, 1898. There were six deeply incubated eggs in the nest (cf. Annals Scot. Nat. Hist. 1898, p. 163)." In the notice which he published (at supra) Mr. Evans states that there were six or seven pairs of Pintails breeding in the locality in that year. The two nests which he saw, each with six eggs, "were within a hundred yards of each other" and, as well as "an empty nest with portions of hatched eggs beside it," were "placed in tufts of grass in dry and open situations at some distance from the water."

ANAS BOSCAS, Linnaeus.

WILD DUCK.

§ 5592. One.—River Trent, Nottinghamshire. Not later than 1843.

The Mallard breeds near, and on islands in, the Trent. George and Charles Wolley have found several nests on this [the left] side of the river. They once attempted to hatch some [eggs] by putting them under a hen; but the experiment failed. A young one caught in Charlton’s backwater was kept here [Beeston] for two or three weeks. It was most indomitably wild. They cannot fly till very late in the summer. This egg was marked as soon as blown, so there is no fear of its being the egg of the Common Duck.

§ 5593. Eight.—Loch Meadie, Sutherland, 11 May, 1849.

On Loch Meadie in the first Eagle Island I shot a Duck from the nest—eight eggs. This shot did not scarce the Goose [§ 5397] from her nest in the other island. I fed the young Eagles with the bird, which I shot to identify the eggs.

§ 5594. One.—Loch Shin, Sutherland, 14 May, 1849. "Bird seen. J. W."

Near the Goose’s nest [§ 5398]. There were in it nine eggs.
§ 5595. Three.

Loch Assynt, 22 May, 1849.

§ 5596. One.

In a bed of celery, on the island in Loch Assynt where the Common Gulls breed [§ 1558], were two Wild Ducks' nests, from each of which I took two or three eggs, but the bird was seen from only one of them. The eggs of one of the nests were quite concealed by moss placed over them. Here, too, grew daffodils. Round the corner of the loch, near the far end, in the steep heathery island, where were Otter-holes and where I found a Merganser's eggs [§ 5894], was another Wild Duck's nest hard sat upon.

The next day, in another islet, I found a Duck's nest with young in it, just hatching. Some ran out a few inches: others were still in the shells. On another loch in the hills towards Quenaig, I found a young Duck nearly dead. Generally, Ducks were plentiful in Sutherland.

§ 5597. Thirteen.—Loch Awe, Argyll, 21 April, 1851.

Found by Mr. James Edge on the island with an isthmus, next to the one on which is the castle. The old Drake was seen first shuffling along the ground, and soon after the Duck got up within ten yards. He was sure it was a common Wild Duck. Close to where he saw this Drake he found the last year's nest of a Goosander or Merganser, with nine eggs, most of them unbroken. We saw this day on the loch what appeared through my glass to be a pair of Goosanders, also some Golden-eyes. I saw near the island a pair of Mergansers, beside Common Ducks, and another day we saw some Teal.

§ 5598. Three.— Assynt, 1851.

Out of five. From John Sutherland.

[The other two were sold at Mr. Stevens's, 31 May, 1860, to Mr. Braikenridge, and are now in the possession of Mr. T. Parkin.]

[§ 5599. Five.—Barnham, Suffolk, 1846.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxiii. fig. 3.

Mr. Hewitson's figure, as above, is from one of these specimens.]
[§ 5600. *Three.*—Elveden, 1851. (Half domesticated.)]

[§ 5601. *One.*—Elveden, 1854. "E. N."]


[§ 5603. *Two.*—Unst, Shetland, 1857. From Mr. James Smith.]

[§ 5604. *One.*—Elveden, 1 May, 1860. "A. N."

From a nest of nine shewn to me on the Red-neck Heath by a shepherd's boy. It is quite possible that the Duck may have been one that we had ourselves bred, but her building so far off as this heath must have been wholly a matter of choice. The nest was on a slightly elevated mound, so that the bird could see with perfect ease all that was going on around her, and with very little thin ling growing near it. William Howlett was with his son when the nest was found by them, and the bird first ran off and then flew, as she did afterwards when I went there, leaving her eggs uncovered. The boy told me he had seen her once or twice out on the adjoining layer, feeding towards evening, and had once seen her and her mate fly over and round. I never saw a Wild Duck's nest so far from the water as this, but I remember being told by an old shepherd of another one on this very heath.]

[§ 5605. *One.*—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

[§ 5606. *Two.*—Coon Lake, Iowa, 29 May, 1860. From Dr. Heermann, 1861.]

[§ 5607. *One.*—Fort Yukon, June, 1861. From the Smithsonian Institution, through Professor Baird, 1863.

According to the Professor, this was obtained by Mr. Lockhart (§ 5743), and the Smithsonian number of the female bird, presumably shot from the nest, is 27777.]
ANAS CLYPEATA, Linnaeus.

SHOVELER.

§ 5608. *One.*—From Mr. Sadd, 1844.

It is marked "A. clypeata" in the same hand (Poor Hoy's, 1846) as Teals' eggs are marked "A. crecca," and I have no doubt is genuine.

§ 5609. *Two.*—Prestwick Carr, Northumberland, 13 May, 1852. From Mr. Hancock, 1854.

Taken as above by John Dixon. Twelve eggs in the nest.

[In the text to plate xciv. of his 'British Oology,' which appeared in parts xxiii. and xxiv. of that work, published 1 November, 1835, Mr. Hewitson announced that Mr. Hancock, after having for some time suspected that this species bred near Newcastle-upon-Tyne, had during the past summer obtained from Prestwick Carr two of its nests, one with nine and the other with ten eggs, and Mr. Hancock himself stated in his 'Birds of Northumberland and Durham' (p. 150) that it "bred regularly" at that place. "Two or three pairs bred there in 1855; nests were also taken in 1853 and 1856; and previously to these dates I had taken its eggs there." He adds, however, that the carr had since been drained.]

§ 5610. *One.*—Laaland, Denmark, 22 May, 1856. "Theobald."

From Pastor Theobald, 1857.

This taken by the pastor himself in a nest from which the bird was seen to fly, but not recognized with certainty. Yet, says he, the agreement is exact with eggs more completely identified.


Given to me as very authentic by the Doctor.

[§ 5612. *One.*—"Stanford," Norfolk (10 May, 1835?). "Salmon." From Mr. T. C. Heysham's Collection.

Bought by me at the sale of the above-named collection in Mr. Stevens's room, 10 May, 1859. It is inscribed "Stanford" in Mr. Salmon's hand-
writing, and is apparently from the first of the nests noted in the extracts from his diary quoted by Mr. Stevenson (Birds of Norfolk, iii. p. 138):—

"1835, May 10th. Eight Shoveler's eggs found on the warren (Stanford), placed on the ground with scarcely any nest, found within a few days of hatching." Mr. Hewitson (Brit. Ool. text to pl. xcv.) says that he received a specimen from Mr. Salmon taken on that very day, and it does not seem that he ever took another nest, though he found one with a single egg 18 May, 1836, the young of which he wrote were "all hatched" on 1 June. In his paper, dated in that month and year (Mag. Nat. Hist. ix. p. 527), he says:—"A pair of this most beautiful species of duck has hitherto annually bred amongst some green rushes on the warren at Stanford."]

[§ 5613. Two. — (Prestwick Carr, before 1837 ?) From Mr. T. C. Heysham's Collection.

These were bought by me at the same time as the last. One is inscribed by Mr. Heysham "Shoveler, Hancock," the other "Shoveler" only, but they look as if they belonged to the same nest. The ticket accompanying them, also in Mr. Heysham's writing, bears "Recd. from Mr. J. Hancock March 24, 1837, by Mr. Losh." There can be hardly any doubt that they were taken at Prestwick, for, as above shewn (§ 5609), Mr. Hancock, beginning in 1835, had obtained several from that locality, and these may be of that very year. I find the name of "Robert Losh, Esq., Grange, Milnethorpe, Lancashire," in the list of subscribers to Mr. Hewitson's 'British Oology,' indicating a person interested in birds' eggs.]


Received direct from Mr. Hancock (cf. §§ 5600 and 5613), who in a letter of 23 April, 1855, said that he delayed sending the specimen until he "could meet with the finder, that he might write his name upon the specimen. When found the bird flew from the nest, which contained eleven eggs." Mr. Hancock added: "Mr. Mennell is an intimate friend of mine and a very careful collector; you may therefore rely upon the veritability of the specimen.]

[§ 5615. Two.—Loch Spynie, Moray, (25 May ?) 1852. "F. Chas. St. John." From Mr. Hancock, 1854.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxii. fig. 2.

Sent to me by Mr. Hancock, as received from Mr. Charles St. John. These can hardly be from any other nest than that mentioned in the latter's posthumously-published 'Natural History and Sport in Moray' (p. 151):—"May 28 (1852).—To-day we found the Shoveller's nest, eleven eggs, in a very wet grassy place; the bottom of the nest quite wet—not a great deal of
down—what down there was, was very black. The eggs are long and oval, darker than the widgeon, but not unlike the colour, slightly tinged with green; we have put nine of the eggs under a hen.” One of these two was figured by Mr. Hewitson as above."

[§ 5616. Three.—Elveden, 25 June, 1856. "A. & E. N."

[§ 5617. Five.—Elveden, 17 May, 1857. "E. N."

[§ 5618. Four.—Elveden, June, 1857. "E. N."

All the above (§§ 5616-5618) were the produce of a bird bought in London in 1854, her mate having been caught in a decoy at Methwold, in Norfolk, and both kept on a pond at Elveden. They did not breed till 1856, when she made a nest in a dry pit close to the pond on which they lived, and laid eight eggs, from which four young were reared. In 1857, she laid seven eggs in a nest in long grass, but being disturbed she forsook them, and about a month later made a second nest near the site of 1856, to which my brother Edward watched her on the 16th of June, finding it to contain nine eggs. There she was again disturbed by cows, and deserted the eggs which had been left for her to brood. One of the eggs of the 1856 nest was given to Canon Tristram, and is now in Mr. Parkin’s collection. One from the first nest of 1857 was given to Mr. Percy Godman, and two from the second to Mr. Salvin and Mr. A. C. Smith—one to each."

[§ 5619. Two.—Norfolk, May, 1873. From Lord Walsingham.

I received these on the 22nd of the month, and on blowing them found them to be quite fresh. They were from either the historic Stanford (§ 5612) or Tomston, but the gamekeeper who, by his master’s order, sent them to me did not let me know which. Earlier in the season Lord Walsingham had kindly taken me to both places, and at the latter I had the pleasure of taking with my own hands a Crested Grebe’s egg (§ 5043), but at the former there were three Shoveler drakes and one duck, or perhaps a second—beside seven or eight Pochards and several Tufted Ducks. It was too early then for eggs of any of them, but the gamekeeper told me that the Shoveler bred there every year, though not till the end of May, or June."

[§ 5620. One.—Stanford, Norfolk, 29 May, 1876. "Bird well seen. A. N."

Lord Walsingham was good enough to take me to a Shoveler’s nest on the heath to the north of the water at Stanford, of which his gamekeeper knew and gave us the bearings, where Mr. Salmon had found it breeding forty-one
years before (§ 5612). The air was alive with Snipes, drumming in every direction. The place was pointed out to me—a patch of rushes, some twenty yards across, growing in a depression in the heath and quite "plashy." I went to it and had hardly reached its border when up rose a hen Shoveler, which flew slowly round me towards the water. I could see her big bill, and almost every feather distinctly—and particularly the blue on the wing. The nest contained eleven eggs, one of which was chipped, and was not much raised above the wet surface, but there was a great mass of stuff round it, and, of course, a good deal of down in it. Lord Walsingham and Mr. Upcher, who was also with us, came to look at it, and then we went to a higher and drier part of the heath, some two hundred yards off. There we sat down, and while I was watching a pair of Yellow Wagtails we saw a pair of Shovelers come from the water, and after making a turn or two round they alighted not very far from the nest. The duck soon disappeared, and the drake in a few minutes flew away. Then we went on towards the wood or carr, called Sturston, though it is not in that parish, and my companions entered the wood to see how certain moths were getting on, while I sat down outside to enjoy the sight and sound of the Snipes, some of which came very close to me. We did not find any nest, but we flushed two young and very dark birds, which went plump into the bushes. When my friends returned I rejoined them and we walked across a breck or two to meet the carriage that had been brought for us. Then I found to my utter disgust that the Shoveler's egg I had put in my pocket was utterly crushed, and I had nothing to do but throw it away, and wait while the keeper went back to the nest and got me another. Curiously enough he brought me the chipped one which I had observed in the nest and purposely did not take. I emptied it the next day at Cambridge, and put the bill and foot of the bird into spirit. Going on to Merton we passed West Mere, which till last summer had been dry for several years. On it, beside plenty of Coots, were two old Dun birds with their broods—five and six, I thought, respectively. They seemed very happy, and after watching them for some time we drove on to the house. On the water at Stanford were ten Crested Grebes, all adult and together, but no young. The pike had probably taken them.]

**ANAS CIRCIA, Linnæus.**

§ 5621. One.—"J. D. H." From Mr. Hoy's Collection, through Mr. James H. Tuke, 1846.

[§ 5622. Two.—Hoveton St. John, Norfolk, (May ?), 1856. From Mr. T. J. Blofield, through Mr. T. H. Burroughes.

Mr. Burroughes wrote, 17 July, 1856, that Mr. Blofield gave him three eggs for me, adding:—"There have been a good many nests this year at
Hoveton. I saw three or four lots of young birds, and we shot several. There was also one Teal’s nest on the same water. Mr. Blofield took the Garganey’s eggs himself, and is quite certain about them. If you want any more, Mr. Blofield says you are welcome to them.”]

§ 5623. One.—Hoveton, 15 April, 1862. “T. J. B.” From Mr. Blofield, through Mr. T. H. Burroughes and Lord Lilford.

This was given to me by Lord Lilford, who had it from his brother-in-law, Mr. Burroughes. It is inscribed by Mr. Blofield, “Taken by me,” with the place and time as above.

§ 5624. Three.—Ranworth, Norfolk, 1873.

Obtained by me, 10 June, 1873, when visiting this broad with Mr. Stevenson (§ 992). We were in a boat nearly the whole day. On starting from the staith, there was a Moor-Buzzard wheeling about, and I had a good look at him with my glasses, seeing his cream-coloured head. The man who took us, gamekeeper and formerly decoy-man, said the bird had been about for some days. We saw a few Herons, two pairs of Redshanks, which were very noisy and probably had young, a few Snipes, plenty of Coots, and “Tarrocks”—as they here call the Black-headed Gulls. Just as we had finished our luncheon, a small Duck came flying over, as if prepared to drop near us, and our man exclaimed “Summer Teal!” I watched it as it went on flying round. It was soon joined by another and I then saw with my glasses that the second was a Garganey-drake. We afterwards put up another duck, from the side of the river—the Bure. All this time we had not been on the broad itself, but on the river, and among the reeds and rushes on the right bank of it. We then went to the broad, and saw two or three of the pipes of the decoy, now disused—and among them that figured by Mr. Lubbock (Faua of Norfolk, 1845, facing p. 94). There were three if not four pairs of Grebes on the water, one, a fine old cock with a great crest and horns stuck up, I saw well. They were not much disturbed at us. No young did I see, but our man said there were some. However, it was getting late, and we had to return to the staith. While the horse was being put into the carriage, I went to a cottage close by where lived a reed-cutter, who had a good many nests he had come upon. Among them one of Panurus biarmicus, which I got from him (§ 992), and three eggs of the Summer Teal (“Gardiners, some folk call ‘em,” he said) which he had found in the “mashes,” the nest having been spoilt by the unseemly behaviour of a cow, and deserted in consequence. He had none of the down, indeed he said that as there were but three eggs, there was very little of it. The eggs were much discoloured, but I took some trouble with them, and they look very respectable. The reed-cutter said, and the other men agreed with him, that there is no mistaking a Summer-Teal’s nest for that of a common Teal—not only is the latter an earlier breeder, but its nests are always away from the water, on the upland; whereas the
Garganey always has its nest in the marshes and often in the wettest places. Garganeys are sufficiently common there to be well known. The man had no object in telling me a lie, indeed I am not sure that he did not think common Teals to be the rarer birds; certainly he said he had scarcely ever seen their nests. We saw no common Teal that day and only one pair of *A. boschas.*

[§ 5625. *Five.*—Horsey, Norfolk, 31 May, 1884. “E. N.”

My brother Edward's notes concerning these eggs state that hearing by letter from a man in the neighbourhood that he had found a Garganey's nest with five eggs in a very "dangerous place" he had taken two of them out, and left the remaining three for my brother to see. He accordingly went the next day and was shewn the nest, which was on a bank about three feet above the level of the marsh, "in some long grass, well concealed, but within a yard of a path daily used by mowers, and certainly in a dangerous place. There were three eggs in it, which," he wrote, "I took, as well as the little down there was in it. It was lined with dry grass. So far as I could judge, there is no reason why it should not be a Common Teal's nest." However, the man said he had, on a former occasion, seen the bird on it, though he had not disturbed her, so as to see her wings, and was sure that it was a Garganey's. "He could give no reason, however, why he thought so, beyond the fact that the Garganey was more 'fickle' than the Teal, by which he meant that she would desert her nest if once put off from it; and as this nest was close to where men were working, and where they passed every day, it was likely to have been disturbed, and therefore forsaken—as it was. He thought this would not be so with a Teal. On further talking to him, and asking why he was so sure of these eggs being Garganeys', he said he had seen Garganeys only about that place, and no Common Teal. He had seen a pair of them that morning. The eggs were fresh. On the whole I think they may be accepted as Garganeys', though the evidence might well be more convincing."

[§ 5626. *Two.*—From Mr. T. C. Heysham's Collection.

Bought by me at the sale of the above-named collection at Mr. Stevens's, 16th May, 1859. One is inscribed, apparently by Mr. Heysham himself, "Garganey A. circa. P. Reuben"—the last a name quite unknown to me in connexion with eggs; the other is marked "Garganey," in what seems to be Mr. Hoy's handwriting, followed by "J. D. II." Mr. Heysham was not an indiscriminate collector, and I think both these, but certainly the last, may be accepted as genuine Garganeys."

[§ 5627. *One.*—From the late Mr. Scales's Collection, 1885.

This egg is inscribed in Mr. Scales's handwriting, "Garganey cut out of the Bird." It is small and blown at the ends. I can hardly help connecting it with that mentioned by Hunt, in the account of this species in his 'British Ornithology' (ii. p. 311), as follows:—"A pair of these birds were shot on the
6th of May, 1817, at Hockwold in the county of Norfolk; the female had a perfect egg in her; from which circumstance, they would doubtless have bred in that neighbourhood. This fact proves what has not been before ascertained: that some of this species continue in England the whole year." Hunt was a bird-stuffer at Norwich, and must have been known to Mr. Scales, at that time living in Norfolk. Such an occurrence is not likely to have happened twice. It is reported by Sheppard and Whitear in their 'Catalogue of Norfolk and Suffolk Birds' of 1825, and also by Mr. Southwell in his continuation of Stevenson's 'Birds of Norfolk' (iii. p. 178).]

ERISMATURA LEUCOCEPHALA (Scopoli).

§ 5628. Two.—Lake Halloula, Algeria, 11 June, 1856. From Mr. Tristram's Collection.

[These formed Lots 268 and 269 at Mr. Stevens's auction-room, 9 February, 1858. Writing of this locality and time, Mr. Tristram says (Ibis, 1860, p. 163):—"We found two nests of the White-headed Duck (Erismatura mersa) among the sedge, containing the one three, the other eight eggs. These are very large for the size of the bird, almost perfectly elliptical in shape, and a line longer and wider than those of the Velvet Scoter, of an extremely rough texture, unlike that of any other Duck, more resembling the egg of the Bean Goose, but far more coarsely grained, and of a dull white colour. The habits and flight of the bird are more like those of a Grebe than of a Duck; it often saves itself by diving, and remains under water for a considerable time.]

[§ 5629 One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

[§ 5630. Four.—"Sarepta." From Herr Möschler, 1856.]

[§ 5631. One.—San Lucar. From Mr. Howard Saunders, 1869.

In his "Notes on the Birds of Southern Spain," Mr. Saunders (Ibis, 1871, p. 397) only says of this species that it is "Resident, and common in the lower 'Marisma,' near San Lucar, where it breeds, but rare in the vicinity of Seville."]
§ 5632. Two.—From Mr. Chapman, of York, 1843.

§ 5633. Two.—Islet off Scalloway, Shetland, 22 June, 1849.

"J. W. ipse."

I found the nest in one of the little islands off Scalloway—either Papa, Oxna, or one of the chain of islands. These two specimens were very hard sat on. A third which I found under water at the edge of a pool was fresh. I have parted with it.

§ 5634. Three.—Kirkebøe, Strömöe, Færöe, 2 July, 1849.

"J. W."

On our return from Sands, we visited an island devoted to Eider-Ducks. There are on it little stone buildings in which they breed. In leaving the nest they always soil it. Great Black-backed Gulls rob the eggs—one or two always prowling about. The quantity of down obtained is small. I took three or four eggs by permission. It is not lawful to kill the birds. We saw the males about in great flocks, especially in the channel between Strömöe and Østeröe.

§ 5635. Two.—Naalsöe, Færöe, 9 July, 1849.

Here a few birds breed, tame as it were, in nests placed for them about the houses, and they do not fly away even when you are very close to them, looking into their nests.

§ 5636. One.—Tindholm, Vaagöe, Færöe, 9 July, 1849.

"J. W."

All these eggs [§§ 5634–5636] fresh. We could not see or hear of the King-Duck in summer in Færöe.
§ 5637. *Three.*—Orkney, 1850. From Mr. George Harvey, of Stromness.

Good, old Eiders', of which I have but few British specimens, though they breed on the Farne Islands. One nest on the Bass Rock: birds seen by me at Isle of May. Plentiful between Caithness and Orkney, in Orkney, and in Shetland.

§ 5638. *Five.*—Færøe, 1850. From Sysselmand Winther.


[Not entered by Mr. Wolley, but doubtless obtained at the same time as the Oyster-catchers' (§ 3257) and Teisties' (§ 4902). Of some interest as coming from the head of the Baltic Sea. Two others were sold at Mr. Stevens's, 31 May, 1860, to Mr. Bnikehridge, and one of them is now in Mr. Parkin's Collection.]

§ 5641. *One.*—Hammerfest, June, 1854. From Herr Andreas Berger.

[From its size (4 by 2-3 inches) I imagine this to have held two yolks. This Herr Berger, who lived at Kautokeino, passed many summers walrus-hunting in the Spitsbergen seas.]


[Inscribed but not entered by Mr. Wolley.]

§ 5643. *Two.*—Reenö, East Finmark, 2 June, 1855. "J. W."

[Neither of these is entered in the Egg-book, though both are inscribed: one bears "In Herring's nest—sat upon"; the other "Out of a nest of four near the Herring Gull's nest in which was the Eider's egg." The fact of his having found a Duck's egg incubated by a Gull was often spoken of by Mr. Wolley, and was mentioned by him in his Sale Catalogue of 1857–8, in the note to Lot 14.]


[Both dwarfs, measuring 2·05 by 1·36 and 1·58 by 1·21 inch respectively.]


Taken by my brother Edward and myself.


Hewitson, 'Eggs of British Birds,' ed. 3, pl. cxv. fig. 3.

Out of about two dozen sent to us at Elveden by Mr. Charles Thorp, to be put under hens. I cannot remember how many were hatched, but only one bird was reared. That proved to be a male and lived for more than a year, becoming exceedingly tame. One of these eggs was figured by Mr. Hewitson as above.

§ 5648. *Four.* —North Warmsey, 23 June, 1856. "E. N."

Taken by my brother on our second visit to the Farne Islands.

§ 5649. *Two.* —South Cape Islands, Spitsbergen, 1855.

From Messrs. Wilson Sturge and Edward Evans.

Sent to me with other eggs (§§ 4101, 4629, 5462, 5478) on the return of those gentlemen. The notes of their voyage were published in 'The Ibis' (1859, pp. 166–174). They did not find the King-Duck.

§ 5650. *One.* —Frederikshaab, Greenland, 1857. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R.Y.S.

According to Sir Leopold McClintock's narrative of the voyage (p. 20), the 'Fox' arrived at Fredrikshaab 20 July, 1857, where birds' skins and eggs were "purchased of the Esquimaux." So far as I know, the King-Duck is only mentioned in one passage (p. 323), and that has reference to Port Kennedy.

§ 5651. *One.* —Women's Islands, North Greenland, 1861. From Dr. James Taylor, 1862.


These must belong to *Somateria dresseri*, if that be a good species.]
§ 5653. Two.—Safe Haven, Ice Sound, Western Spitsbergen, 10 July, 1864. "A. N."

Taken by myself, as above, from a little rocky islet off the east point of the entrance to Safe Haven, to which Mr. Graham Manners-Sutton, Ludwig, and I went one afternoon. A great many Eiders flew off, and we found some forty nests. These eggs are from the first I came to, and the old bird was sitting on it—so far as I could see she was an undoubted S. mollissima, and not spectabilis. Most of the nests had only one egg in them, and none more than three. We had seen the men of the Swedish Expedition at the islet the day before, and of course they had taken all they could find. In all we got between sixty and seventy, the greater part of which we gave to the yacht's crew to eat. Later in the evening some of our men went to the islet, and found that more than a dozen eggs had been laid since our visit, and again about midnight Ludwig returned and took several more. The Arctic Gulls (Stercorarius parasiticus) were very bold while we were there, robbing two nests within a few yards of us, and one bird was not deterred by Mr. Manners-Sutton's pelting him with stones. Subsequently our men often helped themselves to eggs at this rock, and we used to call it the "Eiderstone." Dr. Malmgren (Journ. furl Orn. 1865, p. 396) has separated the Eider-Duck of Spitsbergen as Somateria thulensis; but I fail to see the justification of such an act.]

§ 5654. Five.—Walrus Island, East Greenland (1870?).
From the Second German North-Polar Expedition, through Dr. Otto Finsch, 1871.

In the zoological report on this voyage Dr. Pansch states (Zweite deutsch. Nordpolarfahrt, ii. pp. 214, 215) that he only visited one breeding-place of this species in the Pendulum group of islands, that was on Walrus Island, where, on the 14th of June, he counted up to forty nests. He was there again on the 21st, and found them in deep snow, but the eggs were for the most part so little brooded that they collected a fine stock of them for consumption.

SOMATERIA V-NIGRUM, G. R. Gray.

§ 5655. Two.—Island east of Anderson River, 6 July, 1863.
From the Smithsonian Institution, through Professor Baird.

The accompanying ticket also has "Female parent shot (No. 36287) near nest. R. R. MacFarlane."
SOMATERIA SPECTABILIS. 567

[§ 5656. Two.—Island in Franklin Bay. From the Smithsonian Institution, through Professor Baird, 1867.

These (§§ 5655–56) from the collections of Mr. MacFarlane, who writes (Proc. U.S. Nat. Mus. xiv. p. 422) of this species that it "breeds in immense numbers on the shores of Franklin Bay; it is also very abundant on the coast and islands of Liverpool Bay….. We found some nests on a sloping bank at a distance of three hundred or more feet from the sea. Others were also on the mainland, but the bulk of those secured by us were obtained from sandy islets in the bays. Over one thousand eggs of the S. v-nigra, I think first made known by us, were forwarded to Washington." The Collector's number inscribed on these is 12370.]

SOMATERIA SPECTABILIS (Linnaeus).

KING-DUCK.

§ 5657. One.—"Davis Strait." From Mr. Graham, 1847.

There is no doubt that Mr. Graham had some from Davis Strait, brought by the surgeon of a whaler (Dr. Hoope, of York), of which the Messrs. Milner had one; but, alas! I was present when he selected this from memory from a heap of common Eiders', similarly blown.

§ 5658. Two.—Godthaab, Greenland. From Captain Holbøll's Collection, through Mr. Samuel Stevens, 1854.

Bought for me by Mr. Salmon of Mr. Samuel Stevens, who had them on sale for Carl Holbøll—some eight or nine specimens in all. They are from the same source as those figured by Mr. Hewitson [Eggs of British Birds, ed. 3, pl. exv. figs. 1, 2].

§ 5659. One.—North Greenland. From Dr. Rudolph, through Herr Conradsen, 1857.

Given to me at Copenhagen by Conservator Conradsen.
SOMATERIA SPECTABILIS.

[§ 5660. One.—Davis Strait. From Mr. Robert Dunn, 1847.]

[§ 5661. One.—Women's Islands, North Greenland, 1861. From Dr. James Taylor, 1862.

Dr. Taylor was a surgeon on board a whaler (§§ 4859, 5651), and this egg bears a label with the name of the species in his handwriting.]

[§ 5662. One.—Island in sea, east of Anderson River, 6 July, 1863. “Female shot near nest.” From the Smithsonian Institution, through Professor Baird, 1866 and 1867.

The first of these is stated on the accompanying ticket to be one of two from a “nest of Eider down in hole,” the number of the bird shot being “30274.” The remaining four are marked as being the complete contents of a “nest on a small islet in a small lake,” and the number of the bird shot from it is “44243.” All are Mr. MacFarlane’s collecting, and he says of this species (Proc. U.S. Nat. Mus. xiv. p. 422):—“Tolerably common in Franklin Bay, where an aggregate of some two hundred eggs were secured on the several summer (1862 to 1865) visits paid to that quarter..... In addition to the eggs above mentioned, the contents of about twenty nests were also received from the Esquimaux of Liverpool Bay. A few birds occasionally breed in close proximity to S. v.-nigra, and the male is nearly as wary in keeping beyond gunshot.”]

[§ 5663. Four.—Island in Franklin Bay, 4 July, 1864. “Female shot.”

Capt. (now Colonel) Feilden wrote that the Duck was shot from this nest, and in ‘The Ibis’ for 1877 (p. 412) stated that several flocks of males and females, from ten to twenty in number, were seen at the place named, “and several nests were found with fresh eggs in them from the 9th to the middle of July.”]
SOMATERIA FISCHERI (Brandt).

§ 5665. One.—St. Michael’s, Norton Sound (1866?). From the Smithsonian Institution, through Professor Baird.

The accompanying ticket shews that this was one of eight eggs obtained by Mr. W. H. Dall, at “Canal near Redt.,” meaning, I suppose, the channel near the redoubt or fort. The number of the “parent” (whence I presume she was killed) is 5549, but the time when the nest was taken is not given. According to Mr. Dall’s notes (Trans. Chicago Ac. Sci. i. p. 299), published in 1869:—“This rare duck breeds only in the marshes between the Island of St. Michael’s and the mainland, which are intersected by a narrow channel called the canal. It is not found near the Yukon mouth, nor even a few miles north of the canal; nor, according to the repeated assertions of the natives, at any point on Norton Sound to the north of St. Michael’s. Its winter habitat is unknown, possibly Cook’s Inlet or Bristol Bay. It is not abundant, even at St. Michael’s. A nest was discovered in the centre of a small pool in a marsh, built on a tussock just above the surface of the water. It was oval, lined with dry grass, and contained two eggs, which were surrounded and covered with down, evidently from the breast of the parent. The eggs are small for the size of the bird, of an oliveaceous brown. There was a number of others breeding in the vicinity, and also a number of the S. v-nigrum.” The notes of Mr. H. M. Bannister, appended to the foregoing (loc. cit.), state that this species was “moderately common near Fort St. Michael’s,” and in habits is very like S. v-nigrum; but is, however, the shyer of the two, and the more difficult to observe on that account. “It breeds in the vicinity; its nest, as described by Mr. Dall (who saw two of them), and other parties, is a simple depression in a grassy hummock, without any lining other than the grass and a little down and feathers.” This egg was exhibited by me at the meeting of the Zoological Society on the 17th of January, 1871; but by some accident its name was printed in the ‘Proceedings’ (p. 58) S. v-nigrum instead of S. fischeri, and its measurements (vide infra) were wrongly given.]

§ 5666. Two.—“Siberia.” From Herr Dode, 1871.

The promised information about these eggs was not supplied. According to Dr. Taczanowski (Faun. Orn. Sib. Orient. p. 1200) its breeding in Asia has not been determined, though it would seem probable, from its having been observed by Baron Nordenskjöld’s expedition on the Tchuski peninsula in May, June, and July, that it does breed there (cf. Palmén, Bidr. Sib. Ishafsk. Fogelfauna, p. 438). These two eggs measure 2:56 by 1:8 and 2:53 by 1:78, while Mr. Dall’s specimen (§ 5665) is only 2:39 by 1:57 in.]
SOMATERIA STELLERI (Pallas).

STELLER'S DUCK.

[§ 5667. One.—Taimyrland, June, 1843. From Dr. von Middendorff, through Dr. Baldamus, 1861.


I exhibited this egg, from the discoverer of the first nests of the species, at the meeting of the Zoological Society on the 10th of December, 1861, and it was afterwards figured in the Society's 'Proceedings' (at supra). Dr. von Middendorff (Sib. Reise, II. ii. pp. 234, 235) states that he found the species breeding pretty commonly on the flat tundra of the Tainyrr, and that on the 25th of June the nests contained from seven to nine freshly-laid eggs. Three of them are figured in his work (tab. xxiii. figg. 3-5).]

ŒDEMIA FUSCA (Linnaeus).

VELVET SCOTER.

The Velvet Scoter. I hoped last summer to have been able to take a nest of this fine bird myself, but I made arrangements to leave the mountains before midsummer, and when I returned to Muonioniska the only pair that were likely to breed in this immediate neighbourhood had been shot. I went to the lake where I had seen a brood of young ones the year before, and on its shore I found the fatal ambush, about which I subsequently heard particulars. My intention had been to watch there at midnight, when I am told the pair of Velvet Scoters rise from the water, and after taking a round or two to see that the coast is clear strike off to the nest in some not very remote hill: the Drake having thus escorted his partner home returns again and settles in the part of the lake nearest the direction

1 [I regretfully abstain from including in this Catalogue upwards of a score of eggs sent to me at various times as those of this species by Herr A. G. Nordvi, who fully believed in their genuineness, and obtained them from Henöerne, a group of islands on the Russian coast to the eastward of the Varanger Fjord. On that fjord this beautiful bird occurs, it is true, in considerable numbers, and just outside it Mr. Wolley shot four examples in 1855—two at Skalely, 30 May, out of an enormous flock, “upwards of a thousand certainly,” and two more in Vardö harbour at midnight, 2-3 June; but they, as well as all we saw, were immature, and it is clear that the adults, which are frequent in winter, betake themselves elsewhere as spring approaches.—Ed.]
of the nest. Further up the country the bird is not so scarce, and I saw several small flocks in working my way up the flooded river to Norway. There is, however, one large lake called Jerisjärvi, with several low mountains about it, near here, that is only some fifteen or twenty miles away, where almost every year a nest or two of the Velvet Scoter is found. I have looked for them in vain myself on nearly all the islands in that piece of water, but people who have taken them before know better where to find them. Two eggs were sent to me at the beginning of July by a man who lives there. I have since talked to him about them and see no reason to doubt their genuineness, especially as other persons who know the eggs say they are truly Korvi’s or Kolso’s, which about here are the names of the Velvet Scoter. He found them under a juniper bush on an island, and saw the bird perfectly well. He had taken them in former years near the same place. The Velvet Scoter is unmistakable (there at least), that I think you need not feel any hesitation in drawing from these eggs, especially as they are very characteristic both from their great size and from the rosy hue of their peculiar surface, about which there is something that reminds me of the look of a prickly pear. No doubt when the eggs were fresh the colour was brighter than it is now. On a hillside the Velvet Scoter makes its nest under the sweeping branches of a small Norway pine, if such is to be met with, but in the colder regions of the country it must find some other shelter. When it prefers an island, which it more seldom does, in the inhabited districts at least, it chooses a dry spot a few yards from the water edge. It is one of the latest breeders among the Ducks, commencing only after midsummer; it seems from all accounts to be very variable in the number of its eggs.

[The above is from the letter to Mr. Hewitson from which abstracts have already been given (pp. 531, 545), but Mr. Wolley’s experience of this bird was considerably increased subsequently.]

§ 5668. Two.—Kulkijärvi, 1854.

Hewitson, ‘Eggs of British Birds,’ ed. 3, pl. cxvi. fig. 2.

Sent to me from Rauhula, at the end of Jerisjärvi, under the name of Kolso [Velvet Scoter], by the hand of Rauhula’s Daniel. The people there had before told me that they find the nest of this bird every year.—P.S. 5 November. Today Matthias of Rauhula says that it was he that found the nest, which was under a juniper
bush in a low place on an island in the lake. He saw the bird perfectly well, and they find nests about there every year. Ludwig has been talking to him, and has no doubt he speaks the truth.—
P.P.S. 3 March, 1855. Punsi’s lads tell me that Matti found the nest in Kulkijärvi, between Rauhula and Rowa, with eight eggs, which he meant to leave that he might get the young, but they told him of my wanting the eggs, and he went to fetch them.

[One of these two was sent to Mr. Hewitson for figuring (ut suprā).]

§ 5669. Two.—Gaudo-jaure, East Finmark, June, 1855.

Out of a nest of seven brought [to Mortensnäs] yesterday, 25 June, by a Lapp woman. Herr Nordvi after a talk with her said the eggs were all Anas fusca and from one nest. He kept three and gave us four, of which Mr. Simpson [Hudleston] has two. I saw flocks of the bird in the Bög-fjord a week ago. I afterwards saw this nest, up a hill under a juniper. Gaudo-jaure is Serpent-lake.

§ 5670. Six.—Gaudo-jaure, 26 June, 1855. “Nest seen. J. W.”

The same Lapp woman took us to the nest, and I replaced four of the eight eggs it had contained, but to no effect. The down I keep, as of the last nest [§ 5669]. I saw a hen Velvet Scoter on the lake below, or over the hill.

[I was with Mr. Wolley on this occasion. He replaced the eggs in the hope that the bird might return and that we might see her, but there can be no doubt as to their parentage. The golden-pink colour of the shell, when fresh, was quite characteristic. The nest was on a stony and almost bare hillside, some few miles to the north of Mortensnäs, where we were then staying.]

§ 5671. Five.—Nyborg, East Finmark, July, 1855.

Out of seven brought by a lad who called them Korri [Velvet Scoter]. They were taken some days before, about a Norwegian mile from Nyborg. The down now before me agrees with that from the other two nests [§§ 5669, 5670].
§ 5672. Four.—Jerisjarvi, 1855.

Out of eight brought to Knoblock, 28 July, by Rauhula’s Matti, father of the man who took them last year [§ 5668].

[The other four were sold at Mr. Stevens’s, 7 March, 1856, to Messrs. Shepherd, Wilmot, Troughton, and Simpson.]

§ 5673. Two.—Karautajarvi, 1855.

Out of seven found by Velli-tallon Zacharias just at the end of the lake opposite to Kätkassuando. On midsummer day Joseph’s Johan told Ludwig, in answer to a question about ducks’ eggs for eating, that Zacharias had a Kolso’s nest. Ludwig sent word that it was to be kept for me, and I got the eggs, blown at the ends, on my passing Kätkassuando early in the morning of the 1st of August. Ludwig had no doubt about the eggs having been Velvet Scoter’s in the eyes of the finder, and says the Little Goose [Anser erythropus] is not found breeding so near. The eggs agree with the Jerisjarvi ones, and are much more coloured than a series of the Goose before me.

§ 5674. Six.—Vuontisjarvi, 1855.

Said to be Kolso by the woman, Vuontasjarvi Lana, who found them; but it remains to be seen.

§ 5675. Two.—Kittila, 1855.

Out of five brought to Muoniovaara by Martin Pieti, found in Alitamajärvi, Kittila.

[One sold at Mr. Stevens’s, 31 May, 1860, and now in Mr. Parkin’s collection. Another given to Mr. Salvin.]

§ 5676. Seven.—Palojoki, 1856.

According to Ludwig’s notes, these were out of nine eggs brought to him, 22 July, by Palojoki Adam’s boy Abram, who said they were quite certainly Kolso’s, and was sure there could be none better, for he saw the bird and knew it well. Ludwig says the nest was on an island in the river half a Swedish mile below Palojoki.
§ 5677. Seven.—Utkojoki, 21 June, 1856.

Brought to Ludwig, 18 July, by Nalis Aaron, taken as above at Kaakkuri-saivan-sun, on the Utko River. He reported that he saw and knew the bird quite certainly.

§ 5678. Seven.—Marrainen, 1856.

Brought to Ludwig at Kuttainen by a Lapp lad, Anders Andersson Rodosniemi.

§ 5679. Three.—Palliosvaara, West Finmark, 1856.

Ludwig's note is that at Aotsi, 27 April, 1857, he received from Olli Andersen Pehr three eggs of the year before, which he had found on Palliosvaara, half a mile to the south-east. He did not know what they were, but he said that the bird was white behind the wings, and otherwise black. The nest was on a high hillock in brushwood, not very far from a lake, and had a little fresh moss in it. Ludwig says that the lad wished at first to pass them off as Skuolfi [Snowy Owl], but soon admitted that he thought they were Squorra (without a hint of the name from Ludwig), i.e. Velvet Scoter. He also described the bird.

[Squorra, spelt Skoorra by Pastor Sommerfelt (Œfvers. K. Vet.-Akad. Förh. 1861, p. 74), is the Lapp name for this species, adopted by some of the Finns in the form of Korri as below.]

§ 5680. Two.—Peltouoma, 1857.

Out of six brought to Knoblock by Mikel Sadio, who said they were called Korri, but did not exactly remember who in Peldouoma had given them to him. Korri is from the Lapp name Squorra—that is, Velvet Scoter.

[The other four were sold at Mr. Stevens's, 23 February, 1858, to Messrs. Braikenridge (2), Walter, and Wilmot.]

§ 5681. Four.—West Finmark, 28 June, 1858.

From Lars Jonsen Keino in Kautokeino; found at Syntyma Lappala, a mile and a half to the south.
Of the breeding-habits of the common Scoter you might probably get the best account from Mr. Milner, who found its nests in Iceland. It is not very common near here, though much less scarce than the Velvet Scoter. It breeds late in the season in islands of rivers or lakes and in tussocky parts of marshes—often frequenting the same place year after year. The flocks of Scoter generally hold themselves away from the shores, but are much less wild than when at sea in the winter. The name by which they are called here [Merilinthus] means in English "Sea-bird." It is very pretty to see this child of the ocean—more of a fish than a fowl, as our Roman Catholic ancestors held it to be—come to enjoy the holiday of the season of love in a sunny river or lake. The notes of a number of them together have a wonderfully sweet effect. If you wish to give a cockney a correct notion of the rich look of a fresh Scoter’s egg, you may tell him that it is like a fully ripe Magnum Bonum plum.

[This also from the same letter of 2 March, 1855, before cited (pp. 531, 545, 571).]

§ 5682. One.—Iceland. From Mr. Proctor, through Mr. Hewitson, 1844.

Mr. Proctor found only two Scoters’ nests in Iceland (see Yarrell, Brit. Birds, ed. 1, iii. p. 223).


Bought of Mr. Graham, but Mr. Milner yesterday [26 October, 1847] added his name to the inscription. They found this bird breeding in little societies, Mr. Graham had vivid recollections of having to wade to the nest. This egg is very dirty, having been packed in peat ashes, his pet plan.

§ 5684. One.—Iceland. From Mr. Proctor, through Mr. Walter, 1850.
§ 5685. *Four.*—Nālima, 19 June, 1853.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. exvi. fig. 1.

Bought at Nālima, called by the seller *Meri-lintu* [Sea-bird, *i.e.* Scoter].

[Mr. Wolley at first supposed these to be Velvet Scoter's, but soon after found they were not. One of them was figured by Mr. Hewitson (nt supra).]

§ 5686. *Five.*—Lieppi-niervi, June, 1853.

These were from a nest upon the lake which contained nine eggs, according to the *husbonde* [master of the house]. He assured me that the birds (*Meri-lintu*) were all quite black, those with white upon the wing [Velvet Scoter] going further north to breed. They, the quite blacks, only occasionally breed on his water. He pointed out to me the shrub upon an island underneath which the nest was. He knows the eggs both by their appearance and by the colour of the down of the nest. I saw on the lake a single cock Black Scoter and two or three flocks of birds in the hen plumage—the latter not breeding, and probably, thinks the peasant, last year's birds.

§ 5687. *One.*—Karessuando, 1853.

Out of seven, called *Meri-lintu*, and Herr Engelmark [the priest] described the bird, which was decidedly the Common Scoter. It bears the same name at Muonioniska, in which neighbourhood it breeds very sparingly. All these eggs were from one nest.

[At Mr. Stevens's, 26 January, 1855, three were sold to Mr. Burney and two to Dr. Frere.]

§ 5688. *Two.*—Mannajarvi, 13 June, 1854.

Out of six found by Ake Engelmark and taken by him to his father, who blew and made a note of them.

[At Mr. Stevens's, 26 January, 1855, two were bought by Mr. Walter.]

§ 5689. *Five.*—Ojianputas, 1854.

The place is near Mannajarvi, where Ake Engelmark found a nest of Scoter the same season [*§ 5688*]. The present nest was found by the *äräng* [servant].
§ 5690. *Five.*—Kangosjärvi, 1854.

Brought at midsummer by Hendrik Ankori Niemi, who took them himself, and doubtless he is correct in giving them the name of the Common Scoter.

[There were sixteen specimens. At Mr. Stevens's, 26 January, 1855, two were sold to Mr. Bridger, one to Mr. Salmon, two to Mr. Walter, and two to Mr. Gurney, and two more, 7 March, 1856, to Messrs. Bond and Shepherd. I afterwards gave one to Mr. Newcome.]


Taken by the side of the river, in Norway, just after I had passed. There was no down in the nest. I saw several pairs of the Common Scoter about—no Velvet Scoter anywhere,—and the men called the eggs positively *Meri-lintu.* They found them by the bird's flying off.

§ 5692. *Five.*—Lapland, 1855.

By Piko Heiki.

§ 5693. *Four.*—Maunu, 1855. (With down.)

Said by the Grape lads to be Kolso [Velvet Scoter]; but are probably *Meri-lintu* (Common Scoter). They were found between Kaaressuando and Maunu, and some of the down I have labelled.

§ 5694. *Six.*—Maunu, 1856.

Received by Ludwig of Carl Grape, 28 July.

§ 5695. *Five.*—Keras-sieppi, 1856.

Found on the shore of the lake by the very intelligent old man there.

§ 5696. *Two.*—Vuontisjärvi, 6 June, 1857.

From Wollas Lassi.

*Part IV.*

Brought 12 July by Isaak Aronsson Nällivaara, with the down, all from one nest in a tuft of grass, on Hauta-niemi, a promontory on the south side of the lake and towards its west end. Hauta-niemi is a common name in most lakes, being the promontory nearest to the deep water (*hautu*).

§ 5698. *One.*—Peltouoma, 1857.

Out of six, brought by Sadio Mikel, the trustworthy lad. He said he saw black down with these eggs, but he did not know who found them.

[Four of these were sold at Mr. Stevens's, 23 February, 1858, to Messrs. Braikenridge (2), Burney, and Simpson.]


Received by me at Kaaressuando, 26 July, of the Lapp lad Johan Petter Riska.

§ 5700. *Four.*—Sources of Kautokeino River, Norway, 1857.

Received by me at Kaaressuando, of Matthias Tuorimaa, who seems to have blown them after finding them on the Kautokeinon Ennon-raavasta—probably where he was fishing up from Syajärvi, just over the frontier.


Heiki told me there were six eggs in the nest on the shore of the water, but his dog broke three. He saw the bird, and is a very trustworthy man.


Out of eight from Johan Peter Nälima; but found, as appears, by the lad's mother in Käen-lompalo, the Cuckow's pond.

§ 5703. *Seven.*—Niviranta, 9 June, 1858.

Brought 19 June by Johan Kaiander's wife from Nälima, taken as above.
§ 5704. *Five.—* Kangasjärvi, 23 June, 1858.

Out of seven brought the same day by Eva Stina, found on Rantasadio.

§ 5705. *Three.—* Serkijärvi, 29 June, 1858.

Out of eight found as above by Piko Heiki.

[Three were sold at Mr. Stevens's, 8 March, 1859, to Messrs. Marshall, Troughton, and Burney, one of which is now in Mr. Parkin's collection. I gave the remaining two to Dr. Baldamus in 1860.]

§ 5706. *Four.—* Lapland, 1858.

Brought with other eggs, 11 July, by Kyrö Niku, to Knoblock, who wrote in his book:—"10 blown eggs, *Meri-lintu* (Scoter) and *Koskelo* (Red-breasted Merganser), mixed together so that I cannot separate them. . . . Also a stuffed black fowl with a white space on its neck."

[The stuffed bird proved to be a specimen of *Edemia perspicillata*, and Mr. Wolley stated in his Sale-catalogue for 1858–9: "This season a Surf Scoter, only the second 1, I believe, that is known to have been killed in Scandinavia, has been sent to me. The man who brought it also brought Scoter's eggs, but I have no reason to suppose they were other than Common Scoter's." It is to be observed that Kyrö Niku, though perhaps not one of the most trustworthy men, did not pretend that the bird whose stuffed skin he brought was killed from the nest which contained the eggs. It was certainly killed in

1 The first Surf-Scoter known to occur in Scandinavia was shot at Kaaressuando in 1833, and sent to the Stockholm Museum by the well-known botanist Lästdius, at that time pastor there, from whom Mr. Wolley may have heard of it, though he doubtless had read of it in the 'Tidskrift för Jägare och Naturforskare' for January 1834 (p. 790), where it is recorded, and it was also duly included by Prof. Nilsson in the Second Edition (1855) of his 'Skandinavisk Fauna' (Foglarne, ii. p. 429). In the Third Edition of that work (ii. p. 465), a second Scandinavian example, killed at Kalmar, 14 June, 1846, is noticed, but that volume did not appear till 1858, and was therefore unknown to Mr. Wolley when drawing up his Catalogue. The example killed near Kyrö, as above stated, has been mentioned on information received from old Knoblock by Prof. Palmén in his continuation of Magnus von Wright's 'Fialands Foglar,' published in 1873 (p. 467), and others are also recorded from Scandinavia. Herr Malm in 1844 stated (Naturhist. Tidsskrift, ser. 2, i. p. 209) that the species bred, though very rarely, in Enare Lappmark; but I know no evidence to support the assertion.—Ed.]
Lapland, and probably near Kyrö, though information as to the precise place is wanting. He was the man who obtained the two nestling Waxwings (cf. vol. i. p. 210) in 1856, the first that had ever been procured.]

[§ 5707. One.—Myvatn, Iceland. From Mr. Proctor, 1851.]

[§ 5708. One.—Iceland. From Mr. Proctor, 1852.]

[§ 5709. Six.—Ollasjärvi, 23 June, 1862.
Out of thirteen brought by Kyro Niku, 24 June, found on an island in the lake as above. Two of them were sold at Mr. Stevens's, 19 May, 1864, to Mr. Burney, and in 1854 I gave one to Mr. Borrer.]

[§ 5710. Seven.—Jcrisjärvi, 7 July, 1862.
Brought by Daniel Olsson Saari as eggs of \textit{Lappu-suorsa}. He said he found them on an island in the lake as above, that the bird was nearly black, and he thought it had a tuft on its head. It ran four or five fathoms from the nest before it began to fly. Knoblock supposed it was \textit{Meri-lintu}.

[§ 5711. Two.—Loch Shurrery, Caithness, 3 June, 1887.
From the late Mr. T. E. Buckley's Collection.\(^1\)
These are from a nest of eight, concerning which Mr. Buckley's note is as follows:—"Procured for me by Mr. Lewis Dunbar. The nest was found by the keeper in Strath Shurrery and taken by Mr. Dunbar, who saw the two old birds swimming in the loch, and the keeper told him he had put the Duck off her nest the morning previously. Mr. Dunbar cut the turf holding the nest and down, and sent it to me with the eggs. The nest was merely a hollow in long heather, lined with moss and a little down."

