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Walker & Cocherell, sc.
Yours very truly
John Wolley junr.

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WOLLEY
YOUNG
BIRDS

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.

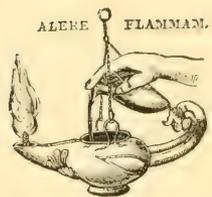
VOLUME I.

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INTRODUCTION.

WHEN in 1864 I published the first part of this volume I had every reason to expect that within a few months I should bring out the second, for which four of the plates were already executed. To recount the various events which successively hindered the work would interest few people, but I never gave up the intention of continuing it, as some may have supposed, and at last, other more pressing tasks being done, the opportunity came for me to go on with it, so that I can now offer to the public the complement of the first volume of the anciently conceived *OOTHECA WOLLEYANA*.

Something, however, has been gained by the long delay; and, among others, I have been able to include in the collection, and therefore to mention in this Catalogue, eggs which had always baffled Mr. WOLLEY's strenuous efforts. Most of them I owe to the exertions of men employed on my behalf by KNOBLOCK (the father), whom, for some years after Mr. WOLLEY's death, I kept in my pay. When these were obtained, I felt that the work begun by him in Lapland was completed, and that I might withdraw from the field, since the eggs of every species of bird hitherto known to breed in that country had now been procured, directly or indirectly, through his means.

In such a work as this there seems no need to observe too strictly the technicalities of science. The arrangement (I will not call it Classification) of the species named is one of them. The ideal Taxonomy of Birds is beyond the range of my vision. All that is wanted in the present case is care not to break up groups which are believed to be most nearly allied: their sequence signifies little, and in the existing condition of Systematic Ornithology—if such a phrase be allowable—the most ready way of referring to any species is to look for its name in an Alphabetical Index. Then as to nomenclature, I believe that the scientific names here used will offer no particular difficulty, though I have to acknowledge that in regard to several of the Owls I have gone grievously astray, and the plain reason is that forty years ago I did not know the right path. There is little comfort in the thought that others have erred as much, and still are erring.

As regards the Finnish place-names, which occur so plentifully in the following pages, I must entreat the indulgence of all who are acquainted with that beautiful but difficult language, my own knowledge of it being very rudimentary. It may be taken for granted that almost every well-marked locality in Lapland has its own name, and that every such name has a meaning, though that of some is obscure; but comparatively few of them are to be found on any map, for maps of the country on a scale large enough to shew them have not been published. A still greater difficulty arises from the fact that both Mr. WOLLEY and old KNOBLOCK—the latter especially—spelt these names by ear, and all must be aware that unanimity

in phonetic spelling is seldom attained. Both knew Finnish, or at least that dialect used around Muonioniska, well enough to speak it fluently, and Mr. WOLLEY could even write it after a fashion, but neither had ever studied it as a language, so as to know its peculiarities further than would serve for most practical purposes. The only Finnish book, I believe, that Mr. WOLLEY ever read was the New Testament, to which he diligently applied himself during his first winter in Lapland, and therefore from a literary point of view his knowledge was very limited. KNOBLOCK'S must have been even less, for, as a Norwegian, he held the vernacular speech in contempt. Hence has come about a result similar to that which attended the compilation of our own great Domesday Book by Norman scribes, to whom English was a strange not to say unintelligible tongue. With every desire to set down the right word, it was often written wrongly, for however slight the difference may be, scarcely any two men speak alike or hear alike. Some of the worst mistakes I hope I have been able to correct, though in every case I have done this with trepidation, fearing to commit some graver error. In cases of uncertainty I have left the names as they stand in manuscript, as I have done others which I know must be wrong, though unable in my ignorance to set them right. They could only be rendered accurately by some one to whom Finnish was the mother-tongue, and all my attempts to find such a person in England to help me have failed. Even then there would probably remain not a few words quite irreducible, owing to the defective way in which they were originally spoken, though the pronunciation of most

Finns is generally clear and unmistakable. It needs, however, a fine ear to distinguish between *Sirkkajärvi* (Grasshopper-lake) and *Särkijärvi* (Roach-lake), and both occur not unfrequently at no great distance from Muonioniska, though sufficiently far from one another. But matters were made worse when the good KNOBLOCK wrote down a name, as he occasionally did, in an oblique case instead of the nominative (§ 2156), for be it remembered that Finnish nouns have fifteen cases, so that plenty of traps beset the unwary grammarian, and I feel sure that I must have fallen into some, while a generous freedom in the fashion of spelling some Finnish words lays snares in which one is apt to get entangled.

I have to regret the death of Mr. BALCOMB, who executed the egg-plates for this work, and it is only due to him to state that each of his figures is an unmistakable portrait of the specimen drawn. Equally great is my regret at the loss of Mr. JURY, who so admirably lithographed the other plates for the first part of this volume. Two of the landscapes in the second part have been put on stone by Mr. M. HANHART with equal fidelity to the original drawings, while the other two have been copied by Mr. EDWIN WILSON from the beautiful plates in the 'Lappland' of the late Captain PETERSSON. The greatest loss of all, however, is that of my friend Mr. WOLF, whose supreme excellence as a zoological artist was only equalled by his readiness to oblige anyone who appreciated good work.

The frontispiece of this volume is from a photograph taken in the winter of 1858-9, by the late Mr. EDWARD JOSEPH

LOWE, F.R.S., of Highfield House near Nottingham, and the portrait of LUDWIG KNOBLOCK from one taken while he was in England in 1861-2.

Warned by my rashness on a former occasion, I make no forecast of a successor to the present volume, but I may say that the continuation is begun.

A. N.

CAMBRIDGE,
April 1902.



LUDWIG MATTHIAS KNOBLOCK, æt. circa 23.
Ob. 18 Februarii 1893, æt. 57.

MEMOIR.

SPRUNG from a Derbyshire family of fair repute and respectable antiquity, JOHN WOLLEY was born at Matlock in that county on the 13th of May, 1823, being the eldest son of the Rev. John Francis Thomas Hurt (b. 1796, d. 1877) and Mary his wife, eldest daughter of Adam Wolley, Esq., of that place, a gentleman well known as a local historian and the donor to the British Museum of a valuable collection of Manuscripts. At the decease of his father-in-law, in 1827, Mr. Hurt assumed the surname and arms of Wolley, and dropped the use of his second and third Christian names. His mother was the only daughter of the celebrated Sir Richard Arkwright, so that the subject of this memoir was the great-grandson of that remarkable man*.

At an early age John Wolley, the younger, was sent to a preparatory school at Southwell, kept by Mr. Fletcher, which in 1836 he quitted for Eton, where he remained for the next six years, leaving it at the beginning of the summer holidays in 1842. A love of Nature's works strongly shewed itself even in the days of his childhood, and, encouraged by his father, was shared by his two younger brothers George and Charles, schoolfellows with him at Southwell, though for a long while plants and insects occupied the attention of all three fully as much as the higher classes of creation which at a later period became the main objects of interest to him. The boys had access to a considerable number of standard works on natural history and began collections of various kinds, which were eventually housed in a disused stable, dignified by the name of "Museum," in the

* Further particulars of the families of Arkwright, Hurt, and Wolley will be found in Burke's 'History of the Landed Gentry.'

garden of their home at Beeston, near Nottingham. One of John's notes, made more than twenty years after, shews that in or about 1835 he bought eggs of Mr. Arthur Strickland, who had a "Museum" at Bridlington, where the Wolleys were staying on a visit, and about the same time George found there a new locality for the rather interesting beetle, *Nebria livida* (Zoologist, 1847, p. 1674). At Eton, John was, in his own words, "always about the country in all directions in pursuit of Natural History," and he assiduously collected insects and birds' eggs, while he "knew every plant that grew about." Another of his notes records a Partridge's nest, found and shewn to him by a schoolfellow, Sir George Hampson (b. 1823, d. 1898), in 1837, the year after he went to Eton. But with all this he became one of the foremost in every manly sport, and his recollections of having been captain of a "long boat" and in "the eight," while also one of the "oppidan eleven" and that of "the school" at football—to say nothing of being a member of the Eton Society—were always among those in which he most delighted.

Many years ago I was favoured by my friend the late Mr. George Dawson Rowley, a contemporary of Wolley's at Eton, with some notes concerning him, from which I extract the following:—

"I arrived at Eton with perhaps more than the usual taste for birds'-nesting and country pursuits. My attention was therefore at once arrested when I was told that a boy at such a house* kept snakes in the drawers of his bureau! This was JOHN WOLLEY, whose acquaintanceship for that reason I determined to make, and a community of sentiment at once bound us in the closest friendship. We very soon agreed to investigate the country round Eton, and took many long tramps accordingly. Watching the Herons on their breeding-trees was one of our chief delights. Of course the spoils were not very great, but a small share of success was at that time sufficient reward for a large amount of trouble. We very quickly knew every place attainable by boys' legs. Such being the state of things, it was not a matter of surprise, when my friend was made captain of the 'third upper,' that he should ask me to join her crew,

* Wolley was first in "the house" of Mr. Wilder, but on that gentleman being elected a Fellow of Eton College, and so vacating his mastership, was transferred in 1840 to that of Mr. Evans, Mr. Pickering becoming his tutor.

which, notwithstanding the occasional absence of the captain and 'No. 5' (when out hunting Dabehicks), was soon so strong as to bump the *Victory* (the 'second upper'), a most unheard of circumstance in Eton annals. On one whole holiday Wolley's crew agreed to 'shirk absence,' and row down to 'The Bells of Ouseley'*, which could not be done without that bold step. This was a case of flogging all round; but, as good luck would have it, the 'absence' turned out to be 'a call,' and we thus escaped. Wolley was a boy of undaunted courage, and . . . never knew fear. That made him a good player at football, a game in which bones were at times broken. Here I was always 'next choice' to my captain, and stood at his back 'at the wall' as I rowed behind him on the river."

To his brother Charles, the present Mr. Wolley-Dod, I owe the particulars of an earlier aquatic adventure, which seems to have happened in the summer of 1840, soon after John Wolley was made captain of the *Dreadnought* (the 'third upper') :—" One fine holiday morning he wanted to row down below bridge in a pair-oared 'funny.' His companions were one of the crew of his 'long boat' and, as steerer, a smaller boy of about my own age, whose nerve on this occasion failed him, so that first aiming at one opening and then at another of the Eelbucks at Old Windsor weir, he got the boat fouled across the timbers, when the light and narrow craft actually broke asunder— one half going through one passage, the other through another. All three boys could swim, but the small steerer got into difficulties in the foaming water, and was saved by the presence of mind and bodily strength of his leader, who, both swimming and diving, was nearly as much at home in the river as an otter."

During the whole of his school career Wolley's holidays were spent with his father at Beeston, varied by occasional visits to his maternal aunt Mrs. Charles Clarke at Matlock, or a summer-trip to some seaside place. In October 1842 he went to Cambridge, having been entered at Trinity College, under Mr. Blakesley †, but residing in lodgings (No. 1, Jesus Lane). For one who had just left the sixth form at Eton

* A well-known inn on the Berkshire bank of the Thames, about four miles below Windsor Bridge, and just above the historic Runnymede.

† Afterwards Dean of Lincoln, but perhaps better known as the "Hertfordshire Incumbent" of 'The Times' newspaper.

—though there he had never “sapped,” as he regretfully wrote soon after to one of the masters—and did not intend to take a degree in honours, not much reading was necessary, and with Wolley’s tastes it is not surprising that most of his time while at the University was passed out of doors, and especially in the fens and woods of Cambridgeshire and Huntingdonsire, the former of which, from their as yet only partially-drained condition, afforded a rich field for the researches of a naturalist. He also gave up boating as a diversion, partly, he said, because he did not feel strong enough for it, and only practised it as a means of making his numerous excursions. Entomology was still first in his affections, and the results of his own birds’-nesting were of comparatively slight importance, for he had yet to learn by experience the dishonesty of egg-dealers, so that he was again and again content with specimens, often worthless, which were brought to him, instead of seeking them himself, and must thus have missed many an opportunity which could never recur. All that can be said in extenuation is that, among the collectors of those days, he was one of the first to see the need of taking eggs with his own hands, or of obtaining them direct from trustworthy sources, and of rigorously rejecting specimens on the genuineness of which he could not depend. Moreover the restrictions imposed by College rules, at that time very strictly enforced, served not a little to impede his movements. It was impossible to be in the Fens either very early in the morning or late in the evening, the best times for work, as every birds’-nester knows.

So soon as his first long vacation, that of 1843, began, he was off to Whittlesey and its still undrained mere, staying at Sawtry (§ 289), where the *pupæ* of the Large Copper Butterfly (*Lycæna dispar*), obtained from Wood Walton Fen, could be bought at fourpence the dozen, while in the not very distant Monk’s Wood entomological treasures, at that time far more highly thought of, were easily to be had. It was in the course of this excursion that he put up for the night in the Red Cow Inn at Ramsey Hern (§ 431), being charged sixpence for his lodging; but it must be owned that the accommodation was not luxurious, for, as he told Rowley, the grass was growing through the floor under the table, and he arrived soon after at the house of his friend’s father at St. Neot’s, with his face peeled

from exposure to the sun*. Later in the year he was with some of his Arkwright relations at Scarborough, where, as usual, he indulged his natural history pursuits, having, it would seem, on a former occasion struck up a kind of friendship with Mr. Williamson, the Curator of the Museum there. On his way homeward he paid a visit to Walton Hall, being armed with an introduction from Mr. Francis Sibson, of the Nottingham Hospital, which was duly delivered on the 21st of September to its eccentric owner in person. The time of his arrival, however, was unpropitious, for Waterton was engaged with some other guests when Wolley presented himself, and next day wrote most apologetically at having been able to shew him but scant attention. Their interview, indeed, must have been of the briefest, and Wolley apparently did not set foot in the house.

A step more productive of result was taken by him in this year. Before his return to Cambridge in October he began a catalogue of the collection of Birds' eggs already formed by his brothers, especially George, and himself, which was contained in a cabinet lodged in "the Museum" at Beeston already mentioned. To this catalogue were appended notes originally concerning only the more important specimens, but gradually extended so as to include almost every one as it was received, while its shell was marked, at the beginning in pencil, but soon after in ink, with the number of the page of the Egg-book in which an account of it, more or less particular, was entered. Thus the history of each specimen can be promptly turned up †. It would seem that it was towards the end of this year (1843) that he opened a correspondence with Mr. Hewitson, then bringing out the second edition of his well-known work, to whom he communicated his brother George's experience as to the breeding of the Lesser Redpoll (§ 2226) near Rugby—Halifax in Yorkshire having been previously accounted its southern limit; but certainly he received a

* Mr. Rowley's notes do not, indeed, state when this occurred; but, for several reasons, I believe it was in this year.

† The cases in which, through inadvertence or some other cause, this practice was neglected are proportionally few; but a modification of the plan was introduced in 1856 and afterwards continued in regard to the eggs collected for him (and after his decease for myself) in Lapland—of which more presently. For these different series of numbers, preceded by a letter of the alphabet, were used; but the excellent, and indeed only satisfactory, practice of marking each egg-shell in ink was strictly carried out.

considerable number of eggs from that gentleman early in March 1844. Of his other doings in that year I have little information; but he continued to keep his terms at Cambridge, and early in June repeated his visit to the Whittlesey Mere district, spending five days at Sawtry (§ 290).

For the greater part of 1845 particulars also fail me; but this was a very important period in his career. Not only was it marked by his first published contributions to natural history (*Zoologist*, pp. 887, 944, and 952), all written from Cambridge in the early part of the year; but after entomologizing at the end of June in Wicken Fen, and again staying at Sawtry for half of July (as Mr. Wolley-Dod, who accompanied him, informs me), towards the close of summer he made a voyage to the South of Spain. Having visited Cadiz and ascended the Guadalquivir to Seville (*Zoologist*, pp. 1213, 1214), he crossed from Gibraltar to Tangier. Here he unexpectedly found domiciled a keen egg-collector (§ 1), at that time known to few naturalists in Europe and perhaps to none in England. The discovery of M. Favier and the treasures he possessed may be said to have been the turning-point of Wolley's life. Hitherto Entomology had been his chief pursuit, but from this time forward, though never wholly abandoned, it yielded its place to Oology, and the specimens he obtained in Morocco at once placed his cabinet in the first rank, so that other egg-collectors were only too glad to share, by exchange, in his Tangerine spoils which he from time to time continued to receive. When his own wants and those of his immediate friends or correspondents were satisfied, and in those days such wants were comparatively moderate, an intercourse, promoted I believe by him, between Favier and Williams, a well-known dealer in Oxford Street, served to supply the general public with the coveted treasures. It is true that the eggs thus rendered attainable were such as have long since been accounted common, but the progress of the study is marked by the fact that an ornithologist of the experience of Mr. Yarrell considered those of the Pratincole and the Stilt-Plover brought home by Wolley to be "the rarest he had ever seen"*. Mr. Hewitson was thereby

* Yet Yarrell in 1841 (*British Birds*, ed. 1, iii. p. 5) had already given a woodcut of a Pratincole's egg, brought from Tangier by Mr. G. W. H. Drummond Hay (*cf.* *Proc. Zool. Soc.* 1840, p. 134).

shortly after enabled to figure correctly for the first time that of the Egyptian Vulture *. The advantage to Wolley of being thus brought into direct and friendly connexion with all the chief collectors of the time—Hancock, Pitman †, Salmon, Selater, Tuke, and Wilmot, besides those already mentioned—is not to be overrated.

In January 1846 Wolley graduated as a Bachelor of Arts and left the University. His oological fervour had increased, and in the spring he formed an idea of going to Iceland, as shewn by a reply to enquiries made by him of Proctor of Durham, whose successes in that island had been duly chronicled by Yarrell and Hewitson, but nothing came of it. In June, accompanied by a cousin, Mr. James T. Hurt ‡, he left England for a tour through Germany to Switzerland, where they achieved a successful ascent of Mont Blanc—a feat not then of such easy performance as it has since become §. In the course of this tour, Wolley visited most of the museums that lay in his way, making the acquaintance of various egg-collectors in Switzerland and elsewhere, especially on his way home through France—particularly M. Lefèvre at Paris, who was bringing out his ‘Atlas des Œufs des Oiseaux d’Europe,’ and the better known M. Hardy of Dieppe. Returning to England he took up his abode in London (lodging at 26 Mount Street), and entered at the Middle Temple with the intention of studying Law. But more congenial pursuits chiefly occupied his

* The two figures given by Lefèvre appeared in his *Livraison* 13, dated 1847. Thienemann’s plate (Taf. liii.) was not published till 1850.

† In 1846 Dr. (now Sir Henry) Pitman sold his entire collection to the late Mr. H. F. Walter.

‡ This gentleman a few years later assumed the name of Edge on inheriting the property of a relative of that name. Born in 1827 he died in 1894.

§ The ascent was on the 5th of August, and is said (C. E. Mathews, ‘Ascent of Mont Blanc,’ p. 322) to have been the thirty-second successful one. The only printed account of it I can find is a paragraph in ‘The Times’ newspaper of the 13th of August, 1846, probably communicated by Professor James D. Forbes, who was then staying at the Montanvert, whence he wrote to Wolley on the 3rd, in reply to the latter’s enquiries, saying that he thought little could be done in the way of scientific observation at the summit, but suggesting that Wolley should procure “a good lump of the highest visible rock, should you happen to have the means of detaching it.” Whether this was done I have no knowledge, but I feel sure that the attempt to get it would be made. Six guides, led by the veteran Couttet, were employed. The weather was very fine, and as nothing went wrong, there was nothing to say on the subject.

attention; and, though his note-books shew his attendance on lectures, and he kept the terms necessary for a call to the bar, the Zoological Gardens and the Reading-room of the British Museum were more frequently his haunt than the chambers of the special pleader, and subsequently he abandoned the design of following a barrister's profession. Profiting by his opportunities he began to examine and collate for himself the historical evidence relating to the Dodo, and this research naturally led him to study the records of old voyagers*. Herein he fortunately discovered what still remains the latest evidence of an eye-witness to the existence of that bird, in the manuscript 'Coppey of Mr. Benj. Harry's Journall,' referring to July 1681 †. All this was done without any suspicion of the late Mr. Hugh Edwin Strickland being similarly employed, for it was not until towards the close of the next year that Wolley became aware of that gentleman's design of immediately bringing out a work on the subject. By that time, following, as Strickland himself had done, the lines first traced by Broderip (*Penny Cyclopædia*, ix. pp. 47-55), Wolley had collected a large body of notes; but directly he saw an announcement of the intended publication of 'The Dodo and its Kindred' he at once (6th December, 1847) wrote to Yarrell, as their common friend, offering the results at which he

* A number of book-tickets, filled up by him in the library of the British Museum, and kept for further use, are in my hands, and one of them, dated the 12th of November, 1846, for the 'Voyage et Avantures' of Leguat, the never-to-be-forgotten describer of the "Solitaire" of Rodriguez, is a hint sufficient for the purpose.

† British Museum, Add. MSS. 3668, 11, D. To the last, Wolley was strongly of opinion that, assiduously as Strickland had worked, extended research would bring to light a good deal more information on the subject. Whether such research has been expressly made I cannot say; but, as a matter of fact, accessions of the kind he expected have not been very numerous. Chief among them perhaps are the letters of Altham in 1628 (*Proc. Zool. Soc.* 1874, pp. 447-449) and the anonymous 'Relation de l'Île Rodrigue,' discovered by Mr. Rouillard (*op. cit.* 1875, pp. 39-42), beside a few more contemporary paintings, one, ascribed to Hoefnagel, in the library of the Emperor of Austria being of especial interest (*Von Frauenfeld, 'Neue aufgefundene Abbildung des Dronthe,'* u. s. w. Wien: 1868). On the other hand the exertions of Mr. George Clark and Mr. Sauzier have put us in possession of almost every bone of the Dodo's skeleton (*Trans. Zool. Soc.* vi. pp. 49-85; vii. pp. 513-525; xiii. pp. 296-298), and the investigations originated by my brother Edward have done the same for the allied bird of Rodriguez (*Phil. Trans.* 1869, pp. 327-362, and clxviii. pp. 438-451).

had arrived to Strickland. A brisk correspondence between them ensued, and the volume when it appeared bore testimony (p. 26) to the author's appreciation of the information thus generously imparted, and the value of the knowledge acquired.

The close of 1846 was also marked by the beginning of Wolley's connexion with what has since proved to be another extinct bird, and one to elucidate the history of whose extirpation his latest investigations were directed. On the 12th of December in that year he received through Mr. Gould, for the sum of eight-and-twenty shillings, the egg of an *Alca impennis*, which the latter had sold for the same price some four years before to Mr. D. Barclay Bevan, of Burton Latimer, near Higham Ferrers. Hitherto that species had only been considered very rare, specimens of its skin or egg, the origin of which few if any ornithologists troubled themselves to trace, occasionally coming into the market; and even Mr. Henry Milner, an old school-fellow of Wolley's, who had been in Iceland during the preceding summer, and had there enquired for the bird, returned without suspecting that the species had come to an end, for in truth examples (the last as we now know) had been taken there only two years before. Yet it was Mr. Milner's failure to obtain any specimens that led to suspicion as to the bird's fate.

For the first half of the year 1847 he remained in London, ostensibly "reading for the bar;" but it became clear to him that the law would be an unsuitable profession, and, after a few months' sojourn at home, he in November repaired to Edinburgh, where (lodging at 3 Roxburgh Place) he joined the medical classes at that University, diligently applying himself for the next three years to the course of study necessary for attaining a physician's degree, and with such success that (as the late Professor Goodsir informed me) during his last session (1850-51) he was elected Senior President of the Royal Medical Society—the highest mark of respect that his fellow-students could bestow on him. In his vacations, however, he devoted himself to what henceforth became his main desire—that of forming a collection of birds' eggs, all the specimens of which should be thoroughly trustworthy, and by consequence not only serviceable to, but worthy of a scientific study. In those days he was by no means alone in believing that Oology would prove an important help

to classification, while its active pursuit possessed the supreme fascination of a field-sport in its hopes and fears, its joys and disappointments, coupled with the fact that the birds'-nester continually has Nature before him, and often in her wildest and most beautiful aspects, while his success depends largely on his knowledge of the habits of the creatures whose homes he is seeking, so that "hardly any branch of the practical study of Natural History brings the enquirer so closely in contact with many of its secrets." Then there was the consideration of the culpable carelessness as to verification of specimens displayed by so many of the owners of even large collections, and the futile arguments by which they strove to persuade themselves that this or that egg, bought of a dealer who had a plausible story to tell, was indeed the treasure it was asserted to be. Wolley determined that his collection, already well begun by himself and his brothers, should bear a very different character, and to gain that end no labour was too severe, no personal hardship too great for him to undergo.

Accordingly the summer of 1848 found him visiting the northern extremity of our island, and he extended his excursion to Orkney and Shetland*. This was more with the intention of gaining a general knowledge of localities to be made use of on a future occasion than with much expectation of then adding to his collection, for the egging-season was already far advanced †. The chief ornitho-

* He there had the good luck to see a Crane which had strayed thither (*Zoologist*, p. 2352), little suspecting the closer acquaintance he was to make with that species in one of its homes a few years later.

† The Milners had visited Sutherland for collecting-purposes the preceding year, being probably the first zoologists to traverse that wild district since the expedition of Jardine and Selby in 1834, and the elder brother (afterwards Sir William) had recorded their observations early in 1848 (*Zoologist*, pp. 2014-2017), while the younger, Henry, Wolley's former schoolfellow, had, both orally and by letter, supplied him with further information. In that way Wolley became acquainted with the Dunbars (§§ 25, 66, 81, 83-85)—William, the oldest, at that time an exciseman with an extensive knowledge of the country and people, and Lewis, the youngest, then living at Inverness. Mr. Charles St. John's 'Tour in Sutherlandshire' in company with Mr. William Dunbar was made in 1848, just before Wolley's visit, but the results were not published till the following year. The adventurous Mr. Roualeyn Gordon-Cumming was about the same time occupied in much the same way. What became of his spoils I do not know, and of his doings I have only heard the story that having one night swum out to an Osprey's nest, he got

logical capture on this tour was that of a pair of young Sea-Eagles, taken by Wolley himself from the eyry at Dunnet Head (§ 67) and sent alive to the residence of his relatives at Matlock, where a mass of rocks, possibly tenanted in bygone years by the other native species, was subsequently wired over after a design of his own; and the plan of the cage thus formed being brought to the knowledge of Mr. Mitchell, then Secretary of the Zoological Society, suggested the formation of the fine Eagle aviary which for many years adorned the Gardens in the Regent's Park.

During this year he was, though not its first discoverer, the first to publish a somewhat important addition to the native British Fauna. Early in April 1848 he noticed near Edinburgh a Newt, which he modestly remarked he had not observed elsewhere (Zool. 1848, p. 2149), and sent a description of it to Professor Bell, who, replying to him on the 17th of that month, told him that three or four years before living examples of what was doubtless the same species had been sent to him (Bell) from "Devonshire"—a mistake, as subsequently appeared, for Somerset, where it was found by Mr. William Baker of Bridgwater in 1845 (*tom. cit.* p. 2198). A few days later Wolley transmitted "a plentiful supply" of live specimens to Bell, who wrote on the 1st of May acknowledging their safe arrival, and considered that they belonged to an undescribed species. This, however, M. Deby, a Belgian zoologist, speedily identified (*tom. cit.* p. 2231) with the *Salamandra palmipes* of Daudin, a determination immediately accepted by Wolley (*tom. cit.* pp. 2265–2268), who in the meanwhile had found several examples in a pool near Loch Eribol in Sutherland. In 1849 Bell published a new edition of his 'British Reptiles,' in which he corrected his former error, for in his first edition he had described and figured, under the

his fingers caught in a spring-trap, set by a more fortunate precursor, who having taken the eggs hoped to take the bird also. Though I believe that the Association which a few years before had been offering rewards for the destruction of birds-of-prey in Sutherland and Caithness had then ceased to be active, the hand of almost every landlord and tenant, forester and shepherd, was still raised against them, so that in nearly each district anyone whose object was to rob an Eagle's or Osprey's nest was rather welcome than otherwise; but in this, as in every succeeding expedition of the kind, Wolley was careful to obtain the consent of the owner of the land or his agent.

name of *Lissotriton palmipes* (Daud.), some specimens of the ordinary English smooth Newt, and he now recognized Wolley's services in setting him right. The species thus added to the Fauna of Great Britain has since been found in many localities in Scotland, as I learn from Mr. W. E. Clarke, and is the *Molge palmata* (Schneider) of recent authors (*cf.* Boulenger, *Cat. Batrach. Grad. Brit. Mus. ed. 2*, p. 16).

Another zoological incident of some interest, but of less importance, occurred to Wolley in the course of this tour. While in Orkney there was placed in his hands a Bat which had been caught alive nearly a twelvemonth before (September 1847) on the island of South Ronaldshay (*Zool. 1849*, p. 2343), and on submitting the specimen to Mr. Waterhouse, of the British Museum, it was pronounced by him and Dr. Gray to belong to the American *Vespertilio pruinosus* of Say. Wolley in recording its occurrence, though recognizing the possibility of its having found its own way across the Atlantic, remarked that it was "a very likely animal to be brought in a ship," an opinion to which he held (*op. cit.* 1850, pp. 2695, 2696), though tempted by Mr. Newman to declare a belief in its being a voluntary visitor. He subsequently (*tom. cit.* pp. 2813, 2814) gave a minute description of the specimen. The species is the *Atalapha cinerea* (Palisot) of Mr. Dobson (*Cat. Chiropt. Brit. Mus. pp. 272, 273*), and what I believe to be the Orkney example (dried, not a mere skin), coming into my possession at Wolley's death, is now in the Museum of Zoology at Cambridge.

Profiting by the knowledge gained during the preceding year, he started early in 1849 for the north and journeyed throughout Sutherland and Caithness, for the most part on foot, devoting himself to investigating the habits of the larger birds-of-prey, which, as he perceived, were soon to be rendered nearly extinct in that district by the combined efforts of sheep-farmers, game-preservers, and so-called naturalists. The general results of his experience of these birds on this and subsequent occasions were eventually communicated to Mr. Hewitson, by whose leave they have been transferred to this work (pp. 8-15, 45-50, 58, 59)*, where also may be found parti-

* In one anticipation Wolley was wrong. He thought that the White-tailed Eagle would hold out longer "in its sea-girt fortresses" than the inland-breeding

culars of most of the several incidents on which that experience was based, justifying Hewitson's remark that Wolley had "become as familiar with the king of birds as others are with Crows and Magpies." In the course of this expedition he took with his own hands the eggs from two nests of each species of Eagle (§§ 26, 27, 67 and 68) as well as those of an Osprey (§ 82)—all attended by considerable risk. A little later he was joined by his cousin, Mr. Edge, the companion of his continental tour of 1846. Leaving Scotland in the month of June, they sailed for the Færöes, and passed several weeks in those islands, the ornithology of which they were the first of our countrymen to investigate, Wolley's activity and fearlessness in rock-climbing affording him a great advantage in so doing, while those qualities excited the admiration of the islanders, who are themselves proficient in the art. Here too he found a devoted naturalist in Sysselmand Müller, of Thorshavn, and a scarcely less-valued assistant in his brother official, Sysselmand Winther. One or both of these gentlemen accompanied Wolley and Mr. Edge in several of their most hazardous exploits, and a friendship was struck up between them only terminated by death. In the course of their tour a nest of the Snow-Bunting was found, and the single egg it contained (§ 2401) seems to be the first belonging to that species ever found in so southern a locality, on this side of the Atlantic at least*.

Golden Eagle, whereas just the contrary has happened; and, while the former has been well nigh if not wholly extirpated from the mainland of Scotland, the latter is in most districts much more numerous than it was in his day. The reason is plain to those who know the facts. The eyries of the former, being for the most part on the coast, were at the mercy of every one to approach and rifle. Those of the other species were on ground jealously guarded from public access by foresters, whose pecuniary interest it is to keep up the stock, and supply the egg-collector who is willing to pay for what he wants. A very different feeling, too, obtains now among the holders and occupiers of land. Most of them, outwardly at least, follow the example of the late Marquess of Breadalbane in giving orders for the proper protection of Eagles, and some take care that those orders are obeyed. This change has been, it is hoped, in time to save the Osprey, while the Golden Eagle has largely benefited by it; but access to the localities frequented by the Sea-Eagle being unrestricted its doom has been decided for some years.

* A paper on the Birds of these islands was read by Wolley in the Natural History Section of the British Association for the Advancement of Science at its meeting in Edinburgh the following year, and was printed in full in Sir William Jardine's 'Contributions to Ornithology' for 1850.

In 1850 he did very little in the way of birds'-nesting, attending closely to his medical work, in which he had become much interested; but he kept adding to his collection by correspondence, and he opened communications, which, however, came to nothing, with a gentleman in Newfoundland respecting the former existence on Funk Island of the "Penguin" of those parts, that is to say *Alca impennis* *. At the Cambridge Commencement in July he proceeded to the degree of M.A., and during the meeting of the British Association held at Edinburgh he for the first time met his former correspondent, Mr. H. E. Strickland. At the close of the following winter session he, having completed his medical course, quitted the northern capital.

From a fellow-student (Mr. MacTier, I believe) Wolley received an introduction to the head-forester of Black Mount, famous throughout Scotland for his knowledge of the ways of Deer, and, as it turned out, of Eagles. Accompanied, as before, by Mr. Edge, Wolley, about the middle of April 1851, betook himself to Argyleshire, where they stayed about ten days, visiting, under the guidance of the great Peter Robertson, two occupied nests of the Golden Eagle (§§ 28, 32) and the deserted sites of a good many more †, for the species had formerly been perhaps more numerous in that district than elsewhere in this island ‡. They then proceeded to Inverness, and

* Following Wolley's example, however, I was some years after more fortunate, and thanks to Mr. Reginald M. Johnson of Fogo, who interested Bishop Field in the research, I obtained from the latter a natural mummy of the bird from Funk Island (Proc. Zool. Soc. 1863, pp. 435-438), which, as I knew it had been Wolley's intention to have done, had his efforts been successful, I placed at the disposal of Prof. Owen, who described its skeleton accordingly (Trans. Zool. Soc. v. pp. 317-335, pls. li., lii.).

† Two of these were subsequently occupied, and formed the subjects of the two beautiful drawings (Plates F and G) which my good friend, the late Mr. Wolf, after visiting Argyleshire for the purpose, most kindly executed for this work.

‡ A curious incident happened in the course of their stay in this district, which I here transcribe from the 'Egg-book,' as there was no convenient place for inserting it in the text, and it seems to deserve publication:—"On Friday, Ap: 25 [1851], as James [Edge] and I were with Carmichael at the top of the eastmost end of Bein Inverveigh above Inveroran, I was looking with James's glass at the top of the highest and furthest peak of Bein Starav, which is near the head of Loch Etive, the low hill which rises by Loch Dochard, called Bein Bensie (Baوسي), being directly between us and Loch Dochard itself, just to the

thence visited the now well-known Osprey's nest (Plate II) in that county, which fortunately is still one of the few remaining in Scotland, besides one of the equally scarce haunts of the Crested Titmouse (§ 1060) and a few other places of interest. This tour finished, Wolley again took up his abode in London, being admitted a pupil of the lately opened St. Mary's Hospital, of which his old friend and neighbour, Dr. Sibson of Nottingham, had become House-Physician, and in London he continued to reside until the spring of 1853. During all this time he remained thoroughly devoted to the object which, as I have said, he had most at heart, while by no means unmindful of his former literary researches, now extended to include investigations relative to the history of *Alca impennis*. He also formed the acquaintance of many other naturalists, with whom his peculiarly quiet manner and unassuming demeanour speedily rendered him deservedly popular. I may be excused for saying that it was not very long after he returned to live in London that I first became personally known to him, for while paying a short visit to Cambridge he called on me in my rooms there on Sunday, the 26th of October, 1851. We had frequently exchanged letters for some three years, our correspondence beginning by his writing to me about some discoloured Woodpeckers' eggs (§ 608) which I had recorded in 'The Zoologist' for 1848 (pp. 2229, 2301), and from the time of our meeting the acquaintance soon ripened into a friendship that continued to the end of his life. Towards the

right of the line. As I was examining the cairn I saw a bird fly to it and settle, and I could distinguish it as it sat. Handing the glass to C., he saw the pole on it; but afterwards he could not see the pole, and he thought it was an effect of the sun. The snow on the top of the mountain and a very clear piece of white sky beyond made a small object very distinct, and as I looked again I once more saw the bird fly up and settle again on the cairn. C. saw that the object appeared to have moved, and he presently exclaimed, 'I'll bet a thousand pounds it's an Eagle.' He was most strenuous in his declaration that it could be nothing else. And so I had been thoroughly convinced at first, so was Carmichael after he had now seen it fly, and so was Robertson when we told him, for he says Bein Starav must be at least nine miles as the crow flies from where we were, and it appears to be more on Black's map—a most singular occurrence, as R. says, to have seen an Eagle at such a distance and in that way. We picked up four recently shed Stags' horns on the grassy patches this afternoon's walk, and we saw many mountain Hares of various colours—some nearly white. Edge's glass is one of the late Mr. Edge's, made before 1829 by Myers of Nottingham."

end of this year the arrival in the Zoological Gardens of the first living Apteryx seen in Europe greatly interested him, and early in 1852 he paid it several nocturnal visits to watch its behaviour, the results of his careful observations being minutely described in 'The Zoologist' for that year (pp. 3409-3424), while in the July following he accompanied my brother Edward and myself in another visit for the like purpose (*tom. cit.* pp. 3605-3610).

At length, in the spring of 1853, Wolley was enabled to put in execution a plan, the idea of which had for several years haunted him, and to make an excursion of far greater extent than any he had hitherto accomplished. Not only had he from his boyhood rejoiced in the thought of one day visiting the land of Gyrfalcons and Caper-callies, of Bears and Wolves, but of late the very unsatisfactory nature of our knowledge respecting the nidification of various birds, among which were some of our best known visitants, had been constantly present to his mind. English oologists had more than twenty years before visited Iceland and the coast-region of Norway, making discoveries of remarkable interest. It was therefore but reasonable to suppose that some sort of similar success would attend investigations carried on in still more northern latitudes. The pages of Mr. Yarrell's 'British Birds' recorded the results of Mr. Dann's visit to Lapland, and moreover Mr. Lawrence Heyworth, an acquaintance of Wolley's, had only three years before travelled through that country, and brought back spoils and intelligence sufficient to excite the ardour of a much less keen naturalist. Then, again, there was the geographical consideration that, from the very configuration of the land, the country lying between the Arctic Ocean and a large inland sea like the Baltic would probably be found to offer to many species of birds peculiar advantages as a breeding-station*. All this

* At this time I suppose no British naturalist was aware (certainly Wolley was not) of the attempts in this direction made by our Scandinavian brethren since the days of Linnæus. The attempts, it is true, were not, ornithologically speaking, very successful, but Prof. Zetterstedt's rather important discovery will be found mentioned in the following pages (pp. 418, 419). Mr. Dann unfortunately never published any account of his journeys, and it was not till 1854 that Mr. Lloyd brought out his 'Scandinavian Adventures,' in which some of the achievements of Swedish naturalists were made known to Englishmen for the first time, but they were not always judiciously chosen.

determined him upon making an expedition to the district lying at the head of the Gulf of Bothnia. Leaving Hull on the 16th of April, he arrived at Gottenburg, whence, armed with an introduction from Mr. Yarrell, he paid a visit to Mr. Dann, who then lived on his property about thirty miles from that town. By him Wolley was hospitably received and furnished with much useful information. Returning to Gottenburg he proceeded to Stockholm, and, provided with good recommendations, he obtained other valuable intelligence from Professor Retzius and Herr Johan August Wahlberg, who not long after met his death from a wounded elephant in South Africa, and had been not long before on a botanical tour in Lapland. Having secured the assistance of a student of the University, Herr Ernst Salomon, as interpreter, Wolley left Stockholm on the 7th of May, undeterred by the prospect of a journey of nine hundred miles in a rough carriage, and at a season of the year when, the winter-ways being broken up and the multitude of wide rivers still choked with rotten ice, travelling is deemed by Swedes all but impossible. The journey was not, however, without its reward. In the course of it he discovered the Eagle-Owl's nest (§ 525), his graphic description of which reached England just in time to be of use to Mr. Hewitson, while a few days later he had the satisfaction of confirming the views he had formerly expressed (*infra*, pp. 289, 290) as to the character of the Redwing's egg by shooting a bird which contained one ready for exclusion (§ 1307). On the 31st of May he arrived at Haparanda, the small frontier village at the mouth of the Torneå, opposite the Finnish town which has its name from that river. Northward from this place, Finnish is the language almost exclusively used, and it therefore became necessary here to engage a second interpreter. This added to the difficulties of the expedition; for those only who have had experience of it can be aware of the trouble and annoyance caused by the employment of a third language, especially in making known to an ignorant population wants of which they have hitherto had no idea, and by means of interpreters to whom the wants are equally strange.

It is not within the scope of this memoir to relate at length the different stages of Wolley's journey. It will suffice to say that leaving Haparanda on the 3rd of June he proceeded by land to

Matarengi, whence, embarking on the river Torneå, he followed its course across the Arctic Circle until its junction at Kengis with the Muonio, ascending the latter stream to Muonioalusta, whence a walk of one Swedish or seven English miles brought him to Muoniovara, a settlement of three homesteads on the Swedish side, immediately opposite the Finnish village of Muonioniska, where he arrived on the 10th of June (§ 1831) *. Hitherto his object had been to reach Jerisjärvi, a large lake on the Finnish side of the river, which had been recommended to him at Stockholm as a promising locality for his operations, and this he visited accordingly at least twice; but he found that the more immediate neighbourhood of Muonioniska presented greater advantages, and here he passed the rest of the eggng-season, working incessantly, often for more than twenty-four consecutive hours, in the vast marshes near it, until he had completely exhausted the powers of his two interpreters and his troop of beaters. His chief spoils were eggs of the Broad-billed Sandpiper, Jack-Snipe, and Temminck's Stint, to say nothing of Tufted and some other Ducks, all most carefully identified by himself; and the Snipe's and Stint's probably never before taken by any oologist. About the middle of July he retraced his steps, intending to return at once to England; but reaching Haparanda on the 18th he found letters which made him resolve to pass the winter in Lapland, and accordingly dismissing his companions, and sending his collections to my care, he again ascended the river and took up his abode at Muoniovara.

As this place became Wolley's headquarters for the rest of his sojourn in Lapland, a few particulars may here be given of it. Situated on the slope of a hill, and commanding a wide and extremely beautiful view to the eastward over the river Muonio, and the rather considerable Finnish village of Muonioniska (Plate J, p. 355, note 1), stood a well-built and commodious log-house, covered with weatherboarding painted of a warm red-ochre, to which the white

* I take this date from the 'Egg-book' as being more likely to be right; but, according to a somewhat irregularly-kept journal of this time, the day of his arrival was the 11th, there being no entry for the 10th. Those who have enjoyed the "sleepless summer of long light" know how hard it is, especially at first, to distinguish the doings of one day from those of the next, when there is no night to divide them, unless noted down at the moment, and the entries in the journal from the 8th to the 12th seem to have been all made at the same time.

window-frames and casings of the log-ends formed a bright contrast. On the ground-floor were five rooms, beside the entrance and stairs. Of these rooms that in the middle was a cheerful and well-lighted *salon* or parlour of good size, and over it another, as large, which Wolley used as a bed-chamber. On the left of the entrance was the kitchen, and on the right the store or shop, for the house belonged to a prosperous *handelsman*, Herr Forsström, and was well stocked with all the wares and goods needed by the population, scanty as it was, for many miles round, besides, what was still more attractive to many, very potent *brännvin*, for scarcely a bargain was concluded without a glass of strong drink. The builder and former owner of the house had become so convinced of the evil attending this habit, that some years before he gave up selling spirituous liquor. In consequence his customers left him, and, almost ruined, he was glad to part with his property. Being by trade a carpenter, he built himself a smaller house higher up the hill, where he somehow managed to maintain a living. He was a Norwegian by birth, but his father had come from Sleswick, and his name was Knoblock. To his care was subsequently entrusted the receiving, marking, and booking of all the eggs brought by the collectors in Wolley's employment during Wolley's many absences; and faithfully he discharged the duty. His two sons were Ludwig and Anton, often named in the following pages, of whom, and the former especially, more must presently be said. The dwelling-house at Muoniovara had the usual surroundings of a Swedish *gård* or homestead, forming an irregular square, but each building standing apart. First the *pirtti* or servants' house, and then the woodshed and *magasin* or store-house; next the hay-barn, adjoining the sheep- and cow-house—the last a most important part of a northern homestead,—in front of which was the well with its long, propped lever, weighted with stones at one end and bearing a bucket slung to the other. Somewhere, too, there was a stable; but horses are not much needed in this part of Lapland. Lastly, a little removed from the rest, was the *bastu*, or steam-bath, in regular weekly use by most of the neighbours. The dwelling-house was plainly but not uncomfortably furnished, and the accommodation it afforded, though far from luxurious, could not reasonably be complained of by anyone

used to Scandinavia; while no people could be more attentive and obliging to Wolley and his friends (as Mr. Hudleston and I found, when we were there) than the landlord and his household. Since in Lapland sheep are kept chiefly for their wool, and calves hardly ever grow into oxen, no doubt there was often a trying dearth of butcher's meat, the place of which was ill taken by fish of rather poor quality and a very irregular supply of wildfowl; but all depended on the season, and for eight or nine months in the year there was plenty of game and venison to be had, the time of scarcity being the short summer and early autumn. Away from Muoniovara things were very different; and if hunger might sometimes be felt there, it was certain to be so on even a brief absence, unless due provision (in every sense of the word) were taken against it, while a long journey required considerable preparation.

On Wolley's first arrival at Muoniovara he at once fell in with a lad, of about sixteen or seventeen years of age, already addicted to looking for birds' nests and good at finding them. Not only was he able to shew Wolley three Redwings' nests, the first the latter had ever seen (§§ 1308–1310), but he could tell of other birds that he had observed in the course of his ordinary work in the woods, in the hay-fields, or on the river. This was Ludwig, the elder of the two sons of Knoblock, the old man already mentioned, whom conscientious scruples had reduced from prosperity to something like poverty. Speaking both languages indifferently, for his mother (the daughter of a former pastor at Muunioniska) was by race a Finn, able to read and write, and endowed with unusual intelligence, Ludwig proved himself the worthy son of his father, and, once taken into Wolley's service, remained in it to the end, earning day by day the confidence of his master, whom he accompanied on most of his excursions, except when specially employed—and finally he was often so employed—on distant missions to Norway or elsewhere. Few were the occasions on which his conduct ever called for reproof, and those were of trifling importance. Strong, active, and enduring, he was always cheerful and given to make light of hardship or toil; while the dangers of travel—and in Lapland they are often real—had for him no terror. But, above all, his truthfulness commended him mostly to his master, himself the embodiment of truth. What

Ludwig said was to be believed : he might possibly be mistaken in his inferences, though his good sense was seldom at fault. It was Ludwig who brought about the great Waxwing victory (§ 808), for without his energy and perseverance the actual finder of the nest, Saajo Johan, and his brothers would never have been induced to achieve it*. Anton, the younger Knoblock, was also a steady lad, but had not the same physical or mental capacity as Ludwig. I believe he remained at Muoniovara till his father died, and then moved to some place in the south of Finland, where he may yet be living. Three others of Wolley's chief collectors must also be mentioned here, and all of them, I suppose, are dead. Pehr Eriksson Kyrö (commonly called Martin Pietty or Martin Pekka), a mountain Lapp of remarkable intelligence †, with the mind and manners of a gentleman, which he certainly was. He was lord of Ounastunturi and owner of countless reindeer ; but he condescended to do some birds'-nesting, and to him were due the first Pine-Grosbeak's eggs (§ 2249) obtained by Wolley. Then there was Piko Heiki (Little Henry) of Särkijärvi, a trustworthy, middle-aged Finn, constantly employed, often in

* After Wolley left Lapland, in the autumn of 1857, Ludwig, who had accompanied him to Haparanda, took service with the smith at Torneå, where he remained about two years, and then, with the object of improving himself in metal-work, came first to Gottenburg and then to Hull, speedily finding employment at each place. He stayed in England about two years, during which time I saw him more than once ; for Wolley's father had him to meet me at Beeston, and at my invitation he came to London for the International Exhibition of 1862. Returning to Gottenburg, he accompanied Mr. Hudleston to Norway in the autumn of that year, and came over once more at my request in 1864 to go to Spitsbergen with me. On board Mr. (now Sir Edward) Birkbeck's yacht, where I had the privilege of being a guest, he made himself most useful, and was popular with everyone. On our return he and I left the ship at Hammerfest, and I parted with him at Tromsø, whence he made his way to Muoniovara to see his people. After that he went back to Torneå, where, aided by the generosity of some of Wolley's relatives, he bought the smithy and married the daughter of his old employer, carrying on the business successfully. A few years after, on the reported discovery of gold in the Enara district, he was sent thither in some Government capacity ; but the affair proved a failure and he returned to Torneå, where, in 1873, the late Professor F. M. Balfour told me he found him prospering and highly respected. I deeply regretted hearing of his death there on the 18th of February, 1893, at the age of 57.

† It is right to say that I believe he had a cross of Finnish blood in him.

company with Ludwig; and finally Niemin Apoo (Abraham), an honest but somewhat witless creature, who, being an intrepid as well as skilful boatman, frequently attended Wolley in his many river-journeys and was one of the crew who brought the boat to meet us at Kilpisjärvi in 1855, subsequently accompanying us to Haparanda. For all these three Wolley had a great regard, and they were devoted to him.

Thus established at Muoniovara, during the winter he occupied himself partly in pursuit of the somewhat scanty stock of game which the surrounding forests afforded * and in unsuccessful attempts at bear-hunting †; but more especially in visiting almost every house within a radius of many miles, learning to know the inhabitants, enquiring of them about the birds of the district, and engaging the services of the more active for the ensuing spring. Meanwhile his boxes of eggs arrived in England, and the reception by collectors of a small portion of their contents, submitted to sale at the late Mr. J. C. Stevens's auction-room, was very encouraging to his future labours: genuine eggs of several of the species already named among his captures, as well as of others, it had never before been in the power of British or probably foreign collectors to procure, and they were prized accordingly. Towards the spring he crossed the mountains with reindeer, taking the route by Mukkauoma, into Norway, and proceeded by sea from Tromsö to Hammerfest ‡, whence in a short time he returned with the last snow to his headquarters by way of Alten and Kautokeino, near which place he successfully scaled a dangerous rock for a nest of the Gyrfalcon (§ 192). Arrived at Muoniovara, he soon afterwards had the opportunities of taking the eggs of the Crane, which he so vividly described in 'The Ibis' for 1859 (pp. 191-198); and a few days more saw him again ascending the river to its parent lake, Kilpisjärvi, among the mountains—the point at which Norway, Sweden, and Finland meet

* An incident of one of his excursions, made before the winter had fairly begun, is given further on (pp. 170-172).

† He took part in one hunt when the bear was killed, but he had not the luck to be "in at the death."

‡ There he met the well-known walrus-hunter, Herr Andreas Berger, and was by him sorely tempted to take passage in a *jagt* to Spitsbergen.

(Plate K, p. 269). No great success attended him here; but on his voyage back, in circumstances of which a thrilling account was communicated to Mr. Hewitson's pages (*Eggs of Brit. Birds*, ed. 3, ii. pp. 427-429), Wolley met with rather better fortune, though he obtained little else than the eggs of a species (the Scaup-Duck) which was already known to collectors. On his return to Muoniovara he stayed there only long enough to ascertain the particulars of the collections which had accumulated for him, and was off again—this time for England, which he reached in August. Depositing with me his treasures—including eggs of Rough-legged Buzzard, Hawk-Owl, Shore-Lark, Siberian Jay (§ 2600), Black Redshank (certainly obtained for the first time), Bar-tailed Godwit, and Little White-fronted Goose—he departed in a few weeks a second time for the North, and, travelling by way of Berlin (where he did not omit to inspect Savery's Dodo-picture) and Stettin to Stockholm *, caught the last steamer for the Bothnian Gulf, and reached Muoniovara just before the closing of the river-navigation.

The following winter he passed much as he had the preceding one. The breaking-out of the Russian war had indeed placed him on the verge of an enemy's territory, which he was again and again invading; but fortunately it did not materially affect his movements, which, as regarded incursions on the Finnish side of the frontier-river, were, though doubtless closely watched, wisely overlooked by the local authorities. Still great caution was needed, so as to give no possible excuse for any measures that might circumscribe his operations or even endanger his liberty. In the spring of the next year (1855) he repeated his journey to Norway; and leaving the Muonio and adjoining valley to be worked by Ludwig and others whom he had especially instructed, Wolley proceeded along the coast of Finmark, eastward of the North Cape, to Vadsö. From that town he crossed the Varanger Fjord to the outlet of the Patsjoki or Pasvig river, ascending it till he reached the great Lake Enara, which had been the locality previously assigned by too credulous collectors for many a rarity. He found its shores singularly destitute of anything ornithological; but on the way thither he was rewarded by the sight

* Owing to an outbreak of cholera in England, the route by Gottenburg was obstructed by quarantine regulations.

of Wild Swans' nests (Plate I). Returning to Vadsö, he joined Mr. W. H. Simpson (now Hudleston) and myself, whose arrival he had been expecting for some weeks; and we continued in company for the rest of the summer, exploring the shores of the Varanger Fjord and lower district of the Tana. Of the rarer *Limicolæ* and *Laridæ*, with which the fancy of some Scandinavian ornithologists had peopled this remote portion of Norway, not one was to be found; but it was some consolation to see flocks of Steller's Duck (though all were in immature plumage) and to discover nests of the Red-throated Pipit (§§ 1942-1947), which so many authors had regarded as a doubtful species. The season for eggs being over, we proceeded by the coast to Skibotn on the Lyngen Fjord, and crossed the mountains to Kilpisjärvi, at which famous lake boats were, by Wolley's care, waiting to take us down the river to Muoniovara*. After a month's sojourn there, for Wolley had vast collections to receive and numerous collectors to question, though there was only one novelty to record—eggs of the Pine-Grosbeak (§§ 2249, 2250),—we returned to England by the usual route of Haparanda and Stockholm, and Wolley spent the next six months at home.

In the spring of 1856 Wolley set out with Mr. Hudleston for the Baltic, and passed the eggng-season chiefly in the islands of Öland and Gottland, and on the adjacent coast of Sweden, expecting, on the faith of information he had received at Gottenburg, to obtain some great prizes; but he found it to be untrue, and his chief success was the nest of a Roller (§ 662). Mr. Hudleston, however, was more fortunate; and the interesting narrative of his taking a Great Black Woodpecker's nest (§ 596) may be read in the following pages, to which, with his permission, it has been transferred from

* We had overstayed our time in East Finmark by a fortnight, and the four men who had brought the boats up to Kilpisjärvi, the shores of which were uninhabited, had to separate and seek provisions as they best could. Two of them, one being Niemin Apoo, before mentioned, came across and met us at Skibotn in Norway; the other two, of whom one was Ludwig, taking the smaller boat, retired upon Mukkauoma, the most northern settlement in Sweden, leaving the larger boat by the lake-side for us. It was a never-to-be-forgotten moment when we stepped on board her and floated on that "lonely mountain mere." An admirable account of our transit, by Mr. Hudleston, was published in 'Fraser's Magazine' for April 1856 (vol. liii. pp. 379-394).

those of 'The Ibis' for 1859, in which it originally appeared. Disappointed in the ornithology of the district, Wolley was led to pay attention to the barrows, stone-circles, and other ancient relics with which *Öland* * in particular abounds, and he was at much pains to examine many of the numerous sacrificial and burial places in that island and to collect organic remains from them, as it should be mentioned he had already done to some extent from similar places in Lapland. While thus employed he received a pressing invitation from Professor Retzius (with whom he had kept up the acquaintance formed on first visiting Stockholm in 1853) to accompany him to the meeting of Scandinavian Naturalists then about to be held at Christiania, and accordingly repaired thither, where he read three papers:—1st, "On the Recrystallization of Fallen Snow"; 2nd, "On the Swarm of Lemmings in Lapland in 1853, the Birds that accompanied it and their Mode of Breeding"; and 3rd, "On the Improvement of the Breed of the Reindeer." The meeting over, he went to Copenhagen, and thence to Stockholm, on his way back to Lapland.

On his arrival at the Swedish capital he received the agreeable news of the almost unhoped-for discovery, through Ludwig's efforts, of the first nest and eggs of the Waxwing (§ 808) †. The particulars are so fully recounted in the following pages that nothing more need be said here, except that at Wolley's especial request the intelligence, which he lost no time in imparting to me, was communicated to but a few of his most intimate friends at home, and that he wished Mr. Yarrell to make public the news. However, before the letters announcing the great event reached England that good man had been laid in his grave, and the discovery was accordingly first made known in a short paper communicated by Wolley himself to the Zoological

* A curious incident occurred here which gave Wolley much amusement, though attended by some inconvenience. An old woman claimed him as her long-lost son, supposed to have gone off to Australia. In spite of all he could say or do she clung to this belief, and several relations, including some would-be brothers, were ready to accept him on her testimony. There was no attempt to get money from him; on the contrary, the family had lately come into some property (to them not inconsiderable), and were content that he should have his share of it if he would but acknowledge his true parentage!

† In his 'Egg-book' he wrote that he received Ludwig's letter "at Stockholm (or at Calmar)"; but I think there is no doubt that he got it at the former place.

Society of London, and read at the meeting held on the 24th of March, 1857, which was attended by my brother Edward in order to exhibit the nest and eggs, which were subsequently figured in the Society's 'Proceedings' (1857, pp. 55, 56, Aves, pl. cxxii.). Soon after, egg-collectors had an opportunity of shewing how they appreciated this new acquisition to oology, with the result that a higher price was obtained for each of the three eggs of the Waxwing—offered for sale at Mr. Stevens's auction-room—than had ever been known before, except in the case of those of a species presumed to be extinct.

The winter of 1856-7 passed with Wolley much as usual, though in his letters to his most constant correspondents he complained of being less able than formerly to withstand the rigour of the climate*. It was a year of famine. The crops of the country, both corn and hay, suffered from an inclement summer, so as to be far below the average, scanty as that is, while the potatoes were cut off by premature frost, and the people around were driven to great shifts for food, mingling a large proportion of chopped straw and bark with the meal of which they made their bread. The disastrous autumn was followed by a winter of unusual severity †.

In the spring he again set out for Norway; but this time took another and more difficult route, proceeding through the almost unexplored country nearly due north of Muonioiska, until he struck

* An agreeable glimpse of his life at this time is furnished by Mr. Bayard Taylor in his 'Northern Travel' (New York: 1858), who with his companion Mr. Braisted stayed several days at Muoniovara on their way to and from Kautokeino in January, 1857, and especially acknowledges (p. 163) the attention and kindness shewn to them by Wolley. Mr. Taylor's statement (p. 100), however, as to Wolley's using the common bath, is, as the latter assured me, a mistake. On the 10th of the preceding December, Mr. Theodore W. Rathbone, of Allerton Priory near Liverpool, arrived at Muoniovara from Alten, and two days later he and Wolley travelled with reindeer to Kengis, whence they drove next day to Kittila, having heard of two bears being "ringed" in that neighbourhood, for which they searched in vain, owing to the unfavourable condition of the snow. On the 23rd of December they parted, Wolley returning to Muoniovara, and Mr. Rathbone, accompanied by Ludwig, making for Kengis on his way southward. In August 1857 Messrs. Frederick and Percy Godman, who had been passing the summer at Bodö (Ibis, 1861, pp. 77-92), made a short stay at Muoniovara on their way from Alten to Haparanda.

† Wolley did not hear of any death from hunger; but the distress was terrible. Mr. Wilmot, who always took the greatest interest in his proceedings, generously sent him a considerable sum of money to be distributed among the sufferers.

upon the head-waters of the Tana, and descending that river, reached the Varanger district, which had been partially explored by him and his friends in 1855. His hopes of finding on his way thither the Snowy Owl and the Pomatorhine Skua breeding were not fulfilled; but he fell in with several pairs of Buffon's Skua and took a nest of it with a single egg. Chiefly, however, he was induced to return to that part of the country by the report that, some years previously, a Swedish naturalist had not far off met with a breeding-place of the Knot; but the locality assigned was found to be a mountain deeply covered with snow even late in June, and, thus disappointed for the third time by erroneous information, Wolley had but little to compensate him for his toil and loss of time. When, toward the end of the season, he again returned to Muoniovara, he found a large number of eggs collected for him; and, before he left for England, he had the additional gratification of receiving, from the Sodankyla district in Finland, some eggs of the Smew, which he had long been trying to get, and they were without doubt the first known to have been obtained by any naturalist. An account of this, the last great oological discovery he was able to make, he contributed to the first number of 'The Ibis,' published in January, 1859 (pp. 69-76), where it was read with admiration. As a practical lesson of the cautious method to be followed by the true oologist it has no superior, and perhaps hardly an equal.

He remained in England during the winter of 1857-8 and began diligently working up a subject which he had long been considering and then took seriously in hand—the history of *Alca impennis*, the Great Auk, or Garefowl as he, using its earliest British name, preferred calling it. With the view of seeking information at the only remaining fountain-head, and if possible of solving the question—at that time still a moot point—of the bird's existence, in April 1858 he sailed for Iceland, and I had the pleasure of accompanying him. After passing some weeks at Reykjavík—not quite uselessly, for he obtained there a certain amount of information bearing on the subject of his enquiries—we repaired to Kyrkjuvogr, the nearest settlement to the ancient breeding-place of the species, the Geirfuglaskér, which in 1830 sunk into the sea as the result of a submarine volcanic disturbance, as well as Eldey, the adjacent rocky islet, to which the

fugitives betook themselves on the destruction of their home, and the more distant Geirfugladránger, on which there was the best hope of finding any survivors if such there might be. At Kyrkjúvogur we remained, with scarcely an exception, for two months in vain waiting for weather when a landing on even the nearest of these rocks would be practicable. Two seaworthy eight-oared boats and their stalwart crews were engaged, and were prepared to put off on the shortest notice—night or day—should wind or sea be favourable; but that never came to pass, for, owing to the constantly unsettled state of the weather, not a single opportunity presented itself when, according to the experience of Viljálmur Hákonarsson, who had led the latest expedition to Eldey, and was to be our captain, it would have been in any degree possible to reach the rocks. The country around possessed but few attractions for the ornithologist; but Wolley was indefatigable in seeking and recording information from the mouths of men who had formerly visited the skerries, and succeeded in procuring many interesting particulars relating to the bird, especially of the trip to Eldey in 1844, when the last two living examples of the species were caught*. A considerable number of bones of the species, found at various places along the coast, were also found by us, and as no skeleton was at that time known to exist, these were naturally treasured; but nearly all being from old kitchen-middens, many were mutilated. These were the practical and disappointing results of the voyage; and, after a hasty visit to the Geysers, we returned to England, calling on the way home, as we had in going out, at Thorshavn in the Færöes, where Wolley not only renewed his former acquaintance with his old friend Syssemand Müller and others, but obtained further useful information respecting the subject to which he was devoting himself.

Soon after his arrival in England, Wolley began to find his general health, which had hitherto been exceedingly good, failing, without any apparent reason. He suffered from languor, at times to a most painful degree, and his former energy seemed to have departed from

* Of the fourteen men who took part in this expedition, he saw and took down the evidence of twelve—the remaining two were dead. An abstract of Wolley's Researches in Iceland on this subject was printed in 'The Ibis' for 1861 (pp. 374-399).

him. This did not, however, hinder him from going to the meeting of the British Association for the Advancement of Science held at Leeds in September. Here he read two papers: the first, "On a fresh form of Crystallization which takes place in the Particles of Fallen Snow under intense Cold," being one of the subjects of which he had treated at Christiania two years before, and one that another winter in the North had enabled him to study more particularly; and a second, entitled "Observations on the Arrangement of small Stones on certain bare Levels in Northern Localities"—a curious subject which had attracted his attention during his first visit to the Færöes in 1849. He was subsequently present as a guest at the Field-meeting of the Tyneside Naturalists' Club, held at Marsden, on the 22nd of October, being the last time he was to attend any scientific assembly. His spirits were somewhat raised by the arrival in the course of the autumn of an enormous collection of eggs received and booked with his accustomed care by old Knoblock at Muoniovara, and forwarded thence; but vast as the collection was, it contained no absolute novelty. Wolley's distressing feelings of lassitude continued throughout the winter and following spring; though still neither he nor those about him were much alarmed by them. He was pleased by being elected to the Council of the Zoological Society, and as the summer drew on he fancied his bodily strength in some degree restored; but at the same time he was aware of an occasional loss of memory, which became now and then very apparent in letters to his friends, causing them some apprehension. In the month of July an accidental occurrence—seeing his father in danger of being run over by a railway-train—brought on an attack of a very serious character, and he then placed himself under regular medical treatment. No improvement in his symptoms taking place, it was recommended by his old friend Dr. Sibson that further advice should be sought, and accordingly he went to London, where the opinion of Dr. Todd, then one of the highest authorities in the profession, was taken. That gentleman (himself not long after removed by death) at once declared that the case was one in which no hope of recovery could be entertained, that there was an affection of the brain, and that a change for the worse would speedily take place. These fatal words were fulfilled to the letter; not many days passed

before Wolley had another violent attack, from which he only once, and that for a short time, rallied. He then seemed quite aware of his approaching end, and expressed his wishes respecting the place of his burial and the disposal of his oological collection. On the 20th of November, 1859, after having for some hours lapsed into a state of complete unconsciousness, he expired without suffering.

His last wishes were faithfully carried out. In accordance with them his remains were interred in the churchyard of Matlock—his birth-place—and, dying intestate, his collection of eggs was handed over to me by his father, who most liberally accompanied the gift with all the books and papers thereto pertaining, as well as those relating to the investigations Wolley had carried on into the history of the Dodo and the Garefowl. He had been for some time in the habit of sending yearly to the Museum at Norwich most of the skins of the birds obtained by himself or his agents in Lapland, and at his desire his father generously presented to the same institution the remaining portion of the collection, and the late Mr. John Henry Gurney, who was so great a benefactor to that Museum, provided chests of camphorwood for the safer preservation of the specimens. The Norfolk and Norwich Museum of those days has since been taken over by the authorities of that city; but the “Wolley Donation” may now be equally well examined and consulted in the existing Castle Museum at Norwich. There it must always form an object of interest to ornithologists, and especially to those who through Wolley’s generosity, or his annual sales, are possessed of duplicates of his eggs, many of which are thereby thoroughly identified; but in view of the recent growth of ideas as to the extent and purposes of Museums, it cannot be pretended that this collection maintains the relative importance it once had. The matter of greatest regret is, and always will be, that his active mode of life and premature death prevented his giving to the world the connected account of his discoveries and experience which he had meditated. Copious as his notes in many cases were, those which are printed in the following pages remedy that deficiency but poorly, even though they generally include all that he had published on the respective subjects, whether in journals or the last edition of his friend Hewitson’s admirable work on Oology.

To describe JOHN WOLLEY's character at any length has not been my intention. I have tried, without the desire of unduly exalting the value of any branch of Natural Science, to give in outline the chief events of a life which, if the study of God's creatures deserves encouragement, cannot be said to have been uselessly spent, for it added not inconsiderably to our knowledge of them, and, if unswerving devotion to the cause of Truth merits any praise, must be admitted to have been honourably passed. The facts narrated here and in the following pages are left to speak for themselves: on them must Wolley's reputation rest. It would add little to them to state that, in the various capacities of relative, friend, and companion, there was little wanting in him, for such encomiums are too often applied without due cause. His good qualities are treasured in the recollection of those who knew him—now, alas! dwindled to a small number—and especially of that one of them to whom he gave the last token of his esteem. Having endeavoured (how imperfectly no one knows better than myself) to discharge a duty owing to the memory of a deeply lamented comrade, I cannot conclude this sketch without an expression of gratitude at having been permitted to share so largely the intimacy and confidence of such an upright man.



H. Remick

OOTHECA WOLLEYANA:

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, M.A., F.L.S., ETC.

PART I. ACCIPITRES.



LONDON:

JOHN VAN VOORST, PATERNOSTER ROW.

M.DCCC.LXIV.

[Price £1 11s. 6d.]

8 Birds

*R. Remond H.
from A. Newton*

OOTHECA WOLLEYANA:

AN ILLUSTRATED CATALOGUE

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FORMED BY THE LATE

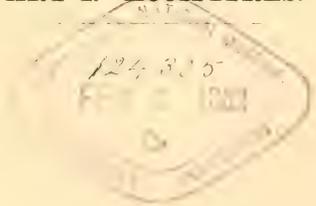
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PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.

TO
THE REVEREND JOHN WOLLEY, M.A.,
OF BEESTON, NOTTS.,
AS AN ACKNOWLEDGMENT OF
HIS GENEROSITY
IN FULFILLING THE LAST WISHES OF
HIS SON,
THE NATURALIST WHOSE LABOURS
ARE HEREIN RECORDED,
THIS WORK IS INSCRIBED
BY
THE EDITOR.

20TH NOVEMBER, 1863.

PREFACE TO PART I.

RESERVING, until the completion of my duties as Editor, a detailed introduction to this work, it is yet necessary for me to prefix to the portion of it which first sees the light a few words in explanation of my motives in publishing it.

The late Mr. JOHN WOLLEY, after spending nearly all his life in the pursuit of Natural History, died, as is well known to ornithologists, at the early age of thirty-six years. Shortly before his death, he requested that his Oological Collection, the formation of which had latterly been his chief occupation, should be handed over to me; and this wish was fully carried out by his father. As soon as I heard of the desire my deceased friend and fellow-traveller had expressed, I began to consider how I could best make use of the valuable property which was to be entrusted to me; and after consulting on the subject with Mr. P. L. Selater, the Secretary of the Zoological Society of London, I came to the conclusion that I should be most advantageously serving the interest of Ornithology by publishing from Mr. WOLLEY's note-books a complete Catalogue of the contents of his Egg-Cabinet. Mr. WOLLEY's life had been one of so active a nature, and his death was, until a few weeks before it took place, so entirely unexpected, that he had

had but few opportunities of making known to the world the results of his labours. To prevent these results from being lost to science was my main object; and it appeared to me that this would be effectually attained by the compilation of a Catalogue such as the present, which should embrace as far as possible all the information he had gathered, whether extracted from letters addressed to his friends, from fragmentary diaries, or from detached memorandums, as well as that which was contained in his 'Egg-book,'—this latter being the principal record of his experience, and having been, with some few exceptions, most carefully kept for many years.

In preparing this work for the press, the plan I have adopted has been to bring together systematically all the notes relating to the same species, and arrange them for the most part in the order of the time at which they were written. I have not scrupled to add an account of such specimens as I have lately obtained, and of those which were included in the joint collection formed by my brother Edward and myself, prior to its incorporation with the contents of Mr. WOLLEY'S cabinets. In doing this, I believe I have only acted as my late friend would have wished; for I am sure that, in leaving his collection to me, he expected that I should continue to make it as perfect as I could. These interpolations, however, are in all cases typographically distinguished from Mr. WOLLEY'S text; so that there is no fear of my words being mistaken for his.

I regret being unable to give even an approximate estimate of the extent of the 'Ootheca Wolleyana.' I am well aware that uncertainty on this point will be as unfavourable to myself as it may be inconvenient to the public. I shall endeavour to

publish the Second Part of the work on the 1st December next, and this I hope may contain the whole of the *Clamatores* and *Oscines* which I shall have occasion to include. Mr. WOLLEY's collection was confined to European species: it has been my intention to extend its limits to those of the western half of the Palæartic Region, as being a district more naturally defined.

The subjects from which the plates have been drawn are, in every case, solely illustrative of the collection as it now stands. I must here return my best thanks to all the artists who have assisted me in their production, and especially to Mr. Wolf, whose liberality in placing at my disposal the paintings from which three of the engravings have been taken, and whose kindness in superintending the execution of the rest, are only equalled by the faithful effects of his marvellous pencil.

A. N.

OOTHECA WOLLEYANA.

NEOPHRON PERCNOPTERUS (Linnæus).

EGYPTIAN VULTURE.

§ 1. *One*.—Tangier, April 1845. From M. Favier's Collection, 1846.

Hewitson, 'Eggs of British Birds,' pl. i.

ONE day, during my stay at Tangier, September 1845, after an inquiry about some monkeys, I was taken by Hamet, my guardian Moor, to a *patio* (courtyard) round which lived in apparent harmony a Jewish, a Moorish, and a French family. The latter consisted of a solitary individual, who dealt in monkeys, and who also skinned boars' heads, jackals, ichneumons, and other trophies of the Consul's shooting-parties. He showed me a quantity of birds' skins, well preserved, and, as far as my knowledge went, correctly named from a copy of Temminck's 'Manuel' that he greatly prized. Upon my asking for eggs, he produced some; and he assured me that all of them that were named had had the mother killed over them. Every egg that I knew was correctly named, with the trifling exception of a Goatsucker's, marked *Turdus merula*; and so I was fortunate enough to procure eggs of the Little Bustard, Stilt, Pratincole, and Bee-eater. The only eggs I felt in doubt about were four, marked *Cathartes percnopterus*. I fully believed that this bird laid a white egg; and I did not think it could be so small as these. However, M. Favier (for that was the Frenchman's name) assured me that the old one was killed off one of the nests, was bought by Mr. Sandford, and is now in England. I was also shown a nestling young one. The eggs were taken in different years, as the dates 1843 and 1845 on them testified; two single ones; the other two,—each, as he said, "half of a complete nest." In fine, he "gave for false" all that had ever been written about the egg of this bird, asserted that it was unknown in Paris or in London, and that

he intended to publish a book himself. However, in the then state of my finances, I declined his price, "sept piastres fortes d'Espagne," *i. e.* seven dollars. I heard well of M. Favier, and that he was patronized by the late much-lamented British Consul, Mr. Edward Drummond-Hay. On my return to Cambridge I consulted Audubon and other authorities. I found that the eggs of the Black Vulture of North America (a bird not far different in size from the *percnopterus*) are small, and marked with large irregular dashes of black and dark brown towards the larger end; that they never exceed two; and also that they are more elongated, as well as sharper at the smaller end, than those of the Turkey Buzzard (Ornithological Biography, vol. ii. p. 51, and vol. v. p. 346). Hence, notwithstanding the authorities quoted by Mr. Yarrell, and the figure originally given by Mr. Hewitson¹, I thought the egg of the *percnopterus* might follow the tendency of other Vultures' eggs—of the Black Vulture according to Audubon, of the Turkey Buzzard according to Wilson, of the Bearded and the Griffon Vultures according to Temminck—and be a coloured one. This last difficulty removed, I thought there was scarcely room for doubting the authenticity of M. Favier's eggs. I accordingly wrote for the two most opposite varieties of them, and, by the kindness of several friends, I received them safe. On opening the box, they looked so like some large Hawks' eggs, that my doubts revived, and were not dispelled until, in consequence of an accidental inquiry put to me by Mr. Wilmot, that gentleman furnished me with an account of what he already knew on the subject; and I was also favoured with a sight of a drawing made by M. Moquin-Tandon from a specimen at Toulouse. This drawing is evidently taken from an egg similar to mine, and intermediate in size between them; at one end it is somewhat pointed, at the other end blunt. One of my eggs (that figured by Mr. Hewitson, and the subject of this note) is inclined to be peaked at both ends; the other, taken in April 1843, which I have given to Mr. Wilmot, is considerably less, and almost a perfect oval. This would come very near Wilson's description of that of *Cathartes aura*.

M. Moquin-Tandon's communication, dated "Jardin des Plantes, Toulouse, Sept. 6, 1843," was as follows:—"L'année dernière, du Crau d'Arles, on découvrit deux nids, contenant chacun deux œufs: deux furent déposés au Musée d'Avignon. Cette année, sur le Pic de St. Loup, près de Montpellier, on a trouvé un troisième nid de cet oiseau: il ne contenait qu'un œuf." M. Favier, in a work in his hands

¹ [This figure was in plate i. of the 'Eggs of British Birds,' 1st ed., which was subsequently cancelled by the author, to be replaced, as above quoted, by a figure of the subject of the present note.—ED.]

that has not yet seen the day, states that "the *percnopterus* makes its nest at the end of March, in the crevices and in the caves of rocks, usually in inaccessible places in a perpendicular cliff. It lays in the month of April, one or two eggs of a variable form. It hatches at the end of May; and the young (always one or two in number) are not of age to take their flight until July." The "one or two eggs" agrees with the account of M. Moquin-Tandon, and of that given by Bruce (Travels to the Sources of the Nile, App. p. 164); but the time spent in the nest does not come up to the "four months" of Bruce, though, from the small size of the egg, we might expect it to be long. The Condor, the Black Vulture, and probably most Vultures, appear to lay two eggs only; and it is also said of them that they make no nest (Darwin, 'Zoology of the "Beagle" Voyage,' part iii. p. 4; Audubon, 'Ornithological Biography,' vol. ii. p. 54). Does our bird form its own nest? In Barbary, the Egyptian Vulture probably breeds only in the mountains of the interior, as it was not known to Mr. John Drummond-Hay, then Her Britannic Majesty's Consul at Tangier. Mr. Hewitson writes, "I have not the slightest doubt of the authenticity of this egg." From Mr. Wilmot I have heard also of two other eggs of this bird,—one laid in some Zoological Garden, and figured in Lefèvre's 'Atlas des Œufs des Oiseaux d'Europe,' the other brought from Egypt by a Scotch physician. I should add that M. Favier's account of the nidification is partly worded after that of Temminck (Man. d'Orn. i. p. 10)*.

[M. Moquin-Tandon has some very instructive notes on the nidification of this species in the 'Revue et Magasin de Zoologie' for November 1857, p. 491.]

§ 2. *One*.—Tangier, April 1845. From M. Favier's Collection, 1847.

O. W., tab. 1. fig. 3.

This egg I bought, among some others, of Mr. Williams of Oxford Street. I saw M. Favier's marks on nearly all of them, and I did not doubt they were all from him originally. From the writing upon it, it is evidently one of those I saw at Tangier.

* A curious geological event happened in consequence of M. Favier's oological inclinations. A huge mass of sand-rock was pointed out to me, underneath which were said to lie the remains of four men who had been engaged in robbing a nest for him, when the mass gave way and rolled upon them. It had been undermined for several years by the crumbling away of the clay on which it rested conformably; and as it is the last feather that breaks the camel's back, so the weight of these four men determined the moment of the fall of the huge cliff. All the powers of Tangier could not get them from beneath it.

§ 3. *Two*.—Tangier, 3 May, 1846. From M. Favier's Collection, 1847.

O. W. tab. 1. fig. 5.

Received from M. Favier, 21st February, 1847. There cannot be much doubt now of the authenticity of these eggs. I saw one with M. Lefèvre in Paris in 1846, and another at Geneva in the same year, both similar to these. The latter showed much of the ground-colour, *i.e.* the white shell. The best-marked of the two specimens under consideration is of a similar red, in the spots, to the other eggs. I have had, further, a satisfactory assurance from M. Favier that *Aquila nœvia* is not found on the Barbary coast.

§ 4. *One*.—Tangier. From M. Favier's Collection, 1847.

O. W. tab. 1. fig. 1.

I have had much doubt about this egg. Mr. Henry Milner says it is exactly like his Osprey's taken in Scotland; it is also very like Mr. Yarrell's egg of that bird.

[This egg was bought of Mr. Williams with the one before-mentioned (§ 2). Mr. Wolley is certainly right in saying that it resembles an Osprey's; indeed, as far as I know, it might be taken for one; but I can well understand, after having now seen so many, it being that of a *Neophron*; and Ospreys' eggs must be less easy of access in North-West Africa than those of the Egyptian Vulture.]

§ 5. *One*.—"Pyrenees, 1855." From M. Parzudaki's Collection, 1856.

Sent to me with other eggs by M. Parzudaki, 28 March, 1856.

§ 6. *One*.—Valley of the Medjerdah, near Souk Harras, Eastern Atlas, 25 April, 1857. From Mr. O. Salvin's Collection.

O. W. tab. 1. fig. 4.

The Medjerdah is the river that flows out at Utica. This egg, Mr. Salvin states, was taken in the upper part of its valley by a Frenchman named Lafosse, a collector of minerals and such things.

[Mr. Salvin's notes on the nidification of this species are published at length in 'The Ibis,' vol. i. p. 180.]

§ 7. *One*.—Kef Laks, Eastern Atlas, 15 April, 1857. From Mr. O. Salvin's Collection.

The spot just mentioned is a sort of plateau, with rocks falling away all around: the cliff whence this egg was obtained faced the east. It was taken by an Arab near the camp. The nest contained one egg, which was very fresh.

§ 8. *Two*. — "Pyrenees." From M. Parzudaki's Collection, 1858.

About the 25th February, 1858, I selected these two eggs, as extremes in point of size, from a number brought by M. Parzudaki to London,—one being a very large and one a very small one, and yet, he says, undoubtedly of the same species. If I understood him rightly, they are from the Pyrenees, and not Algeria, and from the same tract as the Lämmergeyer's I got at the same time.

§ 9. *One*. — Khifan M'sroutun, Eastern Atlas, 24 April, 1857. "W. H. S." From Mr. W. H. Simpson's Collection.

There were three eggs in this nest. Wherever the initials of my friend Mr. Simpson appear, they imply that the egg was taken by his own hand, or actually as he was looking on and identified the species. Hence this is a very interesting specimen, besides its being rather a variety. One day, while he was away from the tents, all his eggs got wetted; and most of the Vultures' were seriously injured, as they remained unlooked to for several days.

§ 10. *One*.—Gala el Hamara, Eastern Atlas, 25 April, 1857. From Mr. Tristram's Collection.

O. W. tab. 1. fig. 6.

From a nest of two fresh eggs. It formed Lot 11, at Mr. Stevens's rooms, 9th February, 1858.

§ 11. *Two*.—Kef M'slouta, Eastern Atlas, 2 May, 1857. From Mr. Tristram's Collection.

These two specimens were from the same nest; one is small and very curiously coloured.

§ 12. *One*.—Kef Gh'tar, Eastern Atlas, 22 April, 1857. From Mr. Tristram's Collection.

O. W. tab. 1. fig. 2.

Given to me at the same time as the preceding two, in the autumn of 1858, by Mr. Tristram.

[§ 13. *One*.—From Lord Lilford's Collection, 1855.

Bought at Vienna.]

[§ 14. *Two*.—Medjerdah, Eastern Atlas, 6 May, 1857. From Mr. Tristram's Collection.

A complete nest of two eggs, brought by M. Lafosse.]

[§ 15. *One*.—Kef Laks, Eastern Atlas, 17 May, 1857. From Mr. O. Salvin's Collection.

This egg is one that was collected by Arabs for Mr. Simpson, on his return from Ain Djendeli.]

VULTUR CINEREUS, Gmelin.

CINEREOUS VULTURE.

§ 16. *One*.—"Les basses Alpes, 1856." From M. Parzudaki's Collection, 1858.

M. Parzudaki said this was from "*les basses Alpes*." He did not tell me in whose writing the name on the egg was.

GYPS FULVUS (Gmelin).

GRIFFON VULTURE.

§ 17. *One*.—Knowsley Menagerie, 14 March, 1849.

Hewitson, 'Eggs of British Birds,' Ed. 3. pl. i.

This egg was presented to me on the 15th March, 1849, by Mr. Thompson of Lord Derby's menagerie. It was laid the day before. I saw the Griffon Vultures with another Vulture, or Eagle, in the cage, and I was told the Griffon laid an egg (or two?) last year, and another this year. She was preparing the nest. They were supposed to be barren eggs; but why, I forget—whether both the Griffons

were females, or what? I did not inquire whether the egg might not possibly be a hybrid; but no one suggested it was so. It was cracked when I first saw it at the keeper's house. It was quite fresh when I blew it, and the contents had a musky taste. Lady Cust has presented an egg of this bird to the Liverpool Museum, no doubt from the same quarter. A few days before I went to Liverpool I had written to M. Auguste Lefèvre, of Paris, to bespeak four eggs of the Griffon Vulture.

§ 18. *One*.—From M. Lefèvre's Collection, through Mr. H. F. Walter.

§ 19. *Two*.—Pyrenees (?), 1856. From M. Parzudaki's Collection, 1856.

Taken, as it seems, this year. M. Parzudaki told me how that the first season he offered large prices for a few, then there came more, till this year he had a great many.

§ 20. *One*.—Kef Gh'tar, Eastern Atlas, 14 April, 1857. From Mr. O. Salvin's Collection.

From a cliff facing the north at Kef Gh'tar, long. $5^{\circ} 20'$ E. of Paris, lat. $36^{\circ} 15'$ N., near Ras el Alia, marked in the map of the province of Constantine, published by the French Government in 1854. Mr. Salvin shot a bird near this rock, and states that this species hardly ever lays more than one egg, a single exception only occurring to his knowledge. The nests, some six hundred feet above the river, are about the middle of the perpendicular part of the cliff, and built of sticks. The birds sit hard, and soon come back to their nests.

[Mr. Salvin's notes respecting the nesting of this species are republished in 'The Ibis,' vol. i. p. 178.]

[§ 21. *One*.—Balkan Mountains (?). From Lord Lilford's Collection, 1855.]

[§ 22. *One*.—Gala el Hamara, Eastern Atlas, 15 April, 1857. From Mr. W. H. Simpson's Collection.

Brought from Algeria by Mr. Simpson.]

- [§ 23. *One*.—Kef M'satka, Eastern Atlas, 8 March, 1859.
 "P. L. S." From Dr. P. L. Selater.

One of the few egg-treasures obtained by Mr. Selater during his short trip to Algeria and Tunis in 1859. It was taken in his presence.]

GYPAETUS BARBATUS (Linnæus).

BEARDED VULTURE.

- § 24. *Two*.—"Pyrenees, 1857." From M. Parzudaki's Collection, 1858.

Without inscription till I wrote on them, from a memorandum of what M. Parzudaki had told me concerning the eggs I received of him. He particularly said these were not from Algeria, but from the Pyrenees.

AQUILA CHRYSÆTUS (Linnæus).

GOLDEN EAGLE.

The Mountain Eagle, as in Scotland it is generally called, still breeds in some of the more remote districts of our island, as well as of Ireland. Last year (1852) I knew of five nests that had eggs in them in different parts of Scotland; and undoubtedly there were at least as many more of which I did not hear particulars. In the Orkneys there was for a number of years an eyrie in the interior of one of the islands. In Shetland I have not been able to obtain any proof of the existence of this bird, and it is certainly unknown in the Færo Islands and in Iceland. In Norway it is common, and, with the Sea Eagle, is so numerous that, from a statistical account of the premiums paid each year by the government for the destruction of beasts and birds of prey, as published in the 'Athenæum,' No. 1267 [for Feb. 7, 1852 (p. 179)], it appears that, in the five years ending December 1850, there were paid for altogether no less than 10,715 Eagles! The Sutherlandshire Expedition of Naturalists mention [Edinb. New Phil. Journ. xx. pp. 158, 159] the number of Eagles that had been paid for between March 1831 and March 1834 to have been 171, besides 53 nestlings or eggs! Shortly after that time the Association for the destruction of vermin was dissolved, and the breed was kept down

only by the individual exertions of the large sheep-farmers, who generally gave five shillings for each egg or young one, and ten shillings for every old bird; and great satisfaction they had in dashing the former against the ground. Still so many remained, that in one district in the south-west of that county a clever gamekeeper trapped fifteen Eagles in three months of 1847, and about as many in the winter of 1850-1, almost all of them being Mountain Eagles. In other parts of Scotland more frequented by south-country gamekeepers, they have been already almost exterminated, except in those wild tracts preserved as Deer forests, upon several of which the proprietors take real pleasure in seeing them circling overhead, ready to gorge themselves with the "gralloch" as soon as a Stag has been cut up. For, whatever may have been said to the contrary, they are great carrion-eaters, as Scott well knew:—

"That Highland Eagle e'er should feed
On thy fleet limbs, my matchless steed."