[§ 5712. One.—Ireland, 26 June, 1906. "H. Trevelyan."
From Major Trevelyan.
Most kindly sent to me, at the instance of Mr. Ussher, who acquainted

\(^1\) [Messrs. Harvie-Brown and Buckley state (Vert. Fauna Sutherl. Caithn. &c. pp. 194, 195) that they were informed by Dr. Joas that this species bred in Sutherland in 1877—the first time it had been known to do so in Britain, and also that it breeds not uncommonly in Caithness, a nest of six eggs together with the bird having been taken in that county in 1880, according to the information of Mr. Lewis Dunbar. They add: "There are many other records of its breeding in the county, which it is not necessary to enumerate, but its numbers are decidedly limited and it deserves special protection."—Ed.]
Major Trevelyan, the first to find this species breeding in Ireland, with my wish to possess an Irish specimen of its eggs. That gentleman published in "The Field" newspaper of 15 July, 1905 (vol. 106, page 140), the interesting particulars of his discovery. In June 1904 he saw a pair of Ducks that were new to him on one of the larger loughs in that country, and after observation came to the conclusion that they were Scoters. In May 1905, and several times afterwards, he saw a pair of the same species in the same locality, and on the 13th of June found the female on her nest, on an island under a small bush, but with no other apparent attempt at concealment, and she allowed him to have a good view of her from about three yards' distance before she flew off. There were eight eggs partly incubated. She was last seen on the nest 28 June, and two days after it was empty, except for a few bits of egg-shell. The next day he found her on the lough with five young, one of which he obtained 3 July, and, taking it, together with an egg and some of the down, to the British Museum, all were pronounced by Dr. Sharpe to belong to Oedemia nigra. These facts were reprinted by Mr. Ussher in "The Irish Naturalist" for September, 1905 (p. 190); but in addition to them Major Trevelyan stated that "on the same island there were twenty nests of the Tufted Duck, the number of eggs varying from three to (in one case) twenty-one," while other nests had as many as sixteen and eighteen.

When sending me the present egg Major Trevelyan wrote: "I found the nest on the 15th of May. It was under a birch sapling, and contained three Scoter eggs and one of the Tufted Duck. On visiting the nest on the 22nd, the Scoter rose off it, and there were then six Scoter's eggs and two Tufted Duck's. On the 24th of June she was still sitting and rose off the nest. There was certainly one egg partially broken, with a live Duckling in it, and perhaps another in a similar condition. On visiting the nest to-day (26 June), she was away, and the eggs though covered with dry grass were cold. There were in it four Scoter's eggs, one of which was rotten, one broken, one with a dead Duckling ready to emerge, the shell being broken, and one unbroken apparently with a Duckling in it, (besides) one Tufted Duck's egg broken and with a dead Duckling ready to emerge and another unbroken and partly incubated. My inference is that she had hatched out one of the young between the 24th and to-day, and left the nest with it. She was sitting for at any rate 32 days." Major Trevelyan subsequently wrote to me that the island was about 150 yards long by 75 broad, flat and stony, its vegetation consisting of coarse grass and weeds, with a few birch saplings, alders, and "sallagh" bushes—the last being Salix caprea. The water round its shores is shallow, but what seems to be its chief attraction for birds, of which several species frequent and breed upon it, is that it is not used for pastoral or agricultural purposes, and is almost under the eye of a watcher. It is also interesting to know that it is not marked on the Ordnance Map, having come into existence through the partial drainage, since that was published, of the lake in which it stands.]
EDEMIA PERSPICILLATA. — ETHYIA RUFINA.

EDEMIA PERSPICILLATA (Linnaeus).

SURF-SCOTER.

[§ 5713. One.— "Labrador." From Herr Möschler, 1862.
Received from the Moravian Missionaries.]

[§ 5714. One. — Arctic Coast, east of Anderson River, 26 June, 1863. "Parent shot." From the Smithsonian Institution, through Prof. Baird, 1866.

From Mr. MacFarlane's collection; he states (Proc. U.S. Nat. Mus. xiv. p. 423) that his remarks (tom. cit. p. 422) on the American form of Velvet-Duck (E. deglandi) are, "in almost every respect, equally applicable to the present species, the only difference noted being that generally less hay and feathers was observed in the composition of its nest, while only one contained as many as eight eggs, the usual number being from five to seven." Both species were very abundant on the sea-coast, and both seem to breed in large numbers throughout the district, "as several nests were found in the 'Barrens,' some near the Fort, a few on the Lower Anderson and in other parts of the wooded sections; these were always depressions in the ground, lined with down, feathers, and dry grasses, and placed contiguous to ponds or sheets of fresh water, frequently amid clumps of small spruce or dwarf willow, and fairly well concealed from view." The Smithsonian number is 9566. (Cf. P. Z. S. 1867, p. 167.)]

ETHYIA RUFINA (Pallas).

RED-CRESTED POCHARD.

§ 5715. One.— From M. Parzudaki, 1856.

§ 5716. One.— Zana. Algeria, 9 June, 1857. From Mr. Simpson.

There were seven eggs in this nest, which was "found by French mowers who knew the bird." Mr. Simpson [Hudleston] felt no doubt as to the authenticity of this egg. Two others from this nest were sold by Mr. Tristram at Mr. Stevens's, 9 February, 1858, to Messrs. Salmon and Shepherd.
§ 5717. One.—(Lentini, Sicily, 1854?) From Signor Luigi Benoit, through Mr. Robert Birkbeck, 1854.

Marked "Anas rufina" by Signor Benoit, from whom Mr. Birkbeck, who had made his acquaintance in Sicily in 1853, received it, with two others, late in the following summer, and gave it to me. From its small size I doubted its genuineness, but I find it to agree very well with others, and especially that to which Mr. Hudeston gave a good character (§ 5716). Signor Benoit, in his 'Ornitologia Siciliana,' published at Messina in 1840 (pp. 203, 204), wrote that though this species was common in the island at all seasons, and bred in the neighbourhood of the Lake of Lentini, where the people assured him they had taken the eggs to put under tame Ducks, he himself had not then been able to examine a nest. He, however, subsequently procured eggs, as stated on his authority in 1873 by Prof. Doderlein (Avifauna del Modenes e della Sicilia, p. 208), and this is doubtless one of them.]

§ 5718. One.—"Sarepta," Volga. From Herr Möschler, 1862.]

§ 5719. One.—South Russia. From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.]

§ 5720. Eight.—Salzec, Saxony, 1 July, 1868. "Blds." From Dr. Baldamus.

Most kindly sent to me by Dr. Baldamus, who wrote to me from Halle in Saxony, 15 August, 1868:—"Herewith you have an authentic laying of Branta rufina, taken by myself"; and offered to put together some notes from his own observation on the breeding of the species for publication in 'The Ibis,' of which I was then editor. What prevented him from carrying out his proposal I do not remember; but two years later he furnished them to the 'Journal für Ornithologie' (1870, pp. 278-281), and therein stated that he had discovered that it bred yearly on a pool, overgrown with sedge, reeds, and other water-plants, close to the Mansfeld or Eisleben Salt-lake, and had visited the place for four years in succession to observe the birds' breeding-habits. In the list he there gave of ten nests known to him he includes one on the 1st of July, 1868, with six eggs (stark bebrütet), which he especially mentions—accounting for the small number by the supposition of the first laying having been destroyed by Moor-Buzzards. But there is no notice of this nest of eight eggs taken by himself on that very day. I imagine therefore that there must be some slight mistake about the nest with six eggs, but I think there can be none about this one with eight—all carefully inscribed by him and sent to me scarcely more than six weeks from the time of their being taken. In his printed paper he says that in 1866 he counted twelve, in 1868 sixteen, and in 1869 fourteen Drakes of this species on the pool, where also Shovelers, Pochards, and White-eyed Ducks bred.]
ÆTHYIA FERINA (Linnaeus).

THE POCHARD OR DUNBIRD.

§ 5721. Two.—Wassand Mere, Yorkshire. From Mr. G. D. Rowley, 1844.

These were given to Mr. Rowley by our schoolfellow Mr. Henry Milner, who had a capital collection of eggs.

§ 5722. One.—Wassand Mere. From Mr. Henry Milner, through Mr. Graham, 1847.

Mr. Milner says he gets these eggs in great plenty from Wassand Mere, where they are strictly preserved by Mr. Constable. On looking at the map I see that Wassand is close to Hornsea, so that perhaps Hornsea Mere and Wassand Mere are the same piece of water. As it is some years since Mr. Milner gave the eggs to Mr. Rowley, it is probable that he knew of the Pochard breeding in Britain long before Mr. Bean and Mr. Tuke found the eggs near Scarborough (*vide* Hewitson’s *Eggs of British Birds,* ii. p. 371).

Mr. Milner had previously written (21 August, 1847) :—“Graham’s eggs are the Common Pochard’s, and were obtained from Hornsea Mere where they breed in the greatest abundance. The eggs which I sent to Rowley [*§ 5721*] I obtained from the same place.”

[Mr. Boyes has kindly informed me that Mr. Wolley’s conjecture as to Wassand and Hornsea Mere being different names for the same sheet of water is right—the former being the hamlet at the west end of it, and the latter the village on the east. The discovery of the breeding-place of this species near Scarborough was announced by Mr. Hewitson (*ut supra*) in 1815, and the mention therein of “June last” would seem to refer to the summer of 1844, in which year, as above stated, Mr. Wolley received eggs from Wassand, and writing from Muonioara in February 1855 to Mr. Hewitson he says that Mr. Henry Milner had eggs from that locality when “at Eton fifteen years ago,” which carries the knowledge of it back to 1840. But the Pochard had already been known for several years to breed in Norfolk, and more recently in Hertfordshire (*cf.* § 5240).]

§ 5723. Twelve.—Hornsea Mere, Yorkshire, 1850. From Mr. Henry Milner.

Mr. Milner writing, 1 April, 1849, says :—“I can get you some
eggs of the Pochard in the month of May, at which time they breed in great plenty in Hornsea Mere, as I can always get leave from Mr. Constable to purloin as much as I wish. Where shall I send them to?” In another letter he informed me that the eggs were procured, but as the keeper was somewhat slow in his movements, they might be some time in reaching me, and, in fact, it was not until I had written again, in 1850, that I received them through Mr. Milner’s kindness. They were probably eggs of 1850, and they came packed in moss, some rather putrid, about fourteen in number. I gave one to Dr. Frere. I value them highly.

[§ 5724. One.—Hornsea Mere, May, 1848. From Mr. Graham, 1851.

Bought at York of Mr. Graham, who, I had been told by Sir William Milner, could be trusted in regard to eggs of this bird.]

[§ 5725. One.—Bird Island, Hornsea Mere, 1850. From Sir William Milner, 1854.

Sent to me direct by Sir William.]

[§ 5726. Fourteen.—Hornsea Mere, 23 May, 1873. From Mr. F. Boyes.

These kindly sent to me by the hands of Mr. Buckley from Mr. Boyes as a “complete nest,” taken as above, and “identified by seeing the female shuffle out of the reeds close by the nest,” according to a paper in the handwriting of the latter gentleman, which accompanied them. He subsequently wrote to me that it was to the former that he owed his knowledge of the locality, and that though he had the sanction of the owner to look for nests, it was some time before he found one. He added that “the habit of the Pochard of nesting among the reeds in a damp muddy situation scarcely higher than the watermark is sometimes fraught with disaster, as a sudden flood submerges the nests and destroys the vitality of the eggs. On one occasion I found over a hundred eggs so wasted. Rats, too, are great egg-stealers, and possibly foxes also take toll of birds and eggs too.” But it would seem that the principal mischief is caused by visitors from a distance, for boating on the mere is permitted, and they abuse the privilege, as they “row to the island and take all the eggs they can find.” The County Council has declared the mere a protected area, “but as there is no one to enforce the Act this helps the Pochards but little.”]
§ 5727. One.—Stanford, Norfolk, 29 May, 1876. "A. N."

This nest had been found some time before my visit by the men who were cutting sedge at the upper end of the water, and close to the boarded platform that Lord Walsingham has built for duck-shooting. The water was nearly up to the crotch, so that I did not care to wade, for the sake of looking into a nest that plenty of people had before handled; but I saw the outside of it and the man go to it and take out this egg, I being not ten yards off. The men said the bird was sitting, and would return when they went away, and they seem to have been right, for Lord Walsingham afterwards wrote to me that she took off five young, leaving a rotten egg in the nest; but at the time I thought the nest was deserted, and this egg, when I came to blow it, was stale. Not very far from the same place we found an old Dunbird with a brood that looked as if they were some days old. They were close under us as we stood on the platform, and they swam across a bay of open water, and were lost in the sedge and flags on the other side. A little while after, when we were in the boat, we saw near the same place a brood and their mother, whether the same brood we had before seen I do not know. On the water were eight species of Ducks, beside a pair of Swans and their cygnets—Wild Duck, Shoveler (abundant), Wigeon (a drake only, which I think had been wounded), a pair and a half of Gadwalls, one pair of Garganey, several Tufted Ducks, many male Pochards, and some Teal,—altogether a charming and almost matchless sight, which my two companions (Lord Walsingham and Mr. Upcher) enjoyed, I am sure, as much as I did.

§ 5728. One.—Tomston, Norfolk, 30 May, 1876. "A. N."

Lord Walsingham drove Mr. Upcher and me to Tomston Water. Here we met the gamekeeper and another man. They knew of a Dunbird's nest and took us to it. We got within three yards of her without disturbing her, and then all five of us sat down for some minutes, not ten yards off, looking at the fowl, of which there were not many, on the water. This nest was on the edge of a grassy point, with a few shrubs of alder and willow about it; but we could see her distinctly and we left her unmolested. Then Lord Walsingham went to look at a little detached pool, on which was a brood of Pochards, but I did not go to it. Presently a boat was sent for, and we went across to another Pochard's nest on the east side, which had been hatched off. There was an addled egg, which I saw lying close to it. Whether one of the men had taken it out the day before and left it there, or how it got into its position, I do not know—but there it was. Afterwards we saw another brood of Pochards on the water, and a pair of Great Crested Grebes, whose nest we found with four eggs, just where the nest was in 1873 (§ 5043). We thought we saw a Gadwall, but I could not be sure of it. Then we parted company—Mr. Upcher to drive home, and Lord Walsingham and I to Stow-Belton, where, while waiting for the train, I found a colony of Rana esculenta, one of which he caught and sent to the Norwich Museum (cf. Zool. 1877, p. 61, and Trans. Norf. & Norw. Nat. Soc. ii. pp. 254-257).]
ÆTHYIA MARILA (Linnaeus).

SCAUP-DUCK.

I had not recognized the Scaup-Duck at all among the innumerable flocks and families of Water-fowl I had seen on the Torneå and Muonio rivers in 1853, but many of the natives had talked of a larger kind of Sortti (Tufted Duck) which seemed to be this bird. Soon after the ice was washed out of the river at Muonioiska last spring, I commenced an "upping" towards the mountains of the Norwegian frontier. After about a week's punting and towing we came to the headquarters of Scaup and Long-tailed Duck; the larger white wings and light back of the Drakes of the former distinguishing them at a distance from the smaller kind of Sortti I had been accustomed to see lower down the river. I had indeed occasionally met with a pair of Scaups before I got so far up, and I have since learned that an eccentric couple or two even breed near Muonioiska; but now the wider and stiller parts of the river were studded with pairs of this conspicuous bird. At the remote peasant's house called Nyimakka I examined several which had been caught on artificial floating islets, where the birds got entangled in snares as they climb up to rest and plume themselves. On a little moor at the head of a quiet reach of the river, just where a fierce torrent swept into it, I found a nest which an Ermine had lately ransacked, but the favourite little islands where they regularly breed were not yet quite free from snow. Some ten days later, when there should have been eggs upon these islands, they were mostly under water from the unusually high floods caused by the sudden melting of the snow in the mountains, and the real danger to our lives as we tossed down the rocky rapids did not allow us to think of several very promising spots. I must tell you the kind of thing. Fancy a long narrow boat high in front like a Roman galley, that it may not dive right under water in descending the falls, the sides lashed up with additional planks to keep out the great waves. Three sturdy boatmen rowing with all their might, their faces pale from the more than ordinary risk; the steersman leaning forward as he stands with one foot advanced, his brow knit, his eyes as quick as an Eagle's, whilst he feels his broad paddle, on the least touch or on the most powerful turn of which the safety of us all depends. I and my servant lad lying on the deer-skins at the bottom—used as I have been to boats—
knowing that now I am utterly helpless, biting my lips as the stones seem to whisk by like cannon-balls, with which the slightest contact would send us all to eternity; whilst the boat now turns on one side, now rears into the air, and now takes a plunge that quite lifts one's heart out of its place; amidst the rush and the roar and the foam, scarcely feeling the icy water which is washing under our backs. After one of these passages, my ears ringing in the sudden stillness, and my eyes resting on the delightful calm, our boat was drawn to the shore to be baled out, when one of the men said there was a piece of water which he knew to be the breeding-place of several birds only a hundred fathoms or so from where we were. Shoulderling Lieut. Halkett's cloak-boat, I was soon on the promised spot. A pair of Scapu-Ducks that rose as we approached above the bank was a very hopeful sign. The place was scarcely bigger than an English Duck-pond. It had some beds of bulrushes and reeds, and there were several tempting sedgy islets, each of a few feet only in circumference—some high, some low; whilst the water was shallow and well warmed by the sun, though it was now past midnight. It seemed quite a paradise for water-birds. A Red-throated Diver just shewed its neck above water at the further side, several pairs of Red-necked Phalaropes were flitting about, and an Arctic Tern was sitting on a bare islet apparently on its eggs. My cloak was soon full of air, and as I floated lightly among the rising weeds the thought of the savage yet inspiring scene I had just passed through increased the pleasure of the present. I only wanted someone who could properly appreciate it to enjoy it with me. Paddling from islet to islet I first found a Phalarope's nest on a tuft, well raised above the water, whilst the fairy-like birds were swimming in perfect confidence close to my side. Then I had to encounter a fierce attack from the pair of Terns. The Diver's eggs were on a low rushy clump, and the bird came nearer to me in my extraordinary turn-out than ever a wild Diver did before—even when it rose on the wing it soon settled in another part of the pond. At last I found the Scapu's in a little islet to itself, where there was long withered grass—the two eggs lying without any nest, and as yet without a particle of down. Another with only a single egg was found in an island to which a man waded. It was the 16th of June. In an experience of some years Matti had never known any other kind of Duck than Iso Sorttö breed in that pond, so that I have confidence in the eggs, though I did not see the bird actually leave them. They are very like Tufted Ducks', but larger.

[The foregoing was written at Muoniovara, 2 March 1855, to Mr. Hewitson]
for his use, and, with the exception of a few words, was by him printed in the third edition of his work (ii. pp. 427-429), and, being the last of the series of notes from that place communicated to him by Mr. Welley, its conclusion may also be given here.]

I hoped in this letter to have finished what I had to tell you about the Ducks, but I have been so much encouraged by your praise of my long Crane story, and by your speaking of the shortness of some others of my notes, that I have "let out" in the present instance to quite an unwarrantable extent, and given you a great deal more froth than substance, which I trust you will know how to separate from one another. In my next I expect to have something to say about the Tufted Duck and Golden-eye; but when it will be I cannot say, for my time will be a good deal taken up till I cross the mountains to meet Alfred Newton, and then there is nothing but bird-nesting. In a couple of days indeed I am starting for a deer-stalking excursion to Norway, but I hope to be back again in a fortnight, if I am not buried in the snow-drifts. Last week I returned from Bear-hunting thoroughly disgusted with my bad luck, for I wanted to have killed a Bear or two in Russia in spite of the Czar.

§ 5729. One.—From Mr. Hewitson, 1844.

§ 5730. One.—Iceland, 1846. From Mr. Graham.

The name "Scaup" upon this apparently written by Mr. H. Milner.

§ 5731. Two.—Iceland. From Mr. Proctor.

One of these was received in 1851 by me from Mr. Proctor, the other from the same by Mr. Salmon.

§ 5732. Two.—Nyimakka, 16 June, 1854. "J. W."

Found by myself in my navigation in my cloak-boat from one islet to another in the little pond before mentioned [§ 3923], very early in the morning, the water quite warm and weather delightful. No down as yet in the nest, a tuft of grass in which it was placed partly concealed the eggs. I saw pretty closely a pair of the birds in the pond, and they say that Iso Sortti [Scaup-Duck] has a nest
there every year, and never Koskelo—that is, Merganser. There are many Scaup-Ducks about, in pairs; one female I have examined. I have not seen a single pair of Tufted Ducks up here. I was taken to this pond as a breeding-place of Iso Sortti and Kaakkuri [Red-throated Diver (cf. § 5012)]. Olli found a third egg—no down.

§ 5733. Five.—Nyimakka, 1854.

All these are probably from a nest to which Matthias laid claim, and comparing them with the other eggs with which they have been mixed [by the Nyimakka lads] it appears to me pretty certain that all are Scaups—as they, or some of them, were said to be.

§ 5734. Ten.—Levi Suannun-saari, 4 July, 1855.

Iso Sortti, taken on the second Wednesday after Midsummer by Peturi on the Swedish side between here [Nyimakka] and Mukka-uma.

§ 5735. Six.—Lieppi-miervi, 1855.

Of nine specimens brought to Ludwig, 23 June, by Johan. He named them Iso Sortti, and he is a worthy man.

§ 5736. Six.—Muotkajärvi, 1855.

Out of nine, brought by Gabriel to Ludwig on the 25th of June.

[The remaining three were sold at Mr. Stevens’s, 7 March, 1856, to Messrs. Bond, Shepherd, and Sealy.]

§ 5737. Five.—Lapland, 1856.

Out of eight from Lars Joensen Keino of Kautokeino as Koskelo [Red-breasted Merganser]; but they look like Scaup-Duck’s.

§ 5738. One.—Kautokeino Eno, Norway, 1857.

Out of six, of which two were given to the Messrs. Godman. Taken and blown by Matthias Tuorimaa, who brought them to me at Kaaressuando, 26 July. He said he found them himself on
Kautokeino Eno, i.e. the Kautokeino River just over the frontier where he was fishing.

[Three more of these were sold at Mr. Stevens's, 23 February, 1858, to Messrs. Braikenridge (2) and Simpson.]

§ 5739. Tico.—Lapland, 1858.

Out of three from Nālima Petter in Kaaressuando. Brought 3 August.

[§ 5740. Three.—Iceland. From Mr. Proctor, 1847–1856.]

[§ 5741. One.—Yukon, June, 1861. From the Smithsonian Institution, through Professor Baird, 1863.

From Mr. Kennicott's spoils (cf. § 5743). Taken by Mr. James Lockhart. "Parent 27787."

[§ 5742. Four.—Hebrides, 11 June, 1906. From Mr. Norman B. Kinnear.

Mr. Harvie-Brown having heard from a quarter on which he could thoroughly depend that the Scaup-Duck had been observed in former years at a certain place in circumstances which left no doubt that it must be breeding there, kindly imparted the information to Mr. Norman B. Kinnear, who, furnished with proper authority from the proprietor, proceeded thither in company with Mr. Philip H. Bahr. Mr. Kinnear has been so good as to let me print some extracts from the journal he kept while in the Hebrides, as follows:—"9 June I cycled to Loch —— and waited there for Mr. Bahr, who came on later with the joyful news that he and the gamekeeper had found a Scaup's nest with nine eggs. They noticed that a pair of Scaups kept hanging round the island, from which they were working the camera-string while photographing some Black-headed Gulls. On searching the island they found a Duck's nest containing nine eggs; so, leaving it undisturbed, they rowed out into the loch and watched the Scaups from a distance. Presently both the birds disappeared behind the island; and, after waiting some time, as the male only reappeared on the other side of the island, they concluded that the female must have landed and gone to the nest, which they had already found. They decided to leave the loch without again disturbing the bird, and to return on Monday."

It will be observed that Mr. Bahr did not put a bird off this nest, and naturally supposed that the pair of Scaup-Ducks which he saw on the water
close by were the owners of it. He refrained from returning to it the same day, in consideration of Mr. Kinnear's absence, knowing how much the latter would like to see it and the bird belonging to it. That gentleman continues his journal thus:—

"11 June.—A most beautiful day. We went over to ——, and on the gamekeeper's joining us we went straight to the loch, and put off in the boat for the island on which the Duck's nest had been found on Saturday. Quietly approaching the island, we landed and slipped forward. Mr. Bahr with his camera, ready to take a snap-shot at the bird as she left it. When we were quite close to the nest she went off, and he got a photograph of her as she flew. Watching her with our glasses, we were surprised to see she had no white patch above her bill, and that she was much darker than a female Scaup. She flew a short distance and then alighted on the water alongside of a male Tufted Duck, and after examining her for some time we all came to the conclusion that she was nothing but a Tufted Duck. . . . All this time we saw a male Scaup on the west side of the loch, and leaving Mr. Bahr photographing on the Gulls' island, the gamekeeper and I rowed to some of the other islands, and searched them carefully. On the first two we found nothing, and on the third there was only a Shoveler's nest we had found before. Coming to the fourth, which was only about twenty feet long and ten wide, and covered with tussocks of grass, we landed and began a careful search, as it appeared to be a very likely place. We had hardly got ashore before a Duck flew off and I could clearly see that this time we had indeed found a female Scaup. She alighted on the water about thirty yards from us, and we had a splendid view of her with our glasses, seeing plainly that she was much browner than a female Tufted Duck. The gamekeeper at first seemed to be rather doubtful about her, but after again carefully looking with his glass, he acknowledged it was all right. The nest was between two tussocks of grass and contained nine eggs with a quantity of down. Leaving the nest as it was, we returned to Mr. Bahr, and after he had taken some more photographs of the Gulls and of the Tufted Duck's nest on the neighbouring island, we went back to the Scaup island. As the boat grounded the Duck flew off, and we again had a clear view of her. The eggs were this time covered with the down, so the bird must have been watching our approach and getting prepared. There were no other nests on the island, but along-side of the Scaup's the remains of an old one—probably last year's."

Mr. Kinnear was so good as to send me four of the eggs from this nest, together with the down that it contained. I must confess to having had considerable misgivings on seeing the former, as they so closely resembled Tufted Ducks' both in size and shape; but a careful examination of the latter, and comparison of it with the down of the Tufted Duck, kindly made for me by Dr. Gadow, persuaded me that it was not Tufted Duck's, while its similarity to the down of the Scaup-Duck taken by Mr. Healey Noble from a nest in Sutherland (Ann. Scott. Nat. Hist. 1899, p. 215), for a portion of which I am indebted to Mr. Harvie-Brown, is very evident. Contrary to what one would expect, the down of the Scaup-Duck is much darker—almost black—than that of the Tufted Duck, which is distinctly brown.]
ÆTHYIA AFFINIS (Eyton).

[§ 5743. Three.—Yukon, 24 June, 1861. From the Smithsonian Institution, through Professor Baird, 1863.

The accompanying note from Prof. Baird states that these were received from Mr. Kennicott, and adds "Parent shot." In the "Biographical Sketch" of that indefatigable explorer of Arctic America published in the 'Transactions of the Chicago Academy of Sciences' (i. pp. 133-226) are contained some extracts from his journals kept at Fort Yukon, where he spent the winter of 1860-1 with Mr. Lockhart, who was in charge of the station. Therein we read (p. 175):—"From the last of May till now (June 24th) Lockhart and I have been at work generally about eighteen hours out of every twenty-four. As it is light all night (indeed for a week we see the sun at midnight—by refraction, I suppose), we pay little attention to the time of day, but just work as long as we can keep awake. We start off from the fort with several Indians and canoes, and go through a series of lakes, making portages between these and the various small rivers (both lakes and rivers are very numerous), thus making a turn of fifty to one hundred miles in two or three days. We always go with at least two canoes and a party of four, and when we enter a lake one of the occupants of one canoe hunts in it through the grass at the edge of the lake where the Loons, Grebes, and Canvas-back Ducks nest, while his companion wades in the shallow water among the grass, near shore, where we get Fulix marila and F. affinis (Scaup Duck's) eggs, and sometimes a nest of Dufila acuta (Pin-tail Duck) that is near the water, or a Canvas-back Duck in shoal water. The nests are found by seeing the female rise from them. For Widgeon's eggs we hunt through the bushes and for Pin-tail Ducks, too, generally. When we find spots that seem to promise good breeding-ground ashore, we leave the canoes and hunt through the weeds and open dry spots."

It will thus be seen that these eggs were taken the very day Mr. Kennicott wrote the above passage, and it can hardly be that in writing it he had not this nest, among others, in view; but it is very much to be regretted that his complete notes have never been published.]

[§ 5744. Four.—Yukon, 26 June, 1863. From the Smithsonian Institution, through Professor Baird, 1866.

"Parent, no. 36222." From a nest of nine, taken by Mr. James Lockhart, who remained at Fort Yukon after Mr. Kennicott's departure in the spring of 1862. (Cf. P. Z. S. 1867, p. 167.)]
AETHYIA FULIGULA (Linnaeus).

TUFTED DUCK.

[Mr. Wolley unfortunately never found time to carry out the intention (expressed toward the close of that letter to Mr. Hewitson of 2 March, 1855, from which I have quoted so largely) of writing any general notes on the breeding-habits of this species, 1 a fact the more to be regretted since it was one in which he took peculiar interest, for he believed for a long while that he was the first naturalist to discover them. Herein, as he afterwards learned, he was mistaken, for Herr C. Ulr. Ekström and Herr Wilhelm von Wright had in 1832 forestalled everyone in describing the nest and eggs, the former announcing (Tidskrift för Jägare och Naturforskar, i. p. 231) that the bird bred in the lakes of Lapland and saying what its eggs were like, and the latter (tom. cit. pp. 287, 289) more precisely indicating localities where the nest had been found, as at Piteå, and near Karasjok, where he himself had taken one with eight eggs, in that year. Before 1842 Mr. Dann had told Mr. Yarrell (Brit. Birds, ed. i. iii. p. 252) of its breeding in Luleå Lappmark. J. F. Naumann, too (Naturgesch. Vögel Deutschlands, xii. p. 82), had in 1844 described his having found two nests with eggs on a lake in Mecklenburg in June 1838, and according to Dr. Baldamus (Naumnannia, 1851, Heft 2, p. 101) the Baron von Maltzan had seen three nests 12 July, 1844, on the Kracower Lake in the same duchy, two of which contained nine eggs each. But it is almost certain that no ornithologist in Britain possessed eggs laid by a perfectly free Tufted Duck until those taken by Mr. Wolley in 1853 arrived in England, for there can be no doubt that the egg obtained in Holland by Mr. Hoy and by him sent to Mr. Hewitson, who figured it in 1838 (Brit. Ool. pl. cli. fig. 3, and also in his Second Edition, pl. cii. fig. 3), was wrongly attributed to this species, as the latter subsequently concluded (ed. 3, p. 430). That the species had bred occasionally in a wild state in England there was reason to believe, but no one in this country, so far as is known to me, then had eggs of it except from birds kept more or less in captivity; though in June of the following year, 1854, a nest was found at Osberton in Nottinghamshire (Zool. p. 4440), one egg from which was given by Mr. Francis Poljambe to his uncle, Sir William Milner, as the latter informed me 15 November, 1854.]

§ 5745. Ten.—Muioniska, 26 June, 1853. "Bird shot. J. W."

These I took out of a nest near Muioniska on the Finnish side [of the river]. A boy, Moses Daniel, brought word that he had found a nest of Sortti [Tufted Duck], for which I had made enquiries.

1 [Among Mr. Wolley’s papers is the beginning of what he intended to write on the subject; but as it gives no more ornithological information than will be found under two of the following entries (§§ 5745 and 5748), it seems needless to reproduce it here.—Ed.]
It was in or by the side of a kind of open, rather swampy [place], at a few hundred yards' distance from a lake, about opposite to the falls, from which it might be a quarter of a mile or more. The nest was under a heap of old sticks; as I made a noise at the spot the bird at first would not leave it, but when at last it did, I shot it to identify the eggs. There was some rustling among the sticks before it went. Broken shells on the ground made me at first fear that the eggs were hatched, but I found there had been a nest last year of the same bird upon the identical spot. There was a kind of bed of the growing roots of willow forming a sort of dry turf, rather elevated. Upon this were laid the eggs, and round them was heaped a quantity of black down, each piece with a white centre.

§ 5746. Five.—Toras Sieppi, 23 June, 1853.

These I obtained at Toras Sieppi, on the way to Jerisjärvi from Muonioiska, yesterday (4th July). The boy who found them said they were near the rapid upon a tuft not far from the bank of the little river. They were taken on Midsummer Eve, 23 June, and were perfectly fresh laid. They were most decidedly Sortti. He saw the bird and knew it well. The nest besides, and everything made him quite sure about it. He knows of only one kind of Sortti: of that the cock is "white on the side, and black on the back"; the hen is "nearly black, a little white on the wing and a little white under." The Ducks that he knows besides are Haapana, Satka, Meri-lintu, Alle, Puna-suorsa, Jouhi-suorsa, and Koskelo—of which last there are two varieties, Hauto-Koskelo and Kari-Koskelo. The two last I cannot quite make out. He says they both breed here. Hauto-Koskelo is black on the back, a little red beneath, and lays the biggest egg. Kari-Koskelo is white beneath. (Koskelo is Merganser.) Meri-lintu, "cock black with red beak," is no doubt Scoter. Puna-suorsa "Hen has very red feathers over all the body, and very broad beak, two blackish feathers stand up at the tail of hen and it has a brilliant red head—many in spring—never saw its eggs." The boy's father adds that it "screeks like a calf." Jouhi-suorsa—"male, head yellowish, or whitish, white neck—two long feathers in tail—very long and narrow neck—Hen blacker on the whole, white under," no doubt Pintail. "Alle has long feathers in tail, breeds in mountains"—Long-tailed Duck. The father mentions an uncommon bird, Lapin-suorsa, "like Puna-suorsa but has broader beak, the
cock is extremely fine"—"only a few of them." Obs.: The boy as translated by Ludwig, and Ludwig by Herr Salomon to me.¹

One of them Lot 128 at Mr. Stevens's, 17 February, 1854, bought by Mr. Burney.

[Another, of three given to my brother and myself, was afterwards given by me to Canon Tristram, and is now in Mr. Perkin's collection.]

§ 5747. Three.—Jerisjärvi, 1853.

Obtained at one of the four houses upon the borders of the lake. They called them Sortti (Tufted Duck), and I saw many of the birds about the lake and in the river leading to it. The people appeared to have a certain knowledge of the bird, and to know the spots where it bred.

A pair of these, Lot 127, at Mr. Stevens's, 17 February, 1854, bought by Mr. Salmon.

§ 5748. Six.—Jerisjärvi, 6 July, 1853. "J. W."

These I took myself upon a small islet in Jerisjärvi. A girl, fishing, pointed out the nest. The bird left just before our boat touched land, and with my glass I watched it at a hundred yards' distance. It swam so low that I could not see the white on the wing, but the colour and everything about it assured me that it was Tufted Duck. I could see the bright yellow eye. The down was just as in the nest I took near Muonioniska [§ 5745], and the girl had

¹ [I print the foregoing passage from the Egg-book, as it serves to shew not only the kind of information with which Mr. Wolley, like all new comers in a country, had at first to put up, but also the difficulties arising from the need to use two interpreters. He had then been barely three weeks in Lapland, but his informant, who from other subsequent entries I believe was one Johan of Toras-sieppi, seems to have been a more than usually knowing and observant boy, and the mixture of truth and error in his statement is only what might be expected in the circumstances. The birds' names, being taken down by ear, are in the original spelt phonetically, and I am not sure that I have in every case rightly interpreted them. Puna šuorsa (Red Duck) seems to be given in the south of Finland to the Pochard, but Mr. Wolley never obtained any positive evidence of its occurring so far to the north; and though some eggs once brought to him may belong to it, I dare not include them in this Catalogue. The boy and his father possibly had a drake Wigeon in their mind, for that and the Pochard are in many places frequently confounded under the name of Redhead or its equivalent. In the same way Lapinsuorsa in the south of the country is the Shoveler—a species with which Mr. Wolley never met, nor could ever hear of with certainty, so far as I know.—Ed.]
previously said that the bird was Sortti. This nest was just at the
point of the islet in the midst of a clump of meadow-sweet \textit{[Spirea
ulmaria]} which quite concealed it, made principally of grass heaped
high round, but not in a mass—as yet only a little down in it.

§ 5749. \textit{Nine.}

Toras Sieppi, June, 1854.

Out of ten brought at Midsummer by the lad Johan [§ 5746].
It is seldom that the great Sortti (Scaup-Duck) breeds just about
here.

§ 5750. \textit{Two.}

Kangosjärvi, 26 June, 1854.

By Piko Heiki, who knows the bird and its habits well, and
doubtless these are Tufted Duck's, for he found them himself.
Several of them looked so blue that I laid them beside a number of
Goldeneyes' for comparison. The difference in colour was very
marked. I had thought it possible that a Goldeneye might have
laid in a Tufted Duck's nest; but I have not a shadow of doubt
about any of them. When dry and therefore faded the difference
may be less perceptible.

At Mr. Stevens's, 26 January, 1855, five of them to Messrs.
Burney (2), Gurney (2), and Walter.

§ 5751. \textit{Three.}

§ 5752. \textit{Six.}

Muonioniska, 27 June, 1854.

§ 5753. \textit{Six.}

From three nests taken the same evening. Two had been found
previously by Piko Heiki. In the first there were three cold eggs,
and he had no doubt the bird had been shot. The eggs of the
second were well covered with down. From the third the bird flew as
we passed by in the boat, and I saw it was a Tufted Duck. As I came
back I saw the pair fly near the nest, and many others of the birds
on the lakes (lompalo) and in Jerisjoki. All the nests were on little
banks, just above the water, among grass or shrubs. A day or two
afterwards, Ludwig went to the third nest, but the bird was not
cought in the snare we had left. Down pale black with a lighter
centre; a few small white feathers mixed with it.
§ 5754. *Six.*—Muonioniska, 1 July, 1854.
Out of eight brought by Soloman Hietallon.

§ 5755. *Five.*—Nälima, 1854.
By Nälima Joel. Doubtlessly Tufted Duck.

§ 5756. *Five.*—Jerisjärvi-Salmi, 1855.
Brought by Makki Calli's daughter to me 3 August. Her father found them on the promontory in Jerisjärvi.

§ 5757. *Four.*—Serkijärvi, 1855.
From Piko Heiki.

[Three more from the same nest at Mr. Stevens's, 7 March, 1856, to Messrs. Burney, Shepherd, and Wilmut.]

§ 5758. *Three.*—Ainatijoki, Mauna, 1855.
From Grape's lads. Slightly spotted with natural marking. Said to be Sortti, but what?

§ 5759. *Two.*—Marsjö, Öeland, 7 June, 1856. "J. W. and W. H. S."
Out of nine, with down, in a bed of sedge.

§ 5760. *Five.*—Muotkajärvi, 1856.
Brought to Muoniovara and blown by Ludwig.

Piko Heiki brought these on the 13th of July.

Out of six, of which one given to the Messrs. Godman. Heiki being very trustworthy and familiar with the bird, I have written its
English name on these eggs. I have also, as I intend in future to do with a few of the most trustworthy men—Ludwig, Anton, Martin Piety, and Mikel Sadio,—added his initials.


From Linkaniska in Iso Niemi, where are the hay-grounds of Ankori Niemi's people on the Serkijoki, by Piko Heiki, with the down, mixed as it is with pieces of sedge. He did not see the bird, but found the nest by the look of the dog who came back to meet him, so that he knew there was a nest. It seemed to him to be Sortti. The eggs are remarkably round and polished.

§ 5764. Three.—Muonioniska, 6 July, 1857.

By Olli Isak's lad Carl, brought on the day they were found just by the water on Kiviniemi near Antin Heiki's house in Muonioniska.

§ 5765. Five.—Puthars, Muonioniska, 8 July, 1857.

By Niemi Greta's lad Johan, who brought them 2 August. Found on the mainland side of the back stream (Puthars), where he and his brother saw the bird fly from the nest and were sure it was Sortti.

[Three were sold at Mr. Stevens's, 23 February, 1858, to Messrs. Braikenridge (2) and Marshall.]

[§ 5766. One.—Kyrö, 1862.

Brought by Mikel Matthias Kyrö, as an unknown egg found on the shore of Heinäjoki. It seems to be a dwarf of this Duck, measuring 1.12 by 1.03 inch.]

[§ 5767. Four.—Jerisjärvi, 6 July, 1862.

Out of seven, found by Carl Makki's boy on an island in the lake, and brought next day.]

[§ 5768. Two.—Elveden, 1852. “E. N.”

Out of six laid by a bird bred in the Gardens of the Zoological Society, her mate, a bird of the year, having been bought from Baker's, Beaufort Street,
in the King's Road, Chelsea. All the eggs were placed under a Bantam hen and three young reared from them. Before we had this pair we had another for several years; but they never bred. One of these eggs we gave to Mr. Wolley, and it was the first of the species he ever had.]

[§ 5769. One.—Elveden, June, 1853. "A. and E. N."
Laid by the same bird as the last.]

[§ 5770. One.—Elveden, 1853.
The produce of one of the young birds bred in 1852.]

[§ 5771. One.—Elveden, 1855. "E. N."]

[§ 5772. Four.
§ 5773. Four.
Elveden, June and July, 1856. From different nests.]

[§ 5774. Three.—"E. N."]

[§ 5775. One.—"E. N."]

[§ 5776. Six.—Elveden, 18 June, 1857. "E. N."
Out of eight. The nest, found on the 14th by my brother, was that of a bird bred at Elveden. One egg was given to Mr. A. C. Smith in 1857; another got broken.]

[§ 5777. Three.—Elveden, June, 1857. "E. N."
My brother noted that from the appearance of these eggs he was inclined to believe that they were laid by the original old bird (cf. §§ 5768, 5769). There were seven in the nest when he found it, but he unfortunately broke two. This was on the 18th of June.]

[§ 5778. One.—Stanford, Norfolk, 29 May, 1876. "Bird well seen. A. N."
After visiting the Dumbird's nest already described (§ 5727), Lord Walsingham took Mr. Upcher and me in the boat to another point on the
water. A Coot splashed out, and then a Wild Duck rose, and not a minute afterwards a Tufted Duck. She got up within fifteen yards, and flew just like a breeding bird—alighting on the water not very far off. As she passed across I saw her most distinctly, so that I could be sure of her species, as regards British Ducks. Lord Walsingham immediately got out and began to wade. After a minute he called out that he had found the nest. Then pushing the boat as near as we could, I got out of it and went to him. He had not touched the nest, and there it was with six eggs, a most beautiful sight, built among flags that were growing in the water, here perhaps only three or four inches deep, and raised pretty high. The walls of the nest were also high, and the nest therefore looked very deep—deeper perhaps than any Duck’s nest I remember to have seen before. A good deal of down in it, but the eggs not covered up, and quite hot. I felt sure they were hard sat on, and this proved to be so, as I found on blowing this one that it would have hatched in another day or so. I put a leg of the embryo in spirit. Mr. Upcher also took an egg and we came away. Both he and Lord Walsingham saw the mother as well as I did, and short of catching or shooting her no identification could be more complete. Mr. Upcher with Mr. Stevenson saw Tufted Ducks on this water last year and felt sure they were breeding; but this is the first time the nest has ever been found there or in Norfolk, and Lord Walsingham was much pleased with the achievement. He certainly shewed he was a good judge in determining the spot, from having seen the cock bird before our arrival.

[§ 5779. One.—Hebrides, 11 June, 1906. From Mr. Norman B. Kinnear.

This from the nest found, as already mentioned (§ 5742), on the 9th of June, by Mr. Philip H. Bahr, and at first believed to be that of a Scaup-Duck, was kindly given to me by Mr. Kinnear with the four eggs of the latter found, two days after, on another island in the same loch. A small portion of the down from the nest was also sent to me.]

ÆTHYIA NYROCA (Güldenstädt).

WHITE-EYED DUCK.

§ 5780. One.—Hungary. From Mrs. Carfrace, 1850.

There is no doubt that Mrs. Carfrace got this direct from Mr. A. H. Cochrane, as she told me.

[Mr. Wolley’s suspicions as to the genuineness of this egg were strong until assured by Mr. Hancock that Mr. Cochrane’s specimens might be trusted.]
§ 5781. *One.*—“Goerlitz,” 1850. From Mr. A. H. Cochrane, through Mr. Hancock, 1854.

This is marked “Taken on the Theiss in Hungary, 1850,” and was given to me by Mr. Hancock, who knows Mr. Cochrane.

§ 5782. *One.*—Haracta, Algeria, 10 June, 1857. From Mr. Simpson.

§ 5783. *One.*—Djendeli, Algeria, 24 June, 1857. From Mr. Simpson.

These appear to be the same kind of eggs as are called by Mr. Tristram White-eyed Ducks’, but neither these nor any others would Mr. Simpson [Hudleston] with certainty attribute to that species.

[Mr. Hudleston’s caution in respect of Ducks’ eggs became proverbial. In these instances, having regard to Mr. Salvin’s statements below (§§ 5785, 5787) and subsequently (Ibis, 1859, p. 364), I think it was excursive.]


[One of these was bought by Mr. Wolley at Mr. Tristram’s sale 9 February, 1858, where it was Lot 289: the other two given to my brother and myself by Mr. Tristram, according to whose note the nest was found by Mr. Simpson.]

§ 5785. *Two.*—Chemora, Algeria, 24 June, 1857. From Mr. Salvin.

Mr. Simpson [Hudleston] found this nest of seven eggs. He saw the bird leave it and was quite sure of the species. Mr. Salvin keeps four of the eggs, and the Messrs. Godman have the other one. Sometimes the eggs are more ochreous. The Wigeon was never seen by their party. This entry made at Cambridge from Mr. Salvin’s dictation, 11 November, 1857.

§ 5786. *One.*—Algeria, 1857. From Mr. Tristram.
Mr. Salvin's note is that these were out of a nest of four brought to Mr. Simpson. Of the species he wrote it is "perhaps the commonest Duck at Zana. It occurs also at Djendeli and the Chemora, and also at Guerah el Tharf. Though many of the eggs of this species were brought to us by Arabs, we could, without much danger of error, name them. The Wigeon does not occur, at least none of us ever saw it, and so conspicuous a bird could hardly have escaped us in so small a place as Zana. Of the unidentified eggs of this species I entertain no moral doubt."

Mr. Baker was very confident as to the genuineness of these eggs, which I was at first inclined to doubt, until I saw how well they agreed with others attributed with more or less probability to the species.

**COSMONETTA HISTRIONICA** (Linnaeus).

**HARLEQUIN-DUCK.**

§ 5789. *One.*—Laxá, Iceland, 1846. From Mr. Henry Milner, 1847.

This bird was only found breeding, said Mr. Milner, by the streams and rivulets, so much so that he doubts whether Mr. Atkinson could have found it by a lake. A man who had failed in rearing Harlequin-Ducks had some penned over a rapid stream, hoping thereby to succeed. This specimen was one of three taken by their (his?) own hands.

§ 5790. *One.*—Iceland, 1846. From Mr. D. Graham, of York, 1847.

Marked faintly in pencil on the upper side *Strymander*, as my specimen from Mr. Proctor [§ 5791] is in ink. Mr. Milner well remembers the Icelandic name of the Harlequin-Duck.

[This egg was evidently not taken by Mr. Milner nor his attendant, but obtained from a native. The name should have been written *Straumánd.*]
§ 5791. One.—Iceland. From Mr. Proctor, through Mr. Williamson.

Inscribed on the upper side Strymander. This egg is exactly like the other two.

§ 5792. Two.—Iceland, 1846. From Mr. D. Graham.

Marked in pencil, apparently in Mr. Milner's handwriting. One of these from the mode of blowing was probably bought from some of the Icelanders.

§ 5793. One.—Iceland. From Mr. Proctor, 1851.

Marked A. histrionica and Stromond in Icelandic writing. From what I saw at Mr. Proctor's no great reliance is to be placed on some at least of his Iceland correspondents, though he assured me that one, Herr Joensen, was very accurate. Proctor had occasionally to alter the names.

§ 5794. Six.—Iceland, 1854. From Mr. Proctor.

Seem to agree in colour and size with the eggs given to me by Mr. Henry Milner. Mr. Proctor says "these from Iceland with the birds."

[§ 5795. One.—Myvatn, Iceland, 1849. From Mr. Proctor, 1851.]

[§ 5796. Two.—Iceland. From Mr. Proctor, 1856.

Two others sent by me to Dr. Heermann, in 1861.]

[§ 5797. Two.—Overá, Iceland, 15 July, 1885. From Mr. Thomas Carter, 1903.

Brought by him when he was in the island in 1885 with Mr. H. H. Slater.]
HARELDA GLACIALIS (Linnaeus).

LONG-TAILED DUCK.

§ 5798. Two.—Iceland. From Mr. Hewitson, 1844.

§ 5799. One.—Iceland, 1846. From Mr. Henry Milner.

Mr. Milner tells me these eggs vary exceedingly in size and shape. They are very plentiful in Iceland.

§ 5800. Two.—Shetland, 1848.

Given to me with other eggs at Lerwick in 1848 by Miss Bain, marked "Caloo Duck." She was positive they were taken in Shetland on a low holm, I believe, near Papa Stour, and I have no doubt they were taken there. Mr. Dunn did not know that the bird bred in Shetland, nor did any authority I have met with. It is probably a rare occurrence. The eggs agree with Icelandic specimens. Caloo Duck is the Shetland name.\(^2\)

§ 5801. Three.—Iceland, 1851. From Mr. Proctor, 1852.

§ 5802. One.—Hunde Eiland, Greenland, 3 July, 1848. From Mr. Argent, 1852.

The name and date on a piece of paper stitched to the egg through the holes. The writing appears to be Danish. I find that Hunde

\(^2\) [Canon Tristram possessed and shewed me the manuscript catalogue of Prof. Maegillivray's Egg-collection, in his own handwriting and dated 20 June, 1849. In it was entered a specimen of *Harelda glacialis*, "Shetland. Presented by Dr. Th. Aitken"; but from no mention of it being made in the Professor's work he either doubted or overlooked it. The egg, so far as I remember, was not in the Canon's possession. Dr. Saxby (Birds of Shetland, p. 257) is said to have had eggs, taken in the islands, brought to him as those of this species, with which they agreed very closely, but his own observations forbade the belief that it breeds there. Mr. A. H. Evans (Vertebr. Fauna of Shetland, p. 139) has an egg which seems to be a Long-tailed Duck's, found with four others in July, 1887, on a "brow" above some rocks near Cunningburgh in the south of Mainland, but the captor could only describe the Duck as one which he had not found breeding before—"brown or grey-coloured, with light colour about the head."—Ed.]
Eiland is at the south channel of Disko Island in Baffin’s Bay, and appears to be one of the Whale-fish Islands. I bought this egg from Mr. Argent, who has lately received a large number of north-country birds and eggs, among them a considerable number of large Falcons—not Iceland. On one of the boxes was Steenberg’s name, I suppose of Copenhagen, who has correspondence with Færøe, so the eggs are probably from him.

[Mr. Argent was a well-known Naturalist-dealer in Oxford Street, who bore a fair character.]

§ 5803. Five.—Nierijärvi, 1854.

Out of six brought as Alle by Johan Pehrsson Jatko, a boy, dräng [servant] to Tuorimaa Olli, from the mountains, where he was at a lake fishing. Alle is Long-tailed Duck, a bird of which I saw many on my way up the river this spring, and also about Mukka-uoma; but I could not wait for their eggs. Ludwig received these from Jatko at Kaaressuando, about St. James’s day, and has since carefully kept them separate.

P.S. 14 February, 1855. The place was by Nierijärvi, about eight miles from Kaaressuando. Jatko snared the bird, and blew the eggs himself.

[The sixth egg seems to have been sold at Mr. Stevens’s, 7 March, 1851, to Mr. Shepherd.]

§ 5804. Seven.—Vievijärvi, 1855. “With bird.”

These got by Nyimakkas Olli, and sent with the head of the bird, evidently Long-tailed Duck, under the name Alle. Olli blew them out. The lake is between here and Mukka-uoma.

§ 5805. Three.—Muna-lanta, Nyimakka, 1855. “Bird seen.”

Found by Peter on his second visit to my favourite pond [§§ 3923, 3930, 5732]. While there a Golden Eagle, whose skin is before me, came and was immediately mobbed by some Kilju-hanhi [Anser erythropus], who regularly attacked him. A fine description of the same given by Peter. He saw the Alle go from its nest.
§ 5806. Three.—Kautokeino, West Finmark, 1855.

Lautomiehen Erki, a very respectable man, according to Ludwig, gave me these eleven eggs, ready blown, at Kuttainen, 31st of July. He got them by the side of a lake or enlargement of the river, where he had been fishing two miles, Swedish, beyond Kautokeino. They were out of two nests. I have just compared them with the identified eggs from Nyimakka [§ 5805] and they agree precisely. Erki was confident that they were Alle, that is Long-tailed Duck.