[Lady of the Lake, Canto I. Stanza 9.]

But the Trossachs is no feeding-place for the Eagle now, as it still was in Sir Walter's time! Only a few years ago a friend of mine saw no less than nine of the two kinds collected round a dead horse, within gunshot of the window of his father's house. This habit of theirs gives sad facilities for their destruction. In Wales there were Eagles not long ago: but the only account I know of a nest in England which can with certainty be referred to the Golden Eagle is Willughby's of the one in Derbyshire [*Ornithologia*' (1676), p. 19]; for the nest on the rocks near Plymouth [*Mag. Nat. Hist. ser. 2. vol. i. p. 114*] is more likely to have been a Sea Eagle's.

I have in different years carefully examined some eight or nine distinct eyries of this bird in Scotland, and seen the old sites of a good many more. It always, in this day at least, takes up its quarters in some mountainous district,—never, as far as I have seen, in sea-cliffs, but for the most part in a warm-looking rock, well clothed with vegetation, and by no means very wild and exposed. Still there are exceptions. I have seen several very high rocks selected; and in these cases the nest was generally near the top. In one instance I know of a nest halfway up a very bleak mountain; but then it is in the front part of a little cave, from which the occupants enjoy the most magnificent prospect. Into this nest one walks almost without climbing; at all events, two dogs followed our party into it. They are often in places remarkably accessible. One nest, in a very low rock, was upon a grassy ledge, into and out of which I vaulted with the greatest ease

from the top of the rock ; and three nests of other years, in different spots in the same ravine, within a hundred yards or so, were all accessible without ropes. Another, which was described to me by a most accurate person, who offered to show it to me, was on the ground, at the foot of a rock on the rise of a hill ; and near it, also upon the ground, was an old nest of a former year. This was some hundreds of miles away from the pair of Golden Eagles in Orkney, which one year allowed an old woman to walk by chance into their nest and carry off the eggs in her apron. At another eyrie, into which I had climbed with some difficulty, I was enabled to find a very easy path out, by following the ledge where I saw that some sheep had been not long before. The eyrie from which I took the pair of eggs figured by Mr. Hewitson [Eggs B. B. ed. 3. pl. iii.] was in a bad part of a great and perpendicular crag, under a very sharp shelf beyond a ledge, whence we could use the ropes. Its support was small, and the mass of the nest was consequently large. A few yards from it, on either side, were old nests of former years, one of which had been recently repaired, and was connected with the occupied one by a continuous platform of sticks. One eyrie is generally in a corner protected from the wind on one side ; and the rock overhangs more or less, so as to shelter it, but by no means so as to hide it from a gun above. The platform of rock is often very broad ; and when it is also flat, there are not many sticks used. It has for the most part some kind of vegetation upon it, and generally more or less of the broad-leaved grass called *Luzula sylvatica*, which, with other plants, often extends in a green stripe a long way below the nest, owing to the richness of the soil,—a mark by which an experienced eye can, from a great distance, detect an old eyrie on a mountain, some years after it has been disused. There is sometimes a sapling tree at the edge of the platform in front ; and in the Derbyshire nest [described by Willughby] it was no doubt the lower part of the bole [that helped the rock to support the fabric. A nest is generally five or six feet in its greatest width, considerably less at the top : sometimes the mass of materials would fill a cart, but in other situations there is no great quantity. The very largest of the sticks used may be an inch in diameter, but most of them are less. Upon these is laid freshly-gathered heather ; and in one instance large sprigs of Scotch fir, broken off for the purpose. The top part is composed of fern, grass, moss, or any other convenient material, but principally (and, as far as I have seen, invariably) of tufts of *Luzula sylvatica*, which, by the time the eggs are hatched, are still fresh and green towards the outside of the nest, but dried up in the centre with the heat of the bird's body, [so as to look]

like little flattened pine-apple tops. Once I saw this in a great measure replaced by tufts of a kind of *Carex* or *Nardus*. The hollow of the nest is never deep; but whilst the eggs are unhatched it is often pretty regular and sharp at the inner edge, and it is not more than a foot from the back wall of rock, close to which the soft materials are generally packed. There is little interlacing of the materials; but the whole structure, whilst it appears loose, is yet so firm that it scarcely springs at all with the weight of a man.

The nest is repaired each year; and I have no doubt, from Willughby's description, that the one found in Derbyshire had been used more than once. But it is usual for the same pair of Eagles to have several favourite sites in different quarters; and they frequently repair them all before making a final choice of the one in which to lay their eggs. What determines them it is difficult to say. One forester thinks it is the way the wind blows when they are ready to lay; another, that the sight of a human being scares them. A third possible and very singular cause has once occurred in my own experience: it is the generation, in the lining of the nest of a preceding year, of myriads of fleas, exactly like those that trouble mankind. I do not know whether a fourth reason for giving up a favourite place may not occasionally be a forcible ejection by even a less power than man. I have seen in a simple rock an old eyrie, which had been subsequently occupied as a nursery by a Marten; but I think there must have been a previous desertion in such a case. Still a few of the best places are inhabited uninterruptedly. I have seen one which it was said had never been empty for fifteen successive years until four years ago; but it was again used in 1852. Some old shepherds have told me that they and their fathers had seen two eyries relieve each other every two years or thereabouts. The same birds will select very different situations. I am told of a pair that alternate between a crag quite impregnable and a corner into which a child can climb. In these days an altogether new place is rarely thought of. It is quite sufficient to visit the four or five known stations in a district, in one of which the Eagle will be found. Long experience had made many Highlanders believe that the supply of Eagles was inexhaustible; for if one of a pair was killed, the survivor was sure to bring a fresh mate the next year; but most of these persons have by this time found out their mistake.

The eggs are laid very early in the year, often with the country under deep snow. The hen sits very close; and, accordingly, that is the sex which is most frequently murdered at this season; but if anything happens to her, the cock will take her place for a time, but not so as to succeed in rearing the young, for he too is often slain in his

turn. The very clean condition in which the eggs are mostly found, even when just hatching, shows that she can scarcely have left the nest since they were laid; and yet it is not till there are young ones that much food is seen lying about. So closely does she sit when "closking," that it is only the sight of a man's eye, or a bit of stick or stone about her ears, that will make her fly off; but when she does so, it is generally in considerable alarm, and perhaps with a low cry, taking care to appear no more till her enemies have retired. I have heard of an old man, and another time of a woman, being attacked by the birds near a nest; and a person told me that once, when quite alone, and in some difficulty on a very ticklish rock, the Eagles tried to knock him off with their wings. Such a thing never occurred to myself; and from conversations with persons who have been at scores of nests in former days, I am disposed to believe it is a rare event. When the eggs are taken, I have never heard of a second laying that year. More than one supposed instance of their being removed to another spot, in the claws of the parents, has come under my notice; but the propensities of Hooded Crows, and other sources of error, make me hesitate to consider these accounts as proved.

There are from one to three eggs in a nest; I do not know of an instance of four; but two is the usual and proper number. Last year I had three eggs, all fertile and nearly ready to hatch, out of one nest; and Mr. Salmon mentions that he knew of three young ones in a nest in Orkney [Mag. Nat. Hist. ser. 1. vol. v. p. 423]. In all other cases where I have heard of three eggs, one was addled; and it was thus in a nest where I found two young ones with a rotten egg. This was white, whilst one at least of its fellows had been highly coloured; but pure-white eggs are not always bad, as I know for certain in two instances. One infatuated Eagle I found sitting on a solitary egg, which, though addled, had some colour on it. The eggs are laid at intervals of a few days, and are hatched in the same order. In two pairs, I know which of the eggs was hatching first. Of the pair figured by Mr. Hewitson [Eggs B. B. ed. 3. pl. iii.], the one represented by the uppermost figure had already been chipped, whilst the other had not nearly arrived at the same condition. In another pair, an egg, crowded with faint freckles, was hatched certainly several days before its companion, a purely white one, would have been. There is often a remarkable difference, and yet a family likeness, in twin eggs. Again, in an undisturbed cyrie, where you find pale eggs one year, you may expect to find them still pale the next. The healthy triplet I have above spoken of were all very pale, and they came out of the nest which had the white and the freckled egg the year before.

The eggs of this Eagle vary exceedingly; those in the plate I have just referred to are the highest-coloured ones I have seen, but are very useful as showing the *beau idéal* at which a considerable number appear to be aiming, and it requires only a very little stretch of the imagination to resolve them into their varieties. The markings, still preserving the intensity of those of the upper figure, are frequently more evenly distributed over the egg, in spots of greater or of less dimensions, sometimes thickly scattered, and sometimes very remote from each other. In some eggs there is a beautiful arrangement of the colouring matter into closely crowded streams or drops, which reminds one of the "golden rain" of a firework,—a variety also to be seen in eggs of the Buzzard and Sparrow Hawk. In others the spots are very minute and of a reddish-purple hue, gradually collecting together, and slightly increasing in size, till they almost coalesce in the centre of the large end. Again, the egg is thickly dusted all over with one colour—a yellowish-brown—in several degrees of intensity, and in this form is very like eggs of the Iceland Falcon. One wholly-coloured egg of Mr. Walter's reminds me of the more even and uniform specimens of the Peregrine Falcon and Merlin. Of eggs with the markings all very faint, and as it were foreshadowings of those on the varieties to which I have alluded, I have seen a good many examples; but it must not be supposed that highly-marked eggs are uncommon. I am convinced, from a considerable and quite unselected number of Golden Eagles' eggs which I have seen, that well-marked specimens are the rule, not the exception. The egg which I should be disposed to choose as most typical is such a one as that figured by Mr. Hewitson [Eggs B. B. ed. 3. pl. iv. fig. 1]. There is a purple or lilac cast about it, and the markings are agreeably shaded and blended together. I have repeatedly seen eggs more or less like it, and it has a character in common with the beautiful example formerly represented by him [Eggs B. B. ed. 1. pl. ii. fig. 1]. The one taken out of the same nest with it has as much colour, but of quite a different kind, being somewhat of the Iceland Falcon type. The tendency of markings to the large instead of to the small end is to be found in the eggs of many kinds of birds; but it is so frequent in Golden Eagles' as hardly to deserve to be called a variety in this respect. A remarkable egg in Mr. Wilmot's cabinet has very fine dots, one or two small blotches, and some long straggling lines of the same colour near the larger end. In short, eggs of the Golden Eagle may be found representing those of all our other birds of prey in succession, even including the Egyptian Vulture.

In shape, the egg of this species varies in different specimens; but

the lower figure of the pair represented by Mr. Hewitson [Eggs B. B. ed. 3. pl. iii. fig. 2] is most typical. This same egg is perhaps of about the average size. I have two very large ones, out of one nest; they are of a long-elliptical form; one is 3·26 inches by 2·38 inches, the other is 3·13 inches by 2·38 inches. The latter is of the purest white, the former like a well-coloured Iceland Falcon's.

The eggs are hatched in Scotland about the end of April. In three nests I have found young ones just coming out on the 23rd April, the 27th April, and the 1st or 2nd May. These are provided by nature with a little white "diamond" on the convex part of the beak to enable them to break the shell. They remain chirping inside for some time after they have made a little window to get a taste of fresh air; and in the meantime the long threads with which they are covered begin to dry, and to burst their thin delicate envelopes, that they may be converted into a forest of snow-white down. It is a curious sight to see in the middle of a huge nest these little powder-puffs holding up their tottering heads, overgrown and watery-eyed, to peck feebly at an intruder. Here I will leave them, only whispering of their capital larder, which the Irishman and (in the case of another species¹) the African have each in their own country learned to share. The Scotchman did so too, till one day, finding a dead "serpent" ready for him, his indignation got the better of his prudence, and he knocked the "uncanny beasties" on the head. I must, however, add that Reynard also will put in his claim; and that he may not have to travel too far for his supper, he will probably make his earth in the immediate neighbourhood.

But still one word more. Is it not worth an effort to save the last remnant of this noble race—the bird which so many of the greatest nations of the earth, both ancient and modern, have taken as their emblem—the very highest type of swiftness, of energy, and of power? How many people of England, France, or Switzerland itself, ever saw an Eagle on the wing? and how many have longed in vain for such an incident even in the heart of the Highlands! Of the Scotch themselves, how many would now know an Eagle's quill from a Turkey's if they saw it in a chieftain's bonnet, and in a land where its feathers were once scarcely less prized than they still are by the Indians of the Fur-Countries?

Fitzjames's cap was trimmed with Heron plumage; and it was the Falcon that watched the chase from her cairn; but what a number of ideas the Eagle supplies in Scott's glorious poem, and in all truly

¹ [*Aquila bellicosa*, Daudin. *Le Griffard*, Levaillant, Ois. d'Afr. i. tab. 1. *Aquila armigera*, Rennie, 'Field Naturalist,' vol. i. (1833), p. 44.—ED.]

Highland stories! Is not the value of a few lambs and fawns a cheap price to pay for its preservation? for it is only here and there that an Eagle is not contented with Hares, and sometimes a Grouse or a Ptarmigan: just as with Foxes, it is but a few individuals that bring the bad name on all their race. But if it be too late, as I fear it is, to hope for the Eagle's prolonged existence in Scotland, now that the railways tie London to the Grampians, and the salmon-fisher, the grouse-shooter, and the skin-collector, as well as the sheep-farmer, all give great rewards for its destruction, we may still go to see it in foreign lands, and we must try to console ourselves with the utilitarian reflection that the number of destructive animals in a country is the measure of that country's civilization!¹

§ 25. *Two*.—Sutherlandshire, 24 April, 1848. From Mr. W. Dunbar's Collection.

Of these beautiful and highly-marked eggs, Mr. Dunbar says in his letter dated 21st June, 1848, "The Golden Eagle's eggs are both from the same nest. The eggs were two in number. The nest was placed in a rock about two hundred feet high, in Sutherland. The nest was about eighty feet from the bottom of the rock, and composed of large sticks and stumps of strong heather, with moss. The old bird, a female, was shot; I have her now preserved, and she is a very fine specimen."

The following year I heard that the nest in which these eggs were was easily accessible, on the east side of the mountain.

Further particulars respecting the locality whence these eggs came are given by Mr. Scrope in his 'Art of Deer-stalking,' p. 365.

¹ [The foregoing paragraphs were written by Mr. Wolley in the spring of 1853, for the use of Mr. Hewitson, who was then preparing the third edition of his well-known 'Eggs of British Birds.' A slightly modified version of them was accordingly communicated to that gentleman, and he has given copious extracts from it (*op. cit.* pp. 10-13). I have here introduced the notes from the original manuscript now in my possession. Some verbal discrepancies are consequently observable between the two accounts; but these are so unimportant that I do not think it necessary to reprint the passage from Mr. Hewitson's pages, though he has most kindly given me permission to quote in this book all the information furnished to his last edition by Mr. Wolley,—a favour of which I shall not be slow to avail myself in most cases. It must be remembered that these notes contain the general results of their author's experience only up to the time above-mentioned. A more extended knowledge of the habits of the Golden Eagle, especially as regards its nidification in trees, in some points altered Mr. Wolley's opinion; and a case of *four* eggs being found in a nest has been recorded by Capt. Orde (*Ibis*, 1861, p. 112.—Ed.)

§ 26. *Two*.—Sutherlandshire, 27 April, 1849. “J. W. *ipse*.”

Hewitson, ‘Eggs of British Birds,’ Ed. 3. pl. iii. figs. 1, 2.

We started from the inn with two men carrying the sixty-fathom ropes which I had had made in the town. We rested at a place where the foreman was anxious to get rid of Eagles, and sent for the shepherd, at whose house we had been the day before, and who was to follow us. We heard many different accounts—how that the foxhunter killed one Eagle a few weeks ago, &c. Some were willing to mislead us, others not so, but all agreed that the nest was inaccessible.

We reached the crag after a walk of some eight or nine miles from the village. It is a very high cliff, overhanging a large loch of the same name. A small birch wood slopes from it to the water. We saw an Eagle fly, and settle again at the top of the cliff. Arrived at the shepherd’s house, he agreed to come with us, and his son was to show us the nest; but afterwards the old fellow turned coward and would not come near the edge. Having returned under guidance of the shepherd’s son to where we saw the Eagle, I made out the nest with the help of my glass, but I could not point it out exactly to my companion. However, he was to remain below with the boy, to signal to me where it was. Having reached the top in about half an hour, I tied myself to the thick rope, and proceeded, gun in hand, over a ledge to an undercliff of from ten to twenty feet wide, along which I walked some forty or fifty yards. I leaned over the edge, and saw the sticks of the nest some little distance to my right. I got up, shouted and made all the noise I could; but no Eagle came out. I saw one soaring silently at a great height. I had been led to believe that there was only one bird belonging to the nest; so, after all the noise I had made, I took it for granted that this was the one. I shouted for the little rope, and tied a stone and a piece of white paper to it, for my companion to signal when it was opposite the nest. However, I found afterwards that he could not distinguish it. I could only just make him out to be waving his cap, he was so far below. No sooner was the stone over the edge of the rock than out dashed an Eagle close to me, within five yards, and with one low cry of alarm flew away to the right, down the valley. Evidently a Mountain Eagle, as the shepherds had all called it (it looked rather “ring-tailed”): I was not altogether sorry at having laid aside my gun.

All was now finally planned. The men wisely thought it would be better to have the stake driven and everything done upon the ledge. The shepherd, being an old man, did not dare come down. After a

little difficulty (for there was no depth of soil), we fixed the big stake firmly above a very steep slope, some yards from the edge of the rock; then a stake for the little rope twenty yards to the left of us. Having spliced the rope to the stake upon which I was to sit, and tied myself in, explained all to the men, and agreed upon the signals, I proceeded over the edge, which, to my horror, I found almost as sharp as a knife, being a kind of mica-schist. I now felt how stupid I had been in forgetting to bring the leathern tubes I had had made; for the sharp edge, besides wearing the rope, caused great friction and difficulty in hauling up. No sooner was I over the rock, with the little rope in my right hand, than I saw the nest, with two eggs, beautiful, and very different from each other, about five feet to my left as I faced the rock. I could just reach the ledge with my fingers and unshod toes, and so, having cried "Stop," I hung, with the rope bearing me backwards towards the abyss, in a position both cramping from the muscular exertion required, and highly nervo-excitatory from the feeling of danger or insecurity, unfounded though it might have been. On looking at the eggs in the nest I at once saw a hole in one, as if the old bird had dug her claw into it in her hurry; but on further examination I found it had a young one in it just hatching, and giving vent to low cries, which accounted for the high state of "closking" in which I had found the mother. I reached the eggs and put them in the box with tow, which I had lashed under my right arm, and I put some of the lining of the nest in my pocket. It was very large, something like a Rook's highly magnified, and lined with a kind of *Luzula*, much of it quite green, and apparently recently placed around: the middle was dried up*. About six feet to my left, and with the embankment of sticks continued to it, was another platform, with fresh stuff on it—perhaps a nest of last year, or a roosting-place for the other bird. Ten or twelve yards to the right, and not exactly on the same ledge, was another old nest. A few white feathers (Ptarmigans') and white fur (Mountain Hares') were all the remnants of prey that I saw. I was able to communicate with the men by shouting, as I was not more than six feet from the top of the rock, and one of them had descended to the edge. It was fortunate; for had there been wind, as in the morning, I could not have been heard; nor, as it was, could I have been heard further down. The little-rope signals had entirely failed. The eggs

* This *Luzula*, which I believe to be *L. sylvatica*, grows plentifully on the damp mountain-sides and ledges of rocks. The Eagles pluck and use the whole plant, which is something like the top of a pine-apple; and when dry, the leaves remind one of Russian matting; but they are not long as in specimens gathered in woods.

having been carefully tied up, I shouted to ascend. The first pull, they told me, was very hard; but I assisted them by climbing myself, and in half a minute I was high and dry, and we shook hands all round: we had finished our "wee drop" of whiskey before. During this time the Eagle did not appear, though it had again come within two or three hundred yards before I went down, but without screaming. All agreed that no man had ever been there before. My companion and the boy, tired and cold, reached the top of the cliff just in time to congratulate us on our success. In going home I put the eggs alternately in my breeches' pocket to keep them warm, for I was anxious to save the life of the young. In the evening I liberated the hatching one by an oval opening, and the egg is as good as ever. This is the one with the fewest marks upon it: and it must have been laid and sat upon several days before the other; for when I opened that in the same manner, part of the yelk was not yet absorbed. I put the young bird from the first egg before the fire; its down soon dried, and it became like a powder-puff: I kept it as warm as possible, but it died in two days: perhaps I tried to feed it too soon; or it might have been neglected while I was out. The other one I put in spirits. The down on the legs, as far as the division of the toes, proved them to be Golden Eagles. The eyes were not open. The "diamond" on the beak, as in other young birds, used for making the hole in the egg, was very conspicuous.

P.S. 6th April, 1852.—Mr. H. F. W***** has this day, for the second time, made me a *bonâ fide* offer of twenty pounds for this pair of eggs.

§ 27. *One*, with the half of another.—Sutherlandshire, 4 May, 1849. "J. W. *ipse*."

O. W. tab. iv. fig. 1.

On 1st May, 1849, I looked in vain for an Eagle's nest, though the birds were said to be daily seen about. I caused huge stones to be pitched down every hundred yards or so. In past years a pair had built in at least four different spots about. A man had climbed to three of the places this year and found none in use. He gave one egg to a gentleman, probably the late Mr. Charles St. John, when he called at his house¹. The rocks are wooded like the range of the High Tor in Derbyshire. Next day, after harrying a White-

¹ [The following year Mr. Wolley heard that this nest, for which he had sought so much, had been found, a few days after he left the ground, with a young bird, which the finder killed in the nest, shooting the hen Eagle also!—Ed.]

tailed Eagle's nest, we proceeded to visit a noted breeding-place of the Golden Eagle. Here the young ones were destroyed last year by the shepherd's fox-hunting party; but no one had succeeded in climbing into the nest. As we approached, we saw no cock bird to encourage us; but several Eagle's feathers were lying about. I saw a nest which was only twenty or thirty feet from a point easily accessible. Having reached it, I threw stones; but no bird appeared. I climbed up with considerable difficulty into the nest round an angle of the rock, where I could hardly worm my way, and then only by digging my fingers into the matted rhizomes of *Polypodium vulgare*, without which I must have fallen over. In the nest, which appeared to be that of last year, I found a foot of a Red Deer fawn. Resting on my hands and knees, I felt, as I thought, a lot of flies crawling on my hands. On closer inspection I saw they were fleas, and my arms and legs were swarming with them. I beat a retreat; but the point that was before so difficult was far worse in going back. I lay down, my feet first, and got round safe, though the rock pushed me out so much that the weight of a bullet would have overbalanced me. One of my men standing on a ledge below helped me down the last part. Then for the fleas! With the help of flint and steel a fire was made with moss and heather, and I stripped to the skin. Luckily the day was as hot as could be, and it was very pleasant with a plaid coat over my shoulders. I afforded much merriment to my men and to myself, telling them I was in the dress of the Highlanders before the kilt was invented. After an hour or two's hard picking and smoking, the clothes were handed over to me, one by one, as I sat at some distance, and I extracted a few score more, but still put many around me*.

This nest was in a situation similar to the others—a platform in a corner, with rock overhanging; but I was too much frightened at the fleas to make the leisurely examination I had intended. I saw a curious rock-plant, that I did not observe elsewhere, in two places here; it had a large pink flower.

Having cautiously extinguished the fire, we made for the corrie, where the Eagle was said always to build. We presently saw one sailing from round the far corner; but he took to circling, and appeared to be hunting, as he gradually went out of sight. We telescoped the rock

* Lady Franklin afterwards told me of a notorious nest of fleas in a bell-tower, I think, at Constantinople, into which she went in spite of warning. I have heard of a similar swarm having been met with amongst the shavings in a new house at Rome; and an adventure of my own among the loose leaves under the fig-tree at Tangier is a fourth instance.

in vain. The men were sent to the top to pitch stones down; and a fearful sight it was to see the huge masses bounding and whizzing through the air. My dog "Jock" and I then went under the rock to look for traces, and in one place we saw bones and sticks as if from the nest; but on looking up I could not see it, though I thought it must have been there. We saw Deer, one of which stood at not more than fifty yards. I went on as far as a second loch, round the corner from which two Ravens came to meet me. On firing a shot a female Peregrine left her nest, the male having appeared before. We saw more Deer and a Ptarmigan. Then there was a huge fall of rock, and an alarm of a stone overhead. On returning past the corrie we saw an Eagle again, but after one turn along the face of the rocks it sailed away. We left the ropes in the corrie, so as to make a further search the next morning, and got home about ten to an excellent supper and a noble peat-fire at the lodge. The following day the forester went with us to the corrie; I observed that our guide kept us a long way from the rocks, and he suggested that our ropes should be left on the other side of the valley, where we were to pass the next day. With the aid of a glass he pointed out the sites of two old nests. On the morrow (4th May), we started. The heat was tremendous. The men made straight for the ropes, while I kept to the left and more sheltered side of the valley, intending to re-examine the Eagle-rocks in this corrie. I fired a shot, when an Eagle showed high overhead. I called to the men across the valley; and when they, poor fellows, arrived, we went back to the old place where the two nests had been seen. Climbing up to the right of the nest as I faced the rock, I saw that it was new; but to my vexation I heard the same little squeaks from the egg as on a former occasion (§ 26), showing that the young were hatched. I could not see into the nest; and it not appearing easy of access from that quarter, I went to the other side, where, after throwing down two or three loose bits so as to make a footing round a narrow corner, all was plain sailing.

"The nest is five or six feet across by three or four broad from the angle. The cup or hollow of the nest is a foot from the angle. Foundation made of sticks, of which the largest may be one inch in diameter: top made of heather, of which some is green. Lined with *Luzula*, fern, grass, and moss, chiefly the former: rhizome of it is rather like palmetto. The same stuff is growing all over the shelf, which may be, including the slope to the tree (which is five or six feet below the nest), about nine feet square, or, rather, lozenge-shaped. A shelf at the height of ten feet overhangs to the tree by the plumb. In the nest is a white egg, with half the shell of another (which last

is highly coloured) round it, and two young birds in the same state mine was when it died (*i.e.* the one mentioned in § 26): the eyes have a dull watery look: one generally with eyes closed. They peck feebly at my fingers. I read the above to G * * *, who is with me in the nest. He assents to it all: 'it could not be correcter.' The platform of the nest itself (*i.e.* of the top part) is about the width of the cup every way, except towards the rock, where it is rather less; about two feet high outside; the lining may be nine inches in perpendicular depth. The nest is, according to various computations, from fourteen to sixteen feet from the slope of the hill below. The old birds never show whilst we are at the nest. I blow the egg in the nest. It is addled; a sort of sour smell; all liquid inside, and no appearance of chick. I pack the broken shell by placing it on the sound one as I found it in the nest. I do not wash, or, at least, rub, the addled egg, which is a little soiled, but with one or two specks of true colour."

This egg is very like one Mr. Hancock has, as he himself remarked. The two young ones, covered with white down, had large livid feet, with soft, oddly-shaped claws; their legs are downy to the very division of the toes, proving them to be Golden Eagles. They cost me a great deal of trouble, even in the middle of the night following, when I got up occasionally to keep up the peat-fire. They ate Golden Plover that night—the first time, probably, they had tasted anything. The next day they were so nearly dead of cold, that I had to make a fire for them on the moors. They throve and grew till an unlucky journey, during which I either overfed them or they were shaken too much: they became ill, and died, after a lingering illness, between the 20th and 30th of May. They were then much grown, but with nothing on but white down. I preserved parts in spirit.

§ 28. *One*.—Argyllshire, 24 April, 1851. "J. W. *ipse*."

O. W. tab. iv. fig. 2.

On the morning of 24th April, Mr. Edge and I started, having a horse with the ropes round his neck, and a young man to take care of him. We picked up three other men as we went along. This was about seven or eight miles from our inn; and we left the horse and young man. We walked on a mile or two under a hot sun, till we turned into a corrie on the right. Here we saw an Eagle taking a long swooping flight directly down into a hollow out of sight, without moving its wings, which were brought to a point. Presently we crossed over the entrance of this den, and proceeded silently up the

other side. When we got a little beyond where the nest was, we looked over, and there lay the hen Eagle on the nest. We watched her for an instant or two as she sat, with the axis of her body parallel with that of the den, her head towards us—that is, towards the closed end of the den. She stretched her neck a little on one side, saw us, and slowly flew off, sailing or flapping smoothly across the hollow, till at some distance she turned a corner, and, though we kept a good look-out, we did not see her again. We were about twenty yards from her when she was on her nest, and I had time to look at her copper-coloured head and neck, her hazel eye and yellow cere, &c., before she moved; and when she was on the wing, I had a good sight of her spread marbled tail. A fine object she was! On looking at the nest we were disappointed to see only a single egg in it, which did not look a very good one. The rope being tied round me, and a trusty man being next the rock, I descended quite easily by three stages or platforms into the nest, which might be twelve yards from the top, or even less. On one of these was an old nest. All the flats were covered with *Luzula*. The nest was made principally of heather; but there were in it some branches of birch, newly gathered from the tree, apparently within a day or two. The lining was almost entirely leaves of *Luzula*. The hollow, which was well formed, might be two spans in width, and was about one span from the rock, which did not overhang much. In front of the nest was a small Rowan-tree, growing at the edge of the platform. Some time later in the day I climbed almost into the nest from my right hand below, and from my left hand I climbed to the platform above the nest, thus ascertaining that in two directions it might be reached without ropes. I went to the place from which the forester who was with me shot an Eagle some time ago, and last year shot another, which I saw stuffed at his house, from the same spot, getting so close to it that he could have touched it with the muzzle of his gun. He then saw the whole of its body except the head, and sent some one round to clap his hands and frighten it off; but it did not go until after several such noises were made, and it fell some way on the other side of the burn. On another occasion, when a bird was shot at and missed from the same spot, it darted confusedly into the depths below. It was in a wonderfully easy place, six feet from the level at the top of the rock—so easy, that there is almost a highway into it from the left above, and from the right a drop of less than a fathom. It was on a ledge, say four or five feet wide, and flat. I went in at the left and came out at the right. There were two birch-trees and a rowan about it—one of the birches in front of the platform. The nest was of the usual construc-

tion, principally heather, untouched this year. Another nest, between this and the inhabited one, was very easy to climb into. I went quite into it, and found a couple of young raspberries growing a foot or two high out of the middle of the old heather-stalks; it could not have been used for several years. The rock behind it was overplumb to a considerable height, and the nest was placed in an angle. All the nests were on the side of the den facing the east, which happened to be the steepest.

The one egg was pinkish in colour and slightly soiled. On blowing it the same evening, we found that it was addled, though so little stale that it could not have been laid a very long time. It floated in water with a small part above the surface. In attempting to account for its condition we were much puzzled. It had been seen nearly a week before; and several days before that, it was not laid.

§ 29. *One*.—Scottish Highlands, 1849. From Mr. L. Dunbar's Collection.

This finely-marked egg was taken by a shepherd, and came into my possession 4th May, 1851, in its present mutilated state.

10th February, 1856. I have this day finished mending the above-mentioned egg, strengthening it with many strips of strong yet thin paper secured by the best gum-arabic; also with a brace made of a Hooper's-pen quill laid across inside. It had previously been very rudely mended with poor paper laid on apparently with paste, for insects had eaten it.

[This egg, in its present condition, is a model of Mr. Wolley's care and skill in treating a valuable specimen. About two-thirds of it remain; but as this includes a complete "show surface," it has every appearance of being quite perfect as it lies in the drawer.]

§ 30. *Two*.—Sutherlandshire, 17 April, 1852.

O. W. tab. ii. fig. 3.

These two beautiful eggs reached me in London on the day on which, three years before, I took the exquisite pair [§ 26] since figured by Mr. Hewitson. They were packed with wool and oat-chaff in a small box with lid and bottom too thin; so that one of them got cracked on its journey. The insides were quite moist when I examined them, as though the eggs were just blown. They were very clean both inside and out; and I had particularly desired my correspondent not to wash them outside. The cracked one, in the process of mending, I have been obliged to touch a little with water. I found the colour (which was slightly "smudged") comes off very easily. The other egg

I have very lightly touched in one or two places where it was soiled with handling. The eggs and the wool in which they were packed have the peat-smoke smell of the inside of a Highland cottage, with its happy recollections: through this smell I fancied I could perceive the scent of the Eagle's nest.

The following particulars, many of which are of considerable interest, were received subsequently from my correspondent:—"3 May, 1852. * * I got the eggs the third day before the date of my [former] letter, being April 17th. They were quite fresh. I should think they had only been sat upon three or four days. The nest was on the side facing the water, being, I suppose, the north-north-east, in a rather rugged rock. I could get within three yards of it without a rope, and I think, if I were ever trying it again, I would go without any rope at all. The rock is about fifteen or twenty fathoms in height, and nearly two-thirds of it under the nest [*i. e.* the nest was thirty or forty feet from the top.—J. W.]. There is no overhanging in the rock. The nest was very large, with some sticks as thick as my arm, lined with heather and wool, with no tree in front. The Eagles have been known to build there for a number of years back in the same spot, and harried almost every year. The first day I tried it I did not see the bird on the nest; nor did I know she was there, till she flew over my head, as large as life. On my return the second day, I could not see her head. I shouted, but she would not rise until I threw a stone. I made an attempt to get the eggs; but as there was no one with me, I had not nerve enough to push on. Then on the third day I started with a young friend with gun and ropes. I shot the Eagle, and then got the eggs by his holding the rope. I could not see the bird from the bottom of the rock, and the head only could be seen from the top. I shot her from below; she flew out of the nest rather hurriedly. She only gave one scream when she felt the smart of the shot, flew about a hundred yards, and fell quite dead. I did not see the cock bird the last day. I did not see any Hares near the nest, nor are there any Ptarmigan on the hill. There was a Raven's nest quite close by the Eagle's. I did not hear of any Fox being on the ground. You regret, I have no doubt, that I shot the Eagle; but there will be a nest there next season. I never knew (nor did I hear) of an Eagle wanting a mate above a month at furthest."

§ 31. *Two*.—Argyllshire, 20 April, 1852.

O. W. tab. F.

These two very fine eggs reached me at Paddington, 11th June, 1852. The spotted one is of extraordinary size. It has perhaps lost

some of its colouring-matter on the side on which it is blown, from the wiping which would be necessary during and after that operation. I have not touched it with water since it arrived. In giving my correspondent a drill last year, I had told him to take care not to wash the eggs. The white one appeared not to have been cleansed at all, as there was a good deal of dirt upon it, which I thought it desirable to remove. I did so with pure water and a cambric handkerchief, touching it very lightly. After this washing, it shows, I think, traces of fine spots and lines, especially towards the larger end. It was not at all stained or deeply grained with dirt, all this being superficial. Comparing it with five other white Eagle's eggs now before me, I cannot hesitate to attribute some faint yellow specks to true marking; and this is rendered more evident by comparing it with its fellow, the very first stage of whose thick sprinkling the white egg may well be taken to represent. The coloured egg, which strongly reminds one of eggs of the Gyrfalcon, is not unlike one in Mr. Henry Walter's cabinet; it also belongs to the same class of eggs as the one Mr. Falconer has, laid in confinement, and the fragments which I obtained with a white one last year (1851) [§ 32]. My correspondent's letters of 9th and 22nd June contain the following particulars about these eggs:—"I took the Golden Eagle's eggs from a rock on the 20th April." "The bird flew off, the same as the one at the corrie last year did [§ 28], but a little quicker, and afterwards came round once above our heads, and then we lost sight of her. I could have shot her flying off the nest, but this I did not intend to do. I saw her sitting on her nest from the south side of the rock. I sent one of my men down on the rope from above to the nest, which was from twenty to thirty feet from where we hold the rope; and down from the nest to the bottom of the rock is about a hundred and fifty yards. The nest was made of different kinds of small sticks and that broad grass you have seen [*Luzula sylvatica*]. There was no game in the nest, but there were some pieces of Hares and some feathers scattered about the top of the rock. The birds were formed in the eggs, but the bones were not thicker than pins."

On 10th April, 1851, the site of this nest, among several others, was pointed out to me. It was on a very high rock; but my informant said that a man could climb from above so near it as to push the young ones out with a long pole, as he himself had seen done. He had also let a man down with a rope. There was a nest there fifteen years in succession, but not for the last two years, though, on looking with his glass, he said there were fresh sticks, as he could see the green branches, altogether a cart-load, and, at the distance we were,

the mass through a glass looked very great. It was necessary to go a long way up the valley before we got to a spot sufficiently near to enable us to distinguish it well. There were no eggs in it then, as a forester reported to us after an examination he had been directed to make¹.

§ 32. *One*, with fragments of another.—Argyllshire, 23 April, 1851. “*J. W. ipse.*”

Mr. Edge and I left our quarters with our guide in a light cart, provided with ropes, &c. Opposite a certain corrie we met the forester, who had no good news for us, as the Eagle had deserted her nest [§ 31] in the rock at the end of it. He went on with us some way further, when we sent him forward to fetch the head forester, on whose ground was the other nest we intended to visit. We also sent our cart back with the driver, and walked on with our guide directly towards the point which had been shown to him as the locality for the principal object of our search. After crossing the river with some difficulty, we reached a spot opposite to the nest, and rested there. The place looked like a small pigeon-hole, in the face of the barest and boldest mountain in this part of the country. On the south side of it, at the entrance of the glen, our guide pointed out another spot, apparently inaccessible, which had been shown to him as a locality for the same pair of Eagles. Presently a whistle announced the arrival of the other party, and we observed with our glasses an Eagle fly into the hole, and soon leave it again. This gave rise to much speculation as to whether it was the cock or the hen. We now began to ascend; and after a long climb up the mountain, over very broken ground, we began to get into the region of the nest. We climbed over a very rough rock or mass of rocks beneath the nest, and then came upon a huge crack in the rock, down which we rolled stones, making a great noise. Still ascending, we were perhaps a hundred yards below the nest when the Eagle left it, flapping slowly, the ends of her wings curling up at each stroke, till she was round a corner to the west, and we never saw her again; but before this we had seen the cock bird high overhead. Then we went down a ravine in which there was a great drift of snow, and up the opposite side, where there was some rather ticklish climbing, till we recrossed on very slippery snow, and reached a succession of ledges or a little track on a level with the nest. For

¹ [During the past summer (1862) Mr. Wolf visited this nest, which then contained two young ones; and I am indebted to him for the beautiful plate (tab. F.) representing it, which has been executed from his sketch by Mr. Jury.—Ed.]

some time past we had been finding the remains of Grouse and Mountain Hares; and the head forester was afraid there were young. Great consequently was the interest at this point. We hurried round the corner, and my first exclamation was, "Two or three eggs, at all events!" but another glance showed that there was only one white egg, and a young one hatched within a day or two, lying on its back chirping. The dogs (a Colley and a Terrier) had followed us into the nest and required restraining, as we were all of us at the side of the nest. The nest was in a little sort of cave in the face of the rock, which is ten or twelve feet wide, five or six feet high, and eight or ten feet deep, forming an admirable shelter; but there was a good deal of dripping at the back part, which is overgrown with Ferns (*Lastræa dilatata*), *Marchantia*, and Golden Saxifrage. The wet, however, does not fall on the inhabited part of the nest. The depression was slight, lined with a very little *Luzula*, but more of *Carex*-tufts, and the lining was altogether of a good depth. The rest of the nest was made principally of heather, about the usual size, few sticks or none. *Luzula sylvatica* was growing in plenty near it, and principally in a long band for a great distance below the nest, which, our guide said, was usual with Eagles' nests, in consequence of the great quantity of animal matter coming from them; and here, at all events, the water which drips from the cavity must assist to wash it down. Our guide pointed out the same thing at the other station on the same mountain. Half a Hare was in the nest when we went into it; and the men said it would be left to rot there. On taking up the egg, I heard the young one cheeping inside it. I carried it home wrapped in tow in a botanical box; and on warming it some hours after, it again began to make a noise. I carefully cut a hole in the egg, and with some difficulty extracted the bird, slightly cracking the shell in doing so. There was a good deal still to go into the navel, which was open as wide as a sixpence. I poulticed it with a piece of the membrane, and wrapped the bird up in a bit of wet calico, put in a cup covered with a saucer. I took it to bed with me; and it was all the following day kept before a good fire, where it still cheeped vigorously. The egg I mended with paste.

Before quitting the nest we all drank to the health of the young Eagle we were to leave in it. Mr. Edge and I enjoyed the prospect, our guide observing what a splendid picture we should make for Landseer! There was a most extensive view over what looked like a great plain eastward. The rocks in the neighbourhood were most grandly broken up, like those at the back of Quenaig; and it is, of all the situations I ever saw, most worthy of an Eagle. Our guide

said they were very rarely met so high up a mountain. Above us, at a little distance, was snow and mist, and a heavy shower was falling, with the sun breaking through it here and there, and shining brightly on the other side of the valley. Below us the precipice seemed far greater than it really is, as the hill is very steep. It had probably not been visited for five or six years.

I picked out of the nest the fragments of the shell which had contained the bird we found already hatched, and have since gummied them upon a tame Goose's egg. They thus show the character of marking that the Eagle's egg of which they had formerly formed part had borne.

On 26th April I re-hatched the young Eagle, whose navel had been gradually contracting as the yelk receded, some urate of ammonia being duly discharged through the opening. The down soon expanded by judicious picking and pulling, each piece being enclosed in a pellicle, which required bursting or slipping off. About noon he opened his mouth and showed symptoms of hunger. Having procured two little birds, I minced up some of the breast with the liver and gave it to him, whereupon he not only readily swallowed it, but pecked at my blood-stained finger, his eyes being occasionally open. He was by this time covered most naturally with the purest white down. Soon after, we started for a long journey, and encountered several severe storms of hail and snow; but as I had him in Lord Derby's little basket¹ in a box packed with wool and hemp, along with two pint bottles which I replenished with hot water at every stage, he did not suffer. He was in bed that night, and the following day lay in a hand-basket before the fire on a piece of flannel; for he is apt to swallow bits of cotton or hemp. However he died on the 28th, and I sent him soaked in spirits to Mr. John Hancock. The characters of the tarsi showed him to be the Golden Eagle.

§ 33. *Three*.—Argyllshire, 23 April, 1852.

These eggs, taken from the same nest and on the same day as those last year by myself, were sent to me by my guide on that occasion, who says that they were taken by the forester who then accompanied me. My correspondent did not receive them till some time afterwards, but they were then not blown. There was a bird in each, of good size, and he broke one in taking out its contents. When they arrived, there were sticking to the pieces of this one tufts

¹ [This seems to have been the basket in which Mr. Wolley brought away from Knowsley the Griffon Vulture's egg before mentioned (§ 17), and which had also been of service on another occasion.—Ed.]

of the very characteristic down of young Eagles, which I have preserved. It was in a great many pieces; but I determined to try to put them together, and I succeeded far beyond my expectations. I commenced operations by taking the skin off the inside of the pieces as I fitted them together, and then I fixed on them strips of foreign letter-paper with very strong gum-arabic. When I had, after three or four days' work, gathered them into as many large groups, I had great difficulty in joining them together evenly, but at last succeeded by relaxing one or two of the paper bands and squeezing one of the pieces in the direction contrary to that in which it had warped, and then holding them together until the gum on the last slips was partly dried.

§ 34. *Three*.—Argyllshire, 1853.

These eggs, two of them being unblown, were received for me during my absence in Lapland by Mr. Edge, who succeeded in satisfactorily emptying the full ones. They are from the same nest as those I took 23 April, 1851, as I am assured in a letter from my guide at that time.

§ 35. *Three*.—Argyllshire, 10 April, 1854.

These eggs were sent, blown, to Mr. Edge, with a letter, dated "29 April, 1854," containing the following passages:—"You will receive three eggs of the Golden Eagle, which were taken on the 10th of this month. I need not say anything about the place where they were taken, as you and Mr. Wolley were in the nest when you were here. I am sorry to say there is not, to my knowledge, an Eagle's nest within the bounds of my forest this year, as I have searched all the old places where they used to build. As I told you before, in a few years there will not be such a thing as a Golden Eagle seen in Scotland."

[§ 36. *Three*.—Argyllshire, 18 April, 1855. "E. N. *ipse*."

O. W. tab. iii. fig. 2.

These eggs, from the same eyrie as those mentioned in the four preceding sections, were taken by Mr. Edward Newton, to whom Mr. Wolley had given the introductions necessary for enjoying the pleasure, now so rarely within the power of an Englishman, of taking, with his own hands, in this island a nest of the Golden Eagle. The following is condensed from the account which Mr. E. Newton gives of his exploit:—

"On the evening of April 17th I arrived at the little inn, and of course my first inquiries were for my guide. I was told he had been there that afternoon, and had left word that he had gone to the hill, and would return a little later.

Meantime I strolled out by the side of the loch, and watched with interest some fine Black Cocks, birds I had never before seen alive, sunning themselves on the topmost branches of the old dead Scotch-fir trees. On my guide's making his appearance, he was very frank, and said how glad he was to welcome me as one of Mr. Wolley's friends. But it was some time before he came to the subject of my visit, and then it was only approached cautiously. 'Yes, there were Eagles left, certainly, both Golden and White-tailed, but in nothing like the numbers of old. He indeed had been their principal destroyer in those parts; but he no longer intended to be so. In fact, he had received orders to the contrary; for the proprietor liked to see them flying, when he came with his friends from the south, though he was desired to take care that the farmers should not have good ground to complain of their number.' My guide had once caught ten or a dozen in as many days, keeping them alive as a show; and since then it was that their utter destruction had been forbidden. They were mostly young Golden Eagles, 'Ringtails;' but I think he said there were White-tailed ones among them. He was not certain, but he thought there was a nest he could show me, though no one had been near the place for fear of making the birds forsake, which they would do if they happened to see a man off the road and near the place; that is, of course, when they were building, for when they had begun to sit they were not so easily disturbed. There was, besides, another nest, which he thought I could get. It was in an adjoining forest; but it could be done without much trouble. To this we settled to go the next morning, and I accordingly joined my guide at an early hour; and after a walk of about ten miles, we reached the entrance of a glen celebrated in history. On the road he showed me the mountain to the left, on which he had found Greenshanks' eggs, a long way from any water, except perhaps a few springs, such as are to be found almost everywhere in the neighbourhood. On our right front was a loch, the breeding-place of a pair of White-tailed Eagles; but the year before a shepherd had trapped one of them, and it was doubtful whether the survivor would find a mate and return again. Black-throated Divers also bred there, and my guide generally got an egg or two when he was not forestalled by the 'Huddies.' Here, too, I had my first glimpse of really wild Red Deer, as a herd was feeding on the ridge to our left, and every now and then one could be seen standing out clear against the sky. To my companion's more accustomed eye many were also plain, feeding on the hill-side. They must have been at least three-quarters of a mile from us. On gaining the entrance of the glen, where a bare and lofty mountain was in full view, my guide pointed out to me the site of the nest. It looked like a black spot on the face of what seemed a perpendicular cliff, halfway up the mountain. The snow in the gorges extended far below, so that we should have to pass over it before reaching the nest. A short way further we arrived at the forester's lodge, to find its occupant gone away for the day. However, his son soon came home; and after a short conversation in Gaelic between him and my guide, the latter informed me it was all right, and at about half-past twelve we commenced the ascent. It was a beautiful day, and the mountain was quite clear of mist. The snow in the gorges made the climbing somewhat more difficult, as the frost was not out of the ground. We passed first quite under the nest to the westward, and then began to ascend. We kept to the left of a small corrie, stopping every now and then to rest, and gaze up at the object of our ambition. When

we had arrived nearly at a level with the nest, and about two hundred yards from it, my guide, with his telescope, spied the old bird's head as she was sitting on her eggs; but as she saw us she drew it in, and he had not time to hand me the glass before the forester gave a shout, and out sailed the first wild Golden Eagle I ever saw. She was almost immediately lost to view by flying round to the eastward. We remained quite still, and in about five minutes she appeared again, high over the top of the mountain. My guide at first thought this bird was the male, but afterwards felt certain it was the same as had flown from the nest; and this, both my companions agreed, was the hen. She made one or two circles, much after the manner of a Rough-legged Buzzard, and then, closing her wings, descended to within two hundred feet of the nest, when, catching a glimpse of us, she soared away again to the eastward. We then proceeded onwards, crossing the gorge or ravine, where we sank almost up to the middle in the snow with which it was filled. Coming out on the other side, our path was only a narrow ledge of perhaps eighteen inches wide along the face of the rock, a steep cliff of a hundred feet or so. The forester was first, I was second, and my guide last. This narrow ledge led quite into the little cave where was situated the nest, which, as we rounded a corner of the rock, opened to view. There were three eggs, one spotted and splashed with light red, and in look much like some eggs of a Spoonbill, another was suffused over the small end with reddish brown, and the third was nearly white. The cave was about five feet high, perhaps the same in depth, and six or eight feet wide. The nest occupied the whole of it, and, being some eighteen inches or two feet thick, obliged us to crawl in. Once in, however, we could all three sit upright, side by side, with our heels hanging over the precipice. The nest appeared to have been of late well repaired with fresh heather-stalks, small Scotch-fir boughs, and thick stems of coarse grass, with pieces of wool, possibly picked up by accident while sticking to the heather. Inside it was lined with grass and a little moss, with a sprig of myrtle and one of juniper. It was very flat, the hollow not more than three inches deep, and about a foot in diameter. There were a few of the old bird's feathers lying about, which, together with the lining, I brought away. The three eggs were placed in a peculiar figure; if I remember right, like this , with their small ends all pointing towards the entrance. On the roof of the cave were a few small ferns. The first thing we did was to drink to Mr. Wolley's safe return from Lapland, and the health of the Eagles, and then to smoke our pipes. When we had been there a quarter of an hour or so, an Eagle, which my guide declared was the male, came again in sight, soaring at a great height above us, and was soon lost in the mist, after which we saw no more of either of the birds. The view at first was very fine. We waited about a quarter of an hour longer, when, a mist coming over the top of the mountain, my guide thought it prudent to begin our descent; and before we were halfway down the nest was hidden in the clouds. But as we were coming down he called out, 'Aye, but there's a mon looking down at us!' I glanced upwards, and there was the appearance of an enormous human figure in a Highland bonnet stooping and looking over the precipice. I saw the joke at once, and laughed, whereupon he was pleased to remark, 'Aye, but you're no' to be cheated. Mind, Donald, ye ca' that "Newton's stane."' We reached home about nine o'clock; and I attempted to blow the eggs that night, but found them so hard sat on that I papered them up, and left them till I got to Elveden."]

§ 37. *Three*.—Argyllshire, 16 April, 1856.

[These eggs were received and blown by me for Mr. Wolley in May 1856, the sender being the person to whom the acquisition of the eggs in the last five sections is mainly due; but, though no doubt the produce of the same hen bird as those, they are not from the same nest, but from one in the immediate district—a corrie north of the corrie visited by Mr. Wolley in 1851 (§ 28). They were taken 16th April, 1856. The sender says he is sure they were laid by the same bird as those in the preceding five sections; and I entirely coincide in his opinion, judging only from their number and appearance.]

[§ 38. *Two*.—Argyllshire, 16 April, 1859.

These eggs are from the identical nest visited by Mr. Wolley and my brother, as before mentioned in these pages (§§ 32–36), and were sent me in 1860 by the person who acted as guide to them on those occasions. There were no eggs in this nest in 1856 or 1857, though in the former year it is believed the hen-bird bred in another spot (§ 37); and it was supposed she had since died or been killed. These eggs, being nearly colourless and of a very different shape to those which have formerly come from this eyrie, I had accordingly thought were the produce of another bird; but my own experience the year after (1861) has changed my opinion, as will be seen in the next section. The eggs have probably lost colour by having been left unblown more than a year in a damp outhouse.]

[§ 39. *Two*.—Argyllshire, 22 April, 1861. “A. N. *ipse*.”

These two eggs were taken by myself on the above-mentioned day, from the nest which has already supplied so many specimens. I started betimes in the morning, with the same trusty companions who had before guided Mr. Wolley and my brother to the spot. Just as we got in sight of the hill it came on to rain pretty heavily, and continued doing so most part of the day. As the clouds were low, the view was quite destroyed, and I was unable to bring away any distinct recollection of the scenery. When we came to the foot of the ascent we stopped some time, hoping the mist would clear. This it only partially did; but the precise situation of the nest was sufficiently well shown to me. After waiting half an hour or so, we began the climb, and I got nearly up to the first bare rocks before I had to stop for my second wind. Then we went on again, finding the snow very soft, and consequently not slippery and dangerous as it was when Mr. Wolley was there, within a day of ten years prior to my visit; but my heart was in my mouth when I saw the forester looking straight down at a human spoor he could not recognize, for he had just been clapping his hands and shouting to put the bird off, without succeeding. I was dreadfully afraid some one had been beforehand with me, but just as we were preparing for the nasty place, he exclaimed “The Eagle!” and there she was, sailing round to the eastward, and soon out of sight. This set at rest my fears of having been forestalled; and now only the original risk of the eggs being already hatched remained. We had made one or two short halts before we came to the ticklish place, where we had to go sideways on a narrow ledge round the rocks. With my companion’s assistance I accomplished it very well, and

then all the rest was easy. As we wound round the last corner along the ledge on which the nest is built, the leading guide, to my great joy, called out that the two eggs were all right. I followed him, and was the first to handle them. Crouching on the nest, I kept very still, for the height seemed dizzy enough, until I had packed up the eggs, which exhibited the Spoonbill-like character of yore (one of them hardly marked at all), clearly showing that the original hen bird had not, as we had supposed before, met her death a few years ago. I took out the lining of the nest, and then began to look about me. After my brother's account, and Mr. Wolley's accurate description, I almost felt disappointed at the want of novelty. It seemed as if I had been there twenty times before, as indeed in imagination I had. The only material difference I could remark was that the latter had been able to sit upright in the nest, which I did not find possible. This of course was owing to the nest having had so much added to it during the last ten years; and it is said now to project much more than formerly, which I can well believe. Close on my left hand, as I lay, was some hares' flock, the only remains of prey about the place. The lining of the nest—which I have since given to Mr. J. Hancock—was much as that which my brother brought back in 1855. There was one very "pine-apple" looking tuft of *Luzula sylvatica*. The spring at the back of the nest was hardly dripping—not enough to qualify the whisky with, and the forester had to get some water from the nearest snow-drift. A small tuft of a bright-green plant, which I plucked from the rock at the back of the nest, has been identified for me by Mr. A. G. More as *Chrysosplenium oppositifolium*. Mr. Wolley's description had mentioned golden saxifrage as growing near by. We ate our biscuits, and drank one another's healths, my companions not forgetting that of Mr. Edge or of my brother, with whom they had in like manner sat there, nor I omitting the old Eagle's, to whom I was so much indebted. We had an indifferent view over the moors to the eastward; and just opposite, the clouds quite hid the top of the hill; some of them came below us. After enjoying ourselves for as long as we had time, we came out and began to descend. The forester tried to make out on the snow the spoor we had seen in climbing up, but he was unable to do so. It was fresh, or at least within a day or two. It had evidently not been to the nest, though not far off. He was annoyed at not discovering whose it was, and did not like it being supposed, as my guide thought, that it was his son's; was sure his own "laddie" would do no such a thing as run the risk of disturbing the bird which he knew his father wanted to have left alone. He pointed out a nasty place close by, where a year or two before a Deer had fallen, and had to be taken out. It was in a cleft of a rock; and the feat seemed almost impossible. He only succeeded after a long time, and then by cutting it up where it lay. The descent was worse to me than the getting up, but, with two such careful fellows, I knew the risk of harm was small. Still it was comforting to feel a firm clutch every now and then, and always just at the right moment. We reached the bottom without a single slip. Arrived there, we saw the Eagle again soaring over the hill, and again disappearing in the mist to the eastward. We had seen nothing of her while in the nest, though the man who was holding the pony for me below said she once came within a hundred yards of us; if so, it must have been above our heads. Here bidding the forester good bye, I trotted off to bait the pony, before rejoining my guide on the road to another nest.]

§ 40. *Two*.—Argyllshire, 1853.

O. W. tab. G.

These eggs, already blown, were received and taken care of for me by Mr. Edge in the summer of 1853. It appears that they are from a nest in a glen visited by me 15th April, 1851, and in which there were no eggs that year, though a man on that very day had seen a bird about the rock. The nest was not directly visible from above; nor indeed from any place could we see entirely into it. I descended by a rope, and, looking down a few feet above it, was able to see the whole of it. It was quite fresh, made of large branches of the Scotch Fir, as green as if growing, with some heather beneath, and lined with *Luzula*. It was a large mass of sticks, and projected from the rock more than any nest I had previously seen,—there being very little ledge overhanging it, though there was a projecting sloping ledge partially covering it towards one side¹.

§ 41. *Two*.—Argyllshire, 19 April, 1855. “E. N.”

O. W. tab. iii. fig. 1.

These eggs were taken on the day above mentioned, in the presence of Mr. Edward Newton, whose account of the nest is as follows:—

“The next morning we were to visit the second nest of which my guide to the previous one had spoken [§ 36]. Accordingly about ten o’clock I went up to his house. He proposed showing me a Deer-hunt, as he wanted to ‘blood’ some young hounds, and took with him three couple. On the way nothing particular occurred. We stopped every now and then to look round the hills for any Deer that might be near enough or in an advantageous place, but we saw none. Presently rounding a corner, some six miles from home, we saw an Eagle about a mile off, flying low over a hill. Just under that hill my companion told me the nest was, and soon after he pointed out its position to me. It was on the side of a small steep ravine, perhaps some sixty yards wide by twenty deep. This ravine we crossed perhaps a quarter of a mile below the nest. As we did so, the old bird flew out; she went down the glen past us, and then soared high away to the westward.

¹ [In July 1862, Mr. Wolf visited a Golden Eagle’s nest, which was situated very near the place of that above mentioned, and was probably used by the same pair of birds. It then contained one young one; and I have again to acknowledge his kindness in allowing Mr. Jury to copy the drawing which he made of it (tab. G).—ED.]

She came within sight twice afterwards, though at a great height. I had a good look at her through my guide's glass; she appeared to me to be a larger bird than the one whose nest I had taken the day before [§ 36], and my companion said so also. A few minutes more brought us just above the nest. It was built in the same place as when Mr. Wolley, in 1851, saw it, situated about fifteen or twenty feet from the top, and, on my reaching over, was, with the two eggs, plainly visible. It was now about three o'clock. I did not go down into the nest myself, but was contented with seeing a man do so; for as the eggs were not to be for our own collection, I did not feel very keen about it, though there was no danger, and the man who was lowered was up again in five minutes. He brought back, with the eggs, as much of the lining of the nest as he could cram into the basket. One of the eggs is white, the other—the finest, I think, I have ever seen—blotched and spotted all over with two shades of lilac and reddish brown. Both are larger and rounder than my former captures. At the top, just above the nest, I found one old casting, apparently of hares' fur and bones; and about fifty yards off, some large white splashes on a high block of granite. No feathers either of the bird itself or its quarry. This is the nest that Mr. Wolley had so often wished to be photographed with the bird upon it; and indeed the operation would not be difficult, as the distance across the ravine could not be more than fifty yards or so. It was somewhat like a crack or rent, and had, so to speak, perpendicular sides, though of course in many places small landslips had occurred, which caused ledges. On one of these the nest was. At the bottom were a few trees, Birch and old Scotch Fir. The hill down which the ravine ran was a gentle slope, covered with short white lichens. My guide told me that he once shot an Eagle from this nest; and on another occasion some one else missed one; but who, I do not remember. On our return home, we came in sight of seven or eight Stags, which were feeding near the bridle-path. The dogs were slipped, and we had a very good chase. They singled out one wretched beast, and had the speed of him all the way; however, though they made several attempts to catch hold of him, it was not until he reached a small burn at the bottom of the valley that he turned to bay, and was at once pulled down. A gillie then cut the Stag's throat, and the hounds got well blooded. The head was afterwards cut off, but was not worth having, the horns being only a foot long. That evening I blew the eggs, which seemed to have been sat on about half their time."

§ 42. *Two*.—Kuusi-niemi, East Bothnia, 23 and 24 April, 1855¹.

These were brought to Ludwig 26th May, 1855. The finder called them Eagle Owl's, but they appear to be Golden Eagle's. He said he took them near Kuusi-niemi—"Six Points," which is between Parkajoki and Kihlangi, below Muonioniska. He further said that the bird was very wild, and that he could not see it. Eagle Owls were in the habit of hooting about the rock where he took the eggs.

§ 43. *One*.—Ketto-mella, Enontekis Lappmark, N. lat. 68° 20'. 30 April, 1855.

Piety climbed up to this well-known nest himself on the day mentioned. It was not a very large tree; but a very big nest halfway up it. A tree with a nest had been cut down there four or five years before. He saw the two birds; they were "Black Eagles." He thinks they have some little white on the tail, but they were certainly not Sea-Eagles. They were shy. There was a young one with eyes formed in the single egg.

§ 44. *One*.—Aberdeenshire, 28 March, 1855 (?). From Mr. J. Gardner's Collection.

O. W. tab. ii. fig. 2.

I first saw this egg in Mr. Gardner's shop-window, January 22nd, 1856. For its history I was referred to Mr. J. D. Salmon; and on going to him, as I at once did, he told me that he got the egg in the spring of 1855, soon after it was received by Mr. Gardner, who subsequently took it back from him (Mr. Salmon). Mr. Salmon was informed that it had come to Mr. Gardner from a gamekeeper in Yorkshire; and the following particulars, among others more precise, were given in writing respecting it. "The egg of the Golden Eagle was taken March 28th. There were two eggs in the nest, on which the old bird had sat about a week. It was built in a Scotch Fir-tree, and was composed of

¹ [With respect to the nidification of Eagles in Lapland, Mr. Wolley has remarked (Cat. Eggs, 1855-56, p. 7), "A pair of Golden Eagles is generally to be found at the foot of the several groups of mountains in the interior, building upon some great tree—less frequently on a rock,—the reverse of what we see in Scotland. The Sea-Eagle, on the other hand, is mostly near the coast, or on large lakes, as with us."—ED.]

dry sticks of the same tree, with dry heather, and lined with coarse grass. The nest was at the foot of a mountain in Aberdeenshire. It has been occupied for many years." Having read this, I recollected having heard of a nest in a tree from several people, and, amongst the rest, that Mr. Newcome had himself seen it and the birds, which, he was told, and believed, were Golden Eagles. Accordingly I went again to Mr. Gardner's; and Mr. Salmon was so good as to accompany me. After some conversation of a satisfactory kind, the egg was brought out of the window, and I bought it, having previously observed the cracks near the smaller end. It was said to have been under a glass, and untouched, ever since Mr. Salmon returned it; and that gentleman at once said it was the same egg.

[I have been obliged here to condense very much the account of this specimen, which occupies several pages in Mr. Wolley's note-book, and I am unable, without mentioning other names, to show how great the probability is that it came from the nest seen many years ago by Mr. Newcome. To my mind the evidence is sufficiently conclusive; and I may add that since the egg came into my possession, I have obtained additional particulars highly corroborating the opinion Mr. Wolley had formed. The result is, that it is a very valuable specimen, whether considered on account of its beauty or on account of the situation of the nest in which it was laid,—a situation which appears to be certainly uncommon for British Golden Eagles.]

§ 45. *One*.—Akes-lombola, East Bothnia, 1856.

Brought 6th August, 1856, from the place named above. It was much decomposed inside, and the young had bones¹.

§ 46. *Two*.—Sammal-vara, Kemi Lappmark, 1857.

A. *One*.—11 April, 1857. "J. W. *ipse*."

O. W. tab. iii. fig. 4.

This beautiful egg, something like those of mine figured by Mr. Hewitson [§ 26], I took from the nest found by Heiki. On 4th April the Wassara lads had told me, at Rauhula, that they had seen an Eagle on Keimio-tunturi as they were shooting wild Reindeer the day before. I called at Keimio-niemi, and left word that Fetto should tell Heiki to look for it. In two days Piety brought word that Heiki had found the nest. He had marked the tree, but not looked into it. On 11th April, the morning after Good Friday, I started with Heiki

¹ [In 1855, Mr. Wolley obtained one egg from this nest, which is now in Mr. W. H. Simpson's collection.—ED.]

and Ludwig for the place. We reached Keimio-niemi about 11 A.M., left our deer there, and took to *skidor*¹. After crossing the arm of the lake to the east of the promontory, we began to ascend the hill, Heiki showing us the tall trees near the top where the nest was. It was a long and difficult climb—in many places an affair of hands and knees, as the *suaküt*¹ would not hold. At last Heiki pointed out the tree, about twenty paces off; and the bird, with a spring, tumbled out of the nest over the valley. The cock showed himself on the wing directly afterwards. The white in the middle of the wing above, and on the proximal half of the tail, was very conspicuous in both birds.

Once the cock flew near the nest, and disappeared. The tree was a Scotch Fir (one of the thickest), about two feet in diameter, or nearly so; thick branches at convenient distances for climbing; perhaps thirty-four feet high; the nest twenty feet from the ground, touching the bole, but supported by branches. The situation noble. The nest just so as to be on a level with the top of the hill, or a little above it when the snow melts. A grand view over Jeris-järwi, and so on to Ollos-tunturi and Muoniovara westerly. I climbed up and called out the good news to those below, "There is one egg." It lay on the off side of the nest, near the edge of the large well-marked hollow. I carefully packed it up in the tin, and put in its place an egg of *Anser minutus* I had prepared, written upon, filled with tallow, and the end stopped with sealing-wax. The nest was of great vertical thickness, perhaps seven feet, mended from year to year; the sticks of small size; the platform by no means wide, lined with living sprigs of Scotch Fir and a little *lupu* ("tree-hair")—nothing else. A small quantity of old snow was still clinging to the twigs on the side next the slope of the hill. The foundation of the nest I guessed to be about four years old; perhaps it was more. I transferred the egg to another box in Toras-sieppi, whilst I took Heiki to look if there was anything in the Jua-rowa nest; but it had not been disturbed since we were there on the 6th*. Opening the box on the following morning, I found the

¹ [Snow-skates.—Ed.]

* 6 April, 1857, I went with a man to the Golden Eagle's nest in Jua-rowa by Särki-järwi, whence he obtained an egg in April 1856, subsequently sold at Mr. Stevens's (Lot 8, 23 February, 1858) to Mr. Braikenridge. A bird was killed from this nest in 1854, whose head and sternum Mr. A. Newton took with him to England [Osteoth. Newt. *MS. Cat.* No. 256, b.], and whose tail is amongst my skins [Woll. Don. No. 99]. This *rowa* is visible from my windows at Muoniovara, over the south-west shoulder of Ollos-tunturi. The snow, about two feet deep, was so softened in the middle of the day as to make the climbing of the steep hill comparatively easy. It is covered with Scotch Fir-trees to the top, where, however, they are dwarf; but the nest was in a good-sized one, and so far below the crest of the hill that I could easily see into it. The tree scarcely differs from

egg cracked—when and how I could not exactly make out. I blew and mended it. Looking at it afterwards, I found that where the colour was thick it had a tendency to chip off. The contents were perfectly fresh, and had the usual flavour of Eagle's eggs.

B. *One*.—22 April, 1857. "J. W."

O. W. tab. iii. fig. 3.

Brought to Muoniovara by Heiki's wife, 25th April, with the egg of *Anser minutus*, which, as above stated, I had left in the nest, and blown at once by me. It seemed to have been two or three days at least sat on. "J. W." as I saw the bird at the nest, not "*ipse*" as on the other egg. 15th May, Apo brought word from Heiki, who was ill, that the egg was taken 22nd April; he also said that the Goose's egg was cracked in the nest.

§ 47. *Two*.—Argyllshire, 10 April, 1857.

O. W. tab. ii. fig. 4.

Received for Mr. Wolley by Mr. Edward Newton in the summer of 1857, with a short statement of when and where they were taken. There were only these two eggs in the nest, which was in a rock, and does not seem to have belonged to any of the birds mentioned before in these pages.

[§ 48. *Two*.—Sutherlandshire. 22 April, 1859.

Sent to me by a correspondent, who states that they were from the same nest. The hen bird was well known to have bred for the preceding ten or twelve years in one of two places alternately. In 1856 her mate was killed and the eggs taken, but by whom he was not able to learn. He also adds,

its neighbours, and is only some ten paces from the tree that formerly had the nest, felled in 1854. That tree was said to be more difficult to climb than this, which is indeed very easy. The nest may be five fathoms from the ground, and a fathom and a half from the top of the tree, which last is bushy, and almost like a "wind nest." The nest was on the south-east side of the tree, and had snow over it, on the top of which were a good many newly-broken sprigs of Scotch Fir, showing that the birds were repairing it. It seemed to be a considerable mass in depth, but not in breadth, made chiefly of small sticks. The trees about it grew pretty close, and it was not visible from the valley. To it may probably belong the Eagles that frequent Ollos-tunturi, though it is some distance off. The *rowa* has two heads; the nest was on that nearest Särki-Iembola. We saw nothing of the birds. [The term *rowa*, as used about Muonioniska, signifies, I believe, a rounded hill, more or less wooded, and of moderate height.—ED.]

while that bird lived, one of the eggs was always plain and the other spotted, but that ever since they had been both marked alike. Mr. Wolley was paying me a visit when these eggs arrived; and one of them being somewhat injured in the journey, he with great patience repaired it so skilfully that it is now but little the worse.

In 1849 Mr. Wolley visited this locality: he says, "Being without a guide, I could not find a nest; but there was a cliff, on the summit of which an Eagle was in the habit of feeding."]

[§ 49. *Two*.—Sutherlandshire, 3 April, 1861.

O. W. tab. iv. fig. 4.

These beautiful eggs were sent to me by the correspondent mentioned in the last section, and, as he informs me, from the same nest as those he obtained for me in 1859. "If bred by the same birds," he adds, "is more than I can ascertain;" but the similarity of markings observable in all four would tend to the belief that they were the produce of one bird. The specimen figured was placed in the hands of the draughtsman but a very few days after I received it, and he has been very successful in depicting its glowing and delicate tints. Its fellow is more highly coloured still, so as somewhat to resemble one of the magnificent pair of eggs of Mr. Wolley's own taking, of which Mr. Hewitson has given an illustration. For this reason only I have abstained from having it figured here, though well aware that a representation of it would have greatly enriched the present work. My correspondent wrote that he went himself and saw the bird, which he could have shot, and that the eggs were taken out of the nest in his presence.]

[§ 50. *One*.—Sutherlandshire, 11 April, 1862.

I received this egg from the same correspondent as those in the last two sections; and having regard to its appearance and the district whence it comes, as well as the information given me, I cannot doubt it to be the produce of the same hen bird as those, though it was not laid in the same nest. Early in the season my correspondent ascertained that a pair of Eagles had prepared three nests within the distance of a mile from one another. Two of them were in the same crag, from the summit of which is visible the rock whence the eggs he sent me in 1859 and 1861 were taken. It seems that, on the 10th of April, a shepherd discovered an Eagle sitting on one of these two nests, and, expecting that she had "dropped her eggs," next day he procured the assistance of another man, and by means of ropes got into the nest, which he found to contain this only one. In consequence of being thus disturbed, the bird does not appear to have laid a second, though my correspondent, in full confidence that she would do so, examined all the sites he knew of within a circle of forty miles; but the only satisfaction he had was once seeing both birds on the wing. He adds that the nest from which this egg came had been deserted for many years past: he himself visited it the day after it had been plundered, and is certain that its tenants were the same

birds he had robbed before. The egg is a very fine specimen, almost exactly like the highest-coloured of the two in the last section; and is further useful as showing probably that it was the nature of this Eagle to lay her best egg first; for I cannot doubt it would have been followed in a day or two by another, had not the bird been molested.]

[§ 51. *Two*.—Ross-shire, 10 April, 1860. From Mr. Tristram's Collection.

O. W. tab. ii. fig. 1.

Received by me from Mr. Tristram in the spring of 1860, with particulars of the time and place of their capture.]

[§ 52. *One*.—County Mayo, April 1860.

This egg was given to me 24th September, 1860, by Mr. T. M. Birch, who told me that it was brought to him, unblown, with two others, taken from the same nest, towards the end of the preceding April. The hen bird was also killed from the nest, the position of which was subsequently pointed out to me; and I afterwards had some conversation with the lad who shot her. Mr. Birch sent her to be stuffed by Mr. Glennon, at whose shop in Dublin I saw her, and from whom I obtained her breast-bone (Osteoth. Newt. *MS. Cat.* No. 256, e.). A remarkably fine bird, both from the coppery (not to say golden) neck and marbled tail. An Eagle believed to be her mate was seen and shot at (I am glad to say, ineffectually) by two gentlemen, who told me of the circumstance, a few days before this egg was given to me. Mr. Birch assured me that the other two eggs were as nearly as possible like this one—at any rate not more coloured, except with dirt. He had given them to Mr. Partridge and Mr. Richard Longfield.

The district whence this egg came is described by Mr. Maxwell in his 'Wild Sports of the West.')

[§ 53. *Two*.—Argyllshire, 22 April, 1861. "A. N. *ipse*."

O. W. tab. iv. fig. 4.

These two eggs were taken by myself a few hours after, and on the same day as, those mentioned in a preceding section (§ 39). After baiting the pony, I continued along the road until I fell in with my guide, who had taken a short cut over the moor. When we came nearly opposite the hill which contained the nest, we struck across the moor. After fording the river, we began to ascend the eminence, which was indeed but a slight one compared with the lofty height to which we had but just before climbed. In the morning we had seen more than a score of Deer on the very ground we were passing over; but they had all moved away by the time we returned. The hill has two knolls or summits, on the most eastern of which, and facing the north, the nest was situated. There was only a very little snow on the top. Some years ago, an accomplished author and sportsman had tried to shoot the

bird from this nest; but though he succeeded in getting immediately below and within a few yards of it, he missed her clean with both barrels! After that, it was for a long time untenanted, and Mr. Wolley never visited it. Last year a pair of Eagles took possession of it, and hatched off their two young ones, which my guide, when he went to ascertain if there was not a rotten egg left, saw flying from one rock to another, the parents "waiting on." We went first to the western knoll, from which, in former times, the hen could be seen as she sat on the nest. Here we lay down on the ground and got out our glasses, but we could not discover her. My guide began to have misgivings lest he had been deceived, though a fortnight or so before he had seen an Eagle sitting about on the rocks close by. We could, however, make out the nest. The hill seemed to slope up within a very little (about fifteen feet, as I afterwards found) of the low cliff, on the top of which grew some small birch-trees. The nest was on a ledge with overhanging slabs, almost like the recess in which the one I had just come from was situated, but it was more exposed. We then went on, and, a few steps further, off went the bird, which continued long in sight, flying slowly away over the lochs to the northward, till we lost her behind some rising ground. We took the pony to the foot of the low cliff, which looked very easy until we came to try it. My guide took off his shoes, and, getting on to a ledge, I, with his assistance from above, and, from below, that of a lad who had joined us, followed. He then crawled along (for we could not stand upright) some three or four yards, and peeped into the nest; but he was not able to see its contents until, with one of my walking-sticks, he had pulled away some of its outworks. He then, to my delight, announced that the eggs were unhatched. I had some difficulty in passing him on the narrow ledge, for I wanted to take the eggs out myself, and I hardly know how we managed it; but, the lad holding him up from below, he slipped back, and I raked the eggs out, one at a time, with the handle of my stick, and gave them to him, he handing them in his turn to the lad, who placed them in a safe nook below. The ledge suddenly terminated, so that no one could get into the nest. I then retreated cautiously, for the rocks were very wet and slippery, besides being overgrown with Poly-pody and Bilberry, which was not firm enough to hold on by. My guide then went before and beyond me, so that I dropped down nearly on the place whence I had climbed up; but just as I got down I had an awful fright, seeing him fly through the air past me, and go down the slope at a fearful rate. Fortunately he was brought up by a big stone before he got very far, and greatly relieved me by bursting into a laugh. The tuft of plants on which he had been relying had given way without warning. I had not time to think of the eggs. He must have passed right over, though a long way above them. He first struck the ground where my coat and his shoes were laid, and sent them all spinning a long way down the hill. Fortunately no harm came to him, or to anything. The moral of this long story is, that a low nest may be far worse than a high one. I confess I should not have liked it at all, had it been higher up.

The eggs have a rather unusual appearance. The one figured here has a Buzzard-like character, with a few rather large markings of deep red, some of them running into lines, the others roundish; the spots at the larger end on a white ground, discoloured however by dirt or damp. This specimen I am glad to have, as there was nothing at all like it before in the series. It was so much soiled that I ventured to wash it, though of course very carefully. The other

is of a creamy brown all over; but whether from dirt or true colour I do not know.]

[§ 54. *One*.—Särki-järwi, East Bothnia, 15 April, 1861.

Brought to Muoniovara by Heiki's boy Carl, 2nd May, having been taken as above stated. The finder had gone six Swedish miles to look for this nest, and received a suitable recompense accordingly.

Whether this nest belonged to the same birds, or their successors, as those seen by Mr. Wolley (§ 46, *note*), I do not know; but the two localities are very near each other.]

[§ 55. *Two*.—Sutherlandshire, 15 April, 1862.

These two fine eggs were sent to me by a correspondent, who states that it is more than probable that one or both parents were the progeny of the pair of Eagles whose nest Mr. Wolley took in 1849 (§ 26). The nest was in the same range of rocks, and about three-quarters of a mile distant from that one. It had been forsaken for sixteen years previously; but the Eagles had since repeatedly bred in another one, about twelve yards off. In 1861, my friend Mr. W. H. Simpson succeeded in taking with his own hands a pair of eggs, believed to belong to the same birds as these, the nest being within a mile of the spot. The present eggs were taken by some men living in the district, one of whom descended by a rope to get them, and were obtained by my informant on the following day. They are large specimens, and of the same character as Mr. Simpson's, one of them being almost uniformly freckled with deeply coloured spots on a white ground, and the other being similar, but with fewer markings.]

AQUILA MOGILNIK (S. Gmelin).

IMPERIAL EAGLE.

[§ 56. *One*.—From M. E. Verreaux's Collection, 1863.]

AQUILA CLANGA, Pallas¹.

SIBERIAN EAGLE.

[§ 57. *One*.—"Sarepta." From Herr H. F. Möschler's Collection, 1862.]

¹ [It would be quite out of place here to discuss the specific value of the asserted differences between Eastern and Western examples of the *Falco naevius* of Linnæus.

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

AQUILA NÆVIA (Gmelin).

SPOTTED EAGLE.

- § 59. *One*.—From M. Perrot's Collection, 1847.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. v.

- § 60. *One*.—Pomerania (?). From M. Parzudaki's Collection, 1856.

- § 61. *Two*.—Pomerania, 9 May, 1854. From Dr. T. Krüper's Collection, through Pastor P. W. Theobald.

Given to me at Copenhagen by Pastor Theobald, having been received by him from his friend Dr. Krüper, with the information that the bird always builds in trees.

[Dr. Krüper's accounts of the nesting of this and other species of Eagles in Pomerania are published in the 'Naunannia,' 1852, ii. l. 61; and 1853, iii. 39.]

- [§ 62. *One*.—From M. Nager-Donazain's Collection, through Dr. R. T. Frere, 1861.]

AQUILA BONELLII (Temminck).

BONELLPS EAGLE.

- [§ 63. *One*.—From M. E. Verreaux's Collection, 1861.]

I have had few opportunities of forming an opinion on the subject; I therefore now separate them more as a matter of convenience than anything else. Those who are interested in the question will find the distinction of the Eastern bird (*Aquila clanga*, Pall.) forcibly maintained by Professor Blasius in the supplementary continuation of Naumann's excellent work (Vög. Deutschl. vol. xiii. part ii. p. 10), to which is added an account of its breeding by Dr. Baldamus. Professor Schlegel (who, however, identifies the *A. clanga* of Pallas with the *F. nævioides* of Cuvier, and consequently with the *F. rapax* of Temminck) has also some able remarks on the subject (Muséum des Pays-Bas, *Aquila*, pp. 3, 4). In bestowing an English name on the Eastern form, I have endeavoured to devise one which seems to be less objectionable than many that might be suggested.—ED.]

AQUILA PENNATA (Gmelin).

BOOTED EAGLE.

[§ 64. *One*.—From M. E. Verreaux's Collection, 1861.]

HALIÆTUS ALBICILLA.

WHITE-TAILED EAGLE.

The Sea-Eagle in Scotland generally makes its nest in the high cliffs of the coast, where it lives upon fish, Guillemots, young Herring-Gulls, &c. ; but it is also occasionally found breeding inland. In the Shetlands an inaccessible eyrie was pointed out to me on the extreme top of a stack, that is, a steep detached rock ; and I have seen another such stack on the north-east coast of Scotland, which was also said to have an eyrie on the top of it. One other instance I have been told of, where a similar apparently exposed spot was chosen ; but it is interesting to know that there is often quite a calm at these elevated points, as they are sheltered by the current of air turned upwards by the rock below.

In inland situations, the Sea-Eagle used to be much less common than the Mountain-Eagle, and is still considered a far rarer bird than that. In a place where six or eight eyries might be counted within a circle of as many miles, only one of them would be a Sea-Eagle's. It generally establishes itself upon a rock or island in the middle of a loch. Here it builds upon the ground, or in a tree, a nest whose construction does not at all differ from that of the Golden Eagle, there being always in it a certain amount of *Luzula sylvatica*. The tree need by no means be a large one : I have seen two nests of different years, in separate islands in one loch, each only about four feet from the ground, in very small trees. One of these has been elsewhere described erroneously as belonging to the Fish-Hawk¹, which makes a very different nest. I can at this moment call to mind nine instances where I know the localities of such island eyries in past years. The old birds do not always calculate the depth of the water, as there is one place at least to which a man can wade.

¹ [St. John's 'Tour in Sutherlandshire,' vol. i. p. 37.—Ed.]

Where swimming is necessary, it is often an affair of danger, as the birds will do their best to drown the enemy with their wings; but when once he is out of the water, they have the discretion to keep their distance. In two spots I have seen large Scotch Firs, not on islands, which have been formerly tenanted by Sea Eagles. One was by the side of a loch; but the other was several miles away from any piece of water, in a sort of open wood of similar trees. The nest had been in a fork where three branches met, perhaps twenty high. In other cases, as might be expected, it is the main trunk which bears the weight of the nest. In one instance, the crossed and nearly horizontal trunks of two small trees formed the support. Another, that I have already spoken of, was in a small alder-tree, and had been repaired and often frequented by the Eagles the season I saw it; yet a Hooded Crow had eggs in the upper branches, and Wild Geese and Ducks were sitting in the deep moss and long heather within twenty yards. I have not myself met with an instance of a Golden Eagle building in a tree or on a sea-cliff, but, on the other hand, several of a Sea-Eagle building on a rock inland, many miles from the ocean. Two such nests, within ten miles of the sea, that I visited, were in small rocks of easy approach, in every respect like Golden Eagles', and in one the hen showed the same unwillingness to fly off her eggs. This eyrie was in a low place, in the bosom, as it were, of high crags, not indeed quite accessible without a rope, but you could get very near it from above or below. As we approached the place, two Ravens came out to meet us, which we thought a bad omen; but presently a white tail showed against the grey rock, and the cock bird was seen slowly flapping off. It was an anxious moment; but he began to turn back, and we knew all was right. The nest was very conspicuous, partly supported by the trunk of a Rowan-tree. The site of the other eyrie could scarcely be said to be a rock at all, but rather a rocky bank or 'hanger,' overgrown with small trees. The nest, placed in a sort of great chair of rock, was perfectly accessible from any direction, right or left, above or below; and a man could get within a yard or two from above without in the least disturbing the bird. I went into it on 25th May [1849]; and at that time it was regularly occupied by the Eagle, as was evident from the fresh droppings on every side, and from the very recent castings lying in the nest. Yet there were no eggs or young; and no man had been there, or he must have left some trace of his visit on the young nettles or other tender herbage growing near. A water-spaniel accompanied me into the nest. It had had young ones the previous season; and two eggs were taken from it the following year, 1850. The whole scene would have

made a charming picture. It may be the force of fancy, but most Eagle-stations appear to me to be in extremely picturesque situations, and worth going any distance to see.

On the coasts, the Sea-Eagle chooses a roomy and generally sheltered ledge of rock. The egg which Mr. Hewitson figures [Eggs B. B. ed. 3. pl. iv. fig. 2] is one of two which I took on the 23rd April, 1849, on one of the most northern points of our island. The nest was very slightly made of a little grass and fresh heather, loosely put together without any sticks; but two or three 'kek'-stalks were strewn about outside. There was a good thickness of guano-like soil upon the rock, which made much nest unnecessary. Two or three Guillemot's beaks, the only unmanageable part of that bird, were not far off. The eggs were laid two days before, when I went to reconnoitre; and I never shall forget the forbearance which a friend who was with me showed, at my request, as he lay gun in hand with the hen Eagle in full view upon her nest not forty yards below him. Her head was towards the cliff, and concealed from our sight, whilst her broad back and white tail, as she stood bending over her nest on the grassy ledge, with the beautiful sandstone rock and the sea beyond, completed a picture rarely to be forgotten. But our ears and the air we breathe give a finish to nature's pictures which no art can imitate; and here were the 'effects' of the sea, and the heather, and the rocks, the fresh warmth of the northern sun, and the excitement of exercise, while the musical yelping of the male Eagle came from some stand out of our sight. Add to all this the innate feeling of delight connected with the pursuit of wild animals, which no philosopher has yet been able to explain further than as a special gift of our Great Maker, and then say whether it is not almost blasphemy to call such a scene a 'picture'! Upon this occasion, I made some remark to my friend, when the hen Eagle showed her clear eye and big yellow beak, her head full of the expression of wild nature and freedom. She gave us a steady glance, then sprang from the rock, and with "slow winnowing wing"—the flight-feathers turning upwards at every stroke—was soon out at sea. Joined by her mate, she began to sail with him in circles further and further away, till quite out of sight, yelping as long as we could hear them,—Gulls mobbing them all the time. To enjoy the beauties of a wild coast in perfection, let me recommend any man to seat himself in an Eagle's nest. The year before this, I took the young ones out of the same eyrie, late in July. It was my first attempt at an Eagle's stronghold, and I shall never forget the interest of the whole affair:—a thunderstorm coming on just before, making it necessary to cut drains in the peat with our

knives to divert the torrents of water ; our councils about the best mode of attaching the ropes ; the impertinence of a young lad, who, stationed to watch for my signals, was rendered quite useless by his keen sense of the ridiculous on seeing me, in my inexperience, twisting round and round at the end of the rope ; the extraordinary grandeur everything assumed from the nest itself ; the luxurious feeling of exultation ; the interest of every plant about it—I know them all now ; the heaps of young Herring-Gulls' remains, and the large fish-bone ; but, above all, the Eaglets fully able to fly, and yet crouching side by side, with their necks stretched out and chins on the ground, like young fawns, their frightened eyes proving that they had no intention of showing fight.

Very gently, as a man 'tickles' trout, I passed my hand under them and tied their legs together, and then tried to confine their wings. They actually allowed me to fasten a handkerchief round them, which, however, was soon shaken off when they began to be pulled up. When the men had raised me, the string attached to my waist lifted one Eaglet, and presently the second came to the length of his tether. Great was the flapping of wings and clutching at rocks and grass. I had many fears that the string or the birds' legs must give way ; but, after much hard pulling, I got them safely to the top, and they are now (1853) alive at Matlock amongst rocks, where I hope they may breed ; but, though five years old this season, they have not yet quite completed the adult plumage. Their dutiful parents never came near them in their difficulties ; but I am happy to say that, in 1850 (the year after I took their eggs), they carried off their young, through the interest I was able to exert in their favour. They had shifted their position ; and they changed again in 1851 to a rock with an aspect quite different, and more than a mile away. In 1847, to please the shepherds, the young were shot in the nest, which was built in the spot where I visited it the two following years. There was no sea-weed about this nest, either time that I saw it ; but a friend writes me word that two which he examined last year on the sea-cliffs of this island, and which he carefully described to me, were principally made of that material, as Mr. Hewitson also had found them in the Shetland Islands. On one of these two occasions, the old Eagle made a dash near my informant, with a "fearful scream ;" and such was the tremendous character of the rocks, that his "hair gets strong" when he thinks of them. These two nests, both occupied, were not more than a mile and a half apart.

The White-tailed Eagle is about a week or a fortnight later than the Golden Eagle in laying its eggs. These are, I believe, generally

smaller and of rather coarser texture than those of the other kind. The one Mr. Hewitson figures [§ 67] is somewhat above the average size. I have not known an egg with any true colour upon it which I could ascertain beyond doubt to have been laid by this bird¹. Two eggs which I took myself are uniformly stained, but not, I think, with proper colouring matter. Eggs of a kind of Penguin are brought home by the guano vessels, and show green to the light, and, being about the right size and shape, are frequently called White-tailed Eagles².

The young of this species are wanderers on the face of the earth. In most winters, birds of the first year are killed in England; but it has long ceased to breed with us. It formerly built in Whinfield Park, in Westmoreland, where the nests were protected by the then Countess of Pembroke, as Willughby tells us [Ornithol. 1676, p. 17]; and about the year 1692, either this or the Golden Eagle had an eyrie upon "Willow Cragg," in the parish of Bampton, in the same county [‘Correspondence of John Ray,’ edited by Dr. Lankester for the Ray Society, 1848, p. 257]. About a century later, Dr. Heysham informed Dr. Latham [Gen. Syn., Supp. 1, p. 11] of a nest near Keswick in Cumberland; and the nest mentioned by Dr. Moore [Mag. Nat. Hist. ser. 2, vol. i. p. 114], on Dewerstone Rock, near Plymouth, to which allusion has before been made, probably belonged to this bird. In Ireland there are a good many spots where it still maintains its position, as appears from Mr. Thompson’s work [B. Ireland, vol. i. pp. 14–29]; and that gentleman says that, in July 1835, he saw two Eagles, of which he could not determine the species, in the [English] lake-district, but which he considers were probably breeding in that quarter. In Scotland it has been rapidly retiring. It used to build on the Bass Rock, and long ago had two breeding-places in Dumfriesshire [Mag. Nat. Hist. ser. 2, vol. i. pp. 119 & 444], and even near Glasgow; but now its stations are almost confined to the north and west, and the islands. Every Deer-stalker knows to whose share is allotted the "gralloch" of a Stag; and too many Highland gamekeepers have learned how they can easily catch either kind of Eagle. It is therefore a melancholy reflection that they can scarcely exist much longer. The White-tailed Eagle, in its sea-girt fortresses, will

¹ [Mr. Hewitson has twice figured a specimen as that of the White-tailed Eagle, upon which are some slight markings of reddish yellow (Brit. Ool. pl. xlv., and Eggs B. B. ed. 1, pl. ii. fig. 2). I believe it is from Mr. J. Hancock’s collection, and that nothing more is known of its history than that it came from Hoy in the Orkneys, an island on which the Golden Eagle used to, and perhaps may still, breed.—ED.]

be the last to disappear; but each inland 'Craig-an-Eulah' will soon be an empty name¹.

§ 65. *One*.—Shetlands, 1847. From Mr. Graham's Collection, through Mr. Tuke.

On inquiry made in 1848, I find that this egg was brought from Lerwick by a gentleman who told me where it was taken; and others gave me the name of the adventurer who climbed to the nest. On or about 19th June, 1849, I saw an Eagle here, flying straight away, not sailing in circles as they more commonly do. It went towards Scaloway, and I saw it down. The nest on the Noup was that year said to be inaccessible. The Golden Eagle is not in Shetland.

§ 66. *One*.—Sutherlandshire, 27 April, 1848.

Received from a correspondent, who states that there were two eggs in the nest from which the hen bird was shot; and from its being so grey, it was supposed to be very old. The nest was similar to that of a Golden Eagle, but close to the sea. There was part of a salmon on the top of the rock near it, which no doubt had been brought by the male. The other egg was sent to a gentleman said to be connected with the British Museum. They had not been sat on more than eight or ten days. In 1849, 8th June, Mr. Edge and I saw a White-tailed Eagle flying towards the stack from which this egg had been taken the preceding year.

§ 67. *Two*.—Caithness, 23 April, 1849. "J. W. *ipse*."

Hewitson, 'Eggs of British Birds,' ed. 3, pl. iv. fig. 2.

These two eggs I took out of the nest on a headland, from which, in 1848, I brought the two young birds, which are now alive at Mr. C. Clarke's at Matlock². On 21st April I visited the headland, but

¹ [The above paragraphs, like those which precede the enumeration of the specimens of Golden Eagles' eggs, were written in 1853 for Mr. Hewitson's use, and are here printed from the original notes in my keeping. As in the case just mentioned, much of the information they contain is repeated in the accounts of the particular nests to which it refers; but believing that everything relating to the history of our native breeds of Eagles cannot fail to be interesting, that fact has not induced me to withhold them here. In another place in Mr. Wolley's notes is a suggestion that the "Willow-Cragg," mentioned by Mr. Aubrey in the passage above quoted, may probably be a corruption of the Celtic "Craig-an-Eulah" (more properly Craig-an-Iolair), or Eagle's Crag.—ED.]

² [As stated above (p. 46), Mr. Wolley had been in hopes that these Eagles

the lighthouse-keeper there did not think the Eagles had as yet laid. On reaching the place, and looking over, there was the bird on the nest, tail outwards, and head under the ledge. The male was screaming to her from the rock below, where we were standing. I told the man who had my gun not to fire; thereupon she showed her head and started off. She was immediately joined by the male. There were two eggs visible in the nest. The birds sailed with motionless wings in circles more and more distant: screaming Gulls came to bully them, and looked very small in comparison.

On Monday, 23rd April, having borrowed a coil of ropes from some fishermen, I drove over with a companion to the headland, and put up at the lighthouse, whose keeper and two hands, an old sailor and a young labourer, were to meet me at the nest; a fourth, the shepherd, also met me on the road, to take the ropes and the bags. My companion agreed to make the necessary signs. I had a board to sit on, a tie round each thigh, and a piece under my arms. The nest was made of grass and fine fresh heather, very loosely put together, different from all the other nests I saw afterwards. A few large dry "kek" stalks, and some pieces of Guillemot, quite fresh, were lying about near the nest. There were no other bones. In the descent I kept myself from spinning by a walking-stick, occasionally touching the rock. The post of last year was still remaining, but we did not use it, as we had so many hands, though I think it would have been safer to have done so. The site was a considerable grassy ledge, where grew *Statice armeria*, &c., the rock slightly overhanging. The year before, a very heavy thunder-shower happened just before my descent, and a stream of water poured down almost into the nest; the greater part of which we arrested by canals cut in the turf with my knife. The young, fully fledged and grown, crouched with their heads towards the rock, and allowed their legs to be tied without resistance. I fastened them with thick string to my rope; and their additional weight, with an occasional grip they gave to the rock, made the pulling up very hard work for the men. They slipped a silk handkerchief with which I endeavoured to confine their wings. In the nest there were many bones of young Herring-Gulls, and one of a large fish. The old birds did not appear after our first approach. I had many more difficulties on the first descent than on the second, might be induced to breed in captivity. With this end in view, a large mass of natural rocks was wired over, so as to form a very roomy cage, in which the birds lived contentedly for some five or six years, until one day it was found that the female had killed and eaten half her mate. On this she was transferred to other hands, and, when I last heard of her, was undergoing solitary confinement at Chatsworth,—certainly an agreeable place of detention for a murderer.—Ed.]

—the men hesitating, rope twisting, small boy laughing, &c. The feeling in an Eagle's nest, where I never expected to be again, was sublime. The sea far below; the storm in the distance; the voices of men shouting, not to be understood; the expectation of a hostile visit from the old Eagles, &c. &c.;—not to speak of the sensation, that the rope might possibly be cut, a knot fail, the men faint, the post yield, a mass of rock fall down, or the like. Perhaps the rope might get fixed in a cleft of the rock; the heather and peat might, after the rain, give way with the men; they might slip; the Eagles might make a swoop at them; a flash of lightning might terrify them. The ledge was about eighteen fathoms from the top, and twice as far from below. The eggs were perfectly fresh and well-tasted.

The following year (1850) these birds shifted their position about a quarter of a mile to the west of the place where I took their young and eggs. I was informed that their new nest was quite near the top of the rock, but far in below a cleft, so that it could not be easily taken.

§ 68. Sutherlandshire, 2 May, 1849. “J. W. *ipse*” (written in nest).

These two eggs are curiously stained, and much smaller than those I took 23rd April [§ 67]. They were some days sat upon. On May 1st, as we were walking up a strath, a shepherd told one of the men who was with me that he had lost a lamb by an Eagle that very morning. We slept at a shooting-lodge; and another shepherd said he had lost four or five that season. We started the next morning with his son. As we approached the rock which looks up the strath, we saw two Ravens, which had evidently a nest, and I feared this was a bad sign for Eagles. However, immediately afterwards I saw a noble White-tailed Eagle moving on the face of the rock some distance off. He flew, but soon took a turn back to the rock, which convinced me he had a nest. I stopped the men, and proceeded to stalk. Almost directly, I saw the nest between a Rowan-tree and the rock. The cock bird flew away in silence. I made a circuit, and climbed very quietly, yet with the greatest ease, till I was immediately under the nest. Here I cocked my gun and took breath. Then I shouted, and made all the noise I could; but nothing stirred. Warned by my experience on a former occasion [§ 26], I kept myself in readiness, and threw a bit of stick, when out tumbled the Eagle, clumsily knocking against the tree. I fired, the bird flew on, and would, I feared, escape. I watched almost in despair, for the shot

was small; but in about a hundred yards she failed, fell over, and lay dead, with her eyes closed. We hid her up till the evening, and I skinned her the next day. She was a large bird, and had a shot through her heart. The male flew about at distance, flapping slowly; but he never cried or screamed, as did the birds on the last occasion.

“On getting above the nest, I can look down into it from about twelve feet, and I see that there are eggs; but it looks impracticable, or nearly so, without a rope. A stake is planted, and soon, with the rope fastened under my arms, I am lowered into the nest, in which I write this account. It appears about five feet in length by three feet in breadth from the rock, on a sort of triangular ledge, the small Rowan touching it in front. The rock is scarcely overhanging. The nest is made chiefly of dead heather-stalks, with a few sticks for the foundation, the largest of which are above an inch in diameter, and two feet long. It is lined with a considerable depth of moss, fern, grass, and *Luzula*, as was the Golden Eagle’s before referred to [§ 26], and is nearly as large. The hollow is small for the size of the bird, and very well defined. There is a rank sort of smell, but no animal remains in or near it; several feet below is an old nest.”

After having blown the eggs, written upon them, and finished my journal, I climbed up without hauling, going round a corner, which would, however, be impassable without a rope. The men, who had never been in an Eagle’s nest, visited it out of curiosity, being properly secured by the rope. I had other Eagle adventures in the course of the day [§ 27]. At night a forester returned, and next morning told me that he had hurried back, having heard of me; for he was to have killed the two old ones, and taken the eggs for the keeper¹.

§ 69. *Two*.—Sutherlandshire, 1849.

These were sent to me from the north, 11th December, 1849, with a live young Golden Eagle. A year and a half afterwards the sender told me the name of the headland where the nest was: it was one of those I had not time to visit when in the district.

§ 70. *Two*.—Sutherlandshire, May, 1850.

These two eggs, as I subsequently discovered, were from a nest to which my dog “Watch” and I climbed the preceding year,

¹ [The hen bird killed by Mr. Wolley from this nest (at the instigation of the shepherds), and which, I believe, was the only one he ever shot in his life, was sent to England to be stuffed, and is now in the possession of Mr. Edge at Strelley, where I saw it in 1856.—Ed.]

25th May. Two days before, a shepherd arrived to show me an Eagle's nest. Soon after leaving the inn, we saw one flapping in the wind high over-head, whereupon my guide called her a bad name—to which he applied the epithets "old" and "grey-tailed,"—showing great spite towards her. Some distance off, Eagle-rocks were pointed out by him—one, easily accessible, near where I had taken a Buzzard's nest; another in a loch, where a nest might be for eight or ten years, and then none for eight or ten years more, as he said, on the authority of his father, who had died a very old man. At this last spot the ledge overhung very much, but it seemed almost accessible from below. It had not been tenanted for several years, as was the case with many others about; for the new forester had trapped great numbers of Eagles since he had come into the country, three years before, even as many as fifteen in one quarter of a year. Three noted breeding-places were searched in vain by my emissaries, in all of which there had been nests three years ago. On that day we, too, hunted over the back of a mountain without success, though I subsequently heard that the nest had been found in another place after I left. It looked peculiarly grand and wild in the mist. I fired shots, and climbed part of the way up the ravine, where White-tailed Eagles were said to be, but nothing was seen or heard but Ravens. A story was told me by my attendants of an old man who, near a nest, was attacked by the birds and kept them off with a stick; he was not climbing to it; but another, who was, had his hat carried away and dropped some distance off, whereupon he thought fit to return. The following day, 25th May, I revisited this spot, but after carefully beating the ground I only saw Peregrine Falcons and Ravens, though I fired shots every few hundred yards. There was a loch, near which horses were to meet us; after a long round I came to it, and I saw a huge new-looking Eagle's nest in a rock of very easy access at the end of it. I climbed up: it was rather a steep hillside than a rock, and as I came near the nest I saw an abundance of Eagle's dung and pieces of of white down about; I tried to alarm the bird in vain. I climbed higher, and to my astonishment the nest was empty; but in it were castings, one damp, and ejected that afternoon. They were mostly of lamb's wool; and I had before seen a leg of lamb lying near. I picked up feathers characteristic of the White-tailed Eagle, and, though I saw no spots of blood nor footmarks, I felt sure that the nest had been robbed that very morning. It was perfectly dry, and I could fancy warm, but I was too angry to pay much attention to its structure; but I saw that it had a tree in front, was made of large sticks at the bottom, and lined with moss and *Luzula*. It was probably the largest

nest I had seen, some five feet by four, and perfectly firm. I stood in it; and "Watch," my dog, followed me. A low rock on one side completely overlooked it. Altogether it was the seat of a fearless, undisturbed tyrant. Much sedge or *Luzula* grew near; and the rocks about had a warm comfortable look, as is usual near Eagles' nests. I vowed vengeance, and everybody said it was "a dirty trick;" for the fox-hunter's servant declared that he had visited it several weeks before, and then thought it was inhabited, but that it was the surviving Eagle of the last year that frequented it. I accepted this explanation, though nevertheless, for various reasons, had my doubts. On 21st May I had put up a single Eagle from near this spot, and soon afterwards saw, I believe, four soaring together, with a Raven bullying them. Mr. Dunbar, another day, saw four together here.

The following year I heard from the person who, according to Mr. Charles St. John (Tour in Sutherlandshire, i. 16), "looked like a spider hanging at the end of its thread" when being lowered after a Peregrine's nest, that early in May he was told by a shepherd that the Eagle had her nest in the place I have just described. My informant wished him not to allow anybody else to touch the eggs, and made an appointment to meet him two days after and take them; meantime a boy from a neighbouring farm forestalled him, and sold them to my correspondent, from whom I now have them. My informant was greatly disappointed, and suspected that the same thing had happened the year before, when I was foiled in my attempt.

A forester, in 1849, wanted to take me to some nests at the back of another mountain; but I declined from want of time, and foolishly, for I afterwards drew it blank [§ 48]. They were said to be White-tailed Eagle's. Some other likely districts also I had not time to try; but I went, 11th May, in a crazy little boat on Loch Maddie to visit the nest which Mr. St. John describes (*op. cit.* i. 37) as an Osprey's. It turned out to be an Eagle's—I believe a White-tailed Eagle's, both from the accounts of the people and from the appearance of the nest, which was very different from an Osprey's, but just like that of an Eagle, lined with *Luzula*, &c. I found lying near it fresh Eagles' feathers, but it was untenanted. I saw an Eagle flying near the loch in the evening, persecuted as usual. I took the eggs of a Hooded Crow from a nest in the same tree, near the top. The Eagle's nest was low down, four or five feet from the ground, lying on the trunk and horizontal branches. The tree was living, and, if I remember right, an Alder. On another island further north in the same loch is a similar nest, but older, equally low down, and

supported by the interlacing of the trunks and main branches of two trees. Mr. St. John did not visit this last. Some said the Eagles sometimes built in a neighbouring mountain instead of on the loch; but I rather think they were speaking of the pair which had their nest in another loch, on an island amongst the long heather. I walked to a house within four miles of this spot; but the next day was wet, and the island was said to be a good swim from the shore; besides which, the birds had not bred there since the young ones were taken some years before by a gentleman in a boat. I heard of this nest from many quarters; it was once robbed by a shepherd in two tubs, and another time by a man who swam to it. A few days previously I met at an inn a gentleman to whom I had a letter of introduction. He wished I had all the Eagles in the country, considering them very numerous, for he had seen seven together not very long before. He said there was one which was very destructive to his lambs. I was able to tell him I had probably shot that bird [§ 68]. The next day I saw a shepherd who had himself killed thirty Eagles whilst the rewards were given. When once Eagles begin to kill lambs they continue to do so, as I also heard in the Færoes of the Great Skua: they are only said to take them on a windy day, when they can rise easily with a weight. Several people told me this.

§ 71. *One*.—Iceland (?). From Dr. Pitman's Collection, 1852.

This egg, from the inscription upon it, I believe to have come from Iceland. I had it of Mr. H. F. Walter, it having formed part of Dr. Pitman's Collection.

§ 72. *Two*.—Sutherlandshire, May, 1852.

§ 73. *One*.—Sutherlandshire, May, 1852.

These three eggs are from two nests in one of the districts I was unable to visit in 1849. A man who had then been one of my attendants sent them to me, saying as follows:—"The nests were on a headland, about a mile and a half from each other, as near as I could judge. I could climb within six yards of one of them without a rope. I then got the lads at the top to throw it to me, by which means I reached the nest, and from thence by the rope to the top. The Eagle was hovering about until I got to the nest, when she came right along the face of the rock by my side with a most fearful

scream; but I did not see her afterwards. At the second nest I had to go down about twenty fathoms with the rope. The Eagle there was not seen again after she got off. The nests were not at all like those in the mountains; they were made up of sea-weed and heather. In the first I am sure there were the feet and heads of a thousand cormorants, with a great deal of fishes' bones about it. I cannot take upon me to give a description of the wildness of these rocks, only my hair gets strong when I think of them. After being at this place I always felt some dizziness for two or three days. I should not like to try them again, though they were not so ill to get at as the Golden Eagle's of 27th April, 1849 [§ 26]. There were two eggs in each nest; but one I had the misfortune to lose; it went down over thirty yards of rock. I think those in each nest were laid within a day or two of each other; at least, I was not able to find any difference in blowing them. I had to take a man with me; he was to provide ropes, but I am sorry to say neither he nor they were to be depended on for life one minute."

§ 74. *One*.—Argyllshire, 1853.

Received for me in 1853 by Mr. Edge. In 1851 there was pointed out to us an island in a loch where the White-tailed Eagle had its nest every year. It was in a tree. My guide believed that this species never built in rocks; he had known a good many of their nests in islands, one quite on the ground, another or two five, and some twenty feet up in a tree. He shot an Eagle belonging to this loch once, before he knew that it had a nest there. Another time the bird deserted because he climbed up and looked into the nest; and once again she forsook her eggs, after having been shot at by a gentleman. A boat is always kept on the loch. As my guide was once swimming off with some young Eagles, he was nearly drowned by the old one making swoops close to him. He called to his man on shore to fire, but she returned to the charge. After he had landed she kept out of shot.

[§ 75. *Two*.—Shetlands, 1854.

Received by me from a correspondent in the Shetlands, who states that the nest was "in very high and dangerous banks on the sea-coast of one of the islands. There were two eggs, but on returning from the nest the climber, in saving his own life, broke one of them."]

[§ 76. *One*.—Shetlands, 1855.

Received from the same correspondent as the last, but it does not appear whether from the same nest or even the same island.]

[§ 77. *Two*.—Shetlands, April, 1856.

Sent by the same correspondent as the last and preceding entries, but from another island. Both from one nest.]

[§ 78. *One*.—Shetlands, 1861.

From the same island and, as it would seem, the same eyrie as those in the last section. My correspondent informed me that the poor fellow who procured it, "in attempting to go to the nest a second time, lost his hold, and, of course, lost his life."]

[§ 79. *One*.—Shetlands, 1857.

From the same correspondent, but from a third nest, situated on the west side of the island on which he himself resides.]

[§ 80. *Two*.—River Luro, Albania, 17 March, 1857. From Lord Lilford's Collection, 1859.

Lord Lilford (then Mr. Powys), mentioning these specimens in the 'Ibis' for 1860 (vol. ii. p. 5), says—"My Greek servant took two eggs of this species from a nest situate in the top of an old ash-tree in a wood on the banks of the Luro river, which runs into the Gulf of Arta, near the ruins of Nicopolis, and not far from the town of Prevesa: this was on the 17th of March, 1857. The old birds were very bold, and often came within gunshot of us; but I would not fire at them, as I did not want a specimen, and the shepherds begged us not to kill them, as they bred there year after year, and kept away other birds of prey which were destructive to their lambs. When my servant was within a few feet of the nest, a large snake put his head out of a hole and hissed fiercely at him; but he, having implored the aid of St. Spiridione, the patron of Corfu, went boldly in and took the eggs, which are now in the possession of Mr. Alfred Newton."

An account of the taking of this nest is also given in 'Frazer's Magazine,' No. 334, for October, 1857.]

PANDION HALIÆTUS (Linnæus).

OSPREY.

I have seen several nests of the Osprey upon the highest points of ruins in and about lochs in Scotland, and several more upon small isolated rocks projecting out of the water. There is something, in the general appearance of the nest, which reminds one of nests of the wood-ants; it is usually in the form of a cone cut off at the top;

the sticks project very slightly beyond the sides, and are built up with turf and other compact materials; the summit is of moss, very flat and even; and the cavity occupies a comparatively small part of it. I know no other nest at all like it. There was a nest for some years on the sloping trunk of a tree, which several persons have described to me. The birds are very constant, year after year, in returning to their old stations; and even after one or both birds have been killed in the previous season, I have frequently seen individuals flying near the now deserted eyrie¹.

§ 51. *One*.—Sutherlandshire, 17(?) May, 1848. From Mr. W. Dunbar's Collection.

Sent to me with two other Osprey's eggs, from three different nests, by Mr. Dunbar. That from which this one comes contained two eggs, the other being in Mr. John Hancock's Collection. They were taken by Mr. Dunbar in Mr. Charles St. John's company; and that gentleman gives an account of the nest, stating that he shot one of the parent birds (*Tour in Sutherlandshire*, i. pp. 29 *et seqq.*). Mr. Dunbar wrote to me as follows:—"The eggs were quite fresh, and seemed only to have been deposited the same day, or a day before. Mr. St. John shot the old bird; but, being only severely wounded, it went with the strong wind a long distance, and dropped. We searched in vain amongst the grey rocks, but could not find it. The other bird still kept flying about out of reach of gunshot, while the first entirely disappeared, and was no more seen. We came that way exactly a month afterwards; and I went to see the nest, and found two Ospreys with one egg in it. I took the eggs from the same nest the year before, and shot the female bird; but some time after, I was told that, notwithstanding my having killed her, the other one had in a few days procured a fresh mate, and hatched and brought off the young. It was this circumstance that induced me to call a second time this season at the same nest. Whether it was the male or female that Mr. St. John shot I cannot say; but I have no doubt that it was killed." On another occasion, Mr. Dunbar informed me that the nest was on an island in a loch, similar to those from which the two other eggs he sent me at the same time were obtained, "placed on the top of a rock, and composed of an immense heap of an old white sticks. It had been built in the same spot as long as the oldest in-

¹ [The foregoing remarks were communicated by Mr. Wolley, in 1853, to Mr. Hewitson, to whom I am indebted for leave to quote them here. They will be found at pp. 19 and 20 of the third edition of his well-known work.—*Ed.*]

habitant could recollect, and, from the difficulty of access, the loch being so deep and the island so far from the shore, could not be got at but by a good swimmer. I swam to it, and got the eggs."

[Of the remaining two eggs sent by Mr. Dunbar to Mr. Wolley, one, taken 20th May, 1848, was given to the late Mr. J. D. Salmon; the other, taken 25th May, 1848, is in Mr. Osbert Salvin's Collection. I cannot find that Mr. Wolley visited any one of these nests, though he was in their immediate neighbourhood.]

§ 82. *Three*.—Sutherlandshire, 5 May, 1849. "J. W. *ipse*."

O. W. tab. vii. fig. 2.

Now the forester, having carefully extinguished the fire at which I had been warming my Golden Eaglets [§ 26], marched for a loch where he said the "Fishing Gled" always built, and where last year it was robbed by a gentleman in a boat. (It appears from Mr. St. John's 'Tour in Sutherlandshire,' i. p. 89, that Mr. Dunbar took a young one and an egg out of the nest, leaving the old Ospreys undisturbed.) The forester pointed out the wrong rock; but with the glass I readily distinguished on another, of conical shape, the nest, and the head of the bird upon it. After a round of a mile or two we reached the nearest point to it. I saw the white head of the bird, which almost immediately stood up, and then took to flight. It made a turn, and uttered a musical kind of cry. The forester was sure it had eggs. I was thinly clad, and had been alternately hot and cold during the day, in the valley or on the mountain; but I was determined to swim to the nest, in spite of the remonstrances of the forester and of my men, none of whom could do so. Luckily, another of them arrived in time for me to use the string as I had intended; for, as I was getting chilled by the wind, I could not have waited. I immediately stripped, put on the belt, which turned out a very inefficient assistance, and tied the string to the nozzle of it in front, Lord Derby's little basket¹ being fastened by a string behind me. After the first dip, it was so cold that I all but came out again. But I determined not to recede; so on I went, making good way till I came to the first ridge of rocks, some of which were under water. By this time I was very cold, and becoming exhausted. Just as I reached the first rock under water the string was checked, being, as I supposed, come to an end. Knowing how a second plunge, after being on land, would chill me, I almost turned to swim back; for I feared they would let go the string rather than pull me back, when it

¹ [See page 28, *note*.—ED.]

would have been all up with me. However, to my great satisfaction, I saw them tying the thin rope to the end of the string. Then striking off again, after floundering amongst the sunk rocks, to the leeward of which, for the sake of the string, I took care to keep as much as possible, I reached the peak. It was nearly perpendicular both above and below water, and no landing-place appeared. However, a bit of rock, twice as big as a walnut, projected; and higher up I stuck my claws into some roots of *Polypodium*, as in getting to an Eagle's nest on a former occasion [§ 27]. My arms had hardly strength to hoist me up; but at last I reached the top and caught the cutting wind. At once I saw an egg, and in half a second two more, a little removed from the first—all beautiful. To my surprise, the basket held all three. I had a little difficulty in tying the lid on, and even then one rolled out; the handle, too, became loose. However, for my life I durst not lose time. I tried to descend with my back to the rock, but it was no go, and I fell into the water. The peak might be twelve or fourteen feet high. One glance at the nest was all I could spare. It reminded me of a large wood-ants', large and flat at the top, the sticks not nearly so big as those of an Eagle's, but the upper part apparently very compact, where it struck me as being composed entirely of moss—the interstices of the sticks seeming to be filled up with soil or turf, so as to make an almost solid mass. But I could not afford a second look. In tumbling off, I did not strike against any sunk rock, so that my fall was easy. Somehow (I cannot say exactly say how) the handle was quite off the basket, and my only way of saving it was to carry it in my closed fist, which very much increased the difficulty of swimming. As soon as the men saw me fall into the water, they hauled hard upon the string; and I, coming across a sunk rock, disappeared beneath the surface. This frightened them, and they hauled the harder. As soon as I came to the top, I had just breath enough to shout, "Gently!" But on they dragged; and the wind blowing the water into white streaks of foam, the waves washed over me, and the quantity of water I swallowed was something considerable. The pulling almost prevented my swimming, and as the string was fastened low, it helped me very little through the water; I had long been afraid of its breaking, till at last I got sufficient breath to throw my "Gently!" to their ears. Fortunately, they took the hint, and I gradually reached the shore quite exhausted, when they found me all scratched and bloody from the rocks. They had not guessed my condition until I was very near them, and they did not understand the danger of hauling too hard. All I could say for some time was,

“Worse than an Eagle’s nest.” When they had dressed me, and taken the eggs out of my hand, I started running to recover my circulation ; but my legs were insensible, and I soon dropped in the long heather. Fortunately I saw the forester passing near me, and gave him a hail. The others came up and held me on each side. They got me across several streams, and at length into a good road a few hundred yards from the house where we were expected. Here, with the assistance of a good fire and three or four tumblers of toddy, I was soon all right. We all chatted over the day. The forester wished to take me to one or two Eagles’ nests ; and named a loch to the north-west, where the Osprey built, and other places for it in the parish. He said that here its eggs were more thought of than Eagle’s. The ones I took were quite fresh.

The following day I took the son of my landlord to walk ; and our steps naturally bent towards the Osprey’s nest, which is probably the one from which, the year before, Mr. Dunbar took three young ones, and Mr. St. John, as he himself relates in his book (*Tour in Sutherlandshire*, i. pp. 90–93), shot the old male. Just after leaving the house, I had a good view of an Osprey hovering over the bay and stream, with Gulls persecuting it. In hovering, it moved its wings rather slowly, but it more frequently sailed motionless like a Kite. We turned along the south side of the bay till we came to some houses, where we got a little lad to take us to two lochs, one of which the forester mentioned to me the day before. My guide, who called the bird in Gaelic “Allan-yasker¹,” soon brought us to one of them ; and there was the rock, about a hundred yards from the bank. The direction is not, as Mr. St. John says (*loc. cit.*), north-west from Rhiconnich, nor do I remember such high rocks as he describes or figures in his engraving (at p. 105). The nest was on the south-west side of a large stone, loose, or apparently so ; and its level was on a line with the top of the stone. Below the nest was some turf and grass, and a little shrub growing. It seemed very compact, like an ants’, and at the top was much moss ; but disordered, as if not touched since last year. The landing appeared to be perfectly easy. The stone looked from the bank to be about five feet high. The nest seemed to be made of sticks, mixed up with fine turf-soil, and apparently a little heather amongst it. Neither I nor the boys could reach it with a stone. Just as we were leaving it I heard a musical cry, which I did not at first recognize as that of the Osprey ; however, it turned out to be so, and the bird flew round the loch, afraid to light on the nest. At the larger loch, near a little isthmus leading

¹ [Corrupted no doubt from “Iolair-an-uisge,” Eagle of the Water.—ED.]

to a peninsula in the midst, I was within thirty or forty yards of an old Osprey's nest, not touched this year, and perhaps not inhabited for some time—even since a boat, which I saw rotting on the north shore, was first put on the loch. The nest was made of sticks mixed with pieces of turfy-looking stuff, and built on the north side of the rock, which might have been six feet high, and was very steep. There were streaks of white dung visible on the nest close to the peak, which rather overtopped it; there were also one or two patches of *Polypodium* and patches of close moss or lichen. A likely-looking rock at the far south-west end of the loch I had not time to examine.

The day after, I passed the loch where I had taken the eggs two days before, and saw the old Osprey sitting on the side of her nest.

Later in the month (21st May), I stopped at an old castle on a loch to examine an Osprey's nest, in which a man was said to have shot the bird several years previously, but in which, I have been since assured, there were eggs for many seasons afterwards, and that a bird was killed the year before by Mr. St. John's companion, though that gentleman says nothing about it. Indeed I heard that Lord Ellesmere had expressed his regret that it should have been disturbed. The nest seemed in good condition, placed on the highest point of the ruin, and inaccessible except with ropes or a ladder. It was just like the three others I have described. I waited in the ruin for a shot at the Gulls which continued to pass, when I saw an Osprey flying up. It went by at a little distance without attempting to alight, or seeming to take any interest in the nest.

In a letter which I received in July 1850, from this quarter, I was told that the Osprey had not bred there since 1848; and my informant added that, up to the time of his writing, he had not seen any flying about that year. Another correspondent about the same time assured me of his belief that there was then only one nest in the county of Sutherland, which been taken at the request of an English gentleman.

§ 83. *Two*.—Inverness-shire, 29 April, 1851.

O. W. tab. H.

These two beautiful eggs I obtained from a correspondent, 3 May, 1851, they being the only result of a ten days' nesting expedition undertaken by him. He took them at three o'clock in the morning of 29th April, 1851, at the ruins of an old castle on an island in an Inverness-shire loch. After walking nearly all night, he reached the spot in the midst of a snow-storm; and having tied a cord to his life-

preserver, he swam off, leaving the other end in charge of a man on shore. On the island he tied the rope to a stone and climbed up the ruins, slipping about in six inches of snow. Having found two eggs in the nest, he discovered that he had left his cap behind him. He tried one egg in his mouth, but could not breathe with it; and at last he swam ashore on his back with an egg in each hand, the man pulling him with the cord. He blew the eggs in the boat-house, washing out the inside with whisky. He had taken these eggs for four years, and the old birds have always had a second brood. The first or second year an old woman saw him come out of the water, and ran into the cottage; since then he has always gone earlier in the morning, and no one has known anything about it. He was exceedingly anxious that I should go early one morning and see him take the other egg or eggs out of the nest for me; but, considering my position there, I declined—the more so as I suspected the proprietress protected the birds; and I have been since assured that there was a man appointed on purpose to take care of them. After I had finally refused his offer, he mentioned incidentally that Mr. R. Gordon-Cumming had got into a great scrape for harrying this nest some years before. The day after I got these eggs, Mr. Edge and I went to the loch; we got to the side of it most distant from the castle, but we saw the head of the Osprey on the nest looking about it in every direction. The cottage was just beyond the castle, from where we were. We then came back round the loch; and as we got near, the bird rose and left the nest, which was now very conspicuous; but she soon lighted on it again, and settled herself down. The wind was bitterly cold, and it was constantly snowing and hailing. I made a sketch of the place¹; and whilst I was doing so the cock bird came up and alighted on an adjoining part of the wall, first putting down his long claws. The distance of the castle from the shore might be one hundred and twenty yards: the old doorway was on a level with the water; but the whole loch was then somewhat dammed up by a kind of weir. At one time both the birds were flying at once. We went to the house, and saw the old woman before mentioned, who told us that one morning, several years before, she saw “a chiel” coming out of the water, who had been to the nest. In the old castle was born, we were told, the first Marquis of Huntly.

§ 84. *Three*.—Inverness-shire, 8 May, 1852.

These three eggs from a nest on the same loch as those last mentioned. My correspondent wrote to me as follows:—“The three

¹ [From this sketch, Mr. Jury has executed the plate (tab. II).—Ed.]

eggs I took myself all at once on the night of 8th May 1852, between eleven and twelve o'clock. As it was very dark, and there was no moon, I had the precaution to take my cousin along with me, and he proved of great service. I took off my clothes, and put on my life-preserver, attaching a cord to the back of it. By the help of a fusee I was able to distinguish that the time I was about to launch my carcase into the water was twenty-five minutes to twelve. I got over quite safe. The cock bird flew away before I reached the island; and after I had climbed up to the top of the ruin, and was just at the nest, I put out my hand to catch the hen, but when she felt me she gave a loud scream and flew away also. On arriving at the island I had fixed the cord to a bush; and on coming back I had some difficulty in finding it owing to the darkness of the night; but when I did so, I secured it to my belt and bawled to my cousin to pull, which he did. In the middle I was taken with the cramp, but he succeeded in hauling me out. After dressing we forded the river, which was very high at the time; and on going across with my cousin on my back, I stumbled, and down he went, but he managed to get on his feet; and this put an end to our adventures."

In a former letter he had told me that these eggs were taken after Mr. R. Gordon-Cumming had already been to the nest and taken one egg.

§ 85. *One*.—Inverness-shire, 1851.

This egg, with another which I subsequently gave to Mr. J. D. Salmon, was sent to me by the person from whom I obtained the last two, but not from the same locality. He informed me that the eggs were taken in 1851 by a shepherd, from whom he received them, but that he himself had three times robbed the nest of this pair of birds. The first year he took it from the ruins of a shooting-lodge, the second from a dead Scotch fir tree, and the third year (1850) from the old lodge again, when the hen bird was shot by one of his relations, who lay in wait and shot it with a walking-stick gun, in company with a gentleman, Mr. John Hancock, who sketched it as it lay dead. In 1851 a new lodge was built, close against the old one. There was another nest several years ago in a tree, which my informant knew of, and made a drawing of it, as well as he could, for the same gentleman. The following year my informant sent me another egg of the Osprey, but from what locality he was unable to make out. This egg is now in Mr. J. P. Wilmot's Collection. In 1851, I heard from another quarter that one of two Englishmen that

year got an Osprey's nest, and shot the bird, from a loch in Ross-shire, where time out of mind it had bred.

§ 86. *Three*.—Æijävaara, East Bothnia, 25 May, 1854. “J. W. *ipse*.”

These eggs were taken by myself from a nest about seven fathoms from the ground, on the top of a tree, a Scotch fir, still feebly living, near Kangas-järvi, on the Muonio-alusta side of the lake. One bird was seen to leave the nest when we were still far away, and the two flew round, whilst we were there, at a good distance, seldom crying. Under the tree was a great mass of sticks—an old nest which had fallen to the ground. I caused myself to be concealed in a heap of fir-branches; and it was not long before one of the old birds came and hovered for a moment just over the nest, then went away, and came back straight into it. Ludwig and Heiki returning a little, she rose on my side. This was repeated a second time, and I then fired just as she left; and she fell at my feet with four or five shots in her body, and a broken leg¹. Another tree being reared by the side of the one already there, I climbed up to the branches, and then it was easy to go to the top. I let down a string for my tin box, and, when I got it, lowered the three beautiful eggs. The nest was made of good-sized sticks, large at the top, lined with tree-hair and moss. The cock bird came rather near, and cried several times. The Saturday before (20th May), Heiki had been up and found only one egg in the nest: it was probably the one I have marked with a cross, for this only showed the slightest symptoms of having been sat on. This man, as others do hereabouts, believes that the markings are brought out by incubation. We took the nest a little after midnight—in fact, on the 26th May.

Heiki visited this nest in 1855, but it had fallen to the ground. He and another man found a new nest on the same hill that year, about a quarter of a mile (Swedish) from the old one. They discovered it by a fish lying on the ground, but the nest was scarcely visible: it was a large thick tree, he thinks more than a fathom and a half round, and by measurement more than eleven fathoms high.

§ 87. *Three*.—Kangas-järvi, East Bothnia, 23 May, 1854.

Taken by Apoo from the nest he had led me to, 15th May, then

¹ [I believe that the skin of this bird was presented by Mr. Wolley to Mr. Felkin of Beeston: its sternum he gave to my brother. (Osteoth. Newt. *MS. Cat.* No. 1, c.)—ED.]

empty, but the birds flying about with symptoms of anxiety. The tree was a Scotch fir, and living. Another tree was reared up to form steps.

§ 88. *Three*.—Kangas-järwi, East Bothnia, 26 May, 1855.

O. W. tab. vii. fig. 3.

Brought by Apoo the day that he took them from the nest, which he showed me, and afterwards robbed, the year before [§ 87].

§ 89. *Two*.—Kangas-järwi, East Bothnia, 1855.

Taken by Apoo ; probably a second laying in the former nest.

§ 90. *Three*.—Kyrö, Kemi Lappmark, 1854.

Out of seven from four nests, brought by Nikoo on Midsummer Day. As some of them were far away in the woods, he could not spare time to wait for the full layings.

Two of these seven formed lots 1 and 2 at Mr. Stevens's, 26th January 1855, and passed into the possession of Mr. W. H. Simpson and Mr. H. F. Walter respectively. A third is in Mr. G. D. Rowley's collection.

§ 91. *Three* —Muonioniska, East Bothnia, 29 May, 1854.

O. W. tab. vii. fig. 5.

Taken by Salamon on the day he went, with another man, over Pallas-tunturi. Brought to Ludwig, 4th June ; slightly sat upon.

§ 92. *Three*.—Saivo-mutka, East Bothnia, 1854.

Apparently Osprey's, though said to be the eggs of *Walkaja Skuolfi*, *i. e.* Snowy Owl! Taken from a high tree in the same wood that I visited, and brought 2nd July 1854.

§ 93. *Three*.—Saivo-mutka, East Bothnia, 1855.

Taken by Olli, and brought to Ludwig, 2nd June. They were

from the same nest as the last year's [§ 92], which were brought by Elias as the eggs of *Skuolffi*. Olli said, this year, that they were the eggs of *Kalasiüski*, *i. e.* Osprey, and that he had said so last year: the lie was with Elias.

§ 94. *Three*.—Rowajoki, South-west Finmark, Norway, 1855.

O. W. tab. vii. fig. 1., and tab. B.

There were four eggs taken at twice in this nest, by the old man of Pyha-ota.

[On our way from Skjbotn to Kilpis-järvi, 25th–26th July 1855, we passed the nest from which these eggs were taken, and I made a sketch of it. It was in a Scotch fir tree close to the track,—a very large structure of sticks. The tree stood in a comparatively open space in the forest, and, thus having plenty of room and air, had preserved its lower branches, presenting a remarkably symmetrical appearance, very different from other trees of the kind growing around. My sketch, from which the accompanying plate (tab. B.) is drawn, though with no pretensions to artistic effect, was considered by my companions to be characteristic, and therefore I have had it engraved. This nest is also mentioned in 'Frazer's Magazine,' No. 316, for April 1856.]

§ 95. *Two*.—Rowajoki, South-west Finmark, Norway, 1857.

Received by me from the wife of Pyha-ota, at which place I subsequently saw the lad who found them. I also saw the nest, the same I had eggs from in 1855, and which Mr. A. Newton sketched.

§ 96. *Three*.—Lettas-eno, Enontekis Lappmark, 1855.

Near the *Mänty-rajä*, *i. e.* the fir-tree boundary, above Markina or Enontekis, on the Russian side. Taken by Näläma's boy, helped by a little lad, Matti.

§ 97. *Two*.—Sardio, East Bothnia, 21 May, 1855.

One of Heiki's nests, all of which were kept carefully distinct by him.

Heiki told me afterwards (15th March 1857), that in 1855 he found six Osprey's nests. The first was in *Æijävaara*, not far from the great *Æijän-paikka*, a new nest, probably made by the old cock bird of that from which, in 1854, I shot the hen [§ 86], with a new mate.

He could hardly get it even with the help of my climbing-irons. He was not there in 1856 to see if there were eggs or not. In 1857, this nest was taken by another man, at two or three o'clock in the morning. The bird was coming home with a fish (a Pike) in its claws. The three eggs now in Mr. Simpson's collection. The second was in Sardo, near Kangasjärwi. He had found it the autumn before. It was in a living tree, not difficult to get up. It was not visited in 1856, being a long way off, a quarter of a mile (Swedish) from Kangasjärwi, and he was alone. There were two eggs. The third was on Kemilaisen-vaara-nenasa. It was first found in the winter. Visible from Särkijärwi, a long way off. A living tree, thick, but not difficult to climb. His finger-nails (*kynsi*) were not wanted. Not inhabited in 1856. But he thinks the owners, that year, built on Terwa-järwen-maa, not more than three hundred fathoms from his own house. A Rough-legged Buzzard was mending the nest as he went to it, but was frightened away. In the summer he saw an Osprey mending it, and it had already made the nest very complete. This nest I myself visited in 1857, in which year he subsequently took two Osprey's eggs from a nest on the same hill. The bird was very angry with, and almost attacked, him. It changed its nest three times that year. It was originally in Terwa-järwen-maa, then on Kemilaisen-vaara (where the eggs, two in number, were taken), and afterwards back again at the first place, upon another nest, which had been begun the year before, in a Scotch fir about eight fathoms high. The fourth nest which Heiki took in 1855 was on Tuorki-särki-vaara, a hill on the other side of Särki-järwi, and about half a mile from the third he found; the tree a Scotch fir, against which another had long ago fallen; the nest about eight or nine fathoms from the ground. There were eggs here in 1856, which he took, as also in 1857, then leaving one as a nest-egg, to which, however, the bird laid no more. In 1856 it made many swoops at him with its claws open, and almost frightened him in such a dangerous place. The fifth nest was in Lappin-kenta-maa; it was found by Heiki and Josa, the latter of whom had probably known something of it before. It was in a living Scotch fir, very difficult to climb. Josa went up with the irons, Heiki helping with a long pole. As he was at the nest, the bird seized the lad's cap, flew some little distance, and then dropped it. He was hurt, too¹. This place was a little way on the other side of Sieppi. The last nest Heiki took in 1855 was at Jonka-rowa or Kalkion-rowa, somewhat between the two. Josa was again with him, and they found it together. It was on a *honka*, or dead Scotch

¹ [To what extent it does not appear.—Ed.]

fir. In 1856 Heiki took three eggs (3rd June) from this nest. The tree was a dangerous one, thin and rickety, so that he was half afraid of going up. It was on the Ollas-järwi side of Ollas-tunturi, the first hill from the mountain. Heiki informed me that even while an Osprey is making its nest, it always goes there to eat a fish when it has caught one.

§ 98. *Three*.—East Bothnia, 24 May, 1855.

Taken by Heiki, and brought to Ludwig, 1st June. Marked by both. [See § 97.]

§ 99. *Three*.—East Bothnia, 29 May, 1855.

One of the nests taken by Heiki. [See § 97.]

§ 100. *Three*.—Nikivaara, Sario, Kemi Lappmark, 26 May, 1855.

Brought by Michael, who took them on Whitsun-eve. About three weeks later, he took three more eggs from the same nest.

§ 101. *Three*.—Salmo-järwi, East Bothnia, 1855.

Brought by Fetto, 23rd June.

§ 102. *Three*.—Nangi, West Bothnia, 1 June, 1857. "J. W."

O. W. tab. A.

The bird belonging to this nest was first seen to fly over the Muoniovaara ridge, near Mellavaara, 29th May. The next day I went with Apoo to the great *Seita* stone to lurk for it. It very soon appeared far to the south, with a fish in its claws; and with my glass I watched it over Nangi, bullied, as I had seen it before (19th May), by a Rough-legged Buzzard. I even thought that I could see the nest. 31st May and 1st June, I looked for it again in vain, though in the mean time I had twice seen it fly over the house at Muoniovaara with a fish. In the evening of the last-mentioned day I went with Josa to Kimi-lakka, and there we climbed up a tree and watched for a long time without its appearing, but I thought I could see the nest

in a broad-topped tree. I pointed out the spot to Josa, and, as he found, correctly. He started, and in the course of the night reached the marsh across which it was. A large, very thick tree, and on the trunk *puu merki* [timber-marks], now filled with turpentine, and probably of the last year, made by the Mudos-lombola people. He climbed up with my irons, and said the inside of the nest was easy to come at, owing to the breadth of the tree-top. Anton and Ludwig had seen the bird flying in that direction in 1856. The eggs were perhaps two days incubated, the bird could hardly have been here above a fortnight. Heiki thought the nest had probably been prepared the preceding summer¹.

§ 103. *Three*.—Lebeme-lombola-vaara, Lapland, 18-20 May, 1858.

O. W. tab. vii. fig. 6.

Brought from Kihlangi, 23rd May, by a boy, having been found as above by his father.

§ 104. *Three*.—Wuondis-järwi, Enontekis Lappmark, 1858.

Brought by Heiki, 6th June, from Johan Sieppi; found in a Scotch fir, about twelve fathoms high. The nest was at the top of the tree, about three-eighths of a mile (Swedish) to the north-east of Sieppi.

§ 105. *Two*.—Kielisen-palla, Enontekis Lappmark, 28 May, 1858.

Brought at the same time as the last, from the same man, having

¹ [The "great *Seita* stone," mentioned above, is a huge boulder of gneiss, lying in the forest on Muoniovaara, and, before the conversion of the Lapps to Christianity, was used by them as a place of offering, whereon some of the spoils of the chase were from time to time deposited, in token of thanksgiving. (Cf. Scheffer, 'Lapponia, &c.,' Francofurti, 1673, capp. ix. x.) Access to the top seems to have been gained by means of the trunk of a tree, in which notches were cut to serve as steps; and this rude ladder was still in existence, though much decayed at the lower end, when I made the sketch from which Mr. Jury's plate (tab. A) is taken. The space immediately around has been long ago cleared of trees, excepting the two large Scotch firs standing close to the altar. These, however, had been stripped of their bark to the height of some ten feet, and were dead; their lower branches being plentifully hung with tresses of the *luppu*, or "tree-hair" (*Lichen barbatus* or *L. jubatus*, I believe). But numerous young firs were springing up luxuriantly on every side. This stone now bears an inscription in Runic characters.—Ed.]

been found by him as above in a Scotch fir. The nest was about eight fathoms from the ground, and about three-quarters of a mile to the north-west.

§ 106. *Three*.—Lussika-palla, Kemi Lappmark, 11 June, 1858.

O. W. tab. vii. fig. 4.

Found as above by Johan Wassara, and brought by him 19th June. The nest was in a Scotch fir, about six or seven fathoms from the ground.

§ 107. *Three*.—Ranta-sadio, East Bothnia, 4 June 1859.

Found as above by Apoo, near Kangasjärwi, and brought by him 11th June.

§ 108. *Three*.—Vandes-rowa, Enontekis Lappmark, June, 1859.

Brought by Johan Sieppi, 23rd June, having been found by him as above, about three weeks previously.

§ 109. *Two*.—Kieliselde, Enontekis Lappmark, June 1859.

Brought by the same man with the last, having been found by him about ten days before.

[§ 110. *Two*.—Scottish Highlands, prior to 1831. From the late Mr. Yarrell's Collection.

These two eggs I bought at the sale of the late Mr. Yarrell's collection, 5th December 1856, in which they formed part of lot 349. The late Mr. J. D. Salmon, who was present, told me he well remembered to have seen them in Mr. Yarrell's cabinet when he inspected it prior to starting on his expedition to Orkney in 1831. He added that he was nearly sure of their being Scotch specimens, and that at that time so little was known respecting the nidification of the Osprey, that he fully expected to meet with it breeding on the sea-cliffs in either or both of the Orkneys and Shetlands.]

CIRCAETUS GALLICUS (Gmelin).

SHORT-TOED EAGLE.

[§ 111. *One*.—"Germany." From M. E. Verreaux's Collection, 1861.]

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

There may be a mistake in ascribing this specimen to *Circaetus gallicus*. It is a good deal marked with pale rust-coloured blotches, but not as much so as two eggs from Algeria in Mr. Tristram's collection.]

ASTUR PALUMBARIUS (Linnæus).

GOS-HAWK.

[It will be seen from the following notes, that it is not a very uncommon occurrence for the eggs of this species to be somewhat coloured. But the markings of pale olive tint, sometimes of a vermiform character, have not been mentioned by any author that I am aware of, nor do I know that they have ever been observed in any other species of *Accipitres*. That they are to be considered as indications of real colour, and not stains, I do not think there is any reason to doubt.]

§ 113. *Four*.—Palo-joki, Tornea Lappmark, 16 May, 1854.

Taken by a boy, about two weeks before my visit. The boy's father said they were *Koppelo-Haukka* [*i. e.* "Caperally-Hawk"], as there can be little doubt they are. The young inside had bones formed, which were difficult to extract through the moderate-sized holes I have made. They had begun to decompose.

§ 114. *Four*.—Saivo-mutka, West Bothnia, 19 May, 1854.

Taken by the son of a Kätkesuando man. I went to the wood and saw a nest of last year, on the first fork of the tree, not very high. It appeared just like one of the Gos-Hawk's nests near Muoniovaara; there can be no doubt these eggs are Gos-Hawk's.

There are young in them, which in several days would be ready for exclusion. Buzzard here is, I think, never so early.

§ 115. *Three*.—Mudos-järwi, West Bothnia, 28 May, 1854.

These eggs with large young, the fourth hatched. Brought to me at Efrebyn, by agreement. The man was sure it was *Koppelo-Haukka*. He knows *Piekonna* [*Archibuteo lagopus*] well; but this was quite another kind, which dashes off from its nest and is no more seen. Nothing but birds' bones under the tree. The legs of the young in the nest have no rudiments of feathers, and the fourth toe is much thinner, and its claw much shorter, than the second.

§ 116. *Three*.—Mudos-järwi, West Bothnia, 1855.

Taken from the same nest as the last year's eggs [§ 115], and by the same man. Ludwig got them from him at Muonio-alusta, on the 1st June, as he was working his tar-pit.

§ 117. *Three*.—Alten, West Finmark, N. lat. 69° 52', 29 April, 1855. "J. W. *ipse*."

These three eggs were taken by myself about a quarter of a mile (Norwegian) south of Jura-holm, or, at least, of the house which is near the point of the islet. I went this morning (the day I am writing), with Knut, to the place where he had seen some bird of prey making its nest in a tree. It had built there for many years, though one season its four young ones were thrown to the ground by a man who climbed up. It was on the east side of the river, and we saw it first from a bank or old raised beach. Then the bird appeared, showing white over the tail. It was long out of sight; but, on our hiding ourselves at a distance, it flew and settled in a large tree. I saw it perfectly with my telescope, even to its yellow eye. The long tail and figure alone would have shown the bird; and its flight, to a falconer, would have been at a glance decisive, while I at once saw the shortness of its wings. It had several kinds of cries. My guide, who has been a great vermin-slayer, did not know whether he should get *skat*¹ for it, as it was not a *falk*. The nest was at a good height, in a large Scotch fir; and I got up to it by making a ladder of a small

¹ [The reward given by the local authorities on the production of the heads of certain birds and beasts of prey.—ED.]

tree, which reached to the lower branches when raised against them. I found it to be of prodigious thickness. As I stood on the branches on which its lower part rested, the level of the top was some inches above my head. It was quite like the celebrated Jackdaw's nest at Eton¹, built up to get to a fresh point of support, which in this case was afforded by a large fork. An old nest, or part of this one, had fallen to the ground some time before. At the bottom its diameter was very considerable, and it rose rather spirally upwards. At its side a Squirrel's "drey" had formerly been built into it. The sticks of which it was composed were, in the case of the largest, from half to three-quarters of an inch in diameter, but most of them much smaller. There was a moderate-sized hollow, with a few fresh sprigs of Scotch fir in it, and half-a-dozen small strips of the cuticle of birch-trees. The bird only showed itself once whilst we were at the tree, and then it was after I had descended. It was at a respectable distance, and chattered a good deal. The eggs, perfectly fresh, were probably not yet complete in number. It was a snowy, windy day, but warm. The old snow still deep on the river; but banks exposed to the sun were in some places already bare.

§ 118. *Three*.—Muonio-vaara, West Bothnia, 19 May, 1855.
 "With feather. L. M. K."

O. W. tab. B.

Found by Ludwig and Anton at the lower end of the hill near Siskakka-järwi. Anton had seen the nest even last year or the year before; but it looked so small that he had taken it for a Crow's. This spring, as they were going by, he just mentioned it to Ludwig; and the latter thought they might as well get up the tree. As Anton was halfway up, the bird shot out of the nest; and Ludwig heard, now or presently afterwards, the cackling noise which is so different from the cry of the Buzzard. He is most positive as to the bird, little as the eggs are, and small though the nest be. There were big young in the eggs.

P.S.—17th August. I have been with Ludwig and Mr. A. Newton to see the nest, evidently a Gos-Hawk's. We found a Gos-Hawk's feather under it, which Ludwig remembered falling from the bird².

¹ [The nest described and figured by Mr. Jesse in his 'Scenes and Tales of a Country Life,' (1844) pp. 57-59, and frontispiece.—Ed.]

² [On this occasion I made a sketch of the nest, from which Mr. Jury has been able to draw the plate above referred to. I only wish it had been in my power to

§ 119. *Four*.—Sardio, Kemi Lappmark, 8 May, 1856. “With bird.”

Taken on Palo-vaara by Michel. He caught the bird in an iron trap. It is now before me, and is apparently a female.

[Two of these eggs are marked with true colour. One is blotched decidedly with rusty, more so than any I have ever seen.]

§ 120. *Three*.—Muonio-vaara, West Bothnia, 14 May, 1856. “L. M. K. with bird.”

These eggs found by Anton; but the bird, a hen, snared by Ludwig.

§ 121. *One*.—Jeris-järwi, East Bothnia, 21 May, 1856.

This nest, with four eggs, was found by Heiki, on Kutu-nivan-maa, on the banks of Turmas-lombola, just to the west of Jeris-järwi; and the eggs were brought on the 25th May. Heiki says he found this nest in 1855, with young ones in it.

[Three of the eggs from this nest were sold by Mr. Stevens in 1857 to Messrs. Bond, Braikenridge, and Troughton. The remaining specimen now in the collection is a remarkably elongated one.]

§ 122. *Three*.—Kurkio-vaara, 1856. “With bird.”

These eggs were written on by Ludwig, after he had seen the bird, which was shot, but not brought to me until the 5th April 1857. Being marked eggs, as well as small ones, they required care in the accepting. One of them is decidedly spotted. The spots on another are also probably natural, but not so satisfactory.

have given an illustration of the wonderful and, no doubt, ancient structure, described by Mr. Wolley in the preceding section (§ 117). As an instance of the practice of accurate observation which Mr. Wolley enjoined upon all his collectors, I may add to what he has above said, that as we were going to the nest, and talking with Ludwig of his former visit, when he took the eggs, he mentioned that as the bird dashed off, one of her wing-feathers dropped out. Mr. Wolley remarked that he ought to have preserved it, as it would have served to identify the species to which the nest belonged. The lad replied that, as it was not likely any one had since been there, no doubt we should still find it where it lay. This proved to be the case; and on Mr. Wolley picking it up, he asked Ludwig from which of the bird's wings it was shed. Reflecting a moment, he answered, “The right wing;” and so it was! The feather is now before me, and is undoubtedly a Gos-Hawk's. —Ed.]

§ 123. *Four*.—Palo-joki, Enontekis Lappmark, 1856.

Taken in Jankalen-maa by a man of Palo-järwi, but the place is near Palo-joki. Palo-järwi is one mile north of Leppa-järwi. They were brought to Muoniovaara 8th July.

§ 124. *Three*. — Jungki-järwin-maa, East Bothnia, 14 May, 1857.

These eggs, brought to Muoniovaara by my special messenger, Apoo, were taken by Heiki the day before. He blew them at once, not expecting there would be any opportunity of sending or bringing them, as he had been long unwell. They were quite fresh, but he thinks the nest was full. Last year there were young when he found the nest. One egg is very interesting from its most decided markings, even of a vermiform character. Heiki observed that they were the smallest eggs of *Koppelo-Haukka* he had ever seen. It is noticeable that the markings [of a pale olive tint] have the character of those occasionally seen on the eggs of Ducks.

§ 125. *Three*.—Ruona-vaara, Kemi Lappmark, 8 May, 1858.

Brought to Muoniovaara by the finder the following day. They were taken by himself near Mutka-vaara. He saw the bird, which flew from the nest.

[These three eggs are all more or less marked in the singular manner which, in the preceding section, Mr. Wolley has well compared to the blotches of colour which some Ducks' eggs exhibit. But one of them has, in addition to the pale olive markings, some very decided specks of dark brown overlying the former of quite another character, which have a tendency to chip off, as does some of the thickly laid-on colour on the eggs of many Eagles, Buzzards, and Falcons.]

§ 126. *Two*.—Touraine, France. From M. Parzudaki's Collection, 1856.

[§ 127. *One*.—Mr. J. H. Gurney's Menagerie, 1857.

This egg was given to me by Mr. Gurney in 1858, being one of five or six laid by a Gos-Hawk in his possession. The bird evinced a great desire to sit, and some Bantam's eggs were given her for that purpose, but unfortunately nothing came of them.]

- [§ 128. *Four*.—Mylenberg, Denmark, April, 1859. From Herr H. C. Erichsen's Collection.

These eggs were taken by Forester Sörensen in the wood at Mylenberg, near Hobro in Jutland, and were given to me by Herr Erichsen at Copenhagen in October 1859.]

- [§ 129. *Three*.—Mylenberg, Denmark, April, 1859. From Herr H. C. Erichsen's Collection.

As the last (§ 128), but from another nest.]

ACCIPITER NISUS (Linnæus).

SPARROW-HAWK.

- § 130. *Four*.—England, prior to 1844.
- § 131. *One*.—England, 1836. From Mr. Harvey.
- § 132. *Six*.—Scotland. From Mr. W. Dunbar, 1850.
- § 133. *Six*.—England. From Mr. J. Green, 1851.
- § 134. *Two*.—Ireland. From Mr. J. Davis's Collection, through Dr. R. T. Frere, 1852 [and 1861].
- § 135. *One*.—England. From Mr. J. Green, 1852.
- § 136. *Two*.—North Finland, 1854.

Brought by Pekka, the Lapp, as *Nuoli-Haukka* [*i. e.* Bolt-Hawk], with the feet of the bird, which I recognized as Sparrow-Hawk's, before seeing the eggs.

- § 137. *Four*.—Kangas-järwi, East Bothnia, 21 June, 1857.

Brought on 23rd June, having been found perhaps a quarter of a mile (Swedish) from the village. The nest was of spruce-twigs and tree-hair, and described as being just like that of a *Piekkonna* [*Archi-*

buteo lagopus], but much less. They seem to be Sparrow-Hawk's. A beautiful nest.

§ 138. *Four*.—Pyha-ota, South-western Finmark, 1857.

From the son of the bad old man. They seem to be Sparrow-Hawk's.

§ 139. *Five*.—Parka-joki, East Bothnia, 1857.

Brought 27th June. They were in a spruce-tree. Beautiful eggs, and apparently Sparrow-Hawk's, being the third nest of this uncommon bird which I have received this summer.

§ 140. *Four*.—Hampshire, 1856. From Mr. A. F. Scaly's Collection.

Given to me at Cambridge, 10th November 1857. Taken at Micklemerst, out of one nest, by Mr. A. Maurice.

§ 141. Kemi Lappmark, 1857.

Brought to Muoniovaara, 25th December 1857, already blown.

§ 142. *Five*.—Ekkes-joki, Kemi Lappmark, 13 June, 1858.

Brought to Muoniovaara on the 19th of the same month. The nest, which was in a spruce, had five eggs.

§ 143. *Five*.—Kemi Lappmark, June, 1858.

Brought to Muoniovaara 24th June, having been found about a fortnight previously. There were five eggs in this nest.

§ 144. *Three*.—Lapland, 1859.

Brought to Muoniovaara on the 21st June, without any particulars.

[§ 145. *One*.—Elveden, 1844.]

- [§ 146. *One*.—Stetchworth, Cambridgeshire, 1845.]
- [§ 147. *Two*.—Elveden, 7 May, 1851. “E. N.”]
- [§ 148. *One*.—Methwold, Norfolk, 1851. From Mr. J. Baker.]
- [§ 149. *Five*.—Elveden, 17 May, 1852.]
- [§ 150. *Two*.—Elveden, 29 May, 1853.]
- [§ 151. *Two*.—Elveden, 1 June, 1853. “E. N.”]
- [§ 152. *Two*.—Sapiston, Suffolk, 5 May, 1853. “A. N.”]
- [§ 153. *Two*.—Fakenham, Suffolk, 20 May, 1856.]
- [§ 154. *Two*.—Sutherlandshire, 1857.]
- [§ 155. *One*.—Elveden, 1861.]
- [§ 156. *Five*.—Convoy, county Donegal, 18 June, 1862. From Mr. R. Harvey’s Collection.]

TINNUNCULUS ALAUDARIUS, G. R. Gray.

KESTREL.

- § 157. *Four*.—Pity Wood, Derbyshire, prior to 1844.
- § 158. *One*.—Cambridgeshire (?). From Mr. Osborne, of Fulbourne, 1844.
- § 159. *Five*.—Sutherlandshire, 26 May, 1849. “J. W. Bird shot.”

On my way to fish in a little loch, where are Gillaroo Trout, I put a Kestrel off her nest in a low rock overhanging a curious burn, partly subterranean. On my return, I shot the female bird from the

nest; and on the next day, or morning following, two men took these eggs out of it, using a rope.

§ 160. *Three*.—Sutherlandshire. From Mr. W. Dunbar, 1850.

§ 161. *One*.—England (?). From Mr. J. Green's Collection, 1851.

§ 162. *Three*.—England (?). From Mr. J. Green's Collection, 1853.

One of these is an interesting egg, from its great resemblance to eggs of the Sparrow-Hawk.

§ 163. *Three*.—England (?), May, 1853. From Mr. J. Green's Collection.

§ 164. *Four*.—Petaja-vaara, Kemi Lappmark, about N. lat. 68°, May, 1857.

On the 23rd of July 1857 Nicolai brought these four eggs and said they belonged to a very shy, strange kind of Hawk, that flies high up from its nest, and that stands in the air in one place, and then changes its place. The nest was in a dry Scotch fir, three or four fathoms from the ground. It was found before the 30th of May. In August, the boy Gustaf has explained to me that it is a Hawk quite strange to the country: he does not know about its hovering, but it flies away from its nest, and sits to watch on a tall tree, in a manner quite different from *Pouta-Haukka* [*Falco aesalon*]. Nicolai had been before asked by me about this bird, and he said he had seen it once or so. On looking at these eggs among some thirty-eight Merlins', I see they are not larger than the largest of them, but are of a yellower red, or at least have a different look.

[On the whole, I have very little doubt that the eggs above-mentioned were rightly assigned by Mr. Wolley to the Kestrel. In his 'Catalogue of Eggs' for 1858 (p. 10), he suggests, and with probability, that the "unusual numbers of several kinds of mice" had attracted this species so far beyond its usual limits. Previously to 1857, he was aware of only one instance of its occurrence north of the Gulf of Bothnia. That happened on the 13th of September 1855, when he and I were approaching Haparanda, on the Swedish

side of the Tornea river. We then saw, and for some minutes watched, an undoubted *Tinnunculus alaudarius* hovering over a corn-field by the road-side. Its occasionally breeding further north was, however, known to Herr Walengren (Naumannia, 1855, p. 134.)]

§ 165. *Two*.—Elveden, April, 1859. Given to me by Messrs. A. and E. Newton.

[§ 166. *One*.—Elveden, 1845.]

[§ 167. *One*.—Stetchworth, Cambridgeshire, 1845.]

[§ 168. *One*.—Chippenham, Cambridgeshire, 1846. From Mr. F. Tharp.]

[§ 169. *One*.—Cambridgeshire (?). From Mr. J. Baker, 1850.]

[§ 170. *Four*.—Icklingham, Suffolk, 8 May, 1851.]

[§ 171. *Four*.—Icklingham, Suffolk, 13 May, 1851. "E. N."]

[§ 172. *Three*.—Elveden, 31 May, 1851.]

[§ 173. *Two*.—Barnham, Suffolk, 16 May, 1853.]

[§ 174. *One*.—Elveden, May 25, 1853.]

[§ 175. *Two*.—Elveden, April, 1857.]

[§ 176. *Five*.—Convoy, county Donegal, 18 June, 1862. From Mr. R. Harvey's Collection.]

[§ 177. *Two*.—Elveden, May, 1863.]

TINNUNCULUS CENCHRIS (Frisch).

LESSER KESTREL.

[§ 178. *Four*.—Bonkhori, Ætolia, 26 May, 1859. "W. H. S."]

Of these eggs, Mr. Simpson informs me that they were a complete sitting, and "one of several found under the roof of a long line of farm-buildings

forming one side of an extensive square in the village of Vonkhori (more properly Bonkhori), in the province of Ætolia. All the sittings found in this building were placed upon the top of the outer wall, where it is met by the projecting roof; and in one or two instances there was some difficulty in introducing the hand sufficiently far to get at the eggs. There was no regular nest in any case, the eggs being simply placed in a slight depression amongst bits of lime and the remains of *Coleoptera*. The birds were very bold, and came close to us several times, thereby affording a good opportunity for identification."

Mr. Simpson has some general remarks on the nidification of this species as observed by him in Greece, in 'The Ibis' for 1860, pp. 380-81.]

FALCO LANARIUS, Linnæus.

LANNER.

[§ 179. *One*.—From M. E. Verreaux's Collection, 1861.]

[§ 180. *One*.—"Sarepta." From Herr H. F. Möschler's Collection, 1862.]

[§ 181. *One*.—Egypt, 1862. From Mr. S. S. Allen's Collection.

Mr. Allen told me that he obtained several eggs of this bird from the Arabs around the Pyramids. The skins of the birds he brought home were seen by Mr. Gurney, Dr. Sclater, Mr. Tristram, and myself; and I think we all agreed they were those of *Falco lanarius*.]

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

FALCO SACER, Gmelin.

SAKER.

[§ 183. *One*.—Island opposite Tchernawoda, River Danube, 29 April, 1860. "Bird shot. W. H. S." From Mr. W. H. Simpson's Collection, 1863.

Mr. Simpson has given, in 'The Ibis' for 1860 (pp. 377-78), the following account of his taking the nest which contained this specimen:—

“On the evening of the 29th [April 1860] another fortunate discovery was made by the same party, and, this time, of the nest of a bird, whose eggs, it is believed, were almost unknown previously in authentic cabinets. We were strolling on a low flat island in the Danube, the edge of which is well covered with tall poplars and other trees. Opposite this belt of trees, and across the river, the Turkish shore rises pretty steeply to a level with the plateau of the Dobrudska, whilst behind, towards the mainland of Wallachia, there stretches an immense tract of low ground, partly swamp, partly forest, and partly open plain. A nest of *Milvus ater* had occupied us for a short time; but on getting close to the river again, where the trees are very tall and not thickly grouped, my friend and *cicerone* drew our attention to a good-sized nest, which was placed about one-third of the way up a tallish poplar. The nest was resting upon a large branch close to the boll of the tree, and appeared exceedingly easy of access. Whilst my friend was climbing towards it, the bird slipped off, and was shot immediately. It proved to be a female *Falco sacer*. Of this I was not quite certain at the time, being then unacquainted with the distinctions between *Falco lanarius* and *Falco sacer*, though the size inclined me to decide in favour of the latter. The nest was not very much larger than those of the numerous Hooded Crows we had already examined, but was deep and comfortably lined, appearing, however, from the outside as like a large Crow's nest as one bundle of sticks is like another. The eggs, four in number, were slightly incubated. In size they seem to be intermediate between those of the Peregrine and the Gyr-falcon, being, however, longer in proportion to their breadth. Two of them are light in colour, the other two much darker. One of the latter is accurately represented in the accompanying plate (Plate XII. fig. 1). It measures 2·2 in. by 1·6 in.

“The male bird was well observed afterwards. Sitting, utterly motionless, on the top of a dead tree, with his head turned over his shoulder, he seemed so mournfully conscious of the catastrophe which had befallen his family, that I felt utterly ashamed of having added murder to robbery in my desire to possess myself of an unknown bird. If the gun had still been in my hand, I could have shot him easily, as he then seemed indifferent to his fate; but it so happened that he flew away before that weapon actually arrived, and thus escaped being involved in the ruin of his household.”

Mr. Simpson has since informed me that the island was on the Wallachian side of the main stream of the Danube, almost exactly opposite the Bulgarian village of Tchernawoda, the very tree being visible from some of the houses in the new part of it. I believe he was anticipated by others in this discovery. In 1846, Herr von Woborzil published (*Rhea*, i. p. 41) an account of a Saker's nest, with five eggs, taken by him, as it seems, on the 2nd of April 1842. Dr. Baldamus also, during his tour in Hungary in 1847, obtained a nest of five eggs, which doubtless belonged to this bird, though, in his description of it, he applies to it the name of *Falco lanarius* (*Naumannia*, 1851, p. 37). And Messrs. Salvin and Brodrick, in their ‘*Falconry in the British Isles*’ (p. 96, *note*), mention a pair of birds “killed in Hungary in 1848, at their eyrie, which was in a tree,” and obtained by Mr. A. H. Cochrane “from the person who shot them.” But it is unquestionable that properly identified and authenticated eggs of the Saker have long been, and still are, very rarely met with in collections.]

FALCO CANDICANS, Gmelin.

GREENLAND FALCON.

[Mr. Wolley, as I believe is pretty well known, was strongly of opinion that the large Falcons from Greenland, Iceland, and Scandinavia were only local, though always recognizable, races of one and the same species, and he wished to distinguish them by a geographical agnomen. My allegiance, however, to the binomial principle of nomenclature prevents me from following his suggestion. That the characters of the three birds are quite permanent, and in two of them sharply defined, is, I think, now fully admitted by the best authorities on the subject (Hancock, Ann. and Mag. Nat. Hist. 2nd ser. xiii. pp. 110-112; Blasius, Journ. für Orn. 1862, pp. 43-59; and Schlegel, Mus. des Pays-Bas, *Falcones*, pp. 7-14). I myself have never yet seen an adult specimen, even of the two forms that most nearly resemble each other, about the determination of which I had any great difficulty. I therefore consider it most convenient to treat them here as separate species, though I think it more than probable that they have sprung from a common stock.]

§ 184. *One*.—Greenland. “Bird killed.” From Captain Holböll’s Collection, through Mr. S. Stevens, 1855.

§ 185. *Two*.—Greenland. “Bird killed.” From Captain Holböll’s Collection, through Mr. S. Stevens, 1855.

These eggs were bought by me, Nov. 12th, of Mr. Stevens. He showed me Holböll’s letters and everything. There were two or three eggs professedly added to the lot in Denmark; but all the rest were from Greenland, and apparently carefully separated. The two which are marked “*F. arcticus*” were in a box by themselves, and the one specimen marked “*F. islandicus*” in another box. A number of skins were sent with them, ticketed “*F. islandicus*” and “*F. arcticus*,” the former the more marked, and the latter the less marked skins, but all without exception the Greenland Falcon of Mr. Hancock¹.

¹ [A statement of what Capt. Holböll is supposed to have meant by his undescribed “*Falco arcticus*” and “*F. islandicus*” is to be found in ‘The Ibis’ for 1862 (vol. iv. p. 50, *note*). It does not entirely agree with what Mr. Wolley says in the above passage; but the matter is of very slight consequence in the present instance.—ED.]

FALCO ISLANDICUS, Gmelin.

ICELAND FALCON.

§ 186. *One*.—Iceland. From Mr. W. Proctor, 1851.

Mr. Proctor states that this egg is from the north side of Iceland, but he cannot say from what place. It was sent to him direct from that country.

§ 187. *One*.—Iceland. From Mr. John Hancock's Collection, 1853.

I had this of Mr. Hancock, who informed me that he received it from Denmark, but that his correspondent there was "very particular respecting locality," and that this was sent from Iceland.

§ 188. *Two*.—Iceland, 1854. From Mr. W. Proctor, 1856.

Mr. Proctor tells me that he had these direct from Iceland.

§ 189. *One*.—Iceland, 1855. From Dr. Kjärbölling's Collection, 1856.

[§ 190. *One*.—Greenland. From Sysselmand H. Müller's Collection, 1859.

Herr Müller gave me this egg at Copenhagen, and told me that it came to him direct from Greenland; there is therefore a possibility of its being the egg of *Falco candicans*; but, according to Mr. Hancock's belief, *F. islandicus* is the commonest form in the south of that country.]

[§ 191. *One*.—Iceland. From Dr. Kjärbölling's Collection, 1859.

This egg I bought at Copenhagen. The Doctor assured me he had it direct from Iceland.]

FALCO GYRFALCO, Linnæus.

GYRFALCON.

O. W. tab. C.

[Mr. Wolley was, I believe, the first naturalist able to give from his own observation any particulars of the breeding of this noble bird. I cannot add to the full details which are contained in the following notes. The curious fact that the Gyrfalcon, like so many other *Accipitres*, adapts itself to circumstances, breeding in trees when rocks are wanting near places that abound with food for its offspring, as is the case in the district of Hanhi-järwi-maa, will not escape the student's notice, and will furnish, I think, another good warning against too hasty generalizations with regard to the habits of a bird or other animal. It was not until the fourth summer of Mr. Wolley's residence in Lapland that he became acquainted with this fact, and then, as his remarks show (§ 210), he was justly sceptical concerning it at first. I must, however, call the reader's attention to an error in two of Mr. Wolley's Sale Catalogues. In that for the year 1856, he stated (p. 8) that the Gyrfalcon was "the only species or race of the Great Falcon which occurs in Lapland;" and again in that for the year 1858, he said (p. 10) that "in Scandinavia the forms found in Greenland and Iceland never seem to occur." Each of these assertions requires qualification; for I believe that both *Falco candicans* and *F. islandicus* are occasionally met with in Norway or Sweden, though I am not aware that either has been known to breed in the Scandinavian peninsula. It is therefore necessary to add to each passage, "except as accidental visitors," or words to that effect. I have also here to express my thanks to Mr. Wolf for a beautiful picture, which he was good enough to paint for me from one of the birds to be mentioned hereafter (§ 215). A reduced copy of it, executed by Mr. Jury under the artist's immediate superintendence, embellishes this work (tab. C), and, I think, cannot fail to afford pleasure to naturalists, as, excepting Herr W. von Wright's figure in the 'Tidskrift för Jägare' (I. pl. xii. p. 353), it is the only representation of the adult female Gyrfalcon that has been published. Of its accuracy I need say nothing, for that is guaranteed by the painter's name.]

§ 192. *Four*.—West Finmark, 7 May, 1854. "J. W. *ipse*."

O. W. tab. viii. fig. 1.

On my way from Hammerfest, I intended to visit the Falcons' nests of which I had heard from Lassi; but when I got to Kau-tokeino I was hesitating, for several reasons, whether or not to spare the time that was necessary: the snow might go any day, and I should not get back to Muonioniska; and I had some cause for being uncertain as to the truth of his account. However, I had the good luck to find his *dräng*, who said that his master had the day

before pointed out the rock where the nest was. It was only a mile (Norwegian) from the nest, while Lassi lived two miles off, on the way to Kaaressuando, whither, I was told, there was not a Lapp at home who knew the road. Getting three Reindeer, we started at once, and in course of time came to the small cliffs in the narrow valley where the river lay. First I went to a nest of perfectly easy approach, and probably the preceding year's: I thought it was a Buzzard's. A little further on, rather upon a craggy bit of hill than a rock, there were three or four old nests, and near them feathers, some of which I took for Falcons' and others for Buzzards'; abundance also of fresh dung; and one of the nests had been slightly mended. A few steps away lay the haunch of a Reindeer, which the Lapp said had evidently been killed by a Wolf, after being driven to the edge of the little precipice, but not over it. The Wolf's spoor was effaced by more recent snow, but the tracks of Foxes were fresh. We talked a long time about the Lapp murderers of the last winter¹, whom our man had guarded to Alten, and then about midnight got our deer through the deep snow on to the river again, having put on our Lapp clothes, which we had taken off for the climb. Returning, the man showed me the rock where it was thought the nest then might be. The people at the Parsonage would be sitting up; the deer would be ready for the journey; the snow was probably deep; and I all but determined not to try this rock, which was perhaps a quarter a mile from the river. I thought the birds could hardly be there when none had shown themselves. Fortunately I decided to go. We had not long left the track on the river, when a Falcon flew up from the rock where the nest was supposed to be, and soon afterwards, turning back, settled on the trunk of a dead tree, once or twice uttering a cry. I now knew there was a nest, and in a few minutes more I saw it, looking very large, and with a black space about it, as though it were in the mouth of a little cave in the face of the rock. This was a joyful moment, but not so much so as when the hen bird flew off with somewhat cramped wings, and settled on a little stump, some thirty yards from the nest. I would not let Ludwig shoot. We were ascending the hill, and might be fifty yards off when she left the nest. I took off my shoes, though there was deep snow everywhere

¹ [On the 8th of November 1852, some fanatic Lapps made a sudden and unprovoked attack on the village of Kautokeino, and in their frenzy murdered or ill-treated several of the Norwegian inhabitants. The malefactors were subsequently taken, and after trial two of them were executed at Alten—the rest, some of whom were women, being sentenced to imprisonment for various periods, in proportion to their complicity in the crime.—ED.]

except just on the face of the rock, and first tried it from above, but it seemed scarcely practicable. Then I went below, and, with the Lapp to support my feet, and Ludwig to give me additional help with a pole, I managed to climb up. Just at the last bit I had to rest some time. Then I drew myself, and saw the four eggs to my right hand, looking small in the middle of a large nest. Again I waited to get steady for the final reach. I had only a bit of stone to stand upon, not bigger than a walnut, and frozen to the surface of the ledge, which sloped outwards. I put two of the eggs into my cap, and two into my pocket, and cautiously withdrew. The nest appeared to have been quite freshly made, and therefore by the bird herself. The sticks were thick, certainly more so than those used by Ravens or Buzzards, and, unlike the nests of the latter, which I saw the next day, they were barkless and bleached. The only lining was a bundle or two of coarsish dry grass. As I returned, I touched the eggs on a point of rock above me, luckily without injuring them. I handed them down in a glove at the end of a pole, which the Lapp improvised after the fashion of a church collecting-bag; and when they were placed in a safe corner, my feet were put in the right places, and I descended in safety. I had luckily brought a box with hay, and on 12th May had the eggs safe at Muoniovaara. There were young inside, perhaps an inch-and-a-half long, with heads as big as horse-beans. A bird, probably of the preceding year, had been caught in a Grouse-snare at the end of March or beginning of April, and I got its skin [Woll. Don. No. 57] and breast-bone [Osteoth. Newt. *MS. Cat.* No. 369, a].

§ 193. *Three*.—West Finmark, 16th April, 1857.

Ludwig told me this was Lassi's nest, and he desired the other Lapp, Pongo, not to touch; but as he was obliged to leave the neighbourhood before Ludwig arrived, Pongo took it as above. Lassi blew the eggs the following day, and delivered them to Ludwig shortly afterwards. It is the same nest I took in 1854 [§ 192], occupied in 1855 and 1856 by Ravens. The eggs were fresh, and, Ludwig thought, not all laid.

§ 194. *One*.—Nyimakka, Enontekis Lappmark, 7 June, 1854.
 "J. W. *ipse*."

This egg I took as above, out of a nest in which were three young. Petari took me to the rock at which he had been a week or two

before, when some kind of Hawk flew angrily round him. There had been Hawks' nests there for many years. The old spot was covered with good grass. It was a long time before we saw a bird—and then only one, without any cries of alarm. At last the hen came up, with food in her claws, and dashed screaming into a cliff at which I had looked in vain for a nest. A short time before, a man had seen a bird fly out of a low detached cliff; and here was the nest, covered with dung, at a short distance from the ground, in a kind of recess. I could climb so as to touch, but not so as to see more than the heads of two downy young, which were continually chirping. Hoping for a nest-egg, I made various attempts to get a peep; and at last, from above, I was able to see three young ones, perhaps a fortnight old, or nearly so, and an egg. I trebled a string I had in my pocket, and the man let it down for my support. I tied it on, and so was able to reach into the very dirty nest and carry off the egg, which I afterwards found to have a full-sized chick in it, probably dead before I took it, but still not putrid.

[The locality of this nest was shown by Mr. Wolley to Mr. Simpson and myself in 1855, as we were descending the river.]

§ 195. *Four*.—Nyimakka, Enontekis Lappmark, 18 May, 1855.

Taken by Petari, who was with me the preceding year, from the very same nest from which I then took a single egg. There were large young inside.

§ 196. *Four*.—West Finmark, 24 April, 1855.

Just blown by me. They were taken about ten o'clock last night by Lassi, in company with another man, who climbed up to the nest on a perpendicular cliff, by the help of a rope let down from above. The nest, they say, was very old, and had been repaired or used for many years. It was on a little tributary of a stream, in the valley of which I took the nest last year [§ 192]. Very near the nest was a Fox's spoor, and they say the birds had evidently attacked it; for it had hopped about in the snow, and stuck its back in a bush. I have just come from another nest [§ 198] with Lassi; and he says the bird was exactly the same in appearance, voice, &c. The eggs, even at this early time of year, are several days sat upon.

§ 197. *Four*.—West Finmark, 24 April, 1856. "L. M. K."

Taken by Ludwig and Lassi from the same nest out of which the

latter got me the eggs last year. They tried for two days to catch the bird, but they could not get it. Ludwig told me that the bird cried out a little at first, and then went and sat on a tree or stake at a distance, all the time they were setting the trap. This nest I have not seen. Ludwig fastened a rope above, and climbed up from below. There was ice on the river beneath. He observed that the sticks were of willow, and without bark.

§ 198. *Three*.—West Finmark, 25 April, 1855. “J. W. *ipse*.”

O. W. tab. viii. figs. 5, 6.

These eggs I took myself, last night, out of a very slight nest in a recess of the cliff overhanging the river. I watched the birds with my glass, and saw the cock perfectly, examining him at a distance of little more than ten yards as he sat on the nest. As we came to the place, the hen left the nest; and whilst we were standing on the other side of the river, the cock flew from a tree close by, and settled on the nest. After looking well at him, I put the gun aside, for Lassi was sure we could get him in a snare. He did not leave till we were very near, though he was in full sight all the time. His breast spotted transversely at the side, his moustache not dark, his back and wings pale slate-colour, with small white spots. His orbits yellow; and his feet, as they hung down when he flew, apparently yellow also. We climbed up, set a snare, and went to watch. After some time, the hen came and crept in by the side of the snare. I sent Lassi at once, but she went out just through it. He set it again, and we watched for an hour or two, the bird sitting on a tree. At last she went away with a low cry, and we, after some time, went also. During the night we returned; but the bird, being probably in a hurry with her fourth egg, had gone elsewhere to lay it. I took the eggs with my own hand, the nest being very easy of access.

The pale egg [tab. viii. fig. 5] was not there when Lassi was at the nest, 21st April: there were then only two. He was there about eight o'clock in the evening; I was there first at midday 25th April. The eggs, of course, perfectly fresh.

§ 199. *Four*.—West Finmark, 1857.

Sent, with another nest [§ 212], by Lassi. Before Ludwig left, Lassi said he knew of a nest in an old place, with one or two eggs. He had to carry the post, and Ludwig sent him word to take the eggs

when their number was complete. It was from the upper part of a river, where I tried in 1855 to snare the old bird [§ 198].

§ 200. *Three*.—West Finmark, 27 April, 1855. “J. W. *ipse*.”

O. W. tab. viii. figs. 2, 3.

These eggs from a hill near Pinkisjärwi. I took them in company with Eric. The cliff looked very formidable, but we found it practicable when he had been home to fetch an axe and a rope, by cutting down a tall birch to make such a ladder as enabled me to climb up the cliff and take the eggs myself. Indeed I reached it from the top of the tree. The rock was overhanging. The nest, very large, and with a considerable hollow, was made of fresh sticks, not very big; and inside were a few green willow twigs, and several tufts of sedge grass. The hen bird flew off long before we came near, and circled away, when she was soon joined by her mate. She looked exactly like the birds of the other nest [§ 198]. It was snowing hard while we were there, very conveniently for me, who had not slept much for several nights, as travelling was thus stopped for a time. Under the nest was much *Cystea* [quære, *Cystopteris*?], and a little *Woodsia*, with several kinds of alpine plants. The rock loose and dangerous. The snowy slope below was very steep, and we shot down it on our backs at a great pace. Our Reindeer were feeding in the distance, but we went to the place on snow-shoes. I preserved a feather found near the nest.

§ 201. *Four*.—Aunas-tunturi, Kemi Lappmark, 1 May, 1855.
“Bird snared.”