[Two sent by me to Dr. Heermann in 1861. I do not know what became of the rest.]

§ 5807. Four.—Henöerne, Russian Lapland, 1855.

Bought at Vadsö of young Dahl, who is just returned from Kola and the Russian coast—a few huts only built up. He called the bird by the Lapp name Hanja.

[Kola had been destroyed the year before by the allied squadrons. The Lapp name is spelt Hanga by Pastor Sommerfelt (Œfv. Vet.-Ak. Förh. 1861, p. 74).]

§ 5808. Three.—Bog Fjord, East Finmark, 1855.

[Inscribed but not entered by Mr. Wolley, and there is no note of who brought them; but they were most likely obtained at Vad ö.]

§ 5809. Three.—Lapland, 1856.

From Pehr Mattisson Bass in Palojoki, a peasant who had been fishing up the country. A boy found the eggs. Ludwig believes he spoke the truth, and the eggs seem true.

§ 5810. One.—Lapland, 1856.

[From Zacharias, of Palojoki, inscribed but not entered by Mr. Wolley.]

§ 5811. Seven.—Suokajärvi, 17 June, 1856. From Herr Sommerfelt, 1857.
608 HARELDA GLACIALIS.

§ 5812. Six.—Hätta, 24 June, 1857.

Out of seven (one being given to the Messrs. Godman) brought by Peter Pehrsson, found by himself four or five miles from Hätta, and brought carefully with a beautiful nest. He says he saw the bird and knew it well. The down is very characteristic.

§ 5813. Eight.—Kalbjok, 4 July, 1857. From Herr Sommerfelt.

§ 5814. One.—Haaselö, Kongsfjord, East Finmark, 1857.

[Three more from this nest sold at Mr. Stevens's, 23 February, 1858, to Messrs. Braikenridge (2) and Wilmot: one of the former being now in Mr. Parkin's collection.]

§ 5815. Two.—Lapland, 1858.

From a nest of seven, several of which were broken, sent with other eggs from Mukka-uoma, but the description so badly written that Knoblock could make little of it. The only ones I have this year.

[§ 5816. One.—Jar-Fjord, East Finmark, 1855.

Obtained at Vadsö by me from Herr Brodkorp.]

[§ 5817. One.—Iceland. From Mr. Proctor, 1856.]

[§ 5818. One.—Iceland. From Herr Cristian Zimsen, 1858.]

[§ 5819. One.—Greenland. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R.Y.S., 1860.]

[§ 5820. Four.—Anderson River Fort, June, 1863. From the Smithsonian Institution, through Prof. Baird, 1866.

The Smithsonian number is 9562. These also from Mr. MacFarlane, who states (Proc. U.S. Nat. Mus. xiv. p. 421) that the species breeds in great numbers near Fort Anderson, along the Anderson River, on the Barren Grounds, and the shores of the Arctic Sea, and that over one hundred nests were taken—the eggs varying from five to seven in number, and the nest
generally very similar to that of the Pintail. "From personal observation," he goes on to say, "I have come to the conclusion that the usual quantity of down necessary for a duck's nest is seldom met with before a full set of eggs has been deposited, and that the process of lining with down, which is plucked off from the body of the female, goes on simultaneously with their laying."

CLANGULA ALBEOLA (Linnæus).

BUFFEL-HEADED DUCK.

§ 5821. One.—Fort Yukon, Alaska. From the Smithsonian Institution, through Professor Baird, 1870.

The ticket shews that it was one of nine, obtained as above with the parent (no. 49868) by Mr. J. McDougal, the chief officer of the Hudson's Bay Company's post there. Mr. Dall says (Trans. Chicago Acad. Sc. i. p. 298) the bird is "not uncommon on the Yukon, where it breeds," and "abundant at the Yukon mouth, where there are no trees, except scrubby willow and alder, and probably breeds there." (Cf. Proc. Zool. Soc. 1871, p. 57.)

CLANGULA ISLANDICA (Gmelin).

BARROW'S GOLDENEYE.

§ 5822. One.—Iceland. From Mr. Hewitson, 1844.

§ 5823. One.—Iceland. From Dr. [now Sir Henry] Pitman, 1846.

§ 5824. One.—Myvatn, Iceland. From Mr. Proctor, 1851.

§ 5825. Five.—Iceland. From Mr. Proctor, 1854.

§ 5826. Three.—Myvatn, 10 July, 1862. "G. G. F."

Given to me by Mr. G. G. Fowler, of Gunton Hall, near Lowestoft, and obtained by him during his late visit to Iceland in company with Mr. Shepherd but I do not think the eggs were actually taken by either of these gentlemen.]
CLANGULA GLAUCION (Linnæus).

THE GOLDENEYE.

O. W. tab. O.

[As in the case of the Tufted Duck, already mentioned (suprà, p. 594), Mr. Wolley's expectation of supplying Mr. Hewitson with some general notes on the breeding of the Goldeneye remained unfulfilled; but among his papers there is a rough draught of what he had begun to write on the subject; and, unrevised and unfinished as it is, I think myself justified in publishing it here, for it contains information on certain points which I believe has not hitherto been made known.]

The wild wary Goldeneye seems to throw off all its unamiable qualities on its arrival in the north and to become almost a dependent on man. ....

Having no hen-roost to send to for a few eggs to make a pudding, my landlady asks her neighbours if they cannot let her have some from their tulles, and if they send any they are almost certain to be Goldencyes—exception [words illegible] only in favour of the Goosander and Smew, and these so rare that they are hardly to be taken into account.

A fogel tulle, or “tiller” as I should spell it in English, called uu in the Finnish language, is made of part of the trunk of a small hollow tree, often cleft to clear out the inside and then bound up like a barrel: a hole large enough to admit a man's hand and arm is made about two-thirds up the side, and the top and bottom are closed with turf supported by cross-bits of stick. It is then hung perpendicularly against a tree on a peg formed by lopping off a small branch, two or three inches from its origin. As the egg-season approaches a little fresh moss is put into the tulle, and sometimes the wood near the entrance is pared so as to look new, when it is said to be more attractive to the Ducks and less so to Owls. I am told that the bird always scrapes in the moss till it feels there is something more substantial at bottom, so care must be taken to have turf or some such substance below. It is better also to stuff with moss every chink, including even the peg-hole.

The depth which has been found most suitable for these egg-boxes has surprised me much. It is usually that of a man's forearm, so that the eggs can just be reached. No kind of care is taken to have the inside rough, and it is wonderful how the bird manages to get in and out, but when I had experienced [§ 5833] the sharpness
and strength of its claws the difficulty was partly though not altogether solved. The diameter of the chamber is often very small. The box must always be placed so that the hole, which may be round, square, or triangular, is conspicuous from a distance, and on no account must there be any branches that can interfere with the bird's easy access and departure. It is usually turned towards a river or lake, sometimes hanging four or five feet only above the water, oftener in a tall tree, and even on the side of a steep hill far away from the place to which the mother would have to carry her young.

A few miles from here [Muoniovara] there are five or six poor houses which constitute the kylä or hamlet of Nälima. They are scattered along a still part of the small river Utkojoki. The inhabitants have great numbers of egg-boxes, a dozen or more may be in sight at once on the banks, and many others are in the woods. At the last-erected habitation there is a Scotch fir growing between the dwelling and the cow-house, which, as usual, face one another with an interval of only a few paces. This tree, quite a unique sight in such a situation, makes the place very pretty, and the owner has resisted all the ridicule of his neighbours on its account, and even their officious essays to cut it down. On it he has hung an egg-box which is tenanted every year, though the birds have constantly to fly close over peoples' heads.

[Here unfortunately ends this paper, and it remains for me to add a few words. The practice of people in Lapland to take advantage of the Golden-eye's habit of breeding in holes of trees by setting up, for their own advantage, nest-boxes has long been known; and, as already mentioned in this work (vol. i. p. 165, note), was noted by Linnaeus during his 'Tour in Lapland' in 1732, in a passage which was reprinted by Mr. Yarrell (Brit. Birds, ed. 1, iii. p. 370) from the translation of the former's journal published by Sir James Edward Smith (i. p. 93) and has since been repeated by several other authors. This passage also shews that it is the habit of certain Owls occasionally to occupy the lodgings thus provided, of which, in the case of Tengmalm's and the Hawk-Owl, particular instances have been given (§§ 536-538, 542, 548, 558, and 560), while, as will be presently seen, the Goosander (§§ 5874, 5876, 5877, 5883) sometimes, and the Smew (§§ 5864-5867) more commonly, makes use of them. The construction of these boxes and the mode of hanging them are well enough described above; but I do not know that one of them has been figured, and accordingly I here give, in a sketch of my own (Tab. O), the likeness of one, which, so far as I remember, was set up in a tree on the bank of lake Viksi near Muoniovara; though the drawing was not intended to be the accurate representation of that or any particular nest-box, but rather to shew the general appearance. It seemed to me from those I saw—at least a score in number—that a tree standing alone, when one could be found, was 2 R 2]
preferred to one that had neighbours, and the absence of branches from the lower part is, as Mr Wolley remarked, considered essential; but for my part I think that one reason for that and for the choice of the open situation is that thereby the nest-box might more readily attract a tenant and diminish the chance of that tenant being an Owl.

Such a nest-box is called in Swedish hölk (plural hölkar) and generally throughout Finland nu; but near Muonioniska it commonly had another name, which, in the early part of his stay in the north, Mr. Wolley was accustomed to write tylyr, but in the fragment given above he uses tulle, while latterly he spelt it tylla—the form generally adopted in this work. The spelling and derivation of this word, which, so far as I know, is not included in any Finnish dictionary or admitted by any writer on Finnish ornithology, caused me much perplexity, for the term is so local in usage that some of my Scandinavian friends to whom I applied were inclined to doubt its existence. But at last, thanks to Professor Lönnerg, of the Royal Academy of Sciences of Stockholm, who has most kindly interested himself in and taken great trouble about the matter, all doubt may be said to be removed, and the word may be regarded as an adaptation of the regular, though not common, Finnish tyly, which means a roll of birch-bark used as the float of a fishing-net—a fact indicating that the first artificial nest-box occupied by the Goldeneye was a bark float, perhaps casually hung upon a tree, or at least that the first nest-boxes designedly made were rolls of bark. The tyllas are usually marked by those who set them up; but even then a dispute as to ownership sometimes arises (§ 5828). It may be convenient to add here that Knipa is the ordinary Swedish, and Sotka the Finnish name of the bird.]

§ 5827. One.—Badstuträsk, Umeå
Lappmark.

§ 5828. One.—Arjeploug, Piteå
Lappmark (?).

“Knipä” in pencil Mr. Heyworth’s writing on both eggs, and on one also “B. s,” which stands for Badstuträsk, a place in Umeå Lappmark. The other egg he thinks is from the neighbourhood of Arjeploug in Piteå Lappmark. Knipa or Knip-und is the Lapps’ [potius Swedish] name for the Goldeneye, and Mr. Heyworth at once recognized the female in Gould’s plate. It was the most abundant egg in the houses of the Lapps, and before I saw the eggs he told me of the birds breeding in boxes put up for the purpose by the natives, as mentioned by Mr. Hewitson and others. It appears from Mr. Gould that the Anas barrovi is unknown in Europe east of Iceland, so we need have no hesitation in referring these eggs with great confidence to the common Goldeneye, and they are therefore
of great interest, and are not, as I believe, to be generally met with in collections, where they are represented by Icelandic eggs.

§ 5829. *Two.*—Matarengi, 6 June, 1853.

Brought by boys and called Knipa, that is Goldeneye, and I have seen Goldeneyes on the river here.


Out of two dozen specimens, of which I myself took one from a *tyllyr,* in which there were two eggs. On the 12th of June a woman brought for sale a basketful of "Sjöfugel" eggs, of three kinds she said, Sotka, Haapusa, and Jouhi-swoarsa. Of the first, whose name Theodore [the interpreter] translated Knipa [Golden-eye], I took about the half. She was certain that there were only these three kinds, and it appeared to be as she said. One or two of the Knipa-eggs are varieties in colour, and one is particularly interesting as having a ring of spots at the large end. Another had a kind of second egg in its centre, without shell and containing "white" only. This morning (13 June) we have had a kind of omelette made of Knipa-eggs, very good, and also a dozen boiled. I have seen Golden Eyes all the way up the river.

Seven of these eggs were sold at Mr. Stevens's, 17 February, 1854, to Lord Garvagh (2), and Messrs. Bond (2), Wilmot (2), and Bridges.

§ 5831. *Two.*—Muoniovaara, 13 June, 1853. "J. W."

These I took out of a tyllyr which I afterwards found belonged to Ludwig. In the water nearest to it I saw a pair of Goldeneyes, which flew away with an anxious croaking as our boat approached. It is the tyllyr from which I took an egg previously [§ 5830].

§ 5832. *Seven.*—Muonioniska, June, 1853.

Twenty-three eggs of Knipa or Sotka from Forsström, the merchant's store, blown for me by Theodore, my Finnish interpreter, 14 June. Mostly fresh.

Six of these sold at Mr. Stevens's, 17 February, 1854, to Mr. Salmon.

[In 1861 I sent two more of these to Dr. Heermann.]
§ 5833. Five.—Nälima, 19 June, 1853. "J. W."

Of six which I found in a tyllyr. The bird was sitting upon them, and I wondered what it could be, so soft and still, when I put my hand into the depths of the box. As I took her out, her sharp claws showed me how she might manage to get in and out of her habitation. Herr Salomon has made a skin of her. The eggs had large young inside, with heads of the characteristic shape of the Goldeneye. The down of the nest was white.

§ 5834. Three.—Nälima, 19 June, 1853.

Kniipa, here called Sotka, bought with the Scoters' [§ 5885]. We saw a great number of tyllyrs about this place. Eight, at least, in sight at once.

§ 5835. Six.—Kitäkessuando, 1 July, 1853. "J. W."

In a tyllyr at this place are six eggs of Sotka according to the owner. They are a little sat upon, and deserted, so I take them. The down is white, as usual in the Goldeneye. Other Sotka-eggs we buy to eat.

§ 5836. Four.—Jerisjärvi, 1853.

Four eggs of Goldeneye at Jerisjärvi from tyllyrs. At Torassieppi, in my walk after Närki† (Sidensvans [Waxwing]), I was shown a stump in the hollow top of which was a Sotka's nest. Climbing up, perhaps sixteen feet, I found six or seven young, and an unhatched egg. The young remained perfectly still with their heads down, among the white down at the bottom, that is some two feet from the top—little black things, with stiff feathers in the tail, and three or four pairs of white spots on the upper surface, and a white throat. The old bird left the nest, scolding, as we approached, and remained in the water at no great distance off.

† [Mr. Wolley, the first summer of his being in Lapland, when he was always enquiring for the Waxwing, was induced to believe that the bird called Närki, said to have a reddish plumage and to come in bad seasons, was Ampelis garrulus. He subsequently found it to be the Jay (Garrulus glandarius), which is of irregular appearance only in the district.—Ed.]
§ 5837. *Four.*—Muoniumiska, July, 1853.

Brought to me on or about the 12th by a girl from the Finnish side. They were not just taken, I believe.


Found in Ludwig's *tylla* by the side of the lake before this house, and taken by myself. I saw the birds about very early in the morning, and in the afternoon Ludwig found the old hen on the nest. She flew up to the hole and he saw that she was *Sotka*. I took the eggs in the evening. Toisen-tallon Peck said the *tylla* was his.

§ 5839. *Four.*—Nälima, F., May, 1854.

Chosen from a large number, perhaps fifty, bought for the table, 28 May. Two of these are curiously spotted. There were no other than *Sotka*-eggs.

§ 5840. *Four.*—Songa-muotka, F., 30 May, 1854.

In a *tylla* shortly after leaving Songa-muotka—a bit of white down in the hole, shewing that it was occupied. I took the eggs, lying in down and moss.

Another sold at Mr. Stevens's, 26 January, 1855, to Mr. Gurney.


In a *tylla* from which I saw the bird fly just as the bow of the boat was in a line with the tree. My eye was fixed on the *tylla*, and I had a perfect view of the bird. I took them out with the white down and moss in which they lay, and then it is said the bird will sometimes lay again. The *tyllas* are mostly known by their marks, and I paid the owner at Saivo-muotka where he was known to be.

§ 5842. *Seven.*—Palojoki, S., 30 May, 1854. "J. W."

I saw the bird flutter out, just as the boat had passed, and I saw well that it was a Goldeneye. I lifted the *tylla* from its peg to the ground, as is usually done when they are within reach. The eggs
were lying in white down. As usual, I marked them with pencil. The tylla marked "J. E."—the innkeeper's son at Palojoki,—though it was placed on the Swedish side of the river some little way down stream.

§ 5843. Nine.—Palojoki, S., 30 May, 1854.

Three were cold, but a bit of down in the entrance shewed that the place was occupied. The tylla was handed to me in the boat, as I was too lazy to get up. White down as usual. The mark "P" shewed whose it was. Mem. to pay him on my return.

§ 5844. Two.—Kätkässuando, F., 30 May, 1854.

Out of eight taken by myself from a tylla by the river side, a bit of down in the hole shewing it was occupied. Belonging to the the gåstgiveregård [inn].

Three sold at Mr. Stevens's, 26 January, 1855, to Mr. Walter, and one 7 March, 1856, to Mr. Shepherd.

§ 5845. Two.—Karajoki, 3 June, 1854. "J. W. ipse."

Returning to the prästgård [parsonage] very early in the morning of this day I kept my eye on this tylla in which I knew there were eggs. I had previously seen a cock Goldeneye flying near. When I was some sixty yards from the nest, up popped the hen into the hole and sat there with feet widely straddled. I examined her carefully with my glass—her brown head, white eye, grey back and gorge, white belly—and she gave me plenty of time before she flew. The eggs were nearly cold: scarcely any down yet in the tylla. The bird flew down to the water, a hundred and fifty yards off. The tree on which the box was hung, a Scotch fir, at the end of a promontory on high ground—in fact the sand and gravel ridge to the west of the lake.

Two bought at Mr. Stevens's, 26 January, 1854, by Mr. Milner.

§ 5846. Seven.—Viksi, 31 May, 1854.

Found by Ludwig in my own tylla close to the water, one fathom above it.
§ 5847. Five.—Karessuando, 1854.

Out of twenty, all more or less blown except three. One has very remarkable tracings at the larger end of what I suppose to be natural markings. I have seen something like it in other Ducks' eggs.

§ 5848. One.—Markina, 3 June, 1854.

Remarkably small, but I found one only half its length in a Sotka's nest, and undoubtedly laid by that bird. The other two in the nest were of the usual size.

[It measures 1:96 by 1:33 inch.]

§ 5849. Eleven.—Lake Enara, 14 June, 1855. "Bird caught."

There were fifteen in this tylla. A Lapp whom I set to work to find eggs brought me these with their mother, which he had killed on the nest, according to the custom of the district. He gave as a reason that it made no difference in the numbers.

§ 5850. One.—Kuttainen, 1855.

A dwarf egg found by Jatko's Johan in a tylla with others.

[It measures 1:33 by 1:23 inch.]

§ 5851. Four.—Muonioniska, 1855.

I chose these as fine-coloured eggs from some dozens of eggs in Forsström's store—given up with reluctance by the old grandmother.

[Three more were sold at Mr. Stevens's, 7 March, 1856, to Messrs. Sealy, Thurnall, and Troughton.]

§ 5852. Ten.—Junki-rowa, 3 June, 1857.

These (fourteen) Golden-eye's in a dead pine trunk in Junki-rowa on the slope of Ollas-tunturi, a quarter of a mile Swedish from any lake or river, Kalki-muka being the nearest. It was in a Palokärki [Black Woodpecker]'s hole (kärriän räkasi) and they saw down in the hole. The bird did not leave when the tree was struck by an
axe, and as the place was a fathom and a half high Heiki raised a piece of wood against the trunk, and drew it out by the neck. Both he and Johan had it in their hands, examined it, and then let it fly. On blowing it appears that three of them were last year's eggs.

§ 5853. Ten.—Puthars, Muonioniska, 9 June, 1857.

Brought on the 11th by Antis Abraham's son, from a tylla by Puthars side.

§ 5854. One.—Kyrö, 1857.

Of the dwarf kind [1·22 by 1·03 inch] sometimes called Ungilo [Smew], an abortive egg.

§ 5855. Four.—Muoniovaara, 2 June, 1858.

Knoblock writes:—"To-day Anton brought four Sotka-eggs taken out of one of Mr. Wolley's own tyllas on the hill here. There should have been eight, but the bottom of the tylla came out and so two were broken, and he left three behind. Anton has examined all Mr. Wolley's tyllas, but taken nothing more."

§ 5856. Nine.—Serkijärvi, June, 1858.

Ten eggs of Sotka brought to Knoblock on the 7th by Piko Heiki, found by him in an old hole of Picus martius three fathoms and a half from the ground, about half a Swedish mile from Serkijärvi.

[The tenth egg I gave to Mr. Robert Harvey in 1862.]

§ 5857. Five.—Kaakkurijärvi-maa, 1, 2 June, 1858.

Out of thirty taken as above by Maria Muotkajärvi out of her own tyllas, and brought by her to Knoblock, on the 8th.

[One of these given by Mr. Wolley to Mr. Tristram passed at the Crowley sale to Dr. Ticehurst.]

§ 5858. Seven.—Karessuando, 1858.

From Nälima Peter in Karessuando.
§ 5859. Nine.—Lapland, 8, 9 June, 1859.

From two nests mixed together found by Piko Heiki at Jua-rowa and Jankijärvi-maa, brought on the 13th.

[§ 5860. Six.—Niva, June, 1862.

Out of sixteen, all from one nest in an uu near his house, brought by Isak Niva, 2 June. A seventh sold at Mr. Stevens’s, 19 May, 1864, to Mr. Rake.]

[§ 5861. Two.—Iso-saari, Upper Muonio, 16 June, 1868.

Sent to me by Knoblock as having been found with a third Goldeneye’s egg in a nest which contained six Smew’s (§ 5865). They were brought to him by Isak Aronssen Porainen.]

MERGUS ALBELLUS.

§ 5862. Four.—Madekoski, Liesen-joki, Kemi Lapmark, 8 June, 1857.

[The entries in the Egg-book of these specimens are so brief that to print them as they stand would fail to tell the story, without the interpolation of much comment and explanation. But fortunately the whole story was told by Mr. Wolley himself in the first number of ‘The Ibis’ for January 1859 (pp. 69–76). I therefore reproduce it here entire, for no abstract could do it justice, and it needs no further preface.]

The first year I was in Lapland, 1853, it was important for me to find out the native, that is, the Finnish, names for the birds of the country. Of the ducks generally I soon learned to understand to which species each name referred; but there was one called Ungilo 1, concerning which I was for a long time in the dark. It was described as breeding in holes of trees, or in tyllas, that is, nest-boxes. It was

1 [Neither Ungilo nor Uinilo—the form, as will immediately be seen, used in the Sodankyla district—is recognized as a bird’s name by Lounrot in his great ‘Finskt-Svenskt Lexicon’; but he has (ii. p. 808) Uivelö as that of Mergus albellus. Uinelo he renders (ii. p. 805, under Uinella) by the Swedish slummer, dröm, svärmeri—that is, slumber, dream, reverie. Prof. Palmén (Finska Foglar, ii. p. 541) prints the name Uivelö, and that is most likely right. Knoblock in writing indulged, as was his wont, in several variants, Ojnello, Ongellö among them, of which I take no account further on, keeping the Muonio-valley form Ungilo as written by Mr. Wolley.—Ed.]
a smaller bird than the *Sotka* (Golden Eye), but was able to turn that bird out of its hole, if it wanted it for itself; though some accounts told the reverse story. It had formerly been found not unfrequently on the Muonio River, and especially on the lakes through which the little Jeris-joki runs. On the former river, a little above the inlet of the Palo-joki, there is even an islet called after it, Ungilon-saari, on which, though there are still tyllas, the bird has not been known for a good many years. In the course of time I learned that the bird had a beak like a *Koskilo* (Merganser), and the colours of the male were described to me in a way that left no doubt it was the Smew. Still it required some selection of evidence to hold this opinion firmly; for instance, a woman talking to me imitated the cry of the bird, in doing which she used the syllables "u-u-ungel" with the music of the spring call of the Long-tailed Duck, and by her subsequent description clearly showed that that was the bird she meant, though it is usually known by quite another name, identical with, and perhaps borrowed from, the Swedish, *Alle*. This suggested to me that the name *Ungilo* may have been originally applied to the Long-tailed Duck, inasmuch as we find, in Ström's "Description of Sandmör,"¹ that the Long-tailed Duck is called *Angle-mager* (Hook-maker) on parts of the Norwegian coast, doubtless from its cry connected with the time of its appearance when the sea-fishing begins *. 

Nothing is more common than one and the same name being applied to different birds in different districts. Even this very name *Ungilo* is used for the Goosander in certain places on the Upper Torneå River.

Concerning the egg of *Ungilo* I made every inquiry. All the people who remembered it on the Muonio agreed that it was much less than the Golden Eye's, and was liable to be found in the same hole with eggs of that bird. As a consequence of this popular belief, I often had dwarf eggs of *Sotka* brought to me for *Ungilo*'s. From one trustworthy man, Piko Ilaki [Heiki], I heard that some ten years before he had found a nest and taken the eggs on sale for

¹ [Physisk og Oeconomisk Beskrivelse over Fogderiet Söndmör (i. p. 221). Sorøe: 1762.—Ed.]

* The Finnish names of things are often nearly related, as the language generally is, to the Lappish. For northern productions it is likely that the Finns, the later comers, would often borrow from the Lapps. The Lapps call the Long-tailed Duck "Hanghi," a name probably formed from the ear [qu. cry ?].
eating to a resident trader, who had asked him where he had got Hens' eggs. Now Hens' eggs are unknown in the interior of the country, where I was; but at Uleåborg, where the trader had been familiar with them, they are about of the size of our Bantam's eggs. This gave me the best indication I had yet met with of the probable appearance of the egg, and I told my servant-lad Ludwig in confidence that, when we at length should get Ungilo's eggs, they would be very like Wigeon's, though probably more white. Of course this was not to be talked of, as it might lead to attempts at imposition. It is possible that the small comparative size of the Ungilo's eggs, and the habit of the bird turning out the Golden Eye, had made it little liked by the people, and that they used to catch it on its eggs and kill it, as they do Hawk-Owls and Tengmalm's Owls.

However that may be, year after year passed by, and I never once, out of the tens of thousands of duck-like birds that came under my notice, caught sight of a Smew. In time I came to hear from people who came from the Sodankyla district, a good way to the east of Muonioiska, that Uinilo, as it was there called, bred at more than one lake in that neighbourhood. In 1856 I sent a very clever Lap, Martin Pekka, to this quarter for the egg-season, but he could not meet with Uinilo.

In 1857 the clergyman of Muonioiska, Priest Liljeblad, had been transferred to Sodankyla; and in the spring of this year, an intelligent young man, Carl Leppajervi, went from Muonioiska to be assistant-schoolmaster with his former teacher. I gave Carl strict charge to make every inquiry for Uinilo in that part of the world and of travellers from Kemi Trask. One day (the 30th July 1857), as I passed by the homestead of Regina's Calle, the famous steerer of the Muonio Falls, there was given to me a wooden box, such as is used in the country for carrying butter on a journey, addressed "To the English gentleman Joh Woleg in Muoniovaara." This box was not tied nor secured in any way; and on the lid being opened there first appeared a well-written Finnish letter, of parts of which the following is an exact translation:

"Matthias Lakso of Made-ko-ki-kyla, on the Kitinen-joki, five miles (Swedish) from Sodankyla, has found on the Liesi-joki eggs of Uinilo, and has brought to me three eggs, on which is written a number like this." [Here follows a facsimile of the figure 1 on the eggs. It appears from Hermelin's map that the Kitinen-joki, of which the Liesi is doubtless a tributary, runs into the Kemi-joki a
little north of Sodankyla. [Hermelin's map, to which Mr. Wolley (who was never in the district) refers, is very old (1790), and the courses and names of the rivers thereon laid down do not agree with what is shown of them in modern maps. The river on which Sodankyla stands is the Kittinen, and its union with the Keni is some way below and to the east of that place. Doubtless, as Mr. Wolley remarks, the Liesi runs into the Kittinen, but among the many tributaries of the latter I do not see one so named on the Finnish Government map, and I therefore suppose the Liesi to be an inconsiderable stream.—Ed.]

"They were found on the 8th day of the Summer-month (June) 1857. Of an old birch trunk the wood was rotted away, and it was left hollow, forming a hole in which they were." [The expression used involves the idea of the trunk being still standing.] "There were two men in company, and the other man has given four eggs to the priest: there were seven of them; but there was no down brought. * * * * The Uinilo was also killed, and with the eggs it too is sent.—Carl Leppäjervi. First day of the Hay-mouth (July) 1857. And the priest will send the four Uinilo's eggs, if you send him four eggs of Kuukii" (Garrulus infaustus). "This Uinilo was taken to the priest, and he wants for it 20 copecks."

The next, or probably the first thing in the box that struck my eye was a stiff-necked skin of a female Smew, with hatching spots on its under side; then I came to five or six much-injured eggs of Greenshank and other birds; and lastly, at the bottom of all, well wrapped in tow, were the three Smew's, blown each with two holes, which I afterwards found it safe to round off with a drill. The eggs rather staggered me at first sight, they were so like Wigeon's. From time to time I held consultations over them. On comparing them with a series of something like fifty Wigeon's eggs, I found that they were pretty nearly of the same size, though rather below the average. They were flattened at the small end more than any of the Wigeon's, and they had less of the yellowish tinge about them, so that persons not much used to eggs could pick them out of the lot; but all these peculiarities might be accidental, though it seemed remarkable that any woodsman trying to pass off Wigeon's eggs for Smew's should have been able to find so abnormal a nest. But it was not very long before I satisfied myself that there was a decided difference of texture. This could be perceived on an ordinary examination; but it became very striking on exposing the egg to direct sunshine and examining the penumbra, or space between full light and full shadow, with a magnifying glass—the sharp "mountainous"
structure of the Wigeon’s egg was strongly contrasted with the lower and more rounded character of the elevations in the Smew’s. It is my intention to endeavour to illustrate this with the help of photography. Further, I tried the sense of touch: scratching the egg with the most sensitive of my finger-nails I could at once perceive the greater roughness of the Wigeon’s. Ludwig, though his hand was by no means of the finest, did not make a single mistake in some ten trials with his eyes shut of various Wigeon’s eggs and the supposed Smew’s, and one or two other people were equally successful. I now felt no doubt that I had true eggs of the Smew. The ivory-like texture of the Goosander’s egg was a pretty parallel to the character of the Smew’s.

In the meantime, on August 4th, I sent a letter to Pastor Liljeblad, accompanied by a box with four beautiful eggs of the Siberian Jay, packed as eggs should be packed, and enclosing money, amongst other uses to pay for a thoroughly trustworthy man to travel to Made-koski-kyla, to inquire into the particulars of the capture of the Smew and its eggs, to himself visit the birch trunk, and to bring away the down which would be lying at the bottom of the hole. I also wrote to Carl Leppajervi. In a month after I wrote, I hoped an answer might arrive; but I was disappointed, and I was obliged to leave Muoniovaara for England on the 11th of September. I had not been very long in England when I received a letter enclosing communications from Pastor Liljeblad and from Carl Leppajervi, which had arrived at Muoniovaara on the 16th of September, and also enclosing a specimen of the down, which my agent [Knoblock senior] had picked out of the heap of touch-wood sent with the letters from Sodankayla.

The priest told me in Swedish that he had asked me for the eggs of the Siberian Jay, only because he had for many years promised a friend in the South to do his best to procure them, and that the only chance left for him was to get them of me—he had been so many times willfully deceived by the country people; that he now sent me the four Uinilo’s eggs, which had been brought to him. He added, in answer to a question of mine, “I think that the men who came with them, if not exactly of the best-behaved sort, are at least so far to be trusted that they brought the true ones. Kalle [Karl] went at once to Made-koski.” Kalle’s letter said in Finnish, “I have been to Made-koski for the Uinilo’s down, but there was not much of it there. The birch stump was open at the top, and who knows but the wind may have carried some of the down away? Matthias
Lakso took away a little from what I have sent, to see if he could make out himself that it was Uinilo's. That Uinilo was caught actually from the top of those eggs; indeed it is true. * * * * I saw that in that birch stump there had at some other time been eggs, for there were old pieces of egg-shell. Written 29th of Harvest-month (August) 1857.—Karl Leppäjervi."

I was told by my man in Lapland that these four eggs had been blown with only one hole, sufficiently well made, but that a great part of the yolk had been left inside. They were also stained outside; but he had cleaned them out, rounded the holes with a drill, and made a good job of them. The down sent to me I found to agree generally with that on the body of the female Smew; but I did not make a careful examination, and I have not yet made it.

At the end of October 1858 I received these other four eggs. I found that the character which I had previously observed, but which I had originally seen on only one of the first three, was common to all the other four, namely that shown by the presence of a thin calcareous covering outside the egg-shell proper, apparently of the same nature as that which is so conspicuous in the egg of the common tame Swan. Some attempts had been made in Sodankylä, as my man told me, to scrape this off.

The following are the dimensions in two directions, with some description, of four eggs which are now before me, picked out of the six which remain in my possession out of the nest of seven:—

| 1st egg | Greatest length | 2·04 inches | Greatest breadth | 1·52 inch |
| 2nd egg | 2·05           | "           | 1·47           |
| 3rd egg | 2·04           | "           | 1·43           |
| 4th egg | 2·04           | "           | 1·42           |

Of the first egg, the widest part is exactly halfway down; but in one direction the inferior fulness of the curve points out which is the small end of the egg; though, were there cut out of the middle of each end a piece of the shell bounded by a circle of a quarter of an inch in radius, I think, as the pieces lay upon a level surface, the piece from the small end of the egg would be found less elevated than the other piece. In other words, the small end of the egg is even more flattened than the large end, though the flattened area there is not so extensive as that of the large end.

Of the second egg, the conjugate diameter is nearer to the large end than it is to the small end, the proportion of the distances being
as 9 to 10. The curve towards the small end is less suddenly changed than in the egg last described, though still the present egg is very broad at the small end.

The third egg is equally flat at the small end with the second; but it is rather less curved from the broadest part to the commencement of this flat end.

The fourth is still narrower than the last, before the flatness of the small end commences.

I have previously alluded to the texture and the colour of these eggs.

I have seen a MS. list of birds from the German naturalist Herr Hoffinansegg, then resident in Archangel, from which it appears that *Mergus albellus* occurs in that neighbourhood, which is considerably more southerly than Muonioniska, or Sodankyla. As I did not hear of it on the north or north-east coast of Norway, and as it is not known to breed in Sweden, I should be inclined to suppose it generally an eastern and northern bird.

It is worthy of note that the very pale colour of the down of the Smew seems to be connected with its choosing holes for breeding. No bird of the duck kind that has white down, so far as I know, places its eggs in an exposed situation.

The Goosander, Golden Eye, Sheldrake, birds differing much from one another, have all white down, and all lay their eggs in holes of trees when such are to be found, whilst one of them at least has well-coloured eggs.

Beeston, Nottingham, December 20, 1558 [1858].

[One of the seven eggs was sold at Mr. Stevens's 23 February, 1858, to Sir W. Milner, a second 8 March, 1859, to Canon Tristram, and a third 31 May, 1860, to Mr. Troughton.]

§ 5863. *Four.*—Sodankyla, 1858.

Received by Knoblock on the 18th of August by the post from Pastor Liljeblad in Sodankyla, having been found by Johan Olloskoluvaa in a tree-stub. The pastor says that the man is honest, and that one can always rely on his word.

[These eggs did not reach England till the autumn of 1859, when Mr. Wolley was already seriously ill, and I doubt whether he ever saw them, though Knoblock had doubtless written to him about them. One of them was sold at Mr. Stevens's, 31 May, 1860, to Mr. Powys.]
§ 5864. *Four.* — Koskimaasu, Muonioniska, 24 May, 1868.

Knoblock wrote of these that they were brought to him with the down 7 June, 1868, by Carl Abrahamsson Nollenjärvi, who said they were *Ungilo* eggs and down, and further that he and his workman, Johan Enontekkis, had gone on the morning of the 24th of May by boat to Koskimaasu to see whether there were fish in a net which they had set some days before. Near the place was a birch-tree in which about ten years before a hälka [nest box] had been hung to get *Sortka* (Goldeneyes') eggs, and out of it, as they came near, there flew a bird, which Johan declared to be *Ungilo*, saying that he had seen it before and knew it. They took the eggs, which they knew were valuable, with the down. In consequence of the high flood, the birch stood in water, and the bottom of the hälka was not more than two ells from its surface. Koskimaasu is about half a mile (Swedish) to the north of Muonioniska on the Finnish side. Knoblock himself afterwards went to the place to examine the nest, and took from it the small quantity of down that had been left in it, which was of the same sort as that which was brought with the eggs, and a little tuft of it was left on the bark of the birch near the hole in the hälka.

§ 5865. *Four.*—Iso-saari, Muonioniska, 16 June, 1868.

Of these Knoblock wrote that on the 23rd of June Isak Aronssen Porainen came from Upper Nuonio village with six *Ungilo* and three *Sortka* eggs which he had found on the 16th, in a hälka (nest-box) on Iso saari, the big island in the river. The *Sortka* eggs were laid in the middle and the others round them. Knoblock asked for the down, but Isak said there was next to none in the nest. On the 2nd of July, Knoblock went to Upper Nuonio, and took Isak with him to the island to examine the nest. The hälka hung on a spruce about four ells from the ground and was laid with moss at the bottom. This he took and plucked from it some down and feathers which he sent to me. Isak had not seen the bird, when he took the eggs. He is known as an honest man, and says he will willingly take oath that all was as he said.

One of these eggs I gave to Mr. T. E. Buckley. Knoblock sent only two of the Goldeneyes' found with them (cf. § 5861).]


Knoblock wrote of these that they were brought to Muoniovara on the 28th by Johan Nilsson, who said that he had been on the 25th to Kuusen-vuopio-perä, rather more than a mile to the north of Muoniovara on the Swedish side, where there was a hälka hung up in a Scotch fir. When he came near, there came out of it a bird unknown to him. He did not see it very close, but only that it was white on the belly. He examined the hälka and took from it five eggs with the down, which he brought to Knoblock.]

Knoblock wrote that these nine eggs were sent to him from Kittila on the 28th June by the postman, with the message that they were *Ungilo's* and found in a hālka. He sent word back that whoever they belonged to should send him the down, and if possible that whoever had found the nest should come to see him. After two weeks the postman brought the down and said that the eggs were found by Abraham Petala and Herman Abrahamsson Olle, both of Kittila village. Knoblock again sent word as before, adding that they should be paid accordingly. On the 18th of July Herman came to Muoniovara and reported that on the 25th of June as he and Abraham were going along the bank of the Kittila river, about a quarter of a mile south of the village, they saw a bird some distance off come out of a hālka which Abraham had the year before hung up. Herman did not know the bird, but Abraham immediately exclaimed that it was not a *Sotka*, but *Ungilo* which laid valuable eggs, and they should send them to Muoniovara. They found there were nine eggs, which they blew out, and then sent them by the postman. Abraham climbed up the tree and took the eggs while Herman stood below, and he says that he saw immediately that it was a strange fowl, for he knows all the common birds that are about. Knoblock noticed that the down sent was of two kinds, and this turned out to be the case, for there being very little with the eggs, one of the boys went to another nest-box for more, which drew from Knoblock a caution. But the boys were very young—neither of them being fifteen.]


Found as above by Johan Matthias Wolus about a mile north of the Upper village, in an old rotten Scotch-fir stub about four ells and a half high, the nest being in a hole, which seemed as if it had been hewn out by *Picea martius*, about half an ell from the upper end of the stub. Johan saw the bird, but at too great a distance to see what it was. Knoblock wrote that he had spoken to a sure man who saw Johan take the eggs out of this stub.]


Found as above by the same man as the last, on the south side of the hill, in an old spruce stub, about three ells and a half high. The nest was at the top, which was rotten and hollowed out like a bowl. He saw no bird, and he was alone when he took the eggs, and a little down which he brought to Knoblock, saying that there was yet more down, but it was so deep in the hole that it was hard to get, and having no axe with him he could not cut down the tree.]
MERGUS CUCULLATUS, Linnaeus.

[§ 5870. Three.—Sainte Croix River, New Brunswick, 15 June, 1865. From Mr. Dresser, 1866.

Kindly given to me by Mr. Dresser, who received them from Mr. G. A. Boardman, of Milltown, St. Stephen, in New Brunswick, the first person, I believe, to obtain eggs of this species, for in writing to Mr. Dresser he stated that on the 20th of May, 1864, he took a nest from a hollow tree on the above-named river. This contained six eggs, of which he broke four on descending the tree, and the old bird was caught on the nest. The next year he wrote that he had "been up again after the same bird, and found her in another hole near by; but we were a little early. The man caught the bird, and so frightened her that she did not lay out her litter. She had only five eggs and did not come back, so for fear of losing them I had them taken. They are very fine. I never drilled so hard an egg. The nest was about a pintful of down. I have not told any one about the eggs as so few collectors have them." (Cf. Proc. Zool. Soc. 1867, p. 167.)]

[§ 5871. Two.—North America. From Mr. Henry Buckley, 1870.

Sent to me, in February 1870, on the eve of Mr. Buckley's departure for America, where he had been before, and he never told me their history, which his death, in May 1903, has now made irrecoverable. They agree in every respect with those obtained by Mr. Boardman (§ 5870), from whom they may have been received, and I do not doubt their being genuine.]

MERGUS MERGANSER, Linnaeus.
GOOSANDER.

§ 5872. One.—Myvatn, Iceland, June, 1843. From Mr. Proctor, 1844.

§ 5873. Two.—Jerisjärvi, 1854.

Brought to me by Niemi's lad Johan, found by himself at Jerisjärvi in a nest on the ground a little after midsummer. He was sure they were Uu-Koskelo [Goosander]'s eggs, as the bird which flew off looked different from and cried unlike the common Koskelo.
P.S. The boy now here says it was eight or ten paces from the water’s edge, on an island, in a hole half an ell deep, made by the bird. The branches of a birch-tree concealed it. He is sure it was Uu-Koskelo.

§ 5874. Seven.—Serkijärvi, 1854.

Hewitson, ‘Eggs of British Birds,’ ed. 3, pl. cxix. fig. 3.

Brought at midsummer by Vassara’s lads—large young inside. I have no doubt they are Goosanders’. They were found in a tylla [nest-box], say the lads, and I have not known them lie at all about the rare eggs they have brought me.

[One figured as above by Mr. Hewitson.]

§ 5875. One.—Sallanki, 1854.

Said to be Uu-Koskelo by Sallanki Johan, a great rascal. The man’s word is [worth] nothing. A foot of Goosander sent by him would prove nothing. As it is he has sent a foot of a female Red-breasted Merganser; but it is not at all necessary to suppose that there was any connexion between the foot and the eggs. He told me at Kyrö, on the 28th of November, that the eggs was Uu-Koskelo’s.

P.S. March, 1855. Johan has again mentioned this egg of Uu-Koskelo. I have little doubt it is correct. I have ascertained at Pulu that a nest of Ungelo [Smew] was taken at Sallanki last year, and that it has often bred there, as Sallanki had told me before. He says he once caught a hen on the nest. It is like a little Koskelo; the cock’s head like Tirra, that is Tern: eggs, white.

§ 5876. Six.—Modas-lompalo, 1855.

Brought by Modas Olli to Ludwig on the 24th of June. He said his brother Peter had found them in a tylla, and that they were Uu-Koskelo’s. They are very respectable men, and Ludwig fully believes them, independently of the appearance of the eggs, which are glossy white, or yellowish-white, but rather smaller than one would expect a Goosander’s egg to be.

§ 5877. Six.—Muotkajärvi, May, 1855.

Out of seven which appear to be Goosander’s, as they were said to be by the girl who brought them—sister of Gabriel, and daughter
of Muotkajärvi Elias (an honest man)—on the 10th of June. She said she had taken them from a *tylla* so long before, that she could not remember exactly when. She was afraid they would be spoilt by keeping, so she blew them out at the ends, as she had been recommended to do by the Pulojoki people. The time of year is in favour of the eggs being Goosander's, and Ludwig has no doubt the girl spoke the truth when she said she took them from a *tylla*.

§ 5878. *Five.—Warsnäs, Kalmar Län, 29 April, 1856.*

"J. W."

Four eggs taken and brought down by myself this day out of the old oak in which they were laid. There were nine eggs, of which Mr. Simpson [Hudleston] has five. A peasant, living on the neck of the promontory which is four or five miles north of Kalmar, went with us to look for nests, and he climbed up into many fine old oaks, where he had known the bird to breed in previous years. At last, as we were looking up at a large tree, two birds flew over which I did not see distinctly, but which I took to be Goosanders, though the man said they were *And [Wild Duck], Skracka* being the name for Goosander. Mr. Simpson, who saw them better than I did, is sure that they were larger than Wild Ducks, and that the breast of the male was altogether white. We saw a bit of down at the top of the tree, where it had been broken off, and the man said there should be eggs. Mr. Simpson climbed up first, and there, sure enough, he called out breathlessly, were eggs. He held one up, but at the distance both the man and I thought it was a Wild Duck's. The man climbed up to help bring them down, and I followed him to see them *in situ*. They lay, among pure white down, mixed with white feathers, and brown fragments of decayed oak and oak-leaves, at the bottom of the hollow top of the tree, not more than two feet deep, and exposed to the weather. A large lump of the decayed wood fell upon them without breaking any. I brought down in my cap the four I have kept. The man brought down four and Mr. Simpson one. That they were *Skracka* our guide now considered perfectly certain. Most of them were stained by the decayed fragments of wood.

This same day we saw some Wild Ducks' eggs that had been taken in a marsh and sucked by children, also a colony of Fieldfares, with a nearly finished nest. Two days ago we saw a half-finished Chaffinch's at Kalmar—Wood anemone, *Gagea lutea* and *Hepatica*
in flower. The day stormy, and very cold. Goosanders are shot even at this time of the year at Warsnäs, by Kalmar sportsmen, with the aid of wooden decoy birds. It is a beautiful spot, where magnificent oaks grow among firs and other trees, while junipers attain even to twenty feet.

[A fifth egg from this nest was given to us by Mr. Hudleston on his return home.]

§ 5879. Three.—Warsnäs, 17 May, 1856.

§ 5880. Five.—Warsnäs, 1856.

[These eggs were not entered by Mr. Wolley, but are inscribed by Mr. Simpson (Hudleston), who probably obtained them. I suppose them to be from different nests.]

[§ 5881. One.—Warsnäs, 1856. From Mr. Simpson.

Most likely belonging to the last.]

§ 5882. Three.—Karkula, Kittila, 1857.

These fine eggs have a near resemblance to Meri-lintu [Scoter's], but on comparison are larger and less of the colour of a magnum bonum plum. They were sent by Kyro Niku, having been bought by him of his brother Pekka, who had bought them in Karkula near Kittila.

[Three more were sold at Mr. Stevens's, 23 February, 1858, two to Mr. Braikenridge, one to Mr. Burney.]

§ 5883. One.—East Bothnia, June, 1858.

Brought 19 June by Johan Petter Vassara, who said he had found it a week or two before in a tylla, and saw the bird and knew it was Uu-Koskelo [Goosander]. It was more than two miles [Swedish] from Åkasjärvi, so that he could not go to it again.
§ 5884. Four.—Kyrö, 4 June, 1858.

Brought by Johan Kyrö, found at Motka-maa in a hole at the top of a dead Scotch fir.

[Three from this nest were sold at Mr. Stevens's, 8 March, 1859, to Messrs. Barney, Marshall, and Troughton. I gave another to Mr. Salviu in 1860.]

§ 5885. Four.—Kyrö, 3 June, 1859.

Out of eight sent by Jakob Kyrö and said to be Uu-Koskelo, but no down came with them. Found as above at Puttonen-mella.

[Three of these sold at Mr. Stevens's, 31 May, 1860, to Messrs. Hope, Gould, and Powys, while I sent another to Dr. Heermann in 1861.]

§ 5886. One.—Muotkavaara, 12 June, 1860.

Out of seven, found in an old tree-stub, about three ells from the ground, by Johan Auta, the down sent with them. Three were sold at Mr. Stevens's, 9 April, 1862, to Messrs. Baird (2) and Wilmot. A fourth I gave the same year to Sysselmand Müller, and two to Dr. Heermann.]

§ 5887. Four.—Sieppi, 18 May, 1861.

Brought 22 June, with the down, by Johan Olafsson Sieppi; found as above at Kemilaisten-vaara. There were ten eggs in this nest, but only nine reached me. I sent five of them to the Smithsonian Institution.]

§ 5888. Two.—Palo-saari, June, 1862.

Found by Johan Auta as above, before Whitsuntide. A third sold at Mr. Stevens's, 19 May, 1864, to Mr. Rake.]

§ 5889. Two.—Loch Erricht, Perthshire, May, 1871. From Mr. Harvie-Brown, 1872 and 1886.

One of these was kindly sent to me in 1872 by Mr. Harvie-Brown, and the second from the same nest as kindly given to me in 1886, while I was staying with him at Dunipace, when he added to the value of the gift by allowing me not only to read but also to copy from his Catalogue the entry concerning them, which tells their story in much detail. Succinctly it is as follows:—On the 29th of July, 1870, one John MacGregor, a gamekeeper, told Mr. Harvie-
Brown at Dalwhinnie:—"I got a nest too for the first time this year of the Dun Diver. It was in a hole in a tree, and had ten eggs, and I had the bird in my hand." The next year this man was employed by Mr. Harvie-Brown and Capt. Feilden, with the permission of the lessee of the shooting, to collect eggs for them. No directions were given as to Ducks' eggs or down, as sufficient importance had not been attached to MacGregor's statement of 1870; but in May 1871 he wrote to Mr. Harvie-Brown, at the time in Norway, that he had many other eggs, some Dun Divers', and they were accordingly sent to Dunipace.

On Mr. Harvie-Brown's return thither he carefully compared them with others, and came to the conclusion that they could scarcely be other than Goosanders', a conclusion with which Mr. Alston also agreed. Meanwhile MacGregor wrote, in answer to enquiries, that the bird was a large light-grey bird, white underneath with a dark brown crest running nearly halfway down the long neck, but the feathers of the crest were not long. The nest was in the hollow of an old tree, and the time about the 20th of May. He found the nest by the side of the loch, and whenever the bird flew off the nest it dived into the water, and could not be seen again. Mr. Harvie-Brown then wrote to MacGregor asking him to search the nest for any of the down, even for a single spray, that might remain. This he did, though it was nine miles from where he lived, with the result that he obtained some down and a single feather, from a hole at the bottom of the tree—a rowan, which branched into two about seven or nine feet from the ground, as was afterwards ascertained from him. The feather and down were sent for examination to Mr. Dresser, who confirmed Mr. Harvie-Brown's opinion as to their belonging to this species, congratulating him on the first-recorded nest of Mergus merganser in Scotland. MacGregor afterwards removed to Kingussie, where he died.]

[§ 5890. One. — Loch Erricht, 19 May, 1876. From Mr. Dresser.

On the 27th of May, 1876, Mr. Dresser wrote to me from Dunipace House, where he was staying with Mr. Harvie-Brown, that they had been together in the Highlands, "and you will be glad to hear that we found the Goosander breeding on Loch Erricht in the same place that it bred in before [§ 5889]. We went to take the eggs (twelve), but a shepherd-lad had been before us and had got them, as we ascertained by enquiring at the only cottage within reach. He had thrown them into the loch, but we recovered four, and the nest, which had not been destroyed, we also took out and have it here. We saw both birds there also, and the shepherd says they have bred at the same place for several years, and that the eggs are always destroyed. It also breeds on Loch Laggan, but we did not get the nest there." Mr. Dresser not many days after sent me this egg.]
Mergus Serrator, Linnaeus.

Red-Breasted Merganser.

§ 5891. One.—Shetland. From Mr. Robert Dunn, through Mr. Chapman, 1843.

Marked in Dunn's handwriting. He found it in Scotland or some of its islands, where they are known to breed; it is a good egg and a rare one.

§ 5892. One.—Island off Falsterbo, Sweden, 18 August, 1847.