Taken by Pietty on a steep cliff on the south side of Aunas-tunturi. It was a very old nest. He set a string with a series of horse-hair nooses; and his brother went to examine it, and took the bird out. Pietty skinned it. The other bird then sat upon the eggs. There were small young in them. About the nest were many bones of Grouse, Whimbrels, and smaller birds. It was made of old white sticks. It appears that, in 1854, a Merlin built in this spot, though it had always been occupied before by a Gyrfalcon.

[The skin of the bird killed on this nest is now in the Norwich Museum.]

§ 202. *One*.—West Finmark (?), 1855 (?).

Brought to Muoniovaara by Lassi, 8th April 1856. He thought it

was a last year's egg. It had been probably found in a nest exposed to the weather.

§ 203. *Four*.—West Finmark, 19 April, 1856. "L. M. K."

Taken by Ludwig himself. The nest was in a cliff facing south-east, about one hundred feet high, overhanging a lake or enlargement of a small river; so that if he had fallen, he would have been smashed on the ice, which was right beneath the nest. It was a very difficult place, so that a Lapp, whom he took with him, went away and durst not help him. He fastened a rope to a large stone, saw that it would reach the ice, and then let himself down. The stones were very loose. He put the four eggs into his cap, and then slipped down the rope, burning his hands considerably. The nest was in a corner, or little rift of the rock, and made of sticks, mostly bare, he thought,—no large mass, and without a deep hollow for the eggs. The bird was there at first, and flew about once or twice, but went away long before he let himself down to the eggs. The nest might have been three fathoms over the river.

§ 204. *Four*.—West Finmark, 28 April, 1857. "With both birds. L. M. K."

From the same locality as the preceding. Taken by Ludwig, in company with another man. The former wrote as follows:—"I shot one of the birds, and then we laid snares for the other, which was the cock, and very wild. We went to a rock further off, and there I met two boys, who had been and found another nest. They had caught one of the old birds, and tried for a whole day to get the other, but it did not come back any more [§ 208]. My nest was built mostly of old bare birch twigs, and then upon these were some finer birch twigs with bark on, but old and dried up. These were mixed with others, rotten and crumbling, some Grouse feathers and bilberry leaves. The nest was about three ells from the bottom, and the hollow was four inches deep and half an ell across. I shot the hen, took the eggs away, and laid instead a Buzzard's egg, smeared with Reindeer blood. When we came in the evening the cock was hanging on the rock, very fierce. His eyes were blue in the middle, and a greyish-yellow ring round them. His feet were reddish-yellow, and his beak dark blue, but yellowish red at the root. The hen had the same kind of eyes, but with the feet and round the beak more purely yellow."

The birds are now before me, unskinned.

[The male bird from this nest, and the only one of that sex obtained by Mr. Wolley, was given by him to Mr. Gould. The female is in the Norwich Museum.]

§ 205. *Four*.—West Finmark, 22 April, 1856.

Brought to Ludwig the same year, while staying with Lassi.

§ 206. *Three*.—West Finmark, 1856.

Sent by Lassi to Ludwig at Maunu, where he received them, together with another nest of three eggs, 28th July. It seems, from an inquiry made the following year, that both nests were taken at the end of April and beginning of May, from the district where I took one and obtained a second in 1855 [§ 196 and § 198]. These are curious-looking, under-coloured eggs.

[Two from the other nest are now in the collections of Dr. T. M. Brewer and Dr. A. L. Heermann.]

§ 207. *Four*.—West Finmark, 24 April, 1857. “With bird.”

These were found by Lassi as above. Ludwig wrote that “he got one of the birds, with much difficulty; but the other flew away, so that it did not come back any more. The cliff was fully twenty ells high, and the nest was about the middle of it, in a little corner on the side, so that it was hard to get at. It was an ell and a quarter over on the outside, and had feathers inside,—some of the bird’s own, others of Grouse. It was mostly made of old bare birch twigs. The bird was black just at the end of the bill, then became yellow, and was altogether yellow at the root. The eyelids were yellow; but the eyes themselves blue, with a little grey round them [the iris]. The feet altogether bright yellow, with black claws. Lassi went for half a day after the other bird, but it did not come. The eggs were blown the same day, the young inside with eyes.” These four are remarkable eggs, blotched and speckled almost like some Buzzards’.

[The bird from this nest, the female, was selected by Mr. Hancock for his own collection, Mr. Wolley having begged him to choose and keep one.]

§ 208. *Three*.—West Finmark, N. lat. 68° 45'. 28 April, 1857.
“With black-headed female.”

These are the eggs taken by the lads as before mentioned [§ 204].

Ludwig's note says, "The nest was on a cliff. They snared the hen, but the cock they could not get. They tried to wait as long as they possibly could, but he came again no more." The hen is the very black-headed bird, I suppose the typical *Falco gyrfalco* of Schlegel; but I take it to be an adult of the first year, both from the dark beak and the character of the long wing-feathers, whose light interspaces are not speckled; it has also moulted each fifth pen-feather.

[The bird was given to Mr. Gould by Mr. Wolley.]

§ 209. *Three*.—West Finmark, 29 April, 1857. "With hen bird."

These were brought by the captor to Ludwig, who writes:—"There were four eggs, but he broke one to pieces on the way. The night before, he set snares for the birds, and the hen came straightway, but the cock came not. It was so cold that he could not wait long, lest the eggs should freeze asunder." One of these is a remarkably pinky egg.

[The hen bird caught on this nest is now in the British Museum.]

§ 210. *One*.—Hanhi-järwi-maa, Enontekis Lappmark, 18 May, 1857. "From nest in a tree."

Brought to Muoniovaara, 18th June of that year, by a man who said it was the egg of the middle-sized *Koppelo-Haukka* [*Astur palumbarius*], and that he found it as above stated. He tried to shoot the bird, but could not get near enough. The egg was a little broken, being sprung by the young one. A girl told me at Muoniovaara, 4th August 1857, that she was in company with the finder and another man when they took this egg. They were on their way back from a Sunday visit to the two houses in Suontajärwi, which is a mile and a quarter (Swedish) from Muotkajärwi. The nest was nearer the former place than the latter; and she said that one of the men had, two years before, thrown the young out of it. The tree in which it was is on the edge of a very large marsh, on the north side of it, with no pines between it and the tree; and the nest was placed just at the top, which was but a little on one side, so as to give a place of support. It might be seven fathoms high. The marsh is called Hanhi-uoma, at least in that part where the nest was, but it has different names in different places. At about

a furlong off to the west is a high bare-topped hill, but there are marshes between. The bird was whitish underneath, with long wings, but the tail not long. It flew rapidly, not slowly as a *Piekonna* (Rough-legged Buzzard), and had a different voice, more like that of *Pouta-Haukka* (Merlin), but stronger. One of the men climbed up and put the egg in his glove; there was already a hole in it, through which the beak of the young bird appeared. She called to him not to disturb the other young, of which she was not sure whether there were more than two; but he threw them on the ground. They were small and white. It was in 1855 that he or the other man threw the young from the same nest, which was not large, and the sticks old and without bark. She added that it was Erki's-day (St. Eric's) that the egg was taken; and on my asking the day of the week, replied Monday, which agrees with the Almanack—an additional proof of her accuracy. Putting all together, I can hardly doubt the egg is a Gyrfalcon's.

§ 211. *Three*.—Hanhi-järwi-maa, Enontekis Lappmark, 26 April, 1858.

Brought to Muoniovaara, 8th May, by Heiki, from the girl mentioned in the last note. They are from the same place as the one egg taken the year before [§ 210]. The nest was in a tree about seven fathoms from the ground, and three or four hundred fathoms from the spot where the nest was in former years.

§ 212. *Three*.—West Finmark, 28 April, 1857.

Received by me, 26th July, at Maunu, where they had been left by Lassi. Ludwig recognized them at once as eggs of which he had seen two in a nest, and desired another man, who was with him at the time, to take subsequently. On 28th April, he had been with him, and got a nest with both the old birds [§ 204]. They met with two lads, one of whom had got the eggs and bird from another nest, and all went together to search some likely-looking cliffs they knew of, which were about a mile (Swedish) from the first-mentioned nest, with a large lake intervening. They drove from that nest, which was on the west side of the lake and about its middle, keeping on the ice and then a bit on the land. They saw the bird leave the nest, and fly wildly away without coming back. The cliff overlooked a marsh, already bare, the wind having blown away the snow earlier. The nest

was scarcely more than a fathom from the top, on a little ledge. He climbed from the side till he had a good look at the two eggs then in it, which seemed to him very beautiful, as they did when they reached me, though not nearly so much so as before. The nest was of the ordinary size and appearance. He left the eggs in it in hope of more being laid, and they were taken afterwards by the man who was then with him.

§ 213. *Four*.—West Finmark, 22 April, 1858.

Brought to Muoniovara 8th May, having been found by Lassi as above. This was a fresh nest, about six ells high.

§ 214. *Four*.—West Finmark, 30 April, 1858.

Brought with the last, and found as above by the same man. The nest about thirty ells high.

§ 215. *Three*.—West Finmark, 27 April, 1859. "With hen bird."

O. W. tab. viii. fig. 4, and tab. C.

Brought, 7th May, to Muoniovara by Heiki, who, in company with Lassi, took them as above, in the same place as the latter found the nest last year [§ 214]. They searched together all the nests in two neighbourhoods, but all were empty save this. They thought that the reason why the Falcons had flown away was, that there were no Grouse to be found, and so they could not get food, but must fly away. Another man shot the hen bird from this nest, and brought it skinned¹.

§ 216. *Three*.—West Finmark, 1 May, 1858. "With skeleton."

Brought to Muoniovara, 8th May, by Heiki, having been found by Lassi. The nest was ten ells high, on a cliff. The bird was shot, and its bones kept and sent.

¹ [The skin is now in the Norwich Museum, and is the original of Mr. Wolf's picture, of which the plate (tab. C) is a reduced copy.—ED.]

[§ 217. *Four*.—West Finmark, 1 May, 1861.

From the same nest as those in the last section. One of the eggs is very remarkable, being of a flesh-colour, verging upon pale lilac, spotted with irregularly shaped rusty markings. The rest have the ordinary appearance.]

§ 218. *Three*.—West Finmark, 16 April, 1858.

Brought to Muoniovara by Heiki, and found by Lassi at the same place as the eggs before mentioned, from which both birds were killed in 1857 [§ 203 and § 204]. The nest was about six ells high, in a cliff.

[§ 219. *Four*.—West Finmark, 1 May, 1861. “With hen bird.”

From a nest which had been robbed several times before, though none of the eggs taken then are now in my possession. The skin of the bird killed from it accompanied these specimens. It is a truly typical *Falco gyrfalco*, darkly coloured, and having all the look of a very old bird.]

FALCO PEREGRINUS, Gmelin.

PEREGRINE FALCON.

[Besides those mentioned in the following text, Mr. Wolley's note-books show that he visited many other Falcons' breeding-places in Scotland, and a few in England. Several of the nests he saw were quite inaccessible even to him, though possessed of so much nerve for rock-climbing. Others contained young ones, some of which he carried off and brought up. Thus he had a very considerable personal acquaintance with the economy of this species; but the notes are too diffuse for insertion here. In a communication made to Mr. Hewitson in 1853 (Eggs B. B. ed. 3, pp. 24, 25), he states that, on the Continent, it not unfrequently breeds in church-steeple in the thickly peopled centre of a city, and also that it often takes possession of the nest of a Raven in which to lay its eggs. It is indeed remarkable how many times Mr. Wolley observed the Falcon and the Raven tenanted in common the same rocky ledges. In one nest, containing four young ones, on an island off the coast of Sutherlandshire, he mentions besides that he found, among other spoil, the wing of a Kestrel,—a circumstance apparently contradicting the common Scottish proverb that “Hawks dinna pick at Hawks' eyn.”

The persistency with which Falcons and other birds of prey continue, during a great number of years, to use one spot for breeding is tolerably well known; but one singular instance I cannot refrain from mentioning here. In 1736, when the French Astronomical Expedition for ascertaining the figure

of the earth was sent to Lapland, they had a station at Aawasaksa (Avasaxa), a remarkable hill on the left bank of the Torneå, just opposite Matarengi, which, though situated without the Arctic Circle, is of sufficient height to admit of the sun's being seen from its summit at midnight in summer. Here, it is mentioned in the narrative of their expedition ('Œuvres de Mr. de Maupertuis, &c.,' Lyon, 1756, tome iii. pp. 110, 111), they observed a Falcon's nest. In 1799, Captain Skjöldebrand, then travelling with Signor Acerbi, records his having rediscovered this nest, around which "the birds, frightened by the fall of some pieces of rock which we threw from the top of the mountain, flew, and filled the air with their cries"¹. In 1853, Mr. Wolley's first year in Lapland, he ascended this hill, and the Falcons once more showed themselves to him. He stated in a letter to me soon after, that they "had the cut of Peregrines," as two years later he proved that they were by finding, in company with Mr. Simpson, their nest containing a dead young one, the skull of which is now before me (Osteoth. Newt. *MS. Cat.* No. 15, f.)]

§ 220. *One*.—Isle of Wight. From Mr. J. F. Dawson's Collection, 1845.

Given to me by the Rev. J. F. Dawson, of Ventnor. It was taken in the cliffs of that island, where the bird breeds regularly; see Mr. Bury's notes in the 'Zoologist' [1844, pp. 517-520]. Mr. Dawson brought me this egg to Monk's Wood, where we were collecting insects early in June, especially the caterpillars of the Purple Emperor, and from the Mere the caterpillars of the Large Copper.

§ 221. *One*.—Orkneys. From Mr. George Harvey, of Stromness, 1848.

From a crag near Stromness. Mr. Harvey has had many of their eggs some years. He assured me that he once shot, but could not get, an Iceland Falcon, one of a pair that, as he believed, had a nest in Orkney. I did not understand that he saw the nest. This crag is the rock from which the Falcon flew to attack an Eagle, and broke its wing in so doing; but it stunned the Eagle, and they fell together. Some boatmen, in gratitude for delivering the enemy into their hands, gave the poor bird its liberty to mend its wing as it best could.

§ 222. *Four*.—Sutherlandshire, 28 April, 1849. "J. W."

On the 21st of April 1849, a man at the Dunnet Head Light-

¹ [I have not seen Skjöldebrand's work, and quote the above passage from an extract given among the "Literary Selections" in the 'New Annual Register' for 1814 (vol. xxxv. pp. 103, 104). Acerbi mentions the Falcons, but says nothing about the nest ('Travels, &c.,' London, 1802, vol. i. p. 366).—ED.]

house pointed out to me the place where a Falcon's nest had been last year. I picked up a bit of the shell of an egg, probably robbed within a day or two by the Grey Crows. On the 23rd I made an easy climb to a Falcon's nest, apparently quite new, near the top of the cliff. There was a very broad way to it. The nest was hollowed out to some depth in the turf of a ledge. One dry bone formed the principal lining. A bit of rock projected sharply into the bottom, so that it had probably not been used. The old birds were flying in the distance with the usual cry of anger, the wings flapping quickly, but little advance made, the *humeri* being apparently compressed to the sides.

On the 28th of April I walked, with a man to act as guide and to carry the thin rope, to a very low rock overlooking a loch, at perhaps a quarter of a mile from its west shore. A high road, little frequented, however, may be a couple of hundred yards from the rock, between it and the lake. The rock had a good deal of vegetation, including ivy, about it; and I climbed about from above for some little time, till I began to think my informant was wrong, and the nest not there, when out dashed the Falcon, like an arrow, very near me. I had to go below to get at the nest. As I climbed, both birds flew about at a considerable height, with their sharp, quickly repeated cry. I reached the nest, which was in a retiring, much-sheltered corner, without a rope.

"It is not more than eighteen or twenty feet from the ground, on a little platform, with a tree in front, and a great deal of the same *Luzula* that was in the Eagle's nest [§ 26] here growing. The whole platform may be four feet square; the bare place for the nest eighteen inches. The nest is made of little fragments of sticks and a multitude of bones, chiefly birds' of various kinds, but also two or three sheep-bones, probably brought to construct it with, also many little bits of stone, apparently from the rock itself."

I have little doubt that these bones were so brought, as they were used in the actual construction of the nest, though they certainly had the appearance of being raked together, and they might be only the remains of the rapine of former years brought to that spot to feed the young. There were four eggs in the nest, quite new-laid. Whilst at a Buzzard's nest, a few hundred yards off, on the same day, one of the Falcons came up, peering about at a good height; and it remained quite motionless overhead, so that my man offered to bet me it was the "Glead;" but when it began to move its wings he acknowledged his mistake. Further on we came to a very low rock in ledges, over the whole of which we could walk. My

man informed me that this was called in Gaelic "The Hawk's Crag," and that he used to destroy a nest of the "Hunting Hawk" there every year. A mile or two on, we came to "The Raven's Crag," about which those birds were barking or croaking angrily. The nest was in full view, but not accessible without strong ropes and men; and though we could get very near it, I did not see into it. In passing this rock on the 10th of May, my companion informed me that it was the place in which Mr. St. John ['Tour in Sutherlandshire,' vol. i. p. 70] found the young Falcons the year before. It is not far from the road, and we went up to it, and saw the two old birds scolding; but, though we had the ropes, I made no attempt at the nest, being convinced that it was dangerous of access for a small force of men, and in all probability it would have young ones in it. These rocks are finely situated for making descents upon the lake.

§ 223. *Three*.—Sutherlandshire, April 1849. From Mr. Dunbar's Collection.

These three eggs I purchased of Mr. Dunbar, at Tongue. He had taken them, a few days before, from a rock which another person pointed out to me. On the 30th of April I saw, near this place, a pair of Falcons flying rapidly past, uttering wild cries, as though they had a nest at no great distance.

§ 224. *Two*.—Isle of Wight, 1851. From Mr. John Evans's Collection, 1853.

These were taken on the cliffs, with the assistance of a rope, by a lighthouse-keeper, from whom Mr. Evans obtained them on his visit there the same year. This man's father lost his life on the same cliff. He had gone out alone, and had secured the rope to a crowbar, but not sufficiently well. It was said that he had not liked to share the eggs with any one else.

§ 225. *Six*.—Orkneys, 1851. From Mr. George Harvey.

§ 226. *Two*.—Argyllshire, 2 May, 1852.

Sent to me by the captor, with the Eagle's eggs before mentioned [§ 31].

- § 227. *Three*.—Oggo-vaara, Tornea Lappmark, 14 June, 1854,
N. lat. 68° 50'. “Bird snared. J. W.”

[The particulars of this capture have been accidentally omitted from Mr. Wolley's note-book, though the eggs were properly inscribed by him, and are referred to in the next section but one.]

- § 228. *Three*.—Hanhi-maa, Enontekis Lappmark, 1854.

Out of nine eggs, apparently Peregrines'; called “*Koppelo-Haukka*” by the lads there. Brought to me, July 11th, just before my journey. The nest was in a remarkable situation on the ground, in a large marsh.

- § 229. *Four*.—Oggo-vaara, Tornea Lappmark, 1855.

From the same hill, near Mukka-uoma, whence I got the eggs with the bird snared last year [§ 227]. But the nest was on the other (the south-east) side of the hill.

- § 230. *Four*.—Iso-uoma, Rowa, East Bothnia, 1857.

On the 22nd July the postman brought eggs from Pungsi; but they came to Muoniovara some days later, when I was returned. They were said to have been found in a marsh.

- § 231. *Four*.—Kalko-vaara, East Bothnia, 25–30 May, 1858.

Found as above, by Pungsi, upon a hillock overgrown with “Bear-moss” [*Polytrichum commune*].

- § 232. *Four*.—Iso-uoma, Rowa, East Bothnia, 6 June, 1859.

Brought by Nils; found as above, half a mile (Swedish) from the house.

- [§ 233. *Four*.—Rowa, East Bothnia, 13 June, 1860.

From the same locality as those mentioned in the last three sections. The nest this time was about a quarter of a mile (Swedish) from the man's house. He said it had been taken for three years before, but the bird, which he called “Little Capercally-Hawk,” had on each occasion flown away when the finder was some distance off. I cannot think these are otherwise than eggs of the common Falcon.]

§ 234. *Four*.—Aita-uoma, West Finmark, 8 June, 1859.

Brought from Kätkesuando, June 12th, having been found as above on the ground on a hillock. The finder did not know what eggs they were: he said the bird was a Hawk, grey but somewhat lighter on the neck. It was not angry when he took the eggs, but flew round. It had such a cry as the "Little Capercally-Hawk." Round the nest were many birds' bones.

[These are such large eggs that, were it not that they also happen to be very deeply coloured, I should almost be persuaded they belonged to the Gyrfalcon. One of them measures 2·3 in. by 1·75; and I have some Gyrfalcons' that are considerably less; one is only 2·22 in. by 1·68. Most of the eggs of the common Falcon from Lapland seem to be larger than British specimens, but not all, as, for instance, those in the next section.]

[§ 235. *Two*.—Aita-uoma, West Finmark, 17 June, 1861.

These are from the same place as those in the last section, but, judging from their size, form, and coloration, evidently the produce of a different bird. They are very nearly the smallest eggs of this species I have, measuring 1·87 in. by 1·52, and 1·99 in. by 1·49 respectively, and are besides rather curiously coloured. They were found as above, upon the ground.]

[§ 236. *One*.—Head of Teesdale, 1847. "W. H. S." From Mr. W. H. Simpson's Collection, 1854.]

[§ 237. *One*.—Shetlands, 1854.

Sent to me by a correspondent, who says they were found "in the sea-banks, about one hundred and fifty feet high," on the island wherein he lives.]

[§ 238. *Two*.—Kirkcudbrightshire, 1855.

These I received from a gentleman, who took them himself. They are from two nests, one of which was taken on the 18th of April, the other about a month later. The hen-bird was caught on each nest].

[§ 239. *Four*.—Shetlands, May 1856.

These, and the two eggs in the next section, were sent me by the correspondent before mentioned (§ 237); these from the sea-cliffs near a headland on one of the southern isles.]

[§ 240. *Two*.—Shetlands, May 1856.

Two very small eggs, and so abnormally coloured as to lead to the supposition that the mother must have been diseased. From the same island as that in § 237. They measure only 1·77 in. by 1·51, and 1·84 in. by 1·51 respectively.]

[§ 241. *One*.—Shetlands, 1857.

From the same correspondent as the last, but from which of the islands I do not know.]

[§ 242. *One*.—Fiskernæs, Greenland. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R. Y. S.

This egg was obtained during the celebrated voyage of the 'Fox,' under Captain Sir Leopold M'Clintock, R.N. Prof. Reinhardt states his belief ('Ibis,' 1861, p. 5) that "there is no difference between the Peregrine from Greenland and the European one." Sir Leopold mentions (Voy. 'Fox,' p. 197) Peregrine Falcons which were shot at Port Kennedy. These birds I afterwards saw, and one is now in the Norwich Museum. They were, to all appearance, specimens of the true *Falco peregrinus*, not *F. anatum*, being small and light-coloured. This egg is a little one, measuring but 1·89 in. by 1·54.]

FALCO BARBARUS, Linnæus.

BARBARY FALCON.

§ 243. *One*.—Kef Boudjato, Eastern Atlas, 20 April, 1857.
"Bird shot." From Mr. W. H. Simpson's Collection.

[This egg, it appears, was taken in the presence of Mr. O. Salvin, who shot one of the parent birds. In some excellent remarks on this species in the 'Ibis,' vol. i. pp. 184-189, he states:—"On the 20th of April an Arab reported that he found a nest of "*Bournee*" in Kef Boudjato, a rock situated no great distance from Kef Laks. I immediately started to the spot, taking with me Mohammed, my gun, and ropes. A successful siege was the result; and I returned to the tents with three eggs and one of the parent birds."]

[§ 244. *One*.—Kef Boudjato, Eastern Atlas, 18 April, 1857.
From Mr. O. Salvin's Collection.

Mr. Tristram's party obtained four nests of this species, from two of which a bird was shot. In 1856 he brought home two young ones alive, and in

1857 a third. All these passed into Mr. Gurney's possession: one made its escape not long after; but I believe the other two, supposed to be females, are still living at Catton. The skins of the birds that were shot are now in the Museum at Norwich. This egg was from one of two nests within a hundred yards of each other. It was brought by an Arab; but though Mr. Salvin went immediately to the spot, he was unable to see the bird.]

FALCO ÆSALON, Linnaeus.

MERLIN.

[The series of Merlins' eggs recounted in the following notes has been selected from about two hundred trustworthy specimens, more than three-fourths of which have been simultaneously compared in forming it. As it stands, it may therefore be held a fair representation of what the eggs of this species are really like. There are not many specimens in it which, taken singly, could be pronounced from their appearance alone to be certainly Merlins'; but, taken as a whole, a purple tint is seen to be prevalent, which is not discernible in the series of Kestrels' eggs lying in the same drawer, while the average size of these latter is also greater. It will be seen that the Merlin is also one of those birds of prey which are not constant in the choice of a locality for their nests, sometimes breeding (as in the British islands is, I believe, its usual habit) on the ground, at others in trees.]

§ 245. *Three*.—Orkneys, 1851. From Mr. George Harvey.

Out of seven, some of them beautiful varieties.

§ 246. *Six*.—Sutherlandshire, 1852.

Hewitson's 'Eggs of British Birds,' ed. 3. p. 31.

These beautiful eggs from one of the men who accompanied me when I was there. He says, "The male was one of the wickedest I ever saw. It was like to pick out my eyes when going to the nest, and convoyed me about a mile on my way home. The nest was among the heather." He also adds that it was about the size of a Thrush; and from his description of the bird, and from the situation of the nest, there can be no doubt it was a Merlin. I am not sure I ever saw this bird whilst I was in Sutherlandshire, but I heard the nest of one described. It certainly is not common there. I think the partial colouring of these eggs remarkably fine.

[Mr. Hewitson mentions (*loc. cit.*) that one of these, sent him by Mr. Wolley,

“unfortunately too late to figure, is one of the most beautiful eggs I have ever seen. The ground-colour is of a pure white, thickly blotched with crimson-red.” The remaining five, I may add, are of the same character.]

§ 247. *Three*.—Näläma, East Bothnia, June 1853.

Brought to me 26th June. There were young Hawks, perhaps Merlins, inside them. I have seen one or two pairs of small Hawks in the woods hereabouts.

§ 248. *Three*.—Rauhala, Kemi Lappmark, 3 June, 1854.

Out of nine eggs from two nests taken by Matti.

§ 249. *Four*.—Kätkia-joki, East Bothnia, 1854.

Out of five. No doubt Merlins’.

§ 250. *Four*.—Marrainen, Tornea Lappmark, 1854. From Pastor Engelmarck.

Called *Pouta-Haukka* [*i. e.* Dry-weather Hawk], which seems by the Finnish lexicon to be properly Kite. Here it is Merlin.

§ 251. *Two*.—Hans-vaara, South-western Finmark, 1855.
“With feet.”

Brought, as above, to me at Kaaressuando.

§ 252. *Four*.—Muotka-vaara, Enontekis Lappmark, 1855.

Found on the ground by a little girl, and brought to Ludwig as Cuckow’s eggs! One of them is very remarkable for its two shades of colour.

[This last has a cream-coloured ground, partially blotched with deep purplish-red and violet.]

§ 253. *Three*.—Marrainen, Tornea Lappmark, 1855.

Given to me at Kuttainen.

- § 254. *Three*.—Karanes-pahta, Tornea Lappmark, 22 May, 1855. “With skin of hen from nest.”

This is one of the rocks I visited last year near Mukka-uoma.

- § 255. *Four*.—Luspa-vaara, Enontekis Lappmark, 1855.

Taken by Naimakkas Peter.

- § 256. *One*.—Herra-vaara, Tornea Lappmark, 1855. “With cock bird.”

- § 257. *Four*.—Venajan-vaara, Enontekis Lappmark, 1855.

Taken by a Lapp from the place where I went to the old Buzzard's nest, between Naimakka and Mukka-uoma. It is called by the Lapps Karijalla-vaara.

- § 258. *Three*.—Kyrö, Kemi Lappmark, 10 June, 1856.
“L. M. K.”

Found by Ludwig in a good-sized spruce, a few miles (English) north of Kyrö. He was very hungry and tired, and he threw the eggs down from the tree on the soft ground, knowing they were very hard; and they did not break.

- § 259. *Six*.—Palo-joki, Enontekis Lappmark, 1856.

One of seven brought on the 14th of June.

- § 260. *Four*.—Nollänki, Meras-järvi, West Bothnia, 1–6 June, 1857.

From a nest in which Hendrik had, a week previously, found three Rough-legged Buzzard's eggs.

[Two of these were included in the sale of February 23rd, 1858, and were purchased by Mr. Braikenridge, who, when informed of my wish to possess the complete contents of a nest, interesting from the fact mentioned in Mr. Wolley's note, most liberally gave them up to me.]

- § 261. *Four*.—Toras-sieppi, East Bothnia, 6 June, 1857.

Brought by Wollas Lassi.

§ 262. *Four*.—Kotti-palla, Enontekis Lappmark, 7 June, 1857.

Found by Muotka-järwi Johann.

§ 263. *Five*.—Kyrö, Kemi Lappmark, 1857.

Brought by Keimio Johann, June 17th.

§ 264. Pippo-vaara, Kemi Lappmark, 6 June, 1858.

Out of five, brought by Sadio Erik.

§ 265. *Two*.—East Bothnia (?), 1859.

Brought from Kätkesuando on the 12th of June, without any history.

[§ 266. *Three*.—Kätkesuando, East Bothnia, June 1861.

Out of four brought to Muoniovara 23rd June, having been taken as above the week before. These are remarkably light-coloured eggs, the white ground in two of them being less than half covered with blotches of pale red.]

FALCO ELEONORÆ, Gené.

ELEONORA'S FALCON.

[§ 267. *One*.—Cyclades, 13 August, 1862. "Kr." From Dr. Krüper's Collection, through Pastor Theobald, 1863.

This rare specimen was taken, as above mentioned, by Dr. Krüper, and "written on with his own hand," as I am assured by the Pastor. The Doctor states (*Journ. für Ornith.*, 1862, pp. 437-440) the grounds of his belief that *Falco eleonoræ*, Gené (*Mem. Accad. Torin. ser. 2, ii. p. 41*), and *F. dichrous*, Erhard ('*Naumannia*,' 1858, p. 25), are identical. The same Journal will probably in due time contain his notes on the breeding of this bird, of which he then (December 1861) only knew that it took place in August. This egg corresponds in size, though not in colour, with the figure on the plate (tab. 1) illustrating Prof. Gené's paper (*op. cit.*).]

FALCO SUBBUTEO, Linnæus.

HOBBY.

- § 268. *One*.—From Herr J. G. W. Brandt's Collection (?).
- § 269. *One*.—England (?). From Mr. J. Green's Collection, 1844.
- § 270. *Four*.—Valkenswaard, North Brabant, 1851.
 [These eggs were sent to me direct from Holland, and Mr. Wolley had them from me.]
- § 271. *One*.—Holland (?). From Dr. Frere's Collection, 1852.
- § 272. *One*.—Strelley, Nottinghamshire (?). From Mr. Edge, 1856.

This egg, with another, had been for many years in a case, with a stuffed Hobby, at Strelley. Mr. Edge allowed me to take it out, and gave it to me. The presumption is that the eggs were taken there, with the bird.

- § 273. *Two*.—Sjövik, Öland, 17 June, 1856. "J. W."

Taken by myself in a wood near Knisa-moss, where the nest was first found by Mr. Simpson on the 12th June. About noon of the 17th, I climbed up to it, and had an excellent look at the bird; but there was only a single egg. It was a good-sized oak, just in full leaf, or nearly so. The nest, in a firm fork, was lightly built of thorns and twigs, and had a substantial lining of wool. About six o'clock P.M. we came to the tree again, when the bird flew off crying. As I went up, she went off a second time, having evidently come on as we were standing underneath. There were now two eggs in the nest, one so warm as to have been undoubtedly just dropped. The same day I climbed to another nest found by Mr. Simpson, which was also lightly made of thorns. The next day I found a third nest, of similar structure, but it had no eggs. Hobbies sail about after dragon-flies.

[§ 274. *One*.—Holland. From Mr. R. Reynolds, 1847.]

[§ 275. *Two*.—Falkenswaard, North Brabant, 1861. From Mr. Newcome's Collection.

These two eggs were obtained by Mr. Newcome during his visit to Holland, in 1851, to attend the Loo Hawking Meeting. He brought them over himself, and gave them to my brother and myself.]

[§ 276. *Two*.—Burnt Fen, Mildenhall, Suffolk, 1852. From Mr. Whitmore Baker.

These eggs were stated to be from different nests, and my brother understood Mr. Baker to say he took them himself.]

[§ 277. *Two*.—Benacre, Suffolk, 2 July, 1853. "J. F." From Mr. J. Farr's Collection, 1856.

Mr. Farr, writing to me from Gillingham Rectory, 14th February 1856, says:—"I send you to-day two Hobby's eggs, and hope they will arrive safely. They are the second pair I took out of the same nest, and are something smaller than the first pair, which I took on the 8th of June, shooting the hen bird. The male then paired again, and on the 2nd July I took the two eggs I have sent you. Since 1853 I have not found another nest."

[§ 278. *Three*.—New Forest, Hampshire, 21 June, 1861. "With bird." From Mr. W. Farren.

These I obtained from Mr. Farren in the autumn of the same year, with the skin of the hen bird.]

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

FALCO VESPERTINUS, Linnæus.

RED-FOOTED FALCON.

§ 280. *Two*.—From M. Perrot's Collection, 1845.

- § 281. *One*.—Típa Földwar, Hungary, 2 June, 1850. "A. H. C."
From Mr. A. H. Cochrane's Collection, through Mr.
W. Proctor, 1851.

This egg, and another with a similar mark upon it, I saw in the University Museum, at Durham, and Mr. Proctor informed me he had got them from Mr. Cochrane. Two days afterwards I saw half-a-dozen or more of these eggs with Mr. John Hancock at Newcastle, and he told me that Mr. Cochrane had obtained the birds very plentifully in Hungary. I accordingly wrote to Mr. Proctor for this egg, and it arrived the next day.

[In answer to inquiries respecting this and the eggs in the next sections, which I addressed to him, Mr. Cochrane has kindly written to me, under date 21st May 1863, as follows:—"With regard to the eggs of *Falco rufipes*, I must have collected some hundreds of them when I was in Hungary, and the name of the place where I took them is Típa Földwar. As I usually write the date and name of the place where I collect any eggs on the eggs, some of which Mr. Proctor received from me, I have no doubt but that the eggs you mention have been taken by myself. For particulars of the breeding of *Falco rufipes* I will refer you to Mr. Hewitson's book, the account of which [Eggs B. B., ed. 3. p. 28] was furnished by me."]

- § 282. *One*.—Típa Földwar, Hungary, 1850. "A. H. C."
From Mr. A. H. Cochrane's Collection, through Mr.
John Evans, 1853.

Mr. Evans procured this from Mr. Roberts, of Scarborough. He had it from a friend of Mr. Cochrane, whose signature is on the paper pasted on the egg.

- [§ 283. *One*.—Típa Földwar, Hungary, 1850. From Mr.
A. H. Cochrane's Collection, through Mr. W. Proctor,
1858.

This egg also is certified by the writing on the label. I bought it at Mr. Stevens's rooms, the sale being that of some of Mr. Proctor's eggs, January 26th, 1858. The curious fact of this species having the habit of nesting in communities was made known to me some fourteen or fifteen years since by Mr. Newcome, who derived his information from an old falconer of the Loo Hawking Club, by name Mollen; and, at my suggestion, Mr. Newcome forwarded Mr. Hewitson the notice which appears in the last edition of his work ('Eggs B. B.', ed. 3. p. 29). To Mr. Cochrane, however, I fully believe, British oologists are indebted for the first authenticated specimens of this egg.]

- § 284. *One*.—"Sardinia." From M. Parzudaki's Collection, 1856.
- § 285. *One*.—"Tamak, Crimea, May 1857." From M. Parzudaki's Collection, 1858.
- § 286. *One*.—Ain Oosera, Eastern Atlas, June 1856. From Mr. Tristram's Collection, 1858.
- [§ 287. *Two*.—"Sarepta." From Herr F. Möscher's Collection, 1862.]

ELANUS CÆRULEUS (Desfontaines).

BLACK-WINGED KITE.

- § 288. *One*.—Tangiers (?). From M. Favier's Collection, through Mr. Williams, 1847.

MILVUS ICTINUS, Savigny.

KITE.

- § 289. *Two*.—Monk's Wood, Huntingdonshire. From Mr. Sadd, 1843.

Obtained in 1843 from Mr. Sadd, of Cambridge, who had them from Monk's Wood. The birds were once very plentiful in that neighbourhood; and Mr. Chapman, of Coney Street, York, informed me that he had had "hundreds" of their eggs when the coaches ran that road. I only saw one of these magnificent birds on the wing in Monk's Wood during the three or four days I spent at Sawtry, in June 1843.

- § 290. *One*.—Huntingdonshire. From Mr. Harvey, of Bait's-bight, 1844.

Kites are becoming very rare near Alconbury Hill. I am not sure

that I saw one this year, during my five days' stay at Sawtry. I saw a Buzzard over Monk's Wood. The Kite's egg is green on "shining" it to the light, like eggs of the Harriers.

[On this last observation of Mr. Wolley's I may remark that it is perfectly correct, but that I perceive not much difference in this respect between the eggs of the Kite and of the Common Buzzard, though, judging from the specimens of both in the collection, the latter appear to be generally more opaque.]

§ 291. *One*.—"Heidelberg." From the Berne Museum, 1846.

§ 292. *One*.—From M. Nager-Donazain's Collection, 1846.

§ 293. *Two*.—Glenmore, Inverness-shire, 1850. From Mr. Lewis Dunbar, 1851.

Mr. Dunbar informed me that he took these himself between Loch Garten and the river Nethy. The bird flew off as he approached the nest, and sailed overhead as he was climbing up to it.

§ 294. *Three*.—Lincolnshire, 1853. From Mr. G. Adrian.

These were sent for me to Mr. Edge, who, when he found I was not returning to England that year, blew them for me.

§ 295. *Three*.—Lincolnshire, 1854. From Mr. G. Adrian.

§ 296. *Four*.—Djurhavn, Denmark, 24 April, 1855. From Pastor Theobald's Collection, 1857.

Given to me by Pastor Theobald at Copenhagen, having been taken as above by him and Herr Erichsen. Both the birds were on the nest, and the female would not leave it for some time.

§ 297. *Three*.—"Champagne." From M. Parzudaki's Collection, 1856.

- § 298. *Two*.—Bosorup, Denmark, 6 May, 1856. "Theob."
From Pastor Theobald's Collection, 1857.

Given to me at Copenhagen, by the Pastor. He told me he did not see the birds, but observed Kites' feathers in the nest.

- § 299. *Three*.—Lincolnshire, 14 May, 1856. From Mr. G. Adrian.

Mr. Adrian found this nest from the birds flying about in its neighbourhood. Some one had been up the tree already; and as it was not very easy of access, and night was approaching, he determined to take it.

- § 300. *One*.—Roeskilde, Denmark, 27 April, 1857. "Th."
From Pastor Theobald's Collection.

This was from a nest of three eggs, taken at or near Roeskilde by the Pastor himself, who twice saw the bird flying near the nest.

- § 301. *One*.—Jutland, 8 May, 1857. From Pastor Theobald's Collection.

- § 302. *One*.—Kef Laks, Eastern Atlas, 17 May, 1857. From Mr. H. B. Tristram's Collection.

- [§ 303. *One*.—New Forest, Hampshire, 1850. From Mr. E. Fitton's Collection, through Dr. R. T. Frere, 1861.]

- [§ 304. *Two*.—Djebel Dekmar, Eastern Atlas, 6 April, 1857. From Mr. H. B. Tristram's Collection.

Mr. Tristram's note-book states that these were from a nest of four eggs on a ledge on the north side of the Kef of Djebel-Dekmar. The nest built of sticks, with the roots and bottom branches of a small shrub clinging to the rock. The eggs a few days sat on.

Mr. O. Salvin's note-book also contains the information that this nest was found by Mr. W. H. Simpson, and that all the party watched the bird while Mohammed climbed and took the eggs.]

- [§ 305. *One*.—Gala el Hamara, Eastern Atlas, 15 April, 1857. From Mr. H. B. Tristram's Collection.]

- § 306. *Two*.—Vendsyssel, Jutland, 17 May, 1858. From Pastor Theobald's Collection, 1859.

These eggs were taken by Herr Fischer as above, in the wood Paihede.

- § 307. *One*.—Mylenberg, Jutland, April, 1859. From Pastor Theobald's Collection.

- [§ 308. *One*.—Holland. From Mr. Newcome's Collection, 1852.]

- [§ 309. *One*.—North Devonshire. From Lord Lilford's Collection, 1855.]

- [§ 310. *One*.—Lincolnshire, 17 May, 1856. "Female trapped." From Mr. G. Adrian.

The nest from which this egg comes was found by Mr. Adrian on the 14th May, the same day as that on which he took the three eggs sent to Mr. Wolley [§ 299]. In the hope that the bird would lay more, Mr. Adrian left it, but a few hours afterwards heard that a farmer, living near the wood in which the nest was, had, the day before, trapped a Kite, which was subsequently sent to him alive, and proved to be a hen bird. Three days having passed, Mr. Adrian again visited the nest, and, finding it exactly as he had left it, he took the egg. He had no doubt that the bird trapped belonged to this nest.]

- [§ 311. *Three*.—Lincolnshire, 6 May, 1857. From Mr. G. Adrian.]

- [§ 312. *One*.—Lincolnshire, 8 May, 1857. From Mr. G. Adrian.

With respect to this egg and those in the last section, Mr. Adrian wrote that he "noticed nothing peculiar. The materials of the nests consisted of decayed branches of oak; and they were built upon the larger boughs of that tree, at a height of about twenty-four or twenty-five feet; the tree in neither instance of very large dimensions."

- [§ 313. *One*.—Lincolnshire, 16 May, 1857. From Mr. G. Adrian.]

Mr. Adrian informed my brother that the Kites in Lincolnshire were becoming scarcer every year. This he attributed partly to the destruction of the birds, and partly to that of their favourite haunts, by the felling and stubbing of the woods, in two of which one hundred acres had been cut down since the beginning of the year, and this in the best locality. He said he found this nest on the 6th of May, then unfinished; on the 16th he called to see if there were any eggs in it, and found it had been completed by the addition of a few pieces of old rags; but there were no eggs. On making inquiry of some boys living in a cottage by the wood-side, he discovered that they had been to the nest, and taken out two eggs: one got broken, the other is the subject of this note.]

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

MILVUS MIGRANS (Boddaert).

BLACK KITE.

- § 315. *One*.—Kef Laks, Eastern Atlas, 24 April, 1857. From Mr. W. H. Simpson's Collection, 1858.

Mr. Simpson took particular care with the eggs of the two species of Kite.

- § 316. *One*.—Khifan M'srouten, Eastern Atlas, 24 April, 1857. From Mr. H. B. Tristram's Collection, 1858.

An interesting and well-identified little egg—the only one in the nest.

- § 317. *Two*.—Khifan M'satka, Eastern Atlas, 25 April, 1857. From Mr. O. Salvin's Collection.

Two specimens from the same nest, taken by Mr. Simpson himself, and the bird seen. Mr. Salvin tells me that this is probably the commonest bird of prey in Algeria. It is bolder than the Red Kite, lighting down close to the tents. It is nearly three weeks

later than that species, the eggs not having been got before the middle of April. In a series they are generally of a richer style of marking and colour than those of the other. The nest is built of sticks, lined with rags of burnous, placed in a rock, and commonly supported by a bush.

[Mr. Salvin's remarks on the nidification of this species will be found in 'The Ibis,' vol. i. p. 184.]

§ 318. *Two*.—Djendeli, Eastern Atlas, 15 May, 1857. From Mr. H. B. Tristram's Collection, 1858.

From different nests.

§ 319. *One*.—Kef Laks, Eastern Atlas, 17 May, 1857. From Mr. W. H. Simpson's Collection, 1858.

[§ 320. *Two*.—Kef Laks, Eastern Atlas, 21 April, 1857. From Mr. O. Salvin's Collection.

From two different nests. Both eggs quite fresh when brought by the Arabs. Mr. Salvin states that "in the neighbourhood of Kef Laks, as far as we could make out, there were three pairs of *Milvus regalis*, all of which we could account for. One nest in Gala el Hamara we took; another in the same rock had young, and one nest in Kef Zaroua was inaccessible; so that I have confidence in all eggs brought from the several rocks which form the edges of the plateau of Kef Laks—the highest of them all.

To Mr. Salvin's general remarks on the Black Kite I have already referred (§ 317).]

[§ 321. *One*.—Kef Boudjato, Eastern Atlas, 22 April, 1857. From Mr. H. B. Tristram's Collection.]

[§ 322. *One*.—Khifan M'srouten, Eastern Atlas, 24 April, 1857. From Mr. H. B. Tristram's Collection.

From a nest of two eggs taken by Mr. Simpson.]

[§ 323. *One*.—Djendeli, Eastern Atlas, 15 May, 1857. From Mr. H. B. Tristram's Collection.

Mr. Tristram's note states that this specimen was from a nest containing two

eggs, near the nest of *Tadorna rutila*, which was one of the great prizes obtained by the Algerian triumvirate (*Ibis*, vol. i. p. 362.)]

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

MILVUS ÆGYPTIUS (J. F. Gmelin).

ARABIAN KITE.

[§ 325. *One*.—"Egypte." From M. E. Verreaux's Collection, 1861.]

[§ 326. *One*.—Egypt, 14 April, 1862. "Bird seen." From Mr. S. S. Allen's Collection.

The specimen above mentioned was obtained by Mr. Allen; but that gentleman's notes on the breeding of this species are not as yet published. In due time they will probably appear in the pages of 'The Ibis.']

PERNIS APIVORUS (Linnæus).

HONEY-BUZZARD.

§ 327. *One*.—Wellgrove Wood, Oxfordshire, July, 1838. From Mr. Wilmot's Collection, 1856.

Concerning this egg, just received (11th April, 1856), Mr. Wilmot writes:—"The offering I have just dispatched consists of the fellow Honey-Buzzard's egg to the one figured by Mr. Hewitson [*Eggs B. B.* ed. 3. pl. xv. fig. 1] * * *. As you will see, it is an undersized, poorly marked egg, that would be valueless but for its being a veritable British-taken one. Indeed I am not aware that there are any other British-taken eggs still extant, except this pair. You will find the history of them in the '*Zoologist*,' p. 437. The egg I have sent you is the one my good friend Mr. G. L. Russell had. He is not prosecuting his collection, and therefore let me have it again without reluctance, as indeed he would anything that

he possessed; but I have so arranged that you need not feel the slightest scruple in placing it in the collection, where both eggs ought to be."

[It appears to me that Mr. Wilmot, in the above passage, has rather underrated this specimen. It is not, I confess, a very richly coloured one, but it is, I think I may say, quite as good as the average in this respect, as it is superior to them in the interest which attaches to it from its history, the particulars of which I here subjoin, extracted from the 'Zoologist' for 1844, p. 437.

"Early in the month of July, 1838, a female honey-buzzard was shot off her nest, in Wellgrove-wood, in the parish of Bix, near Henley-on-Thames, by a gamekeeper of Lord Camoy's, named Lowe. The bird, with two eggs taken from the nest, passed into the hands of a bird-stuffer at Henley, of the name of Hewer. I was then resident in the Temple, and being an eager collector of the eggs of British birds, had engaged a young friend, Mr. Ralph Mapleton, then living at Henley, to secure for me any rare eggs that he might have an opportunity of obtaining. Mr. Mapleton communicated to me the above occurrence, and at my request purchased the eggs for me. I afterwards saw the bird at the shop of Mr. Hewer, at Henley. The male bird, which continued to haunt the neighbourhood of the nest, was not long after killed by another of Lord Camoy's gamekeepers. The nest, a very large one, was placed in the fork of a beech tree, and was built of sticks of considerable size, with which were intermixed twigs with the leaves on. The lining was composed of leaves and wool; a great portion of the nest was, I am told, remaining in the tree a short time ago [1844]. I made no note of the occurrence at the time, but since my attention was drawn to the subject by the appearance of the observations before referred to [Mr. W. R. Fisher, 'Zoologist,' 1843, p. 375, and Mr. Hewitson, 'Eggs B. B.,' p. 27], I have assisted my memory by application to Mr. Hewer, and by his aid am enabled to give the above particulars with confidence as to their accuracy. He informs me that the pair of birds are in the collection of W. Fuller Maitland, Esq., of Park Place, near Henley."

In 1862, Mr. Fuller-Maitland informed me that the birds here mentioned were still in his possession. After mentioning two other recent instances of the Honey-Buzzard breeding in England, Mr. Wilmot proceeds to add (*loc. cit.* p. 439) — "The nest near Henley contained two eggs only, and the state of the eggs indicated that the bird had accomplished full one half of her period of incubation, and had consequently laid her complement. Of these eggs, one [the subject of this note] was inferior in size to the other, less strongly marked, and much more pointed at the smaller end. The largest egg ['Eggs B. B.' ed. 3. pl. 15. fig. 1] is about 2 inches long by $1\frac{3}{8}$ inch in breadth, and has the colouring, which has evidently lost somewhat of its brilliancy by incubation, pretty equally distributed over the whole surface. In other respects it resembles the specimen figured by Mr. Hewitson ['Eggs B. B.' pl. x.], and when newly laid, must have been a splendid egg."

I cannot refrain from here noticing the pleasing fact that these eggs were the means of Mr. Hewitson and Mr. Wilmot becoming known to each other— with what advantage to oology all egg-collectors recognize, though of the intimate friendship into which that acquaintance has ripened few may be aware.

The Honey-Buzzards certainly did not build their nest in Wellgrove Wood to no good purpose.]

- § 328. *One.* — “France.” From Dr. Pitman’s Collection, 1845 [?].
- § 329. *One.*—From Mr. J. Green, through Mr. Wilmot, 1846.
- § 330. *One.*—From M. J. Hardy’s Collection, 1848.
- § 331. *One.*—From Herr J. G. W. Brandt’s Collection, through Dr. R. T. Frere, 1853.
- § 332. *Two.*—From M. Parzudaki’s Collection, 1856.
- § 333. *One.*—Nilivaara, East Bothnia [?], 1856.

Came into my hands at the house (a *good* peasant’s house) at Niliivaara. It remains to be seen what it is—Peregrine, or Honey-Buzzard.

[I can find no further record of this egg, but I know that Mr. Wolley was at last nearly quite satisfied that this egg was a Honey-Buzzard’s. The precise situation of the locality I have not been able to discover, but I have very little doubt it is in the district which, in this work, I somewhat arbitrarily term East Bothnia, and at all events may be safely set down as north of lat. 67°, being four degrees beyond the limit assigned to the species by Herr Wallengren (‘Naumannia,’ 1855, p. 134).]

- § 334. *One.*—Kyrö, Kemi Lappmark, 4–10 June, 1858.

Brought to Muoniovara, 13th July, by Nikoo, who said it was an egg he did not know, but that it was a foreign Hawk’s. He had shot the bird, and brought its wings and feet. It was found, between the 4th and 10th of June, in a spruce-top about four fathoms high from the ground.

[The wings and feet of the bird were sent to Mr. Wolley, who told me that he recognized them as a Honey-Buzzard’s; but they unfortunately seem to have been lost. I searched in vain for them among the contents of his Lapland boxes at Beeston, before these were transferred by his father to the Museum at Norwich.]

- § 335. *One.*—“France.” From M. Parzudaki’s Collection, 1858.

[§ 336. *One*.—"Germany, 1858." From Pastor Theobald's Collection, 1859].

[§ 337. *One*.—From Herr J. G. W. Brandt's Collection, through Dr. R. T. Frere, 1861.

Hewitson, 'Eggs of British Birds,' ed. 3. pl. xv. fig. 2.]

[§ 338. *Two*.—Frame Wood, Hampshire, 10 July, 1861. "With bird. W. F." From Mr. W. Farren.

Mr. Farren's notes on the breeding of the Honey-Buzzard in the New Forest and adjacent woods will be found in the 'Zoologist' for 1862, p. 8159.]

ARCHIBUTEO LAGOPUS (Linnæus).

ROUGH-LEGGED BUZZARD.

[I cannot publish the details of the magnificent series of the eggs of this species which Mr. Wolley's cabinet contains, without adding a few remarks. When he first went to Lapland, in 1853, identified and authenticated specimens were almost, if not quite, unknown to British collectors¹. He found the bird very plentiful around Muonioniska; but all the nests had hatched, and that season he was only able to secure a few fragments of a single egg. Some months later, he obtained a couple of specimens from the pastor of Kaaressuando, by whom they had been procured for the chance of any one inquiring for them. The following year, 1854, Mr. Wolley applied himself especially to get properly identified examples. He took great pains to discover whether the Common Buzzard (*Buteo vulgaris*) ever visited the district. He spoke to all the persons he employed of the possibility of there being two sorts of *Piekonna* (the name usually applied to the Rough-legged Buzzard by the northern Finns), without giving any indication of the differences between them, merely requiring the feet of one of the birds to be brought, and offering the same reward for either. This plan he continued to follow, until he had thoroughly satisfied himself that the Rough-legged Buzzard alone bred in the far north. However, in his Sale Catalogue of 1855-1856, he stated that one example of the Common Buzzard was "recognized" just within the

¹ [It is recorded of this species by the late Mr. W. C. Williamson, of Scarborough (Proc. Zool. Soc., 1836, p. 77), that it "breeds occasionally" near Hackness; and the truth of the statement has been confirmed by Mr. Hewitson ('Eggs B. B.,' p. 26) through his friend, Mr. James Tuke. In Mr. Wolley's Note-book I find the following:—"Sept. 1843, Mr. Williamson informed me that the Rough-legged Buzzard, which used to breed at Hackness, is now extirpated there. He saw the last two on a barn-door two years ago! He has not got the egg."—Ed.]

Arctic Circle. I believe that his earnest desire to do justice to the public by not withholding from them any circumstance that might appear to favour their interests, here led him to do injustice to himself by exaggerating the amount of recognition which the bird obtained in this case. Mr. W. H. Simpson and I myself were with him on the occasion referred to. We were descending the River Muonio in the beginning of September 1855, and came upon a flock of about five-and-twenty or thirty Rough-legged Buzzards, which were then on their autumnal migration. Among them was one of a deep-brown colour all over. To this bird Mr. Wolley drew my attention, as being the first Common Buzzard he had seen in Lapland; and I examined it with my telescope as carefully as I could. It was sitting on a tree by the river-side, with several others, which were, to all appearance, undoubted Rough-legged Buzzards. They all seemed on friendly terms; and when we disturbed them, they took wing and continued in company. I could detect nothing in its carriage or flight different from the rest, and so far Mr. Wolley agreed with me. He also, if I remember right, admitted at the time the improbability of a Common Buzzard being found in a flock of the other species. I told him I thought it was only a very dark-plumaged Rough-legged Buzzard, and reminded him that among the many pairs of that bird's feet he had had brought to him, there were some of an almost deep chocolate-colour. I added that this was the prevailing characteristic of the North-American representative of our *Archibuteo lagopus*, and it seemed to me not at all unlikely that the European form should occasionally exhibit a resemblance to the *A. sancti-johannis*. To this he seemed to assent; and I was therefore much surprised when, some months after, I read the unqualified statement in his 'Catalogue.' Subsequently he told me he had come to think I was right, or, at any rate, that he had used by far too strong an expression in saying that a Common Buzzard had been "recognized" in Lapland. This opinion is strengthened by what Herr Wallengren says several times in his valuable series of papers on the "Breeding-zone of Scandinavian Birds," in the 'Naumannia;' but I here need only cite the single assertion (vol. iv. p. 72) that the Common Buzzard "never oversteps the Polar Circle." The statements made by Mr. Wolley in his Sale Catalogues are so carefully worded, that I know of but very few cases in which they are not literally true; these cases, of which the present is one, I, however, feel it my duty to notice as I proceed.

But supplying our collections with undoubtedly genuine eggs of this species was not the only service Mr. Wolley rendered to natural history concerning it. I am not acquainted with any British author who has described the changes of plumage in the Rough-legged Buzzard correctly, or who has figured an adult bird. This can easily be explained by the fact that the generality of the examples obtained in this country are young birds in their first dress. Until Mr. Wolley's spoils of 1853 were sent home, I did not positively know what the mature plumage was like. It is true it had been represented in some Continental works, among others, Naumann's excellent 'Vögel Deutschlands' (pl. xxxiv. fig. 1); but I had never had an opportunity of satisfying myself that that painstaking naturalist was right. The bird, however, killed from the nest, mentioned in the first of the following sections (§ 339), revealed the truth, and convinced me that in the adults of this species, as in so many other *Accipitres*, the markings are disposed transversely, instead of longitudinally,—in other words, that the young are striped, and the old are

barred. This view of the case was confirmed, without a single exception, by all the other skins, or parts of skins, subsequently obtained by Mr. Wolley, most of which are now in the Museum at Norwich. Naumann's figure of the adult Rough-legged Buzzard being so good, and Mr. Gould intending to depict the same stage of plumage in his magnificent 'Birds of Great Britain,' I do not think it necessary to give an illustration here. Mr. Cassin, so far as I know, is the only writer who has noticed the error into which most of the ornithologists of "Western Europe" have fallen ('Baird's B. of N. Am.,' p. 33); but he has not mentioned, as he might have done, that it was to an ornithologist of "Western Europe" that he owed his having been able to avoid the mistake his own countrymen had also made.

Of the series of eggs now in my possession, I can only say that, large as it is, it has been chosen from a much larger number. I have not the smallest doubt of the genuineness of any one specimen; but my first object in making the selection has always been to take those that were most fully identified. The picking out of finely marked or singular varieties has been a secondary consideration, but it is also one I have not neglected. The extent of variation, both in colour and size, is, however, in some degree shown by the dozen which are represented on the accompanying plates. The differences in the latter point are very great. It will be observed that the short diameter of one of the eggs represented (tab. v. fig. 6) is considerably greater than the long diameter of another figured in the same plate (fig. 3); and yet there is nothing of a monstrous character about either. Such discrepancies, I believe, are by no means unusual; and yet there are oologists who think that from perhaps a single specimen they can prescribe the exact measurement of a bird's egg! In colour the variation is quite as great; but I know how impossible it is to characterize in words the shape or tint of the markings. The more minutely a description is attempted, the less does it seem to convey a true idea of the specimen.

It might be imagined that the measures taken by Mr. Wolley to obtain a large series of identified eggs of this species would lead to its utter extirpation; I have therefore to assure those who were unacquainted with him, that he was one of the last persons to have done anything fraught with such a result. Rough-legged Buzzards are the commonest birds of prey in Lapland; and so enormous is the extent of the district from which his specimens were collected, that no sensible diminution whatever was thereby made in their numbers. It must also be remembered that all rapacious birds in Scandinavia are exposed to systematic persecution, premiums for their destruction being offered by the local authorities. Accordingly it was only necessary that he should promise a very trifling sum, in addition to the legal reward, to ensure the bird's feet being brought to him, instead of to the Länsmän or other official. After the year 1857, Mr. Wolley ceased to trouble himself with regard to this species, though a few of its eggs were occasionally brought in, chiefly from remote stations, or by collectors, paid by the day, who wished to swell the importance of their captures.]

§ 339. *Fragment*.—Palo-joki, Enontekis Lappmark, 3 July, 1853.
"Bird shot. J. W."

This fragment we found under the nest of a Rough-legged Buz-

zard. I climbed up to the nest, which was in a Scotch fir of no great size. There were in it two young ones—one which was not many days hatched, the other much larger. They were white, and just like young Eaglets. The nest was small, made of old sticks, with two or three sprigs of Scotch fir, and a little of the black hair-like lichen "*luppu*," which hangs so abundantly from trees hereabouts. The old birds flew around with a melancholy cry, just like the Common Buzzard, and they first did so a long way from the nest. I fired several shots at them, without at all frightening them, though one was certainly hit. Theodore shot one at last, whilst I was climbing up the tree. We picked up all the bits of shell we could find under the tree; and this is the result, sufficient to show the character of the eggs. In the nest was a half-eaten vole. The situation was at the edge of a great marsh—or, at least, near the edge; trees all round.

§ 340. *Three*.—Kaaressuando, Tornea Lappmark, 1853.

Obtained 8th December 1853, from Pastor Engelmarck. These were said to be *Kalasääski*, that is, Osprey; but they appear to be Buzzard's, and are, in all probability, Rough-legged Buzzard's. Two of them are highly marked eggs.

§ 341. *One*.—Æija-vaara, East Bothnia, 14 May, 1854.

Taken by Heiki. There was only one egg; he took it, and visited the nest a week afterwards, but it was deserted. I saw it on the 25th. The tree old and quite dead. The nest large, lined with hair-lichen and a little hay. There had been two or three trees cut down, and reared up to climb by. He could have shot the bird, had he had a gun. The egg, of course, quite fresh; and so I was able to select it from the other three with which it had been mixed. If there are two kinds of *Piekonna*, he thinks this egg belongs to the smallest. He knew the nest three years ago.

§ 342. *Three*. — Ollas-järwi, East Bothnia, 17 May, 1854.
"Bird shot. J. W."

O. W. tab. v. fig. 1.

The nest was found by Wollas Lassic on the 15th May, and was

taken by him, with my assistance, on the 17th. It was in a very tall and branchless Scotch fir. He went up with my iron claws, assisted by a rope. The birds made stoops as he was at the nest, but did not come very close. I would not have him take the eggs till I had got an old bird, both of which were wailing near. I was covered up in a hut of fir-branches. The bird settled under the nest, and I missed; but it came again, and died with a second shot. Lassie went up again, and lowered the eggs in my tin. They were quite fresh. The nest was large, and lined with hair-like lichen and grass. The bird shot was a hen, and had a half-grown egg-yolk inside.

§ 343. *One*.—Piko-viksi, West Bothnia, 18 May, 1848.

Out of four from a nest near Viksi-järwi, in an old rotten tree, which was cut down by Lassie Johann of Muonio-alusta. He found the nest last autumn, as he was squirrel-shooting. The eggs a day or two sat on. They fell on a soft place in the moss.

§ 344. *Three*.—Kangos-järwi, East Bothnia, 21 May, 1854.

Three eggs of a Buzzard, no doubt Rough-legged, found by Nils Suiki, a Lapp, between Kangos-järwi and Salmo-järwi, and brought to Ludwig the 3rd of June. They were rotten. Two of them are not unlike Cormorants' in the shell.

§ 345. *Four*.—Rowa, East Bothnia, 27 May, 1854. "Bird shot."

Brought by Punsis's lads to Ludwig, 3rd June, with the feet of one of the old birds. I must here make a memorandum, that I have let no one know (except perhaps Ludwig) that I prefer *Rough-legged* feet. I have promised the same pay for any Buzzards' feet, but nothing but Rough-legged have yet come (30th June, 1854).

§ 346. *Four*.—Särki-järwi, Salmo-järwi, East Bothnia, 29 May, 1854.

Brought to Ludwig, 3rd June, by Wassara the Lapp's lads, of whom several were bird's-nesting on the same day. Ludwig says

there were small young in these eggs, which he has carefully kept distinct.

§ 347. *Three*.—Kaaressuando, Tornea Lappmark, 2 June, 1854.
 “ Hen shot. J. W. *ipse*.”

I was taken to the nest on the 1st June, by the boy Johann Hendrik, commonly called Fricky, at Hammen-vaara, three quarters of a mile south of Kaaressuando. It was some fifteen or twenty feet from the ground, in a side branch of a Scotch fir, halfway up the hill, and easily accessible. I went up to it several times, and took the eggs on the 2nd or beginning of the 3rd—for it was about midnight. The birds wailed near the nest long before we came up. I caused a hut to be built above the nest, but I believe the bird saw my gun, and would not come. The second visit, my gun being carefully concealed, the bird at last came on to the nest, looking away from me towards where the men were. I fired, and she fell. It was freezing slightly, and there was a cold wind. The nest was made of fir-twigs, lined with grass or *Carex*. In the bird's ovary I counted about a hundred eggs visible on one side only: there would be as many more on the opposite side, besides those in the middle.

§ 348. *Four*.—Nälimä, East Bothnia, 5 June, 1854. “ Bird shot.”

Four eggs, brought on the 10th June by Keimio Michael, with the feet of the bird, which now lie before me carefully labelled by Ludwig.

§ 349. *One*.—Naimakka, Enontekis Lappmark, 15 June, 1854.

Out of three found on the Finnish side; I suppose, Rough-legged Buzzard's.

§ 350. *One*.—Muunioniska, East Bothnia, 26 June, 1854.
 “ J. W.”

From a nest found by myself and men in low ground near Kharto-vaara. The birds betrayed themselves by their wailing cries. The nest was placed just at the top of a Scotch fir, a small tree, and easy

to climb up, but the largest in the immediate vicinity. It was made of sticks, lined with black hair-lichen, and of a good size. There was this addled egg, and one young one some days old, with a yellowish cere. By an oversight, I did not examine its legs. I had a good look at the old birds: the dark mark in the middle of the wing, the light upper part of the head, the dark under surface of the body, and the white over the tail, all corresponded with *Buteo lagopus*, so common here last year.

§ 351. *Three*.—Keras-sieppi, Enontekis Lappmark, 1854. “With both birds.”

These three eggs brought to me by Hendrik on Midsummer Day, with the skins of the two old birds, complete, but poorly stuffed. They are now before me. The backs of both generally brown, with the edges of the feathers lighter, especially in the scapulars of the male. Top of the head also brown, with light edges to the feathers. Upper part of the tail white; the dark lower part barred in the male, with indications of bars upwards by the sides of the shafts. The throat and neck dull-coloured; crop white; chest dark brown, more mottled in the male. The belly in the latter also somewhat barred. Tail with a nearly black ring towards the end. Feathers of the thighs and legs barred and speckled. Under side of wings white, with speckles and bars, most of the feathers being dark at the ends, and light or white towards the base: hence the primary wing-coverts form a spot in the centre of the wing. Cere and feet yellow.

§ 352. *One*.—Keras-sieppi, Enontekis Lappmark, 1854.

Out of three brought to me at Midsummer by the old man there.

§ 353. *One*.—Sallanki, Kemi Lappmark, 1854.

With eight others, from a lot of eggs blown by himself, and delivered to me by Sallanki Johan, a great rascal. With the lot is a pair of Rough-legged Buzzard's feet. They do not know that I do not care for Common Buzzard; indeed the bird is not found, or not known, here.

§ 354. *Two*.—Palo-joki, Enontekis Lappmark, 1854.

From Heiki Ollen-poika and Zacharias. They called the bird *Poimonen*, a less common name about Muonioniska than *Piekonna*.

§ 355. *Two*.—Kautokeino, West Finmark, 1854.

Among other eggs collected and brought to Kaaressuando by a Lapp, with a list in which every egg is wrongly named, he having chosen the names for which I had offered the best prices. These two he called *Skuolfi*, *i. e.* Snowy Owl!

§ 356. *Two*.—Palo-joki, Enontekis Lappmark, 1854.

From the side of a lake up in the mountains. Ludwig got them in July from Matti, who said they were *Kalasüüski*; and I have often found that Rough-legged Buzzards, in common with Ospreys, go by this name.

§ 357. *Three*.—Kyrö, Kemi Lappmark, 1854.

Out of twelve specimens brought by Kyrö Nikoo. He shot the birds from three of the nests, and brought the feet and wings of two. He said the third was just like them. Two pairs of the feet, now lying before me, are Rough-legged Buzzards', and probably all the eggs belong to that species. I have hitherto (June 29, 1854) met with no other kind of Buzzard. He did not know how many nests there were.

§ 358. *Two*.—Muonio-niska, East Bothnia, 13 May, 1855.

Heiki brought them on the 1st of June.

§ 359. *Two*.—Kilpis-järwi, Enontekis Lappmark, 23 May, 1855.

From between the two lakes which bear the above name.

§ 360. *Four*.—Nangi, West Bothnia, 23 May, 1855. "Cock shot. L. M. K."

Ludwig tells me that he and Anton found this nest near Nangi-järwi. It was in a large Scotch fir. Ludwig went up with the irons, and saw there were four eggs, and then, with Anton's help, made a covert. He lay some three hours, when he got out and shot

a bird flying, which turned out to be the cock. Its skin I have examined.

§ 361. *Three*.—Muonio-niska, East Bothnia (?), 25 May, 1855.

Brought by Piko Heiki on 1st June: taken, probably, in the district.

§ 362. *Three*.—Sardio, Kemi Lappmark, 26 May—1 June, 1855. “With bird.”

Taken by Michael Sardio himself, not far from his father's house. The skin of the bird which he obtained from this nest is a fine dark specimen. He had marked the eggs in pencil, and kept them separate ever since they were taken.

§ 363. *Three*.—Hetta, Enontekis Lappmark, 1855. “Bird shot.”

Brought to Ludwig by Gabriel Muotka-järwi, 25th June, with the feet of the bird, which I have seen. They were called *Skuolfi*, which is Snowy Owl.

§ 364. *Two*.—Palo-joki, Enontekis Lappmark, 1855. “Bird shot.”

With another nest of three eggs taken by Johan Matthias and Zacharias, near Palo-joki: a bird shot from each, and the legs and feet kept separate, and inspected by me.

§ 365. *Three*.—Palo-joki, Enontekis Lappmark, 1855. “Bird shot.”

The second nest referred to above.

§ 366. *One*.—Ketto-uoma, Kyrö, Kemi Lappmark, 1855.

O. W. tab. v. fig. 5.

This egg the lad Johan Johansson declared he had taken himself

out of a nest, with one or two others, which he broke. It is a remarkably large specimen.

§ 367. *Three*.—Kyrö, Kemi Lappmark, 1855.

Out of thirteen others brought by the same lad, and at the same time, as the preceding. They are all marked by the rascal Kyrö Nikoo, and I have thrown away several.

§ 368. *One*.—Bergeby-elv, East Finmark, 1853. From Pastor Sommerfelt's Collection, 1855.

O. W. tab. v. fig. 5.

This egg, given to me by Pastor Sommerfelt, seems to be of unusual size for *Buteo lagopus*. It is said by Herr Nordvi and the Pastor that large eggs of Buzzard are not uncommon in the Varranger district.

§ 369. *Two*.—Tartcha-pahta, Mukka-uoma, Enontekis Lappmark, 1855.

Brought by the Lapp, Pehran Pieran Nicolaef.

§ 370. *Three*.—Kuttainen, Tornea Lappmark, 1855.

With two others, out of two nests, taken by Isaac Jatko. They seem to be Rough-legged Buzzards'.

§ 371. *One*.—Palo-joki, Enontekis Lappmark, 1855.

From a nest of three found by Johan Matti and Zacharias.

§ 372. *Three*.—Salmo-järwi, East Bothnia, 1855.

Brought by Fredrick: rather interestingly and finely marked eggs.

§ 373. *Two*.—Neiden, East Finmark, 1855.

With another, which Mr. W. H. Simpson has, from Herr P. C. Ekdahl: apparently Rough-legged Buzzard's.

§ 374. *Two*.—Tromsö, South-western Finmark (?), 1855 (?).

[These two eggs were sent to me in 1856, by Herr Ebeltofft of Tromsö, whom Mr. Wolley had previously requested to receive eggs brought by the Lapps for me. They are marked 'Boimas,' which I believe to be the Lapp name for the Rough-legged Buzzard, and I take them to be the eggs of that bird. They are rather small specimens.]

§ 375. *One*.—Kurkio-vaara, Kyrö, Kemi Lappmark, 6 June, 1856. "L. M. K."

First shown by Michael to Ludwig, who took the eggs. He saw no bird. The nest was at the top of a low Scotch fir.

§ 376. *Four*.—Kyrö, Kemi Lappmark, 7 June, 1856. "L. M. K."

Taken by Ludwig one mile (Swedish) south of Kyrö. He was under the nest before the bird flew. As it got up, it hung its legs down, and he saw distinctly that they were feathered to the toes. The nest was four fathoms up in a Scotch fir. Ludwig made a watch-house, and shot at the bird (which cried around) once or twice, to no effect.

§ 377. *Three*.—Akka-rowa, East Bothnia, 7 June, 1856.

O. W. tab. v. fig. 5.

Brought to Muoniovara, 23rd June, by Fredrick Salmo-järwi.

§ 378. *Five*.—Keras-sieppi, Enontekis Lappmark, 14 June, 1856. "L. M. K."

Five eggs from a nest three fathoms above the ground, on the branch of a dead Scotch fir. Ludwig and Sieppi shot several times at the bird, and the latter even watched three hours. The old man began to suggest it was the Devil. At last, with a shot from Ludwig, it came down, and lay with its feet in the air. The old man called out, "Is it the right kind?" (they had before talked of my belief in two kinds of *Piekonna*): Ludwig said, "Yes; but it is all alive still." As he spoke, the bird got up, flew away, and was no more seen. The old man said it was the Devil himself!

§ 379. *Two*.—Enontekis Lappmark (?), 1856.

O. W. tab. v. fig. 4.

Received by Ludwig at Kaaressuando, the beginning of July, from the Nyimakka man. Found by Rastin Piety. Well-marked eggs.

§ 380. *One*.—Sardio, Kemi Lappmark, 1856.

Seems to be a Rough-legged Buzzard's, though the Sardio lads said it was *Koppelo-Haukka*, i. e. Gos-Hawk. It is a well-marked egg.

§ 381. *Two*.—Sardio, Kemi Lappmark, 1856. "With foot."

Brought by Michael, with three others, and the foot of a Rough-legged Buzzard, now before me, which he said belonged to two of the eggs—he could not say which, but probably those which are larger than the rest, and otherwise unlike them.

§ 382. *Three*.—Pulju, Kemi Lappmark, 1856.

The feet of the bird from this nest lie before me, carefully labelled, as are the other pairs of feet. This pair is dark, and thickly spotted. The eggs are small. The nest was said by Piety to be in Ollitunarowa.

§ 383. *Five*.—Tepasto-lombola, Kemi Lappmark, 1856. "With feet."

Brought to Ludwig by Piety. The feet before me are closely spotted.

§ 384. *One*.—Tepasto-lombola, Kemi Lappmark, 1856.

Brought to Ludwig by Piety, who had the egg, with the feet of the bird, from Lombola Hendrik. The feet, now before me, are rather faintly spotted.

§ 385. *One*.—Palo-joki, Enontekis Lappmark, 1856.

One of sixteen specimens.

§ 386. *Four*.—Akka-mella, West Bothnia, 1857. “Cock shot.
J. W. *ipse*.”

A. *Two*.—19 May.

This nest I first found on the 11th, as I was measuring the river. I was going up the wooded bank, Mella-vaara, when one of the birds came and sat in a tree near. I saw it very clearly: it made its usual cry, and we almost at once saw the nest in a young Scotch fir. Johan Keimio was eager, and climbed up. The nest was empty. On the 19th I drove my Reindeer “Kokko-julma” on the river; both birds showed and screamed. I brought down the two eggs in my cap. The nest lined with *luppu* and sedge. I left in it two old Golden-eye’s eggs filled with sand, and having large holes open. The name is from *Akka*, a kind of Lapp divinity (*vide* Leemius) [De Lapp. Comment. p. 420], and *mella*, a sandhill. Here is an old burying-place, still used.

B. *Two*.—28 May.

On this day I took two more eggs. The Golden-eye’s had been carried off, one to the Buzzard’s ordinary feeding-place, the wooden rail of the burial-ground.

§ 387. *Four*.—Muonio-niska, East Bothnia, 26 May, 1857.
“J. W.”

Yesterday, or rather last night, I went with Wollas Lassi to take this nest, which he had found more than a week ago. The cock, as usual, was on the wing some time before we came to the nest. It was in a youngish Scotch fir, five or six fathoms from the ground, and had been occupied last year. Lassi climbed up. It was in his own woodcutting ground. The hen sat on the edge of the nest for a little time before she took to flight, and was in full moult. She sat on a tree at some distance. Both birds were rather shy. The cry of the hen stronger than that of the cock. The eggs were let down in a botanical tin, and blown on the spot; small young ($\frac{3}{4}$ inch) inside.

§ 388. *Four*.—Nollänki, Meras-järwi, West Bothnia, 24–30
May, 1857.

From Nollänki, a place two miles and a quarter from Meras-järwi.

Hendrik brought them, 15th June, under the name *Kalasiüski*. He said he saw the bird, which was spotted with black, and cried "*Bii, bii.*" They look almost as if they were from two nests; but he only spoke of one. Two of them are rather smaller, and have darker spots than the others, one of which is a beautiful egg. There can be little doubt they are Rough-legged Buzzards'.

§ 359. *Four*.—Nilsi-vaara, Enontekis Lappmark, 30 May, 1857.

Taken by Jon Pehrsson Pilto, half a mile (Swedish) above Mukka-uoma, on Kommaens.

§ 390. *Three*.—Muotka-järwi, Enontekis Lappmark, 2 June, 1857.

This nest was in a long *honka*¹, ten fathoms from the ground, in Honga-vaara-etalan-paasa. Taken by Maria's brother, Elias, in her presence.

§ 391. *Four*.—Sieppi-Kerro, East Bothnia, 2 June, 1857.

O. W. tab. vi. fig. 2.

Found by Apo in a dead pine, about four fathoms from the ground. The nest was lined with *luppu* and was on a branch not close to the trunk. Both birds were seen, and believed by Apo (an honest man) to be the same as those of which I shot one on Akka-mella [§ 386], in his company. The eggs carefully kept separate in the botanical tin.

§ 392. *Four*.—Kaakkari-järwi, Enontekis Lappmark, 2 June, 1857. "With feet."

O. W. tab. vi. fig. 4.

The bird, shot or trapped from the nest, as Maria said, and, as is evident from the feet, was a cock. Kaakkari-järwi is near or in Aita-selka, three-quarters of a Swedish mile to the east of Muotka-järwi. Beautiful and strongly marked eggs. In the same tree was a *Sotka's* (*Clangula glaucion*) nest.

¹ [Dead Scotch fir.—ED.]

§ 393. *Four*.—Lehti-rowa, East Bothnia, 2 June, 1857.

These four eggs found by Heiki, on the morning of 2nd June, in an old Osprey's nest which he found about April this spring. He does not know whether or not it was inhabited last year; but it was a very good nest on the top of a pine, some ten fathoms high. The birds came crying round, and Heiki is certain they were the common *Piekonna*. He distinctly saw that the cock was white over the tail. He cut down a *honka* to help him to the branches.

§ 394. *Four*.—Hutta-vaara, East Finmark, 2 June, 1857. From Pastor Sommerfeldt's collection.

O. W. tab. vi. fig. 5.

§ 395. *Four*.—Pieto-maski, Mukka-uoma, Enontekis Lappmark, 3 June, 1857. "L. M. K."

Taken by Ludwig, on his journey to Pera-vaara, a couple of Swedish miles from Mukka-uoma, to the eastward. He could neither snare nor shoot the bird.

§ 396. *Four*.—Peldo-uoma, Kemi Lappmark, 4 June, 1857.

This, with another nest of three eggs, was found by Erik Sardo in one day, on his way to Peldo-uoma, and deposited there against my arrival. They were taken to Muoniovara, 4th August, by Michael, untouched in the basket, as I had left them ready blown in June.

§ 397. *Four*.—Peldo-uoma, Kemi Lappmark, 1857.

A fine nest. As the last, but found by Johan Yli-tallon. At Peldo-uoma I declined to receive several nests of *Piekonna*.

§ 398. *Five*.—Toipalen, Mukka-uoma, Tornea Lappmark, 6 June, 1857. "With feet."

Brought to Ludwig, with the bird's feet, 7th June, by Jon Pehrson Pilto. The nest was taken three-quarters of a mile to the north of Mukka-uoma.

§ 399. *One.*—Makki-hukio-vaara, Kurkio-vaara, Kemi Lappmark, 11 June, 1857.

A long egg. Out of five; the other four given to Messrs. F. and P. Godman. Brought by Heiki, with particulars. In the same tree was another nest, that of a *Pistee-tiainen* [*Parus cinctus*].

§ 400. *Three.*—Ruata-joki, Enontekis Lappmark, 12 June, 1857.
“ J. W.”

These eggs found by myself, but taken by one of my men as I stood under the tree, a Scotch fir, in sight of the banks of the little river which, flowing from Ounas-tunturi by Keras-sieppi, is joined by the Lieppa-joki, and, being replenished in Utkojärwi by the Nälima water, after passing through Nullus-järwi, takes the name of Utko-joki till it runs into the Muonio.

§ 401. *One.*—Hirsi-maa, Enontekis Lappmark, 23 June, 1857.

Taken by the girl Maria: big holes, being blown by herself.

§ 402. *One.*—Tanan-anti, Kemi Lappmark, 1857 [?].

[Appears to have been obtained by Mr. Wolley in 1857, on his journey from Muonio-niska, by Peldo-uoma, to the Varanger Fjord. The locality is on the upper waters of the River Tana, and Mr. Wolley reached it on the 22nd June.]

§ 403. *Three.*—Lehma-selka (?), Enontekis Lappmark, 1857.

O. W. tab. vi. fig. 1.

The girl Maria said this was the first nest she found; but she attributed to it an egg which, from its appearance and a peculiar black nodule in its yolk, evidently belongs to another nest. Hence it is possible there may be a mistake in these three eggs being the ones she took on Lehma-selka; but they are, at all events, apparently out of some one nest; and as there was only one (and this she well recognized), of all she took, from which she did not get the bird, there is no doubt these three eggs were properly identified. The nest at Lehma-selka was on a branch in the middle of a *honka*—a

dead Scotch fir. The bird, a hen, was trapped by the left foot, which, still fresh, is before me. A very light-coloured example.

♂ 404. *Five*.—Kyrö, Kemi Lappmark, 1857.

O. W. tab. v. fig. 3.

These may have belonged to different nests.

♂ 405. *Two*.—Kyrö, Kemi Lappmark, 1857.

From Michael Sardo.

♂ 406. *Four*.—Sardo, Kemi Lappmark, 1857. "With bird."

From Michael Sardo.

♂ 407. *Four*.—Muotka-järwi, Enontekis Lappmark, 1857.
"With feet."

O. W. tab. vi. fig. 3.

As placed by the girl Maria. A nest of great beauty. One egg extremely fine. The feet of intermediate colour.

♂ 408. *Five*.—Hämma-järwi, Kaaressuando, Tornea Lappmark, 1857.

O. W. tab. vi. fig. 6.

Five beautiful eggs of *Piekonna*, found as above, by Nälina Lassi, in one nest. Blown by the lad, Johan Peter, and washed inside "many times."

♂ 409. *Three*.—Marrainen (?), Tornea Lappmark, 1857.

Received, blown, at Kuttainen, probably from Marrainen, and from different nests. One egg is marked like a fine Golden Eagle's.

♂ 410. *Three*.—Hanhi-järwi-maa, Enontekis Lappmark, 29 May, 1858.

· Brought to Muoniovara, 8th June, by Maria.

§ 411. *Three*.—Wuopio-uoma-ranta, Kemi Lappmark, May, 1858.

Brought to Muoniovara, 19th June, by Kyrö Nikoo, having been taken about a month since.

§ 412. *Two*.—Kota-vaara, Enontekis Lappmark, 1858.

Brought to Muoniovara, 19th June, by Sieppinen Johan, having been found two or three weeks before.

§ 413. *Two*.—Muotka-järwi, Enontekis Lappmark, 1858.

Brought to Muoniovara, 26th December 1858, by Maria.

BUTEO VULGARIS, Bechstein.

BUZZARD.

§ 414. *Three*.—Sutherlandshire, 28 April, 1849. “J. W. *ipse*.”

Hewitson, ‘Eggs of British Birds,’ ed. 3, pl. xiv. fig. 1.

Four or five hundred yards further south [from the Falcon’s nest (§ 222)] we saw a Buzzard’s nest, or Glead’s, as it is here called; and though it was only about twenty-four feet from the ground, I had great difficulty in getting at it, as the rock was in little broken bits. I tried to climb up with the rope; but afterwards I climbed from above with the rope under my arms, my man working it round a stake, and all was then easy. There were boys’ or men’s foot-marks to be seen about it, they not having been able to get at the nest, which was fixed into the roots of a mountain ash, *i. e.* between the trunk and the rock, and made of old heather-stalks, lined with the same *Luzula* as Eagles use. It contained three dirty eggs, one of which was unspotted. They were quite cold, and one was cracked in the nest before I touched it. The nest from below had the appearance of a large Crow’s. The bird, soaring far overhead, was quite silent. There was a steep slope down to the edge of the rock, covered with long heather; but the nest was not more than six or seven feet below the edge. The rock was a resumption of the range whereon was the Peregrine’s nest before described [§ 222], one of the birds of

which came up peering about at a good height while I was at the Buzzard's.

§ 415. *Three*.—Sutherlandshire, 21 May, 1849. “J. W. *ipse*.”

Hewitson, ‘Eggs of British Birds,’ ed. 3, pl. xiv. fig. 2.

In a walk, on the 21st May, to the foot of Quenaig, after having seen an Eagle, I came by some rocks very likely for Eagles, and where Peter has since told me that there used to be an Eagle's nest, easily accessible, the locality of which he showed me. Here I saw a bird I supposed to be an Eagle, and a place like a nest. I fired a shot, and out flew another bird from the nest, as I imagined. The place was very easy for ropes, and I determined to fetch them to it next morning. Luckily I looked again at the supposed nest, and, as it did not seem like one, tried a little climbing. Taking off my shoes, I soon got up to a narrow grassy ledge, along which I went till I suddenly came upon the nest on the ledge, not where I had at first fancied it was. I sprang to it, and saw three beautiful eggs. I rubbed my eyes. They were so small! Surely they were Buzzard's! The nest I looked at again, and the foundation had not sticks big enough for an Eagle. The dead heather-stalks and the sedge (*Luzula*) lining were all right, but they were equally so for a Buzzard. The plaintive cry was now explained; I had thought it odd in an Eagle. It was provoking, but could not be helped. The birds flew within shot as I was at the nest. The eggs, though not far from hatching, are quite clean, and, two of them at least, beautifully marked. I took a bird's-eye view of the little loch, and called at the shepherd's on my way home.

P.S. 1850.—I must here remark that it seems to me very difficult to distinguish a Buzzard from a Golden Eagle in the flight. This year, 1850, I at first thought I was looking at an Eagle overhead, when I afterwards believed it was a Buzzard (this in the Clova Mountains, Glen Phee); and the party subsequently came near a nest, where the birds were making their cat-like mewling. In most cases I have arrived at certainty as to the kind of bird I was looking at, either by the size, the occasional shape into which Buzzards put their wings, or, perhaps best, by the greater length of tail in the Buzzard. The flap is, I think, very similar in both, and so the contour of the wings.

§ 416. *Two*.—Sutherlandshire, 24 May, 1849. “J. W. *ipse*.”

I went with a man to look for nests of Buzzard and Peregrine in the

range of rocks over the inn. He it was who was said to have looked like a spider at the end of its thread last year [St. John, 'Tour in Sutherland,' i. 16] ; but he declared that he was never hanging, and, moreover, that Mr. St. John never saw him, being afraid to look over ; and that only one lad held the rope whilst Mr. St. John and his companion tried for a shot at the old birds. I found a nest by firing a shot from below ; and I climbed up, my dog ' Watch ' after me, to get a proper place above. Ropes were fetched ; but there was so much loose stuff that I could not descend with the gun, and we were obliged to frighten off the bird a second time by a large stone. The man fired at it, and my gun " kicked " him tremendously. The stake being fixed, and three men being at the rope (which was fastened under my arms), and another at the edge to prevent it from cutting, I descended. The last drop, of fourteen feet or so, to the nest was plumb. There were two eggs, poorly marked and hard sat on. The nest was made as usual, lined with *Luzula*, and on a very small ledge, only just big enough to support it. Some sheep, in a spot from which four or five had been lost since Christmas, were rescued by my ropes.

P.S. 1850.—I hear that this Glead's nest is occupied by a Penguin. The Peregrines did not breed in that rock in 1849, but they did in 1848 (*vide* St. John [*loc. cit.*]). This year, 1850, the Buzzards were in a worse place than last. The man who was with me before went and took out three young ones, which died during his temporary absence from home. So that in three successive years the Buzzards have slightly shifted the site of their nest. I may add to the account of my former descent, that the quantity of loose pieces of rock made it a tedious affair ; for I either had to kick them away before me, or so to place the ropes as not to touch them. Without this precaution, the descent would have been most dangerous.

♂ 417. *Three*.—Inverness-shire, 3 May, 1851. " J. W. *ipse*."

I took these in a Scotch-fir tree within four or five miles of Carrbridge. We had found the nest the day before, when the old Buzzard flew off as we stood beneath. It was not accessible without ropes, and even with their help I had great difficulty in reaching it, as it was on a horizontal branch. The keeper said the same nest was occupied by a " Salmon-tailed Kite " [*Milvus ictinus*] the year before. In the same forest I saw and climbed to not less than twenty old nests ; but this was the only one with anything in it, though another one was remade this year. According to the keepers, they always

reoccupy their old nests, adding a little every year. Three or four years ago Kites and Buzzards were very numerous here, as Mr. Edge had led me to expect. This year we only saw one Kite; but we saw it on two successive days. Its mate may have been sitting; and a nest, which we found near where we saw it, was believed to have been rebuilt this year. Later in the season I was informed that there had been no eggs in it; and in 1852 the keeper wrote to me that he was sorry to say one of the Kites had been trapped.

§ 418. *Two*.—Sutherlandshire, 1851.

Sent to me by a keeper from Assynt. The Kite is unknown in his district, and, I believe, almost so in the county.

§ 419. *Two*.—"Clermont-Ferrand," France. From M. Parzudaki's Collection, 1856.

§ 420. *Three*.—Lincolnshire, 6 May, 1856. From Mr. G. Adrian.

[These eggs, with those in the next section, were received by me, unblown, from a correspondent of Mr. Wolley's before mentioned (§ 294). He is, I believe, a most respectable man, and I have no reason to doubt his account of of them.]

§ 421. *Three*.—Lincolnshire, 12 May, 1856. From Mr. G. Adrian.

[As the last.]

[§ 422. *One*.—"Cumberland." From Mr. Robert Reynolds, 1846.]

[§ 423. *Two*.—Holland, 1851.

Sent to me direct from a Dutch correspondent.]

[§ 424. *Three*.—From Dr. R. T. Frere's Collection, 1852.]

- [§ 425. *Two*.—Blois, France, 1859. From M. Souchay's Collection.

These my brother Edward obtained, at Blois, from M. Souchay, who is a bird-stuffer there, and said they were taken in the neighbourhood.]

- [§ 426. *One*.—Switzerland (?). From M. Nager-Donazain's Collection, 1859.]

- [§ 427. *One*.—"Burwell, Cambridgeshire." From Mr. E. Fitton's Collection, through Dr. R. T. Frere, 1861.]

BUTEO FEROX (S. G. Gmelin).

LONG-LEGGED BUZZARD.

- [§ 428. *One*.—"Sarepta," Southern Russia (?).

This egg I picked out of a lot which had been sent to Mr. Stevens's auction-rooms. The name is written on it in a foreign hand, and, I dare say, is right.]

- [§ 429. *Four*. "Sarepta," Southern Russia. From Herr H. F. Möschler's Collection, 1862.

These eggs I received direct from Herr Möschler, who, himself one of the United Brethren, carries on an extensive ornithological trade with the Moravian settlement at Sarepta, on the Lower Volga. His notes on the habits of this species (under the synonym of *Butaëtos leucurus*, Naumann) will be found in the 'Naumannia' for 1853 (pp. 296-303). From them I extract the following passage relating to its breeding in that district:—"It builds its nest on the projections of the declivities of the vales with which the Steppe is everywhere intersected, or above on the ground close to the declivities. Whether it also nests on hillocks is yet uncertain. The nest is about 1½ Rhenish foot [rather more than the English one] in diameter. The depression therein is not far from the size of the crown of a hat. It is built of dry grass, straw, hair, fur, bits of skin, and the like, on a foundation of thick stalks, brushwood, &c. From the middle of April one finds therein three to four, seldom five, eggs." ('Naumannia,' 1853, p. 301.)]

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

Though this egg came to me marked "*Falco buteo*," I refer it as above, not only on account of its large size, but because Herr Möschler states that the Common Buzzard is a rare bird on the Lower Volga, and he is doubtful if that species breeds in the district. ('Naumannia,' 1853, p. 303.)]

CIRCUS ÆRUGINOSUS (Linnæus).

MOOR-BUZZARD.

§ 431. *Four*.—Whittlesea Mere, Huntingdonshire, May 1843. From Mr. Harvey, of Bait's-bight.

Hewitson, 'Eggs of British Birds,' ed. 3. pl. xvi. fig. 1 (?).

I bought these, which were said to be from the same nest, from Mr. Harvey, of Bait's-bight, near Cambridge, in May 1843. He knows the egg well, and had just received them from the neighbourhood of Whittlesea Mere. He engages a keeper who lives near Wood-Walton, and a man, Will Scarr, who keeps a small shop at Ramsey Hern, to send him all the uncommon eggs they can collect from fensmen or otherwise. I have seen and conversed with both the persons in question, and slept one night in the best and only inn, "The Red Cow," at Ramsey Hern, where I was asked the extravagant sum of sixpence for my night's lodging.

P.S. 1854. One of these eggs has been in Mr. Hewitson's hands, and perhaps he has drawn from it.

[Ramsey Mere was drained more than thirty years ago, and Whittlesea Mere in 1851. I do not think the Moor Buzzard has bred in the fens of the Bedford Level since the latter date.]

§ 432. *One*.—1852. From Mr. Green's Collection.

This egg is one of two from the other side of the sea, which Mr. Green had, on May 7th, lately blown. He had the bird with them, I had seen him engaged in stuffing another Moor-Buzzard (which had been trapped) a few days previously. I do not know whether they came from Amsterdam or Hamburg.

§ 433. *Two*.—North Brabant, 1854. From Mr. Newcome's Collection.

Sent to Mr. Newcome, at his desire, from Valkenswaard, with others; all the eggs correctly named.

§ 434. *One*.—Denmark, 1856. From Herr Erichsen's Collection, 1857.

Taken by Herr Erichsen.

§ 435. *One*.—Furö Sö, Denmark, 10 May, 1857. "Theob." From Pastor Theobald's Collection.

Taken as above by the Pastor in a boat. One egg only was as yet laid. He saw the bird.

§ 436. *Two*.—Roeskilde, Denmark, May 1857. From Pastor Theobald's Collection.

Taken near Roeskilde, but not by the Pastor himself.

[§ 437. *One*.—Whittlesea Mere, Huntingdonshire. From Mr. R. Reynolds, about 1844.]

[§ 438. *One*.—Whittlesea Mere, Huntingdonshire, 1850. From Mr. J. Baker.]

[§ 439. *Four*.—North Brabant, 1854. From Mr. J. Baker.]

[§ 440. *One*.—"Devonshire." From Lord Lilford's Collection, 1855.]

[§ 441. *Two*.—"Monk's Wood, Huntingdonshire." From Mr. T. V. Wollaston's Collection, through Dr. R. T. Frere, 1861.]

[§ 442. *One*.—"Quy Fen, Cambridgeshire." From Mr. E. W. Dowell's Collection, through Dr. R. T. Frere.]

CIRCUS CYANEUS (Linnæus).

HEN-HARRIER.

- § 443. *One*.—England (?). From Mr. R. Mansfield, 1844.
- § 444. *Two*.—Eastern England. From Mr. Harvey, of Bait's-bight, 1844.

These two eggs out of the same nest, in which there were six—an unusual number according to Mr. Harvey. One of them is spotted, the only one amongst them, and in fact the only spotted one I have ever seen. These are said to have been from Whittlesea Mere, in the middle of May.

- § 445. *One*.—Orkneys, 1848.
- § 446. *One*.—Sutherlandshire, 1850.

Sent by a game-keeper under the name of "Hen-Harrier."

- § 447. *Three*.—Carr Bridge, Inverness-shire, 1850.

These eggs, originally four in number, from a game-keeper near the place named, who sent them the year after they were taken.

- § 448. *Fifteen*.—Orkneys, 1851.

Out of nineteen sent me by Mr. George Harvey, of Stromness.

- § 449. *Six*.—Rabbit Island, Kyle of Tongue, Sutherlandshire, 1852.

Sent me as those of the "Hunting Hawk," by a correspondent, who says that he took them himself as above. If I remember right, the island is a low one, rather easily got at. The bird generally known as the "Hunting Hawk" is, as I believe, the Peregrine Falcon; and so my correspondent understands it. He evidently mistook them for Peregrine's eggs. I saw the Hen-Harrier in Sutherlandshire, and so did the Messrs. Milner ('Zoologist,' 1848, p. 2014). These eggs

were deeply stained when they arrived, mostly upon one side, but I do not remember then to have observed the groups of yellowish spots near the holes of several. Can these have been caused by the *larvæ* of moths, which may have attacked the sheep's wool in which I have left them since their arrival?

§ 450. *Two*.—Argyllshire, 13 May, 1852.

These were sent to me by a forester, under the name of the "Ring-tail or Hen-Harrier." As he failed in catching the young birds for me, I must for the present remain in doubt as to whether they are the Common or Montagu's Harrier.

[In 1854 I received from the same locality a pair of young Harriers, which I kept alive for some time. They were undoubtedly *Circus cyaneus*; and though Sir William Milner mentions that he procured *Circus cineraceus* in Sutherlandshire ('Zoologist,' 1848, p. 2014), I question much if that species is ever found breeding in Scotland.]

§ 451. *Four*.—Eastern England.

Hewitson, 'Eggs of British Birds,' ed. 3. pl. xvi. fig. 2.

These are most probably from Mr. Harvey, of Bait's-bight, but perhaps from Mr. Osborne, of Fulbourn, or Tom Rawlinson. From the mode of blowing, and the improbability of my having got them from any other source without recollecting it, I have no doubt they are British specimens.

[One of the above-mentioned eggs is, as stated, the original of Mr. Hewitson's figure. I should think it likely that Mr. Wolley did not obtain them later than 1845; but they seem to have lain in his cabinet without being properly marked for ten years or more. Mr. Wolley's character of Tom Rawlinson will be found in 'The Zoologist' for 1847, p. 1822.]

§ 452. *One*.—Lincolnshire, 14 May, 1856. From Mr. G. Adrian.

[This egg was received by me from Mr. Wolley, together with the Kites' of the same year before mentioned (§ 299 and § 310).]

§ 453. *Three*.—Konna-järwi, Maunu, Tornea Lappmark, 1857.

These eggs were said by the Mortanen lads to belong to the Hawk which is white on the wings [!], but whose name they did not know¹.

¹ [The name by which the Hen-Harrier is commonly called in northern Lapland is, I believe, *Sammakko-Haukka*, i. e. 'Frog-Hawk.'—ED.]

They were found on the ground near Konna-järwi, and are doubtless Hen-Harrier's—the only Harrier I have seen up here; and they are the first of its eggs I have met with. The birds were unusually abundant this spring.

[§ 454. *One*.—West Norfolk. From Mr. Newcome's Collection, 1853.

Taken either in Hockwold or Feltwell Fen "many years ago."]

[§ 455. *Two*.—Argyllshire, 1855.

From the forester who sent Mr. Wolley the eggs before mentioned, from the same locality (§ 450).]

[§ 456. *Two*.—Sutherlandshire, 6 May, 1859.

From a correspondent already several times mentioned in these pages (§§ 48, 49, 50, 55).]

[§ 457. *Three*.—Burwell, Cambridgeshire. From Dr. R. T. Frere's Collection, 1861.

Probably taken nearly twenty years before they came into my possession. They are so large that, but for Dr. Frere's positive assurance, I should have supposed them to be Moor-Buzzards'.]

[§ 458. *One*.—Feltwell Fen, Norfolk, 1840. From Mr. Newcome's Collection, 1863.

A finely spotted example.]

CIRCUS SWAINSONI, A. Smith.

SWAINSON'S HARRIER.

[§ 459. *One*.—"Wolga." From M. E. Verreaux's Collection, 1861.]

CIRCUS CINERACEUS (Montagu).

ASH-COLOURED HARRIER.

§ 460. *One*.—England (?). From Mr. R. Mansfield, 1844.

Mr. Mansfield said he was certain that this egg was a Montagu's Harrier. I believe it to be so from its size. This species is commoner than is generally supposed, being overlooked from its near resemblance to the Hen-Harrier.

[This last remark of Mr. Wolley's, written now nearly twenty years ago, and at a time when *Circus cineraceus* was usually considered to be a rare bird in England, I believe to be quite correct. In the fens of the Eastern Counties, as, in 1853, I had the pleasure of informing Mr. Hewitson ('Eggs, B. B.' ed. 3, p. 44), it certainly maintained its ground longer than either of the other two British species; and, from the inquiries I have made, I suspect it was there always the most abundant of them. Feltwell Fen, in Norfolk, as I have learned from Mr. Newcome, was a favourite place of resort in former days for the Ash-coloured Harrier.]

§ 461. *Two*.—Whittlesea, Huntingdonshire, 1845.

These two specimens I had from Mr. Osborne, of Fulbourn. He knows the birds well, and I have not the slightest doubt of their authenticity. They were probably taken out of a nest in Wood-Walton Fen, near Whittlesea Mere, for the express purpose of seeing which, and a Hen-Harrier's nest, I went over from Cambridge. The eggs were gone out of both. The former was made of leaves of dried grass, and was slight; but not so slight as, and of less coarse material than, the Hen-Harrier's. On going down the river [Cam] to Burwell Fen one day last May or June [1845] (the former month, I believe), we rowed past Vipers, of Upware, who was coming up in a punt. As we returned from Burwell, he told me he had in the boat with him a Montagu's Harrier and three eggs. He also told me there were two pairs breeding in Wicken Fen this year—a very rare thing now. He hoped to get the other pair, and would let me have them for a pound, and sixpence for each egg. I had seen the birds soaring about; but on my return in a few days, he had not got them. He told me many curious particulars of their habits; their action in choosing a nest, the male selecting a spot, the female approving or disapproving it, as she thought fit; of the male

coming to feed the female, and of her sometimes going to meet him, turning on her back and catching the prey thus brought her, which was, however, occasionally dropped on the nest. He also told me of the young pecking one of their fellows to death when bloody; of the habits of the old birds when the nest is approached, their cries, and the like. He described the difference in the situation of the nest of the three species of Harrier. Montagu's Harrier is a migratory bird, the other two not. He had snared many hundreds in his day. As to the bird and eggs mentioned above, when I got up to Bait's-bight, Mrs. Harvey showed me the bird, a beautiful specimen, and I took the three eggs and blew them very neatly and carefully in my rooms—two holes. In a few days Mr. Harvey came and demanded six shillings each! upon which, with the greatest internal reluctance, I gave them up. Mr. Harvey had many specimens from Mr. Seaman, of Ipswich, some of which, if I remember right, were spotted. I gave Mr. Osborne (an honest fellow, I believe, and Mr. Doubleday's correspondent) eighteen pence each for these eggs. He privately assured me afterwards that Mr. Harvey upbraided him greatly in consequence.

§ 462. *One*.—England (?). From Mr. Argent's Collection, 1846.

Mr. Argent has great dealings with the Cambridgeshire fen-men.

§ 463. *One*.—From Mr. Green's Collection, 1852.

A spotted specimen.

[§ 464. *One*.—Feltwell, Norfolk. From Mr. R. Reynolds, prior to 1855.]

[§ 465. *Two*.—Valkenswaard, North Brabant, 1843. From Mr. Newcome's Collection.]

[§ 466. *Two*.—Valkenswaard, North Brabant, 1850. Through Mr. Newcome.]

[§ 467. *Three*.—Feltwell Fen, Norfolk, 9 June, 1854. "Bird shot." From Mr. Whitmore Baker.

On the 16th June, 1854, my brother Edward went over to Feltwell Fen,

where he was told that a pair of Ash-coloured Harriers had had a nest, which, after some search, he found. It contained a single egg; but, on taking it up, he perceived it to be a common Fowl's, and discovered a trap set in the nest. On inquiry, he learnt that Mr. Baker, of Stoke-Ferry, had found it a few days before, taken the eggs, and shot the hen-bird. On writing to Mr. Baker, that gentleman expressed his willingness to part with the specimens; and accordingly, on the 20th, my brother rode over to Stoke and obtained them from him. Mr. Baker imagined that they were Hen-Harrier's, and had written that name on the eggs; but my brother saw the bird which had been killed from the nest, and it was the commoner species—*Circus cineraceus*—as indeed he had been led to believe it would prove. The Fowl's egg and the trap had been put in the nest in the hope of securing the cock-bird—a hope which, I am glad to say, was never fulfilled. To the best of my knowledge, this is the latest instance of a Harrier breeding in Feltwell Fen; and, judging from the state of the ground, the circumstance is not likely to occur again. The nest was made in the sedge, and on it was lying a feather—one of the *rectrices* of the cock-bird. This is now before me, and is so eminently characteristic that, apart from any other evidence, it would have been quite sufficient to determine the species of the owner.]

[§ 468. *Two*.—Holland, 1855. “With bird.” From Mr. John Baker's Collection.]

[§ 469. *Three*.—Eastern England, 1846. From Mr. Osborne, through Dr. R. T. Frere, 1863.]

Dr. Frere tells me that he bought these eggs from Mr. Osborne, 27th May, 1846. They were said to be from a nest of six; but one of them is so differently blown from the other two, that, in spite of the Doctor's positive assurance to the contrary, I suspect there may have been some little confusion here, though I doubt not they belong to this species, and were obtained in the English fens. Mr. Wolley's opinion of Mr. Osborne has been before given (§ 461.)]

GLAUCIDIUM PASSERINUM (Linnæus).

SPARROW-OWL.

[§ 470. *One*.—“Greece.” From Herr L. Schrader's Collection, through Herr G. T. Keitel, 1861.]

ATHENE NOCTUA (Retzius).

LITTLE OWL.

§ 471. *Two*.—From M. Lefevre's Collection, 1846.

§ 472. *Two*.—From M. Hardy's Collection, 1848.

§ 473. *One*.—London (laid in captivity), 1852. From Mr. J. Green's Collection.

This is one of two eggs laid by one of the Little Owls which Mr. Green had in confinement for a few days. An egg had been laid before he got the birds; and therefore he put a box in the cage, in which they laid two eggs, one yesterday, the other the day before. I saw the birds several days ago, but now there is only one left, Mr. Green having just sent off (May 13th) the other two to a customer. They came in the Ostend boat. The species is the same as that taken near Derby, which I kept so long in confinement, and which is now stuffed at Beeston. This egg I saw blown by Mr. Green's son while I was in the house. Both eggs were precisely similar.

[In the 'Zoologist' for 1848 (p. 2141), Mr. Wolley records the recent death, by an accident, of the Little Owl above alluded to, which he had so long in captivity. Mr. Hewitson, on the authority of Mr. J. J. Briggs, mentions its original capture ('Eggs B. B.,' p. 40), which appears to have been in the spring of 1843; and thus the bird lived just about five years in confinement. Mr. Wolley always suspected that it was one of the Italian specimens imported into this country and liberated in 1842 by Mr. Waterton ('Essays,' 2nd ser. p. 21).]

§ 474. *One*. — Reithoven, North Brabant, 13 May, 1857.
"With bird." From Mr. J. Baker's Collection.

This is one of four eggs from a nest on which the bird was caught, says Mr. Baker. He only met with this species in Holland. He says it often builds in holes close to houses, laying generally four eggs, never less than three. He took several nests himself, of which I think he said this was one.

[Mr. W. Bridger has some notes on the breeding-habits of the Little Owl in this district ('Naturalist,' 1855, pp. 271, 272).]

- § 475. *Four*.—Tetsmark, Jutland, 14 May, 1858. From Pastor Theobald's Collection, 1859.

Taken from one nest in a church-steeple, as above, by Herr J. C. H. Fischer.

- [§ 476. *Four*.—North Brabant, 1851.

These were received by me direct from a correspondent in Holland.]

- [§ 477. *Two*.—Varen, North Brabant, 2 April, 1858. From Mr. J. Baker's Collection.]

ATHENE PERSICA (Vieillot).

SOUTHERN LITTLE OWL.

- [§ 478. *One*.—Chemora, Eastern Atlas, 18 May, 1859. From Mr. O. Salvin's Collection.

Mr. Salvin's note respecting this specimen is as follows:—"There were six eggs in this nest, which was brought to our camp at Ain Djendeli by an Arab, with the old bird, which he had caught on the nest alive."

Mr. Salvin has some remarks on this supposed species in 'The Ibis' for 1859 (p. 190). In the same volume Mr. Tristram has also some observations (p. 291), whence it appears that, though the light colour of the plumage observable in most specimens of the Little Owl from Algeria is not always characteristic of them, yet these are invariably smaller than European examples. On this ground, slight though it be, I enter the southern race here under a distinct heading.]

STRIX FLAMMEA, Linnæus.

BARN OWL.

- § 479. *One*.—

This egg was taken by a friend of my brother Charles, who saw the Owl on its nest.

- § 480. *Two*.—Madingley, Cambridgeshire, 1844.

From Tom Rawlinson. They were found in a tree at Madingley.

§ 481. *Three*.—Eastern England, 1844.

These were sold to me for Short-eared Owl's; but the man had a low price, and told a contradictory story.

§ 482. *One*.—Hutton-Bushell, Yorkshire, 1851.

[§ 483. *One*.—Yorkshire, 1843.]

[§ 484. *Two*.—Barnham, Suffolk, 1847.]

[§ 485. *One*.—Euston, Suffolk, 1851.]

[§ 486. *Two*.—Elveden, 12 May, 1854. From Mr. J. Isaacson's Collection.

From a nest of four, in a hole of a tree, sometimes occupied by *Syrnium aluco*.]

[§ 487. *Four*.—Elveden, 29 April, 1857. "E. N."]

My brother's note respecting the above is as follows:—

"These four eggs were found in a hollow elm tree, near the church. On the 25th I put the old bird out from the tree; but it was late in the evening, and I was unable to see the eggs, which were quite at the bottom of the tree. It was not until the morning of the 28th that they were discovered. On the 29th we cut a hole into the side of the tree, and got them out. For the last two years I do not think this species has bred here. The eggs this year were quite fresh. In the tree were three halves of young Rats and half a Long-tailed Field-Mouse; in all four instances it was the 'latter end.'"

SCOPS GIU (Scopoli).

SCOPS OWL.

§ 488. *One*.—From M. Lefevre's Collection, 1847.

§ 489. *One*.—Madracen, Eastern Atlas, 27 May, 1857. From Mr. O. Salvin's Collection.

From the tombs of Syphax and the Numidian kings, commonly

called Madracen, situated about two-thirds of the way between Constantine and Batna, a little to the east of the road. Mr. Salvin's nests were found in holes of trees—generally Terebinth [*Pistacia atlantica*]. *Strix noctua* is also there, but is an earlier breeder, its eggs being half incubated when those of the Scops are laid. Several of the latter were brought with the birds, but not so in the case of this nest.

[Mr. Salvin's notes on this species, as observed in the Eastern Atlas, are recorded in 'The Ibis,' vol. i. pp. 190, 191.]

§ 490. *One*.—Madracen, Eastern Atlas, 3 June, 1857. From Mr. W. H. Simpson's Collection.

[§ 491. *One*.—Madracen, Eastern Atlas, 4 June, 1857. From Mr. O. Salvin's Collection.

Brought to Mr. Salvin by an Arab.

Mr. Salvin's general observations are referred to above (§ 489.)

ASIO OTUS (Linnæus).

LONG-EARED OWL.

§ 492. *One*.—10 May, 1840. "J. D. S." From Mr. J. D. Salmon's Collection.

§ 493. *One*.—Hackness Wood, Yorkshire, 1851.

§ 494. *One*.—Scotland (?). From Mr. W. Dunbar's Collection.

§ 495. *One*.—Hockwold, Norfolk. From Mr. Newcome's Collection, 1852.

§ 496. *Four*.—Elveden, 2 March, 1852. "Bird seen. E. N."

[Three of these eggs were formerly given to Mr. Wolley. They were found by my brother Edward as above. The nest was an adaptation of an old Squirrel's "drail," built in a spruce. The eggs in it were arranged after this manner, 000. On the 10th April, in the preceding year (1851), my

brother and I found the young of this pair of Long-eared Owls, and sent them to the Zoological Society. They had fallen out of the nest, which was in a Scotch fir, close to the spruce which contained the nest in 1852.]

[§ 497. *One*.—Elveden, 8 March, 1853. “Both birds seen. A. & E. N.”

The produce of the same pair of Owls as the last.]

§ 498. *Three*.—Elveden, April 1855. “Bird seen. A. & E. N.”

[Two of these were given to Mr. Wolley. The nest was that of the birds mentioned in the last two sections. It was first found on 11th April, with two eggs in it. Another was laid, and the nest then forsaken.]

§ 499. *Four*.—Elveden, 22 March, 1854.

[Three of these eggs were given by my brother and myself to Mr. Wolley. The nest, which contained originally five, was found and taken by the gamekeeper. Later in the season he saw a brood of young Long-eared Owls in the same plantation. The old ones had, therefore, doubtless bred a second time. These eggs are not the offspring of the same pair of birds as those in the last three sections.]

[§ 500. *One*.—Elveden, 1845.]

[§ 501. *One*.—Elveden, 12 March, 1852. “Bird seen. E. N.”

Out of a nest of three.]

[§ 502. *One*.—Elveden, 29 March, 1853. “Bird seen. E. N.”

This egg is from a nest of five, taken as above by a gamekeeper. It was in a small tree; but the locality was one which we had never before known the Long-eared Owl to frequent; it seemed therefore possible the eggs might be those of some other species. We heard of the capture late in the afternoon, as we were concluding a hard day's bird's-nesting in an exactly opposite direction. My brother, anxious to place the matter beyond all doubt, immediately started for the spot; and, reaching it just before dark, was lucky enough to get a satisfactory sight of the old birds, which had not yet abandoned their plundered dwelling-place.]

[§ 503. *One*.—Elveden, 25 March, 1856. “Bird seen. E. N.”

From a nest found by my brother and myself on the 20th March, and then containing three eggs.]

- [§ 504. *Four*.—Elveden, 29 March, 1856. “Bird well seen. A. & E. N.”

From a nest of five¹. All the eggs in these last six sections I believe to have been the produce of different pairs of birds.]

- [§ 505. *Four*.—Wilton, Norfolk, 29 March, 1859. “Bird seen. E. C. N. & E. N.”

My brother Edward’s note says of these eggs:—“Found by Mr. Newcome on a spruce fir, about fifteen feet from the ground. We both saw the old bird on the nest; and I got and took the eggs, five in number. One of them was fresh, the others more or less incubated,—the bird probably having begun to sit, when the first was laid.”]

- [§ 506. *Five*.—Wilton, Norfolk, 29 March, 1859. “Bird seen. E. N.”

My brother states of these:—“Found on the same occasion as the last, but in another plantation. Mr. Newcome’s gamekeeper shook the tree, when the old bird went off. I was at some little distance, and she flew close past me. He then got up to the nest, which was in a spruce fir, about twenty feet from the ground, and reported a young one just hatched, and five eggs. On blowing them, I found they had been incubated for different periods. In two of them the birds had long been dead, and were quite rotten. The male bird was seen, as well as the female (though I saw the latter only). He was sitting on a tree within five yards of the nest-tree, and flew wildly away—which he probably would not have done had he not been close to the nest.”]

ASIO CAPENSIS (A. Smith).

CAPE EARED OWL.

- § 507. *One*.—Tangier. From M. Favier’s Collection, 1847.

¹ [I may here perhaps be excused for mentioning that, owing to a slight misprint in a notice of the Long-eared Owl, which I contributed to the last edition of Mr. Hewitson’s valuable and well-known work (‘Eggs Brit. Birds,’ ed. 3. p. 56), my meaning is obscured. The point on which my own experience leads me to differ in opinion from Mr. Tuke is regarding the number of eggs generally laid by this species. If the comma after the word “pair” (line 25) be converted into a semicolon, and the full stop after “edition” (line 27) changed into a comma, the sentence will read correctly.—ED.]

ASIO BRACHYOTUS (Linnæus).

SHORT-EARED OWL.

§ 508. *One*.—Ross-shire (?). From Mr. W. Dunbar's Collection, 1851.

Mr. Dunbar wrote to me that this was from "a nest near Loubcroy in the heather. If I mistake not, the Messrs. Milner had one or more of the same nest. I did not get it myself, but the eggs and female were brought to me."

[In Sir William Milner's account of his expedition in the north of Scotland ('Zoologist,' 1848, pp. 2014-2017) no mention is made of any Short-eared Owls' eggs.]

§ 509. *One*.—Hesleyside, Northumberland, June 1840. From Mr. J. P. Wilmot's Collection, 1846.

This was obtained, through Mr. Yarrell, from Lovat, the gamekeeper at Hesleyside. Mr. Hancock afterwards told me he could be depended upon.

§ 510. *One*.—Sweden. From Mr. C. J. Andersson's Collection, 1851.

§ 511. *Two*.—Feltwell Fen, Norfolk, 1852. From Mr. J. Baker's Collection.

Mr. Baker tells me there were five eggs in this nest. Last year he shot two birds from the nest in the same fen. There were several nests there—merely holes scraped in the ground for the eggs. This year there was only one nest.

§ 512. *Four*.—Ruana-uoma, Kätkesuando, East Bothnia, 1 July, 1853. "Bird shot. J. W."

Beating the marsh on the Russian side [of the river] at Kätkesuando, with Ludwig, Theodore, and our two boatmen, the former called out to me to shoot; and I saw almost under me an Owl, squatting on the ground and looking at me. At first I sup-

posed it to be a young Short-eared, but it rose and flew. I shot it, and it turned out to be an adult bird. At the spot where it left were three Owlets and four eggs, the latter with the shells just cracking; so there must have been seven eggs altogether. The men called it *Katt-Uggla*, and said it often flies at persons' faces as they come near its nest. Lying by the nest were four Voles [*Arvicola*, sp. indet.] of the kind which is so numerous in this district this year—one old one and three young, one of the latter half-eaten.

§ 513. *Six*.—Kaaressuando, Tornea Lappmark, 1853.

These were stated by Pastor Engelmark to have been found in the bird-boxes; but another account said they were on the ground; and on comparison they look like Short-eared Owl's eggs.

§ 514. *One*.—Feltwell Fen, Norfolk, April 1849. "W. H. S."
From Mr. W. H. Simpson's Collection, 1856.

This was from a nest of four eggs shown *in situ* to Mr. Simpson; he also saw the birds, one of which was trapped by a man living on the spot. Not far off was the nest of an Ash-coloured Harrier, with one egg, which is now in that gentleman's collection.

§ 515. *Seven*.—Maunu, Tornea Lappmark, 1857.

On the 26th July I saw, at a fishing-hut a little below Mukka-uoma, Johan of Mortainen and two boys of his. He said he had some eggs at home; and the lads explained that seven of them were *Pumppu-Haukka* (*Strix brachyotus*) found all in one nest, on a *palso* (high tuft or hillock) in Vacker-valle, near their home. Leaving Maunu on the 26th, I took in the boat a very little boy, landed, and went with him to their then untenanted house, Mortainen. He climbed on to the roof, and out of some hole produced, among others, these eggs ready blown. From the certainty as to the species with which the brothers had spoken, and bearing in mind it has been plentiful this year, I have no doubt they are genuine Short-eared Owl's. I set no higher price on this bird's eggs than on Hawk-Owl's.

§ 516. *Two*.—Autijomen-jankka, Kätkesuando, East Bothnia,
8 June, 1857.

These were brought to Muoniovara, on the 18th June, by the

sister of the girl who found them as above in a marsh. She said the bird was so fierce, and shrieked so, that she was almost afraid. The date and place of nesting show that these are Short-eared Owl's eggs. It was at the back of Kätkesuando that Ludwig, with me, found the nest in 1853 [§ 512]; but that was behind Pekkola, the southernmost house in the village, while this was behind Aiantajustas—about the northernmost. On the 2nd August the girl told me that there were brown feathers in the nest, such as are on a young Short-eared Owl, which I showed her,—and not grey, as on a Lapp Owl.

§ 517. *One*.—Pinkis-uoma, Palo-joki, Tornea Lappmark, 1857.

Brought to Muoniovara, 24th June. In August, Matti, the finder, relates that he saw the bird leave the egg, which was on a tuft in a marsh. It was like a *Jankka-Haukka* [*lit.* Earth-Hawk]—a large bird with large wings. He did not at that time touch the egg, but the bird deserted. Pinkis-uoma is on the Swedish side, opposite Palo-joki.

[§ 518. *One*.—Feltwell Fen, Norfolk, 1846. From Mr. R. Reynolds.]

[§ 519. *Two*.—Hilgay Fen, Norfolk, 1854. From Mr. J. Baker's Collection.]

[§ 520. *Three*.—Feltwell Fen, 1854. From Mr. Whitmore Baker.

These were obtained by my brother, on the occasion before mentioned (§ 467), from Mr. Baker, who I believe took them himself.]

[§ 521. *One*.—Feltwell Fen. From Mr. Newcome's Collection, 1863.

A specimen probably at least twenty years old.]

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

BUBO MAXIMUS, Fleming.

EAGLE-OWL.

§ 523. *One*.—From Dr. Pitman's Collection.

§ 524. *One*.—Upsala-Län. From Herr C. Åberg's Collection, 1853.

This egg was given me at Upsala by Herr Carl Åberg, this 9th May, 1853, it being one of three in his possession, which he took some five or six years ago from a rock upon some property of his, three or four miles from Upsala in a south-westerly direction. The bird is hereabouts called by a name [*Uf*] pronounced like our "ugh," which has been given it from the noise it makes. Early this morning I started, with H. H. Åberg and Löfgren, for the spot. We saw no Owls; but the place where eggs had been, or one just like it, was shown to me. It was on a shelf above a steep rock, just such a site as that near Gothenburg¹, and with a southern aspect. Some trees have been cut down where it is. The nest was there for three years in succession.

§ 525. Åsberg, Angermanland. 20 May, 1853. "J. W."

This egg I took as above, out of a nest with two young birds. It had a young one inside, which had made a considerable hole in the shell, through which the beak appeared, and it was chirping loudly. Those already hatched did not seem to have come long into the world. They were quite blind, and covered with white down, having a yellowish tinge. Their general appearance was that of young Eagles. The nest was scarcely hollowed, and with nothing in addition to the bare ground except the hair and remains of castings of the old birds, some of which remained uncrushed at the side. There was not more than an inch of earth upon the rock; however, there grew upon it bear-berry, juniper, and a little grass, besides a Scotch fir, some sixteen feet high, with a trunk flattened to the perpendicular rock. The shelf

¹ [This site is described in Mr. Wolley's fragmentary journal of 1853 as follows:—"22nd April. After returning to Gothenburg, I went out with a gentleman resident there to look for the nest of an Eagle-Owl across the river. We came to

was a small one, not quite two feet in width, terminating abruptly soon beyond the nest, but continued on the side by which we approached. Perpendicular rock above and below, but still the access by no means difficult.

There was with me a young man, Peter Ehrson, who had a good idea whereabouts the nest would be. Five young ladies, in wide straw hats, were watching us from below. They imitated very well the "coō-hoō" of the *Berg-Uf* [Eagle-Owl] in reply to ours. Before we commenced the ascent, while we were debating upon the matter, an Osprey happened to fly along the ridge of rock, upon which one of the Owls gave its beautifully sounding "coō," or "ugh"—the same note that I have heard from the birds in the Zoological Gardens, but with a much finer effect, softened as it was by distance. As Ehrson and I came near the part of the rock most frequented by the Owls, we found two Hare's feet and other remains. About this time a *Berg-Uf* sailed below us, giving us a beautiful view of his broad back and mottled wings. He passed in a direction different from that in which we were going, and turned a corner out of sight. A little further on another *Berg-Uf* left the face of the rock, and flew in the other direction, soon settling, and often turning her head to look at us, flying back a short distance, into such a position that I was able to look at her with my glass and see her satisfactorily. A few paces further Ehrson exclaimed, "There is the nest!" and sure enough there were the two young birds and the egg, as mentioned before. We waited an hour in the nest, but the birds did not appear again till we had left the spot. Then the male flew overhead to join the female, and perched upon the extreme top of a spruce-fir, where his

a range of rock, in which a boy pointed out the spot where an old bird and two young ones had been caught last summer. After a little scrambling, I came to the place from above, and found it to be just at the summit of a precipice, in a recess or ledge of some width. The whole of the nest was well rounded and rather deep, but appeared to have been merely scratched in the turf, and to have had no materials added to the natural bed so formed. There were lying in the hollow some bleached bones of rats and of birds of the size of Partridges. It was close under a low piece of rock, which, however, appeared to afford it so little shelter that the water from the melting snow was dripping into the middle of it. It was not at all dissimilar to the spot which a Golden Eagle would select, unless perhaps rather more exposed. The aspect southerly; and Mr. [Duff] assures me that the Eagle-Owl usually lives on the sunny side of a rock. So, as I remember, it was in the case of one at least of the nests which Linnæus mentions in his tour [*Lachesis Lapponica*, vol. i. p. 39]. In another rock, which we visited this afternoon, were Ravens and Falcons (no doubt Peregrines); but I had not a good sight of them. This is the rock whence there is so fine a view of the town of Gothenburg. It also has been the resort of Eagle-Owls, which fly out when a gun is fired near it."—ED.]

cars were finely relieved against the sky. About this time we heard some more "coö-hoös." Bones of birds, rats, and animals of that size were in the immediate neighbourhood of the nest. Many points of rock within a few hundred yards were white with dung; and it was said that several pairs of Owls frequent this mountain-side. At the inn at Hörnäs, a mile or two back, was a lately trapped *Berg-Uf*, nailed, with spread wings, to the wall. The trap had been baited with a Hare.

[The graphic account of this nest, which Mr. Wolley contributed to Mr. Hewitson's work ('Eggs B. B.' ed. 3. pp. 51-53), was contained in a letter to me, the first I received from him from Scandinavia, dated "Haparanda, 2nd June, 1853." As it gives no more details than will be found above, I abstain from quoting it here, though it is decidedly a more finished production of his pen than these notes, which were probably written down almost in the heat of victory. Mr. Wolley was at this time literally following "in the footsteps of Linnæus," as Mr. Hewitson phrases it. "It was on the 20th May, after climbing to the mysterious cave in Skulaberg," as he wrote to me, that he found this nest. It is a singular coincidence that, according to the Old Style, by which Linnæus reckoned, he, in 1732, also visited this remarkable place on the same day of the same month ('*Lachesis Lapponica*,' vol. i. pp. 52-55, and vol. ii. pp. 242-244).]

§ 526. *Two*.—Salmojärwi, East Bothnia, April 1854.

Found by the boys at Salmo-järwi, two or three days after Easter. They had told me, in the winter, that they knew a breeding-place of this bird on a rock. The eggs were split by the frost, for the birds did not return to the nest after the lads had first visited it. One of them subsequently selected the species of *Huuhkaja* [the name applied about Muonioniska to both the largest Owls] from skins of the Lapp and Eagle-Owl before him. It was of course the latter.

[In 1855 this pair of Eagle-Owls seem to have bred near Särki-lombola, in the same district. The two eggs, taken on the 26th April, passed into the collections of Mr. G. D. Rowley and the late Mr. J. D. Salmon.]

§ 527. *Two*.—Särki-pahta, Salmo-järwi, East Bothnia. 1856.

Brought to Muoniovara, 8th June.

[In April 1856 three other eggs of the Salmo-järwi Eagle-Owls were taken. These are now in the collections of Sir William Milner and Messrs. Bond and Troughton. The two mentioned in the text appear to have been a second laying of the same birds.]

§ 528. *Three*.—Kiwi-luoma, Salmo-järwi, East Bothnia. 14 April, 1857.

Found on a cliff about a quarter of a mile from Särki-pahta, the Tuesday after *Pääsiäisen* [Easter], by Simon Peter, who brought them to Muoniovara the Monday following, as I noted at the time. The *Huuhkaja* which he saw had ears—"smallish ears." The same pair of birds as last year's nests [§ 527, and probably § 526], though they had rather shifted their quarters.

[Several of the eggs laid by the Salmo-järwi Eagle-Owl have the shell very coarse-grained; and this is particularly the case in one of the above lot.]

§ 529. *Three*.—Ækäs-korkion-pahta, East Bothnia. 13 May, 1856.

Brought by Anders Wassara, on the 18th May. He says that he saw the bird, and that it was *Korwa-Huuhkaja* [Eared *Huuhkaja*]. His brother found the nest on the sand under the roots, or just in the spot where the roots had been, of an overturned tree, on a steep hill-side near a force. There are small cliffs or rocks by the river Ækäs-joki.

The following year the nest of this pair of Eagle-Owls was found by the same lad in a similar site, "on the ground, against the up-turned roots of a tree facing the south, on the side of a dell, where he had often heard the birds cry 'hugh, hugh.' He was sure it was the Eared *Huuhkaja*, though he did not see it very distinctly as it flew away. No nest—a mere slight hollow. The bird deserted the two eggs, which were quite fresh. The place was about a quarter of a mile (Swedish) to the east of Ækäs-järwi."

[The eggs of 1857 are in the collections of Sir W. Milner and Mr. Braik-enridge.]

[§ 530. *One*.—1853. Mr. J. H. Gurney's Menagerie.

This is the first egg laid by the female of a pair of birds bred by Mr. Edward Fountaine, whose remarkable success in propagating this fine species in confinement has been recorded by himself in 'The Ibis,' vol. i. pp. 273-275.]

[§ 531. *Two*.—1857. Mr. J. H. Gurney's Menagerie.

These from the same bird as the last (§ 530). Though she lays and sits every year, she has not hitherto (1858) produced any offspring.]

[§ 532. *One.*—Kemi Lappmark, 3–9 June, 1860.

I have had some doubt about admitting this egg into my series. The finder was Pietu, one of the best collectors in the country, and for whose judgment and honesty I have a very great respect. He believed it to be that of *Pieni* (or *Pikku*, which means the same thing) *Huuhkaja*, i. e. *Syrnium lapponicum*. The nest contained this one egg only, the others having been hatched, and was in a tree, three ells from the ground. This fact appears to have made him think as he did; for though he saw the bird, it was at a distance. But instances of Eagle-Owls breeding on trees have been recorded. Here I need only cite one case, on the authority of a most careful observer—the gentleman who prefers being known as “An Old Bushman.” He states (‘Field,’ No. 409, October 27, 1860, p. 351), “I have seen the nest both in a tree and on a rock.” The Lapp Owl would seem to be a somewhat later breeder than *Bubo maximus*, and, as a rule, would hardly, I think, have hatched its brood by the time this egg was taken. Besides, the coarser grain of the shell, which in the egg of the Lapp Owl is usually very fine and close, and its size, 2.29 in. by 1.9, induce me to believe that this is an Eagle-Owl’s; while, of twenty-nine eggs of *Syrnium lapponicum* out of my series, the longest measures 2.26 in., and the widest 1.81, the average of the whole being 2.054 in. by 1.608. The shortest egg of *Bubo maximus* that I possess measures 2.19 in., and the narrowest 1.67.]

[§ 533. *Three.*—Rota-järwi-pahta, Rowa, East Bothnia. 11 May, 1861.

Brought to Muoniovara, 13th May, by Pungsi, who said that they were those of the great *Huuhkaja*, which he himself saw. He found them, as stated above, on the south side of a cliff about half a mile from his house.]

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

BUBO ASCALAPHUS, Savigny.

EGYPTIAN EAGLE-OWL.

[§ 535. *One.*—Pyramids of Dashoor, Central Egypt. 3 April, 1863. “J. H. C.” From Mr. H. Cochrane’s Collection, through Mr. Leadbeater.

This Mr. Cochrane accompanied Mr. S. S. Allen, of whom mention has before been made in these pages (§ 181 and § 326). I believe they did not find any other large Owl in Egypt. They got plenty of skins of this one, several of which I saw, all unmistakeably *B. ascalaphus*.]

NYCTALE TENGMALMI (Gmelin).

TENGMALM'S OWL.

§ 536. *Four*.—Nälima, East Bothnia. 1856.

O. W. tab. ix. fig. 3. Proc. Zool. Soc. 1857, p. 57.

Brought by Johan Kenta's wife from Nälima, 15th June; taken long before. The bird had been turned out of its *tylla*¹ by a *Sotka* (Golden-eye). Doubtless Tengmalm's Owl.

[One of these eggs was sent by Mr. Wolley for exhibition at the Meeting of the Zoological Society of London, 24th March, 1857.]

§ 537. *Four*.—Helluntai-lauantai, Kyrö, Kemi Lappmark. 30 May, 1857. "Bird killed."

O. W. tab. ix. figs. 1, 2.

Received by myself in Yli-Kyrö, on 14th June, from Johan Johanson, of Ala-Kyrö, who said they were found as above in a *tylla*. As to the species there can be no reasonable doubt; for with them were the foot and wing of the bird.

§ 538. *Three*.—Kätkesuando, East Bothnia. 1858.

O. W. tab. ix. fig. 4.

Brought to Muoniovara, 25th May. Found in a Duck's nest-box.

¹ [It is the practice in Lapland to set up in convenient places nest-boxes for the Golden-eye (*Clangula glaucion*) to breed in. These boxes are called in the Muonioniska district by the names *tylla* or *uu*. They consist of hollowed-out logs of wood, from three to five feet in length, and closed at either end. In the side a hole is cut to admit the birds. Besides the Golden-eye, the Goosander (*Mergus merganser*) and the Smew (*Mergus albellus*) avail themselves of the accommodation thus afforded. But two species of Owls do the like, and their tenancy is not unnaturally resented as an intrusion by the people who have been at the trouble of making ready the lodgings, as witness the statement of Linnæus ('*Luchesis Lapponica*,' i. p. 93).—ED.]

§ 539. *One*.—Tömi-koski, Tepasto, Kemi Lappmark. 18 May, 1858.

Found as above by Varan Heiki on the Ounas-joki, in a hole made by *Picus martius*.

§ 540. *One*.—Wassara, Kemi Lappmark. 21 May, 1858.

Brought to Muoniovara, 19th June, by one of the Wassara lads. He said that it was *Palokärki* [*Picus martius*], and found as above, a fathom or two from the ground; and that he saw the bird, which was red on the head, and elsewhere black on the body.

[The above-mentioned egg is certainly not that of *Picus martius*, as the finder thought, though I have no reason to doubt his word that he saw such a bird at or near the nest. It is just one of those cases of mistaken identity as to the parentage of an egg which are constantly occurring, and which are so annoying to the oologist; but I have scarcely any hesitation in placing the specimen in my series of *Nyctale tengmalmi*.]

§ 541. *One*.—Jua-rowa, Särki-järwi, East Bothnia. 2 June, 1858. "With bird."

Brought to Muoniovara, with the bird, 7th June, by Piko Heiki. The nest, with four eggs, was found as above in a hole made by *Picus martius* in a Scotch fir, about a fathom and a half high. Half a mile [Swedish] west of Särki-järwi.

[§ 542. *Four*.—Aha-vaara, Kemi Lappmark. 26–31 May, 1861.

Brought to Muoniovara, 25th June, having been found as above by Piety Kyrö in an *uu* (nest-box).]

[§ 543. *Four*.—Kippari-saari-ranta, Muotka-järwi, Enontekis Lappmark. June 1861.

Brought to Muoniovara 1st July, having been found as above about four weeks previously. These eggs are extremely small (one of them measuring only 1.13 inch by .97 inch), so that I wrote to Lapland for further inquiries to be made of the finder respecting them. In reply I heard that he thought the bird was like any other *Pikku Pissi* (*Nyctale tengmalmi*). There was no nest in the same hole in 1862. Mr. Wolley never obtained any authentic trace of the occurrence of *Glaucidium passerinum* in Lapland; but it was one of the birds for which he was always on the look-out.]

[§ 544. *Five*.—Kätke-joki, East Bothnia, June 1861.

Brought by the finder to Muoniovara, 14th July. He got them, about a week before Midsummer, in a rotten trunk of a tree. These eggs are also very small, one measuring only 1.37 inch by 1.01 inch.]

[§ 545. *Five*.—Lombola-tunturi, Kyrö, Kemi Lappmark, June 1861.

Brought to Muoniovara, 4th August: found as above, a week after Midsummer-day.]

[§ 546. *One*.—"Sweden," 1859. From Mr. H. W. Wheelwright's Collection.]

SURNIA ULULA (Linnaeus).

HAWK-OWL¹.

§ 547. *Four*.—Kangos-järwi, East Bothnia, 18–22 April, 1854.

O. W. tab. ix. fig. 5.

Out of eight eggs brought to Muoniovara for me, on the 28th April, by Isaak of Kangos-järwi. With them was a Hawk-Owl, whose wing had been struck off as it made an attack on the intruder, raising a lump on his head. There had been two nests of seven eggs each, of which six were accidentally broken by the frost, having been left in an uninhabited room, as I have just (15th May) learned at Kangos-järwi. One of the nests I visited on my way hither. It was in a hole in a tree, about ten feet from the ground, without any lining. In it, last year, were some kind of Duck's eggs. I saw both the birds still crying near the place, and they were clearly Hawk-Owls. This nest was taken on Easter Tuesday, and the other also from a tree on the following Saturday. From this last, the bird sent me, a male, was killed.

§ 548. *Three*.—Putharla, East Bothnia, 1 May, 1854.

Out of six eggs taken by Isaak Rowtio from an old *tylla* on

¹ [An interesting note on the habits of the Hawk-Owl, by Mr. Wolley, will be found in the 'Zoologist' for 1854 (pp. 4203, 4204). It contains no new information, however, respecting its manner of breeding; so I do not reprint it here.—Ed.]

Puthars-puoella, Muonioniska. He said it was exactly the same kind of bird as a specimen of Hawk-Owl which happened to be lying in my room; but he could not catch it, though he and another lad tried to plug it up in its nest with a piece of wood.

[The remaining three eggs of this nest are in the collections of Sir William Milner, Mr. Burney, and Pastor Theobald.]

§ 549. *Two*.—Kurkio-vaara, Kyrö, Kemi Lappmark, 1856.

Ludwig was at the place on the 10th June, and received the eggs unblown. They said they were *Pissi*, *i. e.* Hawk-Owl.

[Six other eggs from this nest were sold at Mr. Stevens's, 12th May, 1857, to Sir William Milner, the late Mr. J. D. Salmon, Mr. Burney, Mr. A. F. Sealy, and Mr. Braikenridge.]

§ 550. *Six*.—Ollas-rowa, Muonioniska, East Bothnia, 27 April, 1856. “With both birds.”

O. W. tab. ix. fig. 6.

Ludwig received these eggs, and wrote of them as follows:—“6th May, Niemi's Johan brought six *Pissi*'s eggs taken in Ollas-rowa, 27th April, with both birds. He said that when he went to the nest, the cock came and struck two holes in his ear; but, as he had got a stick in his hand, he struck it on the head, so that it died straightway; and the hen he got fast in the hole, when she came out from the nest.” Ludwig relates that the birds made quite a serious attack on Johan. They are both skinned, and I have sent them to England.

§ 551. *Four*.—Kyrö, Kemi Lappmark, 1847.

O. W. tab. ix. fig. 7.

Received by me in Yli-Kyrö, amongst Nikoo's eggs, but said to have been found by Michael's son. Birds being well known in Kyrö, it is probable that these eggs may be depended upon as Hawk-Owl's. One of them is much smaller than the other three.

§ 552. *Six*.—Tepasto, Kemi Lappmark, 1857.

O. W. tab. ix. fig. 8.

Out of thirteen brought, on 5th August, by Ludwig from Ala-

Kyrö, where he had received them from Johan Heiki's wife, who said they had been sent from Tepasto. They were mixed together; but, on blowing them, it was found that six were fresh and seven considerably incubated. These latter also seem to be much yellower than the others, and doubtless belonged to a different nest.

§ 553. *Five*.—Sirka, Kemi Lappmark, 1857.

Brought on 4th August by Carl Nullas-järwi, who had been with the post to Rauhala, where he received them from the Sirka postman, who had brought them thence.

§ 554. *One*.—Keras-sieppi, Enontekis Lappmark, 1857. "With bird's skin."

From this single dirty egg, which nevertheless had a large young one inside it, it appears that the bird was killed; and on such facts the Keras-sieppi men are trustworthy. The skin is before me.

P.S. 16th August, Matthias says his brother Hendrik found this nest, with young.

§ 555. *Three*.—Merta-vaara, Ounas-joki, Kemi Lappmark, 3-9 May, 1857.

This was brought by Heiki, 11th July. He said they were found in a tree. This information, coming from trustworthy sources, leaves no doubt that these eggs are Hawk-Owl's.

§ 556. *Five*.—Palo-vaara, Salmo-järwi, East Bothnia, 11-17 April, 1858.

Out of six brought to Muoniovara, 22nd May, by Hendrik, having been found as above in a tree which a *Palokärki* [*Picus martius*] had used. He saw the bird, and said that the *Pissi* which lays eggs in *tyllas* is less than the common *Pissi*.

[The name *Pissi* is often used in Lapland for all middle-sized and small Owls, but by those who know the difference between them is restricted to *Surnia ulula*, which is certainly the commonest species in the country. The Hendrik mentioned above was probably mistaken as to the size of the bird he saw, and I have little doubt in considering these eggs to be Hawk-Owl's, since they are fully as large as the average of well-identified ones in the series.]

§ 557. *Two*.—Tepasto, Kemi Lappmark, 18 May, 1858.

From a nest of six, found as above, in a hole in a dead stump.

§ 558. *Four*.—Korkala, Kemi Lappmark, 20 May, 1858.

From a nest of six eggs brought to Muoniovara by the man who found them as above in a *tylla* a quarter of a mile (Swedish) from his house.

[§ 559. *Four*.—Rowa, East Bothnia, 20–26 May, 1860.

Brought to Muoniovara, 23rd June, by Johan Erik, who said that he found them as above, about a furlong (Swedish) from his house, at the top of a hollow tree, the nest being about two fathoms and a half high. He said that he knew the kind of bird well.]

[§ 560. *Six*.—Thitalahen-vaara, Kemi Lappmark, 9–15 May, 1861.

Brought to Muoniovara, 23rd June, by Johan Salanki from Kyrö, who said he found them as above in a *tylla* or *uu*.]

SYRNIUM LAPPONICUM (Sparrmann).

LAPP OWL.

[On Mr. Wolley's first arrival at Muoniovara in the summer of 1853, he was pleased to find evidence of the occurrence in the district of this rare species, in the shape of a tailless skin of it, which had been for three or four years used as a plaything by his landlord's children. But his first introduction to the bird alive occurred a few months afterwards; and I trust I may be excused for introducing his account of it here, especially as it describes a curious habit (common, as it would appear, to several species of Owls) which I do not think has been previously noticed by writers. Writing to me from Muoniovara, 23rd September, 1853, he says:—

“ Before proceeding to notice your letter further, I must tell you an adventure of this evening. It had rained heavily all day, but it ceased about four o'clock; and I turned out with Ludwig to see if I could shoot a Caperally or two, for I had killed four on the two preceding days, and many come to the wood now that the leaves are off the birch and aspens. I was anxious to try the shot which we had manufactured; for I had only a charge or two left of No. 11 (Swedish).

Having walked for a couple of hours without a 'bay,' as they would say in the Highlands, and having seen nothing but a little Siberian Titmouse [*Parus cinctus*], which 'tchee, tchee, tcheed' its ill-omened note, I turned homewards; for night was coming on more quickly than usual. I called and whistled the dog; but it was his duty and his habit to take a very wide beat, and I was not surprised that he did not come. A few minutes afterwards, I heard an unusual kind of yelp in the distance, and then a succession of barks in a peculiar high key, which I had not known him adopt on any former occasion; for, you must know, that a Squirrel, for instance, is 'bayed' with a very different kind of bark from a Capercally, and you at once can recognize what kind of game these dogs are after. I said to Ludwig he was either after some great Owl, or was caught in a snare. After a run of nearly a mile over very rough ground, I began to 'stalk,' and there are so many dead twigs that it requires great care. But I was still some little distance from where the dog was barking, when a small Owl flew up from that direction, and perched in a Scotch fir only a few feet from my head. I had not seen this kind of Owl before; but I knew that *Strix Tengmalni* was a Lapland bird, and I had little doubt that one was now before me, though it was too dark to see it distinctly. I drew back a considerable distance and fired; but the large shot and the night were against me, and the bird flew a short way, and settled close to Ludwig, but flew again before I had time to go up and give him a second barrel. The dog did not run up as he usually does when he hears a shot, but continued barking. Approaching him cautiously, with no inconsiderable amount of curiosity, I saw 'Halli' standing quite patiently in a footpath, with a Capercally snare round his neck. Calling Ludwig to join in the laugh at my dog's expense, and with every mark of approval of his good judgment in standing quite still and calling for my assistance, I proceeded to liberate him, not without some little deprecation of the setter of the snare, whom I well knew. Just then I saw a great pair of wings give two or three noiseless flaps, as their owner lightly settled in a neighbouring tree. Ludwig had scarcely uttered his impressive "See! see!" when I fired my only remaining barrel at the place where I guessed the bird was. Relieved from all doubt as to my success, as he fell head foremost down, I sprang forwards and scarcely glanced at the banded wings and grey back of my victim, before I turned up his face that I might indulge my joy without risk of a mistake. It was indeed *Strix Lapponica*! Ludwig danced with exultation, and stroked the bird's head and back, calling him by all the names and titles he could think of—'Stora Lapp-Uggla,'

'Gamla poika,' 'Kaunis Pissi-Haukka,' 'Vackra Kissa-Pöökö,' 'Musta Huuhkaja,' 'Pikku Huuhkaja,' 'Teharppis Skuolfi'—the two last the Finnish and Lappish names. * * * * After having secured my capture in a pocket-handkerchief, I excited the dog to bark again, and he soon brought round the small Owl and five or six Short-eared Owls, with perhaps a Hawk-Owl, but no more *Huuhkaja*. Presently, reflecting that I was scarcely improving my dog, I tried some unearthly noises myself, which were, if anything, more successful than the dog's, but still no *Huuhkaja*. Ludwig said that if any man heard me, he would certainly think it was the *Djefoul*. This led to talk on the supernatural, till Ludwig 'shied' at every stump, and I heard several interesting accounts of native superstitions. * * * * Headless men, a glance through the horse-collar, and so forth, all have place in these arctic lands."

For the next two or three years, Mr. Wolley prosecuted his researches into the history of the Lapp Owl without much success. Sir John Richardson had already many years before described ('Fauna Boreali-Americana,' ii. p. 78) the nest of its Transatlantic representative, *Syrnium cinereum*, which is so closely allied to it that I am doubtful whether any real distinction can be made out between them¹. It also appears from Dr. Brown's statement, quoted by Dr. Brewer ('North American Oology,' p. 71), that Mr. Audubon had seen an egg of the nearctic form. But I do not know that a specimen of either existed in the cabinet of any oologist.

According to Professor Nilsson ('Skandinavisk Fauna,' Föglarna, 3rd edit. vol. i. p. 124), Herr Von Seth, who, in 1842, took a journey into Lulea Lappmark, and visited Quickjock, reported that this species of Owl built a very big nest in a high tree or on a high stub, wherein it laid two or three dirty-white eggs. If I am not mistaken, however, this intelligence was not published until 1858, when the last edition of Professor Nilsson's work appeared. Meantime Herr C. G. Löwenhjelm, who travelled in the same district of Lapland in 1843, communicated to the Royal Academy of Sciences at Stockholm some zoological notes of his journey, in which he says (Kongl. Vetensk. Acad. Handl., 1843, p. 389) that a female Lapp Owl was preserved in the Parsonage at Jocknock by Pastor Ullenius, having been killed in the neighbourhood, in the beginning of June, when sitting on her nest, which she had built in a thick Scotch-fir wood on a stub three ells high. In this, as it was old and rotten inside, a depression was formed, which, without any roof, she had made to serve as her nest. There was one white egg, the size of an Eagle-Owl's, in it, and beneath, on the moss, lay another quite uninjured. This account, though published in 1844, was, I believe, unknown to Mr. Wolley²;

¹ [If they are considered identical, Sparmann's name, "*lapponicum*," applied to the bird of the Old World, must give way to Gmelin's "*cinereum*."—Ed.]

² [The discovery of Pastor Ullenius seems to have been also unknown to Professor Nilsson; at least no mention of it is made in the account he gives of this bird. I became aware of it from one of Herr Wallengren's admirable series of

for, on the 16th July 1856, he announced, as a novelty, to the Meeting of Scandinavian Naturalists at Christiania (Forhandl. Skand. Naturf. 7de Möde, p. 221) that "*Strix Laponica*, according to the report of several trustworthy persons who had seen its nests, lays its eggs in a depression on the top of the stump of a broken-off tree." On the 24th March 1857, he communicated a paper to the Zoological Society of London ('Proc. Zool. Soc.,' 1857, pp. 56, 57), in which he related the actual discovery, by men in his employment, of the two nests from which eggs were brought to him in 1856, as described below (§§ 561 and 562). At that time he thought that three was the usual number of eggs laid, but it will be seen further on that the complement is often greater.]

§ 561. *Two*.—Juonto-selkä-maa, Kello-joki, Kemi Lappmark, 1856.

P. Z. S., 1857, p. 56. O. W. tab. ix. fig. 9.

These, brought home by Piety as *Pikku Huuhkaja*, agree exactly with the Kurkio-vaara eggs [§ 562], from which the bird was shot, and is now here. The place was a little to the north-east of Sodankyla. Piety met with a man there, who said he had shot a Hawk and another bird. Piety went to his house, and saw the bird and the eggs. It was a *Pikku Huuhkaja*, a bird he knows very well. He cut it up, and therein was another egg, not ready to be laid, but just like the two; hence he is certain about the species to which they belong. This nest was on the top of a broken trunk of a Scotch fir, the main part of which hung down; but, from the description, Piety thinks there was some old nest there. He does not remember seeing any nest made. It was not high up, some two fathoms perhaps; but those which he has seen before were not more than one fathom high. The top of the tree, where it was broken off, was not level, but had a great splinter on one side. The birds are very bold at the nest, and the cry of the cock attracts people to the nest. The cry is three notes drawn out, the first hardest, the second lighter and short, the third lightest and longest of all:—"HU, HU, hu-u-u." They had not before seen this bird at Sodankyla—as they said, at least.

articles, "Breeding-zones of Birds in Scandinavia," in the 'Naumannia,' where (vol. iv. pp. 76, 77) he quotes, as I have done, from Herr Löwenhjelm's paper.—ED.]

§ 562. *Two*.—Merta-vaara, Kyrö, Kemi Lappmark, 28 May, 1856. “With hen bird.”

P. Z. S., 1857, pp. 56, 57. O. W. tab. ix. fig. 10.

Taken, as above, three-quarters of a mile east of Kurkio-vaara. The nest was in a Scotch fir. Kurkio-vaara Matti said that earlier in the year he shot a *Pikku Huuhkaja*, but did not see the nest until after he had done so. He skinned it, and Ludwig saw the skin. When, soon after, on 28th May, he went again to the place, the survivor had a new mate, and there were two eggs in the nest. He thought if he shot the hen he could get another egg from her inside. Unluckily he shot just through the egg, which had a hard shell. The skin of this bird I have sent to England. The eggs are in size about 2 in. by 1·6 in., and 2·1 in. by 1·65 in.

P.S.—Muoniovara, 5th April, 1857. Matti, now here, says that the nest was made of sticks and all kinds of stuff inside, about three fathoms and a half high up in a large Scotch fir, where it divided into several great forks. It was not like a new nest, and he describes it as about two feet in thickness. He was several times at the nest; first no eggs, and so on. He now says, with certainty, that the skin he brings (that of the bird he shot) was a cock, so that it was the hen which got a new husband.

[In his communication to the Zoological Society before referred to, Mr. Wolley, then writing under date of “February 2nd, 1857,” states that the first bird killed from this nest “was found to be a female, with eggs inside.” He had not then seen the Owl-slayer; but it appears from his postscript of the 5th April, that the second bird had been confounded with the first, which was in reality a cock. I believe the skins of both are in the Museum at Norwich.]

§ 563. *Two*.—Ækka-järwi, Kemi Lappmark, 1857. “With both birds.”

O. W. tab. ix. fig. 11.

Brought by Michael, on 4th August. He said they were left at his house during his absence from home (probably about Midsummer) by Abraham Korkala, who had related that there were four more eggs inside the hen bird. This man lives at Ækka-järwi, which is about a mile (Swedish) to the east of Sardo. The skins lie before me.

[The skins were, I believe, among those sent to Norwich.]

§ 564. *Four*.—Palo-vaara-laiduu, East Bothnia, 29 May, 1858.
“With bird.”

O. W. tab. ix. fig. 12.

Brought to Muoniovara, 23rd June, by Punsu, who said he found them as above, on the south side of the mountain, in a great Scotch fir. The nest was about five fathoms from the ground. He also brought the bird, but most grievously stuffed.

[§ 565. *Five*.—Sieppi, Enontekis Lappmark (?), 18 May, 1861.
“With bird.”

Brought to Muoniovara, 22nd June, having been found as above, in a tree four or five fathoms high. The eggs had young ones in them. The bird was sent to me.]

[§ 566. *Four*.—Kajo-selkä, Kemi Lappmark, 1861. “With bird’s feet.”

Brought to Muoniovara from Kyrö, 23rd June, having been found about three weeks previously in a tree as above. The feet came also. There had been five eggs, but one got broken.]

[§ 567. *One*.—Poro-vaara, Kyrö, Kemi Lappmark, 1861.
“With bird.”

Brought to Muoniovara, 25th June, by Piety, who was unable to give further particulars respecting it. The bird is now in Mr. Newcome’s Collection.]

[§ 568. *Five*.—Kemi Lappmark (?), 1861.

Brought to Muoniovara, 30th June, by Wollas Erik, having been found, about the 20th, in a tree.]

[§ 569. *Five*.—Kiwi-järwi-Kentta, Kemi Lappmark, 12 May, 1862.

Brought to Muoniovara, 15th May, by Kyrö Nikoo, having been found as above in a Scotch fir, about three fathoms from the ground.]

[§ 570. *Four*.—Ounas-vaara, Kemi Lappmark, 26 April, 1862.
“With bird.”

Brought as above by Pehr Kyrö. The skin of the bird I have sent to the Smithsonian Institution at Washington.]

[§ 571. *Four*.—Tepasto, Kemi Lappmark, 1862.

Sent to Muoniovara, 2nd July, by Tepasto Johan, without any particulars. I keep these eggs because they are rather elongated in shape, and of a somewhat rougher surface than is usually seen in this species.]

[§ 572. *Four*.—Æjtasen-maa, Kemi Lappmark, May, 1862.

Brought to Muoniovara, 9th June, by Rowa Peter, who said they had been found about four weeks since in a rotten stub.]

SYRNIUM ALUCO (Linnæus).

TAWNY OWL.

§ 573. *One*.—Eton, Buckinghamshire, 1843.

Obtained by my brother Charles from a man who had the old bird, which he had killed from the nest.

§ 574. *One*.—From Mr. Sadd, 1843.

§ 575. *Two*.—Scotland (?). From Mr. W. Dunbar, 1850.

§ 576. *One*.—Hutton Bushel, Yorkshire, 1851.

§ 577. *One*.—Pickering, Yorkshire, 1854. From Mr. A. Robert's Collection.

§ 578. *Two*.—Southern Sweden, 1856.

[§ 579. *One*.—Elveden, 1846.]

§ 580. *Three*.—Elveden, 22 March, 1852. "E. N."

[§ 581. *Two*.—Elveden, 21 March, 1853. "A. & E. N."]

[§ 582. *One*.—Elveden, 16 March, 1854. "A. N."]

§ 583. *Two*.—Elveden, 25 April, 1854. "A. & E. N."

[§ 584. *Three*.—Elveden, 4 April, 1857. “E. N.”]

[§ 585. *Four*.—Elveden, 5 April, 1859. “A. & E. N.”]

The eggs mentioned in this and the preceding six sections were all, I believe, the produce of the same pair of birds, which to my own knowledge from 1844, and probably for a much longer time, had frequented some clumps of old elms near the house at Elveden. There were three of these clumps, in one or the other of which they invariably laid their eggs. The trees were of considerable age, and mostly quite hollow, with an abundance of convenient nesting-places. By waiting quietly about an hour after sunset, my brother Edward or myself could generally discover whereabouts the Owls had taken up their quarters for the season; but it sometimes happened that we did not find the nest until the young were hatched. Throughout the winter the Owls kept pretty much in company; but towards the middle of February they used to separate, the cock bird often passing the day in a tree at some distance from where the hen was. As soon as he came out in the evening to hunt, he announced his presence by a vigorous hoot. Upon this the hen would emerge silently, and, after a short flight, would reply to her mate's summons by a gentle note. He then generally joined her, and they would fly off together to procure their living. The eggs were commonly laid about the second week in March, and the nests were almost always very accessible. I never knew these birds occupy the same hole in two successive years; but, after the interval of two or three years, they would return to the same spot. There were never any materials collected to form a nest, the eggs being always placed on the rotten wood, which in most cases formed a sufficient bedding. If all the eggs were taken, as was the case in 1854, the hen bird laid again in another tree. We never found more than four eggs in the nest. These often, but not always, proved to have been incubated for different lengths of time, showing that the hen bird sometimes began to sit as soon as the first egg was laid; but we could never divine what might be the cause of this irregularity of habit. After the young birds had left the nest, it was some time before they began to shift for themselves; and they used to sit in the shadiest trees for the best part of the summer, uttering a plaintive note, like “keewick,” night and day, almost without cessation, to attract the attention of their parents, who would assiduously bring them the spoils of the chase. In 1851, two nestlings from this pair of Owls were sent by us to the Gardens of the Zoological Society, where they lived for more than ten years, and duly assumed the perfectly adult state of plumage so rarely seen among British specimens of the Tawny Owl. Late in the spring of 1859, to the great regret of those who knew them, the old birds suddenly disappeared, and I never succeeded in ascertaining their fate. I think it due to their memory to insert this account of their habits, the more so as I fear the species is daily becoming more uncommon in England.]

NYCTEA NIVEA (Daudin).

SNOWY OWL.

- [§ 586. *One.* — “Labrador.” From Dr. N. Kjærboëlling’s Collection, 1859.

This egg I obtained at Copenhagen. I was somewhat sceptical concerning it at first, but I was subsequently led to consider it genuine. It was probably imported to Europe by the correspondents of Herr Möschler.]

- [§ 587. *One.*—“Labrador.” From Dr. E. Baldamus’s Collection, 1861.

Sent to me by Dr. Baldamus in March 1861, with the information that he obtained it from Herr Möschler, who had received it from Labrador.]

- [§ 588. *One.*—“North-Eastern Russia.” From Dr. E. Baldamus’s Collection, 1861.

P. Z. S., 1861, p. 395.

This egg I received at the same time as the last-mentioned. Dr. Baldamus informed me he had got it from Herr Möschler, to whom it was sent from Archangel by Count Centurio Hoffmangegg, as I afterwards learned from Herr Möschler himself.]

- [§ 589. *One.*—Okkak, Labrador, 1860. From Herr H. F. Möschler’s Collection, 1861.

P. Z. S., 1861, p. 395.

Being very desirous of learning all the particulars I could respecting the many reputed Snowy Owls’ eggs which I had seen in various collections, on the 22nd September, 1861, I went to Herrnhut, and had the pleasure of seeing Herr Möschler. He kindly showed me his cabinet, and allowed me to select from it this specimen, which he told me he had the preceding autumn received direct from Labrador, and which he assured me had been in no other hands but his own, he having been himself the first to open the box containing it. Herr Möschler was careful to tell me that he had no positive testimony of the genuineness of this or other presumed eggs of the species which had passed through his hands; but the circumstantial evidence was to my mind convincing. He informed me that he had had in all more than two dozen eggs sent him from Okkak, the most northerly but one of the four missionary stations maintained by the United Brethren on the Labrador coast. These eggs, together with a few received by him from Archangel, of which I have already mentioned one (§ 588), all closely agree in general character. They are about midway in size between those of the Eagle-Owl and the Lapp Owl, or their New World representatives *Bubo virginianus* and *Syrnium cinereum*.

They are also accompanied by a large number of skins of *Nyctea nivea*, showing that that bird is abundant in the quarter whence they come. Herr Möscher also had assurances from his correspondents in Labrador that the Esquimaux, who brought these eggs to the Moravian missionaries as those of the Snowy Owl, reported that the bird always breeds on the ground in bare places, and often lays a considerable number of eggs. This story, as I had the pleasure of stating to the Zoological Society when exhibiting the present specimen, was corroborated by the evidence of various other observers (P. Z. S., 1861, pp. 394, 395), both in Europe and America; but its truth has since been most completely and satisfactorily confirmed by Mr. Wheelwright's discovery, which I shall recount in the next section.]

[§ 590. *Three*.—Wihri-jaur, Lulea Lappmark, 5 June, 1862.
From Mr. H. W. Wheelwright's Collection.

I have already, in the communication to the Zoological Society before alluded to, mentioned (P. Z. S., 1861, p. 395) Mr. Wolley's unsuccessful efforts to obtain eggs of the Snowy Owl from Northern Lapland, as well as my own attempts, which up to the past season of 1863 have been equally ineffectual. He several times met with people who had found nests of this bird, and states (Forhandl. Skand. Naturf. 7de Möde, Christiania, 1857, p. 221) that he was told the old birds sometimes attack persons who approach their nests. They commonly seemed to breed in the districts explored by him only when the lemmings are unusually abundant; but even then, from the vast extent and desolate character of the mountainous country they frequent, it is almost a matter of chance for a man to stumble on a nest. From his chief agent, who since Mr. Wolley's death has been in my own employment, I learned that from the 16th to the 24th of May is supposed to be the time when they usually breed; and that in 1860 a Lapp, who, unfortunately, was not one of his regular collectors, found a nest with six eggs, which, instead of preserving, he ate. It was therefore with great pleasure that I heard from Mr. Wheelwright that better luck had attended his endeavours to the same end in a more south-western district. Writing to me from Quickjock, on the 6th June 1862, he says:—

“I thought I should have good news to tell you before I shut up. . . I sent two Lapps up to the breeding-place of *Strix nyctea*, about ten sea-miles hence (the way was so bad, and the snow so deep on the fells, that they said I could never get there); and this morning they have come back with the nest, six eggs, and the old female (as white as snow) of the Snowy Owl. . . The nest is nothing more than a layer of reindeer moss and a few feathers—very few, laid on the bare fell; no sticks or anything else. They say they do not believe there is another nest in this district; but still I shall have another try in another locality. The eggs are a little sat on; so six was the full number of this Owl. The egg in my collection, which Liljeborg took on the fells near Hammerfest, was one of nine¹, and considerably smaller than these I have

¹ [Mr. Wheelwright was, of course, only writing from memory. A Snowy Owl's nest was found by Herr Liljeborg on the fells between Østerdal and Guldbrandsdal, and contained seven eggs (Øfversigt af K. Vet.-Akad. Förhandl., 1844,

just got. They are not nearly so round as my eggs of the Eagle-Owl, but nearly as large."

Three of these eggs Mr. Wheelwright was good enough to let me become possessed of. Of the remainder, one has, I believe, passed into the collection of Mr. Braikenridge, another into that of Mr. G. D. Rowley, and the third remains in Mr. Wheelwright's own keeping.

In the 'Field' newspaper, No. 527, for January 31, 1863 (p. 93), is one of a series of articles entitled "A Spring and Summer in Lapland, by an Old Bushman." From it I make the following extract:—

"Owing perhaps to the lemming migrations, which appear to draw all the birds of prey in the north into one focus, the snowy owl has not been rare on the Quickiock fells during the last three seasons; and in 1861 three nests, all containing young birds, were destroyed by the Laps within sixty miles of Quickiock. In no single instance were the old birds killed; but they did not come back to breed in the same localities in 1862, for we carefully examined every old nest. However, in the beginning of June I sent two Laps off to the great lake Wihrigaur. The road was bad, and the snow lay deep on the fells; but they returned within the week, bringing with them a nest and six eggs of the snowy owl, as well as the old female, which they had shot. I was much pleased to see the marked difference between this egg and the egg of any other of the large European owls. It is more elongated and not so round or large as the egg of the eagle owl (but of course perfectly white); and it is larger than that of the Lap owl (*Strix Laponica*). The egg of the snowy owl measures just the same in length as that of the eagle owl ($2\frac{1}{4}$ inches); its breadth is $1\frac{3}{4}$ inches, that of the eagle owl being 2 inches full. The nest was nothing more than a large ball of reindeer moss, placed on the ledge of a bare fell. The old birds appeared to guard it most jealously; in fact, the Laps often kill them with a stick when they are robbing the nest."

Some other interesting information respecting the habits of the bird is added by this excellent observer; but, as it does not relate to these eggs, I do not copy it here¹. I may, however, remark that I do not quite agree with the statement above quoted as regards the comparative size of the Snowy and Eagle-Owl's eggs, so far as I am able to judge from the specimens now in my possession, and included in this Catalogue. Of seven of the first, the longest measures 2.24 in., the shortest 2.14. Of nineteen Eagle-Owls' eggs, all laid by wild birds, the longest is 2.42 in., the shortest 2.19,—giving an average length for *Nyctea nivea* of about 2.204 in., and for *Bubo maximus* of 2.303 in. Wihri-jaur is on the boundary of the kingdoms of Norway and Sweden, almost immediately under Sulitjelma, the highest mountain of Arctic Europe, and, with the adjoining Wasti-jaur, forms the chief reservoir whence the Great Luleå river flows, before entering the lake of the same name.]

pp. 212, 213). This was in the beginning of June 1843, and I am not aware that he ever met with another. Perhaps Mr. Wheelwright meant to have written "Lillehammer" for "Hammerfest."—Ed.]

¹ [In the volume, lately issued, containing (under the same title as that by which they originally appeared in the 'Field') the whole series of these valuable articles collected and reprinted, it is further stated (p. 258) that "The snowy owl will occasionally make its nest on the large turf hillocks in some of the mosses."—Ed.]

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* By mistake, called "fig. 4" in text.

† By mistake, called "fig. 5" in text.

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* By mistake, called “tab. B” in text.

† These two plates will be referred to in a later portion of this work; but the subject of the first has already been described by Mr. Wolley in the ‘Ibis’ for 1859 (vol. i. pp. 191–196).



Hambart, imp^r

J. Jury lith.



Fig. 1. A. Woodhouse.

Woodhouse's cat.

Woodhouse's cat.

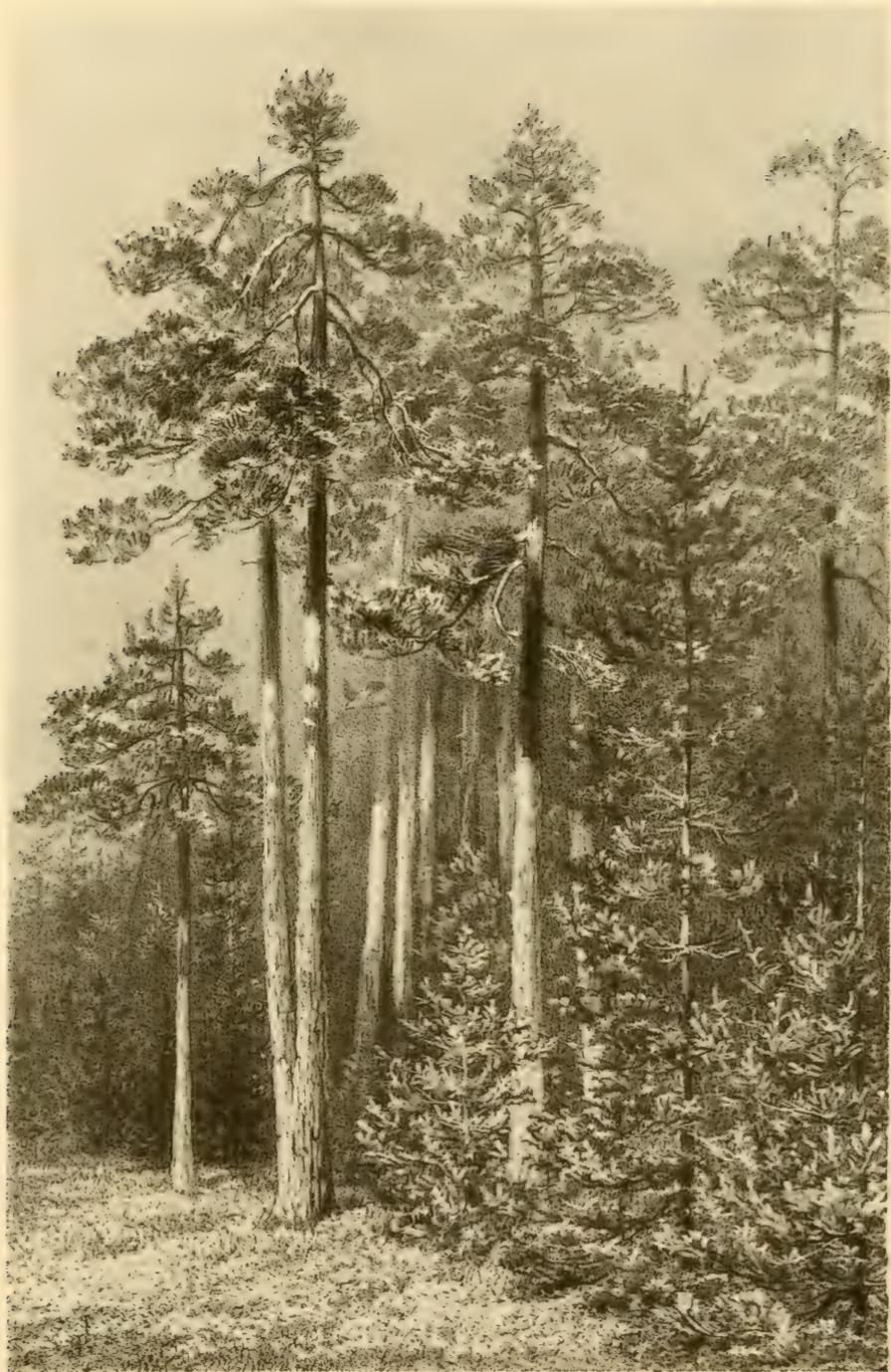


1860. 1860.

Hatched July

1860. 1860.

From Van Zeebe's 'Picturae Naturae', 1860.

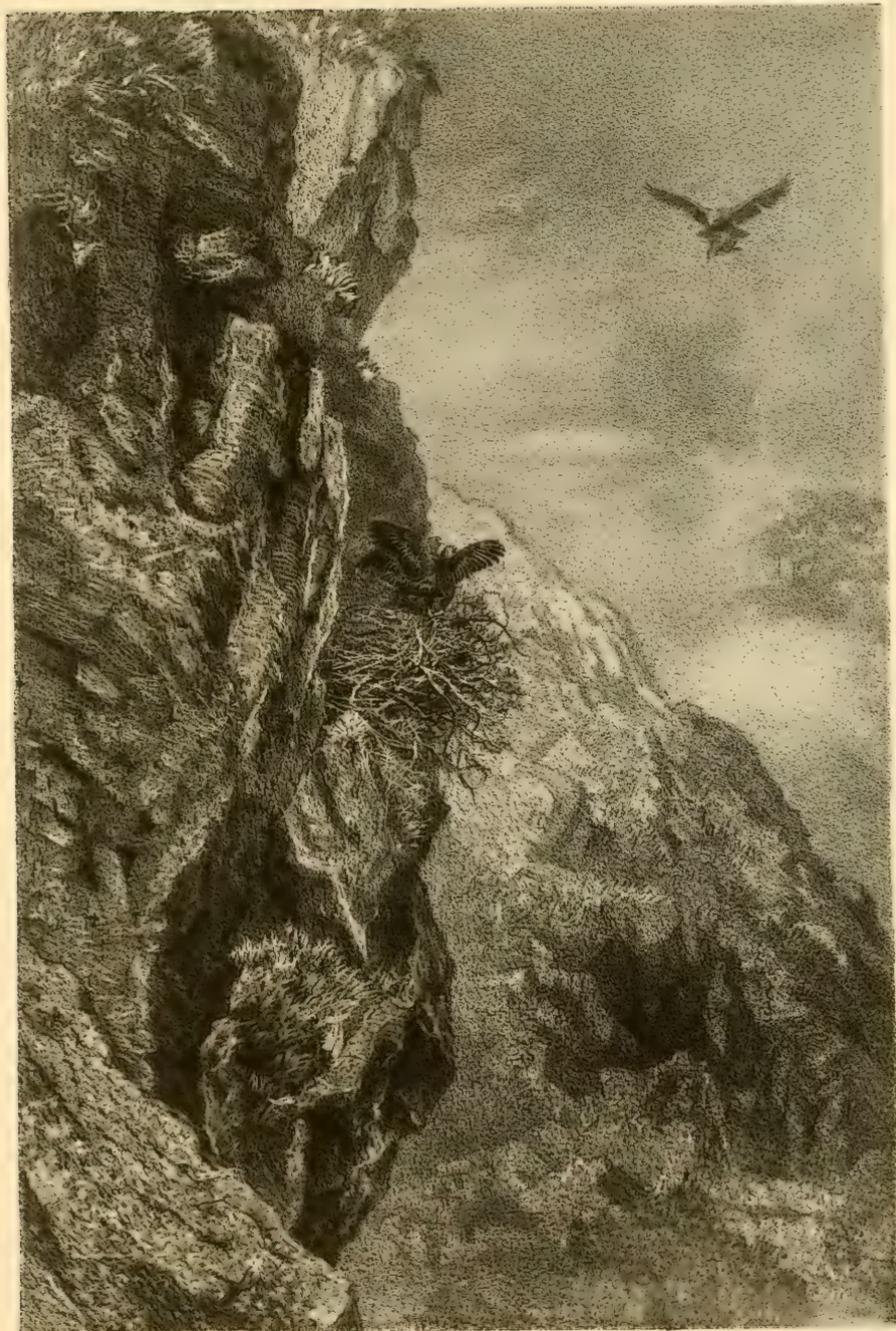


Hand nat. dein

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Journ. Zool. Bot. Gard. Acad. Sci. Berlin



THE BIRD'S EYE VIEW

Engraved by

J. Van Voorst

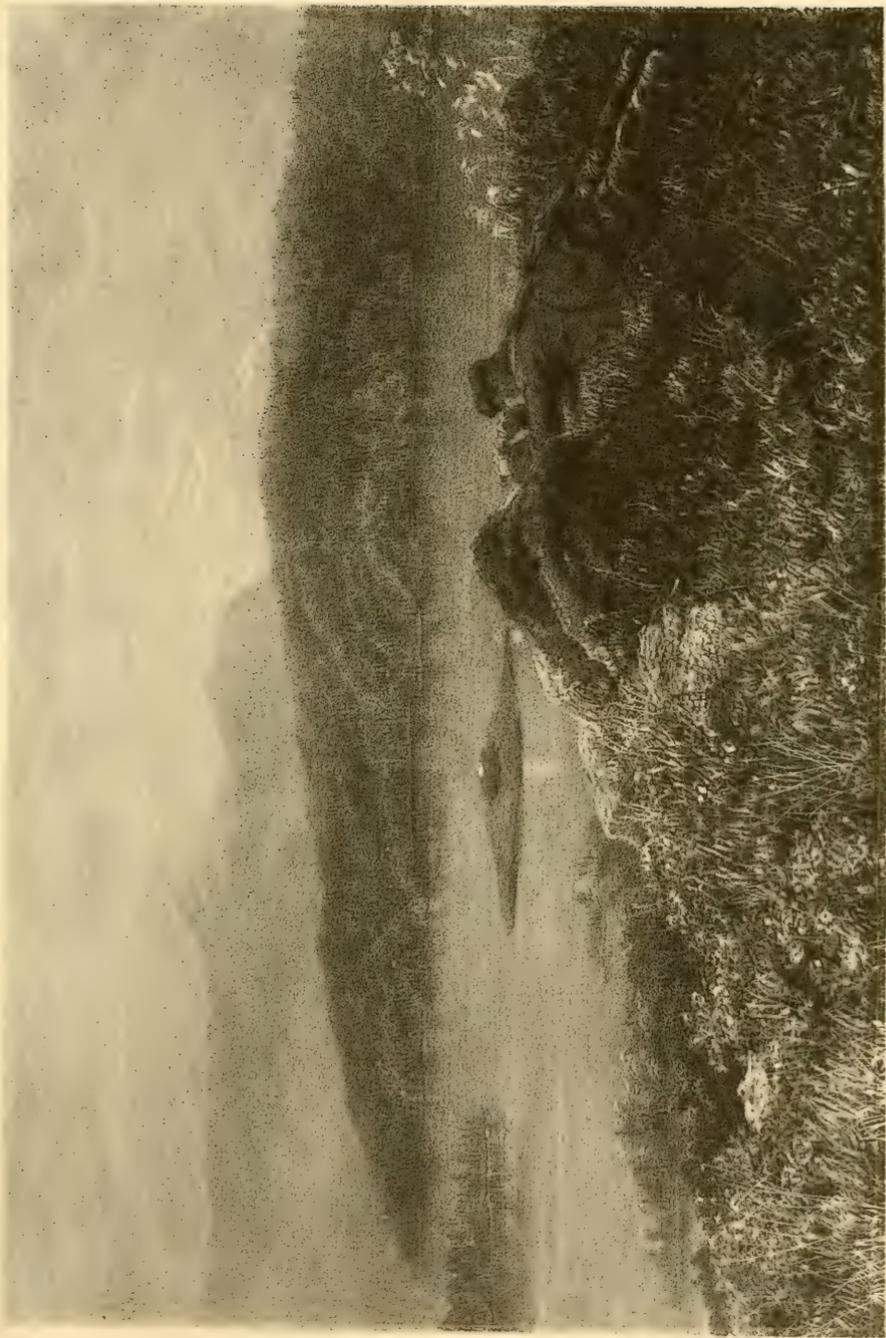
John Van Voorst, Engraver of Stone, 1865.