From Mr. Fitton.

Taken and written on by Mr. E. B. Fitton himself. He wrote that he thought it was a Merganser's not a Goosander's.

§ 5893. One.—Sutherlandshire, May, 1849.

John Sutherland [of Ledbeg] gave me this egg, 19 May, 1850. On the 22nd I found broken eggs of Merganser on a point where I had seen a pair of the birds the day before. I saw them rather frequently in Sutherlandshire, but I cannot be certain that there were no Goosanders, though Mr. Dunbar said they were all Red-breasted Mergansers in the county.

§ 5894. Six.—Loch Assynt, Sutherland, 22 May, 1849.

"J. W."

From an island round the corner near the end of the loch—steep, covered with heather, and having Osmunda regalis growing on it. I got a shot at a female Merganser, sitting on bare stones, near the water's edge, with neck stretched out; but she flew off unhurt with the male, whom I had not seen before. Her nest was found on the island, with six eggs, newly laid, quite concealed by moss, as were the eggs in one of the Wild Ducks' nests [§§ 5595, 5596]. It was on a different side of the island from where I saw the birds—perhaps fifty yards away, and placed near the top of a very steep bank. I did not find it myself, though I saw it before it was touched. The
eggs were damp and had not been sat upon. I saw Mergansers frequently. I have a note of them on Loch Eriboll, and on the island of Calva we saw three, and some of their eggs broken. I also saw them in Shetland and Faeröe.

§ 5895. *Two.*—Orkney, 1850. From Mr. George Harvey of Stromness.

These have the bird's name in Harvey's writing on them. I must constantly make enquiries as to Goosanders' breeding in the north of our country. The eggs of the Merganser are found very commonly in Orkney and Shetland.

§ 5896. *Twelve.*—Orkney, 1851. From Mr. George Harvey.

Out of twenty-eight—but several of them broken. Two or three are written upon by Harvey.


Sent by John Sutherland [of Ledbeg].

§ 5898. *Three.*—Lieppi-miervi, 23 June, 1853. "J. W."

Out of two nests—one from the first and two from the second. Of both I saw, and (I am ashamed to say) shot at the hen from her eggs. They were upon little islands in the lake. To the second nest a fish-spear and a noose were closely applied to scare birds-of-prey: an Owl [Short-eared?] was playing extraordinary antics near. As the female flew off the eggs remained covered with a sheet of down. I saw distinctly several cock- as well as hen-birds on the water, and no other kind of Koskelo breeds here. The first set of eggs were smaller and darker than the second—nine eggs.


There were nine, brought to me by Herr Salomon from Jerisjärvi. The person was certain of the species, which he said he saw, and indeed the nest is characteristic.
§ 5900. *Seven.*—Ælfvrebyn, Muonioniska, 30 June, 1854.

"With bird."

Hewitson, *Eggs of British Birds,* ed. 3, pl. cxix. fig. 2.

I went with Mattila's Johan to see two Koskelo's nests which he had found by the river on the other side of the upper island. The birds ran away from both, but they flew at a little distance. The nests were under large stones, one indeed in a hole with sticks about it. We set snares at both. The first nest, from which I took out one egg and marked it on the spot, was taken by some persons who possibly had found it previously. From the second nest the eggs and bird were sent to me in a few days. I had marked all the eggs in the nests.

[One of these being so well authenticated was figured by Mr. Hewitson.]

§ 5901. *Three.*

Kangasjärvi, 1854.

§ 5902. *Six.*

Two nests of Red-breasted Merganser, brought by Isaak, Lovisa's brother.

[From the second nest, which originally had eight eggs, I gave one to Dr. Walker for the Belfast Museum in 1861.]

§ 5903. *Eight.*—Great Lake, Patsjoki, 10 June, 1855.

"With down. J. W."

[Inscribed but not entered by Mr. Wolley in his Egg-book. They must have been taken on his "Swan-upping" expedition.]


"With down."

Brought to Nyborg with the down. The birds were named by the woman who brought them, and the eggs seem to be Red-breasted Merganser's, as does the down.


From Piko Heiki. I did not ask him where he found these eggs of Red-breasted Merganser.
Brought by Lars Larsson, 6 July.

Brought ready blown by Andragårds Peck to me after my return from Norway.

Brought, 2 August, by Niemin Greta’s lad Johan to me. He related that he found them just by the frontier mark on the Swedish island. The bird tried to entice the dog from her nest, which was under the loose turfs that curl over from the top of the bank, where the soil has been washed away.

§ 5909. *Eight.*—Palo-saari, Ala-Muonio, 8 June, 1858.
Brought, 15 June, by Lars Larsson.

§ 5910. *Nine.*—Regna-järvi, 26 June, 1858.
Found by Lars Jonsen Keino on an island in the lake, which is four miles south of Kautokeino, and brought to Muoniovara, 3 August.

Found by the same man as the last, about two miles to the east of Kautokeino.

§ 5912. *Eight.*—Mukka-uoma, 1858.

[The description was illegible by Knoblock.]

[§ 5913. *Two.*—Henöerne, coast of Russian Lapland, 1855.
From Herr Dahl at Vadsö.]

[§ 5914. *Two.*—Unst, Shetland, 1855. From Mr. James Smith (cf. § 4673).]
[§ 5915. One. — Unst, 1856. From Mr. James Smith.]

[§ 5916. One. — Salmojärvi, Patsjoki, East Finmark, 18 June, 1855.

Obtained by Mr. Wolley on his return journey from Enara, and given to me at Vadsø.]

[§ 5917. One. — North America. From Dr. Heermann, 1861.]

[§ 5918. Two. — Sable Island, Nova Scotia. From the Smithsonian Institution, through Professor Baird, 1863.

Taken, wrote the Professor, by Mr. Dodd.]
SUPPLEMENT:
CORRECTIONS, OMISSIONS, AND ADDITIONS.
(The names of species not before included are in thick type.)

Neophron percnopterus. (Vol. I. p. 1.)
§ 5919. One.—Mar Saba, Palestine, 23 April, 1864. "H. B. T."
From Mr. Tristram, 1867.
Given to me as a specimen from Palestine. The Canon's notes on the breeding
of the species in that country are printed in 'The Ibis' for 1865 (pp. 249, 250).

§ 5920. Two.—Alora, Andalusia, 20 April, 1868. "H. S."
§ 5921. One.—Alora, 7 May, 1868. "H. S."
Bought at Mr. Howard Saunders's Collection, 1877.
They were the best-looking of the Spanish specimens of the egg
in the sale, and the only ones that bore Mr. Saunders's initials, indicating that
they were taken by himself. The first of these nests seems to be mentioned by
him in 'The Ibis' for 1869 (p. 179).

Vultur monachus. (V. cinereus, Vol. I. p. 6.)
§ 5922. One.—Sartendik or Biyaz. Bash Karakush, 16 May (1863?).
From Dr. Cullen, of Kustendje, through Mr. Samuel Stevens, 1864.
Bought by me from a collection of eggs and skins sent to Mr. Stevens for sale
by Dr. Cullen. It had attached to it a label in the doctor's handwriting with the particulars above given. There were several skins of the bird in the collection
which Mr. Gurney afterwards saw.

§ 5923. One.—Bulgaria, 4 April, 1869. "H. J. E."
From Messrs. Elwes and Buckley.
§ 5924. One.—Bulgaria. "T. E. B."
These two eggs are inscribed by their respective captors with their initials, and
their notes on the species as observed by them in Bulgaria are printed in
'The Ibis' for 1870 (pp. 63, 64).
§ 5925. *One.—* "Provincia de Madrid," 27 April, 1868. From Lord Lilford, 1873.

§ 5926. *One.—* Sierra de Abila, 4 April, 1871.


**GYPS FULVUS.** (Vol. I. p. 6.)

§ 5928. *One.—* El Chorro, Andalusia, 4 April, 1869. "H. S." From Mr. Howard Saunders.

**Aquila chrysaetus.** (Vol. I. p. 8.)

§ 5929. *One.—* Craig-an-iolair, Reay Forest, 2 April, 1863.

§ 5930. *Two.—* Craig-an-dirradh, Ben Laighal, 6 April, 1863.

§ 5931. *Two.—* Ounasvaara, 20 April, 1864.

Taken as above by Martin Piety, from a nest in a Scotch-fir about two fathoms from the ground and brought to Muoniovaara on the 29th.

§ 5932. *Two.—* Poison Glen, Dun Lewy, Donegal, 27 April, 1864. From Mr. Robert Harvey.

One of these was sent to me by Mr. Harvey; the other, from the same nest, I bought at the sale of his collection, 9 December, 1869, and lent to the late Mr. Poynting to be figured in his projected work, the publication of which was prevented by his much regretted death.

§ 5933. *Two.—* Poison Glen, 12 April, 1869. "R. H." From Mr. Robert Harvey’s Collection.

These from a nest in the same place as the foregoing, and believed to be the produce of the same bird, were taken by Mr. Harvey himself, and bought by me at his sale as above.


Mr. Nicholson informed me that he had them from the late Mr. Peter Robertson, of Black Mount, in whose company Mr. Wolley, my brother Edward, and myself had visited several Eagles’ nests (§§ 28, 32, 36, 39, 41, and 53); but, to judge from their appearance, these specimens do not seem to be the produce of any of the birds we had to do with, or of which he had formerly sent us eggs.
§ 5935. One.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.

§ 5936. One.—Fort Yukon, Alaska. From the Smithsonian Institution, through Professor Baird, 1869.

The Smithsonian number is 13816. The ticket bears the name of Mr. J. McDougal (§ 5821).


§ 5937. One.—Dobrudschia, 23 April (1863?). From Dr. Cullen, of Kustendje, through Mr. Samuel Stevens, 1864.

Dr. Cullen's note was:—"Nest on ground in a clump of bushes, made of large sticks, lined with wool and rags. Bird well seen." The skins of the birds which came with this egg were rightly named.

§ 5938. Three.—Bulgaria, 26 April, 1869. From Messrs. Elwes and Buckley.

These from a nest taken by Mr. T. E. Buckley (cf. Ibis, 1870, pp. 66, 67).

Aquila adalberti, L. Brehm.

§ 5939. One.—Near Gibraltar, 19 May, 1870. From Lord Llilford.

Marked as having been obtained by Colonel Irby, who stated (Orn. Str. Gibr. ed. 2, p. 171) that since he first met with the species in 1869, "its numbers are much reduced chiefly by or owing to collectors."

Aquila rapax, Temminck.

§ 5940. One.—Algeria. From Herr Seidensacher, 1865.

Herr Seidensacher wrote that he had received this from Major Loche, who, in the first of the ornithological volumes of the 'Exploration Scientifique de l'Algérie,' gives (p. 27) a brief account of the breeding of this species in that country.

§ 5941. Two.—Kustendje, 28 April, 1866. "Bird well seen." From Dr. Cullen.

In June 1866 I had a letter from Dr. Cullen enclosing a note on this species (under the synonym of A. necroilades) for publication in 'The Ibis' (1867, p. 247). In his letter he wrote:—"I have now a living specimen taken from the nest two
years ago. Last year several were noticed soaring over a large ravine some twenty miles distant from the scene of the former capture; and though an egg was found it could not be authenticated and was left. Last month we were fortunate enough to secure three eggs in this same locality, the bird being shot. Some ten or twelve more were seen; but time did not allow of a longer search.” I accordingly asked Mr. Stevens to let me know when he received these eggs from Dr. Cullen, and he did so, whereupon I bought them; but it must be observed that they are inscribed with “Bird well seen,” and not “Bird shot,” as one would have expected, and also as having been taken in April, and not in May; but this last may have been a pardonable mistake of the Doctor’s, writing, as he did, early in June.

Aquila fasciata, Vieillot. (A. bonelli, Vol. I. p. 44.)

§ 5942. One.—Near Alora, Andalusia, 6 March, 1871. “H. S.” From Mr. Saunders’s Collection.

This was lot 219 at the sale of Mr. Saunders’s Collection, 17 May, 1877, and was entered in the Catalogue as being “from a well-known pair of birds.” Mr. Saunders, who was present at the sale, assured me that it could be trusted, though I do not think he said that he took it himself.

Aquila pennata. (Vol. I. p. 45.)

§ 5943. One.—San Ildefonso, 29 May, 1865. From Lord Lilford.

§ 5944. One.—San Ildefonso, 7 June, 1865. From Lord Lilford.

Lord Lilford wrote to me from Paris, on his way back from Spain, 15 July, 1865:—“I think I got ten eggs of Aquila pennata, but some of them in such a state that we had to perform the regular Caesarian operation. However, I can let you have two good ones. There is no doubt about them, as in almost every instance the bird was shot from the nest, or, if not shot, clearly distinguished.”

§ 5945. Two.—Balson, near Madrid, 29 April, 1867. From Mr. Dresser, 1868.

Taken by Manuel de la Torre, who was so often with Lord Lilford.

§ 5946. Two.—Spain, 4 May, 1872. From Lord Lilford, 1873.

These, Lord Lilford told me, were out of a nest from which the bird was shot.

Pandion haliaetus. (Vol. I. p. 58.)

§ 5947. One.—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Günther, 1863.

The largest Osprey’s egg I have seen, measuring 2:56 by 1:96 inch.
§ 5948. One.—Sweden (?). From Mr. Wheelwright’s Collection, 1866.

A dwarf—measuring 1:08 by 1:23 inch.

§ 5949. One.—North America. From Dr. Brewer, 1848.

§ 5950. Three.—North America. From Dr. Brewer, 1851.

When I brought out the first part of this work, opinions were divided as to the specific identity of the European and American Ospreys, the latter having been described as distinct under the name of P. carolinensis, and I therefore omitted the eggs of the latter. It seems now to be generally admitted that there is but one species, so I here include them.

CIRCAETUS GALICUS. (Vol. I. p. 73.)

§ 5951. Two.—Kustendje, 18 May, 1866. “Birds well seen.” From Dr. Cullen.

ACCIPITER NISUS. (Vol. I. p. 78.)

§ 5952. Four.—Merta-saari, Tepasto, 1855.

Michael and others in company found this nest in a tree in an island in Ounasjöki. Some said it was a kind of Pouta-Haukka [Merlin]; Martin Pieti thought it was a Nuoli-Haukka, or at all events the same bird whose feet he brought with the eggs [§ 136] last year.

§ 5953. Three.—Madingley, Cambridgeshire, June, 1866. From Mr. T. E. Buckley.

§ 5954. Six.—Norfolk, 3 June, 1873. From Mr. F. Norgate, 1875.

ACCIPITER BREVIPES (Severtzow).

§ 5955. One.—Smyrna, 22 May, 1863. “Kr.” From Dr. Krüper, through Herr Seidensacher.

This seems to be out of the very nest described in the ‘Verhandlungen der k. k. zoolog.-bot. Gesellschaft’ of Vienna for 1864 (p. 15). Therein the day stands “12 Mai,” but in the separate copy of his paper which Herr Seidensacher sent to me he has corrected the “12” to “22.” This egg appears to be somewhat stained and is rather larger than the specimen figured. It came to me under the name of “Falco badius,” a synonym of Severtzow’s Astur brevipes (cf. Ibis, 1865, pp. 341, 342).
Tinunclus alaudarius. (Vol. I. p. 80.)

§ 5956. Four.—Finland, 1862.

Brought by Kyiö Niku, having been found by him in a box or nest-box. He said they were those of some kind of small Hawk, which was grey on the back and light-coloured beneath, with a longish tail. Knoblock thought it was only a Merlin, but I do not think a Merlin would nest in such a place, and the eggs have all the look of Kestrel's.

§ 5957. Four.—Norfolk, 21 May, 1874. From Mr. F. Norgate, 1875.

§ 5958. Two.—La Palma, Canary Islands, 1893. From Mr. S. B. Wilson.

The Kestrel of the Canary Islands has been separated from the European bird as T. canariensis; but Mr. Dresser does not admit the difference to be specific.

Tinunclus cenchris. (Vol. I. p. 82.)

§ 5959. Five.—Cilli, 9 May, 1865. From Herr Seidensacher.

A "couvée entière" taken by himself, wrote the sender.

§ 5960. Six.—Styria. From Herr Seidensacher, through Mr. Dresser, 1867.

Falco cherrug, J. E. Gray. (F. sacer, Vol. I. p. 83.)

§ 5961. One.—Bulgaria, 10 April, 1869. From Messrs. Buckley and Elwes.

The notes of these gentlemen on this species under the name of F. sacer, which I reluctantly abandon, are in 'The Ibis' for 1870 (pp. 73, 74).


From Dr. Cullen, through Dr. Bree.

Dr. Cullen does not seem to have published anything on this species.

Falco candicans. (Vol. I. p. 85.)

§ 5963. Two.—Greenland. From Mr. A. F. Sealy's Collection, 1893.

These were bought by Mr. Sealy in 1855 of Mr. S. Stevens, to whom they were
sent by Captain Holboll, at the same time as those bought by Mr. Wolley (§§ 184, 185). One of them is marked "arcticus" and the other "islandicus," by which names, in my belief, Holboll distinguished the young and old *F. candicans*. So far as I remember, there was no specimen of the true *F. islandus* among the birds sent by him to Mr. Stevens (cf. *Ibis*, 1862, p. 50, note). Holboll knew nothing of the change of plumage undergone by the large Falcons at their first moult, any more than did a more recent writer on the subject.


§ 5964. *One.*—Iceland, 1861. From Mr. Robert Harvey's Collection, 1869.

§ 5965. *One.*—Iceland. From Mr. A. F. Sealy's Collection, 1893.

Believed by Mr. Sealy to be from Proctor.

§ 5966. *Two.*—Myvatn, Iceland, 1885.

§ 5967. *One.*—Akureyri, Iceland, 1885.

Brought from Iceland in 1885 by Mr. Carter, when he was there with Mr. H. H. Slater—the first two obtained from Herr Hansen.

**Falco gyrfalco.** (Vol. I. p. 87.)


Found by Clemet Isaksen Hättä; brought by Martin Piety from Kautokeino, 2 July.

§ 5969. *Four.*—Mutziocen-papta, 29 April, 1862.

Found by Martin Piety in company with Martin Mortensen Tornensi.

§ 5970. *Four.*—Ounastunturi, 1862.

Found by Pehr Pehrsson Kyrö soon after Easter.

§ 5971. *Four.*—Œfvre-Autzi, 19–25 April, 1863.

Found by Lars Kaino.

§ 5972. *Four.*—Koiravaara, 19–25 April, 1863.

Found by Rasmus Persen Spein
SUPPLEMENT.

§ 5973. Three.—Mutzi, 26–30 April, 1863.
Found by Pehr Nilsen Bals in company with Turi Aslagsen.

§ 5974. Two.—Pattakoski, near Matzi, 1864.

§ 5975. Four.—Matzijoen-pahta, 1864.
Both this and the preceding found by Turi Aslagsen.

§ 5976. Three.

§ 5977. Four.

Lapland, 1867.

Marked by Knoblock as belonging to different nests and sent to me by him through Herr Meves, but without any particulars.

Falco peregrinus. (Vol. I. p. 98.)

§ 5978. Four.—Rathlin Island, 21 April, 1865. From Mr. Robert Harvey.
Mr. Harvey wrote that these were taken as above on the Kilpatrick rocks in the presence of Mr. Gage by his shepherd, John Smith. They were quite fresh.

§ 5979. One.—Ireland? From the late Mr. Scales’s Collection, 1885.

§ 5980. Two.—Isle of Portland, 1859. From Mr. Scaly’s Collection, 1893.

§ 5981. One.—Sussex Coast, 1892. From Mr. W. C. J. R. Butterfield, 1895.

Taken, Mr. Butterfield wrote, on the cliffs between Seaford and Newhaven.

§ 5982. Two.—Lockhart River, 28 May, 1862. From the Smithsonian Institution, through Professor Baird.

§ 5983. Three.—Anderson River, 1 June, 1863. From the Smithsonian Institution, through Professor Baird.
The ticket has "On clayey mud, bare ground, no nest. Parents 35458 and 35459. R. R. McFarlane."
Falco eleonora. (Vol. I. p. 108.)

§ 5984. One.—12 August, 1862.

§ 5985. One.—13 August, 1862. Cyclades. From Dr. Krüper, through Herr Seidensacher and Mr. Hudleston, 1864.

§ 5986. One.—21 August, 1862.

§ 5987. Two.—22 August, 1862.

Dr. Krüper wrote from Athens in November 1862 (Journ. für Orn. 1864, pp. 1-23) an excellent account of the breeding of this species in the Cyclades as observed by himself, the most important passages in which have been translated by Mr. Dresser (B. Eur. vi. pp. 108-110). In that group of islands the bird breeds in considerable numbers, but the precise spots at which the various nests were taken are unfortunately not named, though it would seem that most of them were obtained on Naxos.

Falco subbuteo. (Vol. I. p. 109.)

§ 5989. Three.—From North Brabant, 1851.

From Arnold Bots, of Valkenswaard.

Elanus caeruleus. (Vol. I. p. 112.)

Dele all after § 288 and substitute:—

§ 5990. Two.—India. From Captain Butler's Collection, through Mr. H. Saunders, 1879.

An egg of this species, with "Deesa" given as the locality, and received from Capt. Butler through the Crowley Bequest, is entered in the British Museum 'Catalogue of Birds' Eggs' (ii. p. 290).

Milvus aegyptius. (Vol. I. p. 118.)

§ 5991. Two.—Egypt. From Mr. S. S. Allan.

§ 5992. One.—Kadish Naphtali, Palestinc, 17 May, 1864. From Mr. Tristram.

The Canon's note is:—"From a nest of two, in an olive-tree among the ruins. The female bird shot off the nest."
Pernis apivorus. (Vol. I. p. 118.)

§ 5993. Two.—New Forest, 1859. From Mr. Sealy's Collection, 1893.

Mr. Sealy's note is that these were taken near Lady Cross, in the New Forest, by Mr. W. Farren, the hen bird having been shot by the keeper. The note adds: "These eggs were from near the place where I had a year before got the old birds, and the young in the down, and heard that others were seen about there."

Archibuteo lagopus. (Vol. I. p. 121.)

§ 5994. Two.—Fillefjeld, Norway, 23 June, 1871. "Bird shot.
J. A. H.-B." From Mr. Edward Alston.

For this nest see Mr. Harvie-Brown's 'Travels of a Naturalist' (i. p. 69).

§ 5995. Two.—Quickjock, 1888. From Professor Potts.

Out of several eggs obtained by the Professor during a botanical excursion in Lapland, and kindly given to me by him.

§ 5996. Two.—Labrador. From Herr Möschler, through Mr. Norgate, 1869.

§ 5997. Three.—Barren Grounds, Anderson River, 30 June, 1862.

The Smithsonian number is 7302. The ticket adds "Five eggs on cliff, parent shot.—R. R. McFarlane." From the Smithsonian Institution, through Professor Baird. (Cf. Proc. U.S. Nat. Mus. xiv. p. 432.)

Buteo vulgaris. (Vol. I. p. 138.)

§ 5998. One.—"Sibérie." From Mr. Jules Verreaux, 1873.

Sent under the name of Buteo japonicus, and doubtless obtained by Dr. Dybowski. (Cf. Journ. für Orn. 1873, pp. 347, 348.)

Buteo ferox. (Vol. I. p. 142.)

§ 5999. Two.—Mount Tabor, Palestine, 13 April, 1864. From Mr. Tristram.

The Canon's note is that these were from a nest of three obtained in Wady Birch under Mount Tabor by Mr. Edward Bartlett.

§ 6000. Four.—Sarepta. From Herr H. F. Möschler, 1866.
Circus æruginosus. (Vol. I. p. 143.)

§ 6001. Two.—Norfolk? From the late Mr. Scales’s Collection, 1885.

Inscribed by Mr. Scales “Moor Buzz.” Most likely Norfolk specimens, as he would have hardly cared to keep Dutch eggs of what was in old times so common a bird in Norfolk.

Circus swainsoni. (Vol. I. p. 147.)

§ 6002. Four.—12 June, 1864. From Dr. Cullen, of Kustendje.

§ 6003. Six.—16 June, 1864. From Mr. Samuel Stevens, to whom they had been consigned for sale by Dr. Cullen. There were some thirty or more eggs; all, if I remember right, marked as taken on the same two days and the different nestfuls marked. I chose specimens to show the greatest variation in size and shape. Dr. Cullen had sent a great many skins of the birds, some of which were marked as obtained on the same days as the eggs—and all, I suppose, at or near Kustendje.

Circus cineraceus. (Vol. I. p. 148.)

§ 6004. One.—East Suffolk, 1 June, 1886. From Mr. Edward Bidwell’s Collection, through Mr. Parkin, 1903.

Mr. Parkin most kindly gave me this egg, which he bought at Mr. Bidwell’s sale, 23 June, 1903, where it formed part of Lot 17; and Mr. Bidwell afterwards told me where he, and some others in his company, had found the nest in tall heather with one egg in it. He had to go home, but returned a few days after, when there were three eggs, which they took. The birds had nested there for several years; but the young were always shot.

Glaucidium passerinum. (Vol. I. p. 150.)

§ 6005. One.—Kolmorden, Östergotland, 26 May, 1881. From Mr. Dresser, 1902.

Mr. Dresser wrote that he had this of Herr Ramberg of Gottenburg, and that it was taken as above from a nest of six eggs by the head-forester Lundborg (lat. 55°).

§ 6006. One.—St. Gallen, Switzerland. From Mr. Dresser, 1903.

Received by Mr. Dresser from Herr Reiser, just before he left for Brazil, with the information that it was laid in confinement.
SUPPLEMENT.

CARINE NOCTUA. (Athene noctua, Vol. I. p. 151.)

§ 6007. One.—Lilford Park, Northamptonshire, April, 1892. From the late Lord Lilford’s Collection, 1906.

Lord Lilford briefly recounted (Birds of Northamptonshire, i. pp. 60-68) his attempts, carried on for many years, to introduce this species into his neighbourhood. I owe this evidence of the more or less success by which they were attended to the kindness of his son and successor, who informs me that he was told by Cosgrave, the keeper of the avaries at Lilford, that this egg was taken from a nest in the park there, and therefore laid by a bird at liberty. Whether the Little Owl can be deemed to be naturalized in this country may be doubtful, but it has often bred at large, and I have heard of the occurrence of several examples at a considerable distance from where they or their parents were liberated, and even so far off as Cambridge. The species is so largely insectivorous, that it might be expected to have much difficulty in maintaining itself in winter with us, and we have still to learn whether it is able to better its chance of existence by migration.

ALUCO FLAMMEUS. (Strix flammea, Vol. I. p. 152.)

§ 6008. Ten.—Antananarivo, Madagascar, September, 1862. From Mr. J. C. Caldwell.

These eggs were given to my brother Edward by Mr. Caldwell, who was sent by the Government of Mauritius in charge of presents for King Radama at his coronation, and stayed over two months at Antananarivo, the capital of Madagascar. He furnished the following information which my brother communicated to ‘The Ibis’ for 1863 (pp. 339, 340):—“The Owl’s eggs (five in number) were brought to my house in Antananarivo for sale, in consequence of my having promised a reward for them. I then offered the man another dollar on condition of his bringing me in person to the nest he found, that I might see it with my own eyes. In a couple of days he returned, took me to the rock over which the Christians were formerly thrown, and led me along a ledge, where I was obliged to take off my shoes and stockings for fear of slipping. The face of the rock, when not precipitous, is covered with the prickly pear and scanty coarse grass. It was on this ledge that I got the second nest. The bird was sitting when I came up, and there were four eggs. The nest was on the rock, under a prickly pear; and the eggs barely separated from the rock by a little coarse grass which grew there. In fact, there appeared to be no attempt made to take any trouble in forming it. It was not in the dark, the opening or passage looking to the north-west, and the whole rather exposed than otherwise to the hot sun, which was powerful enough to make it very unpleasant to walk bare-footed over the granite rock. As I was remounting the ledge to get to the narrow path I had come by (for I had gone down the slope about fifteen feet to get to the nest) I saw another Owl sitting on a nest exactly similar, and as the bird flew away knocked her down with a stick, and took the eggs also, four in number. It was about half-past three in the afternoon. I also disturbed several others, but could not get at their nests.” Mr. Caldwell afterwards gave my brother seven more of these eggs taken as
above, making twelve in all. They are sensibly larger than most European specimens, measuring from 1.82 to 1.78 by 1.31 to 1.3 inch. One of them is figured in the great work on Madagascar by MM. Milne-Edwards and Grandidier (Oiseaux, pl. 301. fig. 7).

**Scops giu.** (Vol. I. p. 153.)

§ 6009. Four.—Cilli, 1864–1866. From Herr Seidensacher, through Mr. Dresser, 1868.

With no other information than the days on which they were taken, ranging from 24 May to 9 June.

**Asio otus.** (Vol. I. p. 154.)

§ 6010. Five.—Fox Hall, Donegal, 16 March, 1864. From Mr. Robert Harvey, 1865.

Taken by Mr. Harvey himself. The nest in an ivy-grown larch tree, about ten feet from the ground.


§ 6011. One.—Feltwell Fen, Norfolk, April, 1849. From Mr. Hudleston.

Taken by himself, but I omitted to note when he gave it to me.

§ 6012. Two.—Littleport Fen, Cambridgeshire, 1834. From Mr. John Baker.

§ 6013. Two.—Anderson River, 16 June, 1863. From the Smithsonian Institution, through Professor Baird.


**Bubo ignavus,** Forster. (Vol. I. p. 160.)

§ 6014. One.—Mr. Gurney's Aviary, 1855.

**Nyctale tengmalmi.** (Vol. I. p. 165.)

§ 6015. Two.—Sweden (?). From Mr. Wheelwright's Collection.

One of these is a dwarf, measuring .78 by .7 inch, on which account I bought it at Mr. Wheelwright’s sale, 13 March, 1866.
SUPPLEMENT.

**Strix stridula, Linnaeus.** *(Syrniium aluco, Vol. I. p. 175.)*

§ 6016. *One.*—North Wales, 1866. From Mr. C. B. Wharton, 1868.

From the nest recorded by Mr. Wharton as found by him (Ibis, 1866, p. 324) with three eggs on the ground in a wood of pines and beeches.

**Strix uralensis, Pallas.**

§ 6017. *One.*—Lower Danube, 1866. From Mr. Norgate, 1867.

Bought at Vienna, of H.II. Haller and Feldmann, by a friend of Mr. Norgate’s.

§ 6018. *One.*—Mr. Meade-Waldo’s Aviary, April, 1904.

Mr. Meade-Waldo wrote that this was one of three which were incubated for five weeks, but all proved infertile. The hen was one of two which he obtained from Mr. Jawrach in August, 1896—an adult, evidently caught wild (which afterwards escaped, and when he wrote was still living in his woods)—and the other the layer of this egg, then a young bird with some down upon her. He always supposed them to be mother and daughter. They were said to have come from Germany—probably from East Prussia.

§ 6019. *Two.*—Pieisjärvi, Kuopio Län, Finland, 16 May, 1905.

From Herr E. K. Enckell, through Mr. Dresser, 1906.

Obtained with the birds. The nest in a dry fir stub, about 4 metres and a half high.

**Dendrocopus minor.** *(Vol. I. p. 188.)*

§ 6020. *One.*—Lilford, Northamptonshire, 26 May, 1892.

Brought to me by Mr. A. H. Evans, in whose presence, as well as Lord Lilford’s, it was taken as above from a nest in a dead hawthorn stump in the park. There were five eggs in the nest, on which the hen was sitting, and the cock shewed himself several times while it was being cut out. The chips were plastered up and two eggs left for the hen to hatch.

**Upupa epops.** *(Vol. I. p. 198.)*

§ 6021. *One.*—Cashmere. From Captain W. Cordeaux, 1889.

A very pale and small egg, taken, as I understood, by himself.

**Hirundo rufula.** *(Vol. I. p. 208.)*

§ 6022. *Two.*—Parnassus, 6 May, 1885, and 10 May, 1888. “Kr.”

From Dr. Krüper, 1889.
COTILE RUPESTRIS. (Vol. I. p. 210.)

§ 6023. Two.—Parnassus, 7 June, 1887, and 14 June, 1888. "Kr." From Dr. Krüper, 1889.

LANIUS FALLAX, Finsch.

§ 6024. Five. Fuertaventura, Canary Islands, 1889. From Señor Gomez, through Mr. Dresser.

§ 6025. Five. The last sent with the nest, which was beautifully trimmed with feathers of Houbara undulata, two or three being the long black plumes from the ruff of the cock bird, others were from the upper wing-coverts or back. I think it doubtful whether all these five were laid by the same bird.

PARUS LUGUBRIS. (Vol. I. p. 255.)

§ 6026. Three.—Brasso, Transylvania, 6 May, 1900. From Mr. Dresser, 1903.

TURDUS ILIACUS. (Vol. I. p. 289.)

§ 6027. Three.—Hals, North Iceland, 27 June, 1885. From Mr. T. Carter, 1903.

TURDUS DUBIUS. (Vol. I. p. 296.)

§ 6028. Two.—"Sibérie." From HH. Dybowski and Parrex, through M. Jules Verreaux, 1871.

Mr. Dresser exhibited these, under the synonym of T. fuscatus, among other eggs at the Meeting of the Zoological Society, 7 February, 1871, as stated in its 'Proceedings' for that year (p. 104).

TURDUS VARIUS, Pallas.

§ 6029. One.—Northern Japan. From Dr. Isao Ijima, through Canon Tristram, 1891.


Given to Canon Tristram at Tokyo by Dr. Ijima. It was exhibited by me at the Meeting of the Zoological Society of London, 16 November, 1897, and subsequently figured in the 'Proceedings' as above. I then stated that it was
taken near Tokyo by Dr. Ijima himself. He has since told me that I had been misinformed and that he had it with others from a respectable private collector in the north of Japan. I cannot doubt that it is correctly referred to this species.

Saxicola melanoleuca. (Vol. I. p. 298.)
§ 6030. Three.—Podgorica, Montenegro. From Mr. Dresser, 1903.
Taken by Herr Ludwig von Führer.

Larvivora cyana. (Vol. I. p. 312.)

DAULIAS HAFIZI (Severtzoff).
§ 6032. One.—Altai, 4 May, 1883. From Herr W. Schlüter, 1888.

Calliope camtschatkensis. (Vol. I. p. 317.)
§ 6033. One.—Dauria. From Dr. Taczanowski, 1889.

Accentor montanellus. (Vol. I. p. 319.)
Said to have been taken by Herr Ruskbeil, the younger.

Acrocephalus palustris. (Vol. I. p. 323.)
From Mr. A. Macomb Chance.

When sending me these eggs Mr. Chance kindly informed me that they were taken by himself from a nest, which he had previously seen the birds building in a bunch of figwort and wormwood, about two feet from the ground in a disused clay-pit. He accompanied them with some remarks on the distinctive appearance, habits, and especially the song of this species, the distribution of which in this country is so little understood that I hope he may be induced, after further observation, to publish the results of his experience.
ACROCEPHALUS BISTRIGICEPS, Swinhoe.

§ 6036. One.—Daururia. From Dr. Taczanowski, 1889.
Sent, under the synonym of Calamotherpe maacki, and said to be truly the egg of that bird. (Cf. Faune Orn. Sib. Orient. i. pp. 237, 238.)

CALAMODUS AQUATICUS. (Vol. I. p. 325.)


§ 6038. One.—Altai. From Herr W. Schlüter, 1888.
Sent as S. fuscipilea, Severtzoff, which Mr. Dresser (Man. Pal. B. p. 75) considers to be "not even subspecifically distinct" from our common Greater Whitethroat.

SYLVIA SUBALPINA. (Vol. I. p. 342.)

§ 6039. One.—Mount Parnassus, 20 May, 1887. "Kr." From Dr. Krüper, through Herr W. Schlüter, 1888.

PHYLLOSCOPUS SUPERCILIOSUS (Gmelin).

§ 6040. One.—2 June, 1871.  } Cashmere. From Mr. W. E. Brooks,  
§ 6041. One.—4 June, 1871.  } through Mr. John Hancock.

These were from a considerable number of specimens received direct from Mr. Brooks by Mr. Hancock, who informed me at the time that he felt pretty well satisfied about them. In the 'Journal of the Asiatic Society of Bengal' for 1872 (vol. xii. pt. 2, p. 81) Mr. Brooks wrote of this species, under its synonym of Regulus superciliosus:—"Is very abundant in Cashmir, and I believe in all hills immediately below the snows. It would be vain to look for this bird at elevations below 8,000 feet, or at any distance from the snows. It was common even in the birch woods above the upper line of pines. I found many nests. It builds a globular nest of coarse grass on a bank side; always on the ground and never up a tree, as stated by Mr. Hume's native informant. The nest is lined with hair in greater or lesser quantities. The eggs 4 or 5 number, average '56 by '44 inch; are pure white, profusely spotted with red, and sometimes have also a few spots of purple-grey." In 'The Ibis' for 1872 (pp. 26–29) Mr. Brooks gave a much fuller account of his experience in regard to the bird, describing more or less fully no fewer than ten of its nests seen by him; but some six years afterwards he came to the conclusion that the birds which he had thus found breeding were not the
true R. superciliosus, but an overlooked species to which (Stray Feathers, vii. p. 131) he applied the name of R. humii. At my request Mr. Dresser has lately examined the large series of specimens in the British Museum, including those from Mr. Hume's collection, and has kindly informed me that he thinks the distinction cannot be maintained, and has no doubt that the examples from Cashmir are the true Phylloscopus superciliosus, which has so many times occurred in Heligoland and occasionally in Great Britain. I therefore include these eggs here, though before I had been afraid to admit them to this work.

Motacilla personata. (Vol. I. p. 358.)
§ 6042. One.—Cashmere. From Captain Cordeaux, 1895.

Captain Cordeaux wrote that this was taken by himself from a nest on the ground with four eggs.

Motacilla citreola. (Vol. I. p. 360.)

§ 6044. One.—Cashmere. From Captain Cordeaux, 1895.

One of four eggs from a nest on the ground in a low bush, made of grass and lined with hair.

Motacilla citreoloides. (Vol. I. p. 360.)
§ 6045. One.—Cashmere. From Captain Cordeaux, 1895.

From a nest of four eggs on the ground under a bush. Captain Cordeaux wrote that "all these [§§ 6042, 6044, 6045] eggs were taken literally by myself, and I saw the parent birds in every case."

Anthus maculatus, Hodgson.

Sent under the synonym of A. agilis. Dr. Dybowski's notes on this species were published in the 'Journal für Ornithologie' for 1873 (pp. 84, 85) by Dr. Taczanowski, and three of its eggs very poorly figured (tab. ii. figg. 22-24).

Alauda arvensis. (Vol. I. p. 382.)
§ 6047. Two.—Sanko, Ladakh. From Captain Cordeaux, 1895.

Captain Cordeaux wrote that he took these from a nest in a meadow, "cup-shaped, made of grass, lined with hair, wool, and a few feathers."
METAPONIA PUSILLA (Pallas).

§ 6048. Two.—Sanko, Ladakh. From Captain Cordeaux, 1895.

From a nest, in a thorn-bush three feet from the ground, made of grass and lined with hair, wool, and a few feathers.

LINOTRA LINARIA. (Vol. I. p. 408.)

§ 6049. Four.—Hals, North Iceland, 25 June, 1885. From Mr. T. Carter, 1903.

These seem to be from more than one nest. Mr. Carter's companion, Mr. H. H. Slater, says "it is a common resident in the north" of the island, and that he has "seen nests with eggs in Fnjoskádelur from June 27th" (Man. B. Icel. p. 16).

URAGUS SIBIRICUS. (Vol. I. p. 416.)


PLECTROPHANES NIVALIS. (Vol. I. p. 443.)

§ 6051. One.—Cape Flora, Franz Josef Land, 18 June, 1895. Jackson-Harmsworth Expedition, through Mr. Dresser, 1905.

§ 6052. Five.—Cape Flora, 22 June, 1895. The last, with the nest, are described by Mr. Frohawk in his Appendix to Mr. Jackson's 'Thousand Days in the Arctic' (ii. p. 389). There were six eggs originally, and there was polar bear's hair among the feathers of the lining of the nest.

CALCARIUS LAPPONICUS. (Vol. I. p. 451.)

§ 6053. Four.—Franklin Bay. From the Smithsonian Institution, through Professor Baird, 1866–1869.

§ 6054. Two.—Anderson River, June, 1863. The first of these, of which the Smithsonian number is 13895, have the accompanying ticket marked as taken by Esquimaux; the second, of which the corresponding number is 8929, are said to have had the hen bird snared from the nest. Both sets were from Mr. MacFarlane's expedition, where he states (Proc. U.S. Nat. Mus. xiv. p. 441) that "eighty-three nests of this species were obtained in the Barren Grounds, as well as on the shores of Franklin Bay."

PART IV. 2 U
 Emberiza rustica. (Vol. I. p. 458.)

§ 6055. One.—Archangel, 9 June, 1880. From Mr. Dresser, 1903.

Obtained, Mr. Dresser wrote, as above by Conservator Nilzén, and by him sent to Herr Ramberg.

 Emberiza spodocephala. (Vol. I. p. 461.)

§ 6056. Two.—"Sibérie." From HH. Dyhowski and Parrex, through M. Jules Verreaux, 1871.

Garrulus khynickii. (Vol. I. p. 494.)


Pica rustica. (Vol. I. p. 496.)

§ 6058. Four.—Carson City, Nevada, 27 April, 1868. From the Smithsonian Institution, through Professor Baird, 1869.

The Smithsonian number is 3673, and the accompanying ticket bears the name of Mr. C. King, adding "Nest in willows."

Corvus monedula. (Vol. I. p. 499.)

§ 6059. Three.—Walton Hall, Yorkshire, 1834. From Mr. Waterton's Collection, through Dr. Norman Moore, 1906.

Mr. Waterton's instructive "Notice of the Habits of the Jackdaw" is printed in the 'Magazine of Natural History' (vol. v. pp. 394-396), but is dated 26 June, 1833, so that it does not refer to these eggs.

Corvus corone. (Vol. I. p. 506.)

§ 6060. Five.—Walton Hall, Yorkshire, 1832-1836. From Mr. Waterton's Collection, through Dr. Norman Moore, 1906.

All of these are inscribed by Mr. Waterton, and he added his own name on two of them. Dr. Moore informed me they were all taken in the park at Walton, wherein, according to Mr. Waterton himself (Mag. Nat. Hist. v. p. 144), there were in 1831 fifteen Crows' nests, to which he paid many visits, and writing again on the subject in 1833 (op. cit. vi. p. 214) he said "I turn loose on the public, from my park, about three score Carrion Crows per annum."
Tetrao tetrix. (Vol. II. p. 20.)

§ 6061. Three.—Jerijsjärvi, June, 1862.
Brought by Abraham Kirsti. I think these are from the most northern locality whence I have seen eggs of this species.

Strepsilas interpres. (Vol. II. p. 85.)

§ 6062. One.—Hals, North Iceland, 14 July, 1885. From Mr. Thomas Carter, 1903.

Recurvirostra avosetta. (Vol. II. p. 90.)

§ 6063. Twelve.—Southern Spain, 1863. From Lord Lilford, 1884.

Tringa canutus. (Vol. II. p. 207.)

§ 6064. One.—New Siberia Island, 11 July, 1902. From the Russian Polar Expedition, through Dr. Bianchi, 1905.

In common with many others I await with eagerness the publication of the zoological results of this Expedition since the death, on Kotelnj Island in December, 1901, of its ornithologist, Dr. H. Walter, whose observations in 1900 and the summer of 1901, made on the west coast of the Taimyr Peninsula, where he obtained several nests of both Tringa canutus and T. subarquata, beside several other rare Limicoles, appeared in the 'Annuaire du Musée Zoologique' of the Academy of Sciences of St. Petersburg (vii. pp. 162-160)—an abstract of them being given by Mr. Dresser in 'The Ibis' for 1904 (pp. 228-235), and it is to the good offices of the latter that I am indebted for this and the following valuable specimen. He tells me they were doubtless procured by Mr. Birula, who after Dr. Walter's death succeeded to his post.

Tringa subarquata (Güldenstädtd).

§ 6065. One.—Kotelny Island, New Siberian Group, 11 June, 1902. From the Russian Polar Expedition, through Dr. Bianchi, 1905.

See preceding note (§ 6064).

Tringa minuta. (Vol. II. p. 208.)


Herr Schiöler, of Copenhagen, kindly put me into communication with Herr Fiskeriinspektor Landmark, of Christiania, who sent me these eggs, writing to me, 22 May, 1906, that he took them himself as above, adding:—"The identification is absolute, as I shot the sitting bird (the male) at the nest, which
was on a very small mound in a level piece of boggy, though not very wet, ground, where a sort of yellowish-brown moss (Campothecium nitens) grew abundantly, and a few stems of it are enclosed in the parcel. In close proximity to the nest were two or three sprouts of willow (Salix lapponica or S. glauca) about a finger long. The sitting bird had been flushed from the nest by a Lapp woman driving some cows close past it, and I afterwards easily watched the bird to the nest.” He continues: “I send a copy of a little article I wrote three years ago in ‘Nature’ [1903, pp. 106–112], wherein you will find among other things some of the observations I have made on the breeding of Tringa minuta in Norway, more especially concerning the extraordinary tameness exhibited by the sitting bird . . . . I found its nests in Norway in three different years, the last time in 1899; but I am not sure that it breeds here every year, for some years I have been unable to discover even a single bird, as in 1904, when I spent some ten days at the proper season in search of it in two different localities, where on earlier occasions I had found several pairs breeding. They are most likely to be met with in years when the spring is very late and the snow remains longer than usual.”

**Tringa striata.** (Vol. II. p. 229.)

§ 6067. *Two.—Cape Flora, Franz Josef Land, 26 June, 1897. Jackson-Harmsworth Expedition, through Mr. Dresser, 1905.*

**Scolopax rusticula.** (Vol. II. p. 271.)

§ 6068. *Three.—Dunipace, Stirlingshire, 9 May, 1905 From Mr. Harvie-Brown.*

The bird was flushed from her nest on the 6th of May and deserted it.

**Larus roseus,** MacGillivray.

§ 6069. *Two.—Pokhodskoe, Kolyma Delta,* 13 June, 1905. From Mr. S. A. Buturlin, through Mr. Dresser, 1906.

Ibis, 1906, pl. xx. figs. 5, 6.


I am indebted to the kindness of Mr. Dresser for these valuable specimens (two of which have been figured as above) from Mr. Buturlin, who was so fortunate as to find a long-sought breeding-ground of this beautiful species, and published (Ibis, 1906, pp. 131–139) a full and interesting account of his discovery. He there states that the first bird arrived on the 30th of May, while the river was still frozen hard, and several dozens appeared on the following day. They frequented for some days a little shallow lake formed by the melting snow running partly off the river-ice and partly off the sand of a little island. From the 3rd of June onward they became scarce on the river and dispersed over the delta, though the snow was still deep in the bushy portions, and the ice had only melted for a fathom or two.
from the banks. On the 13th of June, the day on which the ice on the river broke up, several clutches of eggs were brought to him, all somewhat incubated, and the last four clutches, taken by himself on the 26th, would have been hatched in a few days. This Gull nested in little companies of from two or three to ten or fifteen pairs, making its nest in wet grassy spots near the water, and the nests rose from four to ten inches above the surface. The hollow formed in the grass—dead grass, as green grass is hardly seen even by the 10th of June—is about three or seven inches in diameter, but the nest proper is a shallow cup only about four or four and a half inches in diameter. It is composed of dry grass and Carex, sometimes with the addition of a few dry Betula or Salix leaves, while one was made of white Reindeer-moss. Three dozen eggs were procured, and those that I have seen are indistinguishable from those of Larus sabini; but Mr. Buturlin has since sent skins of L. roseus to Mr. Dresser in confirmation of the eggs.

Podicipes griseigena. (Vol. II. p. 422.)

§ 6071. One.—Month of Porcupine River. From the Smithsonian Institution, through Professor Baird, 1869.

The Smithsonian number is 1326; the label bears “R. Kennicott” and “female seen.”

Oceanodroma furcata (Gmelin).

§ 6072. One.—Sitka. From the Smithsonian Institution, through Professor Baird, 1869.

The Smithsonian number is 12855, and the label gives the name of “F. Bischoff.”

Nycticorax griseus. (Vol. II. p. 468.)

§ 6073. Two.—Charlotte Harbour, Florida. From Dr. Heermann.

§ 6074. One.—Sandwich Islands. From Mr. Scott Wilson, 1899.

A small specimen.

Branta hutchinsi. (Vol. II. p. 525.)

§ 6075. One.—Liverpool Bay, July, 1863. From the Smithsonian Institution, through Professor Baird.

The Smithsonian number is 9465, and the label states “Parent No. 36161, female head. Esquimaux,” as well as the name of Mr. MacFarlane, who writes (Proc. U.S. Nat. Mus. xiv. p. 424) that some fifty nests of this bird were found on the Lower Anderson River as well as the shores and islands adjacent. All but one were on the ground, and made of hay, feathers, and down, while six was the usual number of the eggs. The exceptional case was a nest in the fork of a tree some nine feet from the ground.
BRANTA NIGRICANS (Lawrence).

§ 6076. Five.—Mouth of Anderson River, July, 1865. From the Smithsonian Institution, through Professor Baird.

The Smithsonian number is 9468, and the label has "Female seen. Esquimaux," with Mr. MacFarlane's name. That gentleman wrote (Proc. U.S. Nat. Mus. xiv. pp. 424, 425) that this Goose was exceedingly abundant on the coast of Liverpool Bay (into which the Anderson River runs), and that large numbers of eggs were obtained by the Esquimaux, six hundred and fifty having been packed up for shipment from Fort Anderson.
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APPENDIX : NO. 1.

I.

Occurrence of Colias Hyale near Cambridge, &c.

[‘Zoologist,’ iii. (1845) p. 887.]

In the numerous notices that have appeared in ‘The Zoologist’ of the occurrence of Colias Edusa, in the past year, I observe only one mention of Colias Hyale having been seen, namely, near Arundel. From this general silence of your correspondents respecting it, it would appear to have been out but very sparingly; yet a considerable number of specimens have been taken near Cambridge, chiefly I believe about the Devil’s Dyke, which is in the chalk country. Some of these were evidently just out of the chrysalis, much too perfect to have travelled far, or to be in the second year of their age. Mr. [Hamlet] Clark, of Corpus College, also took one near Lincoln, in the past season. In 1842, on the 13th of September, I took a female on very high land near Matlock, in Derbyshire. I was at the time in pursuit of larger game, and my surprise and joy at this new appearance was only equalled by the astonishment of the keeper at my proceedings. I never felt less keen out shooting than I did after this incident; but in vain did I devote the following day to the net; and my excess of wonder only began to diminish when I heard from my brother that he had taken one at Eton, in Buckinghamshire, and had heard of their being taken almost everywhere. I then began to look upon it as a case parallel to that of Vanessa Antiopa in the year 17—? a sudden unaccountable apparition throughout the kingdom, a “Grand Surprize”; but when they were plentiful again in 1843, and (about Cambridge) again in 1844, I thought it not impossible a new era might be established, and that Colias Hyale had ceased to be among the rare, from what causes it seemed fruitless to conjecture—unless it be a fact worthy of observation, that they were first found frequent on the coast opposite and nearest to France. They have now been out three successive years, deecasing rapidly in point of numbers each year. In 1842 the collectors about here were not properly on the qui vive till too late, yet numbers of Hyale were caught, but not one Edusa (I believe). In 1843, Edusa abundant; of Hyale several scores were caught. In 1844, Edusa and Hyale were seen in much less abundance, but in about the same relative proportions as in 1843; of Hyale one or two dozens were taken. It would be highly interesting to know whether the periodical appearance of these insects in England corresponds with the same on the continent.

Trinity College, Cambridge,
February 4, 1845.
II.

Occurrence of *Papilio Machaon* in Derbyshire.

["Zoologist," iii. (1845) pp. 944 & 945.]