De heca Wolensna puzul

De heca Wolensna

De heca Wolensna



Valley of the ...

...



Fig. 1.



Fig. 4.



Fig. 2.



Fig. 5.



Fig. 3.



Fig. 6.





Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 4.







Fig. 1



Fig. 4



Fig. 2



Fig. 5



Fig. 3



Fig. 6



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 12.

Hanhart, Chromo-lith.



OOTHECA WOLLEYANA:

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.

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[§ 591. *Five*.—Lyngen-fjäll, South-western Finmark, 29 May—3 June, 1865.]

[§ 592. *Three*.—Lyngen-fjäll, 29 May—3 June, 1865.]

[§ 593. *Four*.—Lyngen-fjäll, 29 May—3 June, 1865.]

The twelve eggs above mentioned were received by me, in August 1866, directly from Herr Knoblock, who procured them in the preceding month of April, they having been found by Lapps on the Norwegian fells between Mukka-uoma and Lyngen about the time stated. There were three nests, but he did not obtain any further particulars.]

[§ 594. *Nine*.—Lyngen-fjäll, 1865.]

These were taken in the same district and about the same time as those mentioned in the three preceding sections, but Herr Knoblock did not receive them until later, nor I until March 1867. He never obtained any particulars of their discoverer. Six more, sent at the same time, are now in the collections of HH. Eriksen, Fischer, and Theobald, Lord Lilford, and Mr. Seebohm.]

[§ 595. *Four*.—Solowam Nybyggning, West Finmark, 25 May, 1871.]

Found by Maria Muotkajärwi, as above, on a little hill about six miles and a half from Alten, and received by me in December, 1871. Herr Knoblock informed me that these are the first eggs of the Snowy Owl he has obtained since those before forwarded to me in 1866 and 1867.]

PICUS MARTIUS, Linnæus.

GREAT BLACK WOODPECKER.

§ 596. *Two*.—Persmåla, Kalmar-Län, 19 May, 1856. "W.H.S." From Mr. Simpson's Collection.

Mr. Simpson [now Hudleston] gives the following account of these eggs, which were taken by himself, in 'The Ibis' for 1859 (pp. 265-267):—

"Towards the latter end of May, 1856, I happened to be staying

with a Dane, the overlooker of a large forest belonging to Count L——, having been introduced to him by my companion, who was likewise a Dane. When he heard that I had come all the way from England to find the 'Bo' [nest] of the Spilkråka (*P. martius*), he sent for his chief woodman to inquire what chance there was of getting one. The woodman said that he had frequently seen birds throughout the spring, and had in former years even noticed their 'Bo,' but that it was generally so high that nobody could get at it; that this year a pair of birds were known to frequent the edge of a clearing about four miles distant, and that if we would accompany him early next morning we might possibly discover the object of our search. This was cheering intelligence, and caused us to make an early start. Our way lay chiefly through a monotonous wood of spruce firs, very uninteresting in appearance, and apparently destitute of any species of bird, so much so, that my heart misgave me as to the success of our undertaking. But on crossing the clearing (a square of about 1000 yards), a Spilkråka was seen to slip quietly away from the upper part of a tall spruce to which he had been clinging, and to fly towards the far corner of the square, where he uttered a single warning cry and disappeared. It took us a very short time to cross the remaining space in the direction he had gone, and it became speedily manifest that our object of our journey was attained. We had found the 'Bo' without any difficulty on the skirts of the clearing, where the ground was depressed somewhat below the general level; and not far from the edge of a marsh there stood the remains of an ancient birch some 30 feet in height, and slightly overhanging towards the opening. Near the top on our side was a fresh hole; but what was more to the purpose, from out of that hole there peered the unmistakable head and bill of *P. martius* gazing at the party without evincing much alarm. My first care was to prevent my companion from blowing to pieces, at the trifling distance of ten yards, that head so temptingly displayed before the muzzle of his gun. This point gained, a tap from the woodman's axe caused the bird to retreat; when we commenced operations, pending which the old ones remained in the vicinity. Sometimes they would come within gunshot, and then, as if alarmed at their own audacity, swing round to the other side of the tree to which they might be clinging, poking so much of the head forwards as to enable them to see what was going on. In this position they would beat a rapid and angry tattoo upon the trees, and occasionally utter, in addition to their ordinary cry, one of the most peculiar notes I ever heard from any

European bird, and which more resembles the sharp and momentary ring of a shrill-toned bell than any other sound with which I am acquainted. We heard this note subsequently whilst operating upon another nest; but it appears not to be uttered except under great excitement, and then, perhaps, only by the female. The entrance-hole was within two feet of the top of the tree, which was easily ascended, the bark being very coarse. On examining it I found the edges much rougher than those of holes made by *P. viridis*, the sides sloping slightly upwards towards the interior. In shape it was elliptical, the horizontal being perhaps a fourth larger than the perpendicular diameter. The roof of the cavity was quite honeycombed by the strokes of the bird's bill; and this peculiarity was noticed in the two nests subsequently discovered. The depth of the cavity below the entrance-hole was rather less than two feet, which was quite sufficient to prevent my ascertaining what lay at the bottom, though there was no difficulty in introducing the hand as far as the upper part of the cavity. An alarm that the old stump was giving way with my weight brought me very speedily to the ground. The woodman meanwhile cut down a young spruce, and had it reared up against the ancient birch to prevent the anticipated catastrophe. He then went up himself and laid open the nest—being able to do so with his hands alone, so far as to introduce the whole of his arm into the cavity. To my intense delight he proclaimed that there were eggs at the bottom. I immediately ascended, in order to see them *in situ*; but that was impossible without further enlarging the hole, for which my fingers were not strong enough. The party below in the interval had rigged up a long pole with a cap attached to the end of it, into which I deposited the eggs, and then slipped down in time to receive them once more into my hands. They were five in number, one much fresher than the others, which were partially incubated; though on blowing them, it was found that no feathers had been formed. In their smooth ivory texture these eggs very much resemble the well-known eggs of *Picus viridis*. The fresher one was of a glossy white, and sufficiently transparent to show the colour of the yolk; the others were slightly wood-stained, and presented a duller appearance, owing to their having been incubated. When blown, this difference is removed; but the wood-stains of course remain, and somewhat detract from their beauty. In shape they resemble eggs of *P. viridis*, and are not so much larger as I expected would be the case.

“The hole was of this year's making. However, the bird is not in the habit of always making a fresh hole, as I afterwards found out.

Of three inhabited nests discovered, two were new and one old. Our woodman had a theory that the Spilkråka occupies its 'Bo' during two successive years if not disturbed, and he thought that this identical pair were a young couple that had just set up for themselves. Chips, some of them half an inch in length, lay plentifully at the foot of the tree, giving the ground the appearance of the floor of a carpenter's workshop."

§ 597. *One*.—Ryssby, Kalmar-Län, 1856.

[This seems to have been brought to Mr. Wolley at Persmåla on the 3rd of June, as he was returning with Mr. Hudleston from visiting the scene of the latter's exploit just mentioned.]

§ 598. *Two*.—Brynäs, Gefle-Län, April, 1856. "A. H." From Herr Alfred Hartmann's Collection.

Given to me at Gefle by Herr Hartmann out of a nest taken by himself. These were the only two he had left, for he had sent me the others to Stockholm. He is perfectly certain about the bird, which he saw. *Picus martius* is much commoner than *P. viridis* near Gefle.

§ 599. *Five*.—Gefle-Län. From Herr Alfred Hartmann's Collection, 1856.

[Out of seven eggs sent to Mr. Wolley at Stockholm by Herr Hartmann. A sixth was given to the late Mr. Wilmot; the seventh was bought by Mr. Gould at Mr. Stevens's Rooms, 30 May, 1860. One of these is abnormally elongated and imperfect at the smaller end.]

§ 600. *One*.—Tomi-koski, Tepasto, Kemi Lappmark, 18 May, 1858.

Found as above by Varan Heiki in a hole in a dead tree near the Ounas river.

§ 601. *Two*.—Kittila, Kemi Lappmark, 1859.

Found by Peter Luosa, and brought to Muoniovara, 23 June, 1859, by Nils Rowa.

[§ 602. *Four*.—Kyrövaara, Kemi Lappmark, 26–31 May, 1861.

An entire nestful found as above by Per Mikelsen Kyrö, and brought to Muoniovara, 25 June, by Martin Piety.]

[§ 603. *Four*.—Vönixenvaara, Kemi Lappmark, 26–31 May, 1861.

An entire nestful found as above by Peter Mathisen Kyrö, and brought with the last.]

GECINUS VIRIDIS (Linnaeus).

GREEN WOODPECKER.

§ 604. *Three*.—Eton, 1844.

Bought at “the wall” by my brother Charles.

§ 605. *One*.—Bearwood, Berkshire. From Mr. H. F. Walter, 1847.

§ 606. *Three*.—Eton, 1855.

[§ 607. *One*.—Elveden, 1847.]

[§ 608. *Three*.—Elveden, 1848.

From a nest of four, all discoloured, as recorded in ‘The Zoologist’ (p. 2229). Mr. Wolley, to whom one of them was given, wrote of it: “It appears probable that the markings are owing to some inflammatory state of the female organs; but they are not the less interesting on that account.”]

[§ 609. *One*.—Elveden, 1849.]

[§ 610. *Four*.—Elveden, 1850.

Discoloured eggs like those in § 608.]

[§ 611. *One*.—From Mr. C. B. Hunter, through Mr. Newcome, 1853.

The most remarkably discoloured egg of this species I have ever seen.]

[§ 612. *Six*.—Elveden, 23 May, 1856. “Bird well seen. A. N.”]

[§ 613. *Three*.—Elveden, 26 May, 1857. “E. N.”]

My brother's note is :—“From an elm tree. The hen bird was on when I first got up the tree, but flew off before I began to open the hole. The inside of the hole was quite wet, apparently with the sap (for the tree is pretty sound); so much so, that my hand was stained yellow in taking out the eggs. It was a fresh hole, made by the Woodpeckers themselves. The eggs had been incubated about two days.” These eggs are slightly stained. There were six; the remaining three are in the collections of Mr. Salvin and Mr. Percy Godman.]

GECINUS CANUS (Gmelin).

GREY-HEADED GREEN WOODPECKER.

[§ 614. *One*.—Sweden (?). From Mr. Wheelwright's sale, 15 March, 1861.]

[§ 615. *One*.—Carinthia, “25 April, 1859.” From Herr Möschler, 1862.]

[§ 616. *Two*.—Bavaria, “27 April, 1859.” From M. Nager-Donazain, 1865.]

[§ 617. *Three*.—Carinthia, “18 May, 1860.” From Herr Möschler, 1866.]

[§ 618. *One*.—Styria, “7 May, 1861.” From Herr Möschler, 1866.]

[§ 619. *Four*.—Styria. From Herr Seidensacher, through Mr. Dresser, 1868.

Apparently from different nests.]

GECINUS SHARPII, Saunders.

SPANISH GREEN WOODPECKER.

[§ 620. *One*.—Spain. From Colonel Irby, 1872.

Colonel Irby informed me that this was from a district in which *G. viridis* did not breed.]

[§ 621. *One*.—Aranjuez, “4 May, 1870. H. S.” From Mr. Howard Saunders’s sale, 17 May, 1877.

Taken by Mr. Saunders himself.]

GECINUS VAILLANTI (Malherbe).

ALGERIAN GREEN WOODPECKER.

[§ 622. *One*.—Kef Laks, Algeria, 21 April, 1857. From Mr. Salvin’s Collection, 1858.

From a nest of seven eggs brought with the bird by an Arab. Mr. Salvin’s note continues:—“Owing to the absence of large trees over a great portion of the Province of Constantine, the Woodpeckers are by no means numerous. I saw a pair of this species at Sidi Yousef, one of *Picus numidicus* at Djebel Deckmar, another pair of *P. levallanti* at Kef Laks, and what I took to be *P. minor* also at Kef Laks. Mr. Tristram in passing through the country between Soukharras and Le Calle saw a greater number, but none of them are common.”]

DENDROCOPUS MAJOR (Linnæus).

PIED WOODPECKER.

§ 623. *One*.—From M. Perrot’s Collection, 1846.

§ 624. *One*.—From M. Hardy’s Collection, 1846.

§ 625. *Three*.—Grange Wood, 1850.

§ 626. *One*.—Eton, 1851.

This egg I bought unblown in Knock's shop at Eton towards the end of May; the fellow to it was there too, but was sold to one of the "young gentlemen." I saw a nest of this bird when I was at school at Eton; but Milner or Rowley were beforehand with me, and I had no subsequent opportunity of getting such authentic specimens. The bird breeds in Dulnain Forest.

[§ 627. *Two*.—Fakenham Wood, Suffolk, 21 May, 1852.

Taken by Balam, the hurdle-maker of Fakenham.]

[§ 628. *Three*.—Fakenham Wood, 10 May, 1856.

I was shown this nest by Balam, and saw the bird on and about the tree in which it was.]

[§ 629. *Four*.—Fakenham Wood, June, 1856.]

[§ 630. *Three*.—Fakenham Wood, 1856.

These, as well as the preceding, taken by Balam.]

DENDROCOPUS MEDIUS (Linnæus).

MIDDLE PIED WOODPECKER.

[§ 631. *One*.—Carinthia. From Herr Möschler, 1862.]

[§ 632. *Four*.—From Herr Möschler, 1866.]

DENDROCOPUS MINOR (Linnæus).

BARRED WOODPECKER.

§ 633. *One*.—Warwickshire. From Mr. Robert Tomes, through Mr. A. D. Bartlett, 1847.

§ 634. *Five*.—Saivomuotka [Torneå Lappmark ?], 30 May, 1854. “Bird shot. J. W.”

These rare and valuable eggs from a hole in a slender dead birch-stump, in a strip of wood between the river and a marsh. The hole newly worked, apparently by the bird itself; the entrance about an inch in diameter, perfectly round, and as if made by a centre-bit. Eggs lying on nothing but “saw-dust,” *i. e.* chips or fragments of the wood, which was, of course, soft; cavity perhaps nine inches deep. Elias found it, climbed up and dug a hole with his knife before I came up, in doing which he struck one of the five eggs. I looked at the bird with my glass, and, alas! satisfied myself (!) that it was *Picus tridactylus*; but the moment I saw the beautiful eggs brought to daylight I suspected an error, and went back to the boat to fetch my gun, and shot the bird. It turned out to be, as I anticipated, *P. minor*, the pale cap on the head slightly tipped with red. It was this cap which, looking as I did towards the light, had seemed to me to mark the bird as *P. tridactylus*. Its cry seemed the same. It pecked about the trees near its nest. It flew out of the hole as Elias came up, and probably struck the tree. This was about twelve feet from the ground. Many old holes in the stumps in the neighbourhood.

§ 635. *Four*.—Above Nyimakka, 16 June, 1854. “J. W.”

On my way to Nyimakka, after shipwreck in the foss, I heard a Woodpecker crying some distance off, as it does when one is near the nest. I found the hole about six feet up in a birch-trunk, and sent back Lassi Engelmark to the boat for an axe. Making a hole, I found eggs, and shot the bird, which to my surprise, as upon a former occasion, turned out to be a Lesser Spotted Woodpecker. One of the eggs was addled, the other three with largish young.

§ 636. *Five*.—Enara, North Finland, 14 June, 1855. “J. W.”

I found the nest by the noise of the birds near—“tic, tic, tic,”—and cut down the stump, with the help of two men, plugging up the two holes with moss. There were nine eggs.

[These eggs vary very much in size; one of them is in Mr. Shepherd's Collection.]

§ 637. *Two*.—Kitkisuando, East Bothnia, 5 June, 1857.

Out of four eggs of little "*Tika*," found by Maria Muotkajärwi on Pyka-järwi strand, not far from Kitkisuando. She said the cock had red on the head, and called the bird "*Piko Tika*."

[Two eggs of this nest were sold to Mr. Braikenridge and Mr. Rowley.]

[§ 638. *Six*.—Sweden (?). From Mr. Wheelwright's sale, 15 March, 1861.]

[§ 639. *Six*.—From the late Mr. Scales's Collection, 1885.

In a letter to me many years ago, Mr. Scales stated that he had found this species pretty common near Cirencester, and had obtained its eggs there. I have not much doubt that these are some of them he then got.]

DENDROCOPUS LEUCONOTUS (Bechstein).

WHITE-BACKED WOODPECKER.

[§ 640. *One*.—"Oural." From M. Hardy's Collection, 1859.]

[§ 641. *Seven*.—Slidre, Valdres, Norway, "25 May, 1872." From Prof. Collett, 1873.

A whole nestful, apparently of this species.]

PICOIDES TRIDACTYLUS (Linnæus).

THREE-TOED WOODPECKER.

§ 642. *Four*.—Kyrö, Kemi Lappmark, 1854.

From Niku, with the feet of the bird.

§ 643. *Two*.—Sardio, Kemi Lappmark, 1855.

From Mikel, who said they were of the common middle kind of *Tika*, clearly indicating the Three-toed Woodpecker of this country.

§ 644. *Four*.—Munioalusta, 27 May, 1855.

Found by Johan Moakström. In all probability *Picus tridactylus*.

§ 645. *Four*.—Nälima, 1856. “With bird.”

The head of the bird (a hen), now before me, was brought with three eggs on the 23rd of June by Solomon Pehrson, of Nälima.

§ 646. *Four*.—Peldouoma, Kemi Lappmark, 1857.

§ 647. *Four*.—Kyrö, Kemi Lappmark, 1857. “With bird.”

The bird, now before me, is a hen.

§ 648. *Three*.—Koiravaara, ———?, 12–18 June, 1859.

Found by Abraham Koskela, and brought to Muoniovara, 23 June, by Piety.

[§ 649. *Five*.—Tepasto, Kemi Lappmark, 1861.

Brought to Muoniovara, 6 July, by Joel's boy, having been found by Varas Hendrik.]

IYNX TORQUILLA, Linnæus.

WRYNECK.

§ 650. *Three*.—Eton, 1843?

There can be no doubt about these being eggs of the Wryneck, which is very common and very well known about Eton. It is also not uncommon in the neighbourhood of Nottingham, where it is known as the “Barley-bird,” so called because the barley is sprouting when it first comes over; but it appears to be rather known from its Hawk-like cry than from its appearance.

§ 651. *Five*.—Cambridgeshire. From Mr. Sadd, 1844.

I was shewn the old bird, which had been brought to the door with the eggs, of which there were seven.

§ 652. *Two.*

[No information is afforded by Mr. Wolley's notes respecting these eggs. The marks upon them shew that they were obtained subsequent to the foregoing.]

[§ 653. *Three.*—Barnham, Suffolk, 1847.]

[§ 654. *One.*—Elveden, 1848.]

[§ 655. *Two.*—Elveden, 1849.]

[§ 656. *Two.*—Elveden, 1852.

From different nests.]

[§ 657. *Eight.*—St. Neot's, Huntingdonshire, 26 May, 1864.
From Mr. Rowley.

Taken by himself, the bird being on the nest, which was in a red cedar-tree.]

[§ 658. *Four.*—Hickling, Norfolk, 30 June, 1876. From Mr. Norgate.]

CORACIAS GARRULA, Linnaeus.

ROLLER.

§ 659. *One.*—From M. Nager-Donazain, 1844 [?].

§ 660. *Two.*—From M. Nager-Donazain, through Dr. Frere, 1851.

§ 661. *Four.*—Ryssby, Kalmar-Län, 1853. From Herr Petersen's Collection, 1856.

Out of six from one nest, given to Mr. Simpson at Ryssby, 22 May, 1856.

§ 662. *Two*.—Mellböda, Öland, 11 June, 1856. "J. W."

A boy took me to several trees where he thought there might be Hoopoe's nests. As we came to one, a Roller flew towards us, screeching "kraak, kraak." The hole, some sixteen feet up the oak tree, was too small to admit my hand. The boy got up, and said there were three eggs lying on a little plant-straw. I left one, and the next day two eggs were announced; at the same time the bird had been caught from the nest. I went and examined the captive, which did not seem to be very much alarmed, at the boy's house, and let it go. The day after some one else had carried off the eggs.

§ 663. *Two*.—Mellböda, Öland, 12 June, 1856.

[The history of these eggs is imperfect, and they may have been from different nests; but there is no doubt they were taken as above, and most likely by Mr. Wolley himself. Two others were sold to Mr. Braikenridge and Mr. Hope.]

§ 664. *Four*.—Warnäs, Kalmar Län, 1856.

From a nest of six brought to Mr. Simpson at Kalmar, 25 June, 1856.

§ 665. *One*.—Ain-Djendeli, Algeria, 21 May, 1857. From Mr. Simpson's Collection.

[§ 666. *One*.—Ain-Djendeli, Algeria, 20 May, 1857. From Mr. Salvin's Collection.

Mr. Salvin's note states that this was brought, with the bird, by an Arab. Of the species he says that he only saw it about Djendeli and the Madracen, where it was tolerably numerous, frequenting the wooded hills, and building its nest, or rather laying its eggs, in holes in the terebinth-trees which grow there in abundance. The Arab name "*Shugurug*," expresses one of its cries with great accuracy.]

[§ 667. *One*.—Ain-Djendeli, Algeria, 21 May, 1857. From Mr. Tristram's Collection.

The note says that the bird was caught on the nest whence this egg, which was fresh, came.]

CERYLE RUDIS (Linnæus).

PIED KINGFISHER.

[§ 668. *One.*

Mr. Wolley's notebook has no entry of this egg.]

[§ 669. *One.*—Egypt, 1862. From Mr. S. S. Allen.

Mr. Allen has a note on the nest of this bird in 'The Ibis' (1862, p. 361).]

[§ 670. *Two.*—Ain-Tin, Palestine, 21 May, 1864. From Mr. Tristram's Collection.

Mr. Tristram's note is:—"From a nest of four eggs, slightly sat on, in the bank side near Ain-Tin, Plain of Gennesaret, a few yards from the Lake."]

ALCEDO ISPIDA, Linnæus.

KINGFISHER.

§ 671. *Two.*—Clifton, Nottinghamshire, not later than 1843.

I took these eggs in the back stream below Clifton. There were seven or eight in the nest. In the Wollaton brook, where Kingfishers breed every year, the nest may be found by observing on the opposite bank some stake or root, the immediate vicinity of which is white-washed with the dung of the birds, who always alight on it before plunging into the hole, which is in the face of the (generally) perpendicular bank of some nook of the river or of a small stream. If the nest be taken a new hole is immediately commenced, often within two or three inches of the old one. So far as my observation goes, they always form their own hole, though it is generally supposed they prefer one ready made. I can easily believe they sometimes occupy a deserted Sand-Martin's, but never a rat's, for the nest is always at the extremity of the hole, and the entrance is in the face of a perpendicular bank. One evening not long ago (January, 1844) a Kingfisher was caught in a Sparrow-net in the ivy on the stable-wall here [Beeston].

§ 672. *Five*.—Eton, 1850.

Bought of George Hall.

§ 673. *Two*.—Eton, 1852.

Blown by one of my brother's pupils.

[§ 674. *Two*.—Barnham, Suffolk, 1846.]

[§ 675. *Four*.—Barnham, 2 May, 1851. "E. N."]

Out of a nest of five, taken by my brother Edward.]

[§ 676. *Two*.—Milton, Berkshire, 1851. From Mr. A. C. Smith's Collection.]

[§ 677. *Two*.—St. Neot's, Hunts., 5 May, 1857. From Mr. Rowley.

Mr. Rowley's note is:—"Taken by myself out of a nest of seven, in a high bank of the river Ouse, at St. Neot's. The hole was quite a new one in the perpendicular bank over a very deep and rapid stream, only to be got at from a boat. The hen bird flew out. The drainage was perfect, as the hole shelved upwards about two feet: the chamber very foul and full of fish-bones."]

[§ 678. *Two*.—St. Neot's, 21 May, 1858. From Mr. Rowley.

These, Mr. Rowley wrote to me, were taken by himself out of a nest of six, quite fresh, from a high bank on the Ouse. He caught the bird in a hand-net as it came out of the hole, and it had a fish-scale on its beak of a size which showed it had preyed on larger spoil than minnows. He let it go again.]

[§ 679. *Two*.—St. Neot's, 10 May, 1859. From Mr. Rowley.

Mr. Rowley's note states that he took them himself. The bird was at the time in the hole, which had been occupied as a nest for three years in succession.]

HALCYON SMYRNENSIS (Linnæus).

SMYRNA KINGFISHER.

[§ 680. *One*.—Ceylon. From Dr. Frere's Collection, 1854.

Received from Mr. E. L. Layard, and probably one of the eggs mentioned by him (Ann. & Mag. Nat. Hist. ser. 2, xii. p. 172).]

[§ 681. *One*.—Chorazin, Palestine, 28 April, 1864. From Mr. Tristram's Collection.

Mr. Tristram informed me that this was from a nest of five eggs, a good deal sat on, in the bank of the stream of Chorazin, close by the Sea of Galilee.]

MEROPS APIASTER, Linnæus.

BEE-EATER.

§ 682. *Eighteen*.—Barbary, 1845–1847. From M. Favier's Collection.

Of this rare egg I obtained thirteen specimens from Favier of Tangier, in September, 1845. They vary in size. I exchanged one with Mr. John Hancock, one with Mr. Wilmot, and one with Mr. Salvin. I gave two to Williamson of St. John's College, and one to Rowley.

[Subsequently Mr. Wolley received from Mons. Favier, either directly or indirectly, through Mr. Williams (then a dealer in Oxford Street), a considerable number of these eggs, but without further information than that they were taken near Tangier.]

§ 683. *Six*.—Chemora, Algeria, 2 June, 1857. "O. S." From Mr. Salvin's Collection.

A complete nestful, and the usual number laid, for in one nest only were seven eggs found. These were taken by Mr. Salvin himself.

§ 684. *Two*.—Chemora, Algeria, 2 June, 1857. From Mr. Simpson's Collection.

These were obtained by Mr. Salvin.

- [§ 685. *One*.—Chemora, Algeria, 2 June, 1857. “O. S.”
From Mr. Salvin’s Collection.

Mr. Salvin’s note on this egg is—“From a nest of seven taken by myself.” Of the species he writes:—“Very plentiful about the lower part of the Chemora, a mile or two before it reaches Lake Djendeli. I saw a flock near Kef Laks in the month of April apparently on passage. This bird makes its nest in the banks of the Chemora and the ditches about the lower end. The soil is alluvial and soft, so that the bird finds no difficulty in making its excavation. Nearly all the eggs taken I dug out myself, and a very little experience will soon teach one what holes have eggs and what not. These holes are about three or four feet deep, and are gradually enlarged horizontally, until they come to a chamber about a foot in diameter, circular in form, and domed over. This chamber sometimes contains the eggs; but in many nests I found another passage, about a foot long, communicating with a second chamber, in all respects similar to the first; this, if it exists, contains the eggs. The bird makes no nest, but the floor is strewn with wings and legs of *Coleoptera* in such abundance that a handful can be taken up at a time. The complement of eggs is six, but in one instance I found seven in one nest. The bird generally stays in the hole during the time the eggs are being dug out, now and then attempting to bolt.”]

- [§ 686. *One*.—Chemora, Algeria, 2 June, 1857. From Mr. Tristram’s Collection.

Out of a nest of three.]

- [§ 687. *One*.—Albania, 1857. From Lord Lilford’s Collection.]

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

MEROPS PERSICA, Pallas.

EGYPTIAN BEE-EATER.

- [§ 689. *One*.—Egypt, 1862. From Mr. S. S. Allen’s Collection.

Mr. Allen thus relates the taking of this egg among others (*Ibis*, 1862, pp. 359, 360):—“Whilst returning from an ornithological excursion down the Nile to Damietta on the 21st of April (1862), our attention was attracted by a large flock of *M. persicus* hovering over one particular spot, where

others of their number were settled on the ground. On a closer examination, a large number of holes were seen in a piece of ground between the river and a field of young wheat, which very slightly shelved down towards the water, in and out of which holes Bee-eaters were constantly passing. After digging out a passage of nearly 4 feet in length, which went in at an angle of 10° or 15°, we found a slightly enlarged chamber, which formed the nest. The bottom of this chamber was covered with the remains of dragonflies, &c. (mostly wings), upon which the eggs were deposited. These were of a pure white, nearly round, and about 10 lines in length. The greatest number found in any one nest was three; but the birds had evidently only just begun to lay (many of the holes being unfinished), so that we were unable to ascertain what is the usual number deposited. More than forty holes were opened, but only eleven eggs obtained. In the vicinity of every hole were numbers of pellets, formed of the wings and other indigestible parts of dragonflies, butterflies, beetles, &c., which had been cast up by the Bee-eaters in the same manner as Hawks and Owls.”]

UPUPA EPOPS, Linnæus.

HOOPOE.

§ 690. *One*.—From Mr. Tucker, 1844.

§ 691. *One*.—From Mr. Reid, 1844.

§ 692. *One*.—From M. Nager-Donazain, 1847.

[§ 693. *Two*.—Holland. From Mr. Newcome, 1848.]

[§ 694. *Two*.—Maaheere, Holland, 9 May, 1856. From Mr. J. Baker.]

[§ 695. *Four*.—Valkenswaard, Holland, 1858. From Mr. J. Baker.]

[§ 696. *Four*.—Holland, 1860. From Mr. J. Baker.]

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

[§ 698. *Two*.—Turkey. From Mr. T. Robson of Ortakeuey, Constantinople, 1867.]

COCCYSTES GLANDARIUS (Linnæus).

GREAT SPOTTED CUCKOW.

- § 699. *Two*.—Dzourarim, Djendeli, Algeria, 20 May, 1857.
From Mr. Tristram's and Mr. Simpson's Collections,
1858.

[Apparently from the same nest, but this is not certain.]

- § 700. *One*.—Djendeli, Algeria, 25 May, 1857. From Mr.
Tristram's Collection, 1858.

From a nest of three eggs found and identified by Mr. Simpson
[Hudleston]. This egg formed lot 56 at Mr. Stevens's rooms, 9 Feb-
ruary, 1858.

- [§ 701. *One*.—Chemora, Algeria, 18 May, 1857. From Mr.
Tristram's Collection.

This, from a nest with three other eggs of *Pica mauritanica*, was brought by
Arabs, and thought at the time to belong to that species, of which Mr. Tristram
and his companions had already identified specimens, though not aware, until
a few days later, of the Cuckow's habit of laying in the Pies' nests. It there-
fore not unnaturally passed muster as a Pie's egg of somewhat unusual ap-
pearance, but as to its real parentage there can be now no question. The
abnormal condition of the shell, which is thin, rough, and chalky, no doubt
contributed further to the mistake.]

- [§ 702. *One*.—Madracen, 20 May, 1857. From Mr. Salvin's
Collection.

Mr. Salvin's note respecting this is:—"The first egg, brought by an Arab."
Of the species he writes:—"I first saw this bird near the frontier, between
Algeria and Tunis. After that we lost sight of it, and it was not until ar-
riving at Djendeli that we again met with it. Djendeli, we were told by a
French officer at Batna, was the headquarters of this bird. This officer had
himself taken the nest, and his remarks regarding the manner of incubation
agreed accurately with our own observations. The first actual intimation of its
presence at Djendeli was two eggs" (the present being one of them), "brought
from the Madracen, or tomb of the Numidian kings, by two Arabs, the sight of
which raised our expectations to the highest degree. These Arabs described

the bird, and their description was echoed a few hours after by another Arab from another part, who brought a single egg, agreeing with the former two. The nest from which this was taken Mr. Tristram afterwards visited. He described it as being in a hole in a tree formed of a decayed stump. This hole was about eighteen inches deep and very open; the nest was placed at the bottom, and consisted of a few sticks with a lining of roots and grass. Mr. Tristram saw both birds near the place. A third nest of four eggs was brought in on the evening of the same day, and a similar description given of the bird. Of these four eggs, two were slightly imperfect in the shell—one more so than the other, shewing the order in which they had been laid. There could be no doubt that all four came from the same nest. Each of the three Arabs was shewn a number of skins, and each selected a common Cuckoo and pointed out wherein the Great Spotted Cuckoo differed. The latter is a well-known bird among the Arabs of Djendeli. A nest was shewn to Mr. Tristram by the Arabs near the Madracen. He says that on drawing near he saw one of the birds leave the hole. This nest had two eggs." Messrs. Tristram, Hudleston, and Salvin appear to have got between them twelve eggs of the bird, taken from five nests.]

[§ 703. *Two*.—Egypt, 3 May, 1863. "J. H. C." From Mr. J. H. Cochrane.

From, I understand, a Grey Crow's nest, as were several others taken by him earlier in the same season, and recorded by him in 'The Ibis' (1863, pp. 361-363).]

[§ 704. *One*.—Aranjuez, Spain, 29 April, 1865. From Lord Lilford.]

[§ 705. *Three*.—Aranjuez, 3 May, 1865. From Lord Lilford.]

[§ 706. *One*.—Seville, Spain, April 1869. From Lord Lilford, 1884.]

[§ 707. *Five*.—Aranjuez, 1872. From Lord Lilford, 1884.

All these Spanish eggs were found, I believe, in Pies' nests. Lord Lilford's observations on the habits of this species are in 'The Ibis' (1866, pp. 177-179, 184, and 187.)

CUCULUS CANORUS, Linnæus.

CUCKOW.

§ 708. *One*.—Eton, not later than 1843.

Bought by my brother Charles of the old dormouse-woman who sits under the archway at Eton,—an honest person. She said it was found in a Hedge-Sparrow's nest.

§ 709. *One*.—From Mr. Hewitson, through Mr. Wilmot, 1846.

[Hewitson, 'Eggs of British Birds,' ed. 2, pl. lv. fig. 1.]

This appears to be the one Mr. Hewitson figured.

§ 710. *One*.—From Mr. A. D. Bartlett, 1847.

This was taken by Mr. Bartlett from a Robin's nest in so small a hole that he thought the Cuckow must have "backed in" to lay it. When he first looked into the nest he thought it was a Nightingale's egg. It was scarcely sat upon, though the Robin's eggs were nearly ready to hatch. One of them I have.

[Mr. Wolley has a note on this egg in 'The Zoologist' for 1847 (p. 1774).]

§ 711. *One*.—From Mr. Malan's Collection, through Mr. A. D. Bartlett, 1847.

Mr. Malan, of Broadwindsor, in a letter dated 8 July, 1848, says to me:—"The egg of the *Cuculus canorus* you have of mine was a very fine specimen. It was found in June 1846, in the nest of a Whitethroat. I have a number of Cuckoos' eggs found about here during the last three years. They are of the grey and of the brown variety. The grey variety was always found in the nest of *Motacilla yarrelli*, the brown variety in the nest of *Sylvia curruca*, *Anthus pratensis*, &c."

§ 712. *One*.—From Mr. Sadd, 1850.

I bought this of Mr. Sadd on the King's Parade at Cambridge, on the occasion of my taking my degree of M.A., 2 July, 1850.

§ 713. *Four*.—Eton, 1850.

These I got at Eton in 1850. My brother Charles got several from the old woman, which were unluckily broken.

§ 714. *One*.—Roydon, Norfolk, 1851. From Dr. Frere.

§ 715. *Five*.—Epping, Essex, 1852. From Mr. Argent.

Selected from a dozen which Argent has procured this spring.

§ 716. *Two*.—Eton, 1852.

§ 717. *One*.—Kyrö, Kemi Lappmark, 1856.

From a nest with two other eggs, that seem to be Meadow-Pipit's, found by Martin Piety.

[§ 718. *One*.—Elveden, 1842. (House-Sparrow's nest.)]

[§ 719. *One*.—Culford, Suffolk, 1846. (Reed-Warbler's nest.)]

[§ 720. *One*.—Barnham, Suffolk, 1847. (Yellow Wagtail's nest.)]

[§ 721. *One*.—Barnham, 1849. (Yellowhammer's nest.)]

[§ 722. *One*.—Blo-Norton, Norfolk. From Mr. C. H. Browne, 1850.]

[§ 723. *One*.—Feltwell Fen, Norfolk. (Titlark's nest.) From Mr. J. Baker.]

[§ 724. *One*.—Culford, 1852. (Reed-Warbler's nest.)]

[§ 725. *Two*.—Culford, 1853. (Reed-Warblers' nests.)]

[§ 726. *One*.—Elveden, 8 May, 1854. (Pied Wagtail's nest.)]

[§ 727. *One*.—Kappelle, North Brabant, 1856. (Grey-headed Yellow Wagtail's nest.) From Mr. J. Baker.]

[§ 728. *One*.—Culford, 1859. (Reed-Warbler's nest.)]

[§ 729. *One*.—Ketto-mella, Enontekis Lappmark, 29 June, 1860.

This egg, found as above in a Brambling's nest, seems to be a Cuckow's.]

[§ 730. *One*.—Lapland, 1862.

This egg, from a Titlark's nest, found by Martin Piety, is no doubt, as he thought, a Cuckow's.]

[§ 731. *One*.—St. Neot's, 8 June, 1864. (Hedge-Sparrow's nest.) From Mr. Rowley.]

[§ 732. *One*.—From the late Mr. John Scales's Collection, 1885.]

[§ 733. *Six*.—Norfolk. From Mr. W. M. Allen, 1888.

All taken near Shouldham-Thorpe, but no particulars preserved.]

CAPRIMULGUS EUROPEUS, Linnæus.

NIGHTJAR.

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

Bought of an old woman at "the Wall." The Goatsucker is not uncommonly to be seen near Eton, being plentiful at Burnham Beeches and at other places in the neighbourhood.

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

This I had from Mansfield, the Birmingham dealer, who did not know what it was!

§ 736. *One*.—Bearwood, 1846. From Mr. H. F. Walter.

§ 737. *Two*.—Bearwood, 1850. From Mr. H. F. Walter.

§ 738. *One*.—Burnham Beeches, 1850.

Bought at Eton by my brother Charles.

§ 739. *One*.—1852 (?).

[Nothing known as to this specimen.]

§ 740. *Two*.—1852.

I find these among eggs I had from Dr. Frere.

§ 741. *One*.—From Mr. W. Felkin.

§ 742. *Two*.

[Nothing known about these.]

§ 743. *Two*.—Eton, 1855.

[§ 744. *Two*.—Elveden, prior to 1848. From different nests.]

[§ 745. *One*.—Elveden, 1849.]

[§ 746. *Two*.—Elveden, 1851. From different nests.]

[§ 747. *Five*.—Elveden, 1852. From different nests.]

[§ 748. *Two*.—Elveden, 1853. From different nests.]

[§ 749. *Four*.—Elveden. Two pairs from as many nests.]

[§ 750. *Two*.—Elveden, June, 1857.]

[§ 751. *Two*.—Elveden, June, 1863.]

[§ 752. *Two*.—Herringfleet, Suffolk, 27 June, 1875. From Mr. Norgate.]

CAPRIMULGUS RUFICOLLIS, Temminck.

RUFOUS-NECKED NIGHTJAR.

[§ 753. *Two*.—Spain. From M. Fairmaire, through Herr Seidensacher, 1865.]

[§ 754. *One*.—Spain. From Lord Lilford, 1865.]

[§ 755. *Four*.—Spain. From Mr. Dresser, 1868.

All apparently from different nests.]

[§ 756. *One*.—Spain. From Lord Lilford, 1873.]

[§ 757. *Two*.—Spain. From Lord Lilford, 1884.]

CYPSELUS MELBA (Linnæus).

ALPINE SWIFT.

§ 758. *Two*.—Berne, not later than 1846.

Out of six which I got from the Museum-keeper at Berne with the nests, which are very extraordinary. I have given the other eggs to M. Hardy, Mr. Tuke, Mr. Wilmot, and Mr. Yarrell, and exchanged the nests with Mr. Hancock.

§ 759. *Two*.—From M. Nager-Donazain, through Dr. Frere, 1852.

[§ 760. *Four*.—From M. Nager-Donazain, 1859.]

CYPSELUS PACIFICUS (Latham).

SIBERIAN SWIFT.

[§ 761. *One*.—"Sibérie." From M. Jules Verreaux, 1873.

This specimen was doubtless one of those obtained and described by Dr. Dybowski (Journal für Ornithologie, 1872, p. 351.]

CYPSELUS APUS (Linnæus).

SWIFT.

§ 762. *Two*.—Near Godalming, 1836. From Mr. J. F. Dawson, 1846.

Mr. Dawson, of Ventnor, said he had these from the neighbourhood of Godalming.

[This statement is confirmed by the inscription upon them, "*C. murarius*, 1836," which appears to be in the handwriting of Mr. Salmon.]

§ 763. *One*.—Scarborough. From Mr. Roberts, 1854.

§ 764. *One*.—Lapland, 1854.

Found by Piko Heiki. Swifts breed here [Lapland] in holes of trees.

§ 765. *Two*.—Modus-lombola, West Bothnia, 4 July, 1857.

Found by Matthias Solomonson Neckala in a hole of a tree by

Modus-Iombola strand. He called the bird *Nahkasiipi*, the name here applied to the Swift, in the absence of any true Bat.

[§ 766. *Two*.—Thetford, 1845. From Mr. R. Reynolds.]

[§ 767. *Two*.—Thetford, 1848. From Mr. R. Reynolds.

Mr. Reynolds learnt the art of finding Swifts' nests from Mr. Salmon, during the latter's residence at Thetford.]

[§ 768. *Seventeen*.—Brandon, 1858.

These were taken, with others, from the roofs of two outhouses of the Chequers Inn, by George Spencer, Mr. Newcome's very intelligent hawking-boy, who soon after died.]

HIRUNDO RUSTICA, Linnaeus.

SWALLOW.

§ 769. *Five*.—England [?], prior to 1844.

§ 770. *One*.—Wirksworth, Derbyshire, prior to 1844. From Mr. George Wolley.

[§ 771. *Two*.—Elveden, 1847.]

[§ 772. *Three*.—Elveden, 1848. From two nests.]

[§ 773. *One*.—Elveden, 1851.]

[§ 774. *Four*.—Elveden, 1852. From two nests.]

[§ 775. *Three*.—Elveden, 1852.]

[§ 776. *Four*.—St. Neot's, 12 June, 1864. From Mr. Rowley.]

[§ 777. *Five*.—Leck, Donegal, 31 May, 1862. “R. H.” From Mr. Robert Harvey.]

[§ 778. *Five*.—Dilham, Norfolk, 29 May, 1876. From Mr. Norgate.]

HIRUNDO SAVIGNII, Stephens.

CHESTNUT-BELLIED SWALLOW.

[§ 779. *One*.—Baniyas, Palestine, 9 May, 1864. From Mr. Tristram.

From the cave at the source of the Jordan. Mr. Tristram's notes on the breeding of this species, under the synonym of *H. cahirica*, are contained in 'The Ibis' for 1867 (pp. 361, 362).]

HIRUNDO GUTTURALIS, Scopoli.

[§ 780. *Seven*.—Darasun, Dauuria, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.]

[§ 781. *Two*.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

This species is mentioned by Dr. Dybowski under the name of "*H. rustica* var. *rufa*" (Journal für Ornithologie, 1868, p. 336), and subsequently, under what seems to be its justifiable title, he described its habits (*op. cit.* 1872, pp. 351, 352.)

HIRUNDO RUFULA, Temminck.

RED-RUMPED SWALLOW.

[§ 782. *One*.—Athens, 6 July, 1863. From Dr. Krüper, through Herr Seidensacher, 1865.

Dr. Krüper's excellent account of the habits and nidification of this species in Greece is to be found in the 'Journal für Ornithologie' (1860, pp. 271-280).]

[§ 783. *One*.—Beit Idis, Bashan, Palestine, 5 May, 1864.
From Mr. Tristram.

Mr. Tristram tells me that the hen bird was caught in this nest, which was in a cave. He has well described its breeding-habits in 'The Ibis' (1865, p. 79, and 1867, p. 362).]

HIRUNDO DAURICA, Laxmann.

DAURIAN SWALLOW.

[§ 784. *One*.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

From his own observation at Darasin, Dr. Dybowski has described (Journ. für Ornith. 1872, p. 352) the retort-shaped nests and the eggs of this bird under the name of "*Cecropis daurica* (Pall.)"—a mistake, since Pallas called it *Hirundo alpestris*.]

CHELIDON URBICA (Linnæus).

MARTIN.

§ 785. *One*.—From Mr. Hewitson, 1844.

§ 786. *Four*.—Yoxall, Derbyshire. From Mr. J. Evans.

One remarkably spotted, the other three pure white. There can be no mistake about the taking of these eggs—they were certainly all in the same nest. Mr. Evans says there were scarcely any of the Common Swallow [*Hirundo rustica*] about the place. The nest was decidedly a Martin's. The only question is, could a Swallow's egg have been laid in by mistake? and, again, could this be a Swallow's egg? it is rather larger than the other three pure white eggs.

[The spotted egg has all the appearance of a Swallow's.]

§ 787. *Two*.—Toras-sieppi, Kemi Lappmark, 1856.

Mr. Wolley, writing in 1853 to Mr. Hewitson, says (Eggs Br. B. ed. 3, i. p. 262):—"The House Martin is very abundant here. Round the court-yard

of a peasant's house [in Muonioniska] I counted a hundred and sixty nests still remaining, although all those upon one side had lately fallen down. It is a general favourite ; and the people everywhere nail up narrow planks upon the walls to support the nests. There are often three or four rows, one above another, the boards being placed at such distance apart that there is just room for the nests between."

[§ 788. *Two*.—Elveden, 1848. From different nests.]

[§ 789. *Four*.—Elveden, 1851.]

[§ 790. *Four*.—Elveden, 1852.]

[§ 791. *Two*.—Elveden, 1852.]

[§ 792. *Five*.—Leck, Donegal, 2 June, 1862. "R. II." From Mr. Robert Harvey.]

[§ 793. *Five*.—Sparham, Norfolk, 14 May, 1877. From Mr. Norgate.]

COTILE RUPESTRIS (Scopoli).

ROCK-MARTIN.

[§ 794. *One*.—"Algeria." From Herr Möschler, 1865.]

[§ 795. *Four*.—Barcelonnette, Basses-Alpes, June, 1867. From M. E. Fairmaire.]

[§ 796. *Four*.—"Switzerland." From Herr Möschler, 1869.]

COTILE RIPARIA (Linnæus).

SAND-MARTIN.

§ 797. *Two*.—Bridlington, Yorkshire, prior to 1844.

Taken by myself out of nests made of seaweed, lined with feathers. The birds bred in the cliff both to the north and to the south of the town.

§ 798. *Two*.—Beeston [?], prior to 1844.

[§ 799. *One*.—Elveden, 1845.]

[§ 800. *Two*.—Elveden, 1847.]

[§ 801. *Two*.—Barnham, 1848.]

[§ 802. *One*.—Elveden, 1851.]

[§ 803. *Four*.—Elveden, 1852.]

[§ 804. *Two*.—Elveden, 1852. From different nests.]

[§ 805. *Five*.—Toome, Antrim, 13 July, 1863. “R. H.”
From Mr. Robert Harvey, 1864.

Mr. Harvey writes that he took this nestful one evening (while on a visit to the house of his brother, Colonel Harvey, at Toome Bridge, in the county of Antrim) on the Bann, between Lough Neagh and Lough Beg, from an enormous colony that were breeding in the steep banks of the river. There were well-fledged birds in many of the nests.]

[§ 806. *Two*.—Woodbury Hill, Dorset, 4 September, 1870.
“C. M., F. J., and H. A. N.”

Taken by my nephews from the pit to the north-east of the old encampment.]

[§ 807. *Five*.—Sparham, Norfolk, 13 June, 1874. From Mr. Norgate.]

AMPELIS GARRULUS, Linnæus.

WAXWING.

[Of all Mr. Wolley's discoveries the one with which his name will be especially perpetuated is his unveiling the mystery that had hitherto surrounded the breeding-habits of the Waxwing. At the time these words are written, more than thirty years after the discovery was made, the present generation of oologists cannot imagine the interest that had long been taken in the subject, or realize the delight felt by their predecessors, the egg-collectors of the old school, of whom few now remain, as well as by naturalists generally, at the announcement that the hidden history of this bird—a bird whose irregular and unaccountable irruptions into Central and Western Europe had for centuries attracted the notice of writers—was at last made plain. All speculation on the subject—and there was little else than speculation—was set at rest for ever by the simple statement communicated by Mr. Wolley to the Zoological Society of London, at its Meeting on the 24th of March, 1857, and in due time published in its 'Proceedings' (1857, pp. 55, 56, *Aves*, pl. cxxii.). To reprint that statement in this place would be needless. The main facts there set forth were repeated in many other publications, and no one has disputed his right to the honour thence derived, though, as is well known, his failing health and premature death did not permit him to give the details to the world. A few years later an attempt was made to compile from his notes a connected account of the discovery, illustrated by figures of half-a-dozen specimens, selected by himself from his series of the bird's eggs and drawn by that master of oography, the late Mr. Hewitson (*Ibis*, 1861, pp. 92–106, pl. iv.). Yet that account fails to convey to the reader an adequate notion of the zeal with which Mr. Wolley's enquiries were prosecuted, or of the toil to himself and his collectors by which their prosecution was attended, as related in the following pages. Indeed, the abstract just mentioned bears to the full narrative here printed the same relation that the small number of figures of Waxwings' eggs formerly given does to those of the series represented in the accompanying Plate (O. W. tab. x.). In a matter of this kind almost every word of the original story will be received with pleasure, and accordingly it here appears with scarcely an abbreviation, and with the fewest verbal changes possible, though some repetition is thereby incurred. It will, however, be observed, as has elsewhere been remarked, that—discoverer as he undeniably was of the mode of nidification and of the eggs of the Waxwing—Mr. Wolley himself never had the good fortune to observe a single bird of that species in Lapland, or to see *in situ* more than one of its nests, while from that nest he never took an egg! These facts, after all the pains he had bestowed and all the time he had spent—for since his first arrival in Lapland in June 1853 the discovery of a Waxwing's nest had been his chief object—are enough to prove the difficulties with which he had to contend—difficulties that even his uninterrupted perseverance could not overcome.

It will be seen from the following pages that the actual finder of the first Waxwing's nest was a boy, JOHAN of SARDIO (otherwise, and perhaps more cor-

rectly written, Sadio¹), a settlement on what is locally known as the Kittila river, being an upper portion of the Ounas-joki, which many miles to the southward joins the great Kemi river at Rowa-niemi just below the Arctic Circle, and thence runs into the Gulf of Bothnia. But this boy would never have found what he did, had it not been for the presence and energy of LUDWIG MATTHIAS KNOBLOCK, who for so many years faithfully served Mr. Wolley, as he subsequently, and in still more northern latitudes, served the writer of these lines.

I regret that it is not in my power to include in this work a view of the place where the Waxwing-mystery was cleared up. A reproduction in *fac-simile* of a slight sketch made by Mr. Wolley of the very tree in which the first nest was found is given a few pages further on, and is the only illustration available. However, an engraving in the well-known 'Travels' of Dr. Clarke, after a drawing by that author, shews what is inscribed as a "View of the River Aunis, in the North of Lapland between Kongis and Kittila."² In the Explanatory List of Plates prefixed to the work this one is called a "View of the Aunis River, and of the Aunis Tunduri, a Mountain towards the Source of the River." Since the range which properly bears this last name terminates some way to the northward of Kyrö, and therefore considerably to the northward of "Kongis", it is impossible to reconcile these conflicting statements, or to determine the position of the calm reach of water represented by Dr. Clarke; yet I doubt not that, allowing for certain conventionalities, it probably gives no incorrect idea of the landscape on the banks of the Kittila or upper portion of the Ounas river. But quiet as is the scene chosen by the draughtsman, it must be understood that the river is in parts as rapid, as much beset by rocks, and therefore as turbulent as any of its neighbouring streams; indeed Dr. Clarke himself states (*tom. cit.* p. 433) that after it issues from its parent lake it "is one continued cataract, for many miles in extent," and subsequently compares its scenery to that on the banks of the Muonio, which abounds in rapids and falls, and had been previously ascended by him.³

§ 808. *Five*.—Sadio, Kemi Lappmark, 11 June, 1856.
"Cock bird snared. L. M. K."

O. W. tab. x. figg. 1-5.

The first nest of Waxwing ever found for scientific purposes, so far as J. W. knows.

¹ The name is spelt Saajo on the Finnish Government map; but, as I believe, by a clerical error for Sadjo, *i. e.* Sadio.

² Travels in Various Countries of Scandinavia. By E. D. Clarke, LL.D. London: 1838 (vol. i. pl. no. 23, to face page 436).

³ No account of Mr. Wolley's greatest achievement should, however, pass over the independent discovery made two years later by Mr. Dresser. At present he remains, so far as I am aware, not merely the only Englishman, but the only naturalist of any European nation who has taken a Waxwing's egg with his own hands. His narrative, in his own words, may be read in 'The Ibis' for 1861 (pp. 102-104), and has thence been transferred to his admirable 'Birds of Europe.'

In the month of August I received at Stockholm, (or at Calmar) a letter from Ludwig Knoblock from which the following [translation] is extracted :-

“ Muoniovara, 22 June, 1856.

“ Good Sir, I must now first report on my Kyrö-journey. On the 6th June I came with Piko Heiki to Sadio, and straightway when I came thither I got to hear that a pair of Silk-tails was there, and that one of the Sadio boys had found a this year's *Koki's* [*Perisoreus infaustus*] nest and that they thought it was a Silk-tail's, but it had not yet laid eggs. I was straightway to see after the nest, and I said that now shall we, so many as we are, begin to seek and we shall seek almost a week, and that we shall not end before we find it. We sought the whole night and found nothing, but before it became midday on the morrow, a boy hight Johan met with a nest in which were two eggs, and the bird sat near the nest on a high tree. After three days there were five eggs in it, and so I snared the bird, and saw it was just the same as in my picture¹. Now must my master be quite sure of this, that he has Silk-tails' eggs here. Of Kapy-lintu [*Corythus enucleator*] we found a nest, and Sadio Mikel found a second : many nests did we find with the Sadio boys, but there were no eggs yet I was very glad that Silk-tail's nest has been found, but yet more so shall I be when I have found it myself.

“ LUDWIG KNOBLOCK.”

On the 6th September I received at Haparanda a letter from Ludwig of which the following are [translated] extracts :—

“ Muoniovara, 22 June, 1856.

“ But now shall I tell little of my Kyrö-journey (of which I told more in my letter to Stockholm) than that I got the Silk-tail with five eggs thence. I thought much about finding the Silk-tail in Kyrö, but much pleasanter would it have been if I had found the nest myself. I open this letter the evening after [I wrote it]. Sadio Mikel has now brought four nests of the Silk-tail with twenty-one eggs ; they had not yet begun, most of them, to lay eggs when I was there ; there is no want now of the Silk-tail's eggs. most humbly,

“ L. M. K.”

On my way up the river I met Keimio Johan, who said that Lud-

¹ [This was one of several coloured sketches sent to Mr. Wolley by Mr. Hewitson and myself to assist him in making known his wants to the people.—Ed.]

wig had *Korwa-Rastas's*¹ eggs "quite sure." Arrived at Muoniovara, 11th September, Ludwig shewed me the eggs and birds with the nests. The following I copy from his day-book:—

"5 June.—In the morning we began our journey to Kyrö, and in [the course of] the day came we under Pallas-tunturi, and when we came on the fell so we were there most of the whole night before we got over it.² On the 6th, about evening, we came to Sadio, and straightway I met Mikel, and he said that *Korwa-Rastas* was there, and that a little boy had found its nest, but there were no eggs yet. Straightway went I to see after the nest, and I saw that it was an old *Koki's* nest. Then said I to all the boys, of whom there were seven, that we should begin to seek for a week at least [and] should not leave off before we found it. So sought we the night till the 7th, but we found nothing; but before it was noon, a boy, hight Johan, met with a nest, and I went to see after it and there were two eggs; but I had some misgivings whether it was the right bird, for the yellow which was at its tail's end looked white in the sunshine, and I did not see the red on the wings, and the tuft which was upon the head seemed to me too short. But when I went in the evening the sun had got low, so I saw that it was yellow at its tail's end: then became I very glad, and I trowed surely that it was the right bird. In the night Mikel found a *Kapy-lintu's* nest with one egg, and we found another nest with Heiki, but there were no eggs yet in it.

"The 8th was Sunday, and in the evening we went to Ala-Kyrö; another pair of Silk-tails was there, but they seemed to have no good abiding place. We sought indeed, and several others, the whole night and till nearly noontide of the morrow, but we could not find either theirs or a *Kapy-lintu's* nest; then I found that it would be best to seek *Puna-kuowi*. . . . We had hitherto found during the whole journey only a *Pouta-haukka's* nest with three eggs. On the 11th we came again to Sadio, and I went to look after the Silk-tail's nest, and there were five eggs*. . . . Then I caught the cock Silk-tail (but the hen I could not get) and the cock *Kapy-lintu* of the nest

¹ [Literally "Ear-Thrush," because of the feathers on the head standing up like Squirrels' ears.—ED.]

² [As Mr. Wolley wrote to me, the snow was still so deep that Ludwig had to wade through it up to his middle.—ED.]

* "In Sadio, 11th June, I myself took a Silk-tail's nest, which we found on the 7th. The nest was four ells high in a little spruce, about one hundred fathoms from the homestead in a little spruce-place on wet earth and marshy or moss-earth, about twenty fathoms from Sadio-strand towards the south." (From another place in Ludwig's papers.)

which Mikel had found. Then we went to the nest which we found, but there was as yet only one egg, so I must leave it. Then I made a box of thick wood and laid the eggs therein.

“16th.—I blew the eggs and stuffed the Silk-tail and *Kapy-lintu*. . .

“29th.—Sadio Mikel came with many Silk-tails’ and *Kapy-lintu*’s eggs and others, and then I blew the eggs.”

Whilst I examined these eggs,¹ and made my boxes ready for England, from the 11th to the 20th of September, Ludwig told me again and again the story of the *Sidensvans*. He said that, in his first letter he meant to say that the bird sat on a high tree, not that the nest was in such; that he felt some misgivings as to whether it really was the right bird; that the Sadio lads thought it was, for their grandfather had described to them formerly the *Korwa-Rastas*. They were not sure that they had ever before seen it, though they know most birds, but one of them thought he had once found a nest some years before. Ludwig says the birds made a remarkable singing noise, and watched people closely; but he never saw more than one at the nest at a time. They raised their crests considerably, always more than in the picture, sometimes even so that they came forwards. When at last Ludwig compared the bird with one of Newton’s pictures on Martin Piety’s return from Sodankyla he saw with certainty that it was the same bird. They (Ludwig?) found a nest which appeared to be a last year’s *Sidensvans*’s, and it seems to me upon examination that it is such. The Sadio lads at first were very lazy and sleepy, but once roused from their dirt they worked well.

On the 5th of August, Kyrö Niku brought two young *Korwa-Rastas* dead, which he had caught that day just south of Pallas-tunturi. One of them Ludwig stuffed, the other was spoiled. The former has most of the characteristics of the old bird, even the “wax” on the wing, but it is without the black patch under the chin, and has the under side of a neutral colour with white streaks or patches, owing to the sides of the feathers being lighter-coloured than the middle (see more detailed description by J. W. [P. Z. S. 1857, p. 56]). Niku said there were five young which could just fly, so that he could only catch two.

On the 3rd of July, Sallanki Johan brought some Thrush’s eggs with a dried *Korwa-Rastas*, which he said he had shot from the nest. He had doubtless heard that Ludwig had said the true eggs were most like those of *Sawi-Rastas* [Song-Thrush].

¹ [I have had all the eggs of the first nest figured (Tab. x. figg. 1-5).—ED.]

On the 7th of September, three Waxwing's eggs, under the name of *Kukhainen*, were brought from Muotka-järwi.*

On the 20th of September, Piko Heiki, who was with Ludwig when he took the nest, told me that where he lives at Särki-järwi he had, within a week, heard a small flock, five or six in number, of the same bird. Their cry called his attention to the birds; he tried to get nearer to them, but they were very shy. This 21st of September I have been with Piko Heiki and Ludwig up the hill at Muoniovaara, that they might point out to me exactly what kind of place the nest was in. It appears that it was on the east bank of the Ounas-joki, some four hundred yards from the river, on the western slope of a low hill, about fifty fathoms to the south-west of Sardo Nybygging; the ground rather marshy, that is with large tussocks of moss, bog-

* These were brought to Ludwig by Muotka-järwi Elias's boy. Ludwig asked what they were. Answer. "*Kukhainen*" [*Perisoreus infaustus*]. Q. "When taken?" A. "*Heina Kua*" (8th July). Q. "How do you remember?" A. "It was two days before a legal summons at our place." Q. "Where was the nest?" A. "In a birch." Q. "Did you take it yourself?" A. "No, I gave my sister one riksdollar riks-geld for them." The boy said the young inside had already made holes in the eggs, and he brought them ready blown, but two of them badly cracked. I have mended and written upon one. The membrane still inside the shells. They so exactly resemble the other Waxwing's eggs, and are so unlike any other egg known up here, that I cannot have a shadow of doubt as to the species.

27th January, 1857. Maria Lana¹, aged twenty-two, Elias's daughter, of Muotka-järwi, is now here. She says the eggs, four in number, which she thought were *Kukhainen*, were a fathom and a half up in a birch tree, in a nest made of lichen (reindeer and tree-hair) and bents, and at the bottom of it a little rotten wood, no feathers inside, or if so only one or two large ones. It was just by the road, about a mile [Swedish] or a little more from Muotka-järwi. She heard the bird fly off, but could not see it. She was on her way from Hetta. There were Scotch fir trees also near. She put the eggs in a glove. In the autumn, as she was going to fetch a bull from Hetta, she saw that the nest had fallen to the ground. This evening she does not recognize a skin of Kapy-lintu [*Corythus enucleator*], but at once names a Korwa-lintu [*Ampelis garrulus*]. She says decidedly that the nest was in a birch. She promises to collect eggs next summer, but cannot bring them at Midsummer because (after some hesitation) she is going to search for some hidden silver she knows of in the night. Her mother taught her the names of all birds. These eggs were found late in the year towards *Jacobin aika* (25th July) she thinks. There were young inside. There were four eggs in the nest. She has been told that *Kukhainen* has two broods in the year. She has never received any messages that I wished to see her.

¹ [Mr. Wolley, in his letter to me of 14th September, 1856, called this woman a "little girl", a statement I quoted in the account I gave in 'The Ibis' (1861, p. 96), but it appears that he had not then seen or before heard of her. The egg he mentions as having mended was sold at Mr. Stevens's, 12th May, 1857, to Mr. H. F. Walter; the other two have been given to the Norwich and British Museums respectively.—ED.]

bilberry, alpine birch, and so forth; the trees scattered about so as to leave wide sunny interspaces. The nest was in a small spruce, about twenty feet long, without branches near the bottom, and only some ten inches in circumference at, say, five feet from the ground, *i. e.* scarcely so thick as a man's arm, so that Ludwig in climbing up was afraid that he should bend or shake it so much as to make the eggs fall out. It was not vigorous and thick-leaved, but with a few unhealthy branches, the longest of which might be nearly a yard long. They were covered with tree-hair lichen, and on one of the longest but not lowest of them, on the west side of the tree, the nest was placed at about a fathom and a half from the ground. It was just where several twigs or divisions of the branch made a platform, at such a convenient distance from the bole of the tree that a person climbing up or turning his face a little on one side could have the eggs just before his eyes—that would be some eighteen inches from the bole. It seemed to Heiki like a Thrush's nest in the way it was built up without supports at the side, and he wondered why the bird had not contrived to place it more under the shelter of another branch. To a man underneath, the quantity of tree-lichen (of which also the nest is chiefly made) prevented its being conspicuous, and the dead spruce-twigs on its outside similar to many networks of the same kind of twigs on this unhealthy tree. But from the side, as the branch was quite open, the nest was visible enough to any one looking for it—even from some distance.

28th September.—Martin Piety, now here, says that he remembers some twenty years ago once seeing a Waxwing, and once since he has seen or heard one, but it is ten years ago. This year, on the other hand, he has often seen them:—once at Ketto-mella, ten in the beginning of September; again in the middle of August, six to the west of Ounas-tunturi flying from the north, about two miles and a half within the fir limit. He also saw them with young at Ketto-mella earlier in the summer.¹ In the egg-time he saw a pair

¹ [It is probably to these young that the following note refers:—

“8th March, 1857.—Two days ago Martin Piety was here bringing a *Sorpoli* [*Lemmus norvegicus*] and the nest of Sidensvans he had before told me of, from which he saw the young fly. It is very carefully brought with the branch. He says that it was fully two fathoms from the ground, and that the spot where the nest was placed was about a fathom from the bole of the tree—a large Scotch fir. The nest is placed in a good cup formed by the branch, under which there hangs a good deal of *luppu* (tree-hair), and is built as usual of twigs and *luppu* with a little rein-moss. Amongst the *luppu* outside but not belonging to the nest is a feather, evidently, from its pinky colour, a Waxwing's.”

This nest was sent, 24th August, 1857, by the hands of Cand. Med. Nylander, to the Museum at Helsingfors, as a gift from Mr. Wolley.—ED.]

between Yli- and Ala-Kyrö. Also he saw a cock bird in Kala-maa, but could not find the nest. He observed this spring that they flew up in the air and came and sat in the same spot from which they had flown—he thought in play, but perhaps they were catching insects. He is certain they were not about Sodankyla or Kittila, nor did more than two persons know them, though he made very careful enquiries, and found that those who were woodmen knew other birds.

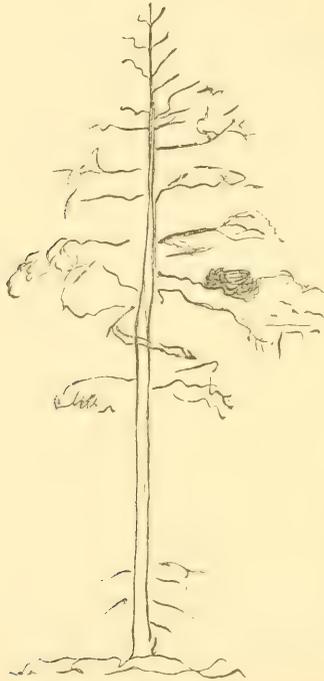
2nd November.—Sardio Michael and Johan being now at Muoniovara, the latter [the finder] thus describes this nest. It was in a *jänko antto* [marshy open space]. The birds often flew over their house, North and South, so they knew in what direction the nest should be. The tree was a little thin spruce, not so thick as a roofing tree (*malka*), and bare at the bottom. The nest was more than a fathom from the ground, on the west side, about half an ell from the bole or a little over. The branch was close-twigged (*sakia*). They found the whereabouts of the nest by the voice of the bird. The birds are oftenest seen flying; they sometimes sat in the fields. He also remembers seeing one on the ground in the wood, but it sits on the tree-top oftenest. He once saw a bird fly back to the same place, but he found no nest. They first saw *Korwa-Rastas* this year when there was snow on the ground. In other years he has seen it at *Hengin aika* [Whitsuntide]. Their grandfather has talked to them of all kinds of birds, and certainly shewed and named this as it flew. Other years when Johan has seen the birds, they were in larger flocks, some ten together. He has seen the nest before at Sardio, perhaps ten years ago, and Mikel says other children have seen it since. Mikel saw one old nest of last year, and is sure it was of the same kind of bird. He thinks he has seen the bird before but is not sure. Johan says he has seen the bird sometimes before. A little after Jacob's day [25th July], Mikel saw a small flock in Keras-Sieppi, and many such at home. Johan saw a lot of young in Wuondis-järwi about Jacob's tide. Few people know the bird—"had they known it, they would certainly have found nests this year."

30th November.—Kyrö Mikel this day at Muoniovara relates that he found a nest of *Korwa-lintu* a few days after Ludwig left him in the spring. It was in a three-fathom spruce about a fathom and a half from the ground, a thin-branched tree without *luppu* (tree-hair) in low ground near the river. There were two eggs. He went again when there were four eggs and laid a snare for the bird. At a third visit he found that a Hawk had taken the bird out of the snare, and knocked the nest to the ground. He says (as he also told me two years ago) that some twenty years since, when he was a boy, the

bird was abundant. They found a nest, but the birds were wild and deserted, since that time he has scarcely seen them, but has heard them several times, and says they must have been very scarce.

Auton Josa, aged some thirty-five years, the same day tells me that he never knew or observed the birds till this spring. He heard of them from Sardo, and afterwards found a nest with four young birds, as high as he could reach in a small spruce near Kyrö.

At Sardo, April 20 [1857].—The tree in which was the first nest



of Waxwing is now before me. It is a young spruce of about twelve feet high. At the bottom are a few dead branches, then a blank (now) for some four feet. The nest was a foot from the bole, not on one of the lowest branches, for there are four or five just below it. [It was] on the south-west side of the tree. The average quantity of tree-hair on the tree. At four feet from the root the tree is ten inches and a half in circumference. The place is pretty open; both larger and smaller trees near. About one hundred and twenty yards from the house¹.

¹ [The accompanying woodcut is a reproduction of the slight sketch of the tree

§ 809. *Five*.—Sardio, Kemi Lappmark, 10–13 June, 1856.
 “With hen.”

O. W. tab. x. figg. 6, 7.

Brought by Sardio Michael with the nest and hen bird snared upon it. The nest is made principally of tree-hair of several colours, interwoven with bents, grass, and *Equisetum*, outside old spruce-twigs.

This nest was a little to the south of Kyrö Lassi's house, but on the other, *i. e.* the east, side of the river in a little *kuusikko autto*, spruce-valley or dale. The spruce was about as thick as those they lay on roofs (*malka*). The nest was two fathoms from the ground, and about an ell from the bole. It was a *luppu puce*, *i. e.* a deal of tree-hair. He saw the lump of lichen, wondered, began to climb, and the bird flew out. He had seen two birds there the same day. The bird cried a little, not as it flew from the nest, but as it flew a second time. The nest was on the south-east side of the tree, standing on a licheny branch, just where the twigs separate. The tree was of that scraggy kind where the branch is long before it gives out twigs. It was a thickish place in the wood—a small strip of spruce.

[The egg represented by fig. 6 is doubtless that to which Mr. Wolley, in his original account of the nidification of the Waxwing (P. Z. S. 1857, p. 56), applied the term “salmon-colour,” and of which he sent home a coloured sketch in 1856. I had once thought (Ibis, 1861, pp. 101, 102) it might be one of those drawn by Mr. Hewitson (*tom. cit.* pl. iv. fig. 6), but I am now sure that that opinion was wrong, and that it is as I now say. It appears from a

in one of Mr. Wolley's pocket-books, whence the above extract is taken; but it will be borne in mind that he has drawn the nest as if still in its place, whereas it had been removed more than ten months before. It was given by him to the Norfolk and Norwich Museum. In the same pocket-book is a list of the Sadio lads, in their order of age, as follows:—Pekka (*i. e.* Peter), Matthias, JOHAN, Michael (Mikel), Erki (Erik), and Frederik (Fetto). Some confusion seems occasionally to exist between Sadio Michael, the father of these boys, and his son of the same name, and I cannot in all cases clear it up. There were also five girls, one of whom, Brita Maria, seems to have shared in the award of fifty silver rubles, paid to the family (in addition to some hundred dollars they had already received) by Mr. Wolley on the 30th of August, 1857, after hearing from Dr. Nylander that that sum had been promised by the authorities of the Museum at Helsingfors for the first discovery of the nest of *Ampelis garrulus* (*cf.* § 813), and that in the Doctor's opinion the Sadio people were entitled to it. Of this fact Mr. Wolley informed the authorities, adding that he could not allow them to pay for his discovery.—Ed.]

memorandum in one of Mr. Wolley's pocket-books, that this nest and hen-bird were given by him in September, 1857, to the Museum of the Academy of Sciences at Stockholm (Efv. K. Vet.-Akad. Förh. 1857, p. 318).]

§ 810. *Six*.—Keinovaara, Sardinio, Kemi Lappmark, 10–13 June, 1856. “With hen.”

O. W. tab. x. fig. 8; P. Z. S. 1857, *Aves*, pl. cxxii. (nest).

Of Sardinio Mikel's lot. This nest I sent to England for the British Museum, and the bird for the Norwich Museum. It seems to be a hen, and has not so much black on the throat or so broad a yellow tip to the tail as the cock, and the yellow is less rich and the black by which it is bordered less intense. The eggs are of about the average character, one of them [that figured *ut supra cit.*] of a rather long shape. The nest is large, thickly built and deep; made principally of hair-lichen, but the external scaffolding of dried spruce twigs of some five or six inches long. There is also amongst the scaffolding a good deal of willow-down, some old grass-fibre (that is, the silvery-looking remnant of old grass-fibre), and also a little sheep's bent, principally as lining, and there are two or three feathers and bits of down.

Mikel and Johan afterwards told me that this nest was on the south-west side of the hill, which is pretty steep, in a not very open spot, where the earth has been burnt (*palo maa*), but so long since that birches have sprung up and become trees or large shrubs. Below, on the border of marshy ground, were spruces, and where the nest was they were scattered and birch prevailed. The nest was placed in a *kuusi karakka*—dwarf or stunted spruce. Mikel could reach it with his hand as he stood on the ground, but to lay a snare in the nest he climbed up or stood on a branch, and the tree bent down considerably under his weight. The nest touched the bole of the tree, which was not the case with any of the other nests. It was found by the bird flying out as Mikel passed. It made no noise as it left the nest, and was silent when it came back, but once, when on the wing, it cried out as it flew.

§ 811. *Five*.—Keinovaara, Sardinio, Kemi Lappmark, 10–13 June, 1856. “Bird snared.”

O. W. tab. x. figg. 9, 10; P. Z. S. 1857, p. 55.

Brought with the nest and bird snared upon it. The nest is a good

deal pulled to pieces. It is made of tree-hair, principally dark-coloured, interwoven with sheep's grass rather more than the others. There is a little reindeer moss and externally a few (as there doubtless have been many more) twigs of spruce all old and dried. The bird seems to be a hen; it has only one bit of "wax" remaining on each wing. This nest was on the same side of the hill as that which had the six eggs [§ 810], but was nearer the top. It was also placed in a *kuusi karakka*, but so that one could not quite reach it from the ground. It was on a branch and did not touch the bole of the tree, on the south side of the tree (the hill-side facing west). The tree was stronger than that which bore the nest last mentioned. The nest was built on an old Kukhainen's, as the feathers in its structure and the old twigs and moss proved. It stands on the branch, not woven amongst the twigs: first is laid a platform of sticks. The wood was thicker than in the last described spot, very few spruces, and the birches were far apart. Johan saw the bird as it sat on its nest, by which means he found it. He was close to the tree before it flew away. It did not go far and came back. Only one bird was seen, and as it flew from the second tree it cried a little.

[These were the eggs exhibited by my brother Edward at the meeting of the Zoological Society, 24th March, 1857, when Mr. Wolley's discovery was announced. Two of them are now figured as above.]

§ 812. *One*.—Suas Kangas, Sordio, Kemi Lappmark, 10–13 June, 1856. "Bird snared."

P. Z. S. 1857, *Aves*, pl. cxxii. (eggs).

Out of five eggs, with nest and hen snared upon it. The nest is much dilapidated, it seems to have rather more rein-moss in its structure than the others brought at the same time. Outside it has one or two trailing shoots, beside the spruce. Like the last it was brought by Sordio Mikel on the 29th of June.

Several persons saw this nest. A little boy, Frederik, said "A bird went from here." They marked the place, and came again. This second time, it was several days after the first visit, the bird flew from the nest. Mikel at first had said "There is no nest", at the former visit, for it was only just beginning. The second time it was easily seen. It was in a large Scotch fir, on a branch at least half a fathom from the bole, and two fathoms from the ground. The nest was laid on a branch. The bird was silent. It was in a *kangas* (low flat land with rein-moss and many trees, Ludwig says). Trees

scanty or not thick together. This tree was nearly an ell in diameter at the bottom, the branches not quite to the bottom. The nest on the south side of the tree. This was Suas-kangas, on the west side of the river, a quarter of a mile [Swedish] up from Sardo.

[The egg above mentioned was given to myself and my brother, a second was given to the late Mr. J. P. Wilmot, a third to Mr. W. H. Simpson (now Hudleston). The fourth and fifth were sold at Mr. Stevens's, 12th May, 1857, to the late Sir William Milner, and these two last are the originals of the figures in the Zoological 'Proceedings' as above cited.]

§ 813. *Two*.—Wuondis-järwi ¹, Kemi Lappmark, June 1857.

Out of four eggs which came to my hands—two being much damaged. One of these I sent by the hands of Cand. Med. Nylander on 24th of August to Helsingfors, with the nest brought me last winter by Martin Piety [*vide suprâ*, p. 221, note]. After I had given it to Dr. Nylander, he told me that fifty silver rubles had been offered in Helsingfors, I think by Dr. Mäklin, for a nest.

This nest was found in Wuondis-järwi before midsummer by Thomas Keskitallon's children, without their knowing what it was. Sardo Mikel saw them and went with them to the nest which he brought away, and finally to me. It was in a little *punakuorinen mänty* [red-barked Scotch fir] about a fathom from the ground on a branch. It was in an open place, dry ground, two or three hundred fathoms from the house. The Sardo lads saw two pairs of birds in the neighbourhood and Johan Sardo found a nest, in which were four or five small young, half a mile [Swedish] or less to the south from Wuondis-järwi, on a large branch of a Scotch fir overhanging the footpath or track. About the middle of July or a little later Johan also saw flying young amongst the houses at Hetta.

Maria Muotka-järwi early in August saw Waxwings on this side [the west] of the river between here [Muoniovara] and Efvre-Muonio-niska. She also about the middle of August saw young flying in Lombola-rowa on the Järis-joki near here. At the same place Länsman Braxen informs me that late in June he and Kyrö Niku * saw a pair of the birds.

Mem.—Also that before 1853 Johan Toras-Sieppi found a dead

¹ [There are three places so named in the part of Lapland explored by Mr. Wolley. That here meant I believe to be on the west side of the Ounas valley.—Ed.]

* This man had (5th August, 1856) the previous year brought two young Waxwings to Ludwig [*vide suprâ*, p. 216].

young one by Toras-lombola, as he told me in that year by description.¹

¹ [Only four other nests seem to have been found in 1857 by Mr. Wolley's collectors. The first of these contained four eggs and was taken on the 6th of June. It is thus entered in his egg-book :—

“Brought to me on the 11th by Regina's Johan, who had been with the post-bag to Ruhala. They were found by Johan Mattisson Ruhala, who said they were *Korwa-Rastas*, as they no doubt are. I had talked to him in the winter. Of the eggs sent one was completely smashed, and two of the others with small holes broken in their sides, through which I have blown them. I take one with me to Norway.”

Of the second the following is the story :—

“On the 6th of July Knoblock sent Eva Stina Kangas-järwi to Heiki to ask what eggs he had met with after he had left me at Kyrö. She brought back the next day, amongst other eggs, these five *Korwa-Rastas*. On the 11th Heiki himself came to Muoniovara and said that the nest was found with three eggs in it by Jacob Larsen Kyrö on the 24th of June, and taken by Heiki himself on the 29th from Myllo-tiawa on Suas-jokis-strand. The nest, which Heiki had left in Kyrö, was built in a four-fathom spruce of not more than half an ell in circumference at the bottom, and was placed on the south side of the tree about five ells from the bottom.”

These five eggs were sold at Mr. Stevens's, 23rd February, 1858; two were bought by Mr. Braikenridge, and the remaining three by Mr. Tristram, Mr. Burney, and Mr. Walter.

The third nest was taken by Mr. Wolley himself on the 16th June, 1857, and was the only one he ever saw *in situ*, but it had been deserted by the birds, something, a squirrel possibly, having robbed it of its eggs as fast as they were laid. There is no mention of this nest in the egg-book, and the account of it is contained in a letter to my brother Edward of 28th July, 1857, as follows :—

“For myself, I could not, in spite of every exertion, get a living Waxwing within range of my pair of eyes. I took a nest which had been deserted a day or two before, and from which something had thrown the eggs, one after another, upon the ground as fast as they were laid; of course, broken to bits. It was close to the house at Sardio. In vain I wandered through the woods, and scarcely shut my eyes at night. Many people were on the look-out; but, after the nest of three eggs I told you of from Järis-järwi, the only arrival has been a perfect nest of five eggs found by Piko Heiki, whom I desired to give up everything else, and work all the mountain-district for Waxwing.”

This nest bears date “16th June, 1857,” and is now in the Museum of the University of Cambridge. It was built in a spruce, and agrees in most respects with those previously seen and described by him.

The fourth nest with five eggs was found by Martin Piety on an island, Ajos-saari, in the Gulf of Bothnia, at the mouth of the Kemi river; but he, being met by Dr. Nylander who “represented that Mr. Wolley had already obtained as many as he wanted”—a statement certainly not in accordance with fact,—was induced to part with it to the Doctor for three silver rubles. He announced the acquisition

§ 814. *Five*.—Nullas-järwi-joki, Torneå Lappmark, 7 June, 1858.

Brought to Muoniovara, 8th June, 1858, by Maria Muotka-järwi, having been found the day before near Nullas-järwi-joki on the Swedish side, immediately below Pekkala's homestead. The nest was in a little spruce about a fathom and a half from the ground.

§ 815. *Six*.—Luhtaranta, West Bothnia, 11 June, 1858.

Brought the same day to Muoniovara by Anton, having been found by him outside the homestead in a Scotch fir about five fathoms high, the nest placed about four fathoms up; as it was not a fine one, it was not taken.

§ 816. *Five*.—Särki-muotka, 8 June, 1858.

Ibis, 1861, pl. iv. fig. 3.

Brought to Muoniovara, 12th June, by Heiki's boy Johan, having been found by himself, his mother, and his uncle, Johan Hendrik, on the 8th in Särki-muotka, about three furlongs from Heiki's house, in a Scotch fir seven fathoms high. The nest was about four fathoms from the ground. One egg is very beautiful.

[This last figured as above mentioned.]

§ 817. *Five*.—Muunioniska, 12 June, 1858.

Brought the same day by Anton, having been found by him a little way from Tilberg's *gjersegård*¹ on the other side of a small marsh. The nest was in a spruce, four or five fathoms high, and only a fathom and a half from the ground.

of this booty to the Finnish Scientific Society on the 5th of October, 1857 (Efv. Finska Vet.-Soc. Förhandl. v. p. 31), at the same time doing justice to Mr. Wolley's discovery; and a brief notice of it is given in the Appendix to the last edition of Professor Nilsson's 'Skandinavisk Fauna' (Foglarne, ed. 3, i. p. 571), communicated to him by Professor Alexander von Nordmann, who furnished Dr. Gloger with a more detailed account, published in the 'Journal für Ornithologie' for 1858 (pp. 307-309), while it is also recorded by Herr Magnus von Wright in his 'Finlands Foglar' (i. p. 98).—ED.]

¹ [Contracted from *gjerdesgård*—a clearing in the forest, fenced round for cultivation.—ED.]

§ 818. *Five*.—Kurkio-vaara, Kemi Lappmark, 5 June, 1858.

Brought to Muoniovara, 13th June, by Matthias Kurkio-vaara, found by himself on the 5th at Hottimokka, on the Ounas-joki's strand, in a little spruce about three furlongs from Kurkio-vaara. The nest was about two fathoms high.

§ 819. *Six*.—Kurkio-vaara, Kemi Lappmark, 10 June, 1858.

Brought with the last and found by the same man, about a furlong from his house. The nest was about four fathoms high.

§ 820. *Five*.—Kiwi-järwi-joki, Kemi Lappmark, 11 June, 1858.

The nest found first by Kyrö Niku, but the eggs taken by Matthias Kurkio-vaara, at the mouth of the Kiwi-järwi-joki. The nest was in a spruce and above two fathoms from the ground.

§ 821. *Six*.—Kiwi-kurkio-ranta, Kemi Lappmark, 11 June, 1858.

Found by Matthias Kurkio-vaara and Mikel Hendriksson together in a tall spruce. The nest was about a fathom and a half from the ground.

§ 822. *Five*.—Mangi-vaara, Kemi Lappmark, 12 June, 1858.

Ibis, 1861, pl. iv. fig. 1.

Found by the same two men about a mile and a half from Matthias's house. The nest about a fathom and a half high in a spruce.

§ 823. *Six*.—Ollaskoski-kielises, Muonioniska, 12 June, 1858.

The nest found by Gabriel's widow's boy Johan on the 7th, when there were only two eggs, and taken by him with six on the 12th. The nest was about two fathoms and a half from the ground, in a spruce.

§ 824. *Six*.—Ruhala, Kemi Lappmark, 16 June, 1858.

Found by Nils Petter and Johan Hendrik a mile from their house

near Pelki-kero on the Kulku-joki. The nest was in a spruce about five or six fathoms from the ground.

§ 825. *Five*.—Ruhala, Kemi Lappmark, 16 June, 1858.

Found by the same men on the same day and at the same place as the foregoing. The nest was about four fathoms from the ground.

§ 826. *Five*.—Ruhala, Kemi Lappmark, 16 June, 1858.

As the two preceding nests; four fathoms from the ground.

§ 827. *Five*.—Nullus-vaara, Kätkäsuando, 9 June, 1858.

Brought to Muoniovara, 17th June, by Greta Josefsdotter, whose brother Johan found them in a Scotch fir, about four ells from the ground.

§ 828. *Six*.—Meras-järwi, West Bothnia, 1858.

Brought to Muoniovara, 19th June, by Olaf Kätkä-järwi. They were found by Johan Hendriksson Meras-järwi.

§ 829. *Four*.—Kangasjärwi, 19 June, 1858.

Found by Heiki's wife on the 14th about one hundred fathoms from his new house, and taken on the 19th, the day they were brought by her to Muoniovara.

[Very dark-coloured eggs.]

§ 830. *Six*.—Kyrö-vaara, Kemi Lappmark, 6–12 June, 1858.

Found by Mikel Kyrö in a spruce, as above, and brought by his brother Niku.

§ 831. *Five*.—Kyrö-vaara, Kemi Lappmark, 6–12 June, 1858.

O. W. tab. x. fig. 13.

Found and brought with the last.

[The egg figured is unlike the rest, and may have been laid by another bird.]

§ 832. *Five*.—Kyrö, 10 June, 1858.

Found by Niku in a spruce near Harri-Sardio, three quarters of a mile from Kyrö.

§ 833. *Six*.—Kyrö, 11 June, 1858.

From a Scotch fir in Kotti-kangas.

§ 834. *Five*.—Kyrö, 12 June, 1858.

Found by Niku in a Scotch fir about a fathom and a half high, in Kotti-kangas.

§ 835. *Five*.—Kyrö, 16 June, 1858.

Found in a spruce on Harri-Sardio.

§ 836. *Five*.—Wassara, Enontekis Lappmark, June, 1858.

Brought by Johan Peter Wassara, 19 June, having been found about a fortnight before at Känsi-koski, in a spruce.

§ 837. *Five*.—Wassara, 6 June, 1858.

Found in Ala-kurkio-maa, in a spruce.

[These eggs are singularly small and roundish.]

§ 838. *Five*.—Wassara, 7 June, 1858.

Near Tiura-juesta, in a spruce.

§ 839. *Five*.—Wassara, 8 June, 1858.

At Tilla-kurkio-ranta, in a spruce.

§ 840. *Five*.—Hanhi-maa, Wassara, 8 June, 1858.

§ 841. *Five*.—Kutto-oja, Wassara, 17 June, 1858.

§ 842. *Five*.—Känsi-maa, Wassara, 6–12 June, 1858.

Ibis, 1861, pl. iv. fig. 4.

In a spruce. Brought with several more, as above enumerated, from the Wassara district.

[The egg figured by Mr. Hewitson, as above mentioned, is one of the largest in the whole series.]

§ 843. *Five*.—Kima-joki-ranta, 2 June, 1858.

Found by Simon Peter, of Salmo-järwi, in a Scotch fir.

§ 844. *Six*.—Afwen-koski-ranta, Salmo-järwi, 5 June, 1858.

Found by Simon Peter, of Salmo-järwi, in a Scotch fir about four fathoms high.

§ 845. *Six*.—Hiina-kangas, Salmo-järwi, 10 June, 1858.

Found by Simon Peter in a very tall Scotch fir.

§ 846. *Five*.—Ava-vaara, East Bothnia, 11 June, 1858.

Found by Simon Peter, of Salmo-järwi, in a Scotch fir. The place some twelve miles (English) south-east of Muonioniska.

§ 847. *Four*.—Ava-vaara, East Bothnia, 11 June, 1858.

Found by the same man at the same place and time as the last; also in a Scotch fir.

§ 848. *Five*.—Harjo-vaara, Salmo-järwi, 6–12 June, 1858.

Found by Simon Peter about four ells high in a spruce.

§ 849. *Five*.—Hauki-maa, 12 June, 1858.

Found by the same man as the last. The nest in a spruce.

§ 850. *Five*.—Kado-paltta, Salmo-järwi, 14 June, 1858.

Found by Simon Peter in a Scotch fir.

§ 851. *Five*.—Salmo-vaara, East Bothnia, 17 June, 1858.

Found by Simon Peter, of Salmo-järwi, in a Scotch fir on the other side of Ekkes-järwi.

§ 852. *Five*.—Kotti-maa, Muotka-järwi, 16 June, 1858.

Found by Maria; the nest was in a Scotch fir about two fathoms from the ground.

§ 853. *Five*.—Kotti-maa, Muotka-järwi, 18 June, 1858.

Found by the same woman as the last; the nest in a little Scotch fir about three fathoms and a half from the ground.

§ 854. *Five*.—Muonio-vaara, June, 1858.

Brought by Maria to Muoniovara on the 20th of June, having been found at the upper end of the hill about a fathom and a half from the ground.

[Two of these appear as if they might belong to another nest.]

§ 855. *Five*.—Muonio-vaara, June, 1858.

Found by Anton the week before, about two hundred fathoms from Forsström's *gjer[de]sgård* on the road to Muonio-alusta, in a little spruce about a fathom and a half high. Brought 21st June.

§ 856. *Five*.—Niwa-ranta, June, 1858.

Brought by Anton, 21st June, 1858, having been found by him the week before in a Scotch fir; the nest about four fathoms high.

§ 857. *Five*.—Ollikallen-vaara, Ounas-järwi, 13 June, 1858.

Found by Martin Piety in a Scotch fir about two fathoms and a half from the ground. Much sat on.

§ 858. *Five*.—Pippo-uoma, Enontekis Lappmark, 14 June, 1858.

Found by Martin Piety near Hetta-järwi, in a small Scotch fir.

The nest was lined with rein-hair, for the wolves had killed a rein, and of its hair had the *Korwa-Rastas* made their nest¹.

§ 859. *Six*.—Ollikallen-vaara, Ounas-järwi, 16 June, 1858.

Found by Piety in a Scotch fir about four fathoms high.

§ 860. *Five*.—Ketto-mella, Enontekis Lappmark, 17 June, 1858.

Found by Piety about sixty fathoms from his *kota* [lodge] in a large Scotch fir upon a long bough about two fathoms high.

§ 861. *Five*.—Ollikallen-vaara, 18 June, 1868.

Found by Piety; the nest about two fathoms from the ground.

§ 862. *Five*.—Suas-koski-raunula, Enontekis Lappmark, 18 June, 1868.

O. W. tab. x. figg. 24, 25.

On the east side, in a little Scotch fir on a long bough. The nest was about the middle of the bough. Found by Piety.

§ 863. *Five*.—Ollikallen-vaara, 20 June, 1858.

Found by Piety in a spruce about two fathoms high.

§ 864. *Five*.—Kelta-vaara, Ounas-tunturi, June, 1858.

Brought by Piety 24th of June, found near Kalama-koski in a spruce about two fathoms high.

§ 865. *Six*.—Kajwos-jänkä-vaara, Ounas-joki, June, 1858.

Brought by Piety with the last. The nest in a spruce about two fathoms and a half high.

¹ [Another nest found near this place by the same man contained only one egg, since the Siberian Jays had eaten the others.—ED.]

§ 866. *Five*.—Kajwos-jänkä-vaara, 10 June, 1858.

Found by Piety in a spruce about two fathoms high.

§ 867. *Five*.—Kajwos-jänkä-vaara, 10 June, 1858.

O. W. tab. x. figg. 11, 12.

Found by the same man in a similar situation.

[A nestful of deeply-coloured eggs, as the specimens figured shew.]

§ 868. *Five*.—Kyrö-vaara, 10 June, 1858.

Found by Mikel Kyrö.

§ 869. *Five*.—Sejwo-vaara, Kemi Lappmark, 10 June, 1858.

Found by the same, in a spruce; much sat on.

§ 870. *Five*.—Pekko-vaara, Kemi Lappmark, 12 June, 1858.

Found by Johan Johansen of Sordio.

§ 871. *Five*.—Padda-ajki, Kemi Lappmark, 12 June, 1858.

O. W. tab. x. figg. 16, 17.

Found by the same as the last.

[The eggs figured are very boldly-marked examples.]

§ 872. *Five*.—Jattonin-kanga, Kemi Lappmark, 15 June, 1858.

Found by Johan Johansen of Sordio.

§ 873. *Five*.—Keino-vaara, Kemi Lappmark, 19 June, 1858.

Ibis, 1861, pl. iv. fig. 6.

Found by Johan Johansen of Sordio about thirty fathoms from his father's house.

[The fine rose-coloured tint which distinguishes the figure above mentioned is not, I regret to say, perceptible in the egg from which it was drawn.]

§ 874. *Five*.—Kokas-jäen-tiwe, Kemi Lappmark, 13 June, 1858.

Found by Sadio Peter.

§ 875. *Five*.—Suas-kangas, Kemi Lappmark, 20 June, 1858.

Found by Sadio Peter.

§ 876. *Five*.—Sadio, 23 June, 1858.

Found by Sadio Peter in a spruce, about fifty fathoms from Sadio.

§ 877. *Five*.—Suas-kangas, 23 June, 1858.

O. W. tab. x. figg. 21, 22.

Found by the same in a Scotch fir.

[The unfigured eggs resemble those represented in the plate, as above mentioned. All are characterized by their dark colouring and an unusual number of well-defined and largish spots.]

§ 878. *Seven*.—Vickas-maa, Kemi Lappmark, June, 1858.

From Gustav Korro Peldouoma, found a fortnight before midsummer.

[Possibly not all from the same nest.]

§ 879. *Five*.—Ala-rowa, Wuondis-järwi, June, 1858.

Found by Sadio Mikel, about the 10th of June.

§ 880. *Five*.—Ylli-rowa, Wuondis-järwi, June, 1858.

As the last.

§ 881. *Five*.—Maa-ala-rowa, 20 June, 1858.

Found by Sadio Mikel.

§ 882. *Five*.—Hetta-järwi, Enontekis Lappmark, 24 June, 1858.

O. W. tab. x. figg. 14, 15.

Found by Sadio Mikel on the shore of Hetta-järwi, in a Scotch fir about four fathoms from the ground. He saw the bird on the nest.

[All these eggs have the same very remarkably pale colouring, which will be best understood by means of the figures of two of them above cited. It is satisfactory that the bird was seen on the nest by a witness so honest and competent as Michael of Sadio, one of the original discoverers. No other specimens in the series resemble these in the almost entire absence of definite dark spots.]

§ 883. *Five*.—Sadio, 25 June, 1858.

Found by Mikel near Sadio.

§ 884. *Three*.—Nikki-vaara, Sadio, 6 June, 1858.

Found by Erik Johansen half a mile [Swedish] north of Sadio.

[These eggs have a pale olivaceous ground-colour, on which spots of an orange-brown prevail.]

§ 885. *Five*.—Mölle-maa, Suas-joki, 23 June, 1858.

Found by Sadio Matti in a spruce on the bank of the Suas-joki.

§ 886. *Four*.—Pekko-vaara, Sadio, 23 June, 1858.

Found by Heiki in a spruce half a mile [Swedish] from Sadio.

§ 887. *Five*.—Naarmilaakso, Kyrö, 12 June, 1858.

Found by Jacob Kyrö in a Scotch fir.

§ 888. *Five*.—Kententakka, Wuondis-järwi, 12 June, 1858.

Found by Jacob Kyrö in a Scotch fir.

§ 889. *Five*.—Vuoriti-vaara, Kyrö, 14 June, 1858.

Found by Jacob Kyrö in a Scotch fir.

§ 890. *Five*.—Vuoriti-vaara, 14 June, 1858.

Found by the same, about ten fathoms from the last nest.

[These eggs are the longest in the whole series, as those in § 902 are the shortest (dwarfs excepted). The axis of the longest is 1.12 in.]

§ 891. *Five*.—Palo-lanto-ranta, Kyrö, 21 June, 1858.

Found by Jacob Kyrö in a Scotch fir.

§ 892. *Two*.—Koski-miska, Tepasto, Kemi Lappmark, 15 June, 1858.

Ibis, 1861, pl. iv. fig. 2.

Out of five, the nest in a spruce.

[The egg figured, as above mentioned, is one of the most normal in appearance of the whole series. Two others from this nest were sold at Mr. Stevens's, 8th March, 1859, to Lord Garvagh and Mr. Wilnot respectively. The fifth is in the collection of Mr. S. Hudson, of Epworth.]

§ 893. *Five*.—Suas-vaara, Kyrö, 12 June, 1858.

Found by Johan Johansen of Kyrö in a spruce.

§ 894. *Five*.—Palo-lanto-ranta, Kyrö, 21 June, 1858.

Found by Johan Johansen of Kyrö in a Scotch fir.

§ 895. *Five*.—Kanga-vaara, Kyrö, 13–19 June, 1858.

Found by Kyrö Niku in a little Scotch fir.

§ 896. *Four*.—Mantu-vaara, 13–19 June, 1858.

Ibis, 1861, pl. iv. fig. 5; O. W. tab. x. figg. 19, 20.

Found by Kyrö Niku in a birch.

[These are the darkest coloured eggs in the whole series, and as the first figure above cited does not seem to me to convey a very accurate idea of the appearance of this variety, I have given here representations of two others, which are, I trust, more successful.]

§ 897. *Six*.—Kyrö-vaara, 23 June, 1858.

Found by Kyrö Niku.

§ 898. *Five*.—Kotti-maa, 10 June, 1859.

Found by Maria Muotka-järwi.

§ 899. *Five*.—Kotti-maa, 10 June, 1859.

Found by the same in a Scotch fir.

§ 900. *Five*.—Loppun-perrä-maa, 14 June, 1859.

Found by Maria Muotka-järwi.

§ 901. *Five*.—11 June, 1859.

Found by Mathili Isak.

§ 902. *Five*.—Särwi-järwi, Kemi Lappmark, 20 June, 1859.

Brought to Muoniovara, 5th of July, by Heiki, who was sent on daily wages to the Kyrö district, where he found very few eggs. There are no birds there this year, and therefore everything went poorly. This nest was found on the shore of Särwi-järwi, three quarters of a mile [Swedish] from Kyrö.

[These eggs (monstrosities excepted) seem to be the smallest of the series. The smallest measures .84 by .64 in.]

§ 903. *Five*.—Suas-vaara, 14 June, 1859.

Brought with the last. With the nest.

[One of these eggs is a dwarf, measuring .76 in. in length.]

§ 904. *Five*.—1859.

Brought to Muoniovara, 31 July, 1859, by Anonis Johan's boy Karl. No account of them, but they were found by another boy.

[§ 905. *Five*.—Hoosi-koski-niska, 6 June, 1860.

Found by Heiki in a Scotch fir about three fathoms from the ground.]

[§ 906. *Five*.—Mellem-vaara, 15 June, 1860.

Found by Tibergs Johan and brought the same day to Muoniovara.]

[§ 907. *Five*.—Muotka-järwi, Enontekis Lappmark, 16 June, 1860.]

[§ 908. *Five*.—Muotka-järwi, Enontekis Lappmark, 21 June, 1860.]

[§ 909. *Five*.—1860.

All these fifteen found by the same Maria of Muotka-järwi and brought to Muoniovara, 15th July. No further account given. The last are very pyriform in shape.]

[§ 910. *Five*.—Hetta, 1860.

O. W. tab. x. fig. 18.

Brought to Muoniovara, 15th July, from Erik Kaukus, in Hetta. No further account. I have had one of these eggs figured, as above mentioned, as an example of the variety with orange-brown spots, which are not always combined, however, as in the present, with the pale coffee-coloured ground. I do not feel at all sure that these five eggs are from the same bird.]

[§ 911. *One*.—East Bothnia, 1860.

O. W. tab. x. fig. 23.

This is the smallest egg of the whole series, and, as will be seen by the figure above cited, a real dwarf. It is one of a number taken about the middle of June by Simon Peter, of Salmi-järwi, at Awa-vaara and Ofwen-kieli, and all mixed together.]

[§ 912. *One*.—Ollas-koski, 1862.

Out of four brought with the nest by Isak Niwan. The nest and three remaining eggs, which were of the ordinary appearance, I sent, 14th August, 1868, to the Museum at Prague. This egg is of remarkably large size, measuring 1.11 by .69 in.]

LANIUS EXCUBITOR, Linnæus.¹

GREAT GREY SHRIKE.

§ 913. *Seven*.—Naimakka, 7 June, 1854. “J. W.”

Found by myself close to a colony of Fieldfares. I thought at first that the nest was a Fieldfare's, till looking with my glass at the bird sitting in it, I saw that it was a Shrike. I also saw that the nest was [built] with white feathers shewing outside. I struck the tree several times before the bird would fly off. It settled near and I shot it. The nest perhaps twelve feet up towards the top of the birch tree: no leaves yet. It is made of twigs, feathers, and grass interwoven; feathers throughout—all white.

§ 914. *Six*.—Above Naimakka, Enontekis Lappmark, 9 June, 1854.

The nest found or at least seen in the tree by myself between Naimakka and Mukka-uoma on the Finnish side. Like the last it was near some Fieldfares' nests. It looked at a distance like a Fieldfare's, but on nearer approach the loose twigs and the white feathers of the outside became very conspicuous, and there was no doubt as

¹ [For the convenience of those who believe that *L. major* is a good species, I have kept apart the specimens in the collection obtained in Lapland. Two skins of the bird procured by Mr. Wolley in that country, and now in the Museum at Norwich (Wolley Donation, Nos. 21*a* and 21), are, I believe, those of which mention is here made (§ 913 and § 916). Neither of them has any trace, that I can perceive, of a second white patch on the wing, while the skin of a cock bird, shot by myself on the river-bank just below Upper Muonioniska on the 31st of August, 1855, and now in the Museum of the University of Cambridge, has a small and almost concealed white patch at the base of the secondaries, shewing that both forms—if such they be—occur in the Muonio valley; but, after the evidence adduced by Prof. Collett (*Ibis*, 1886, pp. 30–40), it would seem hard to maintain a valid distinction.—Ed.]

to the owner. The inside of the nest now before me is entirely of white Grouse-feathers lying on fine grass, and the whole is interwoven with feathers, all white. It was fourteen feet or more from the ground, in a birch still leafless. The eggs fresh.

§ 915. *Two*.—Idio-uoma, Torneå Lappmark, June, 1854.

Under the name "*Mehtühakki*" by which the Great Shrike is here known. From Pastor Engelmærck of Kaaressuando; the eggs brought, he says, just before midsummer.

[Two more from the same nest were sold at Mr. Stevens's, 7th March, 1856, to Mr. Holland; a fifth was broken.]

§ 916. *Five*.—Rowa, 1855. "With bird."

[Though these eggs have been inscribed by Mr. Wolley and a reference to his egg-book appended as usual, they have not been entered therein. I have no doubt, however, that they were brought with some others by Peter Rowa, commonly called "Punch."]

§ 917. *Six*.—Peldo-uoma, Enontekis Lappmark, 1857.

Received by me in Peldo-uoma with the nest from Samuel Ara.

[A seventh egg from this nest was sold at Mr. Stevens's, 23rd February, 1858, to Mr. Shepherd.]

§ 918. *Five*.—Suas-vaara, Kemi Lappmark, 18 June, 1859.

Found by Jacob Kyrö.

§ 919. *One*.—Puljos-vaara, Kemi Lappmark, 1859.

Found by Johan's daughter Maria.

[§ 920. *Two*.—Puljo, 1862.]

[§ 921. *One*.—Lapland, 1862.]

Brought by Pekkala's boy Johan, 24th June, as an egg of *Perisoreus infaustus*.]

- § 922. *One*.—From Mr. Chapman of York, 1843.
- § 923. *One*.—From Mr. Hoy through Mr. Salmon, 1846.
- § 924. *Five*.—Valkenswaard, 1851. From Mr. A. Bots.
[These eggs were sent direct to my brother and myself.]
- [§ 925. *One*.—Holland, 1847. From Mr. R. Reynolds.]
- [§ 926. *Two*.—Holland, 1848. From Mr. Newcome.]
- [§ 927. *Two*.—Holland, 1854. From Mr. R. Reynolds.]
- [§ 928. *One*.—Weste Hoeven, Holland, 2 May, 1856. From Mr. J. Baker.]
- [§ 929. *Two*.—Varn, Belgium, 18 May, 1856. From Mr. J. Baker.]
- [§ 930. *One*.—Alst, Holland, 30 May, 1856. From Mr. J. Baker.]
- [§ 931. *One*.—Holland? “J. S.” From the late Mr. Scales’s Collection, 1885.]

LANIUS MERIDIONALIS, Temminck.

- [§ 932. *One*.—Seville, 1864. From Lord Lilford, 1888.]
- [§ 933. *One*.—Aranjuez, 1865. From Lord Lilford, 1888.]

Both these eggs most kindly given to me, on my informing my old friend that the recent researches of systematists had shewn this collection to be wanting in specimens of the real *L. meridionalis*. He writes that of these two the latter is of unusual appearance, the other is fairly typical.]

LANIUS ALGERIENSIS, Lesson.

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

§ 935. *Three*.—Madracen, Algeria, 30 May, 1857. From Messrs. Salvin and Simpson.

[These three eggs appear to have been from the same nest, which, from a note of Mr. Salvin's, was taken by Mr. Tristram, who saw the bird. One was given to Mr. Wolley by Mr. Simpson (Hudleston), another by the same to my brother and myself, and we received the third from Mr. Salvin.]

LANIUS AUCHERI, Bonaparte.

[§ 936. *Five*.—Jericho, 16 April, 1864. From Mr. Tristram.

The Canon's note is simply:—"Five eggs and nest." The specific name here applied is cited on his authority (Fauna and Flora of Palestine, p. 58). In his earlier writings the bird appeared as *L. excubitor* (Ibis, 1867, p. 364). Whether it is justifiably separable from *L. lahtora* is a question on which I can offer no opinion.]

LANIUS MINOR, Gmelin.

LESSER GREY SHRIKE.

[§ 937. *Two*.—"Anhalt-Dessau." From Herr Möschler, 1862.]

[§ 938. *One*.—Saxony, 29 May, 1862.

[§ 939. *One*.—"Saxony," 6 June, 1863.

[§ 940. *Two*.—"Saxony."

} From Herr Möschler, 1866.]

[§ 941. *Four*.—Tangier, 26 May, 1864.]

[§ 942. *Two*.—Tangier, 5 June, 1864.]

} From M. Favier, 1867.]

[§ 943. *Ten.*—Styria, 24 May, 1864. From Herr Seiden-
sacher, 1867.

Apparently from six different nests.]

[§ 944. *One.*—Styria, 20 May, 1866. }
[§ 945. *One.*—Styria, 1 June, 1866. } From Herr Seiden-
sacher, 1867.]

LANIUS AURICULATUS, P. L. S. Müller.

WOODCHAT SHRIKE.

§ 946. *Two.*—From Mr. Hoy through Dr. Pitman, 1845.

§ 947. *One.*—From Mr. J. Hancock through Mr. Wilmot,
1846.

§ 948. *Five.*—Holland, 1855. From Mr. J. Baker.

§ 949. *Three.*—Algeria, 20 May, 1857. }

§ 950. *One.*—Algeria, 20 May, 1857. } From Mr. Tristram.

§ 951. *Two.*—Algeria, 20 May, 1857. }

§ 952. *Three.*—Djendeli, Algeria, 23 May, 1857. From Mr.
Simpson.

§ 953. *Four.*—Algeria, 25 May, 1857. From Mr. Tristram.

§ 954. *Three.*—Chemora, Algeria, 26 May, 1857. From Mr.
Simpson.

- § 955. *One*.—Algeria, 6 June, 1857. }
 § 956. *Two*.—Algeria. } From Mr. Tristram.
 § 957. *Five*.—Algeria. }

[§ 958. *Two*.—Holland, 1848. From Mr. Newcome.]

[§ 959. *Eight*.—Holland, 1851.

Sent from Valkenswaard by Arnold Bots.]

[§ 960. *Two*.—Koleah Forest, Algeria, 20 May, 1856. From Mr. Tristram.

[§ 961. *One*.—Alst, Holland, 25 May, 1856. From Mr. J. Baker.]

[§ 962. *Four*.—Madrid, 1867. From Mr. Dresser, 1868.

Taken by Manuel de la Torre; said to belong to the supposed form *L. paradoxus*, A. E. Brehm (Journ. für Ornith. 1854, p. 75, note).]

LANIUS COLLURIO, Linnæus.

RED-BACKED SHRIKE.

§ 963. *Ten*.—England, prior to 1844.

I have frequently found the nest of this species near Eton. It is also not uncommon near Beeston, where it breeds. There are two nests in our Museum, one of which was found at Chilwell. The nest is generally very ill-concealed in a high hedge, but sometimes not more than three or four feet from the ground; it has a peculiar "cut." I have found insects impaled on thorns in the haunts of this species. For the first year the young keep with the parent birds.

§ 964. *Seventeen*.—Eton, 1852.

I saw all these eggs in June at Fisher's, and he blew them for me.

[§ 965. *Three*.—Brighton, 1845. From two nests.]

[§ 966. *Two*.—Barnham, Suffolk, 1848.]

[§ 967. *Two*.—Foulmire, Cambridgeshire, 1851. From Mr. C. Thurnall, 1852.]

[§ 968. *Two*.—Paignton, Devon, 1852. "A. N."]

Taken by me in company with the late Mr. E. Burt, of the Torquay Museum.]

[§ 969. *Two*.—Rugeley, Staffordshire, 1853 (different nests). From Mr. R. W. Hawkins.]

[§ 970. *Two*.—Barnham, Suffolk, May, 1854.]

[§ 971. *Four*.—Norfolk, 4 June, 1871. "F. N." From Mr. Norgate, 1874.]

[§ 972. *Five*.—Sussex, 2 June, 1877. From Mr. Norgate, 1878.]

LANIUS CRISTATUS, Linnæus.

[§ 973. *Two*.—Darasun, Dauria, end of June, 1869. From Dr. Dybowski, through M. Jules Verreaux, 1871.

From different nests.]

[§ 974. *Three*.—Dauria, 22 June (1869?). From Dr. Dybowski, through M. Jules Verreaux, 1873.

Apparently from different nests. Dr. Dybowski's notes on the nidification of this species, under what is now considered to be the synonym of *L. phœnicurus*, Pallas (*cf.* Schalow, J. f. O. 1875, p. 130; Gadow, Cat. B. Br. Mus. viii. p. 271), will be found in the 'Journal für Ornithologie' for 1872 (pp. 445, 446).]

LANIUS ISABELLINUS, Ehrenberg.

[§ 975. *Two*.—Kuldja, 9 June, 1886. From Herr Tancre, 1888.

Received under the name of *L. phœnicuroides*, which Dr. Schalow (Journ. für Orn. 1875, p. 148) regards as a good species, while some authors have even split it into two or three species, or subspecies (Bogdanov, Sorokoputui Russ. Faun. p. 14; Bianchi, Bull. Acad. St. Pétersb. xxx. p. 514; Pleske, Mém. Ac. St. Pétersb. sér. 7, xxxvi. no. 3, p. 40). Its variability is noticed by HH. E. F. von Homeyer and Tancre (Mitth. orn. Ver. Wien, 1883, p. 88), and further dwelt upon by Herr Gätke (Vogelwarte Helgoland, pp. 227–230; Engl. Ed. pp. 219–222), who with Mr. Dresser (B. Eur. iii. p. 413) refers it to *L. isabellinus*, of which Dr. Gadow (Cat. B. Br. Mus. viii. p. 278) considers it to be a subspecies.]

LANIUS NUBICUS, Lichtenstein.

[§ 976. *Two*.—Asia Minor (?), 9 June, 1863. From Dr. Krüper, through Herr Seidensacher, 1864.

In the 'Journal für Ornithologie' for 1869 (pp. 30–32), Dr. Krüper has some excellent notes on the habits and nidification of this species, under its synonym of *L. personatus*, as observed by him in Asia Minor.]

[§ 977. *Four*.—Safed, Palestine, 19 May, 1864. From Mr. Tristram.

A complete sitting. The Canon's notes on the nidification of this species in Palestine are published in 'The Ibis' for 1867 (p. 365).]

[§ 978. *Five*.—Acanthu, Cyprus, May, 1887. From Lord Lilford, 1888.

Part of Dr. Guillemard's spoil (*cf.* Ibis, 1888, p. 114).]

PANURUS BIARMICUS (Linnæus).

BEARDED TITMOUSE.

§ 979. *Two*.—From Mr. Mansfield, 1844.

[Most likely from the Whittlesea fens, whence Mr. Mansfield in those days had many eggs, for they were then more easily obtained there than in Norfolk.]

§ 980. *Five*.—Norfolk, 1848. From Dr. Frere, 1849.

Dr. Frere wrote, 20 May, 1849 :—"Do you care to have a lot of Bearded Tits' eggs? They were so very difficult (I found) to procure as English specimens, that I established a connexion last year with a broadman, and to my surprise before the season was over I had forty of them. Of course I am stocked, but if you like to take my place this year I will send to my brother [at Blofield] to set the man to work again."

§ 981. *Two*.—Norfolk, 1851. From Dr. Frere.

Dr. Frere has been able to obtain only three specimens this year.

§ 982. *Eight*.—Norfolk, 1852. From Mr. Sayer, through Dr. Frere.

§ 983. *Eight*.—Norfolk. From Mr. Knight, 1859.

§ 984. *Seven*.—Norfolk. From Mr. Knight, 1859.

§ 985. *Three*.—Norfolk. From Mr. Knight, 1859.

[Each of the last three sections contains eggs said to be from one nest.]

§ 986. *Seventeen*.—Norfolk, 1859. From Mr. Knight.

[§ 987. *Two*.—Whittlesea, Hunts. From Mr. J. Baker, 1850.

These must have been among almost the last from that locality, as the Mere was drained in 1851.]

[§ 988. *Two*.—Norfolk, 1851. From Mr. Sayer, 1853.]

[§ 989. *Seven*.—Norfolk. From Mr. Sayer, 1854.]

[§ 990. *Six*.—Norfolk.

[§ 991. *Five*.—Norfolk.]

} From Mr. Knight, 1859.

Two complete sittings.]

[§ 992. *Four*.—Norfolk, June, 1873.

Bought of a reed-cutter, 10th June, 1873, on the occasion of Mr. Stevenson taking me to see one of the Broads there and the "Reed-Pheasants" upon it. There was too much wind for me to become well acquainted with them, for they kept in the very thickest of the reeds, where walking was difficult, not to say impossible, and could be made to shew themselves for a moment only. How many there were I cannot say, but I must have had one or more under view at least a score of times. We saw most of them while we stopped for luncheon in a narrow channel. They did not seem to care for us, but a pair or pairs of them flew several times across the ditch, sometimes a little way along it, and then disappeared into the reeds. There was no making them take long flights and shew themselves, and the wind was too strong to let us hear their notes well. Unsatisfactory as my visit so far was, I saw and heard quite enough to assure me that *Panurus* is no Titmouse. The nest which contained these eggs, with another of five eggs—all much incubated—had been taken by the man to his cottage. I bought them, and putting the five in spirit sent them to Professor Parker for his morphological researches. The nest was just like others that I have seen—lined with reed-top. The man in charge of the Broad said he did not perceive any difference in the number of these birds, and he had lived there all his life. He might have been about sixty years of age.]

[§ 993. *Six*.—Norfolk, May, 1877. From Mr. Norgate.

A complete clutch.]

[§ 994. *Six*.—Norfolk, 13 May, 1884. "E. N."

My brother's note states that having met a man by appointment on one of the Broads, and "going up a drain for about one hundred yards, we landed; and he shewed me a Reed-Pheasant's nest with five young in it, more than half fledged. About twenty yards further on he shewed me another nest of the same species with six eggs, which seemed to be fresh, so I took them. I did not, however, see the bird, but there could be no question as to the species to which the eggs belonged."]

ÆGITHALUS PENDULINUS (Linnæus).

PENDULINE TITMOUSE.

[§ 995. *Two*.—"Hungary." From Herr Möschler, 1862.]

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

ACREDULA CAUDATA (Linnæus).

LONG-TAILED TITMOUSE.

§ 997. *Two*.—Willersley¹, Matlock. Prior to 1844.

From a nest in the ivy against the stable-yard, taken by myself.

§ 998. *Two*.—‘Via Gellia’, Matlock. Prior to 1844.

From a nest of nine eggs, with the bird dead in it, found by my brother George.

[§ 999. *One*.—Elveden, 1846.]

[§ 1000. *One*.—Elveden, 1847.]

[§ 1001. *One*.—Elveden, 1848.]

[§ 1002. *Two*.—Elveden, 1849.]

[§ 1003. *Six*.—Elveden, 23 May, 1862. “A. N.”

From a nest found by myself in an elder-bush. When going to take these eggs a week afterwards I saw the bird well. She was darkly-coloured on the back, and had quite the normal appearance of the British form. There were about eleven eggs in the nest.]

[§ 1004. *Ten*.—Fritton, Suffolk, 26 April, 1875. From Mr. Norgate.

A complete nestful.]

[§ 1005. *Seven*.—Bloxworth, Dorset, 22 May, 1876. “E. N.”]

¹ [The house at Matlock, known as Willersley Castle, was built by Mr. Wolley's great-grandfather, the celebrated Sir Richard Arkwright.—ED.]

ACREDULA IRBII, Sharpe and Dresser.

[§ 1006. *One*.—Spain. From Colonel Irby, 1872.

Colonel Irby told me that no allied species bred in the district.]

PARUS CYANUS, Pallas.

AZURE TITMOUSE.

[§ 1007. *One*.—River Onon, Dauria, 22 May, 1868. From Dr. Dybowski, through M. Jules Verreaux, 1871.]

[§ 1008. *Two*.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

Dr. Dybowski's notes on this species, under the name of *Cyanistes cyanus*, are published in the 'Journal für Ornithologie' for 1872 (pp. 442, 443).]

PARUS CÆRULEUS, Linnæus.

BLUE TITMOUSE.

§ 1009. *Four*.—Wirksworth, Derbyshire. Before 1844.

The nest found by my brother George. He could not easily extract it from the hole in the branch of the tree where it was built. The bird was sitting, and did not mind his poking. He went home to get a saw; and when he had sawn off the branch he found the old bird still sitting on the eggs, though covered with sawdust, and had to lift her off before he could get at them.

[§ 1010. *Three*.—Elveden, 1847.]

[§ 1011. *Two*.—Elveden, 1848.]

[§ 1012. *Three*.—Elveden, 1852. From two nests.]

[§ 1013. *One*.—Elveden, 1854. "A. & E. N."]

[§ 1014. *Three*.—Elveden, 26 May, 1857. “E. N.”

My brother's note is :—“From a nest of eight in the great acacia-tree in the flower-garden. For some reason or other the birds, of which I had often seen one upon it, forsook the nest. Two of the eggs I am sending to Pastor Sommerfelt. The other three were broken.”]

[§ 1015. *Six*.—Leck, Donegal, 7 June, 1862. “R. H.” From Mr. Robert Harvey.]

[§ 1016. *Two*.—Leck, Donegal, 20 May, 1863. “R. H.” From Mr. Robert Harvey, 1864.

Mr. Harvey wrote :—“These are not a nestful, but being the only eggs I ever saw of *P. cæruleus* perfectly unspotted, I have thought it well to send them. I took them at Leck Glebe.”]

[§ 1017. *Nine*.—St. Neot's, Huntingdonshire, 5 May, 1864. From Mr. Rowley.

The birds seen by Mr. Rowley, who took the nest in an elm-tree.]

[§ 1018. *Twelve*.—Sparham, Norfolk, 28 May, 1877. From Mr. Norgate.]

[§ 1019. *Six*.—“Bird caught.” From the late Mr. Scales's Collection, 1885.]

[§ 1020. *Eight*.—Pencraig, Herefordshire. From Mr. R. H. Scales, 1885.]

PARUS ULTRAMARINUS, Bonaparte.

[§ 1021. *One*.—From M. Favier, through Mr. H. S. Hawkins, 1866.

The ticket, in M. Favier's well-known handwriting, bears a specific name unpublished so far as I know, and I was not certain of its identity until I found it in his manuscript volume, already referred to, in 1845, by Mr. Wolley (*supra*, pp. 2, 3), which, having come into Colonel Irby's possession, was by him kindly given to the Museum of the University of Cambridge. Herein appended to the description (p. 81) of the bird is a note clearly shewing it to be *Parus ultramarinus*.]

PARUS TENERIFFÆ, Lesson.

[§ 1022. *Twelve*.—Teneriffe. From Señor Gomez, through Mr. Dresser, 1889.]

PARUS BOCHARENSIS, Lichtenstein.

[§ 1023. *One*.—Kuldja, 15 May, 1886. From Herr Tancré, 1888.]

PARUS MAJOR, Linnæus.

GREAT TITMOUSE.

§ 1024. *Four*.—Wirksworth, Derbyshire, prior to 1844.

From a hollow tree. Taken by my brother George, who caught the old bird that was sitting on the eggs.

[§ 1025. *One*.—Stetchworth, Cambridgeshire, 1846.]

[§ 1026. *Three*.—Elveden, 1847.]

[§ 1027. *Four*.—Barnham, Suffolk, 1848.]

[§ 1028. *Two*.—Elveden, 1849.]

[§ 1029. *Four*.—Elveden, 1852.]

[§ 1030. *One*.—Torquay, Devon. From Mr. E. Burt, 1853.]

[§ 1031. *Four*.—Clay Hithe, Cambridgeshire, 16 May, 1856.
“ Bird caught. E. N.”]

[§ 1032. *Four*.—Fakenham, Suffolk, June, 1856.

Taken by Balam, an unusually intelligent and, I believe, honest man—a hurdle-maker and charcoal-burner, who knew common birds well.]

[§ 1033. *Seven*.—Leck, Donegal, 29 May, 1862. “R. H.”
From Mr. Robert Harvey.]

[§ 1034. *Five*.—St. Neot's, Huntingdonshire, 10 May, 1864.
From Mr. Rowley.

The nest, which contained seven eggs, was in a cedar, and Mr. Rowley saw the birds.]

[§ 1035. *Nine*.—Sparham, Norfolk, 24 May, 1871. “F. N.”
From Mr. Norgate.]

[§ 1036. *Ten*.—Sparham, Norfolk, 5 May, 1875. From Mr.
Norgate.]

[§ 1037. *Four*.—Man-of-Ross House, Herefordshire. From the
late Mr. Scales's Collection, 1885.]

PARUS ATER, Linnæus.¹

COAL-TITMOUSE.

§ 1038. *Two*.—From Mr. Hewitson, 1844.

§ 1039. *One*.—From Mr. John Hancock, 1846.

§ 1040. *Two*.—Bearwood, Berks. From Mr. H. F. Walter,
1852.

Taken in a rabbit-burrow by the keeper.

[§ 1041. *Two*.—Elveden, 1847.]

¹ [It will be seen that all the eggs enumerated under this heading should belong to the form which has been described as a distinct species, *P. britannicus*; but birds killed by Mr. Wolley during the breeding-season in one of the old Scottish pine-forests, though more resembling English than foreign specimens, are yet intermediate between them—a fact which seems to shew that specific differentiation has not been entirely established (*cf.* Yarrell, *Br. Birds*, ed. 4, i. pp. 492–494.—ED.)]

[§ 1042. *Two*.—Elveden, 1848.]

[§ 1043. *Five*.—Elveden, 1852.

This nest was more than a foot below the surface of the ground, in the decayed stump of a tree that had been cut down level with the earth.]

[§ 1044. *Three*.—Elveden, April, 1854. “A. N.”]

[§ 1045. *Two*.—Elveden, April, 1854. “E. N.”]

[§ 1046. *Six*.—Elveden, 10 June, 1857. “E. N.”]

My brother's note is:—“From a nest of nine in one of the boxes I placed in a plantation some years ago. The box was in a Scotch fir about seven feet from the ground. The bird was on when I opened the top, and I could have caught her. Two of the eggs from this nest given to Mr. Salvin, and one to Mr. A. C. Smith.”]

PARUS PALUSTRIS, Linnæus.

MARSH-TITMOUSE.

§ 1047. *Two*.—From Mr. Hewitson, 1844.

§ 1048. *One*.—From Mr. John Hancock, 1846.

[§ 1049. *Three*.—Whittlesford. From Mr. C. Thurnall, 1851.
From two nests.]

[§ 1050. *Five*.—Conington, Cambridgeshire, 1855. “E. N.”]

[§ 1051. *Seven*.—Elveden, 9 May, 1857. “E. N.”]

My brother Edward's note is:—“On the 17th of April I observed a Marsh-Titmouse with some stuff in its mouth, and watched it go into a hole in a big ash-tree. I afterwards saw the other bird on that and subsequent days. I shewed the place to a man, who got the nest by sawing off the edge of the hole, which was in the stump of a decayed branch full thirty-five feet from the ground. The nine eggs had then been incubated for some days. Two of them I gave to Mr. Salvin.”]

[§ 1052. *Five*.—Elveden, 13 May, 1859. “E. N.”

My brother's note is:—“From a nest in a walnut-tree, which I found by hearing a row between a Marsh- and a Blue Titmouse, the latter trying to take possession of the hole wherein the former had already begun to build. The contest lasted for some days, and finally the Marsh-Titmouse came off victorious. I cut open the hole by sawing off the knob that was over it, and found the eggs some days incubated. The old bird was on them.”]

[§ 1053. *One*.—From the late Mr. Scales's Collection, 1885.]

[§ 1054. *Six*.—Pencraig, Herefordshire. From Mr. R. H. Scales, 1885.]

PARUS BOREALIS, De-Selys.

[§ 1055. *Eight*.—Borregaard, Southern Norway, 12 June, 1866. From Mr. J. Baker.

I had these (with the nest and old bird) from Mr. Baker, by whom they were taken, and kept apart specially for me at my request. He is very strongly of opinion that *Parus borealis* is distinct from *P. palustris*, saying that the two birds have quite different notes. I see nothing to alter in my old view; but the bird is undeniably what is called *P. borealis*.]

[§ 1056. *Three*.—“Archangel.” From Herr Möscher, 1866.]

PARUS LUGUBRIS, “Natterer,” Temminck.

[§ 1057. *Two*.—Amarousi, Attica, 10 May, 1888. From Dr. Krüper, 1889.

Taken by Christo Leonis in the olive-wood at that place.]

PARUS CRISTATUS, Linnæus.

CRESTED TITMOUSE.

§ 1058. *Three*.—From M. Nager-Donazain, 1847.

§ 1059. *Two*.—Moray, 1848. From Mr. W. Dunbar.

Mr. Dunbar wrote to me that these eggs were “got by my brother [Lewis], the boy who got the eggs and birds for Mr. Milner last year

[Zoologist, p. 2017]. The nest was placed in an old rotten tree about four feet from the ground. [The bird] enters by a small hole similar to the Woodpecker. The eggs were five in number. My brother killed the birds. One of them, the male, I have stuffed; the other was shot too much. Mr. St. John saw it the day I set it up."

§ 1060. *Four*.—Moray, 1851.

A correspondent wrote to me:—"I have had two of my sons searching for nests, but they have found none suitable except two Crested Tits' with five eggs in each." These, when they reached me, were nearly all broken, and there were large young birds rotting inside them; however, I have patched up some of them, as they are of such value as authentic British specimens. The nests are neatly made of moss and wool, and are lined with feathers and probably a little of the fur of the Mountain-Hare. The Crested Titmouse was numerous in the forest [where these nests were found]. I shot sixteen or seventeen during a short part of the two days I looked for them. They were in company with the Coal- and Long-tailed Titmouse and Golden-crested Wren. Tree-Creepers were also to be seen about, and Common Wrens. I did not find any nests of the Crested Titmouse in this magnificent old forest; but as only two of the ten birds which I sent to be skinned were females, it is probable that some of them were sitting, and Mr. Lewis Dunbar had found their nests with eggs earlier than this, namely 2-5 May last year. I shewed the keeper's son the difference between the Coal- and the Crested Titmouse, and desired him to take no nest till he saw the old bird enter it.

[All these eggs are in wretched condition. The only perfect one of the whole ten was sold at Mr. Stevens's, 30 May, 1860, to Mr. Hudleston.]

§ 1061. *Seven*.—Moray, 1854.

From the same man.

§ 1062. *Five*.—Moray, April, 1854.

[From, I believe, the same man.]

[§ 1063. *Six*.—Kahlberg, Pomerania, 21 May, 1862. From Herr Hintz, through Pastor Theobald, 1863.

Probably the nest mentioned by Herr Hintz in the 'Journal für Ornithologie' (1864, p. 46).]

PARUS SONGARUS, Severzov.

[§ 1064. *One*.—Kuldja, 9 May, 1887. From Herr Tancre, 1888.]

PARUS CINCTUS, Boddaert.

SIBERIAN TITMOUSE.

§ 1065. *Four*.—Muonio-alusta, 27 May, 1854.

O. W. tab. xi. fig. 1.

Four eggs, newly laid, with the nest found by Heiki in the cleft of a tree. The nest made principally of Rats' hair—partly of Lemmings' and Alpine Hares', mixed with moss. The Marsh-Titmouse being the only other species I have seen here, and that but twice, there can be little doubt that these are Siberian Titmouse's. I told Heiki on the 26th to see after them.

§ 1066. *Seven*.—Viksi, West Bothnia, 31 May, 1854.

O. W. tab. xi. fig. 2.

Found by Ludwig. The bird left the nest and sang "*tchee, tchee, tchee*." The nest made of a little moss beneath, then black lichen mixed with Rats' hair and some willow-down. The bird shot now before me. Evidently *Parus sibiricus*.

§ 1067. *Six*.—Viksi-Poas, West Bothnia, 3 June, 1854.

O. W. tab. xi. fig. 3.

Found by Anton in an old Woodpecker's hole, which was enlarged with an axe. The bird sat close by, saying "*pistee-tee-tee-tee*;" and Ludwig is certain it was the same as the bird of the other nest [§ 1066] he found in the same neighbourhood, whose skin, now before me, is doubtless that of *Parus sibiricus*. A Redstart was also near the nest, and among the *Pistee's* eggs is one which is evidently a Redstart's [§ 1411]. The nest is of hair, principally Rats', but a little Hares'. There were nine eggs of the Titmouse.

[Two eggs from this nest were sold at Mr. Stevens's, 26th Jan., 1855, to Mr. Gurney.]

§ 1068. *Seven*.—Muoniovaara, 3 June, 1854.

Found by Ludwig in a Woodpecker's hole in a dead Scotch fir about six feet from the ground. The nest was a Redstart's and still contained two of its eggs [§ 1413], which had been built upon by the Titmouse, as shewn by the difference in lining. He saw the two birds fighting, and the Titmouse had the best of it. I have since (25 October, 1854) seen the hole.

§ 1069. *Five*.—Above Naimakka, 9 June, 1854. "J. W."

Bree, 'Birds of Europe,' vol. iii. pl.

Found by myself in a hole (apparently that of a Lesser Spotted Woodpecker), about four feet from the ground, in a birch-stump. The bird flew out, and I tried to cut off the piece of the stump entire; but it broke just above the nest. It now occurred to me to catch the bird on the nest, and I tied up the piece with string. At last, after several failures, I popped my hand over the hole and caught the bird alive. The nest is made of Rats' hair—principally, if not entirely, of Lemmings'.

[One of these eggs was lent by me to Dr. Bree to be figured in his work, as he therein states (ed. 1, iii. p. 9).]

§ 1070. *Five*.—Above Maunu, 6 June, 1854.

Found by Apoo in the night of 5-6 June, by the side of the foss. The nest, now before me, is made principally of Lemmings', but with a few Reindeers' hairs.

§ 1071. *Seven*.—Naimakka, 1856.

O. W. tab. xi. fig. 4.

Found on Aina-warpi-järwin-ranta. The nest is made of fine moss and Mouse-hair, with a few feathers and Reindeer-hairs.

§ 1072. *Seven*.—Kätkäs-suando, 6 June, 1857.

Brought by Maria with the nest, made of Rats' hair and feathers. She does not know two kinds of *Pistee-tianen*. Black dirt all over these eggs, as I have noticed before in those of this bird.

§ 1073. *Six*.—Wassara, Kemi Lappmark, 8 June, 1857.

Brought the next day to Muoniovara, by Johan Wassara. Found on Tilla-kurkio-maa.

§ 1074. *Seven*.—Kyrö, 1857.

Brought to Muoniovara 17 June, by Kemi Johan, and taken by him.

§ 1075. *Two*.—Muotka-järwi, 1857.

Brought by Elias. Remarkably long eggs.

§ 1076. *Seven*.—Kurkio-vaara, 11 June, 1857.

O. W. tab. xi. fig. 5.

Brought by Heiki the same day, but found by Mathis.

§ 1077. *Seven*.—Salmo-järwi, 16 June, 1857.

O. W. tab. xi. fig. 6.

Found in a nest-box (*tylla*). The nest consisted of feathers and rotten wood.

[Knoblock, to whom these eggs, in Mr. Wolley's absence, were brought, seemed to suspect them; but, after careful comparison, I see no reason to doubt that they were rightly assigned by the bringer. Nests of this species built with feathers have been above described; but these eggs are characterized by very large markings, so as to be quite exceptional in the series. I may here mention that Mr. Wolley satisfied himself that this was the only species of Titmouse that ordinarily bred in the districts that he explored. A few examples of the so-called *Parus borealis* from time to time occurred, and he once met with *P. major*; but he never obtained evidence that either species bred in Lapland.]

SITTA CÆSIA, Wolf.

NUTHATCH.

§ 1078. *One*.—From Mr. J. P. Wilmot, 1846.

§ 1079. *Three*.—From Mr. P. L. Selater, 1846.

Mr. Selater's note is:—"I am quite certain these are really

Nuthatch's, as, although I did not take them myself, they were brought to me by a boy who called them ' Creeper's ', and took them out of a hollow tree."

[§ 1080. *Five*.—Elveden, 1849.]

[§ 1081. *Five*.—Elveden, 13 May, 1852.]

[§ 1082. *Five*.—Fakenham, Suffolk, 1856.]

[§ 1083. *Four*.—Elveden, 26 May, 1857. " E. N."

My brother's note is :—" From an old Green Woodpecker's nest in an elm, the mouth of which was partly closed by clay, and the nest made with the bark of a plane-tree. Both birds came to the tree while the hole was being cut open ; but the hen had not laid her full number."

SITTA EUROPÆA, Linnæus.

§ 1084. *Five*.—Dyrehaven, Copenhagen, 30 April, 1857. From Pastor Theobald.

From a nest of six.

§ 1085. *Five*.—Gadollendund, Denmark, 30 April, 1857. From Pastor Theobald.

§ 1086. *Five*.—Denmark, May, 1857. From Pastor Theobald.

[§ 1087. *Three*.—Denmark. From Pastor Theobald, 1859.]

[§ 1088. *Three*.—Denmark. From Pastor Theobald, 1859.

From a second nest. Both, I believe, were taken by the Pastor himself.]

SITTA AMURENSIS, Swinhoe.

[§ 1089. *One*.—Amurland, 6 June, 1887. From Herr Taneré, 1888.]

SITTA URALENSIS, Lichtenstein.

- [§ 1090. *Three*.—Dauria, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.

Dr. Dybowski's notes on the nidification and eggs of this bird are printed in the 'Journal für Ornithologie' for 1872 (p. 353).]

SITTA KRUEPERI, Von Pelzeln.

- [§ 1091. *One*.—Near Smyrna, 18 May, 1879. "Kr." From Dr. Krüper through Herr Schlüter, 1888.

Dr. Krüper's notes printed by Mr. Dresser ('Birds of Europe,' iii. p. 189) shew that this specimen was taken on the eighth anniversary of his correspondent's discovery of the eggs of this species.]

SITTA NEUMAYERI, Michahelles.

- [§ 1092. *One*.—Greece, 25 May, 1862. From Dr. Krüper, through Herr Möschler, 1865.]

- [§ 1093. *One*.—Greece, 29 April, 1863. From Dr. Krüper, through Herr Möschler, 1865.]

- [§ 1094. *Two*.—Greece, 1 April, 1866. "Kr." From Dr. Krüper, through Herr Möschler, 1869.

Dr. Krüper's notes on this species, under its synonym of *S. syriaca* (Journ. für Ornith. 1861, pp. 129-132), though written before any of the eggs above mentioned were taken, shew how well he was acquainted with it.]

TICHODROMA MURARIA (Linnæus).

WALL-CREEPER.

- [§ 1095. *Four*.—"Mont St. Gotthard, 2 June, 1865." From Herr Seidensacher, 1866.

Sent to me with the skin of the hen bird, said to have been killed on the nest.]

CERTHIA FAMILIARIS, Linnæus.

TREE-CREEPER.

§ 1096. *One*.—Cambridgeshire. From T. Rawlinson, 1844.

Bird caught on its eggs.

[The purveyor of this egg was well known, by sight at least, to most residents in Cambridge in those days and for some years after. Though I never had the good fortune to make his acquaintance, I recollect him distinctly, for the old red coat that he used to wear made him a conspicuous figure. Mr. Wolley thus wrote of him in 1847 (*Zoologist*, p. 1822) . . . "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 'Perfesser Sedgwick.' His personal appearance I should spoil by description,—I liked old Tom!"]

§ 1097. *Two*.—In or prior to 1844.

§ 1098. *One*.—1853 [?].

[§ 1099. *One*.—Elveden, 1846.]

[§ 1100. *One*.—Elveden, 1847.]

[§ 1101. *Two*.—Elveden, 1848.]

[§ 1102. *Four*.—Elveden, 1851.]

[§ 1103. *One*.—Whittlesford, Cambs. From Mr. Thurnall, 1851.]

[§ 1104. *One*.—Elveden, 13 May, 1852.]

[§ 1105. *Two*.—Elveden, 1 June, 1853.]

[§ 1106. *Two*.—Elveden, 16 May, 1854. "A. N."]

[§ 1107. *Six*.—St. Neot's, Hunts. 1864. From Mr. Rowley.

The nest was behind an ivy-stem on a wall over a pond, and was shewn to me on the 10th of May, in the year named.]

[§ 1108. *Five*.—Norfolk, 28 May, 1872. "F. N." From Mr. Norgate, 1874.]

[§ 1109. *Six*.—Hockering, Norfolk, 4 May, 1876. From Mr. Norgate.]

TROGLODYTES PARVULUS, Koch.

WREN.

§ 1110. *Five*.—England not later than 1844.

[§ 1111. *One*.—Stetchworth, Cambs. 1846.]

[§ 1112. *Two*.—Elveden, 1847.]

[§ 1113. *Two*.—Elveden, 1848. From different nests.]

[§ 1114. *One*.—Elveden, 1849.]

[§ 1115. *One*.—Elveden, 1851.]

[§ 1116. *Five*.—Elveden, 1852. From three nests.]

[§ 1117. *Six*.—St. Neot's, Hunts. 24 May, 1864. From Mr. Rowley.

Taken by Mr. Rowley himself.]

[§ 1118. *Six*.—Leck, Donegal, 31 May, 1862. "R. H." From Mr. Robert Harvey.]

[§ 1119. *Six*.—Norfolk, 7 May, 1871. "F. N." From Mr. Norgate, 1878.]

[§ 1120. *Three*.—Pencraig, Herefordshire. From Mr. R. H. Scales, 1885.]

[§ 1121. *Three*.—Andorra, 21 May, 1889. From Mr. W. E. Clarke, 1890.

From a nest near the town, brought by boys with the old bird (*cf.* Ibis, 1889, p. 540).]

TROGLODYTES HIRTENSIS, Seebohm.

[§ 1122. *Three*.—St. Kilda, June, 1886. From Mr. J. Mackenzie, younger, of Dunvegan, through Mr. H. A. Macpherson, 1888.

Mr. Mackenzie wrote to me that these were taken by himself, and that "The nest was built on the top of the wall inside one of the small huts on the shoulder of Connaker."]

TROGLODYTES BOREALIS, J. C. H. Fischer.

[§ 1123. *Two*.—Färö. From HH. C. H. Müller and Pastor Theobald, 1861.

Probably one of the specimens mentioned by Herr Fischer in his original description of this bird (*Journ. für Orn.* 1861, pp. 14, 15).]

CINCLUS AQUATICUS, Bechstein.

WATER-OUSEL.

§ 1124. *Three*.—Yorkshire? From Mr. Biden, 1843.

These eggs were given to me by Mr. Biden, of St. John's College. He used to find them in plenty near Sedbergh. The nests were placed in holes under bridges, above small streams, under waterfalls, and amongst roots of trees. The Water-Ousel is not uncommon about Maltock; they probably breed about Masson Weir. I have heard their sweet little song, and often watched their straight and rapid flight, not unlike that of the Kingfisher. Though called "Ousel," this bird is more like the Wren than the Blackbird. I have seen them drop into the water from the wing, as if they intended to walk at the bottom: this fact has given rise to the most furious disputes among naturalists.

§ 1125. *Two*.—Sutherland, 26 May, 1849. “J. W.”

I saw a Water-Ousel's nest in the picturesque little waterfall near the old castle on Loch Assynt mentioned by Mr. St. John [Tour in Sutherland, i. p. 21]. It was in a hole under the roots of a tree or shrub and therefore not placed in an artificial chamber, as Water-Ousels' nests (*i. e.* their inner nests) usually are. It was built of fine grass, lined with a few birch or alder leaves, and placed nearly an arm's length in, amongst the fibrils and crumbling soil hanging to them. I unfortunately broke the eggs. On the 26th May I took a Water-Ousel's nest and saw several others. The nest is like a Nightingale's put inside a gigantic Wren's or a casing of moss, which is dispensed with in certain cases, as in that by the cascade just mentioned. This was in the rocky burn in which I took or got taken the Kestrel's eggs [§ 159].

§ 1126. *Two*.—Sutherland, 1849.

John Sutherland gave me these two eggs from a nest at Ledby by a little waterfall. I touched and nearly caught the bird in the nest when she was hatching after she had provided him with a great many eggs the same season.

§ 1127. *Three*.—Sutherland, 1851.

Sent me by John Sutherland, who probably took them from the prolific nest near his house which he shewed me in 1849 [§ 1126].

[§ 1128. *One*.—Durham. From Mr. T. Robson, through Mr. R. Reynolds.]

[§ 1129. *Two*.—Kirkside, Aberdeenshire, 1852. From Mr. T. Edward.]

Mr. Edward wrote that the locality was in the parish of King Edward, on the east side of the river Deveron, which there parts the counties of Aberdeen and Banff. He said of the bird:—“The Water Crow shares the same fate here as the Hawk, being killed by the gamekeepers when they appear. They are considered to be very destructive in this part of the country to salmon-spawn. Whether they are or not, poor birds, they suffer. Of their nests I found two: the one contained young, the other three eggs, one of which broke. About nine hours after I took away the eggs I had two Water Crows brought me to stuff, and on enquiry I found that they were the very birds to

which had belonged the nest from which I had taken the three eggs." Four years later he recorded in 'The Zoologist' (p. 5260) the fact that, out of nearly forty examples of this bird which he had dissected, he had "never as yet found anything at all pertaining to fish" in their stomach, "water-insects and larvæ being what I have most frequently observed." But, he adds, "only convince our salmon-fishers of this, and I will say you are a very clever fellow indeed." It is to be hoped that those interested in salmon-fisheries are now wiser than they were in 1856.]

[§ 1130. *Four*.—Rackmill, Banffshire, 1853. From Mr. T. Edward.

Writing on the 23rd of April in that year Mr. Edward said that this was a complete nestful.]

[§ 1131. *Four*.—Scotland, 1853. From Mr. T. Edward.

In a way that deservedly excited general interest and was happily successful in its effect, a popular writer has told the painful story¹ of the struggles bravely endured, until past middle life, by the enthusiastic and somewhat imaginative lover of Nature to whom I owe the eggs above entered and some others to be subsequently mentioned. I must confess myself to be one of those who, in his biographer's language, "assailed" him; yet his letters to me prove that he received the assault graciously, and I may add that, though not unfrequently referring in them to his poverty and bad health, he never complained of his misfortunes, while he was effusive in expressing his gratitude for some small services that it was in my power to render him. I did not know until long after the depth of misery to which he was at this very time reduced. I regret that I never met him and that after he became comparatively prosperous our correspondence dropped—the branches of zoology in which he so justly attained celebrity not being those that especially concerned me. Thomas Edward died, aged seventy-one, in April 1886, and a brief obituary notice of him will be found in the report of the Anniversary Meeting of the Linnean Society on the 3rd of June in that year.]

[§ 1132. *Two*.—Dryfesdale, Dumfries-shire, May, 1854. From Mr. W. G. Johnstone.]

[§ 1133. *Five*.—Carrygawley, Leck, Donegal. 18 April, 1863. "R. H." From Mr. Robert Harvey, 1864.]

Mr. Harvey wrote that he took these himself, "from a hole in the underside of the arch of an old bridge. . . . I have known this nest occupied by these Dippers for the last seven years."

¹ 'Life of a Scotch Naturalist: Thomas Edward, Associate of the Linnean Society.' By Samuel Smiles. (London: 1876.)

CINCLUS MELANOGASTER, Brehm.

BLACK-BREASTED WATER-OUSEL.

§ 1134. *One*.—Northern Norway, 1854.

§ 1135. *One*.—Neiden, East Finmark, 1855.

Sent by Pastor Sommerfelt from Paul Christian Ekdahl, and received by me, at Nyborg, on the 9th of July.

§ 1136. *Two*.—Nälima, East Bothnia, 1857.

Kenta Johan's wife brought these eggs, found by her husband, to Muoniovara, 7th June.

§ 1137. *Two*.—Peldouoma, Kemi Lappmark, 1858.

From a nest of five brought to Muoniovara, 12th August, by Erik.

[Two other eggs from this nest were sold at Mr. Stevens's, 30th May, 1860, to Mr. A. F. Sealy.]

[§ 1138. *Three*.—Frontier of Norway, Sweden, and Finland, 15 June, 1860.

O. W. tab. K.

From Erik Mukka-uoma, 5th August. It was in this neighbourhood that some of the Gyrfalcons' nests, one of which has been before mentioned (§ 200), were found. I had not then the means of giving a representation of the "Rock of the Three Nations." The opportunity has since been afforded by the publication of the late Lieut. Pettersson's 'Lappland,' from which the accompanying plate (tab. K) has, by permission, been copied.]

CINCLUS CASHMIRIENSIS, Gould.

[1139. *Two*.—Kuldja, 12 May, 1887. From Herr Tancreé, 1888.]

CINCLUS LEUCOGASTER, Eversmann.

[1140. *One*.—Altai. Herr Rüsckbeil, junior, through Herr Schlüter, 1888.]

Said by HH. E. F. von Homeyer and Tancreé (Mitth. orn. Ver. Wien, 1883, p. 87) to be very common in the Altai.]

MUSCICAPA ATRICAPILLA, Linnæus.

PIED FLYCATCHER.

§ 1141. *Two*.—From Mr. R. Mansfield, 1843.

§ 1142. *Four*.—Cumberland. From Mr. J. Hancock, 1851.

§ 1143. *Six*.—Kengis, 8 June, 1853. “J. W.”

These were found by my Finnish interpreter Theodore, shortly before coming to Kengis-bruk, some distance within the Arctic Circle. He had got out to walk, and suddenly called out that he had found a nest. Ascending the bank, I saw it in the hole of the stock of a birch-tree such as a Woodpecker might occupy, but there was only just room for the nest. There were six eggs, five blue and one white¹. The nest was made of fine roots with several bits of filmy birch-bark interspersed. I at once saw that it belonged either to a Redstart or a Pied Flycatcher, though I had not seen the latter bird for some days. However, watching near the nest, a little brown bird flew up, and immediately afterwards an unmistakable common Pied Flycatcher (a male bird)—not *M. albicollis*. I saw proofs that they were paired, and I could see clearly with my glass that the first was a hen Pied Flycatcher. The spots on these eggs appear to be the dung of lice.

§ 1144. *Six*.—Saivo-muotka, Torneå Lappmark, 30 May, 1854.
“Bird shot, J. W.”

In an old hole made by a *Picus minor* and in the immediate neighbourhood of its nest [§ 634]. I had gone on shore with my men thinking I heard a Siberian Titmouse, and believing that the belt of wood would be favourable for finding its eggs. While I was at the Woodpecker's nest, Larhis Abraham brought me a stump bodily in which was this nest. Believing it to be a Redstart's, I slighted it, but said I would go and look for the bird, and that Abraham should replace the stump. Elias went with him and came back shortly, saying that the bird had white on the wing and was not the common *Vyerlintu*.² Going, I found it was a Pied Flycatcher, which flew round and

¹ [The difference in colour is now, July 1889, quite appreciable.—ED.]

² [I have not elsewhere met with this name, or anything like it, and cannot guess at its meaning. It is doubtless spelt as it sounded.—ED.]

round and on which Niemi's Abraham constantly had his eye. Go where the man would, the bird always came to the immediate neighbourhood of the nest, which without doubt belonged to it. Satisfied on this point, I shot it, and found that it had no white ring on the neck, and was therefore the common Pied Flycatcher. The nest now (Karessuando, 2nd June) before me is made of grass with a few white and a few coloured Grouse's feathers in the lining. The same day I found another nest high up in a Scotch fir—the bird with a peculiar croaking. The nest similarly lined with white and coloured (speckled) Grouse's feathers. In the first nest were many fleas.

§ 1145. *Five*.—Lapland, 1854. “With bird.”

Found by Heiki on or about 30th June. He has brought and partially stuffed the bird, and it clearly is the Pied Flycatcher. There were seven eggs; Ludwig and I have broken two; they had not been sat upon.

§ 1146. *Four*.—Kyrö, Kemi Lappmark, 1856.

Brought by Kyrö Niku under the name of *Lippi-tiainen*, which he says is derived from its cry. It is common on his side of the country, says Ludwig, who has no doubt that the eggs were genuine. Niku did not know whether I wanted this bird's eggs.

§ 1147. *Three*.—Muotka-järwi, 24 June, 1856. “With bird.”

Brought by Maria, who called them *Parma-lintu* [*Linota linaria*], but the skinned bird shews the species. They were found in a Woodpecker's hole in Lehmä-selkä (Cows'-ridge).

§ 1148. *Six*.—Cumberland, June, 1839. From Mr. J. Hancock.

With the nest in a box inscribed in Mr. Hancock's writing. I cannot remember in what year he gave it to me. It was said to be a complete one, and all the eggs are blown in precisely the same way. I have never had it out of the paper box in which it was before today [1859]. The nest has large leaves used in its make.

§ 1149. *Three*.—Särki-järwi, East Bothnia, 1859.

Found by Heiki and brought by his boy, who said his father saw the bird.

§ 1150. *Three*.—Pallas-järwi-pää, Kemi Lappmark, 19 June, 1859.

Found by Heiki during his expedition to the Kyrö country.

[§ 1151. *One*.—Keswick, Cumberland. From Mr. J. Hancock, 1853.]

[§ 1152. *Two*.—Cumberland. From Mr. T. C. Heysham, 1854.]

[§ 1153. *Fourteen*.—From Mr. T. C. Heysham's Collection.

Out of a large number bought at the sale of the above-mentioned collection at Mr. Stevens's, 16th May, 1859. There can be little doubt that they are all from Cumberland, or at least from the north of England. Among them are two which may be called dwarfs.]

MUSCICAPA COLLARIS, Bechstein.

[§ 1154. *Two*.—"19 May, 1860." From Herr Möschler, 1862.

Herr Möschler did not tell me whence he had received these eggs.]

MUSCICAPA SIBIRICA, Gmelin.

[§ 1155. *Two*.—Dauria. From Dr. Dybowski, through M. Jules Verreaux, 1873.

Dr. Dybowski, in his notes (Journ. für Ornith. 1872, p. 447) on the nidification and eggs of this species, under the name of *Butalis sibirica*, says that the latter are paler in colour than those of *Muscicapa (Erythrosterna) luteola*—a statement borne out by the figures given in illustration of his remarks (*op. cit.* 1873, tab. i. fig. 15, tab. ii. fig. 18).]

[§ 1156. *Two*.—Dauria. From Dr. Dybowski, through M. Jules Verreaux, 1873.

These, received with the last, were sent to me as those of *M. luteola* (*cf.* § 1187); but they do not confirm Dr. Dybowski's observations (*op. cit.* 1872, p. 450), and Dr. Taczanowski, to whom I have submitted them, assures me that they belong to this species, the eggs of which, under the name of *Hemichelidon sibirica*, are described in his posthumously published 'Faune Ornithologique de la Sibérie Orientale' (i. pp. 477, 478.)

[§ 1157. *One*.—From Dr. Taczanowski, 1889.

Sent to me as a trustworthy specimen.]

MUSCICAPA GRISOLA, Linnæus.

SPOTTED FLYCATCHER.

§ 1158. *Three*.—England. In or before 1843.

§ 1159. *One*.—Lapland, 1854.

§ 1160. *Three*.—Sallanki, Kemi Lappmark, 1854.

Under the name of *Itsa-Rastas* from Johan, and the bird described as saying “tse, tse, tse,” and placing its nest between the trunk and the bark of a tree. Evidently Spotted Flycatcher, which is not rare hereabouts.

§ 1161. *Three*.—Lapland, 1855.

With the nest made principally of black tree-hair; altogether they look exactly like Spotted Flycatcher's.

§ 1162. *Three*.—Pyha-ota, South-western Finmark, 1855.

These seem to be Spotted Flycatcher. From a far northern locality.

§ 1163. *Five*.—Nälina, 1856. “With bird.”

The head of the bird was also brought at the same time by Solomon, with the nest, which is made of tree-hair, lichen, and grass-fibre.

§ 1164. *Five*.—Muonio-alusta, 1857.

Brought with the nest by Lars Larsen of Under-Muonio as Brambling's!

§ 1165. *Three*.—Muunioniska, East Bothnia, 1857.

Out of twelve brought by Abraham Joel the sexton's boy, found near his house.

§ 1166. *Three*.—Mielmooka-vaara, 5 June, 1857.

Found by Karl Olafsen Saari of Jeris-järwi in a dead Scotch fir, in which was also a Woodpecker's nest.

§ 1167. *Five*.—Koti-vaara, Enontekis Lappmark, 1857.

Brought by Kyrö Niku, and called by him *Itsäkka*.

§ 1168. *Three*.—Kätkä-järwi, East Bothnia, 1858.

Brought by Olaf Olafsen.

§ 1169. *Six*.—Koti-maa, Enontekis Lappmark, 16 June, 1858.

Brought by Maria of Muotka-järwi.

§ 1170. *Four*.—Muunioniska, 19 June, 1858.

Out of five found by Abraham Makki.

§ 1171. *Five*.—Songa-vaara, Enontekis Lappmark, 22 June, 1859.

Brought by Maria of Muotka-järwi.

§ 1172. *Six*.—Särki-järwi, East Bothnia, 1859.

Found by Heiki's boy.

[§ 1173. *Two*.—Elveden, 1846. Different nests.]

[§ 1174. *Two*.—Elveden, 1848.]

[§ 1175. *One*.—Elveden, 1851.]

[§ 1176. *Five*.—Elveden, 1852. From different nests.]

[§ 1177. *One*.—Whittlesford, Cambridgeshire, 1852. From Mr. F. Bond.

This egg very much resembles that of *Muscicapa parva*.]

[§ 1178. *One*.—Muonioniska, East Bothnia, August, 1855.

Brought to Muoniovara, while I was there, by a boy, brother to Samuel the smith.]

[§ 1179. *One*.—Elveden, 11 June, 1856.]

[§ 1180. *Four*.—Elveden, 2 June, 1857. “E. N.”

From a nest of five in a beech-tree. Bird well seen.]

[§ 1181. *Five*.—St. Neot's, Huntingdonshire, 30 May, 1864.
From Mr. Rowley.

Taken by himself.]

[§ 1182. *Five*.—Lurgy, Leck, Donegal, 20 June, 1864. “R. H.”
From Mr. Robert Harvey.

Mr. Harvey writes that this nest was pointed out to him at Lurgy in his parish, by a lad who was a born naturalist, one of the closest observers of facts Mr. Harvey had ever known, and from whom he had learnt more of the habits of birds than from any one else.]

[§ 1183. *Four*.—Norfolk, 4 June, 1873. From Mr. Norgate,
1874.]

MUSCICAPA PARVA, Bechstein.

RED-BREASTED FLYCATCHER.

[§ 1184. *Five*.—Cöslin, Pomerania, 10 June, 1861. From
Herr Hintz, through Pastor Theobald.

A complete nestful, found by the forester Hintz's son.]

[§ 1185. *Four*.—Cöslin, 11 June, 1861. From Herr Hintz,
through Pastor Theobald, 1863.

A complete nestful, found in a beech-forest by the forester Hintz, by whom their taking is recorded (Journ. für Ornith. 1863, p. 416).]

[§ 1186. *One*.—“Mecklenburg.” From Herr Möschler, 1862.]

MUSCICAPA LUTEOLA, Pallas.

[§ 1187. *Two*.—Dauria. From Dr. Taczanowski, 1889.

Kindly sent to me as a genuine example of the eggs of this species, which, as Dr. Dybowski remarks (*Journ. f. Ornith.* 1872, p. 450), much resemble those of *Ruticilla suecica* in colour, but are considerably smaller in size, though larger than that represented in illustration of his paper (*op. cit.* 1873, tab. ii. fig. 18). However, nearly all the eggs there figured seem to me to be drawn on a reduced scale. (*Cf.* § 1156.)]

PYCNONOTUS BARBATUS (Desfontaines).

[§ 1188. *One*.—Algeria. From Captain Loche, through Mr. Salvin, 1861.]

PYCNONOTUS XANTHOPYGÆUS (Hemprich & Ehrenberg).

[§ 1189. *One*.—Elisha's Fountain, 13 April, 1864. From Mr. Tristram.

Mr. Tristram's note is:—"In a *Zizyphus*-tree; three eggs, slightly sat on. Nest cup-shaped, very neat, and not shallow like *Icus obscurus*. In the thicket at Elisha's Fountain, Jericho, 13 April." A fuller description of the nest, as well as of the eggs, is in 'The Ibis' for 1865 (pp. 81, 82).]

TURDUS MERULA, Linnæus.

BLACKBIRD.

§ 1190. *Three*.—England? In or before 1843.

§ 1191. *Four*.—Milton, Cambridgeshire, May 1844.

Found in a nest in an apple-tree. Harvey's boy Isaac thought they were Mistletoe-Thrush's, or he would not have taken them. No one to whom I have shewn them ever saw Blackbirds' eggs like them. The nest in which they were does not differ from an ordinary

Blackbird's. The peculiarity of the eggs is the very deep colour of the markings.

Since I wrote the above I have examined the figures in Mr. Hewitson's old edition [Brit. Ool.], and find these eggs more like the variety of the Blackbird given in fig. 2, plate vi. One specimen is a most beautiful and extreme variety.

[The above is an abstract of a long note which goes to shew that Mr. Wolley was at first inclined to hope that these very fine eggs would turn out to be Fieldfare's.]

§ 1192. *One*.—Whittlesea Mere, Huntingdonshire, 1844.

Out of two from old Tom Rawlinson [*cf.* § 1196], who bought them at Holme of a man just coming out of the fen, who said they were in a nest on the ground, and were Dotterel's eggs. (N.B.—The Water Rail and Spotted Crake are called Dotterel indiscriminately by the fenmen.)

[The remainder of this note discusses the question, and, assisted by a hint from Mr. Hancock, finally arrives at the conclusion that they were Blackbird's, as I also think; but this specimen is very abnormal in colour.]

§ 1193. *Two*.—Tangier. From M. Favier's Collection, 1847.

Bought, with others [*cf.* § 2], of Mr. Williams, of Oxford Street. Marked by M. Favier "*M. noir.*" I saw this bird at Tangier.

§ 1194. *Four*.—Beeston, Nottinghamshire, 2 April, 1859.

[§ 1195. *Two*.—Eastern England. From different nests.]

[§ 1196. *One*.—Elveden, 1846.]

[§ 1197. *Two*.—Elveden, 1847. From two nests.]

[§ 1198. *One*.—Elveden, 1848.]

[§ 1199. *One*.—Elveden, 1849.]

[§ 1200. *Six*.—Elveden, 1851. From five nests.]

[§ 1201. *One*.—Elveden, 1853.]

[§ 1202. *One*.—Elveden, April 1856. “E. N.”]

[§ 1203. *Five*.—Leck, Donegal, 14 May, 1863. “R. H.”
From Mr. Robert Harvey.

Mr. Harvey writes that these were a nestful, taken by himself in the plantations of Leck Glebe. “The nest was built on perfectly level ground, which is unusual. It was covered over with trailing brambles.”]

[§ 1204. *Five*.—Priory Hill, St. Neot's, Huntingdonshire, 26 April, 1864. From Mr. Rowley.

Taken, in a low spruce-fir, by Mr. Rowley himself.]

[§ 1205. *Four*.—Norfolk, 30 March, 1869. “F. N.” From Mr. Norgate, 1874.]

[§ 1206. *Five*.—Sparham, 9 June, 1869. From Mr. Norgate, 1875.]

[§ 1207. *Four*.—Bloxworth, Dorset, 9 May, 1876. “E. N.”]

[§ 1208. *Five*.—Sparham, 20 May, 1877. From Mr. Norgate.]

[§ 1209.—Palma, Canary Islands, May 1893. From Mr. S. B. Wilson.]

TURDUS TORQUATUS, Linnæus.

RING-OUSEL.

§ 1210. *Two*.—Yorkshire. From Mr. Williamson, 1843.

Given to me by Mr. Williamson of Scarborough, the Museum-keeper. He finds them on the moors in the neighbourhood, breeding there every year.

§ 1211. *Two*.—Yorkshire. From Mr. Williamson, 1846.

Mr. Williamson took them on the moors near Scarborough.

§ 1212. *Three*.—Sutherland, 26 May, 1849. “J. W. *ipse*.”

This nest was on or close to the ground, supported by the trunk of a rowan-tree, overhanging a curious hole at the bottom of which is the burn. The hole was accessible from above or below, but with difficulty, and in it there grew *Polystichum lonchitis*, a close neighbour to *aculeatum* or some such form; but I think distinct, for there is also *lonchitoides*. In the same hole grew *Asplenium viride* and *Trichomanes*. The nest was made chiefly of moss, lined with a great mass of fine grass—no mud. On my return I shot the hen bird. The eggs were fresh.

§ 1213. *Twelve*.—Yorkshire? From Mr. R. Champley, 1859.

[§ 1214. *Three*.—Shaugh Prior, Devon, 1852. From Mr. E. Burt.

These were sent, with the nest, by Mr. Burt, of Torquay, who said they were taken by Mr. Woolcombe, of Hemerdon Hall, Devon.]

[§ 1215. *One*.—Cumberland. From Mr. Heysham's Collection, 1854.]

[§ 1216. *Three*.—Hathersage Moor, Derbyshire, 10 June, 1856. From Mr. Salvin's Collection.]

[§ 1217. *Three*.—Argyllshire, 20 May, 1856. From Mr. P. Robertson.]

[§ 1218. *Five*.—Sutherland, 1859. From Mr. G. M'Kay.]

TURDUS ATRIGULARIS, Temminck.

[§ 1219. *Three*.—“Altai,” 16 May, 1886. From Herr Tancré, through Mr. Dresser, 1888.

According to III. E. F. von Homeyer and Tancré (Mitth. orn. Ver. Wien, 1883, p. 87) this species breeds not seldom in the Altai district of Western Siberia, where it seems to be commoner than further eastward.]

TURDUS SIBIRICUS, Pallas.

[§ 1220. *One*.—Toorukhansk, Jennesei Valley, 16 June, 1895.
From Mr. C. B. Hill, 1896.

Mr. Hill accompanied Mr. H. Leyborne Popham on his journey to Siberia, and the latter published ('Ibis,' 1897, pp. 89-108) valuable notes on the birds they observed in the valley of the Jennesei. Of this species he says (*t. c.* p. 92) that it was often to be seen, but owing to its extreme wariness difficult to obtain. "It was most numerous around Toorukhansk (lat. 66° N.). We got several nests supposed to belong to this species, but we were never able to thoroughly identify the eggs further than seeing the birds in the immediate vicinity of the nest." Mr. Hill's note sent with this specimen is "Bird seen leaving nest."]

TURDUS PILARIS, Linnæus.

FIELDFARE.

§ 1221. *One*.—Norway. From Mr. Hewitson, through Mr. Chapman, 1843.

Mr. Chapman, of York, shewed me a list of eggs, in Mr. Hewitson's handwriting, which had been sent in exchange for some he had let Mr. Hewitson have; amongst them were several Fieldfares', of which this is one. It was the specimen which Mr. Chapman had selected and, as I saw, gummed into his cabinet, and is very neatly blown—evidently with great care. Mr. Hewitson found Fieldfares breeding abundantly in societies in Norway.¹

§ 1222. *One*.—Sweden or Norway. From Mr. Dann, through Mr. J. Green, 1844.

Marked as Mr. Dann's.²

§ 1223. *One*.—Norway. From Mr. Hewitson, through Mr. Wilmot, 1846.

[With the Redwing's egg (§ 1304).]

¹ [Mr. Hewitson's "Notes on the Ornithology of Norway" as observed by him and his friends Mr. John Hancock and Mr. B. Johnson, during an excursion in the summer of 1833, are printed in 'The Magazine of Zoology and Botany' (ii. pp. 309-317).]

² [Mr. Richard Dann, who travelled much in Sweden and Norway, and resided for many years in the former of those countries, was a valued correspondent of Mr. Yarrell's, to whose 'History of British Birds' he contributed much interesting information.]

§ 1224. *One*.—Norway. From Mr. Hewitson, through Mr. J. H. Tuke, 1846.

§ 1225. *Two*.—Umeå Lappmark, 1850. From Mr. Lawrence Heyworth.

These two specimens are from different nests, for one of them Mr. Heyworth remembered by its elongated shape to have been given him by a boy, who said it was a *Björk-Trast*'s, which we may interpret by "Birch-Thrush." It has been blown by two holes at the ends. Mr. Heyworth found two nests himself, from one of which is the other egg he has given me, but he only saw the birds of one of the nests, and of this he wished to keep the eggs himself. Hence though my two eggs are probably Fieldfares', they can scarcely be called indubitable—especially as the second is not much bigger than the three eggs of the Redwing.¹ From the first nest the bird flew off, and while Mr. Heyworth was at it, both the old ones flew around, making a strange noise. It was about nine feet from the ground, placed in a small dead fir-tree, covered with pendulous moss or lichen. The tree was at the edge of a moor at the beginning of the trees which rise in a graduated manner from the edge of the plains, being very dwarfish at first. It was in Umeå Lappmark, and Mr. Heyworth was after a Godwit at the time.

The next nest was found a day or two's walk further on; placed in a living spruce, within reach of the hand. Either this or the last nest, or both, made of small fine roots lined with grass, and only a little mud, which was near the outside, in the structure. It was on the last day of June or in the first few days of July that these nests were found.

§ 1226. *One*.—Piteå, 27 May, 1853. "J. W."

I took this egg between Rosvik and Ervnäs, having just seen the bird leave the nest and sit on a tree close by. It was in a fir-tree

¹ [These had been taken by Mr. Heyworth himself and brought to England by him unblown in an "almost hopeless condition." In return for blowing them, Mr. Heyworth gave Mr. Wolley the two Fieldfares' mentioned above. I believe it was Mr. Heyworth's journey in Lapland, of which an account occupies several pages in Mr. Wolley's egg-book, that first suggested to the latter the possibility of successfully making an oological exploration of that country—a possibility rendered all the more probable by geographical considerations.—Ed.]

within reach from the ground. Other nests were in neighbouring trees, but of several which I examined, none had eggs except this. They were made of coarse grass and mud, lined with fine grass. The old Fieldfares kept flying from tree to tree. Snow was in deep wreaths beneath the trees.

- § 1227. *One.* }
 § 1228. *Three.* } Råneå, 27 May, 1853. "J. W."

These eggs I took in the afternoon between Persö and Råneå. There were several nests, but two only had eggs. The trees were young spruces; the nests generally not higher than my face. The birds were flying in trees near all the time I was at the place. One, with materials for its nest in its beak, first attracted my attention. I shot one, but I know not which nest of those around me belonged to it. The trees were open, and the nests at intervals perhaps of several trees.

- § 1229. *Three.*—"Bird on." }
 § 1230. *Three.* }
 § 1231. *Five.* } Kalix. }
 § 1232. *Five.* } } 30 May, 1853.
 } } "J. W."
 § 1233. *Four.* } Saivits. }

All the above I took this day in the drive from Kalix to Haparanda. Leaving Kalix *Gästjifvargård* at 3 o'clock A.M., I presently saw a Fieldfare descending with its kind of song towards some young firs bordering an open field or two, and amongst these trees I found six or eight nests. The bird was sitting upon the first nest; her side face was towards me, and I almost caught her upon her four eggs. Several of the nests were not finished, but I found one with three and two with five eggs each. This same day near Saivits, a Fieldfare crossed the road with its harsh cry towards some likely-looking young firs, and going to them I found a nest with four eggs near the top of

a twenty-foot spruce. The day was cold and rainy, so I did not stay to look for more nests; but just as I was leaving the spot five or six birds flew rapidly homewards in great alarm.

§ 1234. *Four*.—Päkkilä, West Bothnia, 4 June, 1853. "J. W."

Between Korpikylä and Päkkilä; the birds gave the alarm as the carriage passed. There were several other nests without eggs. This one was made with very little mud in its construction, and none was visible externally. The nest was on a stake or stump in a fir-tree. All the trees in this lower part of the valley of the Torneå are very small.

§ 1235. *Two*.—Matarengi, West Bothnia, 5 June, 1853.
"J. W."

These I found in a nest at Öfver Torneå or Matarengi, within two Swedish miles of the Arctic Circle. The birds were flying about. Another nest was only just commenced. The tree was one of the small firs that grow near there. Like many others of them it had been cut off and sprouted again. The nest was on the cut stump, about three feet from the ground, and much exposed.

§ 1236. *Four*.—Muonio Öfreby, East Bothnia, 16 June, 1853.
"J. W."

From a nest taken, but not found, by myself about seven feet up in a fir-tree. From the large size of the nest and the quantity of mud used in its construction it is evidently a Fieldfare's, the loud cry of which bird I heard just before coming to the nest, and I heard and saw many others in the same district.

§ 1237. *Five*.—Muonio Öfreby, East Bothnia, 16 June, 1853.

The nest shewn to me after the eggs were taken out of it. It was six or seven feet up in a fir, and from its construction evidently a Fieldfare's—a common bird in the wood.

§ 1238. *Three*.—Muoniovaara, West Bothnia, 8 July, 1853.

Out of five found a mile or two (English) from this place by

Theodore and Ludwig, who both were certain the bird was *Björk-Trast*, as they saw it well. The nest was at some height in a fir-tree. It has more mud in its construction than a Redwing's, and is lined with beautifully white grass, of course of last year's growth.

Two of these eggs sold at Mr. Stevens's rooms, 17th February, 1854, to Mr. Salmon.

§ 1239. *One*.—Matarengi, 1853.

Among others collected for me by Herr Nyman before 18th July, 1853. This is no doubt a Fieldfare's—the only species of *Turdus* I saw at Matarengi.

Four sold at Mr. Stevens's, 17th Feb., 1854, to Mr. Milner.

§ 1240. *Four*.—Palojoki, 30 May, 1854. “J. W.”

Nests in the fork of a birch-tree, near the river, some Scotch firs close by. Only a single pair of birds about—very vociferous near their nest. *Undoubtedly* Fieldfares.

§ 1241. *Eighteen*.—Naimakka, 7 June, 1854. “J. W.”

Out of twenty-three specimens from six nests, all found by myself in a square of probably one hundred yards, near the Great Shrike's nest [§ 913]. The nests were all at a good height in birch-trees and I believe I saw the bird of nearly every one.

[One given to the late Mr. J. P. Wilmot for Mr. Philbrick, in July, 1860.]

§ 1242. *Four*.—Enontekis Lappmark, 9 June, 1854.

From two nests between Naimakka and Mukka-uoma, on the Finnish side. One nest was unusually deep and remarkably strong. The birds scolding near it.