As I find the capture of two specimens of the Swallow-tail Butterfly (*Papilio Machaon*) at Matlock, in Derbyshire, recorded in a former number of "The Zoologist" (Zool. 400), I feel myself bound to explain how this must have happened: the passage was pointed out to me only a few days ago, or I should certainly have sent this explanation sooner. In the springs of 1843 and 1844, I procured a very large number (many hundreds) of the chrysalids of *P. Machaon* from Burwell Fen, and as the butterflies came out, by far the greater number of them were permitted to escape, partly for the pleasure of seeing them in the state of liberty, and partly in the hope that they might breed and continue to flourish in the neighbourhood; at the same time, by so doing, they would disprove the common notion that local insects cannot be permanently transplanted. Most of those so turned out were at Matlock, but many were also liberated at Beeston, in Nottinghamshire, and some few dozens at Eton, in Buckinghamshire. I had the best prospect of success at Matlock, as there is not much mowing grass, whilst various umbelliferous plants abound on the rough grounds, and although the features of the country are the extreme opposite to those of Cambridgeshire, I was not without hopes, for I had heard that on the continent *P. Machaon* is found on hills: however, although some of the caterpillars were found in the neighbouring gardens, there does not seem much probability of ultimate success, for, even in Cambridgeshire, they are confined to the fens, and abound only where there is sedge. I am inclined to think that Sparrows and other birds would alone effectually stop their increase. I am aware that many naturalists will be much annoyed at my proceedings, and I am not at all prepared to defend myself, but in this case I in some degree avert the mischief by public avowal. If the practice of introducing insects, or plants (for my observations apply to them with even more force), were to become general, lists of local faunas would soon be of doubtful authority, and the highly interesting subject of the geographical range of insects and plants would be involved in error; still worse would be the loss of interest in our individual captures, which would be another certain result, and it would perhaps be as baneful to the health of the entomological world as the practice of buying specimens for our cabinets has already proved to be. For, even if dealers were universally honest, and none of them practised gross and mischievous deceptions, numbers of people must have been disgusted with Entomology, on seeing that the comparative excellence of their cabinets must depend so immediately on the length of their purses, rather than on their own industry and ingenuity: a rich man has an undue advantage, if advantage it be, but it seems much the same as if a squire were to buy the trophies of
the chase that adorn his hall. I have inserted the English name of *Papilio Machaon*, a practice which, where it is possible, should be more generally adopted in 'The Zoologist,' as it is a great kindness to ladies and other unscientific people.

Trinity College, Cambridge,
March 18, 1845.

III.

Observations on the Noctule.

['Zoologist,' iii. (1845) pp. 952-954.]

The Noctule does not retire for hibernation nearly so early in the autumn as it is generally said to do. I had long observed its late disappearance in the south of Buckinghamshire, where it is very abundant; but I have more particularly watched it at Cambridge, and now for two seasons I have seen it throughout the first week in November; both years my observations were put an end to by cold and stormy weather. This year (1845) I first saw it on the 25th of March, with its usual high and rapid flight: it might have been about for several days previously, as I had not kept a look out for it, but it could hardly have been about for more than four or five days, as there had been a long continuance of frost and snow to within a week of the 25th. It would be incredible that so accurate and constant an observer as White should have been mistaken on this point, were it not that the species is rare about Selborne; it may be that towards the autumn it migrates to some towery spot, seeking good lodgings for the winter in company with its fellows: such a habit would also account for the vast congregations of Bats that have at various times been broken in upon at Oxford and elsewhere. Its flight is always strong, but varies remarkably at different times, no doubt influenced, like that of the Swallow, by the usual range of its prey; at one time it may be seen flying away, straight and swift, at a great height in the air, no more to appear that evening; at another it will be performing a great circle, returning perhaps once in five or ten minutes; or it may be flying low (and then I think silently) along the streets of a town: again it is wheeling round tall elms, in company with others of its own species, at the time of year when the small hairy Cockchafer (*Melolontha?* [Rhizotrogus] *solstitialis*) is swarming about them. Then its powers are seen to perfection, and the great advantage over the feathered tribes that it derives from the mammalian articulation of its wings is beautifully evident. It may easily be brought within shot, for if a stone be thrown just before it, it will follow it nearly to the ground, no doubt thinking it is an insect, and so pursuing it as prey, and not as an object of curiosity, or as a subject for tyranny, as the Purple Emperor is said to do under
similar circumstances. Its latest are by no means its lowest flights; even in November I have observed it at such a height that I could hardly have seen it, had not my eye been directed to it by its cry. This is the cricket-like chirp which it always makes with incessant repetition when flying high; whether it also always makes it when flying low I cannot recollect, but I rather think not: it calls my attention to the animal when it is within a hundred yards or so, frequently giving me the first intimation of its presence; it is so readily distinguished by its peculiar cadence from the chirp of other bats, that however dark the evening, it gives me certain indications of the Noctule. I have often greatly astonished my companions, by announcing the approach of a Bat, even before it came in sight: for it is a remarkable fact that most, or at all events many people are unable to hear this and similar highly stridulous sounds, as, for instance, that sometimes emitted by the opening of a pair of scissors. It is also worthy of notice, that for those who hear them for the first time, it is difficult to form the least idea from what direction they come; but I believe the same thing happens with other kinds of sounds that are heard for the first time, and, if I mistake not, it is said to be a fact, that the intuitive perception we have of the direction in which sounds come, is only acquired by practice and observation. However, this subject of the different capabilities of ears is a highly interesting one, for as we find that most men are quite unable to detect certain sounds which are distinctly heard by others from a great distance, and above almost every other sound, so we are led to understand how there may be forcible sounds which are inaudible to any of mankind, and which nevertheless may be heard at vast distances by the species of creature which excited them. In the few insects that I know to utter any sound, it is a stridulous one. I am not aware whether or not it is yet understood by what means the Death's-head Sphinx raises its cry; if it were, perhaps similar facilities might be discovered in other insects, so as to satisfy us they do utter sounds, though they are too shrill and subtle for our ears. May not the use of the tragus, or inner ear of Bats be to catch such sounds as these, as the exfoliated nose of some species is to detect the rarest essences of smells? For whilst there are some insects of which we know how the males are guided to the females, there are still more of whose means of finding each other we cannot even guess with any degree of certainty: of the first we know the Glow-worm and many others use light as a nocturnal beacon. Some exude peculiar odours, and some we know to make various kinds of sounds. Of the second, viz., those whose means of finding each other we do not at present know, may not many be guided by light, odour, or sound, not in a condition to be appreciable by our senses, although perhaps there are also others which are endowed with some sense unknown to us? But to return to our subject: what is the use or object of the incessant chirp of the Noctule, and other Bats? It can hardly be to attract their mates, nor to collect theirfellows, for either of these purposes it would probably not be incessant; neither can it be to keep their
flocks together, for they are not gregarious, like Finches or Titmice. It is quite contrary to the habits of most solitary animals. What is the meaning of it then? Can it be to attract or paralyze insects? This seems hardly probable. It may possibly only be uttered when the animal is in a satisfactory hunting-ground, and so it may guide its fellows to the best elevation for that particular evening. Can the echo of this sound enable the Bat to know its distance from the various objects which return the echo? for it is proverbially short-sighted: or, after all, may it not be only one of the awful noises of the night which, whether they were intended to keep man at home, or to enhance the beauties of the day, or for some other reasons, seem at all events to have been ordained by the Creator, under some general rule, if we may, in all humility, be allowed so to speak?

Trinity College, Cambridge,  
March 20, 1845.

IV.

Noctule flying in November.

[‘Zoologist,’ iv. (1846) p. 1206.]

I have this evening seen the Noctule flying round Neville’s Court, at a height of thirty or forty feet, and uttering its chirp, but less loud than usual. The air is foggy and warm (Zool. 952).

Trinity College, Cambridge,  
November 21st, 1845.

V.

The Spoonbill in Andalucia.

[‘Zoologist,’ iv. (1846) pp. 1213 & 1214.]

One day last August [1845] during a paddle down the Guadalquivir, a river of great charms to the Ornithologist, we came upon a Spoonbill, busily engaged in fishing as it waded in the shallow water under the bank; its method was to pass its beak sideways through the water, keeping it open till something palatable came within its grasp; but the action by which it effected this was most singular, for instead of turning only its head and neck, it turned its whole body from left to right and from right to left, like the balance wheel of a watch, its neck stretched out, and its beak immersed perpendicularly to about half its depth; this semicircular action was kept up with great vigour and at a tolerably quick march. The Spoonbill, it appears “snitters with its neb” (I. F. D.) when it is ploughing in
soft sand or mud (Zool. 2:27)\(^1\), but I did not perceive that in the mode adopted by my birds the beak was ever closed until just as it was drawn out of the water, which was not done frequently; and I think the rapidity with which it was passed through the water would make "snuttering" useless, if not impossible. The above-mentioned bird kept before us in short flights for a great distance down the river, till at length we overtook a small flock of the same species which it joined; these were all fishing in the same manner, and so busy were they, that they would not rise till we were just opposite to them, and they began again the instant they alighted; the state of the tide was probably that which best suited their operations. Their appearance when thus occupied was so striking as to call the attention of all the people on board, all Spaniards. In flying, the neck as well as the legs are stretched out, and this, with the comparative straightness of the wings and their quicker flapping, gives the Spoonbill, when in the air, an appearance very different to that of the Heron-tribe. The same day I saw numbers of Curlews and many different sizes of Sandpipers, also various Gulls and Terns, several kinds of Ducks, and one flock of Geese, besides birds I could not make out. The common Heron was abundant along the banks, and very tame, large Hawks like Marsh-Harriers were sailing over the plains. On my voyage up, I had seen one huge black fellow seated in the distance in solitary grandeur, and to my great satisfaction I clearly made out with my glass that he was a Vulture; it was within two or three hours of Seville, and near the vast pastures where the far-famed bulls were rearing for the fight: near there I was informed they were not uncommonly to be seen. On my return, of course I kept a good look out, and great was the excitement with which I saw four or five of these birds rise from the ground, their necks stretched out, and their long rounded wings flapping slowly, until they began to sail in majestic circles, when I watched them for nearly a quarter of an hour without observing a single motion of the wings. Some time afterwards, as we were approaching San Lucar, another got up on the bank almost close to the boat. Their flight is not unlike that of the Harriers. I supposed them to be the young of the Egyptian Vulture\(^2\). I believe I afterwards saw a flock of mature birds in the Bay of Tangier, but they were at some distance. The great Bustard is a bird I had always longed to see in its native wilds, a bird whose name now only reminds one of good old times in English natural history; and this same day my eyes were delighted with the sight of several small herds at a very little distance off; their bodies appeared longer as they were feeding than I should have thought they would do, four or five that were close to the

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\(^1\) [The reference points to the evidence of a nameless "intelligent person of whose accuracy of observation he had no doubt," reported by Mr. A. T. Dodd, of Chichester, to Mr. A. E. Knox; but the expression in quotation marks does not occur in the latter's note, and I do not know who used it, nor can I interpret the initials within the bracket.—Ed.]

\(^2\) [See No. XXI. for correction.—Ed.]
water's edge rose as the boat approached, they got up rather hurriedly to some little height and then turned and swooped down gradually, after the manner of gallinaceous birds. About the meaning of the Spanish name *Abutarda*, Ford, in his 'Hand-book' says "it is probably Iberian; the Romans catching at sound, not sense, called them *aves tardas* (quasi slow birds), which no one who has ever seen them fly or run, as we have, would do." A Spanish *sportsman*, of Seville, informed me that two or three months before, they might have been shot in plenty (off their nests I suppose), perhaps they are slow then. However, the engineer of the steamer, an Irishman, assured me that *Abutarda* in modern Spanish means "slow bird," and he told me the name of some other bird beginning with *abu*, which he also explained, but this meaning in the Latinized state of the language may easily have been superinduced. But I must not occupy your room any further, than to say that I have duplicates of the eggs of the Little Bustard, Bee-eater, Pratincole, and Stilt Plover, which I should be happy to exchange with any of your correspondents for eggs of British Birds of equal rarity which may happen to be desiderata to my cabinet. These I brought with me from Barbary.

Trinity College, Cambridge.

VI.

Occurrence of the Rough-legged Buzzard in Nottinghamshire and Derbyshire.

['Zoologist,' iv. (1846) p. 1247.]

Six or seven years ago, there was a great immigration of the Rough-legged Buzzard, *Buteo lugopus*, to the midland-counties, which I have not seen recorded. Many specimens were killed at intervals in Nottinghamshire and Derbyshire, and happened to come under my notice. I think I could not have seen less than a dozen, only two of which came into my possession. Most of these were caught in traps, and some I saw before they received the coup de grâce, the projecting eye-brow and piercing eye gave them a very fierce and noble expression.

Trinity College, Cambridge,
November 21st, 1845.

1 [Mr. Howard Saunders suggests to me that this may have been *Abubilla*, the Hoopoe (*Upupa epops*), but that name does not seem to be of Latin origin. The dictionaries give *Abucáda*, the Wigeon (*Anas penelope*), which appears more likely, though I do not find it acknowledged by Señor Arevalo in his 'Aves de España' (Madrid: 1887).—Ed.]

2 [This great visitation was in the autumn of 1839, and was especially observed in the eastern counties (cf. *Zool. 1846*, p. 130).—Ed.]
The Shrew and Grasshopper-Warbler.

[‘Zoologist,’ iv. (1846) p. 1297.]

In a note to Letter XVI., of White’s ‘Selborne,’ Mr. Rennie doubts the propriety of the term “whisper” as applied to the trilling notes of the Grasshopper-Warbler. I have little doubt that White confounded the sounds made by the Shrew with those of the Grasshopper-Warbler. As this little animal is running along the bottom of a hedge, its low sibilous notes may not inaptly be called whispering. I am inclined to think that two Shrews are in playful chase when I hear them, but as I seldom catch a glimpse, or more than a glimpse, I am not at all sure upon this point. The Water-Shrew makes similar sounds. I often hear a much more vigorous sibilous cry, which I used to suppose was made by a Field-Cricket, and many a time have I crept about on tip-toe in the hope of finding one sitting, all proper, at the entrance of its burrow; it is now some dozen years since I was undeceived by a countryman, who assured me it was “only a sherrew whistling on the muck-heap.” Since this I have often heard similar notes from Shrews in confinement, when they are fighting, or alarmed; if a worm is thrown to them they devour it with sibilous chattering. Led by White, I also had supposed that the hedge-bottom notes were the Grasshopper-Warbler’s, and I fancy I can remember being laughed at for saying so, as White was. Since I have met with the real Grasshopper-Warbler in the Cambridgeshire Fens, and elsewhere, I recognize its notes as perfectly distinct, nor has the bird ever continued them till I approached so near as White seems to have done to the author of the whisperings.

Beeston, near Nottingham,
March 19, 1846.

VIII.

Occurrence of Vanessa Antiopa near Nottingham.

[‘Zoologist,’ iv. (1846) pp. 1506 & 1507.]

An unentomological shoemaker has taken a specimen of the Camberwell Beauty this autumn at Southwell. I possess one taken some years ago near Nottingham.

Beeston, near Nottingham,
October 3rd, 1846.

1 [Ed. 1833, p. 60; ed. 1836, p. 89.—Ed.]
IX.

Occurrence of *Acherontia Atropos* at Cambridge.

["Zoologist," iv. (1846) p. 1508.]

Caterpillars at Cambridge, feeding on what is there called the "tea-tree" full grown at the end of July; one in a very warm situation became a perfect insect by the middle of September. A perfect insect was also caught near Cambridge in the early part of the year. I mention these, because of the times of appearance, which, to my very limited experience, seems unusual.

Beeston, near Nottingham,
October 3rd, 1846.

X.

Occurrence of *Sphinx convolvuli* near Nottingham.

["Zoologist," iv. (1846) p. 1513.]

A specimen at Beeston, near Nottingham, in the middle of September, and several others near Newark. I have not seen more than half a dozen specimens taken in all previous years in this neighbourhood.

Beeston, near Nottingham,
October 3rd, 1846.

XI.

Occurrence of the Locust near Nottingham.

["Zoologist," iv. (1846) p. 1520.]

A Lady, whose entomological knowledge and extensive travels make it probable she is not mistaken, assures me she has lately seen *Locusta migratoria* in her own garden at Lenton, near Nottingham.

Beeston, near Nottingham,
October 3rd, 1846.

1. *Lycium barbarum* otherwise *chinense.*—Ed.
2. Mr. David Sharp tells me that it was more likely to have been either *Pachytylus cinerascens* or *Schistocerca peregrina*, those being the two species of migratory Locust occasionally found in England.—Ed.
XII.

Note on the Occurrence of the Black Swan in Britain.

["Zoologist," iv. (1846) p. 1554.]

I was reminded by your note on the Black Swan (Zool. 1501) of some passages I copied from Mr. Colquhoun's 'The Moor and the Loch,' p. 41, note: "Wild geese, bernacle, brent geese, &c. seldom pitch upon the Highland Lochs, the former only for a short time to rest. Last winter (1841) some flocks of wild geese, the common gray lag, appeared on Loch Lomond during the first storm, ** ** **. It is a curious fact that there were fewer hoopers last winter (1841) than in many of far less severity. During the severe winter of 1837–38 not one wild goose of any description was seen although there were numbers of the common wild swan and a few of the black species, one of which was shot."

Beeston, near Nottingham,
October 3rd, 1846.

XIII.

On Reptiles &c., near Bonn.


One beautiful day last July [1846], we took a drive to the alum-works of Friesdorf; as we ascended the hill, a melodious croaking was heard on every side; the coachman said it was Wood-Pigeons, but we made up our minds it must be Tree-Frogs; we searched for them in vain, wherever we went the noise seemed to surround us, but never very close; it excited pleasing ideas of enchanted groves. I am not familiar with the cooing of the Stock-Dove, but these voices seemed too small, too numerous, and too close at hand for that. We collected specimens of the buried forest in every stage, from perfect wood to perfect coal, but were disappointed in not meeting with any of the strata in which were found the fossil Frogs. I was much surprised, however, to find so goodly a collection of living Batrachians in the pools about—chiefly small specimens, as though they were bred there—first, I recognised the Natter-jack in plenty; then I caught a kind of Toad, which in its brilliant orange-mottled belly, reminded me of the Warty Newt, it also resembled it in its strong pungent smell when handled; it was blacker than the Common Toad on the back, and had larger feet, which, the hind as well as the fore, it almost inverted over its back, in resigning itself to its fate, and to a much greater degree than the Common Toad does, which only puts

1 [Hyla arborea.—Ed.] 2 [Bombinator igneus.—Ed.]
its fore-paws over its head like a school-boy who is getting threshed. There was also another species of Toad 1, chiefly differing at first sight from our Common Toad in the colour of the eyes, which were greyish, instead of bright gold-colour. I did not recognize there our Common Toad. I was previously ignorant of the fact, and it struck me as very remarkable, that there should be two species of Toads, that we have not in England, at so little distance from us. A day or two after the above-mentioned excursion, in examining the crater of the extinct volcano, Roderberg, as I was minutely inspecting a little cavity naturally formed in a bed of cinders, I raked out a Toad 2 apparently of the same species as the last spoken of above; to my great surprise, and with very great interest, I observed a string of eggs tied round the hocks or knees of its hind legs. They were tough and semi-transparent, and I think I may describe their appearance by saying that the Toad's hind legs looked as if they were chained together by a necklace formed of large mustard-seeds strung on fishing-gut. The time of year too! Was it a male or female? What will it do with its eggs? How different they are from the spawn of the Common Toad, and yet how very much alike the animals are, with such different habits! I kept it in a tin box for some days with my other Toads and, unfortunately, its eggs got separated from it, though the string appeared to be tightly twisted round each kneee, or heel, if we choose so to call it, there being no communication with the body. At Coblenz, I put them in spirits of wine, thinking they would die instantly, but they were several minutes first, and one poor fellow made me deeply regret that I had inflicted such pain upon him, as he showed by opening his mouth wide, and trying to wipe it out with his fore feet. I carried this and several other bottles of reptiles about with me for several weeks, but as they leaked rather, I got tired of them, and gave them to a museum-keeper at Berne, where also I saw other specimens of the same two species of Toad, bottled and named, but I did not take note of the names. Whilst on the subject of Toads and Frogs, I may be allowed to make the observation that like the other genera of reptiles, they seem to rejoice in heat, though it must be combined with moisture; on the hottest days in North Africa, I have seen hundreds of Frogs, and of several species, basking on the banks of pools; on any alarm they jump into the water, sometimes with a very great leap. Mr. Darwin found no Frogs in the damp woods of Tierra del Fuego. In England we have several fewer reptiles than our neighbours in the East, though we have two or three more than our neighbours in the West; are the sea breezes of the Atlantic unfavourable to reptile life? Yet Natter-jacks live like gentlemen in houses of their own in the sand dunes near Calais. I will mention one more remarkable reptile I observed near the Rhine. It was on the banks of the crater-lake, the Lakeer-See. I was feeling somewhat nervous and conscious-striken, having just subjected a puppy to a "Grotto

1 [Bufo viridis.—Ed.] 2 [Alytes obstetricus.—Ed.]
del Cane " I had been guided to by a country lad, when I suddenly came upon what at first sight seemed to be a common Viper; after the first start, I seized it and threw it into an open space where I could observe its motions; the first thing that struck me was a peculiar vibration of the tail, as though it would claim relationship to the Rattle-Snake; at the same time, it showed very little inclination to bite, and had not that curling of the upper lip which a Viper shows when it is angry. I soon contrived to get it by the nape of the neck, and to examine it more closely. I found the pupils of its eyes were round, as in the Common Snake, not cat-like as in the Viper, and it had no poison-fangs; it had a meeker appearance than the Viper, but in colouring much more resembled it than the Snake. I must just add with reference to what I called the "grotto del cane" that it is situated in a thicket, and is a little depression in the soil, perhaps six feet across, and three feet deep, in the bottom of which is a hole like a mouse-hole from which issues the carbonic acid (?) gas; I saw at the bottom a Common Toad in a state of putridity, upon which were settled several golden-bodied meat-flies, standing as if alive, though upon examination they proved to be dead. I held the puppy in the hole, breathing quicker and quicker, till it was to all appearance nearly dead, but it recovered almost immediately on being restored to good air. It had, I believe, accidentally followed my juvenile guide.

[I am indebted to Dr. Gadow for supplying the names of the several Batrachians and the Snake above mentioned.—Ed.]

XIV.

The Stoat carrying Eggs.

[‘Zoologist,’ v. (1847) pp. 1634 & 1635.]

The following anecdote seems to me interesting, as explaining in some degree the mode in which eggs are so mysteriously moved, without breaking, by small predatory animals. The narrator, who is a very accurate observer, declared to me that he has the most perfect recollection of the facts. Mr. Edward Hurt 2 was walking with a brother of his near Cheltenham, some thirty years ago, when they saw a Stoat cross the road, carrying something white between its chin and its breast: upon their running up it dropped its burden, which proved to be a full-sized hen’s egg; examining it, they could not detect the slightest marks of teeth upon the shell. They put it down

1 [Coronella levis.—Ed.]

2 [An uncle of Mr. Wolley’s, who though here called an "accurate observer" could not be said to be a trained one, or to have any knowledge of or interest in Natural History.—Ed.]
again and retired to a little distance, when the Stoat returned, and carried it, in the same manner as before, up a high bank and through a hedge. The egg appeared to be held by the head and neck, without being carried at all by the fore paws of the animal, which were used in running. This story is less marvellous than the old one of the Rats using one of their companions, lying on his back, as a sledge, and his tail as the harness.

26 Mount Street, Grosvenor Square, November 20th, 1846.

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XV.

A PROPOSED POSTSCRIPT TO MR. WOLLASTON'S NOTE ON NEBRIA LIVIDA (Zool. 1517). 1

['Zoologist,' v. (1847) p. 1674.]

"I should mention that my friends the Wolleys, first told me of this Bridlington locality, with full particulars. They found it out eleven or twelve years ago, and had the pleasure of announcing it to Mr. Arthur Strickland, of Bridlington, who at that time had only two or three specimens from Scarborough, which he valued greatly. The old story was, that Nebria livida was to be found 'under heaps of sea-weed at high-water mark,' and in such situations they searched for it in vain, at Bridlington, Flamborough, Filey, and Scarborough, but at last George Wolley found one accidentally, when grubbing under a bank for fishing-baits, within the harbour of Bridlington, and almost simultaneously his brothers found it in plenty in the cliffs, for several miles along the south sands, living in the numerous cracks and fissures. They never found it between Bridlington and Flamborough, i.e. on the north cliffs, which are not so sandy as those to the south. J. W. has also found it in similar situations at Scarborough."

26 Mount Street, 23rd November, 1846.

1 [Mr. T. Vernon Wollaston's note at this reference, written from Jesus College, Cambridge, 17 September, 1846, was headed "Capture of Nebria livida at Bridlington," and begins "During a late excursion on the Yorkshire coast I had the satisfaction of taking several specimens of this interesting insect." There is no mention of Mr. Wolley or his brothers having told him where and how to find it, but it may be remarked that he and the Wolleys were always on friendly terms.—Ed.]
APPENDIX: No. XVI.

XVI. 
SAGACITY IN FROGS.

[‘Zoologist,’ v. (1847) pp. 1703-1705.]

I have read with much interest the curious anecdote of the Frogs (Zool. 1643) ¹, but finding that I cannot acquiesce in the suggestions of the narrator as to the motives for their conduct, I am now about to examine why, and also to see whether I can suggest anything that appears to myself more probable. In the first place, I am strongly predisposed to consider the Frog incapable of the implied degree of sagacity; both because I cannot recollect to have seen, heard, or read in books of authority, proofs or indications of anything at all equal to it in the Frog, nor yet in any of his relations—Toads, Newts, Lizards, Snakes, Fish; and also because even in the hot-blooded animals, whose intellects for the most part seem to be of a higher order, similar instances of sagacity are very rare. Where can we find them at all? Perhaps here and there in some pre-eminently gifted individual of one of those superior races of animals who are constantly in the company of man, who every day experience his benefits and his power, and who have learned to look up to him and to trust in him for everything. But the Frog is none of these: if we allow him to have sufficient sagacity, he has nevertheless none of the opportunities necessary for acquiring that knowledge of man and of his nature, which the subjects of our present consideration are supposed to have possessed. Even were the knowledge of man instinctive, these Frogs showed further very great ingenuity in the plans of action they founded upon this knowledge of theirs: and of their being master of such ingenuity and sagacity, we are, I think, entirely without sufficient evidence. And not only do I think him incapable of assisting a friend in misfortune in the manner supposed, if he wished to help him, but I even doubt whether he ever would wish it. Do we know any instances of Frogs or Toads caring for their wounded or imprisoned fellow-creatures? In other classes of animals, no doubt, it is common for certain species to assemble round an injured companion; but often in anger rather than in love; and in putting him out of his misery, they show the kindness of their Creator rather than their own. What other explanation then do we

¹ [No doubt the behaviour of the Frogs, which took place at Lindfield, in Sussex, as described by Mr. Robert Davis, who wrote from Belgrave Place, Pimlico, was strange, but so is much that goes on in nature. Briefly it amounted to this—one Frog had his foot caught by the closing of a shutter-blind, whereupon two others climbed up the window-frame, and looked into the room, in Mr. Davis’s opinion, “for the purpose of imploring assistance to effect the escape of the imprisoned one.” If that were really their object, it shewed something more than what we should term sagacity, for it implies on their part a trust in human charity which must be contrary to the experience of most Frogs. The common sense of Mr. Wolley’s remarks seems undeniable, and perhaps if we knew the business the first Frog was after when he came to the window we might get a clew to that which took the others thither.—Ed.]
APPENDIX: NO. XVI.

give for the facts recorded by Mr. Davis? In the first place, we declare that because we question the correctness of his views, we are not therefore compelled to give satisfactory ones of our own; because, upon the general principles of reasoning, this is not required; and because, in this particular instance of the Frog, an animal with whose habits, feelings, and senses, we have so little in common, it is very difficult to explain any part of its conduct.

But let us consider the circumstances before us. Two Frogs are observed acting in an extraordinary manner, close to a spot where some hours afterwards a Frog is found imprisoned, in such a way that he was most likely in the same state when the other Frogs were seen at liberty. Now, at first, it seems highly probable that he was the cause of the assembling, and of the excited movements of the other Frogs. But we must argue from what we already know of the habits of the frog in general, and if we find we do not know enough, we must wait for further facts to be ascertained, either by accidental or experimental observation.

First, then, we know that Frogs make at least two or three different kinds of noise, which, reasoning from universal analogy, we suppose other Frogs to be able to distinguish and understand. They have their breeding croak; their cries of despair, when pursued by a bird of prey; and, I think, other sounds expressive of bodily pain. Secondly, we know that some of their notes have the effect of collecting other Frogs. Thus, in the spring, the croak proclaims the rendezvous for spawning, and in the autumn something of the kind may be used to assemble those clusters of Frogs which are found hibernating together; as we are told that Rattlesnakes, on a similar occasion, collect themselves together by means of hissing. We only want to know then for certain, whether a Frog, trapped by the leg, would sooner or later cry out; and then whether this would have the effect of collecting others? We have seen, from what we know of the Frog, that both these are likely, and it is a likelihood much strengthened by what we know of the habits of various other animals, a consideration indeed to which we are apt to give too much weight. But still there is the climbing and jumping down to be accounted for. We reject, for the reasons given before, Mr. Davis's explanation of these actions. We find a difficulty in connecting them with the prisoner at all, unless we may consider them the result of infatuated excitement about him in the other Frogs. This leads us to conjecture whether, after all, he may not himself have been playing the same tricks when he was trapped in the blind. But, whether it was so, or whether his noise, being merely an ordinary croak, deluded the other eager Frogs into false hopes of there being something worth going for, we may in either case venture the following suggestions.

It is a rainy evening in October, the time of day and the sort of weather when Frogs are sure to be on the move, and the time of year when we may suppose them to be looking out for lodgings for the winter. The rain comes streaming from the roof, or is heard
running down spouts: the Frogs suppose, instinctively, that where water runs down there must be more above, and they try to climb up, hoping to find a pond where they may lie in the mud till spring. By instinct, fishes in a pump-trough, try to swim up any little jet by which freshwater is supplied to them. Perhaps our Frogs, having got some little height, mistake the glass for water, and try to jump down into it; or the glass looking so like water, may have been what originally attracted them, especially if there is any rising ground before the window. The probability of these suggestions will of course much depend upon local circumstances, as whether they could have had access to a pond without any trouble.

Another explanation that might perhaps suggest itself, is, that if they were in a walled garden they were trying to climb out, as every one has seen Frogs sticking their toes into the sides of walls in the most uncomfortable efforts to escape, and as we know Snakes and Lizards will make great exertions for the same purpose; I have even seen Vipers in the ivy, nearly at the top of a ten-foot wall. But we must not forget Mr. Davis’s first idea that the light may have attracted them, for it is curious how many animals are attracted by light; some insects, perhaps more than we are apt to suppose, mistaking it for the signal of their mates; some birds perhaps guiding their nocturnal flight by it, instead of by a star; other birds, thinking themselves in a confined space, flying to the light as to a hole for escape; some fishes, possibly seeking phosphorescent food, come to the light by mistake; other animals being excited by curiosity; whilst in many cases, we cannot even venture a guess as to the reason of a light being such a great attraction; but has anyone observed Frogs undoubtedly so influenced?

I have, perhaps, after all, made but little advance towards the truth; but I have, I hope, explained why I cannot consider the extraordinary sagacity of the Frog at all established by the anecdote before us. But that we may come to some satisfactory determination, we must make observations and experiments, and communicate to ‘The Zoologist’ any important results of them. I shall be really glad if these tend to elevate my present views of the moral and intellectual attributes of the Frog; for I well remember the time when I fondly looked upon him as the most pious of animals. Besides, his attitude of prayer, and his resignation in the extremity of danger; when I saw the fair and plump young Frogs carrying their helpless relatives, I used to think it a case equalled only by the Dutch story of the Stork, and by that of Æneas after the siege of Troy.
XVII.

Does the Cuckow carry its Eggs?

['Zoologist,' v. (1847) p. 1774.]

There is an interesting point in the habits of the Cuckow, which perhaps some of the readers of the 'Zoologist' may be able to decide from their own experience. I mean the mode in which it conveys its eggs into the nests of the birds to whose care it confides them: it seems probable it carries them in its mouth. If I remember right Le Vaillant shot a species of Cuckow in Africa, with one of its own eggs in its throat. Mr. Williamson, of the Scarborough Museum, informed me, several years ago, that he had found a Cuckow's egg in a nest, which was placed so close under a hedge, that the Cuckow could not possibly have got into it; and this morning I purchased a Cuckow's egg [§ 710] from Mr. Bartlett, of Little Russell Street, which he had found himself (I believe last year) in a Robin's nest that was placed in so small a hole, that he believed the Cuckow must have put her tail over her head, and backed in. By the bye, rather a curious point connected with this case is, that the Robin's eggs were nearly ready to hatch, whilst the Cuckow's seemed not to have been sat upon many days; an apparent carelessness, or want of discrimination on the part of the Cuckow. Mr. Bartlett, at first glance into the nest, thought someone had put a Nightingale's egg into it, but it is a most unmistakeable Cuckow's. An American Nightjar, having had its eggs disturbed, has been seen to take them up in its claws, and fly away. Probably many birds move their eggs in the same way. But that the Cuckow carries its eggs in its mouth or throat, is not rendered less probable by the common report that it sucks eggs to clear its voice.

Mount Street, Grosvenor Square,
May 1st, 1847.

XVIII.

On Jackdaws' Nests.
Do Birds of the Crow Tribe cover their Eggs?

['Zoologist,' v. (1847) pp. 1774, 1775.]

I have a fact to offer on this disputed point. About ten days ago Henry Walter and myself amused ourselves by climbing up to Jackdaws' nests, placed in holes in the trees, about Bearwood, which is on the borders of Windsor Forest. In the course of three days we must have examined several scores of nests. On the first day...
None of the eggs were covered; but on the second and third days, we found that several of the nests that had been visited before, now had their eggs either partially covered by loose pieces of wool, or the eggs, in some cases, were nearly buried in the woolly lining of the nest; and this, whether the bird had just flown from the nest or not. So far on this much quarrelled subject*. With respect to the make of the nests, it is curious how they were adapted to circumstances; in some cases, only a little wool and such like soft materials; in others, a monstrous pile of sticks to stop some inconvenient cavity of the tree. Mr. Jesse tells the story of the extraordinary nest in the bell turret at Eton [§ 268]; I saw it myself, and it really was almost beyond belief: many people thought Gray, the sly old clerk, had built it; but there is no doubt it was entirely the work of the birds. It was remarkable in not being of a pyramid shape, but taking its rise from two or three steps of the circular stairs it was built up compactly, and of a nearly uniform breadth, to a lancet window in the perpendicular wall, the bottom of which window was not otherwise sufficiently wide to support a nest. I forget the whole height of the nest, but I should guess not less than nine feet. It was unfortunately removed not long after it was built, though in the mean time it was a matter of great profit to old Gray. Somewhat similar instances of vast piles of sticks collected by Jackdaws are not uncommon: they will sometimes fill almost a whole chimney with sticks. At the foot of some of the trees at Bearwood I saw heaps of sticks, to the extent of several barrowloads, recently dropped by the Jackdaws. The keeper assured us [that] several birds will lay in one nest, and we frequently saw three birds fly out of the same hole, and in one case found two eggs in a nest we had robbed the day before. Six was the greatest number of eggs we found in any nest, but very few had this number, or indeed more than one or two eggs, as it was early in the year. The Jackdaws generally flew out long before we got near the trees, but in one case, by creeping up stealthily, I looked into a hole where a Jackdaw was sitting: she did not lose her presence of mind, but remained perfectly quiet: I repeated the experiment several times with the same result; it was in a hole within a yard of the ground. Their eggs vary from one another very much less than those of most others of the tribe do. Rooks’ vary exceedingly.

Mount Street, Grosvenor Square,
May 3rd, 1847.

* By Mr. Waterton and others. Vide ‘Magazine of Natural History’ [iv. p. 517; v. pp. 101, 142, 393, 487, 590, 676].
As the 'Zoologist' has been the means through which the discovery of the Edible Frog in England was announced to the world, it ought also to be the means of reminding the less cautious class of naturalists, that this finding the Edible Frog in one very confined locality is by no means to be considered proof of its being a native. True, Foulmire is a very peculiar spot; situated some miles to the south of Cambridge on the very limit of the county, and surrounded by rising ground, the Cam, a branch of which takes its rise here, is its only connexion with the real "Fens." The nature of Foulmire differs from that of all other fens I have seen, in having the continuity of the vegetable substance or turf of which it is composed interrupted by frequent wells or pits of pure water, the bottom of which is kept clean by the rising of springs in the sand beneath, though in others of these pits, and those generally the largest, the rise of water is not sufficiently rapid to prevent black mud accumulating at the bottom, which in some serves as a pabulum for large water-plants. Till lately, on one side the rising ground was a sandy heath, which, if I have been rightly informed, was inhabited by the Natterjack, and I have seen this reptile in the sands of Gamlingay, which is no very great distance off. The Common Frog and the Common Toad are abundant in the fen, so also the Warty Newt, and perhaps, though I have no special remembrance of it, the Common Newt also.

It is then a peculiar and, in some degree, an isolated fen, but it is certain, if the Edible Frogs are aboriginal here, that in the course of ages the river must have carried some into the true fens, through the very centre of which it flows for several score miles; and can we suppose that they would not increase and flourish there, as well as in the neighbourhood of Kingsbury, where Mr. Bond informs me he has several very thriving colonies? This last fact shows that they can live and increase in England elsewhere than at Foulmire; and the rapidity with which they have spread themselves near Kingsbury does not point to any very distant period of time for their introduction to Foulmire. That they do not exist, at least in any plenty, in the true fens, is, I think, rendered highly probable by their never having attracted the attention of any naturalist there; certainly in my own rambles in the fens I have not seen anything like them.

I say never, but I ought to qualify the expression by mentioning that Mr. Bond tells me he has lately heard of them there, of which I hope we shall learn further particulars. But that it is not very easy to find, even where most abundant, is shown by the fact, that though I have twice been to Foulmire, in March or April, for the express purpose of finding it, I did not meet with a single specimen;
it was I suppose rather too early in the year; the Common Frog had spawned, and, indeed, there were some young tadpoles, Toads were croaking about, and were to be seen in plenty in their usual galvanic postures at the bottom of the little river; if my memory does not fail me, I also found some of their necklace-like spawn. I fished up, perhaps, nearly a dozen Frogs in a landing-net, of various ages, and also some Warty Newts, in the pools, but alas! nothing at all eatable! And on both occasions I trudged back to Trinity in utter disappointment, and undined. My good old friend Tom Rawlinson was with me the second time, with cans, nets, &c., and he rather relieved the monotony of the journey home, by showing me the bank of an orchard on which the great white Snail abounded, which, as he informed me, with eyes wide open, he had seen either gipsies or Italians, I forget which, eat. Tom is knowing in such matters, he is "Tom the pieman" of all the "feasts" many miles round Cambridge:—an old soldier, a reformed drunkard, a teetotaller, an affectionate father, a simple-hearted fellow, a collector of insects, eggs, fossils, and everything else, and a protégé of "Professer Sedgwick." His personal appearance I should spoil by description,—I liked Old Tom! But to return to the Snails, the Helix pomatia of some nomenclature, they are, if I mistake not, believed by conchologists to have been originally introduced from the Continent, perhaps by Roman monks; may not the Frogs have been introduced to eat with them by the same Italians? Or may not gipsies or organ boys have brought them over more recently? Or in very modern times may not some have accidentally escaped from confinement, or been intentionally turned out by naturalists? Do I not remember an account of a large number of them being in the possession of Mr. Gray, of the British Museum, and may not some of these have strayed into Cambridgeshire? I am only imagining possibilities, but possibilities which seem to myself more probable than that the Edible Frog should be a native of Britain, and yet confined to Foulmire. It is a matter of some interest in the consideration of the geographical distribution of Reptiles.

It is much to be regretted that Foulmire, as I hear from Mr. Bond, is drained! But he tells me he expects the Frogs will disperse, and not become extinct. As he informs us that the Frogs of Foulmire are well known, and have a name given them in the neighbourhood, it would be very interesting if he, or someone at Cambridge, would make enquiries as to whether there is any tradition of their first appearance at Foulmire.

May 3rd, 1847.
Lest by any chance it should have escaped your notice I enclose an extract¹ from the 'Times' of August 16th, 1847, which gives a very interesting account of a huge swarm of Lady-birds, which were actually seen coming in the direction of the French or Belgian coast some hours before they arrived on our shores. Migrations, in large bodies, of Aphides, Flies, Locusts, and other insects, are common, but this peculiarly well-observed and enormous emigration of Coccinellide from the Continent is well worthy of note. The believers in Mr. Smee's theory of the cause of the potato disease may congratulate the country on this arrival of destroyers of the destroyer. The Aphides being a race endowed with such very migratory instincts, we are not surprised to find that their parasites are obliged to shift their quarters also. If it should appear that the hops in Kent are peculiarly infested with blight next year, how wonderful would this friendly arrival from a distant land seem to be! Migratory flights of Butterflies, and of various species, have often been observed. Swarms of white Butterflies have been actually seen to arrive at Dover. Can we doubt that the Sphinx convolvuli, as well as the Locusts of last year, the Colias Hyale of two or three years before, the Vanessa Antiopa of some score of years since, and also the occasional specimens of V. Antiopa, of Pontia Daplidice, of Argynnis Lathonia, and perhaps even of Papilio Podalirius, are arrivals from the Continent? Might we not even extend this to Colias Edusa, and consider it a more regular immigrant? Nay the common Cynthia carlina is a notoriously migratory Butterfly, not even fearing to cross the snows of the highest Alps. Now, are these Butterflies of periodical appearance on the Continent? I believe not. The freshness of the specimins is a common argument against their having come from a distance, and it seems a good one, though an insect perpetually in the air is less likely to be damaged than one blown about amongst leaves and flowers. I do not mean though that in every instance the specimins themselves have come from abroad; perhaps their parents were the original settlers. Colias Hyale decreased in numbers for two or three years before it disappeared; so of Papilio Machaon, of which I turned out great quantities in Nottinghamshire and Derbyshire: a few specimins were seen in two

¹ [The extract was reprinted in 'The Zoologist,' immediately above Mr. Wolley's remarks; but it would be out of place to reproduce it here, though it is very interesting and far better written than most things of the kind which figure in newspapers. The swarm or flight is described as having the appearance of a cloud a few miles long extending over the sea from the direction of Calais and Ostend to Ramsgate and Margate, which towns it reached about sunset. It must have consisted of millions upon millions of insects, and affected the coast of England from Southend to Brighton.—Ed.]
succeeding years, till under the pressure of unfavourable conditions of life they finally disappeared. The appearance of all these insects only, or most abundantly, on the east coast, whilst they gradually become rarer towards the west, is another strong point. Can I suppose that a single worn female of *Colias Hyale*, which I found on a Derbyshire hill the first year of their abundant appearance in England, was anything but an immigrant? But I have perhaps already said too much on this doubtful and mysterious subject, for there is much that might be alleged on the other side of the question, which it would be tedious to enter into, and unnecessary in the present imperfect state of our knowledge.

Beeston.
August 17, 1847.

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**XXI.**

**Griffon Vulture (Vultur fulvus):**

Correction of a previous Error [No. V.].

['Zoologist,' vi. (1848) p. 2063.]

The interesting paper from the pen of the Rev. C. Bury, on the birds of the South of Spain (Zool. 1958), reminds me to correct a mistake I made in a notice on the same subject some time ago (Zool. 1213). The Vultures I saw on the banks of the Guadalquivir were evidently not the Egyptian Vulture, which I did not at that time know to be a comparatively little bird. They were more probably the Griffon Vulture. I saw one of the large Vultures stuffed at Tangiers, and another in the Natural-History Museum at Gibraltar, killed there by Sir Robert Wilson's son, if I remember right. As, however, the Egyptian Vulture is found in those parts of the world, my mistake is only worth noticing for the sake of distinguishing the occurrence of the large Vulture also.

3 Roxburgh Terrace, Edinburgh,
February 7, 1848.

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**XXII.**

**Long Captivity of a Specimen of the Little Owl (Strix passerina).**

['Zoologist,' vi. (1848) p. 2141.]

It may be worth recording that the *Strix passerina* which was stated \(^1\) to have been captured near Derby, in an early number of the 'Zoologist,' has lived in confinement ever since, till it was killed

\(^1\) [It was stated by Mr. J. J. Briggs (Zool. 1844, p. 615) that a Little Owl, taken in or near Derby, was exhibited there alive, 17 May, 1843. British
by a cat a few days ago. This is a longer period of captivity than it
is said in Yarrell to be able to endure. Shortly after I obtained it,
it refused its food, and I was afraid it would die; but it was
suggested that it wanted water, and so it proved, for it drank
greedily what was given it, and with a constant supply of water has
ever since remained in good health. It has been fed with raw meat,
and only occasionally a mouse or bird has been given it. Though
placed in a cage, in a passage where people are constantly passing,
it never got over its natural wildness; but it knew the persons who
were in the habit of feeding it, and made a plaintive noise when
they were present. Now and then, at night, it raised its sharp cries.
Its winking, courtesying and snapping made it appear singularly
grotesque, as mentioned by Mr. Yarrell. The edges of the eyelids
being everted gave a remarkable appearance to its large white eyes.
I do not myself know the circumstances of its capture, but it seems
not improbable that it was one of those turned out by Mr. Waterton
at Walton Hall, if it is of the same species, as I suppose it is.

3 Roxburgh Terrace, Edinburgh,
March 1848.

XXIII.

Description of a Species of Newt 1.
['Zoologist,' vi. (1848) pp. 2149, 2150.]

A kind of Newt occurs in ponds and ditches about Edinburgh which
I have not observed elsewhere. The males are remarkable for a
ridge on each side of their back, which gives it great breadth and
squareness, for their wholly-webbed feet, and for the mode in which
their tail terminates: it appears as if the tip had been nipped off,
the central filament of it only remaining, and projecting for a
quarter of an inch. In colour and style of marking it differs
considerably from Lissotriton punctatus of Bell. The females are
less easy to recognize. There appear to be characteristic differences
in the bones of the two species, at least in the vertebrae and the
skull, also in the general proportions of the head, body, and tail.
The males do not vary much from one another: I have examined

ornithologists had mistaken this species, the Strix noctua of Scopoli, nowadays
recognized as Athene (or, more correctly, Carine) noctua, for the S. passerina of
Linnæus, from which it is wholly distinct. Mr. Yarrell mentioned (British Birds,
ed. 1, i. p. 144) one kept for more than two years in confinement, but he did not
limit the time it was able to endure captivity. Mr. Waterton turned out his
birds, five in number, the survivors of a dozen which he brought from Italy, at
Walton near Wakefield, 10 May, 1842 (Essays in Nat. Hist. ser. 2, p. 17), the
passage describing their liberation being reprinted in 'The Zoologist' (pp. 673,
674).—Ed.

1 [See Nos. XXV., XXXVI., and XLIII.; also 'Memoir;' pp. xix, xx.—Ed.]
upwards of one hundred of them, but as yet only in their spring appearance. The webs of the feet, the caudal filament, the crests, and the dorsal ridges are probably absorbed later in the year, as I judge from the degrees of development I have already seen, and especially from a Newt of this kind I found in the bed of a pool which had been dried up some days before. It occurs in company with *L. punctatus*, but in one ditch I found it alone and in plenty, from which I have been able satisfactorily to ascertain the females. A more full account will I hope before long be furnished by Mr. Bell, who had specimens of the same, or a similar Newt, sent to him from Devonshire several years ago. It seems to occur generally round Edinburgh, as far as my walks extend. Yesterday (May 1st) I saw this, and no other species, during a ramble in the Pentland Hills.

3 Roxburgh Terrace, Edinburgh,
May 3, 1848.

[In consequence of the above note (No. XXIII.), Mr. William Baker, writing from Bridgwater, 10 July, 1848, contributed to 'The Zoologist' (p. 2198) one with the same title, in which he said that the remarkable characters of the new species (as it was then thought to be) were so well recorded by Mr. Wolley that there was no difficulty in distinguishing it from its relatives. He stated that it was not uncommon in his neighbourhood, and that in May 1845 he had sent living specimens to Professor Bell, who considered the species to be not only new to this country, but to science, and that he (Mr. Baker) supposed they were those which Mr. Wolley had mentioned as having been sent from Devonshire, though Bridgwater is in Somerset. Thereupon M. Deby, a Belgian zoologist writing from Laeken, 11 July, 1848, pointed out (tom. cit. pp. 2231, 2232) that the species described by Mr. Wolley was evidently the *Triton* (*Lissotriton*) *pulmipes* of Daudin, the *Salamandra palmata* of Latreille and Cuvier, the *Molge palmata* of Merrem. Under the last of these names it is described by Mr. Boulenger (Cat. Batrach. Grad. B. M. ed. 2, p. 16). See also 'Memoirs,' pp. xix, xx.—Ed.]

XXIV.

Occurrence of the Narrow-bordered Bee-Sphinx *1* in the Highlands.

[‘Zoologist,’ vi. (1848) p. 2199.]

Is it generally known that this charming insect is found in the Highlands? I saw it on June 7th, in a boggy spot between Loch Katrine and Loch Lomond, hovering over the same kind of flowers that it frequents in the fens of the Eastern Counties; and in both localities it is accompanied by the Greasy Fritillary.

3 Roxburgh Terrace, Edinburgh,
June 9, 1848.

I have to report the existence of our recently ascertained Newt in the extreme north of the island. On the 1st of August I found several females and one male in a little fresh-water peaty pool, a few hundred yards from high-water mark, on the side of the hills which rise from Loch Eribol, and on the west side of the loch. It is an inlet of the sea, about sixteen miles to the east of Cape Wrath, in the north-coast of Sutherland, celebrated for the grandeur and wildness of its scenery. The heather which clothes the hills that slope down to its banks, conceals, for the most part, the grooves and scratches made by the last of the icebergs that rounded them to their present shape; steep mounds of broken fragments may still mark the spot where they grounded, and, as their soft parts shrunk and disappeared, left only their skeletons to the present day, whilst the distant head of the loch is crowned by perpendicular cliffs, backed by lofty mountains—the birth right of the Red Deer and the Eagle. Of the Newts I found in this interesting locality, the male had still his spring dress, though it seemed in a retrograde state. In that far north latitude the tadpoles of the Frog were still in the water, though some of them had acquired their four legs. A month later I found some very young Newts, which are probably of this species, under stones by the side of ponds, within a mile or two of John o’ Groat’s house or its site, accompanied as usual by young Frogs. In Orkney I learnt nothing of it, but it may be there. In Shetland I was assured no reptiles exist.

It has been a great pleasure to me to find my notice in the ‘Zoologist’ (Zool. 2149) followed up by such interesting papers as those of Mr. Baker, Mr. Newman, and M. Deby. Mr. Baker has established his claim to the prior discovery in this country; Mr. Newman showed the probable state of the case with respect to nomenclature, whilst the sagacity of his conjectures was proved by M. Deby, at least so far as the true name of the Newt supposed to be new.

Not having seen specimens of Mr. Bell’s Lissotriton palmipes, I cannot presume to say it is merely a form of L. punctatus; but I can state that from the characters given of it in his work I had supposed that some Newts I forwarded to Mr. Bell were his palmipes, which upon examination he himself declared to be punctatus; this I believe I mentioned to Mr. Newman. But it is not only the Lissotriton palmipes of Mr. Bell that he has to re-establish in the new edition of his ‘Reptiles’: it is to be hoped that he will give further characters of his Triton Bibronii and of Rana Scotica.

[See No. XXIII.—Ed.]
The specimens of the *Triton palmipes* of Daudin which Mr. Bell first received he named " provisionally " *Lissotriton appendiculatus*, believing them to be a new species, until in a consultation with Mr. Gray, he was induced to consider them a variety of *punctatus*, an opinion which the gradual disappearance of the most obvious characters in confinement encouraged him to continue to indulge, and it was not until he received a notice of my Newts three years afterwards that the "question was reopened" with him; but when he saw some of them he at once confirmed the opinion I had ventured to express to him that they were a species hitherto undescribed in Britain, and by so doing he asserted the value of his first impressions as communicated to Mr. Baker in 1845 (Zool. 2198).

Mr. Gray's *Triton vittatus* (Bell's Brit. Rept. p. 132) appears not to be the *T. palmipes* of Daudin, yet the semipalumation of the hind feet agrees with the condition of *T. palmipes*, Daudin, whilst the caudal filament is being absorbed. The "tail pieces" (Zool. 2231) admirably illustrate the most striking differences of the two kinds of Newt.

In a full description there are many other points to be noticed than those hitherto mentioned: one that might be overlooked I will name here, viz. the colour (as well as certain of the proportions previously alluded to) of the bones; they are, I believe, more yellow in *palmipes* than in *punctatus*. The difference in size of the two Newts does not appear to me so very marked as M. Deby would indicate, except in moor-land, where, as far as I have observed, *palmipes* is smaller than elsewhere, and less bright and distinct in colour and markings, and with its *vernalia* (we want a proper word) less developed. M. Deby's parallel tables are very useful, and put the matter in a clear light; if he had added a description of *T. alpestris* it would have conferred an additional obligation on those of us who have a difficulty in meeting with the works of the continental herpetologists. The females of *T. palmipes*, Daudin, have not yet been described in the 'Zoologist.' When compared with the females of *T. punctatus*, their heads seem broader and shorter, and the toes of their hind feet are for the most part shorter; the males also have the former, but not so evidently the latter character. As to the colour, if in a genial situation, the body is usually a delicate milk-and-water white, tinged more or less with yellow towards the middle line; the back and sides of the body and tail are of a dark olive-green, and in some, particularly very large specimens, are beautifully mottled by a network of lighter colour. In moor-land the skin becomes harsh, and coloured more like the females of the Common Newt, sometimes even to the orange belly.

The several longitudinal bands of colour, and the bright and tessellated markings of the full-dressed male, I leave to abler pens to describe; but I may record that I found one specimen, the only one I had from the pond in which it was (and I mention the last fact because, like other animals, especially aquatic, it seems subject to local variety), whose tail is covered with minute spots between the
two rows of larger spots which are always present, as shown in M. Deby's sketch: between these two rows there are generally some other large spots, varying in number in different individuals. The crests are never spotted or toothed as in punctatus; and though, as M. Deby says, they are generally small, yet sometimes they are considerably developed, but less so than in punctatus. The web of the hind foot, which seems sometimes to extend almost beyond the end of the toes, is black when in perfection, but when not so it is sometimes pale.

It is to be hoped that readers of the 'Zoologist' will kindly report more localities. In April and May Newts may be caught by hundreds, with a landing net, in ponds where Frogs spawn.

3 Roxburgh Terrace, Edinburgh,
September 8, 1848.

XXVI.

Occurrence of a Foreign Bat in Orkney.

['Zoologist,' vii. (1849) p. 2343.]

About September, 1847, a Bat was caught, by some people digging potatoes, in the island of South Ronaldsha, and it was kept alive for some weeks, on sugar and water I believe. It was considered a very great curiosity there, though any Bat would have been equally so. I obtained the kind permission of the Rev. John Gerard to take it to London for examination. Mr. Waterhouse informs me that Mr. Gray believes it to be a large specimen of Vespertilio pruinose. It is a native of North America. Its general appearance is not unlike the Noctule: the general colour may be called Badger-like. A Bat is a very likely animal to be brought in a ship: insects we know are brought from America to Liverpool in great plenty.

3 Roxburgh Terrace, Edinburgh,
November 16, 1848.

XXVII.

The Hamster [Cricetus frumentarius] not in Orkney.

['Zoologist,' vii. (1849) p. 2344.]

We see a report, copied from one book to another, that the Hamster is naturalized in South Ronaldsha, having been brought there in a Norway vessel, which suffered shipwreck. After much inquiry in that island, I came to the conclusion that this is a mistake. The

1 [See Nos. XXXVII. and XXXIX.; also 'Memoir,' p. xx.—Ed.]
Black Rat as well as the Common Rat, is found there; and the Black Rat is there called the Blue Rat, which name is well applied from the colour of the animal. One man told me that this Blue Rat was said to have come in a shipwrecked Norway vessel: hence I think the story is traced to its origin.

3 Roxburgh Terrace, Edinburgh, November 16, 1848.

XXVIII.

The Rein Deer in Orkney.

[‘Zoologist,’ vii. (1849) p. 2345.]

A small pair of horns of the Rein Deer, still attached to part of skull, were found in the island of Sanday not long ago, and are now in the Kirkwall Museum. At the back of the skull there are still traces of ligament, which would indicate the relic to be of no great antiquity. It is said that Rein Deer were once introduced into these islands, and that it was so appears probable from their horns not being more frequently met with in the more modern formations of our islands. Owen tells us, nevertheless, that at one period—that of the Hyænas—they did exist here.

3 Roxburgh Terrace, Edinburgh, November 16, 1848.

XXIX.

The European Elk.

[‘Zoologist,’ vii. (1849) p. 2345.]

This animal has escaped a place in any of Mr. Van Voorst’s series of books illustrative of British Natural History; yet that it should not have been a contemporary of the Wild Bull, the Aurochs and the Rein Deer, in our ancient forests, seems, à priori, improbable; accordingly we find its remains have been discovered in Scotland. Mr. Owen mentions [Brit. Foss. Mamm. and B. p. 483] a donation to the Royal Society of Edinburgh, of “a painting in oils of the head and horns of an Elk, found in a marl-pit, Forfarshire,” but he suggests that they belonged to a Rein Deer, not having seen them. The painting now in the College Museum of Natural History is evidently that of the head and horns of the European Elk,—not of the Great Irish Deer, the Rein Deer, or the Fallow Deer.

3 Roxburgh Terrace, Edinburgh, November 16, 1848.
XXX.

The Red Deer in Orkney.

[‘Zoologist,’ vii. (1849) p. 2345.]

This animal was in all probability extirpated by man. In the Museum at Kirkwall are three or four fragments of antlers, found in Pictish towns, in different parts of the country. Its horns are very common in the peat. In Shetland its remains are, I believe, unknown.

3 Roxburgh Terrace, Edinburgh,
November 16, 1848.

XXXI.

The Ca'ing Whale [Globiocephalus melas].

[‘Zoologist,’ vii. (1849) p. 2346.]

It seems to have been a bad season for the inhabitants of Shetland. At the time I was there, the herring season nearly over, there had hardly been one successful “ca’ing” or driving of a herd of “Bottle-noses,” as they are there called.

3 Roxburgh Terrace, Edinburgh,
November, 1848.

XXXII.

Occurrence of the Common Crane in Shetland.

[‘Zoologist,’ vii. (1849) pp. 2352, 2353.]

I saw one of these birds on the Mainland of Shetland, on the 14th of August last. At that time it was very shy, and my only chance of getting a shot at it was spoiled by a Hooded Crow, which got up and gave the alarm; but I had a good view of it with my glass. I watched it for some time during which it stood with its neck raised and the feathers pressed close to the body, just like a Heron when alarmed. It flew like the Stork and Spoonbill, with the neck stretched out; the wings did not appear so arched as those of the Heron. I had been looking for it several days; but it appears

1 [Kaa, to chase or drive. Hence a “Kaaing Whale” is one that can be driven ashore (cf. Edmondston’s ‘Glossary of Orkney and Shetland,’ 1866, p. 55.—Ed.]

2 [The Egg-book shows that Mr. Wolley was at the time being hospitably entertained by Mr. Gideon Anderson, of Hillswick.—Ed.]
I was always too late, as it crossed a narrow arm of the sea usually towards the middle of the day, or after having been disturbed. It frequented an isthmus of good pasture-land, called Hillswick Ness, on the west of the Mainland, not very far from Ronas Hill. What its usual food was I do not know: the people about thought it grazed like a Goose; but when first seen, some six or eight weeks before I was there, it was at the carcass of a sheep, and it flew several times round the head of the boy who disturbed it, screaming and frightening him much. Curiously enough, when last seen, it was also "pecking the body of a dead sheep." This was on the 13th of October, moon full, as Mr. Gideon Anderson, the laird of Hillswick, has kindly informed me. A stay of so rare a visitor three or four months in the same neighbourhood is very interesting: if it were to return another year with a mate it would be still more so. Willughby's authority, and the old law against taking their eggs, are conclusive as to the fact of their formerly frequenting the Cambridgeshire fens and breeding in this country. Several years since one was shot in the island of South Ronaldsha, in the Orkneys, and one or two instances are recorded of its visiting Shetland. The people about had exaggerated stories of the great bird that had appeared at Hillswick. Many had seen it, yet from their descriptions I had some doubt whether it was a Bustard or a Crane: one man had been near enough to see the red about the head.

3 Roxburgh Terrace, Edinburgh,
November 1848.

XXXIII.

On the Viper swallowing its Young.


Mr. Percival's interesting note (Zool. 2305) on this subject 1 reminds me of a very similar anecdote, told to me several years ago by a gentleman who is an accurate observer, and who has had long experience in all kinds of field sports. He one day shot a Viper, and almost immediately afterwards it was surrounded by young ones, in what appeared to him the most mysterious manner. But here the grand link was wanting, which Mr. Percival has supplied,—the young ones were not seen to come out of their mother's mouth. I may be allowed to mention an anecdote, told to me in 1842, by an

1 [Mr. Percival stated that "though the evidence was scarcely as conclusive as might be wished," he saw five or six young Vipers wriggling round the body of their recently killed mother, and one "making its way out of her mouth." Mr. Wolley's acceptance of the story was very unlike his usual caution in such matters, and I venture to think that it would not have been so readily, if at all, accorded in his later years.—Ed.]
illiterate shepherd of Hougham, near Dover: he met me catching Vipers, and, on my entering into conversation with him, he volunteered—without any allusion of mine—to tell this curious story. One day his father came suddenly upon a Viper surrounded by her young: she opened her mouth and they all ran down her throat: he killed her, and leaving her on the ground, propped her mouth open between two pieces of stick; presently the young ones crawled out: on the slightest alarm they retreated back again—and this they did repeatedly for several days, during which time many people came to see it. The young which White of Selborne cut out of the old female, and which immediately threw themselves into attitudes of defiance, had probably not then seen the daylight for the first time. Mr. Bell, in a note in Bennett’s edition of White’s *Selborne* [p. 102], mentions the wide-spread belief in this alleged habit of the Viper; but appears to consider the fact not proved. Accounts of similar habits in foreign viviparous Snakes, common report, and, above all, Mr. Percival’s observation, leave no doubt in my mind about the matter.

3 Roxburgh Terrace, Edinburgh.

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XXXIV.

**The Elk formerly in Scotland**

['Zoologist,' vii. (1849) p. 2381.]

Sir Walter Scott was aware of the former existence of the Elk in this country, as appears from the following lines:—

"Here grins the wolf as when he died,
And there the wild cat’s brindled hide,
The frontlet of the elk adorns
Or mantles o’er the bison’s horns."

*Lady of the Lake*, Canto i. 27.

They occur in the description of the stronghold of the Douglas, in Loch Katrine. I have no means of ascertaining whether Sir Walter had any other authority for introducing the Elk than the evidence of its horns, dug up more than once in Scotland. He perhaps would say, that even if he had no kind of proof of the living Elk so late as the time of James V., its horns might be nailed up in the castles of the nobility, just as the antlers of the Great Irish Deer are in England or Ireland at the present day.

3 Roxburgh Terrace, Edinburgh,
January 8, 1849.

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1 [See No. XXIX.—Ed.]
APPENDIX: NOS. XXXV.-XXXVI.

XXXV.

Occurrence of Buffon's Skua (Lesnis Buffonii) in Huntingdonshire.

[‘Zoologist,’ vii. (1849) p. 2392.]

A specimen of Buffon's Skua was shot in the parish of St. Neots, Huntingdonshire, in October, 1848, after a very windy night: it was sitting in an arable field, very tame. It is now in the possession of the gentleman who shot it, G. D. Rowley, Esq., of the Priory, St. Neots, who has kindly communicated these particulars.

3 Roxburgh Terrace, Edinburgh,
January 8, 1849.

XXXVI.

Some Remarks on British Amphibia.

[‘Zoologist,’ viii. (1850) pp. 2655-2658.]

Triton Bibronii, Bell.

Mr. Newman (Zool. 2576) hopes that his readers will express their opinions upon Mr. Bell's Newt, Triton Bibronii. I find that I said (Zool. 2267) before the appearance of the new edition of the 'British Reptiles,' "But it is not only the Lissotriton palmipes of Mr. Bell that he has to re-establish in the new edition of his 'Reptiles': it is to be hoped that he will give further characters of his Triton Bibronii and of Rana Scotica." At the time I wrote I had reason to suppose that Mr. Bell still believed in his own L. palmipes, for he had not long before informed me that he had recently received some specimens of it; nor did I know that he had changed his opinion with respect to his Rana Scotica, of which I had the pleasure of sending him a number; at the same time I entertained little doubt that on seeing a series of them he would pronounce them to be a variety; for I had been unable to detect any specific difference, although I had no undoubted Common Frogs at hand wherewith to compare them. In the case of these two amphibians, Mr. Bell has avoided the necessity of giving further characters, by very properly cutting out the species altogether; but Triton Bibronii he still retains, without one word additional to the description in the first edition. The specific character is given [p. 140] as follows:—

"The same as Tr. cristatus, excepting that the upper lip is perfectly straight, meeting the lower, and not overhanging it. The skin, and particularly that of the head, much more rugous and more strongly tuberculated. Colour darker."

It is afterwards [p. 141] said,

"The tubercle at the base of the inner toe on each foot is much smaller, and in some cases scarcely perceptible."

1 [Published in 1849: the first edition was completed in 1839.—Ed.]
APPENDIX: NO. XXXVI.

Now there appears nothing in this description which will distinguish the Triton Bibronii from specimens of Triton cristatus found under stones or in other situations removed from water, or which have not long returned to the ponds in which they breed. It is the more remarkable that Mr. Bell should not recognize this fact, as he has confessed the error into which he fell with respect to L. punctatus, a species in his former edition distinguished from his L. palmipes by the very same character of the straight lip, so that the vignette which formerly [ed. 1, p. 138] was intended to point out the distinction between L. punctatus and L. palmipes now serves [ed. 2, p. 151] to show the seasonal appearances of the first species. This vignette so similar to the one devoted to the heads of T. Bibronii and T. cristatus [ed. 1, p. 131; ed. 2, p. 143], must have suggested to our author the probability of a similar error in both cases. But we respect the feeling which may have prevented him from withdrawing a species whose name he had "chosen as a proper compliment to the first of Erpetologists, and one of the most amiable of men." He acknowledges that with respect to L. punctatus and L. palmipes he was "led into error, by trusting that the accuracy of his lamented friend Bibron was absolutely infallible" [ed. 2, p. 155] but that he should announce at the same time a second error of no less importance, from the same source, would have been too much for us to expect: nevertheless, it appears that Mr. Bell corrected the judgment of M. Bibron in this matter. M. Bibron declared a bottled specimen which he found in the collection of the Zoological Society was T. marmoratus of Latreille. Mr. Bell having his attention called to it, said, "It is neither T. cristatus nor T. marmoratus, but shall be named T. Bibronii." In examining these, and many other kinds of animals and plants, species are only to be identified by a long study of individuals in every age, sex, season and situation. I am confirmed in the opinion I have expressed with respect to T. Bibronii by the experience of a gentleman living in the midland counties [Mr. Higginbottom], who has devoted the most careful attention to the British Newts. I believe I am correct in stating that he has hitherto, in that district of England, only met with the two species T. cristatus and T. punctatus. At the same time it is very possible that in other parts of the country there may be other species, as we know there is L. palmipes: all we say is, that if T. Bibronii be really distinct, we wish Mr. Bell had given characters by which we may recognize it.

Salamandra palmipes, Daudin.—Without wishing to criticise too much the very pretty and useful work of Mr. Bell, I cannot refrain from remarking that the figure of the female "L. palmipes," of the new edition, is not at all characteristic. It would rather represent L. punctatus, from which indeed the female L. palmipes is not always

1 [The figure shows six toes on the hind foot, as already pointed out by Mr. Newman (Zool. 2576); but though Mr. Wolley must have noticed this defect, he evidently did not think it expedient to refer to it here.—Ed.]
readily distinguished. The principal characters, the shortness of the toes of the hind feet and the bluntness of the snout, are neither alluded to in the figure nor in the description; and no account is given of the less important differences of colour. I would wish, too, that something had been said of the very obvious distinctions in the skeletons of the two species; but where external characters are so marked, this perhaps was thought unnecessary in a popular work. It is not stated that the "lateral carina" are developed in the skin. The two upper ones are very remarkable, but I even question the existence of the lower ones, to which Mr. Bell alludes. Justice is hardly done to the peculiar reticulated style of markings, and to the three longitudinal zones of colour, which are so beautiful and characteristic.

*Rana esculenta.*—Mr. Bell appears to admit this as a truly British species, without the slightest hesitation or warning to his readers. I have formerly expressed my reasons (Zool. 1821) for doubting its true claims; not that I would for a moment question the fact of Mr. Bond having found it at Foulmire, but only that I doubt very much whether it had been there for many years. Mr. Bell does not tell us whether he means that his father lived near Foulmire, by saying [ed. 2, p. 111] that he was a "native of those parts," or simply that he lived in the Fens. Now, that the Edible Frog is not generally distributed in the Fens I feel confident. I constantly examined the Frogs in the fens of Cambridgeshire and Huntingdonshire during three years, and I am sure that all I saw were of the common species: besides myself, they could not have escaped the notice of far more accomplished naturalists—such as Mr. Jenyns—who have passed a great part of their lives in the Fens. Alas! I hear Foulmire is now drained: the subject ought to be most carefully searched into before it is too late.

Edinburgh,
November 30, 1849.

XXXVII.

**Occurrence of a Foreign Bat in Orkney**.

[‘Zoologist,’ viii. (1850) pp. 2695, 2696.]

Mr. Newman, in the preface to the volume of the ‘Zoologist’ for 1849, refers to my paper with the above heading (Zool. 2343). He seems to infer that it was rather "slow" of me not to seize so plausible a pretext for adding a new Bat to the British list; Mr. ——, Mr. ——, and Mr. —— are men of far better spirit; they have shown some most exotic-looking birds to be truly British. But as Mr. Newman says that I “do not attempt to account for its presence in the Orkneys, and that the subject requires more minute

1 [See Nos. XXVI. and XXXIX.—Ed.]
APPENDIX: NO. XXXVII.

investigation," I will now endeavour to say a little more about it than I did in my first communication. I grant that the subject requires further investigation, and such I intended to have given it during a second visit this summer, by ascertaining positively whether any Bats are constant inhabitants of the Orkneys, and if so, of what species; but I was unfortunately only there a few days, and in such weather as no Bats could be expected to withstand. If I did not attempt to account for the presence of this Bat, I certainly hinted at my views on the subject, by saying that a Bat is a very likely animal to be brought in a ship, and by observing that this specimen was looked upon as a very great curiosity, as any Bat would have been. Of the circumstances of its discovery I had undoubted evidence. The people who found it were as much astonished and frightened at it as Mr. Gerard was surprised to see it; and this gentleman preserved it with great care, as a thing of most unusual occurrence, though he did not know it was otherwise than a common Bat. I may add that he is now some years past eighty, and has all his life been an observer of Nature, as exhibited in the Orkney Islands, and especially in South Ronaldshay. This country, entirely destitute of trees, and so exposed to every wind, seems very ill-adapted for the constant residence of any species of Bat; and therefore these considerations, with the evidence of the people, at once inclined me to believe it was an accidental visitant. I was told at the British Museum that the characters I had observed—the hairiness of the upper side of the interfemoral membrane, and the yellowish band of hair on the wings underneath the principal bones—were peculiar to a family of American Bats, called from the first circumstance, *Dasýurus* or *Lasiurus*; and on my Bat (for it has since been very kindly presented to me by Mr. Gerard) being compared with those in the Museum, it was attributed to the species called *prutinosus*, although considerably larger than the specimens in the collection, and it may perhaps be a nearly allied species. Had any species of the group been known to inhabit Europe, I should have had better hopes of finding that this Bat was really indigenous to the north of Britain. All things considered, I have little doubt it was brought by one of the very numerous vessels which pass between South Ronaldshay and John o' Groats, from various parts of the world, or which lie up in the far-famed roadstead, the Long Reach [*qu. Hope*?], of which South Ronaldshay forms the eastern breakwater. Very many exotic insects are introduced by vessels at Liverpool and other seaports; and Bats can hide in a corner, and do without food in cold weather, almost as well as an insect. I hope the reason I have now stated will serve to explain my contentment in looking upon this Bat as an intruder.

Edinburgh,
December 15, 1849.

[Mr. Wolley told me that some of them thought it was a devil.—Ed.]
I hope the editor of the 'Zoologist' will have the kindness, as soon as possible, to gratify the curiosity which he has roused by his short notice on this subject, in the notices to correspondents on the wrapper of the number for January. We must, before we assent to the discovery of a "new British Reptile," learn how far it has been traced in the neighbourhood in which it has been discovered. I have several times had reason for suspecting the Green Lizard might be British, independently of the passage in White's 'Natural History of Selborne' [Letter XXII. to Pennant], and the stories of large Lizards met with elsewhere. Seven or eight years ago a school-fellow of mine at Eton, a native of Guernsey, assured me he had seen Lizards in Devonshire precisely similar to the Green Lizards of his own island, which latter, if I remember right, he had often caught and kept in confinement. Nearly two years since, a learned professor of the University of Edinburgh, mentioned that he had dissected a "Green Lizard," brought by a botanical party from the Cloon Mountains, of which, however, the remnants were not to be found, when search was, at my request, made for them. I hope these two additional indications of the probability of its being British may not be unacceptable. I may add that last summer, in answer to my inquiries in Sutherlandshire, I was told a large species of Lizard was stated by the shepherds to be found in a particular district, Moudale, which my imagination led me to believe was the Green Lizard. However, on further inquiry in the place mentioned, the accounts seemed far more applicable to the common Warty Newt. I saw the Common Lizard in plenty, though not extending to the Shetland or Faroe Islands, and I did not see it in Orkney.

Edinburgh,
January 6, 1850.

[This seems to me possible, as I remember Mr. Burt, the excellent Curator of the Torquay Museum, telling me, more than fifty years ago, that, some time before, a considerable number brought alive from the Channel Islands had been let loose in the neighbourhood, by one Ardleigh or Ardley, an old man who got his living by collecting and selling objects of Natural History—fossils, plants, insects, and so on. I do not suppose, however, that the Lizards multiplied or even maintained themselves for long.—Ed.]
XXXIX.

**Description of the Individual of a Species of Bat (†*Vespertilio pruinosis*), found in the Island of South Ronaldshay, in the Orkneys, in the Year 1817. (See Zool. [2343], 2695, &c.)**

[I'Zoologist,' viii. (1850) pp. 2813, 2814.]

I have much pleasure in sending a description of this Bat, according to the requests of Mr. Tomes and Mr. Newman. I am sorry that I am not enough of an artist to be able to make a drawing of the more characteristic parts. The teeth appear to be of the insectivorous form: the formula of dentition is, I. $\frac{3}{3}$, C. $\frac{3}{3}$, P.M. $\frac{4}{4}$, M. $\frac{3}{3}$. The upper incisor is close to the canine, there being apparently no teeth in front in the upper jaw. The divisions between the teeth of the lower jaw are not very easily made out in this dried specimen, and it is therefore possible that the formula I have given may be incorrect. The ear is somewhat like that of the Noctule: the upper angle is rather more depressed, and the lobe does not appear to descend below the level of the opening of the ear; but as it is somewhat crushed, this is not very certain: also the tragus is longer than in the Noctule. The ear is nearly covered with hair, inside and out, except at the margin, where the black skin—supported on cartilage curled back from the concave side of the ear—is quite exposed. The orifice of the nostrils is comma-shaped, and the muzzle is of similar proportions to that of the Noctule. The face, head, and the whole of the body, are covered with long hair; each hair divided into four belts of colour, dark brown at the roots, then light tawny, again dark brown, and white at the tips: each of these belts, in those parts of the body where the hair is longest, is an eighth of an inch in breadth, except the white belt, which is less. The hair of the upper surface extends over the whole of the inter-femoral membrane and the backs of the toes of the feet: in these situations, the colours of the hairs have blended into two only, brown tipped with white. It passes, without decrease in thickness, from the sides of the body upon the flying membrane, and ends abruptly in an imaginary line drawn from the foot across the middle of the humerus to the anterior margin of the membrane: that is it extends for an inch, more or less, beyond the body on each side, and over the whole of the membrane of the tail. On the upper surface of the wing there is also a very small tuft in the hollow of the bend of the elbow, another between the root of the thumb and fore-finger, and a few short scattered hairs on other parts near the principal bones of the wing. Underneath the colours are less bright than on the back. As the hairs leave the body they gradually change to tawny, and they extend in the form of a close pubescence along the anterior part of the flying membrane as far as to a little beyond the wrist; indeed nearly the whole of the third metacarpal is

1 [See Nos. XXVI. and XXXVII.—Ed.]
accompanied by a narrow strip of hair; opposite the elbow and the wrist it forms a band of an inch in breadth; between these points it is rather less: that part of the membrane where these hairs are implanted on the under surface is tawny, both above and below; the rest of the membrane of the wing and the interfemoral membrane are black. The margin of the hair just described on the under surface of the wing gradually turns, opposite the elbow, towards the knee, and the boundary line is continued through the knee to the middle of the bones of the tail, so that the proximal half of the interfemoral membrane is covered with hair; but all the hair on the under side of the membranes, as it has generally changed in colour from that of the body, so it differs from it in being finer and less closely set; whilst the hair on the upper surface of the membranes, at least the greater part of it, all that is continuous with that of the body, differs little from this last in character. The membrane is in width before the bend of the elbow three-eighths of an inch; behind it nearly one inch and three-quarters: it extends to the tips of all the digits of the anterior extremity, except the first, where all beyond the metacarpal bone is excised, and this digit alone is armed with a claw, shaped like a cat's. The second digit is tied within an eighth of an inch of the third, and as it terminates sooner its weak distal phalanx is supported by a still closer proximity to the penultimate phalanx of its neighbour. The third and fourth digits are nearly an inch and a half apart at their tips, and the last phalanx of each appears to be cartilaginous, or is at least bent along the edge of the membrane in a direction towards the other. From the tip of the fourth to the tip of the fifth is about two inches and a half, and from this to the foot is also about two inches and a half. The edge of the membrane reaches the outer side of the foot at the distal extremity of the metatarsal bones, and the part of the foot beyond these bones is free. Between the foot and the tail, the membrane starts from the tarsus along the "spur," which supports it for about three quarters of an inch, and it finally reaches the very tip of the coccyx. The dimensions are:

<table>
<thead>
<tr>
<th>Tip to tip of wings</th>
<th>15 inches.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muzzle to end of tail</td>
<td>4 3/32</td>
</tr>
<tr>
<td>Head</td>
<td>7/3</td>
</tr>
<tr>
<td>Tail</td>
<td>2 1/3</td>
</tr>
<tr>
<td>Length of ear</td>
<td>3 1/3</td>
</tr>
<tr>
<td>Breadth of ear</td>
<td>3 1/4</td>
</tr>
<tr>
<td>Length of tragus</td>
<td>1 3/4</td>
</tr>
</tbody>
</table>

The measurements of the bones, as accurately as they can be ascertained, with the soft parts still in situ, are:

Anterior Extremity.

<table>
<thead>
<tr>
<th>Humerus 1 3/4 inch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radius 2 3/8</td>
</tr>
<tr>
<td>First Digit, metacarpal</td>
</tr>
<tr>
<td>1st phalanx</td>
</tr>
<tr>
<td>2nd including nail</td>
</tr>
<tr>
<td>Second</td>
</tr>
<tr>
<td>Third</td>
</tr>
<tr>
<td>Fourth</td>
</tr>
<tr>
<td>Fifth</td>
</tr>
</tbody>
</table>

These measurements are in inches and fractions of an inch.
APPENDIX: NOS. XXXIX.—XL.

Posterior Extremity.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Femur</td>
<td>¾ inch.</td>
</tr>
<tr>
<td>Tibia</td>
<td>⅛</td>
</tr>
<tr>
<td>Foot</td>
<td>⅛</td>
</tr>
<tr>
<td>Spur</td>
<td>¼</td>
</tr>
</tbody>
</table>

The five digits, of nearly equal length, are each tipped with a strongly hooked claw. There are nine caudal vertebrae.

3 Roxburgh Terrace, Edinburgh,
May 1850.

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XL.

Eggs of the Redwing [Turdus iliacus].

[‘Zoologist,’ ix. (1851) pp. 2983, 2984.]

There are enquiries on this subject in the ‘Zoologist’ for 1848 and 1850 (Zool. 2141 and 2948), the former of which I might have answered through its pages, had I not hoped that some one would have done so who had more conclusive evidence than I had to offer. I have in my own collection, eggs of the Redwing from three or four distinct sources. Two of the earlier sets came from Scandinavia, and one is of the same lot as those figured by Mr. Hewitson, having been brought over by Mr. Dann. Others which I have, Mr. Proctor has received from Iceland since his visit to that country. Besides these, I have from Iceland, eggs brought over three years ago by a much valued correspondent of the ‘Zoologist’ [Mr. Henry Milner]; and though, I believe, he did not take them himself, he had not a shadow of a doubt of their genuineness. All these eggs agreed, in being less than the ordinary eggs of the Blackbird, but in other respects being just like them, and subject to similar variations. I have within the last few days seen eggs from two nests of the Redwing, taken by a friend of mine [Mr. Lawrence Heyworth] in Sweden, last June or July, and these too have a similar appearance to the rest. One of the nests was placed amongst the roots of an overthrown tree, and the other was in a low bush. I trust this weight of evidence, all from sources worthy of the highest confidence, will be allowed to settle the question of the general character of the egg of the Redwing.

Roxburgh Terrace, Edinburgh,
November 1850.
APPENDIX: NO. XLI.

XLI.

SOME OBSERVATIONS ON THE BIRDS OF THE FAROE ISLANDS.

[Read in Section D of the British Association for the Advancement of Science at the Meeting in Edinburgh, July and August 1850, and printed in Sir William Jardine's 'Contributions to Ornithology' for 1850, pp. 106* to 117.]

The Fauna and Flora of the Faroe Islands have received much attention in several departments of natural history, from their peculiar position, as a connecting link between Europe and North America, through Iceland and Greenland, the character of their productions is a study of importance to the physical geographer. However, observers have been but few, and I therefore venture to offer some small contributions towards their Ornithology, which I collected in the summer of 1849, in a visit of five weeks' duration. The birds have indeed been already described more than once, but many errors are prevalent with respect to those which breed there, and the lines of distinction between true natives, summer and winter residents, and mere wayfarers, are so far incorrectly drawn.

I will only allude, in a few words, to the kind of accommodation which the Faroe Islands afford to the feathered race. Situate in an open sea, and also an intermediate station on the high way to Iceland, they offer a resting place to wanderers over the ocean. Most of the islands of which the group is composed are mountains, whose foundations are far below the surface of the water, and their sides are divided into horizontal terraces from the bedding of the trap rock. In many places, especially to the north and west, there are precipices of such a stupendous height, as to have their summits generally in the clouds, and they are often perpendicular from top to bottom; but they are frequently interrupted by broad grassy ledges, upon which the sloping turf is generally undermined by the holes of countless Puffins, <i>Morus fratercula</i>. On little shelves, on the face of the precipices themselves, breed the Guillemots; and on any projecting point, the Kittiwakes, <i>Larus tridactylus</i>, place their nest; whilst the Razorbills, <i>Alca torda</i>, are on more secure ledges and amongst stones. Here are plenty of sloping hill sides, and open stones for the Shearwater, <i>Puffinus angulorum</i>, and Petrel, <i>Procellaria pelagica</i>; and there are large blocks of rock, amongst which the Green Cormorant delights to find a sheltered home; for the Great Black-backed Gull, <i>Larus marinus</i>, there are inaccessible stacks or drangs—in fact, no bird which is merely in want of house room need have any difficulty; but he must be prepared to withstand a good deal of rough weather. Fierce blasts of wind frequently rush down from the mountains, mists and rain are almost incessant, and the air is so damp, that the sods of grass, with which the roofs of the wooden houses of men are covered, are even at the end of summer of the most spring-like green; yet there are seldom any uncomfortably hot days in summer, and no very severe cold in winter. With respect to food, there appears to be an abundance of small fish within reach; and
the vast swarms of Guillemots, *Uria aalge*, and such like birds, would alone be sufficient to show this; Soland Geese, *Sula bassanu*, too, find enough of a larger size within a reasonable flight of the station they have chosen. Other marine animals are in plenty, some, probably crustaceous, occasionally in such compact shoals, as, in their sudden rise to the surface, to have given origin to the story of one kind of sea serpent, or rather flat sea monster, the Kraken of Pontoppidan, here called Kraka or Teara-bue; whales too, principally *Phocena melas*, the Ca'ing Whale, and another species very nearly allied, often in prodigious herds, show the richness of the surrounding sea. The great numbers of Oyster Catchers and Eider Ducks mark the abundance of the productions of the wave-washed rocks. Representatives of almost every tribe of sea-fowl here fare luxuriously. But when we turn to the land, we do not find the same fertility and plenty; there is indeed a great show of green, and in some places plenty of good grass, but generally there is a large proportion of *Cardice, Junceaceae*, and other plants, on a thin covering of peaty soil; and these afforded food to Wild Geese and Swans during the summer in former times. Insects are in small numbers, but not so few but that a Snow Bunting can get a good mouthful for its young; Snipes too are well pleased with their entertainment. Lakes are not numerous, but there are a few which satisfy the wants of the Common Wild Duck, *Anas boschas*, and also of the Red-throated Diver, *Colybus septentrionalis* (for Trout and Salmon are not absent), and they serve as fresh water baths to continued flocks of Kittiwakes. There is no heather that could be sufficient for the Red Grouse, *Tetrao lagopus*; no tree or even shrub of a foot in height.

In this brief sketch of the inducements held out to birds to take up their abode in these islands, we should not omit to notice the general peaceable character of the human inhabitants, who do not constantly molest them; but catch them only at certain seasons, and then with as little disturbance as possible. The parasites of man, the dog and the rat, are their only other enemies, if we except the occasional visits of a kind of whale, which the inhabitants call the Trolld Whale, and which they much dread from the havoc it makes amongst their Eider Ducks and their Seals. Sharks are in such plenty as to occupy a vessel constantly in catching them; but they are never known to attack the birds. To the Hooded Crow, *Corvus corone*, and the Raven, *Corvus corax*, the vicinity of man is most advantageous, from the offal and other refuse which falls to their share; but they and some other birds are less agreeable to their feathered neighbours.

The birds which we found breeding in the Faroe Islands are as follows:—

*Anthus pratensis*, Titlark
*Anthus petersii*, Rock Pipit *Saxicola oenanthe*, Wheatear
*Alauda pratensis*, Common Lark, one pair, probably breeding.
*Corvus corax*, Raven.
Corvus corone, Hooded Crow.
Sturnus vulgaris, Starling.
Emberiza nivealis, Snow Bunting.
Columba livia, Rock Pigeon.
Charadrius pluvialis, Golden Plover.
C. hiaticula, Ringed Plover.
Scolopax gallinago, Common Snipe.
Hæmatopus ostralegus, Oyster Catcher.
Numenius phaeopus, Whimbrel.
Tringa variabilis, Dunlin.
Tringa maritima, Purple Sandpiper.
Phalaropus hyperboreus, Red-necked Phalarope.
Anas boschas, Mallard.
Somateria mollissima, Eider Duck.
Columbus septentrionalis, Red-throated Diver.
Uria aalge, Black Guillemot.
Uria torda, Common Guillemot.
Mormon fratercula, Puffin.
Alca torda, Razorbill.
Phalacrocorax carbo, Common Cormorant.
P. cristatus, Green Cormorant.
Sula bassana, Gannet.
Sterna arctica, Arctic Tern.
Larus tridactylus, Kittiwake.
L. argentatus, Herring Gull.
L. fuscus, Lesser Black-backed Gull.
L. marinus, Greater Black-backed Gull.
Lestris catarrhactes, Common Skua.
Lestris richardsonii, Richardson’s Skua.
Procellaria glacialis, Fulmar.
Puffinus anguillarum, Manx Shearwater.
Thalassemia pelagica, Storm Petrel.

This list contains thirty-seven birds, of which the half may be considered purely maritime; of the remaining nineteen, nine are purely land, if we include the Rock Pigeon and the Rock Pipit, and ten are littoral, more or less; these divisions however being arbitrary.

There may be several others that breed besides those in the list, as Mergus serrator, the Red-breasted Merganser, &c., but if so, they are in very small numbers. I saw also the following in July, or the end of June, but I could not get any indications of their having bred:—

Ardea cinerea, Common Heron—a single bird.
Cypselus apus, Swift—one at the end of June.
Calidris arenaria, Sanderling—one pair end of July.
Strepsilas interpres, Turnstone—a small flock.
Tetanus calidris, Redshank—a good sized flock.
Anas glacialis, Longtailed Duck—one male.
I made special search for and inquiries after a number of birds which have been said to breed in the Faroe Islands, but which I could not find any traces of; the principal of these were—

*Falco gyrfalco*, Gyr Falcon.
*Anser leucopsis*, Bernicle.
*Anser torquatus*, Brent Goose.
*Somateria spectabilis*, King Duck.
*Columbus glacialis*, Great Northern Diver.
*Uria brünnichii*, Brünnich’s Guillemot.
*Mergulus melanoleucus*, Little Auk.
*Alca impennis*, Great Auk.
*Larus glaucus*, Glaucous Gull.

I will proceed to make a few remarks on some of the birds in the first list—there occur in it the names of only two birds which are not known to breed in Britain; the first of these is the Snow Bunting, *Emberiza nivealis*, which breeds very scantily near the tops of the mountains; but in the northernmost islands of the group, on the lower grounds, and in small colonies. A neatly made nest, placed under a large stone, had young almost fully fledged at the beginning of July. We had the pleasure of hearing its sweet little song spoken of with so much delight by the northern voyagers. The second bird, not known I believe to breed in Britain, is the Purple Sandpiper, *Tringa maritima*; this appears to be the *Fiadl-Murra* of one of the older writers on the Birds of Faroe, for we found it breeding on the summits of the mountains in small numbers; young just fledged at the end of June.

Of the Raven, *Corvus corax*, I saw the black and white variety, which has been called a species under the name of *C. leucophageus*; but two were shown to me alive which came out of the same nest with purely black ones; they were marked irregularly and differently from each other, and had none of the characters of a species. The Raven, but still more the Hooded Crow, is almost a domestic bird in Faroe, and very abundant. The Common Snipe, *Scolopax gallinago*, is remarkably tame, and may be seen feeding near houses, and within a few yards of men; it is in considerable numbers. I looked in vain for *S. gallinula*. The Whimbrel, *N. phaeopus*, struck me as being one of the most characteristic birds of the island, for it is very abundant, and entirely replaces the Curlew of the Highlands, as it only very partially does in Shetland. It was constantly flying round us just out of shot, in company with the noisy Oyster Catchers, and occasionally Golden Plovers.

The Red-necked Phalarope, *P. hyperboreus*, we only found in one remarkably swampy little valley, where also bred Dunlins and Golden Plover—the former called in Orkney, Plover’s Page, from their habit of attending the Plovers in their flight—Arctic Terns, and the year before we were there, we were told a pair or two of Black-headed Gulls, probably *L. ridibundus*, frequented it. On the
margins of the deep pools in this district, we found the nests of *Colymbus septentrionalis*, raised in a remarkable manner to the height of a foot, reminding us of the Swans' nests on the banks of the Thames, a practice I had not seen before in the nidification of either of the *Colymbi* whose nests I know; and here was an adaptation to circumstances, for the water was on a level with the surrounding moss.

The Eider Duck, *S. mollissima*, has of late years been provided with little houses to build in on certain islets; but the great Gulls, *L. marinus*, still rob many of their eggs. The quantity of down procured in the Faroe Islands is very inconsiderable.

The three birds which principally tempt the inhabitants to their feats of rock climbing are the common Guillemot, *U. troile*, the Razorbill, *A. torda*, and the Puffin, *M. fratercula*; but the Razorbill is comparatively in small numbers, perhaps not more than one to twenty Guillemots. The Puffin is by far the most numerous of the three, and swarms in an almost incredible degree. A hand net, made like a small shrimp net, is raised for them to fly into as they pass; and the sudden exertion upon the grassy slopes gives occasion to many fatal accidents. In climbing for Guillemots with the help of ropes, accidents very rarely happen. All the mode of proceeding in bird catching is just as it was described by Luke Debes 250 years ago. We were shown a tame Puffin, which was known to be twenty years of age; it had lost the triangular plates round the eye. We saw several semi-albino varieties.

I was anxious to see whether there was one or three species of Guillemot in the Faroe Islands as has been said. I could not distinguish there any *Uria brünnichii*, but the so called species *Uria lachrymans* was in plenty, as I had also found it in Caithness, Sutherlandshire, and the Shetland Isles. It was amongst the other Guillemots in the proportion of perhaps one to ten; it lays a similar egg, as I ascertained myself in several instances; it was of both sexes, and not as the natives thought, of one sex; some of them saying it was the male and some the female. I did not find out whether or not they paired together; but I could not see any thing to lead me to suppose that there existed a specific difference. We should bear in mind that very nearly similar markings about the head, or their absence, formerly led to the making two species of *Alca torda*. Mr. Gould, though he has figured *Uria lachrymans*, doubted its value as a species, but M. Temminck and Mr. Yarrell consider it distinct.

The Black Guillemot, *Uria grylle*, the Sea-pigeon or Dovekie of the Arctic expeditions, is characteristic of the north, but it extends to the islands of the north of Scotland, and even to Ireland and Wales it is said. It lays two eggs, under stones, not far above the sea. When it has young, on the approach of an intruder, it sits making a plaintive noise like that of the Robin.

Of the two species of Cormorant I may remark, that the young is considered almost the best of the sea birds; and my friend and
myself agreed that it made by no means a bad dish; but I must
state, that our only alternative at that time was dried mutton or
whale’s flesh. Guillemots, too, and their kindred, are very eatable
when properly cooked; and we had the opportunity of tasting them
at a clergyman’s, where were some very good things with which to
form a comparison. Gulls are very inferior, but the reported best
birds of all, young Shearwaters, we had not the chance of tasting.
Of the young of one of the Cormorants we saw a remarkable
monstrosity; it had four legs, two of which were combined into
one, situated centrally and posteriorly; it was much shorter than
the others, and useless. Unfortunately the body had been eaten the
day before; the skin was to be sent to Copenhagen.

The Soland Goose, called Sula by the Faroese, and Jan van Gent
by sailors, according to Landt, whence perhaps our name of Gannet.
This bird occupies one large rock, the west end of the Faroe Isles;
for the Shetland and Orkney Isles it has the Sule Skerry, which is
thirty miles to the west of Orkney. It has selected St. Kilda, off
the Hebrides, and it has chosen too that most central situation,
Ailsa Crag. It is also said to occupy Lundy Island in the Bristol
Channel—I know not how truly. Lland is the Faroese name for the
Puffin. A Gannet rock is mentioned off the south-west of
Ireland. On the whole east coast of Britain, its only station is
the Bass Rock in the Firth of Forth. The name Sula, I was told,
has a reference to its quickness of sight. It is worthy of note, that
each nation modifies the root of a name to some signification in its
own language, as Mr. Strickland has admirably illustrated in his
eyymology of the word Dodo. Sula is Soland, Jan van Gent is
Gannet, and perhaps both these last from the German Gans, as
it has been lately suggested to me. We must also bear in mind,
that the appellation of one bird is often put on the shoulders of
another, as often illustrated in our colonies. Probably the name
Sheldrer, which in Shetland and the Faroe Islands is applied to the
Oyster Catcher, from its shell eating propensities, has been shifted
to the Sheldrake (Tadorna vulpuser), just as the name Hoody Crow
is applied to the Larus ridibundus in Orkney. So Lomvia is the
Faroese name of Uria troile, Loon the local English of Podiceps or of
Columbus.

Sterna arctica appears to be the Tern which Graba described
as peculiar to the Faroe Islands, under the name of S. brachytarsa.
It was in some numbers, breeding very late. I found no other
species.

In the only two spots where that noble bird, Lestris catarrhactes,
now breeds in the British Islands, it is preserved only by the
utmost vigilance of the proprietors, one of whom, Mr. Edmondston,
has succeeded in recovering the stock, after it had been reduced to a
single pair in Unst. But in Faroe its breeding places are numerous,
though its preservation demands great self control on the part of the
people, for its attacks upon any one approaching its nest are most
irritating. Its blows are aimed at the head, with the full momentum
of the bird's body; and it returns again with the most steady intrepidity imaginable. My friend, who got one thump, took constant and special care to avoid a second; it is only necessary to carry a ramrod or other stick over the head, to prevent the swoops taking full effect. The protection afforded to it lasts only during good behaviour; when a colony is becoming too large, some of them are apt to begin to attack lambs; they are then doomed to the infliction of a battue, which is supposed to act as a warning to the survivors for some years to come. It is said, that only a few individuals acquire this bad habit, but it then grows upon them, just as in the Scottish Highlands, it is a single fox or eagle which gets into the way of carrying off lambs, but which evil disposed one gives a bad name to, and is the death of many of its innocent brethren.

The Skua is one of the birds of which a certain number of heads is required to be given in by every inhabitant annually, by an old law or custom, which reminds one of the mode in which Egbert endeavoured to extirpate wolves in Britain. I do not know whether this is now strictly enforced, but I have seen the people collect heads, when they had an opportunity, either of this bird, or of the Raven, or the Great Black-backed Gull, that is, when they were ready killed for them. I heard that several heads of the Hooded Crow, or Richardson's Skua, might be substituted for one of the larger birds. **Skuir** is the Faroese name of the bird. Richardson's Skua is called Shooi, which I was told has the same meaning as the Greek διάβολος; **Scouti allan** is the somewhat similar name, but as in cases I have before mentioned, one with a different meaning, used in the north of Britain. **Scouti** is said to have reference in Gaelic to its dirty mode of feeding, **allan** being a common name for several birds, as Allan Yaker is the Osprey or Fishing Allan. In Faroe, Richardson's Skua is also, and more commonly, called Kjegvi; sailors know it as the Boatswain.

I have to record a very interesting fact with respect to the Fulmar, *Procellaria glacialis*, which has recently adopted some of the cliffs of the Faroe Islands as a summer station. In the time of Landt, who wrote in 1799, it was only known to those who fished far from the shore, but somewhere about the year 1839 it was observed by the rock climbers breeding, for the first time, near Qualboe in Suderoe, and it has since much increased, and is scattered over several spots on the west cliffs of the islands of Skuoë and Great Dimon; in the latter place, the face where it builds is of great height and quite perpendicular, and the ledges are very small and bare. Eight or ten of the nests that I examined consisted of a few small fragments of rock lining a slight depression. The featherless abdomen of the bird is hollowed into a perfect egg cup shape during incubation, so that the single large egg has the warmth applied to it in the most effectual manner.

I will not attempt to speculate on the reason of this remarkable change of locality, in a bird supposed to be so constant in its attachment to certain breeding places. It is not found in Shetland or
Orkney. St. Kilda is perhaps its only British and also its most southern station. It is, however, said to breed in the island of Barra, perhaps not South Barra, but Bara and Rona, two rocks far to the north of Cape Wrath and the Lewes, whose position was ascertained with accuracy in one of Parry's Arctic Voyages. The Westmanna Islands, where the Fulmar is described as so abundant, are to the south of Iceland, and not in Faroe, as Mr. Yarrell inadvertently states.

*Thalassidroma pelagica* lives in any hollow or burrow, even under the floor of a barn. It is in many localities, breeding late in July. I looked in vain for the nearly allied species, *T. leachii*, which is found in St. Kilda.

Of the birds in my third list, I have to say, that I made the most diligent search and inquiry for them.

*Colymbus glacialis* is believed, as in the north of Britain, to hatch its egg under its wing, so it is not likely that it ever bred in Faroe.

*Mergus melanoleucos* is stated to breed in the northernmost of the Faroe Isles, certainly through some mistake. I could neither find it any where, nor hear of any one who had seen it in summer. Even in Iceland I believe it is only known to breed in one island to the north, which lies on the arctic circle. It is a truly arctic bird, far more so than *Uria grylle*.

About *Alca impennis* I made inquiries whenever I had opportunity, but I could learn very little. An old man, Paul Joensen, had seen one fifty years ago, sitting among the Hedlafuglur, that is young Guillemots and other birds upon the low rocks, and old men told him it was very rare. This was about the time when Landt wrote. Old people have been heard to say, that formerly, when many of them were seen, it was considered a sign of a good bird year, which we may perhaps explain, by supposing that the same kind of weather which prevented *A. impennis* going to the north, also kept more of his congeners from their far northern breeding places. A *Gorufuglir* was formerly valued at four *Lomveis* or Guillemots, when one happened to be caught amongst the Hedlafuglur.

I saw Daniel Joensen, captain of a vessel belonging to Governor Löhner, which went in 1813 to fetch provisions from Iceland to the half-starved Faroe, and brought back some fifty or sixty of the Gorufuglir amongst other birds. They got them on one of the small rocks which the natives were afraid to visit, near Iceland. With respect to this name, Geirfugl of Iceland, Garefowl of St. Kilda, and Gorfuglir of Faroe, I could hear no more than a supposition from Sysselmand Winther, that it was taken from the voice of the bird, for such a noise as that made by *Larus marinus* is called gorra. It perhaps has a common signification with Gyrfalcon. Wormius, in the sixteenth century, had one sent to him from the Faroe Islands, which he kept alive for several months. Hoier describes the *Goirfugel* about the same time, and Ray or Willughby
saw specimens in the Royal Society's Museum, and also in Tradescant's. There are four islands marked in Olsen's large and beautiful map of Iceland, which are called after the Geirfugla; namely, Geirfugla Sker and Geirfugla Drángr, off Cape Reikianes, the southwest point of Iceland, Geirfugla Sker, to the south of the Westmanna Isles, and another Geirfugla Sker, to the east of Iceland. This last is also called Hvalsbak, and the form of a whale's back would be a very convenient one for the Alca impennis to climb up and breed upon. I give all these particulars as the Alca impennis is now looked upon by ornithologists with so much interest as so very rare a bird—so rare indeed, that it has even been suggested that it is extinct. This, however, is not likely to be the case, even without considering the probability of its being found on the Labrador coast. A friend of mine, who visited Iceland three years ago, met with the same fear amongst the natives, about trying to reach these far seaward and whirlpool beset rocks, that the Faroese found on their visit in 1813. But small numbers, both of the eggs and birds, have from time to time been sent from Iceland to continental Europe.

Of birds which are said formerly to have bred in Iceland [qu. Faroe?], I heard of the Eagle, the Wild Goose, and the Swan.

The Eagle, no doubt the Sea Eagle, A. albicilla, which is the only one found in Shetland and in Iceland, and which still occasionally is killed in Faroe in the winter. The point of rock on the Tindholm was pointed out to me where the Eagle had its nest, to which it carried off the child, according to tradition, as related by Landt. I think it probable that these stories, so prevalent in all countries where Eagles are found, are many of them true, and not referable to one common tradition as has been supposed. I have heard in the Highlands several confirmatory particulars.

Wild Geese formerly bred in Faroe if not now, and Wild Swans by tradition in two places, each called Oknadal, from this circumstance.

I will not now attempt to compare the ornithology of Faroe more closely with that of the north of Scotland and its islands. Numerous species are absent, and even the ubiquitous Sparrow is there unknown, but there are no doubt many stragglers beyond those which we happened to see.

We cannot conclude this subject better, than by deriving a lesson from the simple and happy people of the Faroe Islands, in their treatment of the birds which surround them. It is a melancholy thing, to see how at almost all the great breeding places of sea-fowl round Britain, the numbers are rapidly diminishing every year, in consequence of the pitiless persecution which afflicts them—slaughtering parties visit them by trainfuls. The rights of the bird climbers established by long usage, require the assistance of the law; and all persons concerned in the coast navigation should

1 [Mr. Henry Milner.—Ed.]
interest themselves to procure, by Act of Parliament or otherwise, protection for sea-fowl at those places, or at that time of year when they throw themselves entirely upon the mercy of mankind, for by such protection alone can their sure and speedy extirpation be averted; and one of the best kind of beacons, the flight and the clamour of birds; be preserved, to warn vessels in foggy weather of their approach to the dangerous headlands of our coast. There are several lighthouses at which the value of the sea-fowl is properly appreciated; and these, with the Bass Rock and Ailsa Crag, afford happy exceptions to the general rule, and show what may be done. The numbers are not seriously lessened by legitimate bird-catchers any more than in the case of Poultry in a farm yard.

XLIII.

On the Habits of the Kiwi-kiwi \( (\text{Apteryx Mantelli, Bartlett}) \), with a Mention of \( \text{Octodromus} \).

["Zoologist," x. (1852) pp. 3409-3424.]

The actions of animals can only be fully pictured to the imaginations of those who have seen and studied them alive. But persons who have had this advantage, may be able to communicate to others a tolerably good idea of an animal, provided that both parties are familiar with other animals which may afford points of comparison; so many are the analogies which occur amongst the different species of living beings. The task will be rendered far easier if those who read the description have also met with other accounts of the same animal, written by observers of a different turn of mind, from separate points of view, and with varied modes of illustration.

That such facilities for acquiring a knowledge of the manifestations of life afforded by so interesting a bird as the Kiwi-kiwi, may be accessible to naturalists who will never have an opportunity of seeing it alive, and especially to those who may live after the last \( \text{Apteryx} \) has been extinguished from the face of the earth, it seems particularly desirable that many persons should take the present, perhaps the only, opportunity of recording their impressions of a living bird, nothing doubting that, however poor their descriptions, and notwithstanding that better ones may be written by more able men, their own may nevertheless be hereafter found to contain some useful suggestions, or to throw a light upon something otherwise imperfectly understood.

These were the feelings which induced me to prepare the present contribution for the pages of the 'Zoologist,' that valuable periodical which is destined to rescue so many facts and observations from oblivion, and which considers no original communications beneath its notice, however humble their pretensions may be. I shall take
it for granted that my readers are more or less acquainted with the
general construction and proportions of the Kiwi-kiwi, for even the
outlines of a complete description would extend my paper to too
great a length, and I could produce nothing upon these subjects not
already disposed of in the beautiful writings of Professor Owen, in
the Zoological Transactions.

The visitor to the Zoological Gardens who specially asks for an
interview with the celebrated bird, now for the first time brought
alive to this side of the globe, is conducted, by a somewhat obscure
route, to the new building called the “Ostrich-house,” situated at
the north-east corner of the grounds, amongst the trees above the
cutting which forms the Regent’s Canal. Well provided with light,
and with apparatus for supplying heat and fresh air, it is divided into
five stalls, or “ loose-boxes,” three of which are at present occupied
by an Ostrich and two kinds of Antelope. In the furthest of the
divisions is a New Zealand Rail, most appropriately placed near the
Kiwi-kiwi, not only as an additional instance of the extraordinary
Fauna of its country, but as showing the striking contrast of its
habits to those of its neighbour, which it resembles so much in its
plumage and in its want of the powers of flight, whilst it widely
differs from it in the relations of its organization. In a few words,
the Rail is active, inquisitive, playful, moving about by night as well
as by day. It jerks its tail in walking; it peeps and peers about, and
seems to hide things and to find them again, throwing the intervening
material aside by lateral tosses of the beak, almost like a bird of the
Crow-kind. At night, it occasionally utters a very strong cry,
repeated many times in succession, which I can only liken to the
creaking sound I have sometimes heard produced by turning the
large wooden screw of a clothes-press. It frequently gets from the
ground upon the roof of its little house, and thence upon a sort of
shelf; but I have not seen it open its wings in springing up, though
it sometimes does so as it lets itself down. The species is, I believe,
Ocydromus fuscus; a specimen of Ocydromus australis is in another
part of the Gardens: whether they are different species or not, I am
informed that they are indiscriminately called Weka (? ) in New
Zealand, and by the European settlers “ Wood-hen.” The first
named of these birds has lately been imported into England, the
other was purchased at the sale of the late Lord Derby’s animals, at
Knowsley, on the 10th of March 1, 1851.

Interesting as all these birds are, and only wanting a Takahé
(Notornis) to complete the main surviving features of the New
Zealand group of non-volant birds, I must confine myself at present
to a more lengthened description of the one which is especially the
object of this communication.

The stall in which the Kiwi-kiwi is kept is floored with brick, and

1 [“ March ” is a mistake for September; but the bird seems to have been
entered in the Sale Catalogue (p. 42) as Eulabeornis castaniocentris, from North
Australia.— Ed.]
nearly surrounded by wainscoting of planed deal. In the right hand
further corner is placed a heap of light vegetable earth, with an edging
of dry sods, and in the left is the square deal box which serves for a
house, in which the bird spends the whole of the day. This box has
an opening, ranging with the back wall, and hung with a little sack-
cloth curtain, which reaches to within a few inches of the ground,
and under which the inmate passes when he sallies out on his nightly
expeditions. The side of the box nearest to the spectator is made to
let down; by which means the poor Kiwi-kiwi is liable, at a moment’s
notice, to be exposed to the unwelcome glare of day.

It is not easy to speak, with any useful result, of the impressions
produced by the first sight of the bird; these will vary according to
the feelings and temperament of the individual, and more especially
in proportion to the extent and accuracy of his previous information.
The first instinctive action of the mind is to compare a real image
with that already existing in the "mind’s eye." In the more
communicative part of mankind, this gives rise to some exclamation
to which it is not uninteresting to listen. I need only mention as
one of the most frequent amongst the visitors to the Kiwi-kiwi,—
"What a little thing it is!"—often in a tone of disappointment, and
sometimes even of indignation, at the supposed "take in," so natural
is the preference for a sight of animals of not insignificant
dimensions. Probably false notions of size have been derived from
representations in some of the illustrated periodicals.

The physiognomy is one of the first things which strikes most
persons on seeing a new creature, for we naturally refer everything
to the human standard. The epithets of "ugly," "queer-looking,"
"stupid," are often coupled with such as "clumsy," "sulky,"
"spiteful." How these may severally be deserved, will be gathered
from what I have to relate. It is certain they are too generally
applied not to be highly indicative of impressions produced upon
a large proportion of the spectators.

For my own part, as I was not unacquainted with the principal
places where descriptions and figures of the several species of
Apteryx were to be found, I may perhaps be pardoned for mentioning
what most struck me on my first visit as different from any pre-
conceived notions; though I do not mean to infer that other persons
would not have derived more accurate ideas from the same sources.

The various positions, and the expressions of the face, were new to
me, for those had not yet been transferred to the painter’s canvas.
The little convex eye had been described by Professor Owen, but its
colour had been represented by others as red or green instead of
black; and its Rat-like or Hedgehog-like expression, heightened by
the long bristles placed near it, and representing the "whiskers"
which are so much developed in Mammalia of nocturnal habits, could
hardly have been realized until seen alive. I remarked the stoutness
of the feet and naked part of the legs. I was struck by the scratched
and dead-white appearance of the large and bony-looking beak, which
so much reminded me of a Rook’s in that particular, that I actually
went away with an impression that it was worn naked at the base in this individual, a mistake which I was afterwards able to account for by the greyish colour of the feathers on the fore part of the face. The length of the whiskers and the arrangement of the scales above the bend of the foot, showed that it was of the species which Mr. Bartlett has separated under the name of A. Mantelli, as he himself has assured me he had ascertained it to be, even before he saw it, by merely feeling the wing, and so learning the nature of the little feathers upon it. Therefore also it is fortunately of the same species as the various specimens described with such care and success by Professor Owen, under the name of A. australis, but different from the original A. australis of Shaw, which was so cleverly restored by Mr. Yarrell. The length of the beak makes it appear probable that our bird is a female, if, as Professor Owen is inclined to believe, the sexes can be distinguished by this character.

To return to the box, which some time ago we supposed to be opened. If he has not lately been disturbed, our friend, upon his bed of straw, is usually in a position which it is not at first sight easy to understand, so that any one who has not studied it as often guesses wrong as right, when asked upon which side of the body the head is placed. He is rolled into a somewhat oval shape, and nothing is presented to view but what has, from a little distance, the general appearance of hair mixed with bristles. In this assemblage of singular feathers, for so, upon closer inspection, they turn out to be, there are seen at one end of the body certain lines and centres of divergence, which afford a clew to the mode in which it is packed. On a more inquisitive examination the arrangement is found to be such as I shall endeavour to describe. The feet are bent under the body, of which the principal part of the weight reaches the ground at the tarso-tibial joint; the claws are contracted, probably by the action of the perching muscle described by Professor Owen as not absent in this terrestrial bird. The great size of the thighs gives considerable elevation to the hind part of the body, and in front the little rudimentary wings rest against the knee, if I may so call the femoro-tibial joint. The neck takes a turn downwards and then upwards, sometimes to the left and sometimes to the right side of the body; the head, facing backwards and pressed to the side, lies above the wing, and the beak is placed along and supported by the upper side of the left or of the right thigh, as the case may be. In this position the point of the beak, close to which the nostrils are situated, reaches nearly through the feathers at the hinder part of the back, so that the breathing is unimpeded. The head is in its proper horizontal position, and the eye on the side away from the body may sometimes be seen peering through the overhanging feathers. In the hollow space formed by the bend of the neck, a number of the feathers of the body protrude

2 [This proved to be true, for the bird in 1859 laid an egg, the first of several afterwards produced (Proc. Zool. Soc. 1859, p. 350).—Ed.]
and fall against the upper part of the neck and head, which last is
completely covered by the long feathers that arise above the wing;
the course of the beak, the hollow between the thigh and the back,
and also the wings, are quite concealed by the feathers which sweep
over; but the feathers on the side on which the head happens to be
placed, are seen to be raised to rather a higher level than those on
the other side of the back. The end of the back-bone, that is, of the
coccyx, which supports no tail, nearly touches the ground. The
outline of the body, beginning from behind, first rises steeply to the
top of the insertion of the thigh, then rather rapidly changes to
horizontal, which part is almost twice as long as the nearly vertical
hind part, and in front the outline is very soon inclined under the
body. The only visible sign of life in the form before us, for no
respiratory movements are seen externally, is an occasional slight
lateral swaying or tottering, perhaps owing to the unstable supports
of the body resting on a foundation of straw.

This position of rest affords an opportunity for a close approach,
and it was thus that I ascertained that a strong smell, something like
that of dead leaves, really proceeds from the skin of the animal: it
reminded me very much of the smell of the Hedgehog. If it be done
very gently, the fingers may be passed amongst the feathers without
causing the bird, although its eyes may be wide open, to change its
position; when the comfortable feel of the diffuse and downy lower
webs is found to contrast strongly with the comparative harshness of
the short and unbarbed webs of the upper part of the feathers, which
alone, with the prolonged bristle-like or almost spine-like shaft, is
visible externally. But I have not by this or any other manœuvre
been able to feel the beat of the heart, either in the trunk or in the
extremities; whilst, from the heat of the body, the circulation must
have been actively proceeding.

If now the Kiwi-kiwi be roused gently, the head is removed from
the side and directed forwards, the beak not being withdrawn like a
sword from its sheath, but like the blade of a clasp knife sweeping
through the feathers, the end of it therefore in the action describing
a sort of semicircle in the horizontal plane. The neck may continue
to lie against the body, and this gives rise to the appearance of a
kind of frill (like that of the variety of Common Pigeon called the
Jacobin) at the back of it, where its nearly erect feathers are
pressed against the feathers of the body, and turned aside and
forwards. The beak, however, is never literally in the horizontal
plane, it slopes downwards from the first, but keeps getting lower
and lower, until the end of it actually rests upon the straw or upon
the ground, but so that there is still a considerable slope in it. In
the mean time the eye is wide open, the eyelids leaving exposed a
complete circle. The margins of the eyelids are not warty but
entire, and they are not expanded to form projecting eaves, as they
are in Owls. In fact these little eyes afford the greatest possible
contrast to the large ones of those equally nocturnal birds, and they
differ from them as from all other birds’ eyes, as Professor Owen
discovered, in the absence of the characteristic internal structure called the marsupium. They are apparently not affected by the light, for there is none of the winking and blinking which is so peculiar to the expressive eyes of Owls, though its cause may be questioned. I have only once or twice observed a single pass of the nictitating membrane, and that was by no means rapidly conducted, the colour of this membrane appeared to me to be bluish-white. Sometimes the eyes gradually close from sleepiness, the lower eyelid advancing nearly over the whole eye. In the sitting position which I have been describing, the bird will remain for a long time, and he is often seen in it when the box is opened.

Sometimes again he is found with his legs perpendicularly under him, in this respect standing as the Storks and some other birds often do. The feathers of the rounded body do not reach down below the end of the fleshy part of the leg, the head is very little advanced from the body, and the beak rests nearly perpendicularly, with its point upon the ground, so that the figure of the bird is something that of a globe upon a tripod. From this position he often seems inclined to bend his legs under him, so as to attain his former one, but on other occasions he remains standing for a long time motionless, and then an opportunity is afforded of ascertaining the rate of breathing, for there is a slight movement observable in the feathers of the underside of the body; several times I have counted about twenty-three respirations in a minute. Here also, as before, the beak seems for the most part to drop gradually into its place, and not to be deliberately put into it to form a support.

From this figure it is very curious to see the sudden change which is produced when the bird is irritated. He then lengthens himself out, straightening his back and neck, and standing nearly upright. There is generally a slight bend forward of the lower part of the neck, which, with the feathers upon it, does not seem much narrower than the part of the body which immediately succeeds it. A little lower down there is a lateral enlargement from the rudiments of wings pushing out the feathers, and in front there is a degree of forward curve, but how trifling when compared with that which appertains to birds whose breast-bones have a keel supporting a mass of muscles! Proceeding downwards, the belly, so much longer than that of other birds, seems to retire somewhat until we come to the thick fleshy legs, which, supplied with their own feathers, are not overlapped by those of the body, but show their whole contour, even standing out so as to allow to be seen above them the interval which exists between the true thigh and the belly. The pale colour and the finer clothing of the middle space of the underside of the body, give it very much the appearance of that of a mammal; the size of the lower extremities and the general shape reminding one of a Kangaroo perhaps more than of a Penguin, which has a figure far more thick and compact than the Kiwi-kiwi has. The beak is sloped down considerably, so as to become nearly parallel to the neck. I have fancied that in this condition there is more of the white of the
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eye visible at the hinder part of it, which gives it a wild expression; but this "white of the eye" is rather of a deep livid colour, not separated from the black by any sudden line. Perhaps the feathers of the head and neck appear more erect than before the putting on the attitude of defence, but they are at all times so much so as to have the appearance of fur. There is never the slightest attempt to use the beak in defence either by pecking or biting; though, from its great strength, it seems that it might be effective in the former way; but the Eagle affords a similar instance of reliance upon the feet alone; for Sutherlandshire keepers, who have had many encounters with Eagles, have assured me that the beak has never been used in those engagements, whatever opportunities may have been offered to it. The Kiwi-kiwi seems to have little notion of lowering the head or putting it on one side to avoid the hand that is intruded upon it, though the whole body and neck are then drawn back, the front always towards the enemy.

When any approach from the front is made to the bird in this warlike state (and it is never possible to avoid causing a demonstration of his wrath, unless by the most gradual advances), he soon shows his method of attack. He suddenly raises his leg, sometimes the right and sometimes the left, and strikes downwards with great force, while the other leg remains a steady and generally unmoved support. In this act he takes a great range, raising his foot quite up to his breast, sometimes, I should guess, a foot from the ground as he stands upright. Occasionally he aims a blow sideways, as an Eagle will do, but differing from that bird in this respect, that the kind of injury he is able to inflict, requires an impetus only to be obtained by a great previous elevation of the foot, whilst the Eagle has only to direct his aim by the shortest possible route.

I have known the Kiwi-kiwi to reach a hand placed upon his back, but then he has been in a more horizontal position. Generally the movement is sudden and unexpected, but sometimes the leg is raised up to the breast with the claws expanded, and kept there, at least in one instance, for several minutes; so that I began to think he was bond fide resting upon one leg, as I have never otherwise seen him do.

I do not know which leg he uses most frequently, but at any one visit he generally is seen to use the same one in all his blows, but not always. Sometimes, again, he takes a kind of spring forwards, and possibly strikes with both legs. These, and the other attacks, when made in good earnest, are accompanied by a kind of growl or grunt, like that of an angry Rabbit, which any one who has put his hand into a hole where there is a tame Rabbit well knows. The growl is often closely either followed or preceded, I am not sure which, by a snap of the beak, which snap is not so sharp as that made by an Owl, and more feeble, perhaps like the noise made by holding together by the ends two small leather straps (say of the size of six inches by one inch), relaxing them in the middle, and suddenly bringing them together again. This additional menace,
however, is by no means a universal or even a general accompaniment of the growl.

On my first interview there appeared to me to be a kind of vicious dig or catch in the middle of the stroke, which made it, as it were, double; and I conceived a theory that this was for the purpose of first driving in the spur-like claw of the hind toe. Prof. Owen had, however, previously shown that this supposed spur had no existence as such, at least in A. Mantelli; and I have since that occasion seen little indication of the double stroke. I have frequently subjected my hand and hat to the blows, and have never felt the hind toe or seen the mark of it. The three anterior claws, or one, or two of them, sometimes inflict scratches, and sometimes the blow takes more the form of a pat, perhaps according to the way in which it happens to be received, for the aim is very bad, and often, I can only speak for daylight, very wide of the mark. As to the force and effect of the stroke, I have not seen it draw blood, though it once nearly did so on the tender side of my wrist; were the claws less blunt, the scratches would probably be severe.

I may here mention the highly amusing scene which occurs when the keeper places his open hand upon the lower part of the bird's back, and gently pushes him forward, to bring him better into view. Kiwi-kiwi does not think of turning upon his assailant, but holding himself more upright than ever, pushes backwards with a force altogether unequal to that used against him, and serving only to give a more steady purchase to his adversary, so that he is obliged to advance with little, reluctant steps, occasionally interrupted by a stamp, for he has not time to make a full stroke whilst his centre of gravity requires such constant attention.

When he has been exposed for some time, during which, if he has not been approached too closely, he has probably maintained a sullen inaction, he begins to move his head and beak, which last he uses like the antennae of an insect or the nose of a quadruped, but not exactly like either. He does not steadily scent about like a quadruped, but moves his beak from place to place, touching some substance or other, and then stopping for an instant, apparently to get the smell; perhaps not unlike a Cat in a strange room, only that the bird does not seem to take a second or prolonged smell at the same object. In fact, his mode of proceeding is, as far as I know, quite peculiar and original. So he pokes his beak through the straw in various places, touches the ground and dwells a moment upon it, and repeats the process until, perhaps, in some part, his whole beak is buried, and this being hidden, his whiskers and small eyes give his furry-looking little head very much the appearance of that of a quadruped. He will then take a sudden rush, forcing his body head foremost horizontally under the straw with the rapidity of flight, his legs alternately pushing behind him, with the joints in such positions and states of flexion as those of a quadruped would assume under the same circumstances. As, for instance, in the leg which happens at the moment to be hindmost, when the toes are on the
ground, the femoro-tibial joint may be nearly on the same level, whilst the intermediate tarso-tibial forms an angle considerably above it. If there is plenty of cover he stops when he is quite concealed, but if the straw is scanty, he will work on even once round his box, or further. Should a bystander press down the straw before his beak, so as to defeat his purpose of plunging into that point, he manifests great determination in attempting it elsewhere. I have not been able to make out that he ever lies under his straw, unless he has been previously disturbed.

One day he placed his beak on the door of the box which is let down upon the floor, tried it in different places, and stepped out upon it, using his beak in every direction, feeling the wainscoting even nearly as high as he could reach; but all this with a want of discrimination which agreed with the impression of a deficiency of intelligence previously derived from his whole conduct and appearance. He had advanced some little distance from his box, with his body in the semi-erect position; he gave one the idea of his being in a state of uncertainty as to where he was, but soon seemed to recollect himself; yet, instead of going in by the way he had come out, he ran towards the back wall, then, as soon as he reached it, turned suddenly and rushed under his curtain. On this, as on other similar occasions, he charged strenuously again and again, throwing himself against any one impeding his retreat to his den; and he never, in the presence of persons, shows any notion of escape from his confinement. He is not nervously timid, for he does not start at a sudden noise, though, as I shall have occasion to mention presently, he has excellent ears. It is evident that he can see by day, from his attacks upon anything brought near him; but he never looks about him, and this gives him a mopy appearance, very different from that of most birds. How opposite, for instance, to that of his neighbour, the Weka, who is always turning his head and directing his eyes, stooping down to peep under or standing on tip toe to look over an obstacle.

The mode of life confirms Professor Owen's deduction from the organization, that in the Apteryx the sense of smell is developed at the expense of that of sight; and this is associated with many peculiarities of disposition and habits.

He seems as irascible as when he first came over, several months ago; but it is fair to mention that his temper was spoiled on board ship, for his fellow-passengers are said to have been in the habit of teasing him. He does not at all know his keeper, which is not to be wondered at, considering that he feeds at night. Earthworms, and a considerable quantity of meat cut into pieces the size of dice, are placed in his stall every evening: the latter in a corner, and the former in a flower-pot with a hole in the bottom, through which they crawl into the heap of soil which I formerly mentioned. Most of the meat has disappeared by the morning, and holes made by the beak of the bird all over the soil, show how busy he has been in hunting for worms. A track made all round his stall tells how much he paces near the outskirts of his territory. His digestion, from the
quantity of food he eats, must be excellent. His droppings are liquid, like those of carnivorous birds, and each of them spreads perhaps for four or six inches square upon the bricks, the white urinous part generally predominating in quantity. Once when I saw him mute, he shuffled a little backwards first, as some other birds, especially young ones, will do.

I have on one occasion lately seen him eat worms out of my hand. I had advanced them gently to the point of his beak; he seized one, and then relaxing the grip of his beak and darting it forwards, and now closing it again upon the worm and drawing his head backwards, repeating these movements three or four times in rapid succession, he moved the morsel up to his mouth, and perhaps with a slight shake, such as a dog gives a rat, and then with a gobble-gobble like a young Rook only much less loud, and with several snaps of the beak fainter than those I have before described, greedily swallowed it down. I do not know that there was anything different from the ordinary mode of seizing and swallowing food as practised by long-billed birds, only the way in which he brought it about reminded me of the unconscious promptitude with which a newly-caught Mole or Shrew rarely fails to fall upon a worm presented to it. Another time, before a number of people, he gave a most ungracious kick when a smooth caterpillar was held to his nose.

There is, however, much which it is not fair to judge of by day. An animal awakened from its sleep might well appear stupid and sullen; its eyes might be dazzled, its paces might be unnatural; in short, it was most desirable to see him quite unconstrained at his proper time for action, for his whole conduct and character might then appear different, and then only could his mode of finding his food be fully ascertained. I have now twice had the privilege of so watching him when he believed himself unobserved. A lamp had been suspended for several nights in front of his cage, to accustom the Kiwi-kiwi to it, when I had the pleasure of accompanying a distinguished member of the Zoological Society 1 on a nocturnal visit early in February, on which occasion we saw the bird to advantage: but I will rather describe what happened at my second lying in wait, which took place in the evening of February 28, 1852, and was on the whole more successful than the former one.

I took my seat in front of the stall as it was becoming dark, having a bull's-eye lantern on the ledge before me, so that I could not possibly be seen by my quarry. The first sounds proceeded from the Weka; he had hopped upon the shelf at the back of his cage, and remained in the full light of the lamp troubled with a fit of sneezing; previously to this, however, he had raised one of his powerful series of cries. Not long afterwards my attention was called to rustlings in the box of the Apteryx, which showed that he was on the move, and for some time I continued to hear snaps of the beak, from which I concluded that he might be preening his feathers, an operation

1 [Mr. D. W. Mitchell, then Secretary of the Society.—Ed.]
I have never been so fortunate as to see him perform, but for the facilitating of which he is described as being, like other birds, provided with an oil-gland. Presently he put his head under the curtain and stepped out, feeling his way, or smelling it, with his beak. He advanced towards the front in the dim light, his body rather rounded, his hind quarters reminding one of a Bear's in contour, his head lower than his back, and his beak dotting about from spot to spot, actually touching the ground, as was perceived plainly enough by the tap when he was on wood; and scenting also, as was inferred from the slight delay on each point, and from the little snifle which often followed it, apparently to clear away any dust which might have got into the nostrils. Not unfrequently he walked about without any of this investigation, the point of the beak, however, being seldom raised far above the ground; I have never seen him use his beak as an assistance to progression, at any time.

Once or twice he shook himself, but not in a remarkably vigorous manner, as his development of cutaneous muscles might have enabled him to do. Several times he scratched his skin smartly with the claws of one foot. He was not long before he paid a visit to the heap. He inserted his beak into the flower-pot and ate a worm, but then immediately began to examine the soil in preference to adopting so lazy a mode of getting his breakfast, for that there were still worms in the pot was proved by his presently returning to it and eating another or two, although they might not be such healthy and well-seasoned ones as he procured elsewhere. I was much pleased to find that I could turn the full light of the bull's eye upon him without disturbing him, so that I was able to see his movements sufficiently distinctly.

Standing with one foot a little in advance of the other, and holding his beak in a more or less slanting or again in a nearly upright position, he pushed it into the ground by a succession of four or five shoves, following one another at intervals of something less than a second of time, each of them accompanied by a slight sound just audible to me, but whether caused by the friction of the beak against the soil or by a sniff underneath it, I cannot say with certainty. In this act the whole body, head, and neck, moved together, the feet appearing to be the pivot on which all turned, and there was not any drawing back to get an impetus for each new shove. At last, withdrawing his beak, he was heard to swallow a worm with the usual snaps, or, if unsuccessful in finding one, at least to give a little sneeze to clear the nostrils. He then perhaps takes a step in advance, and applies his nose very deliberately and attentively to several parts of the soil; almost seeming to listen, but never approaching his cars to the ground or turning his head on one side. Respecting the pushing, he may almost bury his eyes before he reaches the worm, and sometimes he has to give one or two lateral jerks, to obtain room to turn his beak into a new direction, for he seems to be following his prey by scent under ground. The soil is so light as to offer little resistance, being for the most part imperfectly decomposed
vegetable matter. He employed himself in this worm-hunting for a considerable time, leisurely examining the whole heap. More than once he stretched himself, standing on one leg, extending the other behind, and protruding his neck and body in front to their utmost extent. But a partial stretching of the legs behind was frequent, an action accompanied in other birds by an extension of the corresponding wing. I had many opportunities of observing that his sense of hearing is acute, for if I made the slightest unusual noise, he stopped in whatever he was about, and remained perfectly motionless for a few seconds. All the while the only sounds heard from him were the scarcely audible rub made by the penetrating beak, the snapping of the mandibles as the worms were being swallowed, or the sniflle as he brought his nostrils above ground after each act of exploration. The light thrown just upon the extraordinary-looking being gave a very striking effect. His long legs and beak, his unearthly figure, his quiet mysterious movements, just visible upon the black soil, made one think of warlocks and such "lang-nebbit things"; and then again of the sailors in the New Zealand yarn, who lay out to wait for a Moa, and on seeing it come out into the light of the moon, were afraid to fire.

When at length the Kiwi-kiwi left his hunting-ground, he came forward to his hudder and ate one or two bits of meat, apparently finding them not by the eye, but by the sense of smell, for he did not at once direct his beak to them, but kept dotting it about until it alighted on them; though at this time I think the light was not in his eyes. Soon afterwards he went to the wainscot to my left hand, and ran backwards and forwards along it for a short distance, turning round awkwardly towards the wainscot, so that his beak clattered against it and got in his way. He ran quicker and quicker, until his legs slipped from under him in a sudden turn, and he fell sideways. He recovered himself immediately, and trotted rapidly into his box. It is probable that the light, or some movement I had made with it, had caused a sudden panic, or confused him; but I have seen him running backwards and forwards against the wall when disturbed in the day-time. In his box I presently heard his beak snapping at the rate of four or five to a second, for several seconds together, as I had never heard it before. In a few minutes he came out again, quite composed, and strode about following his old occupations.

I have before alluded to his principal modes of progression, but cannot hope to give an accurate idea of them. His fastest pace, if I understand it rightly, is made up of a succession of rapid strides causing the continuous advance of the body in a scarcely undulating line, both feet never being off the ground at once. But a more ordinary pace is a kind of elastic trot, which I have heard compared to that of the Cassowary, and which is characterized by a slight approach to the bounding action which most persons are familiar with in the Ratel [Mellivora], but I cannot say that it is produced in the same way, for I have not been able to analyze it satisfactorily in
the disadvantageous circumstances under which I have generally seen it. In none of the paces is there anything approaching to a strut or a play of the head and neck, or any of the more elegant modifications of terrestrial locomotion observable in other birds: on the other hand there is no waddle, and nothing like a series of hops. Tail there is none to jerk or spread; the wings are invisible, and the feathers I have never seen to be raised or lowered to give expression, unless perhaps those of the neck. The principal variety is in the relative position of head, neck, and body. The bird can run in the most elongated upright posture, and generally does so when disturbed; but the more contracted mode of carrying himself, with head below the level of the top of the rounded back, is adopted for ordinary progression.

All the time I was watching him he uttered no cry, nor have I or the keepers heard him make any sound, except the growl, which it would be too great a compliment to designate a war-cry. He did not use his feet to scratch up or scrape the soil, and as he has never done so, so far as I have heard, there appears little likelihood in the account that he burrows in the ground in his native country—his long beak would probably be in the way were he to attempt to do so. As it has, I believe, elsewhere been suggested, his habits are probably in many respects like those of the Hedgehog, of which animal he has often put me in mind, and, like it, he may make his lair in corners in a good thick cover, such as the fern-thickets of New Zealand afford.

With respect to his food; various kinds of insects have been found in the stomachs of those which have been dissected, and our bird has been known to eat grubs, very young mice, pieces of meat, and worms, being especially fond of lob-worms. His mode of piercing the ground seems to be too zealously practised not to be a constant habit, and it is probably amongst decayed leaves and vegetable matter that the Apteryx principally obtains its food. Mr. Yarrell describes a valve in the A. australis which would be pressed against and cover the nostrils in the operation; but Mr. Owen speaks only of the form of the bones as affording some protection in A. Mantelli*. It is at all

* Dr. Mantell remarks, in speaking of the "common species" of Apteryx, having just before mentioned the three species, that "the nasal apertures are in the base of the beak; ** by a strange mistake the nostrils are stated by authors to be at the extremity of the beak."—(Fossils of Brit. Mns., Oct., 1851, p. 107). Mr. Yarrell had described the nostrils as opening at the end of the beak in Lord Derby's original specimen of A. australis. Mr. Owen, after a careful dissection of what is now called A. Mantelli, had described them similarly in this bird; and, if my memory serves me, Mr. Gould had given no hint of any other mode of formation in A. Owenii. Dr. Mantell's more recent assertion must not lightly be passed over; and I see that in a specimen of the true A. australis in the British Museum, there is, in addition to the openings near the tip of the beak, an appearance of two tubes between the cere and the base of the beak, such as is not observable in A. Mantelli, which however is the "common species." I have not yet examined this curious though perhaps fallacious structure. Mr. Bartlett in the paper read before the Zoological Society [Proc. Zool. Soc. 1850, pp. 249-251], in which he established the two species, and spoke among others of Dr. Mantell's specimen of A. australis, made no allusion to any difference in the nostrils.
events not very obvious externally, but it is difficult to understand how stoppages of the nostrils should not be constantly occurring unless there is some such safeguard. I do not remember ever to have seen either Snipes or Woodcocks in the act of piercing the soft ground; it is probable that they do it by bearing forward the weight of the body as the Kiwi-kiwi does, but whether the different sense which predominates in their beaks does not cause some departure from the exact method in which the Kiwi-kiwi operates, remains to be learned. I am not aware that water has ever been offered to him; it would be interesting to know whether he would ever drink or wash.

I have never observed any use made of the little claw at the end of the wing, which is far too feeble to be available for defence. This claw is probably only a development showing the relationship of the wing to the legs, or, when compared with other animals, to their fore legs. A similar claw is attached to the longest digit of the wing of a nesting Eagle.

I have only to add that one of the keepers tells me he has seen the _Apteryx_ lie on its side, and strike out like the Rat-Kangaroo [Hypsiptyonanus]; but I believe he saw it only once. He also on one occasion, when the box was opened, found it lying upon its side, with its legs stretched out. These actions however I have not seen.

There are many points which require a better description than I have been able to give, and especially the paces, the positions, and the general expression. Some good paintings would be far better than any other means of explanation, and are indeed indispensable accompaniments of a complete history, for the benefit of futurity. One considerable addition to our records will be a series of footmarks, which Mr. Mitchell is, I believe, intending to obtain.

Many more particulars in the habits of the _Apteryx_, especially of it in a state of nature, remain to be observed; and indeed something of its nidification is already known in this country; but some of the peculiarities which I have endeavoured to describe are sufficiently remarkable, and their duration amongst the things that are is sufficiently precarious, to engage the services of more capable pens than mine.

21 Cambridge Terrace, Hyde Park,
March 1852.

**XLIII.**

**Occurrence of Triton palmites in Scotland**

[1 Zoologist, x. (1852) p. 3426.]

Last April I saw _Triton palmites_, Daud., in plenty, on moors between the foot of Ben Nevis and the Caledonian Canal, and in the same

[1 See Nos. XXIII., XXV., and XXXVI.—Ed.]
little pools where the Common Toad was spawning. The record of any new locality is useful in tracing the distribution of a species. I have not happened to hear of this Newt being found in England, except in the South and South-west.

21 Cambridge Terrace, Hyde Park, March 1852.

XLIV.

ON THE SPECIFIC DISTINCTNESS OF THE RINGED GUILLEMOT.

[‘Zoologist,’ x. (1852) pp. 3477-3479.]

In an interesting note (Zool. 31:25), Mr. A. Newton remarks it can only be ascertained by repeated observations whether or not the Ringed Guillemot is to be regarded as a distinct species from the Common one; but he expresses his opinion that it is a point which may be easily ascertained, and he feels that it is highly desirable the question should be settled. Whilst I cordially acknowledge the justice of these views, I confess I do not see any probability of a speedy settlement of the matter. Assertions which find their way into books of authority are very long before they entirely lose credit. They are handed down from one writer to another; they are received as articles of early faith to which one is apt fondly to cling in after years: those who might make original observations not caring to run the risk of unsettling their former belief, whilst those who have no personal opportunities of inquiry prefer the established authority of their first favourite to that of any one who has been rash enough to call it in question in any point. Numberless feelings are operating in the same direction. In questions of species, this man has specimens which are valuable as long as the species is supposed to be distinct; that man has some equally powerful bias, of which he may not be at all conscious. Few persons are actuated by a pure love of truth. But these are not the only difficulties. There are differences of opinion as to what really constitutes a species, and not many people have clear ideas on this head, none, I believe, can have any permanently settled notions. At all events, those who hold the opinions which have been recently advocated by several of the most advanced men in palæontological research must be in some perplexity. If certain living beings have made their first appearance not in one spot, but in several parts of the world independently, in one case precisely similar to each other, in another so nearly similar that they will still breed together continuously, in a third so that they commonly breed together for one or two generations: if on the other hand, as we know, ages of peculiar influences may have subsequently made apparently distinct races, that is what we call permanent varieties.
of various branches from one common stock;—it will be admitted we must be in considerable difficulty in adapting the word species to our new ideas, and supposing this to be done, great obscurity must still remain respecting individual cases. Without, however, discussing the question,—What is a species? it appears to be pretty generally agreed that if no obvious structural difference can be shown to exist, beyond what may be due to age, sex, or season, there is no presumption of a distinction of species, unless at all events there can be found some marked variations in the actions of life, and especially a constant restriction in interbreeding. It follows, if the rule is stated correctly, that Mr. Newton must not throw the onus probandi on those who do not believe the Ringed Guillemot to be a distinct species, at least if this assertion be not denied, namely, that there has not been proved any appreciable structural difference between it and the Common Guillemot. For a constant restriction in interbreeding has not been shown, and the only variation in the actions of life hinted at has been the occupation of particular shelves of the rock. But that peculiarity might be owing to age, for it is probable that of all gregarious species, as certainly of Rooks, the old birds take the best places for themselves, leaving the outskirts to the younger members of the community. Even then admitting the fact of the segregation, I think no case is made out for those who would subdivide the species of the Common Guillemot. But I do not admit the supposed fact as a general truth. Even if the information given to Mr. Proctor in Iceland be correct (and Mr. Newton's observations in the Faro Islands tended to confirm it), it is certain in this country, and in the Faroe Islands, the birds lay their eggs promiscuously. In the year 1819 I paid particular attention to this subject. First, I saw a large assemblage of Guillemots on April 22 (a sunshiny day), upon the flat summit of the rock called the Klet, at Holborn Head, in Caithness. There were several hundreds of them standing together on the guano-covered platform of that lofty stack. They were not more than forty or fifty yards from me, and with a glass I could see them as well as if they had been in my hand. Perhaps every sixth bird amongst them had the white margin to the eyes, and the white line extending from it. They were courtesying and bowing to each other, without any reference, so far as I could see, to the presence or absence of the facial peculiarity; and as I carefully watched this match-making party for some time, had they shown any marked preferences, I could hardly have failed to observe it. At the beginning of June, in the same year, I became familiar with the Guillemots on the cliffs of the island of Handa, off the coast of Sutherland, on which they are in myriads. I was not satisfied with looking at them from above, but with the help of a rope I went amongst them in every part of the rocks on three or four days. The Ringed ones seemed rather less numerous than in Caithness; they were scattered amongst the others, neither often mixing with the Razor-bills on the upper shelves, nor confining themselves to the
lower shelves of the rocks, but in every row of ten or twenty Guillemots, one or two were sure to have the white about the eyes. I took with great care the eggs from underneath several of the white-eyed ones. They differ in no respect from the other eggs, and are liable to the same varieties. In one instance of a row of ten or twelve eggs, the only white one (there was scarcely a spot upon it) was laid by a white-eyed bird, which so far gives colour to the story of the Flamborough climbers, that the Ringed Guillemots lay white eggs. However, I am by no means sure (alas for egg-collectors!) that birds are always found sitting on their own eggs. Does not a Guillemot when wishing to sit take to the first egg which it finds uncovered on the shelf or part of the shelf to which it has attached itself? At all events, moved about as the eggs often are, and ignorant of exchanges made for them as most birds seem to be, it appears probable that such may be the case; and certainly it is so with another gregarious sea-bird laying a single egg—the Gannet. At the Bass I have seen one go and sit upon the nearest unoccupied egg, when pecked off another egg which it had previously been sitting on, by a comrade just arriving from the sea. Yet this bird makes a nest; indeed that which came up last, in the anecdote I have just related, showed a knowledge of some claim of right or might to which the other submitted. In the Shetland Isles, on the sides of the Holm of Noss, I saw the white-eyed birds sitting on their eggs side by side with the others, in about the same proportion as in Handa. In the Faroe Islands the Ringed Guillemots struck me as being perhaps in greater plenty than in the North of Scotland, especially on the little rocks at the level of the sea; of course not breeding in those low situations; but the Common Guillemots were always in far greater numbers than the Ringed, and always mixed with them. Down the stupendous cliffs of these islands, I did not attend so much to the Guillemots when such rare and interesting birds as the Fulmars fully occupied me, but I examined the heaps of broken-necked birds brought up by the climbers for provision; here, if I remember right, the proportion was about as one to ten. Of two Ringed birds which I dissected in Fugloec, one was a male the other a female. I constantly made inquiries of the people, who are very intelligent, and very intimately acquainted with their birds. They none of them had ever dreamed of the white-eyed birds being of a different kind from the others, but some of them thought that they were the males, others that they were the females,—both opinions, as I ascertained, only partially true. In other instances also they never confounded two kinds of birds. They even recognized the two species of Fjadlmurra—the Dunlin and the Purple Sandpiper. I feel convinced that if the ornithologists who have described the two species of Guillemot had had opportunities of seeing them on their native rocks, the idea of their being distinct could hardly have occurred to them. The differences due to age in the Razor-bill formerly gave a far more plausible ground for a subdivision of species in its case. Were we to follow the analogy of that species, we might
suppose the white-marked birds to be old ones, but I rather incline to the idea that if the distinction is one of age, they are young birds, especially as it is the character of young Guillemots of the year to have most white about them. But had it not been for a private invitation from a gentleman much interested in the subject, I should not have ventured to intrude my opinions upon the readers of the 'Zoologist.' In a question certainly not easy of proof, opinion will always go with acknowledged authorities, and I cannot expect my convictions to be of any use in settling the question. Almost the only proof of which the matter is capable, is perhaps the keeping specimens in confinement, when if the Ringed changed to Common birds, or vice versa, I suppose every one would be satisfied, on the fact being properly attested; but if they did not change, unfortunately nothing would be proved. The only alternative would be the marking of wild birds, but without unusual opportunities this method could not be followed out. Mr. Newton's paper is headed "British Species of Guillemot," but as no mention is made of Brünnich's, that gentleman or Mr. Newman very probably does not consider it worth mentioning; and in truth, as a British bird, it scarcely is. It certainly does not breed anywhere round our islands, and I could see or hear nothing of it in the Faroe Islands, although it has been mentioned amongst these [qu. their?] birds. Mr. Hancock tells me there is no other species in Baffin's Bay; but whether it is to be considered distinct, or a local race, I am not sufficiently familiar with the bird to have formed any opinion. In conclusion I may mention that the substance of the above remarks on Uria lachrymans was introduced into a paper by myself on the "Birds of the Faroe Islands," read at the meeting of the British Association at Edinburgh, and printed at length by Sir W. Jardine, in his 'Ornithological Notes.'

May 1852.

XLV.

ON THE GREAT BUSTARD IN SPAIN.

[Extract from a letter to Mr. Yarrell printed by him in his paper "On the Habits and Structure of the Great Bustard (Otis tarda of Linneus)," read before the Linnean Society 18 January, 1853. (Trans. Linn. Soc. xxi. pp. 156, 157.)]

"My very little acquaintance with North Africa does not extend beyond the neighbourhood of Tangier, and there I did not see the Great Bustard, nor have I received its eggs from that quarter in the several packets which have been forwarded to me; but this proves nothing; it only renders it probable that this bird is not common in the immediate vicinity of that town.

"Of Spain I have almost equally little to say. One day, about
the month of September, going up the Guadalquivir in a steam-boat to Seville, I saw several flocks of the Great Bustard at no great distance from the river banks, on the level, and at that time of the year burnt up, plains which extend, almost without trees or enclosure, on each side of the Guadalquivir. These flocks consisted, as I remember, of four or five birds each; and from the deck of the vessel, which was almost on a level with the land, they appeared to be walking in file, some with their heads down, and reminding one of Gilbert White's note, 'Bustards upon the downs look like deer in the distance.' This appearance of walking in a row was probably deceptive. There was nothing in their manner to give the impression that they were timid, or very cautious, but one at least of a party frequently had its head raised as the steamer passed at a few hundred yards' distance, and with the help of my glass I thought this was generally a cock bird. On one occasion, as the boat came suddenly round a corner several of them rose together from the edge of the water, springing hastily to the height of forty or fifty feet, nearly perpendicularly, partly perhaps to clear the bank, and then turning suddenly and somewhat clumsily, and after a few more not rapid strokes, sailing along with the arched form of wing so general in game birds.

"I have now told you all I know about the Great Bustard in Spain. I wish I had more to say about it. I was told that the Spanish name was Abutarda, which is, I should imagine, connected in some way with the specific name 'turda,' for the bird can hardly be called 'slow,' but I do not know who gave it its scientific appellation. On the occasion I have referred to, a Spaniard on board the steamer told me that two or three months earlier in the year was the time for shooting the bird, and that then they were not difficult to approach with the assistance of cattle or carts, if I remember right. This would of course be in the breeding season."

XLVI.

**Supposed Occurrence of a Specimen**¹ of the **Severn Swallow** (*Hirundo bicolor*, Vieill.) at Derby, in 1850.

[¹ 'Zoologist,' xi. (1853) pp. 3806, 3807.]

The notice of the supposed occurrence of the Rufous Swallow [*Hirundo rufula*] at Penzance (Zool. 3753), reminds me that I ought not any longer to delay recording in your pages, the supposed appearance of an individual of an **American** species of Swallow at

¹ [This specimen having come into my hands was exhibited at the Meeting of the Zoological Society on the 28th of February, 1850, as recorded in its 'Proceedings' for that year (p. 131). It is now in the Norwich Museum.—Ed.]
Derby, in 1850. I say supposed appearance, because though I have not much doubt that the bird was really shot at Derby, there is nevertheless quite a possibility of mistake. Some months ago, my friend, Mr. John Evans of Darley Abbey, sent for my inspection, and afterwards kindly presented to me, the skin of a sort of Swallow whose name he had not been able to ascertain, of which he gave me the following account:—One day that he called at the shop of Mr. Cooke, a bird-stuffer and museum-keeper in Derby, in the summer of the year 1850, he was shown the skin of a bird which had lately been shot at the Siddals (the name of some common land, I believe, in the suburbs of Derby), with eleven Sand-Martins, with which this had been considered to make a twelfth; in skinning them, Mr. Cooke had remarked that it was not like the others, and he thought it a variety, but asked Mr. John Evans his opinion about it. That gentleman did not know what it was, but he bought the skin for one shilling, and has had it in his possession from that time till he gave it to me some months ago, as I mentioned before. Mr. Cooke is since dead. The circumstance of his having skinned the birds himself, makes it appear improbable that he should have made a mistake, and Mr. John Evans assures me that he does not think there were any foreign skins about. I should add, that I believe there is no possibility of error since the skin came into Mr. John Evans's possession. The bird now before me is very like the House-Martin, and not much like the Sand-Martins in whose company it was said to have been found. When compared with the former bird, the only difference seen at first is the continuous dark colour of the back, instead of being white over the tail. On a further examination, the legs are found to be quite naked below the knees, instead of downy, as in our Martin. These characters are I believe sufficient to refer it to the well-known American species called Hirundo (or Chelidon) bicolor, and I find my skin to agree with the several specimens of it in the British Museum. It is useless to give a particular description unless in comparison with a skin of the House-Martin, one of which I do not happen to have at hand. It is enough to say that the whole of the upper surface has a deep metallic green gloss, approaching to purple in some lights, except the tail and the flight-feathers, which are dull black; the whole under surface is white except the tail and wings, which are of an ordinary neutral tint, whilst on this aspect the greater part of the shafts of the primaries is white. The occurrence of a specimen of a second species of American Swallow in England is no more than anyone, who had satisfied himself of the reality of the former event (the occurrence of the Purple Martin), would be prepared to expect. No kinds of land-bird once driven out to sea seem better qualified for arriving safe at this side the Atlantic than the Swallows; but it is a question whether even these could accomplish it without the assistance of ships, of which land-birds at sea are so often seen by sailors to make use. Also they probably require strong and long-continued west winds to
lessen the duration of their exertion and their fast; and still it appears likely that they have a chance of surviving only when their misfortune happens at the time of their migrations, when doubtless nature has prepared them for extraordinary endurance of hunger and fatigue. And after all, what a very few are lucky or unlucky enough to reach our inhospitable shores!

11 Park Place Terrace [Paddington],
February 5, 1853.

XLVII.

Habits of the Hawk-Owl (Surnia ulula) 1.

[‘Zoologist,’ xii. (1854) pp. 4203, 4204.]

"The Hawk-Owl is not uncommon here. It flies much in the day-time, and with its long tail, short wings, and quick flight, has a very hawk-like appearance in the air, when its large square head is not seen. Its cry near its nest is also similar to a hawk’s; and it often sits on the bare top of an old dead fir, to watch intruders, where it seems to have no idea that it can be in danger. It carries itself much after the fashion of the more regular owls; but whilst all the feathers at the back give a great breadth to its full face, there is quite a ‘table’ at the top of its head. It casts its bright yellow eyes downwards with the true air of half-puzzled wisdom, or turns its head round for a leisurely gaze in another direction; to glance backwards is out of the question, and to look at any one with a single eye much beneath its dignity. I have seen it from my window fly down from its stand and take the mouse it caught back to the tree before it began to eat it; but it shifted its place several times before it found a convenient spot for finishing its meal. I do not know whether it is in the habit of hunting on the wing, but this year mice are so abundant that such exertion would be superfluous. When disabled from flight, it at once ‘squares’ itself for defence, putting on its most formidable countenance, guarding its back, and presenting its front to the enemy; silently and calmly it maintains its ground, or springs from a short distance on its foe. So, bravely it dies, without a thought of glory, or without a chance of fame, for of its kind there are no cowards.

"One day I heard a low noise in the woods which surprised me. I thought it must be the whine of a dog that was very eager after some animal it could not get at; I even guessed it might be a wolf.

1 [These and the following notes (No. XLVIII.) consist of extracts pieced together from letters written to me from Muoniovara, in August and October 1853, which Mr. Wolley at my request allowed me to communicate to ‘The Zoologist.’ It is necessary to observe that they were not originally written for publication. The meaning of ‘tylyra’ has already been explained (supra, pp. 610-612).—En.]
After a careful stalk I came upon a family of Hawk-Owls, one of which dropped a mouse as I fired. It was in the day-time; they were very little alarmed, and I could have shot them all. I am told that they breed in 'tyllrys.' I have not found a nest, but shall set up some convenient houses for them this autumn."

XLVIII.

Song of the Redwing (Turdus iliacus).

['Zoologist,' xii. (1854) pp. 4204, 4205.]

"When they have young, the old Redwings are bold, flying suddenly towards the face of an intruder with an angry note, something like that of the Blackbird, snapping their beaks, and then wheeling rapidly out of sight. At other times, they use the same note as they fly from tree to tree round the nest, but they keep out of sight as much as possible. As she sits on her eggs, the white stripe over the eye of the Redwing is very conspicuous. Like other birds of the kind, she has so deep a cup to hold her that the rim of it necessarily chucks her under the chin, and makes her beak point upwards.

"The Redwing and the Redstart sing here [Tornä Lappmark] all night; the Redwing incessantly, night and day, without any variation. A string of three or four notes—tut-tut-tut—in a regular descending scale, and then a little inward twittering or warbling, the former at about the ordinary pitch of the voice of the Song Thrush (whose music, by the way, is infinitely superior), but the last part so faint and feeble as scarcely to amount to a whisper, and only to be heard at a short distance. For a long time I was not aware of the existence of this inward melody: perhaps the twittering of a Swallow on the house-top may give some little idea of it. The tut, tut, tut is repeated so constantly and regularly as to be quite tiresome, the rest seldom reaches the ear; nevertheless, these loud clear notes, followed at the end of the next interval by the suppressed scarcely distinguishable twitterings, make a very striking wood-sound. I much question whether it is ever to be heard in perfection before the bird leaves our islands. The inward kind of song I think I have heard up here very late in the year, but unpreceded by the bold open notes, and unfollowed by a répétition of them after a very short rest, as in the perfect spring song, which I heard for the last time this year about July 27th."
XLIX.

ON THE IMPROVEMENT OF THE BREED OF THE REINDEER.

(OM FORBEDRING AF DEN TAMME REENSDYR RACE VED AVL.)


"It has several times happened to him in Lapland to have found Reindeer-oxen of rare excellence in regard to docility, speed, endurance and many other qualities. But when he has tried to make enquiry so as to trace out more of the breed, it has most often been to no effect. For though it might be easy to follow up the animal’s origin, through its several owners, to the herd in which it was bred, yet the Lapps seem not to pay such attention to breeding as would enable them to ensure the reproduction of some of the rarer qualities which are seen in individual animals. There are several reasons for this.

"First, there is ignorance of the possibility or use of the careful breeding of animals, the more so as the settlers themselves, with whom the Lapps chiefly come in contact, have no idea that selection is necessary for the breeding of other domestic animals.

"Secondly, in a widely-spreading herd it would require greater care and foresight than could be expected of an ordinary Lapp to set marks to or remember a calf’s immediate parentage and to regulate the future breeding in accordance with such observations.

"Thirdly, the Lapp would perhaps not let his animals come together with others which have different habits, both in regard to their periodical wanderings and their general mode of life; for as is well known there is a great difference in the habits and mode of life of Reindeer in different districts, a difference which is no doubt to a certain extent hereditary.

"The Reindeer of the Mountain-Lapps will always in spring take to the mountains on their way to the sea-coast, and their owners, even if they wished it ever so much, could hardly restrain them from so doing. It is otherwise with the animals from the lower districts or woodlands, the Otto Porrot as the Finns call them. They could be kept from wandering away.

"Wild Reindeer, at least in many districts, seem to have a habit quite contrary to that of the Reindeer of the Mountain-Lapps, for the former keep in the highlands in winter and come down to the eastern forests when the cleg-fly [Tabanus] begins to be troublesome in summer.

1 [This and the next (No. L) are translated Abstracts of papers read by Mr. Wolley in the Zoological Section of the Seventh Meeting of Scandinavian Naturalists held at Christiania in July 1856, and retranslated from the Danish as printed in the ‘Transactions’ (Forhandlinger) of the Meeting, published at Christiania in 1857. A third paper read by him in the Physical Section, “On the Recrystallization of Fallen Snow” (see No. LVI), was not printed.—Ed.]
"There is a very considerable difference observable in Reindeer which keep in particular districts, and have a certain mode of life.

"The Reindeer of the Mountain-Lapps is commonly stoutly built, hardly and capable of long fasting, but it falls off quickly and is sometimes useless for many weeks. The Reindeer of the lowlands generally shews signs of a better race. It is for the most part bigger, with finer legs, and has a lively but less wild eye. It is more managable, more active and docile. But beside the two chief races, just named, there are several subdivisions. Reindeer from certain parts of the country have local peculiarities more or less pronounced. The finest tame Reindeer he has seen are from the neighbourhood of Lake Enara in Finland. Their superiority may be chiefly ascribed to the luxuriance and abundance of Reindeer-moss in this district, and partly also because the Enara Lapps do not milk the Reindeer-cow, so that the calves are left with sufficient nourishment.

"The wild Reindeer are bigger and stronger than perhaps any race of the tame.

"It often happens that Reindeer will wander from their own herd and for a time take up with another. This happens particularly in the rutting season, and then it is not rare for a wild Stag to become master for a time of a number of Rein-cows in a tame herd. The offspring of these accidental crosses are sometimes of an exceedingly superior race, but nevertheless it seems not to have happened that the Lapps have made any attempt to obtain results in this direction.

"The biggest and strongest animal that he ever possessed was the offspring of a wild Rein-stag, but its other good qualities were not in proportion to its size; yet to draw firewood or other heavy loads for a short way it was, as the people said, 'like a horse,' and on that account it was valued accordingly. There is no better proof of the different kinds of Reindeer than the prices paid for them by the settlers, which vary in a very great degree compared with the prices of other objects, which among these primitive people are remarkably uniform.

"In short it would be very interesting for those who have the opportunity to endeavour to improve the breed of Reindeer; but as particular Reindeer are already employed for particular uses, some for sledge-travelling, others for drawing heavy loads, it would be necessary in improving the breeds to keep these different kinds in view.

"A sledge-Reindeer which he had lately owned seemed to be almost perfect. It was extremely docile and enduring, and at the same time lively, willing and easy to manage. Its action was elastic and graceful. The symmetry of its make was admirable. Its legs were small with the muscles exactly in the right place and of the best proportion. Its head was beautiful and in complete harmony with the rest of its shape. Its countenance had even an expression of intelligence, which is rare in a Reindeer. Its horns were not wide spread and inconvenient, but as it were compact, of small
extent and vigorous growth. There was as much difference between this Reindeer and another ordinary one as between a racehorse and a draught horse. If one could but produce a breed that resembled this Reindeer one would certainly considerably raise the working-power of Lapland.

"Since he was speaking on the subject he could not forbear expressing his regret at the fate of the Lapps, obliging and useful as they are, in winter indeed almost necessary for the settlers. They do not deserve to be extirpated like the savage races of people in North America and other places, which civilized man has subdued for himself. And yet all signs point in this direction. Settlers are ever pressing towards the wildest parts of Lapland, and where they have settled down, Lapps can with difficulty keep their herds. For every tridling damage done to a far outlying hayrick, the owner is immediately ready with his claim for compensation. There is the greatest probability that the Lapps cannot much longer hold on in Finmark. Strictly excluded from Russian territory the nomad Lapps of that district will see their herds gradually disappear, and the fine race of Mountain Lapps who are so justly known for their retiring and modest manners, must either altogether disappear or betake themselves to the seaside and increase the number of their poor and degraded brethren who have already settled down there."

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I.

On the Swarm of Lemmings in Lapland in 1853, the Birds that accompanied it and their mode of Breeding.

(Om Sverme af forskellige Arter af Slægten, Lemmus Linn., i Aaret 1853 i det nordlige Lapland og om de Rovdyr som forfølge dem.)


"He was so fortunate, the first time he was in Lapland, in the summer of 1853, to arrive during a period of Lemming-swarms.

1 [Throughout this paper Mr. Wolley follows the scientific nomenclature of Professor Nilson's 'Skandinaviske Fauna,' which was then almost everywhere accepted in the country. It included all the species of Rodents here particularized under the genus Lemmus, and all the Birds-of-Prey named under either Falco or Stria. The case of the Birds presents no difficulty to the reader; but in regard to the Mammals it may be remarked that few modern zoologists leave more than the true Lemming, the Mus lemmus of Linnaeus, in the genus Lemmus, which some render by Myodes: the rest being referred to Arvicolus, Eutamys, Hypucaeus, or Mierotus, more or less according to fancy—the specific names printed being, however, retained in all cases, except that of L. medius, Nilsson, which seems to have been first properly described as Hypucaeus ratticorps by Keyserling and Blasius.—En.]
In the mountains in the neighbourhood of Muonioniska, on Pallastunturi one could everywhere see the vegetation cropped off, and heaps of dung, which, as he afterwards found, shewed that the Lemmings had passed the preceding winter there.

"At the time he visited that mountain range, in June, there was not, so far as he could see, a single one of these animals left, but he observed them in the valleys at the foot of the mountains. They spread but slowly. In August they began to cross over the Muonio river from the east—in which direction the mountains lie—apparently not in compact bands, but as if each animal took its own way. That they were migrating also by night was evident from the reports of the fish spearmen, who often saw them swimming over the rivers and lakes. Afterwards on the Swedish side of the frontier, both on the high ground and in the valleys, in the forest and in the meadows, one saw them in all directions at all times of the twenty-four hours, but apparently they were settled and not on migration. They made paths in the grass and other vegetation, and seemed to house themselves in holes in the sides of hillocks. This was the case whenever he came across them, and they were quite evenly distributed over all these parts. When autumn came on and the snow was yet thin, they often ran over the surface, and even in the month of December at Karesuando, in an isolated place where the snow was partly blown away he saw them run in and out on the paths they had formed in it. Afterwards, when the snow increased, the Lemmings were for the most part lost to sight.

"But in spring when the snow again diminished he expected to see them once more. He was pretty sure that they could not have wandered away at that season, when it is always light, without being seen on the surface, especially as after the snow was encrusted they would not otherwise be able to go far.

"Nevertheless when the ground was completely bare there was nothing to be seen but large heaps of dung everywhere, generally at the openings of the burrows where the animals had sat for a great part of the winter, as was apparent from the remarkable accumulation of each heap. Entire dead bodies were however not plentiful, but the earth was strewn with a quantity of remains of their bodies, mostly headless, and, as he believed, the leavings of birds-of-prey from the previous autumn, for he had not the least ground for thinking that they ate one another. He only doubts whether the great number of Lemmings were not dead in their burrows, but unfortunately he did not make sufficiently careful investigation in that direction. There was not a single living Lemming to be found, though at Muonioniska he offered a reward for every one that might be brought to him. But in Karesuando, in the village itself, he got some in the summer of 1854, though they were very rare there.

"From the whole country quite up to the Norwegian coast had the Lemmings disappeared, except as he has since been informed in a
few small districts, of which one was about Karasjoki. Yet a Lapp in whom he had much confidence told him that he had seen a female with her young on a mountain not many miles north-east of Muonioniisa—Ounas-tunturi.

"In the beginning of May he himself was on the Norwegian coast about Tromsö and Alten, and there found the ground covered with remains of Lemmings, which had been there two summers before, namely in 1852, and had again vanished. Of this he was positively assured.

"In East Finmark last summer, 1855, he was assured that all the Lemmings had disappeared for a long while; but he himself and his friends had found on a little island in the Varanger Fjord, called Sandskjær, hardly fifty yards in diameter, a colony of Lemmings of various ages, which had unquestionably bred there and produced some twenty individuals. This was towards the end of June [§ 3271].

"But in 1853 the Mountain-Lemming [Lemmus norvegicus] was not the only species found in abundance. There were at least four, or possibly five, others.

"The first of these was the common Water-Rat, Lemmus amphibius (Linn.), of which he saw both the brown and the less common black variety. They came to the potato-fields on the uplands, and he dislodged one example with a fine white spot on the breast; but this was certainly only a variety.

"There were probably two kinds of Lemming, which he took to be the Lemmus medius of Nilsson and the L. agrestis of Linnaeus, overrunning the country early in the summer long before the Mountain-Lemming had come to the same district, and they had their runs in the woods, meadows, and cornfields. They held their ground when their territory was overrun by their kindred from the mountains; and, when the barley was cut in autumn, ears of corn which these provident animals had buried in the earth were found in great numbers, so that in a single field several hand-baskets full were collected.

"Then there were two species of small reddish-brown Lemmus, but in much fewer numbers than the above-named. One had a short, thick, and hairy tail, the other a longer tail with a black tip. But he did not recollect them sufficiently to give a more precise description of them. One of them had the habit of climbing trees, of which he was himself an eye-witness, and Squirrel-shooters assured him that they had often seen them on the branches at the height of several fathoms from the ground. Most likely this was the L. rutillus of Pallas, and L. glareolus of Schreber, from what he could learn from Professor Nilsson's description and the examples which by Professor Sundevall's kindness he had seen at Stockholm.

"All these species of Lemmus had nearly disappeared in the spring of 1854, though many of them were troublesome in the store-cellars and store-houses for the most part of the winter. Their dead bodies were found in great numbers in the hayricks, to all appearance
without external injury, but after they became scarce, their tracks were only found from time to time in the snow during both the following winters. It is well known that these animals do not become torpid in winter.

"He has made continued enquiries of the Lapps concerning the Mountain-Lemmings, and when he has been able to get any regular information, it has generally been to the effect that they are always found in greater or less numbers in the mountains, but that their numbers at times increase to a surprising degree, whereupon they begin to wander in different directions. On one point, however, all his informants agree—it is in the mountains that the great increase takes place and before the Lemmings shew themselves in the lowlands.

"In regard to the rest of the Lemmings, he saw no reason to suppose that they wandered to any great extent from one place to another—On the contrary, I should suppose that they multiply in the lowlands from some unknown cause or other at the same time as the Lemmings in the mountains, and that they die with them probably from some infectious disease. That it is an infectious disease, and not a mortality arising from the unfavourable conditions under which the Mountain-Lemmings live, seems evident from the sudden mortality which extends to the other species of Lemmus at the same time, though these do not live under conditions unnatural for the support of life.'

"The visitation of Lemmings of which he was an eye-witness was accompanied by a remarkable host of parasites. The presence and increase in number of Bears, Wolves, Foxes, White Foxes, Ermines and Weasels were, as was told him and as he himself had occasion to observe, specially produced thereby; but without entering into details concerning the quadrupeds, he would content himself with the Birds.

"The chief Lemming-eaters seem to be Strix nyctea, S. lapponica, S. funerea, S. brachyotus and Falco lagopus. And Strix bubo, though seldom met with, no more refuses Lemmings than the little S. tengmalmi, which not rarely, according to what he supposes, eats the small animals. Besides these, one or two species of Lesris followed the Lemming-hosts.

"Falco palumbarius and without doubt other birds avail themselves of the opportunity and make a good meal of what they find so near at hand.

"Not only of the above-named, but of birds in general, according to report, was there an abundance in this year 1853, and his experience in the two following years led him to consider it true.

"Every species of Bird-of-prey has its own peculiar habit.

"Strix nyctea keeps on the fells and highlands, where according to the report of the Lapps it breeds in abundance.

"S. lapponica and S. tengmalmi keep exclusively, and S. funerea
chiefly in the woods. *S. brachyotus* breeds round about in the meadows, but particularly in open ground in swamps and mosses.

*Falco lagopus* is dispersed both on mountains and in woods, but is most common on mountains.

*Lestrif* was only on the mountains, but even far from the sea as on Öunas-tunturi several miles from Muonioiska.

The places where they bred or laid and hatched their eggs were as follows:—

*Strix nyctea* is said to lay its eggs on the small knolls which are found in the valleys or levels among the mountains. It frequently attacks any one who approaches it. A Lapp boy doubtfully asked him whether it really was a bird.

*Strix lapponica*, as reported by several trustworthy people, who had seen its nest, lays its eggs in the hollow at the top of a stump of a broken off tree.

*Strix funerea* and *S. tenagmalmi*, like other Owls, build no nest, but lay their eggs in holes of trees, and very often in the egg-boxes which the people hang up for *Anas clangula* to lay in. Old and dirty boxes are preferably chosen by the Owls. These birds are very much hated in consequence of this habit of theirs, and it was no doubt *S. funerea* that Linnaeus and others have seen hung up in terror by the side of the egg-boxes. *S. brachyotus* lays its eggs on dry spots in marshes or on other open places. It has a remarkable habit, presumably when it is in fear or anxiety on account of its nest or young, of suddenly flinging itself down on the ground in a place where it is concealed from the eye of any one approaching, and screaming like a woman in the utmost terror or distress. It is without doubt this circumstance which has given rise to a story that he heard among the Lapps of Karesuando concerning the 'Quod-al-vis.' They say it is a supernatural bird which now and again makes its dread visit to their camps. They say that it darts down to a place whence a tent has lately been taken away, strikes its claw into a rag or a piece of skin which has belonged to one of the family, flies away with it and again darts down, but this time on the place where the owner of the rag will be buried. There it screams and wails like one in the agony of death, just in the same way as the person concerned shall one day scream and wail. The 'rag' was probably a mouse which the Owl was hearing to its young. Such a 'Quod-al-vis,' shortly before his first visit to Karesuando, had been in the deserted churchyard at Enontekiš.

In the season to which his observations especially refer, the greatest part of the birds also went away after the Lemnings had disappeared. *Strix brachyotus* migrated southward in flocks when the winter came and has hardly been seen since. *Falco lagopus* did the same, but *S. nyctea* kept in the birch-regions until the days became longer in the following spring. Afterwards the Lapps found some of them dead, and during an excursion to the Norwegian mountains early in the summer he did not see a single example,
though he heard that many had been seen. The Lapps said also that some are always found distributed over the mountains and that they live on the Ptarmigans.

"Of Strix funerea, which breeds very early, some laid their eggs in the spring of 1854, but he did not hear that any brought off their young, these having been found dead in the nests. In 1855 he heard of only one nest, and he himself never once saw the bird. S. tengmalmi he never saw after the winter. It was never numerous.

"The last time he saw Strix lapponica was in March 1854. One flew among the trees, just over the place where a Bear had made its lair. In 1855, however, he found its feathers, to all appearance fresh, in a nest of Garrulus infaustus. It was never numerous, but he had observed between ten and twenty in the course of the winter of 1853-4. Woodsmen assured him that they now and then see the Lapp Owl from one year to another.

"Strix liruata never shewed itself, and of S. bubo there seemed to be a little increase in its usual restricted number in Lapland.

"Falco lagopus was not uncommon during the summer of 1854, but not more than one out of ten of the nests of the preceding year was tenanted, at least in the upper part of the Munioni district.

"But the most singular point in regard to these Birds-of-prey is their rapid increase in number. There can be no doubt that they collect from the neighbouring parts of the country into the Lemming-district, but whether they also, by a strange instinct, may come from distant parts is doubtful. That they breed with remarkable rapidity, where food is found in abundance, seems to be clear. Strix funerea laid in general seven or eight eggs. Of S. brachyotus he found three young and four unhatched eggs at the same time in the nest. According to the accounts of some Lapps, S. nyctea laid more than ten eggs, or according to others from five to ten; and Pastor Sommerfeldt in the Varanger Fjord had received similar reports from the Lapps of that district as to the great number of eggs which S. nyctea lays.

"Lastly, he stated that, it seems to be a compensating arrangement of Nature that the increase of these parasitic Owls should be in proportion to the increase of their food. The first period after the disappearance of the Lemmings is one of pestilence and famine, but there is probably an improvement every year, until the country is again overrun, and the mountains send out their hosts. Meanwhile the scattered Birds-of-prey again forgather and rapidly multiply, when their food becomes as abundant and as easily procured as the food of herbivorous animals usually is."
LI.

ON THE NEST AND EGGS OF THE WAXWING

(BOMBYCILLA GARRULA, TEMM.).


The Waxwing, as observed in Lapland, makes a good-sized and substantial nest, but without much indication of advanced art. It is of some depth, and regularly shaped, though built of rather intractable materials. As in those of many other birds in the Arctic forests, the main substance is of the kind of lichen commonly called tree-hair, which hangs so abundantly from the branches of almost every tree. This lichen somewhat resembles a mass of delicate rootlets, or perhaps may be compared to coarse brown wool; but some of it is whitish, and in one nest there was a little of this mixed with the ordinary brown or black. This main substance of the nest is strengthened below by a platform of dead twigs, and higher up towards the interior by a greater or less amount of flowering stalks of grass, and occasionally pieces of equisetum. It is also interspersed with a little rein-deer lichen, perhaps a sprig or two of green moss, and even some pieces of willow cotton. There may also be observed a little of the very fine silvery-looking fibre of grass leaves which probably have been reduced to that condition by long soaking in water. In one of the nests examined there were several pen-feathers of small birds as an apology for a lining. Of other nests which are to be found in the same forest, it most resembles, but is considerably less than, that of the Siberian Jay, which however is less securely put together, but has many more feathers and soft materials for a lining.

The nest of the Waxwing is built on the branch of a tree, not near the bole, and rather, as one of the observers has said, standing up from the branch like a Fieldfare's or other Thrush's nest, than supported by twigs touching it at the sides, as the nests of many birds are supported. Of six nests, four were in small Spruces, one in a good-sized Scotch fir, and one in a Birch—all placed at a height of from 6 to 12 feet above the ground. The tree in several instances was unhealthy, thin and scraggy in its branches, to which there hung a good deal of hair lichen; and the nest seems generally much exposed, though from its resemblance to the lichen hanging near, it might escape the eye. The nests found were in parts of the forest considerably open, once or twice on the side of low hills, near a river, or with an undergrowth of dwarf swamp-loving shrubs. But at

1 [This paper was illustrated by a plate (Aves, pl. cxxii.) drawn by Mr. J. Jennens, representing very poorly two eggs, which were sold to Sir W. Milner at Mr. Stevens's, 12 May, 1857 (O. W. § 812), and a nest afterwards given to the British Museum (O. W. § 810). A specimen of the egg, taken 8 July, 1856, and given to the same Museum by Mr. Wolley (one of three mentioned O. W. i. p. 217, note), is either omitted from or else wrongly entered in the 'Catalogue of Eggs,' vol. iv. pp. 256, 257).—Ed.]
present we have scarcely enough examples to show that there is a preference for any particular kind of ground.

Five seems to be the ordinary number of eggs; in one nest only there were as many as six. They have a pale salmon (?)-coloured ground, upon which are distributed pretty equally good-sized purple spots, some with more and some with less deep colour, but nearly all of them having a shade or penumbra, such as is common especially in eggs of the Chaffinch. The only very marked variety I have yet seen has short streaks and much smaller and more numerous spots than usual, of which markings a considerable proportion are of a pale yellowish-brown. The eggs may be about an inch in length, but hardly enough have been obtained to determine the average dimensions. Marked differences in size in the eggs of the same nest have not yet been observed; but, as with other birds, we find that one nest may have all its eggs considerably larger than those of another nest.

In the backward and cold spring of 1856, Waxwings had their full complement of eggs about the 12th of June.

The writer abstains for the present from offering any remarks on the distribution of this bird in the breeding season, hoping that upon this subject, as upon the habits of the Waxwing in the summer, he may hereafter have some more complete observations to communicate.

LII.

Young of the Waxwing.

['Proceedings of the Zoological Society,' 1857, p. 56.]

A young bird\(^1\) caught on the 5th of August, as it fluttered from the nest, had a general resemblance to the adult, though all the colours were more dull. The wax-like ends to the wing-feathers, the yellow tip to the tail, the black patch between the eye and the beak are all there, whilst the rich mahogany of the under tail-coverts is of a quieter brown; the blooming vinous colour of the head and back has not yet emerged from a homely neutral, and the crest is but just indicated by the longish feathers of the crown. The most marked difference between the adult and young is in the throat and under surface generally. There is at present scarcely a trace of the deep black patch of the chin, and the delicate tint of the general under surface of the adult is replaced by mottled neutral and white. This upon examination is found to owe its appearance to those longer webs, which arising towards the root of each feather, extend as far outwards as the webs which arise nearer its tip, being very pale or white, and thus relieving, on both sides, the last mentioned darker webs.

\(^1\) [This was one of two caught by Kyrö Niku to the south of Pallas-tunturi (O. W. i. p. 216). It is now in the Norwich Museum.—En.]
APPENDIX: NOS. LIII.-LIV.

LIII.

Lapland Owl. Strix lapponica, Temm.

['Proceedings of the Zoological Society,' 1857, pp. 50, 57.]

Two nests of the Lap Owl were found in Finnish Lapland in 1856. In one near Sodankyla there were two eggs [O. W. § 561], and when one of the birds was shot, a third egg was found ready for exclusion. They were placed on the jagged end of the stump of a large Scotch fir, about 12 feet from the ground, at which spot the tree had been snapped across by some storm, the upper part not yet entirely separated, but sloping downwards till the greater part of its weight was supported by the ground.

The other nest was near the Ounasjoki, at the top of a lowish Scotch fir. Some time previously in the same year a bird had been shot at this spot, which was found to be a female with eggs inside. [A mistake, see O. W. § 562.] The nest was not observed until after the shot was fired. At the second visit on the 28th of May, there were two eggs in the nest, and again a bird was shot, which turned out to be a new female with a fully-formed egg inside, through which the bullet had passed. The skin is now in England. The birds seemed on both occasions remarkably fearless.

The eggs are smoother, and, as might be expected, considerably smaller than those of the Eagle Owl. The dimensions of the two in the last-mentioned nest are 2 in. x 1.6 in. and 2.1 in. x 1.65 in.

At the meeting of Scandinavian Naturalists in Christiania last summer, before I heard of these two nests having been found, I was able to announce [see No. L.] that the Lap Owl generally makes its nest on the top of a stump. I had received several reliable accounts from different woodsmen, but had never found a nest myself, or been able to get the eggs, which indeed have, I believe, hitherto been unknown to ornithologists. It appears that three is the ordinary number of eggs.

LIV.

Tengmalm's Owl, Strix Tengmalmi, Gmel.

['Proceedings of the Zoological Society,' 1857, p. 57.]

Lays its eggs in holes of trees and occasionally in egg-boxes. When once established it cannot easily be made to leave its quarters, and it can, as it is said, keep possession against a much larger bird; yet from the present nest (the only one I have had the good fortune to meet with), after having laid four eggs, the mother was ejected by a Golden Eye. The dimensions of the egg [O. W. § 536] accompanying this paper are 1.32 in. x 1.05.

Muoniovara,
February 2nd, 1857.

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APPENDIX: NO. LV.

LV.

Notice of an Ice-carried Boulder at Borgholm.


At Borgholm, several weeks ago, there was shown to me a large boulder, with several smaller ones by its side, which had been brought to the place where they lay by the ice this year (1856). It was just to the north of the town, which is on the western coast of the island of Öland. This stone like most of the large boulders in that country, was of red granite, of an oblong form, with all irregularities rounded off. Between perpendiculars it was in length about 10 feet, and in breadth about 7 feet, and it was 6 feet deep. It lay 2 or 3 feet above the present water-line, and was supported by several smaller stones, so that its under side could be seen. This under side presented indications of recent grinding, but no continuous scratches or furrows. The upper part of the stone had yellow lichens growing sparingly upon it, proving that it had been for some time above water; whilst below the yellow lichens at some distance was a belt of black colour, probably of a vegetable nature, like what is to be seen on other stones in the islets of which I am about to speak.

From the spot where the stone lay, which was some paces from the water’s edge, the shore sloped gradually to some distance below the water-line, and the rock was covered with shingle. In this shingle deep furrows were ploughed, leading in one direction to the several boulders, and in the other pointing out the quarter from whence they had come. The line thus indicated seemed to touch the north-east end of an islet lying at about half an English mile distance to the N.N.W. From this island my informants believed that the stone had been carried. They were sure that there had been no such stone previously visible in that direction nearer than the islet.

Rowing out, I found that there was deep water for a considerable part of the way; and, landing at the place from which the boulders are supposed to have come, I saw that the other stones there resembled them in the vegetable growth upon them and in other respects. The ground sloped gradually round the islet, which was for the most part a heap of boulders, many of which also lay scattered round it, rising above the surface of the water.

The account given was, that in the month of February the ice was drifted by a storm from a direction between north and west—that it was heaped up on the shore,—and that shortly afterwards a mass of stones was seen supported at a considerable height upon it. As the ice melted the stones sunk down, and were deposited in the spot where I saw them. Such occurrences are said to be not uncommon, and an intelligent, but unread man explained them in the following manner:—Stones, standing with a considerable part under water, are
in the winter frozen fast. When a storm from the north comes, the level of the water is raised round Öland, and the ice lifts from the ground the stones which are attached to it. At the same time it may be partly broken up, and masses of it drifted to a considerable distance and subsequently stranded with the stones attached to them, or even driven up the shore by the field of ice pressing upon them, and heaped upon ice which had reached there previously.

I do not think that this explanation differs from that given by Sir Charles Lyell for similar phenomena. In the Lapland river Muonio I have myself seen stones of several hundredweight perched at the top of ice-heaps between 20 and 30 feet above the level of the water, where the spring-flood has been opposed by islands lying in its way.

The largest travelled block I saw upon Öland was also near Borgholm; it was 28 feet long by 22 broad, and stood about 8 feet above the soil. It was flat and somewhat quadrangular at the top.

Stockholm,
30th June, 1858.

LVI.

On a fresh Form of Crystallization which takes place in the Particles of Fallen Snow under Intense Cold.

[Report of the Twenty-eighth Meeting of the British Association for the Advancement of Science; held at Leeds in September 1858. Transactions of the Sections, pp. 40, 41. London: 1859.]

In passing a winter in Lapland, it is impossible, whether in observing the tracks of animals, or merely considering day by day the condition of the roads for sledding, or of the snow for the use of snow-skates, not to be struck by the very variable character of the snow, partly caused by winds and fresh falls, partly by the condition of the rime or hoar frost upon the surface, but mainly, as it is soon found, by an alteration in the character of the mass of fallen snow.

In Lapland, as elsewhere, the snow as it falls is of several kinds. But whatever its character, it at first lies more or less lightly on the ground, and if the weather is still and not very cold, it may so remain for days; but if the cold increases, the snow rapidly sinks; it becomes at first like sand, is crisp to the tread, bears the smaller animals, and soon becomes suitable for the skidor or snow-skates. When the cold has continued, probably many degrees below zero of Fahrenheit, for two or three weeks, not necessarily consecutive (the phenomena are more especially to be observed in the cold months of January and February), the snow beneath the surface is found to be made up of large pieces of a quarter or third of an inch in diameter, glittering in the sunshine, clear, heavy, highly moveable upon one
another, and seen upon even a hasty examination to be of a beautiful crystalline structure. On a closer inspection, they are found to be somewhat irregular in shape, with the outline of more or less complete hexagons with sides of unequal length; they are formed around nuclei by no means placed centrally, often quite where one side of the hexagon should be; and they grow in layers of bars one outside the other, often larger in section as well as longer as they recede from the nucleus; these bars (learned gentlemen will excuse me for not describing a crystal more properly) are free from one another except at the angles; those of each layer lie in one plane, often not the same as the layer which preceded them lies in. At the angles are usually small crystalline projections, rising apparently perpendicular to the general surface of the crystal. These crystals are broken with a slight force; and many of those where the snow has been crushed have lost their nuclear portion, but retain the true hexagonal form.

Snow, in the condition of which I hope to have given at least some notion, is called hieta lumi, or sand-snow, in the Finnish language. It yields more water; and hence, even when it is covered with more recent snow, the Laps take the trouble of digging down to it to fill their kettles with. These primitive people also use it in its dry state for washing or cleansing their clothes. After first exposing to the external cold for some hours the dresses they wish to purify, for reasons which I need not further explain, they beat them with sticks upon and under a heap of sand-snow.

When the winter covering of the ground is in this sandy condition (perhaps the moveable state of such shell-sand as that of John o' Groat's house may best represent it in one respect, and the appearance of a bag of clean crystals of salt give some idea of it in another), it is a great advantage to all the animals of the country in supporting their weight, and is a special comfort to the Reindeer, from the facility with which they can remove it with their fore-feet so as to get at their food beneath. Though intensely cold to a naked hand, it is much better than fresh snow for lying upon, as it does not yield too much to the weight of the body, and does not get into the nicks of the clothes, or melt in the fur. I may mention that with only a thick pair of stockings on, one can walk for some little distance from a bivouac without risk of getting either wet or cold in the feet; and before a fire in the woods this snow never becomes sloppy, but seems to disappear only by evaporation, which greatly adds to the facilities of passing the long winter nights in a Lapland forest. The same thing is in a great measure true in the spring; the snow is very rarely to be found in that miserable state which marks the breaking up of a snow in England.

Concerning the formation of these crystals, I made experiments by burying in the snow at certain intervals of time, chip boxes, some empty and some containing fresh snow: I was prevented from fully carrying out and registering my observations, but I found that the changes went on in the boxes equally with the external snow, and in
the boxes that contained nothing but air, but nevertheless were not so tightly closed as to prevent the transmission of air containing water in solution, crystals attaching themselves to the sides and top, but never to the floor of the box, which crystals greatly resembled those in the snow; they were, however, often much longer, even to upwards of half an inch in length. In the course of my observations, I found that this sand-snow formed principally in open places, on lakes, bare soils, &c., growing less on spongy grounds, scarcely at all upon logs of wood or outbuildings.

LVII.

Postscript to Herr Meves’s Paper "On the Snipe’s ‘neighing’ or humming noise, and on its Tail-feathers’ systematic value."

[Translated and communicated by Mr. Wolley to the Zoological Society of London, 13 April, 1858. From the Society’s ‘Proceedings’ for that year, pp. 201, 202.]

The interesting discovery recorded in the above paper was first announced by M. Meves in an account of the birds observed by himself during a visit to the island of Gottland in the summer of the year 1856, which account appeared in a publication of the Vetenskaps Akademi1 at Stockholm the following winter.

In the succeeding summer M. Meves kindly showed me his experiments. The mysterious noise of the wilderness was reproduced in a little room in the middle of Stockholm. First the deep bleat now shown to proceed from the male Snipe, and then the fainter bleat of the female, both most strikingly true to nature, neither producible with any other feathers than the outer ones of the tail.

I could not resist asking M. Meves the impertinent question, how, issuing forth from the town for a summer ramble, he came to discover what all the field-naturalists and sportsmen of England and other countries had, for the last century at least, been in vain trying to make out, straining their eyes, and puzzling their wits? He freely explained to me how, in a number of ‘Naumannia,’ an accidental misprint of the word representing tail-feathers instead of wing-feathers2—a mistake which another author took seriously, and ridiculed3—first led him to think on the subject. He subsequently examined in the Museum the tail-feathers of various species of Snipe, remarked their structure, and reasoned upon it. Then he

2 [H. Gadamer, Naumannia, 1853, pp. 411-413.—Ed.]
3 [J. Jäckel, op. cit. 1856, pp. 112, 113.—Ed.]
blew upon them, and fixed them on levers that he might wave them with greater force through the air; and at the same time he made more careful observations than he had before done of the living birds in the breeding season. In short, in him the obscure hint was thrown upon fruitful ground, whilst in a hundred other minds it had failed to come to life. At my invitation, M. Meves wrote for the Zoological Society of London the paper which I have here translated.

LVIII.

On the Breeding of the Smew (Mergus albellus, L.).

["The Ibis," 1859, pp. 69-76.]

[This paper is already printed above, vol. ii. pp. 619-625.]

LIX.

On the Breeding of the Crane (Grus cinerea) in Lapland.

["The Ibis," 1859, pp. 191-198.]

In common with, I believe, most people interested in such matters, I was long entirely in ignorance as to the condition in which the young Crane (Grus cinerea) would be found on first leaving the egg, whether helpless like a young heron, or able to run about like the young of most waders and of gallinaceous birds. The late Prince Charles Bonaparte had inclined to think they would long continue nestlings; Mr. Gould, as he assured me, had always opposed the probability of this opinion.

It was on the 15th June, 1853, that I entered the marsh which the well-known Pastor Læstadius had told me was the most northern limit in Lapland of the breeding of the Crane. It is in Swedish territory, being on the west side of the frontier river, opposite the Finnish (Russian) village of Yli Muonioniska, in about lat. 68°, that is, some distance within the Arctic Circle. This great marsh, called "Iso uoma," is mostly composed of soft bog, in which, unless where the Bog-bean grows, one generally sinks up to the knees, or even to the middle; but it is intersected by long strips of firmer bog-earth, slightly raised above the general level, and bearing creeping shrubs, principally of sallow and dwarf birch, mixed in

1 [This paper has been before mentioned in the body of the work (ii. p. 57), where the original notes on which it is based are printed (§§ 3176-3181), but I believe readers will not object to their repetition on reading the whole story in connected form.]
places with *Ledum palustre*, *Vaccinium uliginosum*, *Andromeda polifolia*, *Rubus chamaemorus*, besides grasses, *Carices*, mosses, and other plants. There were also a few bushes or treelets of the common birch, and these quite numerous in some parts of the marsh.

Walking along one of these strips, in a direction where the pair of Cranes was said to be often heard, I came upon a nest which I was sure must be a Crane’s. I saw one bit of down. The nest was made of very small twigs mixed with long sedgy grass; altogether several inches in depth, and perhaps two feet across. In it were two living-membranes of eggs, and on searching amongst the materials of the nest I found fragments of the shells. We had not gone many yards beyond this place, when I saw a Crane stalking in a direction across us amongst some small birch trees, now appearing to stoop a little, and now holding its head and neck boldly up as it steadily advanced. Presently the lads called out to me that they had found some young Cranes. As I ran towards them, a Crane, not the one I had previously seen, rose just before me from among some bushes which were only two or three feet high, and not twenty yards from the place where the lads had been shouting at least for a minute or two. It rose into the air in a hurried, frightened way. There was nothing just at the spot where it got up, neither eggs nor young. I then went up to where the two little Cranes were found. They were standing upright and walking about with some facility, and making a rather loud “cheeping” cry. They seemed as if they could have left such eggs as Cranes were supposed to lay only a very few days. I say supposed, for in England we know nothing of the eggs which are called Cranes’, but which may have come from any part of the world. They were straightly made little things, short in the beak, livid in the eye, thick in the knees, covered with a moderately long chestnut or tawny-coloured down, darker on the upper parts, softening away into paler underneath. As I fondled one of them it began to peck playfully at my hands and legs, and when at length I rose to go away, it walked after me, taking me as I supposed for one of its long-legged parents. I had only just before been plucking from it some bits of down to keep; for, valuable as I knew it to be in a natural-history point of view, I could not make up my mind to take its life. As soon as I saw its inclination to follow, I took to double-quick time, and left it far behind. Its confidence was the more remarkable, as, all the time we were with it, the old Cranes were flying round near the ground at some distance from us, their necks and feet fully stretched out as usual, but with a remarkable sudden casting up of their wings in a direction over the back after each downward stroke, in place of the ordinary steady movement. At the same time they were making a peculiar kind of low clattering or somewhat gurgling noise, of which it is very difficult to give an intelligible description, and now and then they broke out into a loud trumpeting call not unlike their grand ordinary notes, which, audible at so great a distance, gladden the ears of the lover of
nature. As we went away I saw one of the Cranes alight where we had left the young. Later in the day I had a longing wish to have another look at my young friends. I thought of the old naturalists—who would have called them "peepers" I suppose—one of whom wrote of the Crane in our fens, "ejus pipiones sapissimè vidi." To see them now-a-days twice in a life, and that not in England, would be a consolation. But it was not to be so; we came back to the spot where we had parted with them, rested for three or four hours round a stone that projected from the marsh, but we saw and heard nothing more of either old or young Cranes. In a morass with another name (which it took from a hill that overlooked it), "Kharto uoma," but which was only separated from "Iso uoma" by an interval of a mile or two of birch thicket, there were also Cranes, and I found their nest with the egg-shells lying in the water by it, and so many quill-feathers scattered about, that I almost feared some accident had happened to the sitting bird.

The following year, 1854, on the 20th of May, I went with only Ludwig my servant-lad, to look for the Crane's nest in "Iso uoma." We saw no birds, and the spot where the nest had been the preceding year was not easy to find in so extensive a marsh. So we quartered our ground, working carefully up one strip of harder bog and down the next. After some hours of heavy walking I saw the eggs—joyful sight!—on an adjacent slip in a perfectly open place. The two eggs lay with their long diameters parallel to one another, and there was just room for a third egg to be placed between them. The nest, about two feet across, was nearly flat, made chiefly of light-coloured grass or hay loosely matted together, scarcely more than two inches in depth, and raised only two or three inches from the general level of the swamp. There were higher sites close by, and many of them would have seemed more eligible.

It was just at the lowest edge of the strip, but so much exposed, that I thought I should be able to see even the eggs themselves from a spot at a considerable distance, to which I proposed to go. There was a common story amongst the people of the country, that a Crane, if its nest were disturbed, would carry off its eggs under its wing to another place; so I purposely handled one of the eggs, and hung up a bit of birch bark on a birch tree beyond the nest, as a mark by which to direct my telescope. Then I went with Ludwig to a clump of spruce growing on some dry sandy land which rose out of the midst of the marsh. Here I made a good ambush of spruce boughs, crept into it, got Ludwig to cover me so that even the Crane's eye could not distinguish me, and sent him to make a fire to sleep by on the far side of the wood, with strict orders on no account to come near my hiding-place. I kept my glass in the direction of the nest, but it was long before I saw anything stir.

APPENDIX: NO. I. IX.

In the mean time the marsh was by no means quiet; Ruffs were holding something between a European ball and an East Indian nautch. Several times "keet-koot, keet-koot," to use the words by which the Finns express the sound, told where the Snipes were. A cock Pintail dashed into a bit of water calling loudly for its mate. The full melancholy wailing of the Black-throated Diver came from the river; watch-dogs were barking in the distance; I heard the subdued hacking of wood and the crackling of Ludwig's fire. It was already about midnight; Fieldfares were chasing each other through the wood; one came pecking about my feet, and another, settling on the branches that covered my back, almost made my ears ache with the loudness of its cries. I often heard the waft of known wings, but three times there sounded overhead the sweeping wave of great wings to which my ears were unaccustomed. I could scarcely doubt it was the Cranes', but I dare not turn up my eye: I even once or twice heard a slight chuckle that must have been from them.

At length, as I had my glass in the direction of the nest, which was three or four hundred yards off, I saw a tall grey figure emerging from amongst the birch trees, just beyond where I knew the nest must be; and there stood the Crane in all the beauty of nature, in the full side light of an Arctic summer night. She came on with her graceful walk, her head up, and she raised it a little higher and turned her beak sideways and upwards as she passed round the tree on whose trunk I had hung the little roll of bark. I had not anticipated that she would observe so ordinary an object. She probably saw that her eggs were safe, and then she took a beat of twenty or thirty yards in the swamp, pecking and apparently feeding. At the end of this beat she stood still for a quarter of an hour, sometimes pecking and sometimes motionless, but showing no symptoms of suspicion of my whereabouts, and indeed no manifest sign of fear. At length she turned back and passed her nest a few paces in the opposite direction, but soon came in to it; she arranged with her beak the materials of her nest, or the eggs, or both; she dropped her breast gently forwards, and, as soon as it touched, she let the rest of her body sink gradually down. And so she sits with her neck up and her body full in my sight, sometimes preening her feathers, especially of the neck, sometimes lazily pecking about, and for a long time she sits with her neck curved like a Swan's, though principally at its upper part. Now she turns her head backwards, puts her beak under the wing, apparently just in the middle of the ridge of the back, and so she seems fairly to go to sleep. While she sits, as generally while she walks, her plumes are compressed and inconspicuous.

By this time all birds, excepting perhaps a Fieldfare, are silent. I was now sure the Crane would not carry off her eggs. After enjoying for a short time longer this sight—and no epithet is yet in use which expresses the nature of the feelings created by such scenes in the minds of those who fully enjoy them—I found that the air was freezing. I quietly got up, and on reaching the fire made myself
comfortable. Some four hours later, that is, between four and five in the morning, we came again to the west side of the hill; there lay the Crane, head and neck still invisible; we may have whispered too loud, for she soon raised her head. I now wished to see how she would leave the nest, whether crouchingly or not. I took a line not directly towards it, curving more upon it as I advanced, of course taking care to keep my eyes in a different direction. When I believed that I was just opposite, I looked, as I thought, towards the place, which might be about twenty paces off, but I did not at first recognize the bird. She was a few feet from the exact spot I had expected, and I unconsciously took her for a grey stone, till my eye turned directly on her. I had then just time to mark her position with her head drawn in between her shoulders, when, having caught my glance, she rose steadily into the air. In one part of the nest was a damp spot from the water of the marsh having soaked through. The eggs now lay touching each other. When I came to blow them, I found to my surprise that they were one or two days sat upon. In 1855 this nest, as Ludwig informed me, was robbed by a Fielfras (Gulo borealis). I had the pleasure of showing it, towards the end of the summer of the same year, to my friend Mr. Alfred Newton, who thought the difficulties of the hog fully repaid by the sight even of an empty Crane's nest. We found on this occasion, on examining the materials of the nest, old pieces of egg-shell, showing that it was the same nest that had been used in previous years.

I must not go into long particulars concerning the nest of 1854 in Kharto nome. I found the two eggs on the 22nd of May, in a spot only two feet from the nest of the preceding year. It consisted of not more than a handful or so of whitish sedge grass, about twenty inches across and two or three inches only above the level of the water of the submerged parts of the marsh, close to the edge of which it was situated. There was a kind of creeping moss about it, and one or two very low-lying shoots of sallow.

It was placed in an open part of the middle of the south-east wing of the marsh. I have a memorandum that there was not then a leaf unrolled, the only visible signs of summer being a kind of Carex coming into flower on the hummocks, and yet the nights were quite as light as the day. I kept watch at the distance of nearly half a mile; but unfortunately the smoke of my fire blew towards the nest. I saw a Crane go sailing down, and afterwards the pair walking together, when they indulged in a minuet or some more active dance, skipping into the air as the Demoiselles sometimes do in the Zoological Gardens. Once or so I saw the beak of one pointed perpendicularly to the sky, and a couple of seconds afterwards the loud trumpet struck my ear. It was two or three o'clock in the morning before a bird came on to the nest, and even then she was soon off, but again came back, sitting always with her head up. She left it very wild, when at last we advanced from our bivouac. In this watch I saw and heard many interesting birds, amongst them a Hen Harrier (Circus cyaneus). Also a pair of Goshawks (Astur palumbarius)
dashed into a tree close over my head, the Crane still visible in the distance. These eggs were rather smaller than the pair from Iso uoma; two other nests which I have since obtained in Lapland have eggs as big as those which are said to come from Germany, and vary as they do. I had the pleasure in August 1857 of showing Mr. Frederick Godman and his brother Percy a nest near Muonio-vaara, from which eggs were taken the same year, and a young one fledged, from the same marsh at least, if not from the same nest, as in 1856. Their wading to this nest, known to be empty, amidst swarms of greedy gnats, was a satisfactory proof of zeal.

The locality was in a perfectly open part of the rather small marsh, which was scarcely half an English mile across; so that the bird on its nest must have been most conspicuous on every side. It was on a little elevation, not more than one stride across, and raised only a few inches above the water. The eggs on the 5th of June were a good deal sat upon. The finders did not venture to leave them, both for this reason, and because a large hawk was believed to be watching them. They assured me that the birds did not cry, which agrees with my experience of their behaviour when I was near the other two nests.

I went the day after the eggs were taken to see the place. There was still ice enough down in the bog to prevent me sinking beyond a certain moderate depth; not so when the Godmans tried it. The nest, as usual, was of the kind of sedgy grass which grew in the same marsh, near the nest. Some of the pieces had been pulled up by the roots. It was twenty-seven inches across, and three or four inches in thickness, perfectly flat; dripping wet in its lowest layers. The birds sailed over our head to another part of the marsh, where I examined them with my glass.

It will be deduced from what I have stated that the Crane in Lapland is not gregarious when it has once arrived at its summer quarters; that as soon as it reaches its breeding-place, for the most part as soon as the snow is mainly off the ground, it repairs its simple nest, and lays its two eggs; for two were in the four nests that have occurred to me, and two generally say those few natives who know anything about the subject. The nest is neither large nor concealed. The birds are silent towards intruders on the eggs. The young run probably as soon as, or soon after, they are hatched, and by some means are led or conveyed to a great distance by their parents after having been disturbed. They have a chestnut or tawny down; no feathers visible in their wings for some time. In Lapland, and as far as I have heard, in Sweden and Finland generally, the Crane never breeds otherwise than on the ground. It seems not to visit Norway.

April 4, 1859, Beeston, Nottingham.
Since Mr. Alfred Newton, in his important communication (Zool. 65.10), has introduced my name as having formerly proposed the question whether the Edible Frog is a true native of Britain, and as Mr. Bell’s latest remarks on the subject (Zool. 6565) are before me, I venture to send you what seems to me fairly to be said upon the subject.

I cannot see that Mr. Bell’s belief that the Edible Frogs being “indigenous to this country rests on irrefragable testimony” is sufficiently well founded.

Granting that Mr. Thurnall’s discovery at Foulmire makes it in the highest degree probable that the recollections of Mr. Bell’s father (so long ago made known to his son) of Frogs that he considered of a different species from the Common Frog, and which were called in the neighbourhood of Foulmire “Whaddon Organs,” referred to the Frogs who were progenitors of these Edible Frogs of Mr. Thurnall’s discovering, nevertheless it scarcely seems a necessary consequence of the Edible Frog being at Foulmire “nearly a hundred years ago” that it was truly indigenous to Britain.

There are quadrupeds, fishes, mollusks, and plants believed to have been introduced to this country far more than a hundred years ago, and now naturalised and wild: why may not an amphibious creature have been so introduced by man, and, as in many other cases, no record been kept of its introduction? This would particularly be likely to happen in the case of a being of some use to man. How many French families of the upper classes, who value these Frogs highly, have from time to time settled in England!

How a supposed new species of Frog may have been brought into

[1 I had then recorded the discovery, in 1853, by my brother Edward and myself, of a colony of Rana esculenta in Norfolk, which we could not doubt were descendants of the 500 Frogs of that species liberated, between 1837 and 1842, in that county by Mr. George Berney, as I had recently heard from him; but, though referring to Mr. Wolley’s former enquiry (see No. XIX.), I did not presume to say how far it was answered by the facts I had brought forward. My statements produced a brief note from Professor Bell, in which, however, he merely repeated as “irrefragable testimony” what he had already said in the second edition of his ‘British Reptiles,’ without adding any new facts. I think that now all admit Mr. Wolley’s scepticism to have been amply justified, and I may add that, from conversation with Mr. Thurnall, I came to the conclusion that he himself suspected, if indeed he did not know, that the species had been introduced at Foulmire, though when or by whom this was done it is impossible to say. I never heard of anyone but himself and Mr. Bond obtaining specimens there.

I may further add that in 1876 Lord Walsingham and I discovered another colony in Norfolk, and examples have since been taken in several localities in that county. Mr. Boulenger at first doubted whether they could be descended from Mr. Berney’s colonists, for they seemed to be of Italian and not French or Belgian race, but I understand this objection is now wholly withdrawn.—Ed.]
a country and turned out in numbers, without there being any desire on the part of the introducer to make the fact known, Mr. Newton's account of Mr. Berney's experiments is sufficient proof,—his turning out in England two hundred Edible Frogs and a great quantity of their spawn, in 1837, about two years before the publication of the first edition of Mr. Bell's 'History of British Reptiles,' and thirteen hundred individuals in 1842, the year before Mr. Thurnall's discovery at Foulmire, and nevertheless, for the twenty-two years subsequent to Mr. Berney's first bringing over the Frogs, his avoiding making his experiments in any way public, though indeed they became known, sooner or later, to Mr. John Henry Gurney, who first communicated them to Mr. Newton.

It is rather remarkable that Mr. Bell, in the first edition of his work on British Reptiles, should so clearly indicate his disbelief in the Edible Frog as a British species (vide Hist. Brit. Rept. 1st ed., art. "Scottish Frog"), though he figures, for the benefit of the Scottish naturalists, a specimen of the Edible Frog sent to him from France by M. Bibron (p. 104). For it would hence appear that his father's account of the "Whaddon Organs," which had been told to him "as long ago as he could recollect," had not struck him as referring to the Edible Frog until Mr. Thurnall's discovery was announced.

Mr. Bell gives us, in this first edition, p. 86, an account of the introduction into Ireland, now about a hundred and fifty years ago, of the Common Frog, which in the same passage is reported to have shortly spread over the whole country. In the previously prevalent belief that no reptile existed in Ireland, at all events since the time of St. Patrick, a weighty reason appears for the preservation of the account of their subsequent introduction. That, however, this account was not generally known, appears from Mr. Bell being indebted to Mr. W. Ogilby for a reference to it.

The Edible Frog has not appeared, as far as I know, in other localities than Foulmire in this country, excepting where it is known to have been newly turned out. In a more recent case of a species of Amphibia new to our Fauna, it was soon found at the extreme ends of the island as well as intermediate places, though I admit that this does not prove much, for we certainly have some other species of Reptilia and Amphibia very local.

I have heard reports that since the draining of Foulmire the Edible Frog has not spread in the neighbourhood, but has disappeared. I must acknowledge from former observation, that I never saw in this country a more peculiar place than Foulmire was. Deep clear springs in turf, lying near together, perhaps slightly warm; at all events the vegetation about them seemed luxuriant. It may be that this peculiarity of character made it especially suitable for the Edible Frog.

We must not forget the assertions of Pennant and Shaw, though without detail, that the Edible Frog is a British species, though Mr. Bell, in his first edition, refers to these assertions as errors.
There can be no doubt he was right in believing that Dr. Stark was in error in exhibiting at the Zoological Society, in 1833, a skeleton of a Frog caught near Edinburgh, as the Edible, or indeed, as Mr. Bell (ride Brit. Rep., 2nd ed.) afterwards said, as any other species than the Common Frog.

But I must repeat that, with all respect for the opinion of Mr. Bell, I can hardly bring myself to believe that we have at present "irrefragable testimony" of the Edible or Esculent Frog being indigenous to Great-Britain.

I am afraid we must wait for the discovery of old Fen bones, undoubted allusions in old books, or some such testimony, to strengthen what Mr. Bell has hitherto advanced; for at most he has proved or rendered highly probable nothing more than the existence, a hundred years ago, at one spot in the island, of the Edible Frog, apparently abundant,—the same spot where it was found, apparently indigenous, or at least naturalized, now nearly sixteen years ago.

The numerous naturalists who are familiar with the Eastern Counties' fens in their less-drained condition, and who, as far as I know, never observed in them anything like what the "Whaddon Organs" are believed to have always been, afford in the question negative evidence not without some little weight; at least, it makes one believe that the Edible Frog was long nearly, if not quite, confined to Foulmire. Still we must not forget Shaw and Pennant.

But it scarcely seems past all doubt whether or not the term "Whaddon Organs" referred to a peculiar species of Frog; for the fen Foulmire is out of the general Fen District, and the village Whaddon being close to it, might get credit for its numerous Frogs and Toads, which I believe to have been beyond the experience of the rest of that immediate part of the country.

Still, every respect is of course due to the opinion of Mr. Bell, senior, as recorded by his son. But supposing there were any mistake, it appears there was time, after Mr. Berney's introduction of his first Edible Frogs, for a good many of them to have moved themselves, or to have been moved, to Foulmire, and to have increased there in the course of the six years that intervened before Mr. Thurnall discovered them. But whether there be any mistake or not, Mr. Berney's idea may have struck some one else many years sooner than it did Mr. Berney, or than Mr. Bell lived within reach of Foulmire.

Beeston,
June 18, 1859.

PRINTED BY TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.
OOTHECA WOLLEYANA.

Royal 8vo, cloth, gilt tops.

PRICE: Vol. I., £4 4s. net.
       Vol. II., £3 10s. "

Part II.—Paper Cover, Price £2 2s. net.

" III.— " , , , , £2 2s. "

" IV.— " , , , , £1 5s. "

(Completing the work.)

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R. H. PORTER, 7 PRINCE'S STREET, CAVENDISH SQUARE