§ 1243. *One*.—Mukka-uoma, 10 June, 1854.

The rest being nearly ready to hatch, this is the only egg I took out of the nest, as it is unusual in its colouring. We found a good many nests at a considerable height in trees in different parts of the

wood, at the foot of the cliff where are Hawks and Buzzards. Near Mukka-uoma, yesterday, the 10th June, very early in the morning, I saw the birds of some of the nests and heard them in other cases. No one nest was near the ground.

§ 1244. *One*.—"J. W."

§ 1245. *Twelve* (from five nests). } Mukka-uoma, 10 June,
1854.

All as above. Of four, found by Abraham in one nest up in a tree, one is remarkably large.

[This last was apparently laid by a different bird.]

§ 1246. *Seven*.—Mukka-uoma, 12 June, 1854.

Out of twenty all found by myself up in birch-trees, and, I believe, the bird seen or heard in every case. Blown on the spot, and all fresh. It was several Swedish miles above Mukka-uoma, as I had been looking for the bear.

Four of these were sold at Mr. Stevens's rooms 26th Jan. 1855, to Mr. J. H. Gurney, and three to Mr. Burney.

[An eighth has since been given to Dr. David Walker for the Belfast Museum.]

§ 1247. *One*.—Naimakka, 16 June, 1854.

In a nest of six found in a tree and called *Rastas*. The other five eggs of the ordinary appearance, and all hard sat upon.

[This egg has a comparatively deep blue-green ground, with not many blotches, these are of large size and many are confluent in a sort of zone near the larger end.]

§ 1248. *Five*.—Naimakka, 1854.

Ludwig tells me that all these eggs were from the same nest, though three of them are of such remarkable littleness. Olli did not say they were *Rastas's*, and perhaps did not know, but they are apparently Fieldfare's.

§ 1249. *Three*.—Rowa, East Bothnia?, 1855.

From Puntz's lad, Nils.

§ 1250. *Six*.—Sardio, June 1857.

One of three nests of Fieldfare found a week or two ago by Johan Sardio, and this, with very remarkable eggs, he thought must be different; but he saw that the nest and the birds were just like the rest. All were at a good height in trees. Johan was with us yesterday to Ounas-tunturi—an excellent bird-knower.

[It was this Johan who actually found the first Waxwing's nest (§ 808).]

§ 1251. *Six*.—Akka-mella, West Bothnia?, 6 June, 1857.

Brought yesterday with the nest by Taipalen Jacob from Akka-mella, where I have two or three times this spring seen and heard the birds. It was about five feet up in a birch-tree. A heavy nest, with sandy mud at the bottom, *jökälü* [tree-lichen], and a thick lining of fine grass.

§ 1252. *Four*.—Viksi-saari, West Bothnia, 4 June, 1857.

“J. W.”

From a nest taken, with four others, by myself. In every case the bird seen either by me or Heiki. All the nests in spruces, none lower than a fathom from the ground. A Great Shrike showed itself watching us, but we could not find its nest. The five nests were all made chiefly of grass mixed with clay, with a lining of unmixed sheep-grass.

[§ 1253. *One*.—Gulsvik, Krören Vand, Hallingdal, Norway, June, 1850. From Mr. A. C. Smith.

From a nest of five, in an alder-tree, about twenty-six feet from the ground, as related by Mr. Smith in 'The Zoologist' for 1850 (p. 2947, *errore* 2047). I trust I may be pardoned for here mentioning that it was through this communication that I owe not only the possession of the present specimen, but the far greater privilege of becoming one of his friends.]

TURDUS VISCIVORUS, Linnæus.

MISTLETOE-THRUSH.

§ 1254. *Six*.—England [in or prior to 1844?].

[No mention of these seems to be made in Mr. Wolley's notes; but they form the well-selected series contained in his old cabinet.]

§ 1255. *One*.—Kihlangi, East Bothnia, 1854.

Said to be *Mehtähakki*, a name for the Fieldfare to the southward, and so the man considered this egg to be. It was in a tree. It has to my eyes much the look of a Mistletoe-Thrush's, and it is unfortunate that the other eggs of the nest were broken.

§ 1256. *Three*.—Rowa, East Bothnia, 1855.

Brought with the bird, of which the skin is now (20 August) before me, by Johan Eric. He had not seen the like before, and thought it a kind of Hawk. I believe I once heard the bird in the Finnish woods.

§ 1257. *Four*.—Wassara, Kemi Lappmark, 1858.

Brought to Muoniovara, 19th June, by Nicolai, as *Korwa-Rastas* (Waxwing!).

[§ 1258. *Two*.—Elveden. One in 1842, the other later.]

[§ 1259. *One*.—Stetchworth, Cambridgeshire, 1845.]

[§ 1260. *One*.—Elveden, 1845.]

[§ 1261. *One*.—Elveden, 1847.]

[§ 1262. *Two*.—Elveden, 1848. From different nests.]

[§ 1263. *One*.—Elveden, 1849.]

[§ 1264. *Five*.—Elveden, 1851. From four nests.]

[§ 1265. *Three*.—Elveden, 1852. From two nests.]

[§ 1266. *One*.—Elveden, 1853.]

[§ 1267. *One*.—Elveden, April, 1854. “A. N.”]

[§ 1268. *One*.—Elveden, 1855. “E. N.”]

[§ 1269. *One*.—Elveden, March, 1856. “A. & E. N.”]

[§ 1270. *One*.—Elveden, March, 1859. “E. N.”]

[§ 1271. *Five*.—Lurgy, Leck, Donegal, 8 May, 1863. From Mr. Robert Harvey, 1864.

Mr. Harvey writes that the nest was taken for him by George Lucas. It was in the fork of a cherry-tree.]

[§ 1272. *Five*.—Priory Hill, St. Neot's, Huntingdonshire, 6 April, 1864. From Mr. Rowley.]

[§ 1273. *Four*.—Sparham, Norfolk, 13 April, 1875. From Mr. Norgate.

Taken by Mr. Norgate.]

[§ 1274. *Five*.—Sparham, 8 May, 1876. From Mr. Norgate.]

TURDUS MUSICUS, Linnæus.

SONG-THRUSH.

§ 1275. *Two*.—England [in or prior to 1843?].

§ 1276. *Three*.—England?

[Two of these are remarkably large, with very thin shells and abnormal brown markings.]

§ 1277. *Four*.—Orkneys, 1851. From Mr. George Harvey.

[Very small specimens.]

§ 1278. *Five*.—Lapland, 1854.

Brought to me with the nest, which is made principally of sticks and black hair-lichen, with reindeer-moss, and lined with composition made of moss and touchwood.

§ 1279. *Two*.—Muonioalusta, July, 1854.

Moses did not bring the nest, but said there was much clay in its structure.

§ 1280. *Three*.—Salmo-järwi, East Bothnia, 1855.

Brought by Johan, who did not know what they were.

§ 1281. *One*.—Kihlangi, East Bothnia, 1855.

From Olli's lad, and said to be that of *Garrulus infaustus*.

§ 1282. *One*.—Eland, 1856.

[Found by me in a box containing many eggs marked as having been taken as above.]

[§ 1283. *One*.—Elveden, 1845.][§ 1284. *One*.—Elveden, 1846.][§ 1285. *One*.—England in or prior to 1848.][§ 1286. *One*.—Elveden, 1848.]

[§ 1287. *Two*.—Elveden, 1849. From different nests.]

[§ 1288. *Nine*.—Elveden, 1851. From seven nests.]

[§ 1289. *Two*.—Elveden, 1852. From different nests.]

[§ 1290. *One*.—Elveden, 1853.]

[§ 1291. *One*.—Hockwold, Norfolk. From Mr. Newcome, 1853.

This very singular-looking egg was taken many years ago by Mr. Newcome when a boy. Its ground-colour is perfectly white, without the slightest tinge of blue or green, and it has some markings of dull red, chiefly towards the smaller end. Mr. Newcome had some half dozen similar to it, two or three of which I saw, and has told me that for several seasons a Song-Thrush built in the garden at Hockwold Hall, which always laid eggs of this appearance. He frequently saw the bird on the nest.]

[§ 1292. *One*.—Kyrö, Kemi Lappmark, 1855.

One of four eggs brought to Muoniovara, 11th August, 1855, when I was there.]

[§ 1293. *Four*.—Elveden, 1856. "E. N."]

[§ 1294. *Two*.—Elveden, 1857. "E. N." From two nests.]

[§ 1295. *One*.—Elveden, 16 April, 1859. "A. & E. N."]

[§ 1296. *Four*.—Stoke, Bucks., May, 1861. From Mr. Charles Wolley.

Sent to me by Mr. Charles Wolley (now Wolley-Dod), to whom they were represented as being Golden Oriole's eggs; but I at once saw that they were Song-Thrush's of the same variety as the eggs which Mr. Newcome used to take (§1291), and on enquiry it came out that they were found in a nest exactly like that commonly built by the Song-Thrush. They were recorded however, in 'The Field' newspaper (No. 439, vol. xvii. p. 451) of 25th May, 1861, as being eggs of the Golden Oriole!

[§ 1297. *Five*.—Leck, Donegal, 11 April, 1863. “R. H.”
From Mr. Robert Harvey.]

Mr. Harvey writes:—“A nestful, taken by myself from a laurel in the shrubbery, Leck Glebe.”]

[§ 1298. *Five*.—Priory Hill, St. Neot's, Huntingdonshire, 20 May, 1864. From Mr. Rowley.]

[§ 1299. *Five*.—Norfolk, 9 May, 1869. “F. N.” From Mr. Norgate, 1874.]

[§ 1300. *Five*.—Sparham, Norfolk, June, 1875. From Mr. Norgate.]

[§ 1301. *One*.—Bloxworth, Dorset, 20 May, 1876. “E. N.”]

TURDUS OBSCURUS, Gmelin.

[§ 1302. *Two*.—Dauria. From Dr. Dybowski, through M. Jules Verreaux, 1873.]

Dr. Dybowski has described the breeding-habits and eggs of this species in the ‘Journal für Ornithologie’ for 1872 (p. 441).]

TURDUS ILIACUS, Linnæus.

REDWING.

[It may appear strange to living oologists that up to the time of Mr. Wolley's departure for Lapland in 1853, not a little doubt was entertained, by some of those who thought they had the best means of knowing, as to the coloration of the Redwing's egg. It had been described by authorities of repute as resembling that of the Song-Thrush. Faber seems not to have seen it in Iceland, or his testimony would, of course, have been at once accepted; nor was Thienemann, who passed the summer of 1821 in that island, more successful, though in 1826 a nest with three eggs was sent to him thence. One of these he forthwith figured in his ‘Fortpflanzung der Vögel Europa's’ (p. 17, tab. v. fig. 12); but his works—that just named and also his ‘Reisen im Norden Europa's,’ wherein (ii. p. 168) the fact was also mentioned—received little notice from British ornithologists. Even the evidence of Mr. Proctor and of

Mr. Dann, both unimpeachable witnesses, was not known to many in this country, and hardly, if at all, known to any beyond its limits. To which of the naturalists last named belongs the credit of being the first Englishman to ascertain the truth, I cannot say; but the former, as an entry in the manuscript journal (now in my possession) of his second visit to Iceland shews, obtained a broken egg of this species on the 7th of August, 1837, and in succeeding years received others; while, from authentic examples (at least one of which is to be mentioned immediately) obtained by the latter, Mr. Hewitson figured two specimens in 1842 (Brit. Oology, Suppl. pl. clix). The captures of Mr. Milner in Iceland (§§ 1305, 1306) and of Mr. Heyworth in Lapland (see § 1225) were still less known. Mr. Wolley indeed (Zoologist, p. 2983) declared himself satisfied with the evidence that had been adduced, but I know that it afforded him great pleasure to prove its accuracy by the event mentioned below (§ 1307), a notice of which, extracted from one of his letters, he afterwards allowed me to publish (Zoologist, p. 4204).]

§ 1303. *One*.—Norway. From Mr. Dann, through Mr. Hugh Reid, 1844.

§ 1304. *One*.—From Mr. Dann, through Mr. Yarrell and Mr. Wilmot, 1846.

This was given to Mr. Wilmot by Mr. Yarrell, having been “brought over by Dann or Hewitson, I forget which,”—no doubt by Mr. Dann (*vide* Hewitson, Eggs Brit. Birds, ed. 2, p. 62). Mr. Wilmot gave me the choice of his two specimens. This one is like Mr. Hewitson’s figure, the other specimen had not the spots collected at the larger end.

[I retain this egg in the Collection chiefly on account of the interest attaching to it from its former owners. It is much larger than any well-authenticated Redwing’s that I remember to have seen. The circumstance of the gift is mentioned also by Mr. Wilmot in the manuscript catalogue of his Egg-collection, now in the Museum of the University of Cambridge. Mr. Hewitson’s party did not obtain a single specimen of the Redwing’s egg during their tour in Norway in 1832.]

§ 1305. *Two*.—Iceland, 1846. From Mr. Henry Milner, 1847.

I had not time to ask Mr. Milner for any particulars.

§ 1306. *One*.—Iceland, 1846. From Mr. Henry Milner, through Mr. D. Graham, 1847.

Mr. Graham enlarged on the beauty of the song of the Redwing,

growing quite eloquent in his account of this bird in Iceland, whither he went with Mr. Milner.

§ 1307. *One*.—Umeå, Sweden, 23 May, 1853.

A mile or two north of the town of Umeå I shot a Redwing with this egg, apparently ready for exclusion. I have for a long time heard the song of the Redwing—perhaps since leaving Gefle. It is not for a moment to be compared for excellence with that of the Common Thrush. [*Cf. Zoologist*, pp. 4204, 4205.]

§ 1308. *One*. }

§ 1309. *Four*. } Muoniovaara, 13 June, 1853. "J. W."

§ 1310. *Four*. }

These are out of three nests which I visited, they having been previously found by the boy, LUDWIG MATTHIAS KNOBLOCK¹. The first was in the hollow of an old Scotch-fir stump, of which only half the shell remained, standing perhaps three feet above the ground. Inside was a mound of earth and moss, grown up against the decayed wood and bark, *Rubus chamæmoris*, *Vaccinium vitis-idaea*, and other plants—the first in flower—at the bottom grass and lichens with moss. At the top of the little mound was the nest, built against the decayed wood. It was principally made of fine grass with no mud, and had a deep hollow. In it were two eggs and three young birds, one of which, as Ludwig said, had been hatched within a few hours. The old birds flew near, from bush to bush, with great activity, every now and then flying towards us and suddenly wheeling off, snapping their beaks. I saw them well with my glass.

The second nest had five small eggs—not long laid, and probably, as Ludwig said, belonged to a young bird. It was placed upon a large bare stump and roots which formed part of a kind of fence in the wood, and was completely exposed. One of the birds flew quickly from the bush round us, at some distance, calling, as the others at the first nest did, somewhat like a Blackbird. It generally settled out

¹ [The name is underlined in this passage of Mr. Wolley's Egg-book, where it occurs for the first time. I believe it was the intelligence the boy then exhibited that caused him to be taken into the employment in which he afterwards distinguished himself so highly.—ED.]

of sight, but I had several good views of it. The nest, now before me, is made of small sticks, bents, moss, and so forth, lined with fine grass. On pulling it to pieces I find that it is first made something like a Thrush's, with a thin layer of the stuff that looks like cow-dung, and this is lined with the fine grass.

The third nest had four eggs, nearly ready to hatch. It was exceedingly beautiful, made externally of reindeer-lichen, and more internally of grass, remarkably compactly put together. It was placed upon the horizontal part of a little birch-tree, which for two feet was growing perpendicular, and the rest, felled with an axe, just retained its connection. At the point of junction, rather on the horizontal trunk, was the nest, resting against two or three perpendicular sprouts rising from the ground. It is beautiful indeed, and Herr Salomon expressed his admiration at it. Waiting at the nest for the old birds, I saw a Redwing watching us from a little distance; but as the second nest was in that direction, I could not be certain that this was the bird we were looking for. However Ludwig, who is very intelligent, assures me the bird which flew about him when he first found the nest was precisely like the others, as he knew, chiefly by its note. I have not yet seen Fieldfares here. Redwings sing incessantly—a few loud falling notes, and then a scarcely audible warbling appearing to proceed from a different kind of bird: night and day all the same.

§ 1311. *One*.—Muoniovaara, July 1853.

Out of five specimens brought to me by a boy, who said that he found them in a space of ground cleared of trees. The nest, now before me, is precisely that of a Redwing—a little turf or such like stuff at bottom, then the outer part of the nest, made of strong grass, lined with cow-dung looking stuff like a Thrush's, and inside this fine grass. There can be no doubt the eggs belong to the Redwing, which is far more plentiful at Muoniovaara than the Fieldfare, which I myself have not yet seen just here. As I write this (8th July) a Redwing is singing outside in the wood, though it is midnight.

Two of these, forming lot 108, were bought by Mr. Burney at Mr. Stevens's, 17th February, 1854.

§ 1312. *Five*.—Muoniovaara, 8 July, 1853. "J. W."

Five eggs of Redwing taken by myself this day, two hundred yards from the house. A girl took me to the nest, and I saw the bird pretty

well, making its outcry at a little distance; but, going away for ten minutes, on my return I actually saw it leave the nest, and with my glass I had an excellent view of it sitting on a tree near. The nest was fixed between five or six shoots or stems of birch at the height of about a foot from the ground, and was very conspicuous. The eggs were nearly ready to hatch. The nest is very irregular in shape, to fit into the space between the stems. The first part is lined with dirt, inside is fine grass, and outside a good deal of lichen.

§ 1313. *Six*.—Kaaressuando, 4 June, 1854. “J. W. *ipse*.”

Six eggs in a nest taken by myself in a tussock or stump, with birch growing on it and juniper. I saw the bird well with a glass, and saw it leave the nest three times, as we vainly endeavoured to snare it. The lad Johsy had found it, and took me to the place. The nest made of fine grass, with a little dirt in its construction—mostly concealed dirt. Snowy weather, the tree-buds only just bursting, but Redwings singing.

§ 1314. *Four*.—Maunu, Torneå Lappmark, 6–7 June, 1854.

Found by myself between Maunu and Sarempi in the night. The bird was about the nest and carefully seen. The nest on the ground among the stems of a birch.

§ 1315. *Five*.—Mukka-uoma, 10 June, 1854. “J. W.”

The bird was flying round at from ten to twenty paces, settling in the trees, nearly out of sight, though at present there are no leaves. I had a good view of her, but did not myself put her off the nest, which was on the ground amongst thick birch-tree shoots.

§ 1316. *Four*.—Mukka-uoma, 10 June, 1854. “J. W. *ipse*.”

Found on the same day as the last, and near the same place. The nest in an exactly similar situation at the rise of a cluster of birch-rods or trees. The eggs, six in number, but two broken, nearly ready to hatch. The bird flew off as I was close to it, and sat in a tree very near, so that I saw it most perfectly.

§ 1317. *Three*.—Jeris-joki, East Bothnia, 28 June, 1854.
“J. W.”

Found by Heiki. Taken to the nest, I saw the old birds about it, and watched them close to and even on it. I looked at one well with

a glass, and saw the red under the wing. The nest was supported by Azalea [*Ledum palustre*] twigs under a birch-tree, perhaps a foot from the ground. At the commencement of Jeris-joki, about midnight. There were five eggs, with young inside.

§ 1318. *Three*.—Muoniovaara, 20 June, 1855. “L. M. K.”

Josa found this nest in his father's fence, on a tuft near the ground. Ludwig went to the place and took the eggs, having first, he says, seen the bird perfectly.

§ 1319. *Four*.—Muoniovaara, June 1855.

Taken by Ludwig from a nest found by Josa. It was about a foot from the ground, among some birch-shoots, and like a Redwing's. The bird Ludwig did not see; he believes it had been killed by a Hawk.

[These eggs are very large, but the evidence in favour of their being Redwing's and not Fieldfare's seems to me so strong that I do not hesitate to ascribe them, as did Mr. Wolley, to the former.]

§ 1320. *Four*.—Muoniovaara, 11 July, 1855.

Found by Ludwig's sister to the south of the summer cow-house. The nest on the ground or nearly so, among some birch-shoots. It is now before me, and an evident Redwing's.

§ 1321. *Four*.—Muoniovaara, 1855. “L. M. K.”

The nest was found by Josa, on the ground between two tree-roots near the other house at Muoniovara. The bird well seen by Ludwig.

§ 1322. *One*.—Pyha-ota, South-western Finmark, 1855.

Obtained on our way from Norway into Sweden.

[Nothing more has been recorded of this specimen; it was most likely kept by Mr. Wolley, as being from the most northern locality (about 69° 15' N. lat.) whence he had obtained the egg of this species.]

§ 1323. *Five*.—Muoniovaara, 19 June, 1856. “A. K.”

Found by Anton a little way to the south of Herr Forsström's fence. He saw the bird, which he knows well. The eggs were a good deal sat upon. The nest is small.

§ 1324. *Four*.—Salmo-järwi, East Bothnia, 1856.

According to Hendrik, his brother Matthias found these in a birch-stump. The nest, he said, was very flat. It came with the eggs, of which there were five, and looks like the lining of a Redwing's nest. He said the bird was red and yellow, less than a Thrush, but having a Thrush's voice. These remarkable little eggs I cannot guess to be anything but Redwing's.

§ 1325. *Five*.—Saari-järwi, South-western Finmark, 1856.

Found by Tuorimaa Hendrik on Sarijervi and Roiskojevri ranta, in Norway, eight miles north of Karesuando.

§ 1326. *Five*.—Muoniovaara, 11 June, 1857.

Piko Heiki brought me these before I went to Norway [12 June]. I sent him to look for nests, especially mentioning *Laulu-Rastas* [Redwing]. He found two not far from Aian-paika¹, by the rapids. One nest was in a little stump close to the ground, the other also was a little from the ground in a cluster of birch-shoots. The birds of both nests were well seen and recognized by him.

§ 1327. *Three*.—Taatsa-järwi, 2 July, 1857.

The nest found by Johan Mukka-uoma, on the ground under a juniper-bush by the lake-side.

§ 1328. *Five*. }
 § 1329. *Five*. } Sardio, 1857.
 § 1330. *Four*. }

These with the nests, as are all the Redwings' eggs sent from Sardio by the trustworthy_lads there.

[The eggs of the last nest are very remarkable in appearance, owing to the entire absence of any green tinge in their colour.]

¹ [More correctly, I believe, spelt *Æijän-paikka* (=the place of the old man)—the great fall on the Muonio river.—Ed.]

[§ 1331. *One*.—Æefjord (Eyjarfjörður), Iceland. From Mr. Proctor, 1851.]

[§ 1332. *One*.—Northern Iceland, 1852. From Mr. Proctor.]

[§ 1333. *Two*.—Muonioalusta, 30 July, 1855.

Brought to Muoniovara, the night of our arrival there (1st August, 1855), by Johan of Muonioalusta, who said that he had found them with two others in a nest on the ground under a spruce-tree.]

[§ 1334. *Two*.—Bodö, Nordland, 18 June, 1857. "P. G." From Mr. Percy Godman.

Mr. Godman's note is:—"Two eggs from a nest of six, taken in the mountains. The bird was twice seen sitting on the nest."]

[§ 1335. *One*.—Bodö, 26 June, 1857. From Mr. Percy Godman.

Mr. Godman's note is:—"Taken in the mountains at Bodö. There was only one egg in this nest, which we took, as we were not returning that way again. The bird was seen by my brother and myself to leave the nest."]

TURDUS DUBIUS, Bechstein.

[§ 1336. *Three*.—Doodinka, Jennesei Valley, 5 June, 1895. From Mr. C. B. Hill, 1896.

As before mentioned (§ 1220) Mr. Hill was the companion of Mr. Popham, who writes (*Ibis*, 1897, p. 92):—"Wishing one day to obtain a thoroughly authentic clutch of Redwings' eggs, I shot the parent bird, and was surprised to find it was not an ordinary Redwing as I had thought, but a specimen of *T. fuscatus* [Pallas, *i. e.* *T. dubius*, Bechstein]. I secured the two eggs from the nest, which was exactly like a Fieldfare's, with a lining of mud and a final lining of dry grass. We afterwards obtained several more nests with eggs belonging to the Dusky Thrush, all being of necessity placed rather low down, but one was quite on the ground between the stems of a willow. This species extended further north than either of the preceding [*T. iliacus* and *T. pilaris*], even beyond the limit of the forest." Mr. Hill, in the note which accompanied these specimens, says that he also did not at first distinguish this species from the Redwing, which its eggs much resemble. Doodinka is in lat. 69° N. or thereabouts.]

MONTICOLA SAXATILIS (Linnæus).

ROCK-THRUSH.

§ 1337. *Two*.—From M. Perrot, 1847.

M. Nager finds these eggs, and I saw some with him last year [1846] at Mont St. Gotthard just like these. He writes me word that he has some again this year. Last year I was not aware that the bird was on the "British" list.

[§ 1338. *One*.—From Lord Garvagh, through Mr. W. F. W. Bird, 1853.]

[§ 1339. *One*.—From Herr Möschler, 1862.]

[§ 1340. *Two*.—Tangier. From M. Favier, 1866.]

[§ 1341. *One*.—Switzerland.

[§ 1342. *One*.—Styria, 1865.

[§ 1343. *Two*.—1865.

} From Herr Seidensacher,
1867.]

[§ 1344. *Two*.—Cilli, Styria, 12 May, 1866. From Herr Seidensacher, 1867.]

MONTICOLA CYANUS (Linnæus).

BLUE THRUSH.

[§ 1345. *Two*.—From Herr Möschler, 1862.]

SAXICOLA LEUCURA (Gmelin).

§ 1346. *Two*.—Djendeli, Algeria, 14 May, 1857. From Mr. Simpson.

- [§ 1347. *Two*.—Djendeli, 12–13 May, 1857. From Mr. Salvin.

These from different nests, but apparently not identified. Mr. Salvin states (*Ibis*, 1859, p. 306) of this species:—"More abundant about the Djendeli district than elsewhere."

SAXICOLA PLESCHANKA (Lepechin).

- [§ 1348. *Two*.—"Sarepta." From Herr Möscher, 1862.]

- [§ 1349. *Two*.—"Volga." From Herr Möscher, 1865.

All received under the somewhat later synonym of *S. leucomela* (Pallas).]

- [§ 1350. *One*.—"South Russia." From Herr A. Heinke of Kamuschin, through Dr. Albert Günther, 1863.

Received as "*Gebirgs-Bachstelze*"—by which name this species, whose eggs the present specimen closely resembles, was probably meant; but the determination must remain doubtful.]

SAXICOLA MORIO, Ehrenberg.

- [§ 1351. *Two*.—"Altai, 2 June, 1886." From Herr Tancre, 1888.]

SAXICOLA MELANOLEUCA (Güldenstädt).

- [§ 1352. *Four*.—Kulah es Sherkif, Galilee, 30 May, 1864. From Mr. Tristram.

A complete sitting. The Canon's notes on the habits and eggs of this bird, under the name of *S. eurymelæna*, are published in 'The Ibis' for 1867 (pp. 95, 96).]

- [§ 1353. *One*.—Asia Minor (?), 25 May, 1862. From Dr. Krüper, through Herr Möscher, 1865.

Dr. Krüper mentions this species, under the name of *S. stapazina*, of which some think it to be only the eastern form, as breeding near Smyrna (*Journ. für Orn.* 1869, p. 34).]

- [§ 1354. *Two*.—Agoriani in Parnassus, 28 May, 1888, and 3 June, 1889. From Dr. Krüper, 1889.

Again under the name of *S. stapazina*. Taken by Panagiotis Pallas.]

SAXICOLA STAPAZINA (Linnæus).

[§ 1355. *One*.—"Algeria." From Herr Möschler, 1865.]

[§ 1356. *Three*.—Italica, Spain, 1883. From Lord Lilford, 1889.

All Lord Lilford could tell me of these was that he was sure they were rightly named.]

SAXICOLA ALBICOLLIS (Vieillot).

[§ 1357. *One*.—Madracen, Algeria, 23 May, 1857. From Mr. Tristram.]

[§ 1358. *One*.—Chemora, Algeria, 27 May, 1857. From Mr. Tristram.

The Canon's note originally referred this specimen to "*S. aurita*" (Temminck's name for the species already described by Vieillot as *albicollis*); but he subsequently cancelled the specific term and substituted "*stapazina*"—using those names in the sense then applied. A comparison of specimens, however, induces me to think that his first designation was right. Mr. Salvin, who was with him at the time, has some notes on both species (*Ibis*, 1859, p. 307.)

[§ 1359. *One*.—From Herr Möschler, 1862.]

[§ 1360. *One*.—Wilderness of Judæa, 25 April, 1864. From Mr. Tristram.

From a nest of five eggs, of which three were given to Mr. Cochrane and the remaining one to Mr. Salvin. The Canon's notes on this species, under the name of *S. amphileucura*, which he has since dropped ('Fauna and Flora of Palestine,' p. 33), appeared in 'The Ibis' for 1867 (pp. 96, 97.)

[§ 1361. *Two*.—Amaromi, Greece, 24 May, 1888, and 2 June, 1889. From Dr. Krüper, 1889.

Taken by Christo Leonis.]

SAXICOLA DESERTI, Rüppell.

[§ 1362. *Two*.—"Kuldja, 15 June, 1887." From Herr Tancré, 1888.]

SAXICOLA ISABELLINA, Cretzschmar.

- [§ 1363. *Two.* }
 [§ 1364. *Four.* } “Astrakan.” From Herr Möschler, 1865–69.]
 [§ 1365. *One.* }

SAXICOLA CENANTHE (Linnæus).

WHEATEAR.

§ 1366. *Three.*—Wirksworth, Derbyshire. Prior to 1844.

My brother George found the nest with seven eggs in it in a stone embankment of the Cromford and High Peak Railway.

§ 1367. *Two.*—Orkney. From Mr. George Harvey, of Stromness, 1848.

§ 1368. *Four.*—Scarborough, May 1852. From Mr. A. Roberts.

These Wheatear's eggs with spots were taken by Mr. Roberts himself, who watched the birds building, as Mr. John Evans informs me.

§ 1369. *Six.*—Kaaressuando, 1853. From Pastor Engelmærk.

§ 1370. *Three.*—Kaaressuando, 1854. From Pastor Engelmærk.

§ 1371. *Two.*—Palojoki, 1854.

§ 1372. *Three.*—South-western Iceland. From Herr Christian Zimzen, 1858.

[These were obtained by Mr. Wolley and myself from the only egg-collector we found in Iceland.]

- [§ 1373. *Two*.—Elveden, 1847. From different nests.]
- [§ 1374. *Two*.—Elveden, 1849.]
- [§ 1375. *Five*.—Wangford, Suffolk, 1851. From two nests.]
- [§ 1376. *Four*.—Elveden, 1852. From two nests.]
- [§ 1377. *Two*.—Elveden, 1853. From two nests.]
- [§ 1378. *Three*.—Vadsö, East Finmark, 20–21 June, 1855.]
- [§ 1379. *Two*.—Barnham, Suffolk, 3 June, 1856. “A. & E. N.”]
- [§ 1380. *One*.—Greenland. From Dr. David Walker, R.N., Naturalist to the ‘Fox,’ R.Y.S., 1860.
Erroneously referred by the donor (Ibis, 1860, p. 166) to *Motacilla alba*.]
- [§ 1381. *Five*.—Kyrö, 1862.
Brought by Kyrö Niku to Muoniovara, 26 June, and called “*Kivi-Rastas*” (i. e. *Saxicola œnanthe*), which they no doubt are, though Knoblock thought it quite possible that the bringer lied.]
- [§ 1382. *Five*.—Leck, Donegal, 22 May, 1862. “R. H.”
From Mr. Robert Harvey.]
- [§ 1383. *Five*.—Sussex, 15 May, 1877. From Mr. Norgate.]

PRATICOLA RUBICOLA (Linnæus).

STONE-CHAT.

- § 1384. *One*.—St. Boniface Down, Isle of Wight, 8 April, 1843. From Mr. C. A. Bury.

Mr. Bury says “the Stonechat’s egg I took myself from the nest mentioned in ‘The Zoologist’ [p. 638] as found by me.”

§ 1385. *Two*.—Isle of Wight. From Mr. J. F. Dawson, 1844.

§ 1386. *Five*.—Elveden, 16 April, 1859.

Taken by Messrs. A. and E. Newton.

[§ 1387. *Three*.—Elveden, 1847.]

[§ 1388. *One*.—Barnham, 1849.]

[§ 1389. *Five*.—Elveden, 1852.]

[§ 1390. *Two*.—Elveden, 1852.]

[§ 1391. *Two*.—Barnham, 1852.]

[§ 1392. *Five*.—Elveden, 18 April, 1859. “A. & E. N.”

Found by my brother after repeated watching.]

[§ 1393. *One*.—Illyria, 18 June, 1860.

[§ 1394. *One*.—Cilli, Styria, 1865.

[§ 1395. *One*.—Cilli, Styria, 13 May, 1865.]

} From Herr Seidensacher, 1865.]

[§ 1396. *Four*.—Leck, Donegal, 9 June, 1862. “R. H.”
From Mr. Robert Harvey.]

[§ 1397. *Five*.—Killangal, County Cork. “Bird on nest.”
From Mr. R. H. Scales, 1886.]

PRATICOLA HEMPRICHI (Ehrenberg).

[§ 1398. *One*.—“Kuldja.” From Herr Tancreé, 1888.]

PRATICOLA RUBETRA (Linnæus).

WHIN-CHAT.

§ 1399. *One*.—Cefre-Muonioniska, East Bothnia, 1854.

From a nest of four or five in Cefrebyn, apparently Whinchat's, not an uncommon bird here. There was a nest near this house [Muoniovara], the young of which are now (7th July) flown.

[§ 1400. *Two*.—Feltwell Fen, Norfolk, 1852.]

[§ 1401. *Five*.—Lackford, Suffolk, 27 May, 1852. "A. & E. N."]

[§ 1402. *Five*.—Elveden, 31 May, 1852. "A. & E. N."]

This nest took a long time to find. While waiting for the hen bird to appear, the cock, who was watching us as anxiously as we were watching him, shewed us two other nests—a Linnet's and a Sky-Lark's, each with young in it—that were within his beat. We could hardly resist the belief that his behaviour was intentional.]

[§ 1403. *Seven*.—St. Neot's, Huntingdonshire, 24 May, 1864.
From Mr. Rowley.

Mr. Rowley writes that he himself picked up this nest. One of the eggs is very small.]

RUTICILLA MOUSSIERI (Olphe-Galliard).

[§ 1404. *One*.—Khifan M'satka, 25 April, 1857. From Mr. Salvin.

Mr. Salvin's note-book states that this egg was taken on the same occasion, though not from the same nest, as one from which Mr. Simpson (Hudleston) saw the bird. His full remarks on the habits, nidification, and eggs of this species are published in 'The Ibis' for 1859 (pp. 307, 308).]

[§ 1405. *One*.—Chemora, Algeria, 2 June, 1857. From Mr. Tristram.

Taken by himself. The Canon's notes on this bird will be found in 'The Ibis' for 1859 (pp. 416, 417).]

RUTICILLA AUROREA (Pallas).

[§ 1406. *One*.—Darasun, Dauria, 25 May, 1868. From Dr. Dybowski, through M. Jules Verreaux, 1871.

Dr. Dybowski's notes on the nidification of this bird are printed in the 'Journal für Ornithologie' for 1872 (p. 363), and one of its eggs, obtained by him, is figured in the volume for 1873 (tab. i. fig. 11).]

[§ 1407. *Six*.—"Amur," 7 May, 1884. From Dr. Dybowski, through Dr. Taczanowski and Mr. Dresser, 1889.]

RUTICILLA PHŒNICURUS (Linnæus).

REDSTART.

§ 1408. *One*.—Durham. From Mr. Hewitson, 1844.

§ 1409. *One*.—"T. Rawlinson," in or before 1845.

[No doubt obtained while Mr. Wolley was at Cambridge. For his character of "Tom Rawlinson" see above (§ 1096).]

§ 1410. *One*.—Muonioniska, East Bothnia, 1853.

This egg of the Redstart, out of two nests hard sat upon, brought to me by two girls. They described the bird as very pretty, red upon the breast and white upon the forehead.

§ 1411. *One*.—Viksi, West Bothnia, 3 June, 1854.

In a Siberian Titmouse's nest found by Anton near Viksi Poas in an old Woodpecker's hole in a Scotch fir about seven feet from the ground. A Redstart was also near the nest, and among the *Pistee's* eggs (nine) [§ 1067] is also one which is evidently a Redstart's.

§ 1412. *Six*.—Muoniovaara, 3 June, 1854. "J. W."

There were seven in all, in my *tylla* near the house, taken by Ludwig some days after I left Muoniovara for the north. I had seen the nest with one egg and also seen the bird, and Ludwig took it by my direction.

§ 1413. *Two*.—Muoniovaara, 3 June, 1854.

From a nest occupied by a Siberian Titmouse found by Ludwig. He saw the two birds fighting together. The Titmouse had the best of it and sat singing "*pist-tee-tee-tee*." The Redstart's nest had been built upon by the Titmouse, as shown by the difference in the lining. The two Redstart's eggs were with the Titmouse's (seven) [§ 1068]. It was in an old Woodpecker's hole, which I have since (15th Oct.) seen, about six feet from the ground in a dead Scotch fir.

§ 1414. *Three*.—East Bothnia, 16 June, 1854.

Apparently Redstart's; brought by Heiki and called *Puna Rastas* [Red Thrush], his name for the bird. The nest is made of grass, fine roots, a few feathers, and so forth. Many scores of eggs of this bird have been brought.

§ 1415. *Four*.—Keras Sieppi, Enontekis Lappmark, 13 June, 1855.

Found by Heiki; Ludwig saw and tried to shoot the bird, which he is certain was of this species. He has this season seen and well knows the Pied Flycatcher.

§ 1416. *Two*.—Muotka-järwi-ranta, Enontekis Lappmark, 23 June, 1857.

Brought by Maria, 15 July. Found in a stump.

[These were said by the finder to be *Sata-kielinen* (*Cyanecula suecica*), which is in favour of their being Redstart's of some kind. Otherwise they might be Pied Flycatcher's. I keep them on account of their peculiarly rounded shape.]

§ 1417. *Five*.—Mennumaa, East Bothnia, 5 June, 1858.

Brought to Muoniovaara, 12 June, by Heiki, having been found by his boy and brother-in-law.

§ 1418. *Six*—Kommexi Menniko, 1-5 June, 1858.

Brought to Muoniovaara, 14 June, by Muonioalusta's Lars, who found them.

§ 1419. *Three*.—Vähä-järwi, Sadio, 15 June, 1858.

Brought to Muoniovara, 17 June, by Antis Abraham's boy Herman.

§ 1420. *Eight*.—Aita-niemi, East Bothnia, 18 June, 1858.

Brought by Heiki's wife, 19 June.

§ 1421. *Three*.—Mukka-uoma, Lat. 68° 55' N., 1858.

§ 1422. *Five*.—Suas-tunturi, East Bothnia, 23 June, 1859.

Taken by Heiki on his journey to the eastward.

[§ 1423. *Three*.—Tetworth, Huntingdonshire, 1848. "A. N."]

These are spotted with rust-colour. (Cf. Zoologist, p. 2228, note.)]

[§ 1424. *Three*.—Elveden, 1848. From two nests.]

[§ 1425. *One*.—Waterbeach, Cambridgeshire, 1853. "E. N."]

[§ 1426. *Three*.—Garden of Magdalene College, Cambridge, 1853. "E. N." From two nests.]

[§ 1427. *Three*.—North Varanger Fjord, East Finmark, June 1855.

Obtained by me while with Mr. Wolley.]

[§ 1428. *Seven*.—Elveden, 1857. "E. N."]

My brother's note states that he found this nest on the 24th of May, in a pile of fire-wood, and then took two eggs from it, and the remaining five on the 27th, when he caught the hen-bird on the nest.]

[§ 1429. *Five*.—Lound, Norfolk, 1857. From Mr. Norgate.]

RUTICILLA TITYS (Scopoli).

BLACK REDSTART.

§ 1430. *One*.—From Mr. Green, about 1844.

§ 1431. *One*.—From Mr. J. D. Hoy, through Mr. Salmon, 1846.

§ 1432. *One*.—From Dr. Pitman, 1846.

§ 1433. *Three*.—Switzerland. From M. Nager-Donazain, 1846.

§ 1434. *Two*.—Switzerland. From the Geneva Museum, 1846.

§ 1435. *One*.—Switzerland. From M. Nager-Donazain, 1847.

Others, obtained at the same time, given to Mr. R. Wigram, Mr. Bond, and Mr. Mihner.

[§ 1436. *One*.—From M. Lefevre, through Dr. Frere, 1850.]

[§ 1437. *One*.—10 May, 1854. From Herr Seidensacher, through M. Edouard Verreaux, 1859.]

[§ 1438. *Four*.—From M. Nager-Donazain, 1859.]

[§ 1439. *Four*.—"Saxony." From Herr Möschler, 1862.]

[§ 1440. *Six*.—From M. Favier, 1866.]

[§ 1441. *Five*.—Loesche-les-Bains, Canton Valais, 12 May, 1885. From Mr. S. B. Wilson, 1886.]

[§ 1442. *Four*.—Canillo, Andorra, 24 May, 1889. From Mr. W. E. Clarke, 1890.

From a nest in the wall of a Dovecote (*cf.* Ibis, 1889, p. 535).¹

¹ [In addition to the foregoing the collection contains one of the four eggs taken in May 1854, between Ollerton and Edwinstowe, as described by the late Mr. Sterland in his 'Birds of Sherwood Forest' (p. 67), and attributed by him to this species. He gave it to me in 1869. He was, so far as I know, fully competent to distinguish the Black Redstart from any other bird, and of his veracity I entertain no doubt. He positively declares that "the female was on the nest" when he found it; but he does not say that he had a good view of her. His description of the nest shews that it was both in site and structure wholly different from that which the Black Redstart usually builds; but, on the other hand, the egg when placed in a series of Black Redstarts' is indistinguishable from the rest. A case almost precisely similar was recorded in 1852 by the late Mr. R. W. Hawkins (Zoologist, p. 3503), though he never saw the bird. One of the eggs he

CYANECULA SUECICA (Linnæus).

BLUETHROAT.

§ 1443. *Two*.—Kaaressuando, 1853.

[These were among a number of small eggs obtained from Pastor Englemarck. Mr. Wolley appears to have thought they were Yellow Wagtail's, but they are doubtless Bluethroat's—a bird whose eggs he had not at that time obtained in Lapland.]

§ 1444. *Six*.—Lapland, 16 June, 1854. “J. W.”

The nest found by Mukka-uoma Johan and Olli in drawing the boat over a foss-side, and shown to me as that of *Sata-kielinen* [Hundred-tongues]. I twice saw the bird fly from the nest, which was on the ground—a large foundation made by the bird as in the other nests which I have seen.

[The note omits saying where this nest was; but from the context it is clear that the locality was between Naimakka and Mukka-uoma.]

§ 1445. *Seven*.—Sarempi, 1854.

Found by the old man at the lowest house at Sarempi. He was quite certain they were *Sata-kielinen*, whose nest and eggs he had known before. The nest agreed with others of the same bird. I got them June 17th, quite fresh.

§ 1446. *Four*.—Naimakka, 1854.

Out of six found by the pretty wife of Naimakka. She said they belonged to the bird with a white stripe over the eye and a blue breast. The nest agreed.

obtained was sent to me, and afterwards submitted to Mr. Hewitson, who says that it could “scarcely be the white variety of the egg of any other British bird” (Eggs Br. B. ed. 3, i. p. 106). I have always regretted my failure to find out what became of Mr. Hawkins's collection at his death. All the same, I do not believe that any of these eggs were the produce of *Ruticilla titys*, and I think they were most likely laid by a Blackcap, *Sylvia atricapilla*, of which the collection contains an undoubted egg [§ 1680], perfectly white and wholly indistinguishable from that of the Black Redstart. It will also be seen that the nests described by Mr. Sterland agree very well with those built by the Blackcap.—ED.]

§ 1447. *Siv.*—Mukka-uoma, 12 June, 1854. “Bird snared.”

This nest found by Niemis Apoo in a tuft of grass as he was plucking hay for my shoes¹ several miles (Swedish) above Mukka-uoma by the river-side. We laid snares and soon caught the hen. The nest very deep, with a large enclosure of loose leaves and grass, and so approaching a Nightingale's. The eggs beautiful, of a dark olive-green, almost like a Nightingale's or more like a Little Bustard's, but fading as soon as dry after blowing. The bird was abundant in the neighbourhood.

§ 1448. *One.*—Naimakka, 1854.

From Naimakka's Olli with the nest, which appears to be indeed a Bluebreast's, and I have no doubt about the eggs. The bird is abundant about Naimakka, and its nest [§ 1444] was found while I was there. Mukka-uoma Petari afterwards told me that his brother Erky found these near a foss by the river, and was sure they were *Sata-kielinen*.

[Five more from this nest were sold at Mr. Stevens's, 30th May, 1860,—two to Lord Lilford, two to Mr. Burney, and one to Mr. Rake.]

§ 1449. *One.*—Sara-järwi, 1854.

From Pecka, one of Nälima's lads, who watched the nest by Lätäs-eno-strand, and saw the old birds, which he accurately described. It was three quarters of a mile (Swedish) from Sara-järwi, which is ten miles (Swedish) from Kaaressuando. Ludwig says that when fresh they were bluish, and he saw that they were not Wagtail's, so that in all probability the lad is right. The nest, too, is very like a Bluebreast's.

[I am unable to identify this locality, and cannot help thinking that Mr. Wolley was misinformed as to its distance.]

§ 1450. *Four.*—Levva-järwi, 1855.

Nälima's Pecka says he saw the bird perfectly, and he seems to be a trustworthy lad. The nest before me looks like a Bluebreast's.

¹ [The shoes commonly worn in Lapland during summer are of soft leather, large, and stuffed with dry grass. Being very comfortable, Mr. Wolley generally used them in his boat-voyages.—ED.]

§ 1451. *Three*.—Naimakka, Torneå Lappmark, 1855.

Found by the old man and named by him properly *Sata-kielinen*.

[Two more from this nest were sold at Mr. Stevens's, 7th March, 1856, to Mr. Burney.]

§ 1452. *One*.—Veivi-järwi, Torneå Lappmark, 1855.

Brought by the lame Lapp with the nest, which was apparently that of a Bluebreast.

[Two more from this nest were sold at Mr. Stevens's, 7th March, 1856, by Mr. Holland, and resold 12th March, 1888, to Mr. Langton.]

§ 1453. *Five*.—Naimakka, 1856.

Called by Piety *Kelta-sirkku* [properly Yellowhammer, though locally applied to *Motacilla flava*], but the nest seems to be that of *Sylvia suecica*, and the eggs by this light (1 p.m., 1st Dec.) appear like those of the latter. From Silta-oijan-tieva.

§ 1454. *Four*.—Naimakka, Torneå Lappmark, 1856.

With the nest, which seems, from the fine grass of which it is made, to be that of *S. suecica*. It has none of the moss-seed or other signs of the nest of *Kelta-sirkku* (*Motacilla flava*), which it was said to be. It was found in the fence near the house. *S. suecica* is particularly abundant about Naimakka, and these eggs themselves are fine deeply-coloured specimens.

§ 1455. *Five*.—Mukka-uoma, Enontekis Lappmark, 1856.

Found on Raake-järwen-tieva, Mukka-uoma. I have little doubt these are *Sata-kielinen*. One is more marked (speckled or mottled) than the others.

§ 1456. *Two*.—Wuondis-järwi, Enontekis Lappmark, 22–23 June, 1857.

Out of three found by Erik Sardo.

§ 1457. *Five*.—Kaaressuando, 1857.

Out of six brought with the nest—evidently a Bluebreast's, by Pieton Erki.

§ 1458. *Two*.—Kaaressuando, 1857.

Found by the little boy Tuorimaa Matthias.

§ 1459. *Six*.—Kaaressuando, 1857.

Brought with the very characteristic nest.

§ 1460. *Five*.—Tuolpa-järwi, Enontekis Lappmark, 1857.

Found by Sardo Mikkel on Tuolpa-järwi-strand a quarter of a mile to the north-west of Wuondis-järwi, and brought with the nest.

§ 1461. *Two*.—Kotti-vaara, 18 June, 1858.

Out of six found by Maria Matthisdotter.

§ 1462. *Two*.—Kaaressuando, 1858.

From Nälima Petter.

§ 1463. *Six*.—Mukka-uoma, 1858.

[§ 1464. *Six*.—Sadevaara, East Finmark, 2 July, 1855.

“A. N.”

These eggs were taken by myself in company with Mr. Wolley. We had started from Nyborg at the head of the Varanger Fjord in a westerly direction, and crossing a moor a hen Bluethroat flew out from under the pony on which I was riding, in a manner which shewed me she had left her nest. I saw her plainly, and the next minute saw the nest, which was actually between the pony's fore and hind legs. We marked the place and afterwards returned, when Mr. Wolley tried to catch the bird upon her nest, but failed in doing so, though we both saw her again well. The eggs were nearly ready to hatch.]

CYANECULA LEUCOCYANA, Brehm.

- § 1465. *One*.—Holland? From Mr. J. D. Hoy, through Mr. Salmon, 1846.

A beautiful specimen, the markings clustered at the larger end.

- § 1466. *Ten*.—Valkenswaard, North Brabant, 1851.

[These were received by my brother and myself from Bots, the old falconer of whom we first heard through Mr. Newcome; and Mr. Wolley had some of them from us soon after we got them.]

- [§ 1467. *Two*.—Valkenswaard, 1848. From Mr. E. C. Newcome.]

- [§ 1468. *Two*.—Holland, 1854. From Mr. R. Reynolds.]

- [§ 1469. *Two*.—Valkenswaard, 6 May, 1856. From Mr. J. Baker.]

- [§ 1470. *One*.—Alst, 20 May, 1856. From Mr. J. Baker.

Mr. Baker said that this was taken with the bird.]

CYANECULA WOLFI (Brehm).

- § 1471. *One*.—From Mr. Hugh Reid, 1844.

LARVIVORA CYANA (Pallas).

- [§ 1472. *Two*.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

Dr. Dybowski's notes on the nidification and eggs of this beautiful species are printed in the 'Journal für Ornithologie' for 1872 (pp. 363, 364), and one of the latter is figured in the same journal for 1873 (tab. i. fig. 12), but apparently reduced in measurement.]

BESSORNIS GUTTURALIS (Guérin).

[§ 1473. *Two*.—Burnova, Anatolia, 7 May, 1864. From Dr. Krüper, through Herr Seidensacher, 1865.

These from the first nest found (with five eggs) by Dr. Krüper, as recorded by him in the 'Journal für Ornithologie' for 1869 (pp. 43, 44). He there states that he shot the hen from the nest, and sent two of the eggs (which are the subjects of the present note) to Herr Seidensacher. In the course of the next month Canon Tristram obtained a nest of this species on Mount Lebanon (Ibis, 1867, p. 91). His observations, and those of Dr. Krüper, are reprinted at some length by Mr. Dresser (Birds of Europe, ii. pp. 348-351), but he has accidentally stated that Dr. Krüper's discovery was made in 1867, instead of 1864. That the year last named is correct is confirmed by the extract from his manuscript quoted by Dr. Hartlaub (Griechische Jahreszeiten, 1875, Heft iii. p. 235), to say nothing of the fact that these eggs came into my possession in 1865. Mr. Dresser says that another egg from the same nest is in the collection of Dr. Rey.]

ERITHACUS RUBECULA (Linnæus).

REDBREAST.

§ 1474. *One*.—Beeston, Nottinghamshire. "C. W."

A white variety taken by my brother Charles, who saw the old bird on the nest in the garden.

§ 1475. *Four*.—Before 1844.

§ 1476. *One*.—1846. From Mr. A. D. Bartlett, 1847.

From a nest in which was a Cuckow's egg [§ 710].

[§ 1477. *Two*.—Elveden, 1846. From different nests.]

[§ 1478. *Two*.—Elveden, 1848.]

[§ 1479. *One*.—Elveden, 1849.]

[§ 1480. *One*.—From Mr. Saville, 1850.]

[§ 1481. *One*.—Blo-Norton, Norfolk. From Mr. C. H. Browne, 1851.]

[§ 1482. *Three*.—Elveden, 1853. From two nests.]

[§ 1483. *Four*.—Elveden, 28 May, 1857. “E. N.”

My brother's note states that these were from a nest of six, built on the ground. The other two eggs were sent to Pastor Sommerfelt.]

[§ 1484. *One*.—Elveden, 18 April, 1859. “A. & E. N.”

From a nest of five in a bank. The bird on it when we found it.]

[§ 1485. *Five*.—Leck, Donegal, 9 June, 1862. “R. H.”

From Mr. Robert Harvey.]

[§ 1486. *Five*.—Abbotsley, Hunts. 27 May, 1864. From Mr. Rowley.

The nest on the ground.]

[§ 1487. *Six*.—Norfolk, 13 May, 1869. “F. N.” From Mr. Norgate, 1874.]

[§ 1488. *Six*.—Norfolk, 20 May, 1873. From Mr. Norgate, 1878.]

[§ 1489. *One*.—From the late Mr. Scales's Collection, 1885.

With this was a note by Mr. Scales:—“I took the bird upon the nest.”]

[§ 1490. *Seven*.—Tencriffe, Canary Islands. From Señor Gomez, through Mr. Dresser, 1889.

Out of eight, sent as those of *Erithacus superbus*, König (Journ. für Orn. 1889, p. 183; 1890, p. 383, Taf. iii.), which they doubtless are; but Mr. Dresser (B. Eur. Suppl. p. 48) does not admit it to be a good species, stating that all which can be said is that, as a rule, the “Teneriffe Redbreast has the breast more richly coloured than the average European bird.”]

[§ 1491. *Five*.—Palma, Canary Islands, May, 1893. From Mr. S. B. Wilson.

The Redbreast of La Palma is admittedly indistinguishable from *E. rubecula*.]

DAULIAS PHILOMELA (Bechstein).

THRUSH-NIGHTINGALE.

§ 1492. *Two*.—"Denmark," 18 June, 1856. From Pastor Theobald.

From a nest of five eggs.

[§ 1493. *One*.—From M. Edouard Verreaux, 1859.]

[§ 1494. *Five*.—Bornholm, June, 1859. From Pastor Theobald.

Taken by a forester and carefully kept separate.]

[§ 1495. *Four*.—Bornholm, June, 1859. From Pastor Theobald.

As the last.]

[§ 1496. *Five*.—Bornholm, 5 June, 1861. From Pastor Theobald.

An entire nestful taken by the same forester as the last.]

DAULIAS LUSCINIA (Linnæus).

NIGHTINGALE.

§ 1497. *Five*.—Ditton, Bucks. "J. W." In or prior to 1842.

These were found by myself in a lane near Ditton, where the bird is plentiful. The nest was on the ground, and made almost wholly of oak-leaves.

§ 1498. *Two*.—Eton, 1850.

§ 1499. *Four*.—Eton, 1851.

§ 1500. *One*.—Bearwood. From Mr. H. F. Walter, 1852.

A very interesting egg, showing a transition-state of the colouring-matter.

[The olive tint is deeply suffused toward the smaller end, leaving the larger of a dull greenish-blue.]

§ 1501. *Four*.—Eton, 1855.

[In these eggs the olive tint is not equally spread over the whole surface, but gathered in freckles.]

[§ 1502. *One*.—Elveden, 1844.]

[§ 1503. *One*.—Brighton, 1845.]

[§ 1504. *One*.—Elveden, 1848.]

[§ 1505. *One*.—Elveden, 1849.]

[§ 1506. *Six*.—Elveden, 1853. From three nests.]

[§ 1507. *One*.—Madingley, Cambridgeshire, 1853.]

[§ 1508. *Four*.—Elveden, 2 June, 1856. "E. N."]

[§ 1509. *Four*.—Elveden, 6 June, 1856. "E. N."]

[§ 1510. *Four*.—Elveden, 8 June, 1856. "E. N."]

[§ 1511. *Five*.—Elveden, 24 May, 1857. "E. N."]

†§ 1512. *Three*.—Elveden, 3 June, 1857. "E. N."

From the same pair of birds as the preceding. My brother found the nest on the 2nd of June, and left it; but it was unfortunately taken the next day, and the eggs brought to him.]

[§ 1513. *One*.—Elveden ?

A singularly long egg, and on that account kept; but its history is doubtful.]

[§ 1514. *Five*.—Priory Hill, St. Neot's, Huntingdonshire,
2 June, 1864. From Mr. Rowley.

The bird seen on the nest.]

[§ 1515. *Four*.—Taverham, Norfolk, 22 May, 1875. From
Mr. Norgate.]

[§ 1516. *Four*.—Hockering, Norfolk, 25 May, 1875. From
Mr. Norgate.]

[§ 1517. *Two*.—Andorra, 21 and 22 May, 1889. From Mr.
W. E. Clarke, 1890.

From two nests near the town, where the bird was very plentiful, nesting
in the box-bushes, which form the chief undergrowth (Ibis, 1889, p. 536).]

CALLIOPE CAMTSCHATKENSIS (Gmelin).

[§ 1518. *One*.—Dauria, 1867. From Dr. Dybowski through
M. Jules Verreaux, 1868.

Dr. Dybowski's notes on the nidification and eggs of this bird are in the
'Journal für Ornithologie' for 1872 (pp. 433, 434), and one of the latter is
figured (*op. cit.* 1873, tab. i. fig. 13).]

ACCENTOR COLLARIS (Scopoli).

ALPINE ACCENTOR.

§ 1519. *Two*.—Andermatt, Mont St. Gothard. From M. Nager-
Donazain, 1846.

[§ 1520. *One*.—"Pyrenees." From Lord Garvagh, through
Mr. W. F. W. Bird, 1852.]

[§ 1521. *Two*.—Andermatt. From M. Nager-Donazain, 1859.]

[§ 1522. *Two*.—From M. Favier, 1866.]

ACCENTOR MODULARIS (Linnæus).

HEDGE-SPARROW.

§ 1523. *Two*.—England (?). In or prior to 1843.

[§ 1524. *One*.—Elveden, 1846.]

[§ 1525. *Two*.—Elveden, 1847.]

[§ 1526. *Two*.—Elveden, 1849.]

[§ 1527. *Seven*.—Elveden, 1852. From two nests.]

[§ 1528. *One*.—Elveden, 1853.]

[§ 1529. *Four*.—Elveden, 1855.]

[§ 1530. *One*.—Coquet Island, Northumberland, 1856. From Mr. Salvin.]

[§ 1531. *Two*.—Elveden, 17 April, 1857. “E. N.”]

[§ 1532. *One*.—Elveden, 6 June, 1857. “E. N.”]

My brother's note is :—“ Found on the remains of an old nest, where it had probably been laid by the bird when roosting. It was quite fresh.”

[§ 1533. *One*.—Elveden, 3 April, 1859. “A. & E. N.”]

My brother noted that he saw the bird on the nest the next day.]

[§ 1534. *Five*.—Priory Hill, St. Neot's, Huntingdonshire, 13 May, 1864. From Mr. Rowley.]

[§ 1535. *Five*.—Leck, Donegal, 2 June, 1862. “R. H.” From Mr. Robert Harvey.]

[§ 1536. *Four*.—Norfolk, 24 April, 1867. From Mr. Norgate, 1874.]

[§ 1537. *Five*.—Norfolk, 3 June, 1872. From Mr. Norgate.]

ACCENTOR MONTANELLUS (Pallas).

[§ 1538. *Five*.—Ermakova, Jennesei Valley, 20 June, 1895. From Mr. C. B. Hill, 1896.]

Mr. Popham, whom Mr. Hill accompanied, states (Ibis, 1897, pp. 93, 94) that they met with this bird between lat. 66° and 69°, finding it not uncommon in the forest, and that they obtained six of its nests. “The nest was sometimes placed as high as eight feet from the ground in the fork of a willow, and at others quite low down in the stump of a dead tree, and composed of small twigs and dry grass lined with moss and a few hairs.” The eggs are by me indistinguishable from those of *A. modularis*.]

ACCENTOR ATRIGULARIS, Brandt.

[§ 1539. *Two*.—“Kuldja,” 20 May, 1886. From Herr Tancreé, 1888.]

In their list of West Siberian birds, printed in 1883 (Mitth. orn. Ver. Wien, vii. p. 85), HH. E. F. von Homeyer and Tancreé state that they had not then received this species from the Altai. It has since occurred in Russia (*cf.* Dresser, B. Eur. Suppl. p. 110).]

AEDON GALACTODES (Temminck).

RUFOUS WARBLER.

§ 1540. *One*.—Tangiers. From M. Favier, through Mr. Williams, 1847.

One of four sent with other eggs [§ 2].

§ 1541. *One*.—Chemora, 19 May, 1857. “O. S.” From Mr. Salvin.

The bird was shot from the nest by Mr. Salvin. “The nests,” he says, are always in tamarisk-trees, conspicuously in a fork at from one to six feet from the ground, composed of dead shoots of tamarisk and fragments of reed outside, lined with roots, feathers, and camels’ hair. In nine cases out of ten there is a piece of serpent’s skin at the bottom of the nest, and when we found this skin we knew it was ready for the eggs.” The eggs run into those of *Anthus rufescens* [*A. campestris* (Linn.)], but the nests differ totally.

§ 1542. *One*.—Algeria, 1857. From Mr. Salvin.

Brought with the very characteristic nest by an Arab.

§ 1543. *Two*.—Djendeli, 18 May, 1857. From Mr. Tristram.

§ 1544. *Two*.—Djendeli, 19 May, 1857. From Mr. Tristram.

One of these bought at Mr. Stevens’s, 9 February, 1858, “Lot 84”—the ‘Catalogue’ containing the further information “Female shot.”

§ 1545. *Two*.—Djendeli, 30 May, 1857. “W. H. S.” From Mr. Simpson.

These are of Mr. Simpson’s own taking, as the initials upon them shew. They agree with eggs sent under this bird’s name by M. Favier from Tangier [§ 1540].

[§ 1546. *One*.—Ain Djendeli, May, 1857. “O. S.” From Mr. Salvin.]

[§ 1547. *One*.—Chemora, 1857. From Mr. Salvin.]

[§ 1548. *Two*.—Chemora, 1857. From Mr. Tristram. From different nests.]

[§ 1549. *One*.—Chemora, 8 May, 1857. “W. H. S.” From Mr. Simpson.]

[§ 1550. *Three*.—Plain of Gennesaret, 21 May, 1864. From Mr. Tristram.

“A complete sitting, rather hard set.” The Canon has some notes on this species in Palestine in ‘The Ibis’ for 1867 (p. 80).]

AEDON FAMILIARIS (Ménétriés).

[§ 1551. *One*.—“South Russia.” From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

ACROCEPHALUS ARUNDINACEUS (Linnæus).

GREAT REED-WARBLER.

§ 1552. *One*.

This egg I bought of one of the attendants at the Museum of Natural History at Geneva in the autumn of 1846. The species was not then known to be British, but it has since been declared so by Mr. Hancock (*vide* ‘Zoologist’) [being an extract from Ann. & Mag. N. H. xx. pp. 135, 136]. I have pointed out a specimen in Messrs. Tukes’ collection. I saw it commonly in continental museums, and with dealers at a small price.

§ 1553. *One*.—St. Omer. From Mr. J. Williams, 1853.

This egg was given to me by the Rev. J. Williams of Tring, who brought it from St. Omer and called it the Great Reed-Warbler. It reached me by the hands of Mr. H. H. Crewe, April 10, 1853, at the same time with the Bittern’s eggs.

§ 1554. *Two*.—Bremerhafen, Hanover, 8 June, 1853. From Pastor Theobald.

From a nest of four eggs taken by the Pastor himself.

§ 1555. *Two*.—Zana, Algeria, 6 June, 1857. From Mr. Simpson.

§ 1556. *Three*.—Zana, 15 June, 1857. From Mr. Simpson.

§ 1557. *Four*.—Zana, 15 June, 1857. From Mr. Tristram.

A complete sitting.

[Two of these formed lot 78 at Mr. Stevens's, 9th February, 1858.]

§ 1558. *Four*.—Zana, 18 June, 1857. "O. S." From Mr. Salvin.

Mr. Salvin, on the eve of starting for Central America, 16 Nov., 1857, wrote to me that these were of his own taking.

[§ 1559. *Two*.—Holland. From Mr. R. Reynolds, 1848.]

[§ 1560. *One*.—From Lord Garvagh, through Mr. F. W. Bird, 1852.]

[§ 1561. *Four*.—Zana, June, 1857. From Mr. Salvin.

The nest brought by an Arab. Mr. Salvin's notes on this species in Algeria will be found in 'The Ibis' for 1859 (p. 305). He said it was the commonest of the *Sylvinae* at Zana.]

[§ 1562. *Three*.—Zana, 15 June, 1857. From Mr. Tristram.]

[§ 1563. *Two*.—Ouderkerk, 24 May, 1857. From Mr. J. Baker, 1858.]

[§ 1564. *Two*.—Zierikzee, 30 May, 1857. From Mr. J. Baker, 1858.]

[§ 1565. *Two*.—Dort, Holland, 1857. From Mr. J. Baker, 1858. From different nests.]

[§ 1566. *One*.—Blois, France, 19 June, 1859. "E. N."

My brother Edward wrote of this:—"While walking by the side of a sort of fen a *S. turdoïdes* flew up close to me. By the manner of the bird I was sure it had a nest. I soon found a likely-looking reed-bed, and in it the nest—unfortunately containing three young and a rotten egg. The nest in every way like a common Reed-Warbler's. I afterwards saw another pair of the large species, but could not find any more reeds."

[§ 1567. *One*.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

ACROCEPHALUS PALUSTRIS (Bechstein).

MARSH-WARBLER.

§ 1568. *Three*.—From Pastor Theobald, 1857.

Given me by the Pastor, but I made no note as to the place or particulars of their capture.

[§ 1569. *Two*.—Valkenswaard, North Brabant, 1851.

The bird whose skin was sent with these is, I believe, *A. palustris*.]

[§ 1570. *Two*.—Anhalt. From Herr Möschler, 1862.]

ACROCEPHALUS STREPERUS (Vieillot).

REED-WARBLER.

§ 1571. *Three*.—England, prior to 1843.

§ 1572. *Fourteen*.—Cambridgeshire, 1858. From Mr. Bond, 1859?

From the confines of the parishes of Hauxton and Newton, about four miles from Cambridge. Taken by Mr. Turner and the keeper.

[§ 1573. *One*.—Culford, Suffolk, 1848.]

[§ 1574. *One*.—Swaffham, Cambridgeshire. From Mr. Savile, 1850.

A singularly small specimen—if not a dwarf, measuring .58 by .45 inch.]

[§ 1575. *Two*.—Duxford, Cambridgeshire, 1851. From Mr. C. Thurnall.]

[§ 1576. *Two*.—Wéeting, Norfolk, 19 May, 1852.]

[§ 1577. *Four*.—Culford, 28 May, 1852. “A. & E. N.” From three nests.]

[§ 1578. *Two*.—Hockwold, Norfolk, 3 June, 1853. “A. & E. N.” From different nests.]

[§ 1579. *Four*.—Culford, 9 June, 1853. “A. & E. N.” From two nests.]

[§ 1580. *One*.—Ely, 1854. “E. N.”]

[§ 1581. *One*.—Barnham, 1854.]

[§ 1582. *Four*.—Malaga, Spain, 11 May, 1874. From Mr. H. Saunders, 1875.]

[§ 1583. *Four*.—Bluestone Wilderness, Norfolk, 7 July, 1875. “F. N.” From Mr. Norgate.]

[§ 1584. *Four*.—Hickling, Norfolk, 30 May, 1876. From Mr. Norgate.]

CALAMODUS SCHÆNOBÆNUS (Linnæus).

SEDGE-WARBLER.

§ 1585. *Two*.—England, prior to 1843.

[§ 1586. *Four*.—Barnham, 1849.

From a nest of six.]

[§ 1587. *One*.—Waterbeach, Cambridgeshire. From Mr. Deighton, 1850.]

One of the smallest bird's eggs I ever saw, measuring only .52 by .37 inch.]

[§ 1588. *Two*.—Duxford, Cambridgeshire, 1851. From Mr. C. Thurnall.]

[§ 1589. *Six*.—Hockwold, 1852. From three nests.]

[§ 1590. *Four*.—Ely, 1854. "E. N."]

[§ 1591. *Six*.—Beech-holt, St. Neot's, Hunts., 31 May, 1864. From Mr. Rowley.]

[§ 1592. *Four*.—Norfolk, 14 May, 1874. From Mr. Norgate.]

[§ 1593. *Five*.—Hickling, Norfolk, 1876 or 1877. From Mr. Norgate.]

CALAMODUS AQUATICUS (Gmelin).

AQUATIC WARBLER.

[§ 1594. *One*.—Zana, 11 June, 1857. From Mr. Tristram, 1858.]

From a nest of three eggs.]

LUSCINIOLA MELANOPOGON (Temminck).

[§ 1595. *One*.—"Southern France." From M. E. Fairmaire, through Herr Seidensacher, 1865.]

LUSCINIOLA THORACICA (Blyth).

[§ 1596. *Two*.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

Dr. Dybowski's notes on the habits of this species, under the synonym of *Dumeticola affinis*, and description of its eggs were published in the 'Journal für Ornithologie' for 1872 (pp. 354, 355), one of the latter being figured in the succeeding volume of the same work (p. 118, tab. i. fig. 3).]

POTAMODUS LUSCINIOIDES (Savi).

SAVI'S WARBLER.

§ 1597. *Two*.—Cambridgeshire, 1845.

These two eggs I had of Harvey, of Baitsbight, out of a nest containing, at the time I saw it, eight or ten. He believed them to be Grasshopper-Warblers', but doubted. Since this Mr. Bond has procured three nests and a bird of the Savi's from Harvey (*vide* 'Zoologist,' 1846, p. 1212). Mr. Yarrell shewed me two of these nests, which Mr. Bond had lent him; one of them, made entirely of sedge, I believe to have been the very nest from which my specimens came. Mr. Yarrell descanted on their connection with the Grasshopper- and the Dartford Warblers, and seemed not to doubt their authenticity. The other nest was differently made, it was chiefly composed of grass and moss. The former nest probably was found in a sedge-fen, most likely Quy Fen, *possibly* Wicken Fen. Mr. Yarrell says Mr. Hewitson will figure them. N.B. Do not trust Harvey.

[On comparing these eggs with the series of Grasshopper-Warbler's and Savi's, I do not doubt they belong to the latter, of which Mr. Bond in September 1872 informed me that he never had but two fresh nests, both obtained in May 1845.]

[§ 1598. *One*.—"Baitsbight," Cambridgeshire, 1845. From Mr. Yarrell's Collection, 5 December, 1856.

Hewitson, 'Eggs B. B.,' ed. 2, pl. xxv*.

This I bought at the sale of Mr. Yarrell's collection (where it formed part of lot 366), having been told by Mr. Bond that it was not only one of the number first found, but was the identical example figured by Mr. Hewitson (*ut supra*), a statement confirmed by its appearance.]

- [§ 1599. *One*.—Wicken Fen, 10 June, 1847. From Mr. J. Brown, through Mr. Salvin, 1856.

This is one of the three eggs found in a nest by Mr. John Brown, of Cambridge, and recorded by him in 'The Zoologist' (p. 1807). I had, several years before, more than once seen the specimens in his possession, but could not induce him to part with them. Mr. Salvin was more fortunate, and was also so good as to let my brother and myself share in his success.¹

- [§ 1600. *Two*.—Zierikzee, Holland, 13 June, 1857. From Mr. John Baker.

Bought, with the skin of the bird killed from the nest, at Mr. Stevens's, 24 July, 1857. Mr. Baker the next day gave my brother the particulars. The nest and two other eggs were bought by Mr. Salvin.]

- [§ 1601. *Six*.—Waabru, Netherlands, 20 May, 1858. From Mr. John Baker.]

- [§ 1602. *Five*.—Ouderkerk, Holland, 20 May, 1859. From Mr. John Baker.]

- [§ 1603. *Two*.—Holland. From Mr. John Baker.]

- [§ 1604. *Five*.—Ouderkerk, 28 May, 1859. "J. B. Bird taken." From Mr. A. F. Sealy, 1893.

During what proved to be his last visit to England, the late Mr. Sealy gave me these from what remained of his collection, which had been seriously injured by fire some years before, while his Catalogue, in which all particulars had been carefully entered, had been lost still earlier. His own recollection, however, and the inscription on the eggs shew that they were obtained by the

¹ [In addition to the foregoing I may here mention that on the 29th of July, 1897, Mr. Brown was good enough to bring me for the Museum of the University the shattered remains of four eggs of this species, taken in Wicken Fen about the same time as the preceding, and I believe by himself. I had long known of his having them, and had made more than one offer to become possessed of them. Their condition from having been much incubated had not been good, and from incautious handling they are now hopeless wrecks. They were from two nests, but how many each nest contained Mr. Brown could not remember. He was no doubt better acquainted with this species than anyone else in England, and the result of his knowledge may be read in Yarrell's 'British Birds' (ed. 4, i. p. 393). The bird was the "Night-Reeler" of the fenmen who knew it.—ED.]

late Mr. John Baker of Cambridge, who in his four collecting visits to the Netherlands procured, and nearly always personally, no fewer than eighteen nests of this bird (*cf.* Yarrell, *British Birds*, ed. 4, i. p. 394.)

[§ 1605. *One*.—Holland. From Mr. A. F. Sealy, 1893.

This is another egg of Mr. Baker's taking, given to me at the same time. It is most abnormal in colouring, being much freckled, spotted, or even blotched with a deep brown, much deeper than that often seen collected as a "cap" round the big end of eggs of this species. At first sight it might almost be taken for a deeply marked egg of *Hirundo rustica*, but there is no orange tinge in the spotting. Mr. Baker assured me that the other eggs, three or four, in the nest were of the same character. He sold them to several people, and I believe the late Mr. Bond had one if not two of them. The nest was of the unmistakable build of that of Savi's Warbler. Details of its capture are unfortunately lost; but soon after it came into my possession I took it to Mr. Baker, who, though he had not seen it for some thirty-five years, at once recognized it, and repeated his statement exactly as I had heard it of old time.]

LOCUSTELLA NÆVIA (Boddaert).

GRASSHOPPER-WARBLER.

§ 1606. *One*.—[England.] From Mr. Yarrell, 26 January, 1846.

Mr. Yarrell showed me several well-authenticated specimens, all of which differed somewhat from one another.

§ 1607. *One*.—[England?] From Mr. J. P. Wilmot, 12 February, 1846.

[I have great doubt whether this, though small, may not rather be an egg of *Potamodus luscinioides*. Mr. Wilnot's manuscript Catalogue unfortunately throws no light on its origin.]

§ 1608. *Nine*.—Feltwell Fen. From Mr. John Baker, 1852.

I bought these eggs, 2 July, of Mr. Baker, of Cambridge, who brought them to my rooms in Paddington. He had several dozens of them, and I could not resist the opportunity of making a selection. Most of them were more uniformly coloured than those I have picked out. He had them of a man at Poppylot in Feltwell Fen, in Norfolk, who gets them by following up the run of the bird to its nest.

§ 1609. *Six*.—Bought at Eton, 1855.

[§ 1610. *One*.—Shouldham Thorpe, Norfolk. From Mr. J. Baker, 1850.]

[§ 1611. *One*.—Whittlesea. From Mr. J. Baker, 1850.]

[§ 1612. *Six*.—Feltwell Fen, 25 May, 1852. “A. & E. N.”

From four nests. Five of the six eggs were taken by my brother Edward and myself, the nests having been shewn to us by a lad living at Poppylot¹, who called the bird “Reeler”—its usual name in the Fen-country. I believe he found all of them by watching the birds at sunrise.]

[§ 1613. *Two*.—Feltwell Fen, 1853. From Mr. Newcome.

From different nests. Obtained by Mr. Newcome from the lad who shewed us the nests the year before.]

[§ 1614. *Four*.—Feltwell Fen, 1854.

From a nest of five taken by the lad before mentioned.]

[§ 1615. *Three*.—Wicken Fen, 30 May, 1856. From Mr. Salvin.

From a nest of five.]

¹ [The orthography of this name is uncertain. It cannot have to do with poppy, and I am inclined to think it may be connected with Popeler, the old name of what we now call Spoonbill, for which bird the place, even in my recollection, would have afforded a suitable habitation. In 1852 this part of the fen was still practically undrained, and covered with a thick growth of high sedge, chiefly *Cladium mariscus*, broken here and there by willow-bushes, singly or in clumps. Only a few years before it had been a great resort of Harriers, *Circus cyaneus* and *C. cineraceus*; but persistent shooting of them from the nest had put an end to that, though three eggs of the latter species were taken there in 1854 (§ 467). The Short-eared Owl, too, habitually bred there (§ 520); and we were told, no doubt truly, that, perhaps not more than sixty years before, the willows in that or an adjoining piece of fen supported a Heronry, whence originated that now existing at Didlington.—ED.]

LOCUSTELLA TACZANOWSKIA, Swinhoe.

[§ 1616. *Two*.—Dauria, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.

Under what seems now proved to be a synonym of this species, *L. salicaria* (Pallas *nec* Linn.), Dr. Dybowski's notes on its habits and description of its eggs were published in the 'Journal für Ornithologie' for 1872 (pp. 355, 356), while one of the latter was figured in the next volume of the same work (p. 118, tab. i. fig. 2). A fuller account will be found in Dr. Taczanowski's 'Faune Ornithologique de la Sibérie Orientale' (pp. 246-249), and Mr. Oates has kindly informed me that he now quite accepts the identification of Mr. Swinhoe's species with his own *Tribura intermedia*, which he was for some time (Fauna Brit. India, Birds, i. p. 363) disposed to doubt.]

CISTICOLA CURSITANS (Franklin).

FANTAIL-WARBLER.

[§ 1617. *Two*.—Algeria. From Captain Loche, through Mr. O. Salvin, 1861.]

[§ 1618. *Five*.—Malaga, Spain, 24 April, 1874.]

[§ 1619. *Five*.—Malaga, Spain, 30 April, 1874.]

[§ 1620. *Four*.—Malaga, Spain, 10 May, 1874.]

[§ 1621. *Five*.—Malaga, Spain, 14 May, 1874.]

[§ 1622. *Five*.—Malaga, Spain, 10 June, 1874.]

[§ 1623. *Five*.—Malaga, Spain, 12 July, 1874.]

} From Mr. Saunders, 1875.

This beautiful series of specimens does not confirm the principle of coloration laid down by M. Lunel in his excellent monograph of the species (Bull. Soc. Orn. Suisse, i. pt. 1, pp. 9-30, pl. i.).]

[§ 1624. *Five*.—Southern Spain. From Lord Lilford, 1884.

A complete sitting, with the wonderful nest.]

PRINIA GRACILIS (Lichtenstein).

- [§ 1625. *Four.*—Lake Merom, Palestine, 27 May, 1864.
From Mr. Tristram.

A complete sitting from a nest in a tamarisk. The Canon's notes on the nest and eggs of this species, which he calls one "of the characteristic birds of Palestine," will be found in 'The Ibis' for 1865 (pp. 82, 83).]

CETTIA SERICEA (Natterer).

- [§ 1626. *One.*—Algeria, 19 May, 1856. From Mr. Tristram.]

- [§ 1627. *One.*—Spain, 1872. From Lord Lilford, 1873.]

- [§ 1628. *Four.*—Malaga, 22 May, 1874. From Lord Lilford,
1884.

A complete sitting, with the beautiful nest.]

- [§ 1629. *Four.*—Malaga, 23 May, 1874. From Lord Lilford,
1888.

As the last.]

HYPOLAIS POLYGLOTTA (Vieillot).

POLYGLOT WARBLER.

- § 1630. *Two.*—Tangier. From M. Favier, 1847.

- § 1631. *Four.*—Chemora, Algeria, 27 May, 1857. "W. H.
S." From Mr. Simpson.

Of Mr. Simpson's [Hudleston's] own taking.

- [§ 1632. *Five.*—Malaga, Spain, 26 June, 1871. From Mr.
Saunders, 1872.

Given me with the nest, which is smaller than that of *H. opaca* (§ 1649) given me at the same time, built with a good deal of fibrous roots and the sheep's wool. *H. icterina* is said not to be in Spain.]

HYPOLAIS ICTERINA (Vieillot).

ICTERINE WARBLER.

§ 1633. *One*.—Valkenswaard, North Brabant, 1851. From Messrs. A. and E. Newton, 1852.

[One of those entered below (§ 1636).]

§ 1634. *Five*.—Denmark, 11 June, 1857. From Pastor Theobald.

Taken by Herr Erichsen.

[§ 1635. *One*.—"France." From Mr. D. Graham, 1849.]

[§ 1636. *Eight*.—Valkenswaard, 1851.

Selected from upwards of thirty sent to us direct by Bots, the old falconer. One of them is a dwarf, measuring '47 inch by '41 inch.]

[§ 1637. *One*.—Valkenswaard, 1854.

From the same man, but received through Mr. R. Reynolds.]

[§ 1638. *Four*.—Valkenswaard, 1855. From Mr. J. Baker.]

HYPOLAIS OLIVETORUM (Strickland).

[§ 1639. *Two*.—Forest of Koleah, Algeria, 12 May, 1856. From Mr. Tristram.]

[§ 1640. *One*.—Algeria, 1856. From Mr. Tristram, 1858.]

[§ 1641. *One*.—Foot of Mount Hermon, Palestine, 3 June, 1864. From Mr. Tristram.

Mr. Tristram's note is:—"Nest of four eggs, hard set. The hen bird caught on it, and both in my collection, 'No. 1645.'"]

[§ 1642. *Three*.—Foot of Mount Hermon, 6 June, 1864.
From Mr. Tristram.

Nest of four eggs, but one broken. Near Rasheya.]

[§ 1643. *One*.—"1864, Kr." From Dr. Krüper, through
Herr Möschler, 1869.]

[§ 1644. *One*.—"18 May, 1867, Kr." From Dr. Krüper,
through Herr Möschler, 1869.]

[§ 1645. *One*.—From Dr. Krüper, through Herr Möschler,
1869.]

[§ 1646. *Two*.—Amarousi, Attica, 3 June, 1888, and 11 May,
1889. From Dr. Krüper, through Mr. Dresser, 1889.

Obtained by Christo Leonis. Dr. Krüper's notes on this species, as observed
in Asia Minor, are printed in the 'Journal für Ornithologie' for 1875
(pp. 258, 259).]

HYPOLAIS OPACA (Lichtenstein).

[§ 1647. *Two*.—Algeria, 1856. From Mr. Tristram, 1858.]

[§ 1648. *One*.—Chemora, Algeria, 28 May, 1857. From
Mr. Simpson, 1858.]

[§ 1649. *Five*.—Malaga, Spain, 14 June, 1871. From Mr.
Saunders, 1872.

Given me with the nest, which is not so neat as that of *Hypolais polyglotta*
usually is, but still is very pretty. It is made of twigs, with a little grass and
a great deal of soft vegetable down—something like that of groundsel.]

[§ 1650. *Five*.—Malaga, Spain, 4 June, 1874. From Mr.
Saunders, 1875.]

HYPOLAIS PALLIDA (Hemprich and Ehrenberg).

[§ 1651. *Three*.—Elisha's Fountain, Jericho, 13 April, 1864.
From Mr. Tristram.

Mr. Tristram's note is:—"Nest of three eggs in the stem of a Sodom-apple tree two feet from the ground."

[§ 1652. *One*.—Jericho, 19 April, 1864. From Mr. Tristram.
The Canon's note is:—"Two eggs in the nest; quite fresh."]

[§ 1653. *One*.—Greece, "5 June, 1862, Kr." From Dr. Krüper, through Herr Möscher, 1869.

Dr. Krüper's notes on this species (under the synonym of *Sylvia elaeica*), as observed by him in Asia Minor, are published in the 'Journal für Ornithologie' for 1875 (pp. 258-260).]

[§ 1654. *Two*.—Amarousi, Attica. From Dr. Krüper, through Mr. Dresser, 1889.

Obtained by Christo Leonis.]

SYLVIA NISORIA (Bechstein).

BARRED WARBLER.

§ 1655. *Two*.—Bremerhafen, June 1853. "Bird seen on."
From Pastor Theobald, 1857.

Taken by the Pastor's own hands, and the bird seen on the nest by him.

§ 1656. *Two*.—From Herr J. G. W. Brandt, 1856.

[§ 1657. *One*.—From M. Edouard Verreaux, 1859.]

[§ 1658. *Two*.—"Anhalt." From Herr Möscher, 1862.

Apparently from different nests.]

[§ 1659. *Three*.—"Anhalt-Dessau." From Herr Möschler, 1865.]

[§ 1660. *Four*.—From M. Favier, through Mr. Crowfoot, 1866.

Apparently from two different nests, one of which seems to have been taken "26 | 5 | 59."]

[§ 1661. *Three*.—From Herr Möschler, 1869.]

[§ 1662. *Five*.—June 7, 1866. From Herr Seidensacher, 1876.]

SYLVIA SALICARIA (Linnæus).

GARDEN-WARBLER.

§ 1663. *Five*.—England, prior to 1843.

[§ 1664. *One*.—Cavenham, Suffolk, May, 1844.]

[§ 1665. *One*.—From Mr. J. Baker, 1850.]

[§ 1666. *Six*.—Elveden, 1851. From two nests.]

[§ 1667. *Three*.—Elveden, 1852. From two nests.]

[§ 1668. *Two*.—Elveden, 4 June, 1856. "A. & E. N."]

[§ 1669. *Four*.—Elveden, 31 May, 1857. "E. N."]

My brother's note is:—"From a nest of five. The old bird was on it, and I had a good look at her a second time."]

[§ 1670. *Four*.—Paxton Hill, Huntingdonshire, 17 May, 1864. From Mr. Rowley.

From a nest of five, taken by a man, says Mr. Rowley, as good as himself.]

[§ 1671. *Five*.—Sparham, Norfolk, 27 May, 1874. From Mr. Norgate.

Taken by Mr. Norgate.]

[§ 1672. *Five*.—Hockering, Norfolk, 25 May, 1875. From Mr. Norgate.]

[§ 1673. *Four*.—Bloxworth, Dorset, 2 June, 1876. “E. N.”]

My brother's note is that he found the nest, with three eggs, in a blackberry-bush, about two feet from the ground, on the 24th of May. On the 2nd of June he “visited it twice, and each time saw the bird in it distinctly. I satisfied myself that it was a Garden-Warbler and not a Blackcap,” though the eggs are certainly very like Blackcaps'; but the nest is substantial, like a Garden-Warbler's.]

SYLVIA ATRICAPILLA (Linnæus).

BLACKCAP.

§ 1674. *Two*.—England, prior to 1843.

[§ 1675. *Two*.—Elveden, 1847. From different nests.]

[§ 1676. *Two*.—Elveden, 1848. From different nests.]

§ 1677. *One*.—Elveden, 1849.]

[§ 1678. *Four*.—Elveden, 1852. From two nests.]

[§ 1679. *One*.—Elveden, 23 June, 1853.]

[§ 1680. *One*.—Elveden, 1855. From Mr. Evelyn Fairlie.

A large and almost perfectly white egg, from a nest of five which were all alike. Mr. Fairlie, however, said that the bird was well seen. This is the specimen already mentioned (*suprà*, p. 308, note).]

[§ 1681. *One*.—Elveden, June 1856.]

[§ 1682. *Six*.—Elveden, 1857. "E. N."]

My brother's notes state these were from two nests, each containing five eggs, and that on each he found the cock bird sitting.]

[§ 1683. *Three*.—Elveden. Year uncertain.]

[§ 1684. *Five*.—St. Neot's, Huntingdonshire, 1864. From Mr. Rowley.

Mr. Rowley writes that this nest was in a whitethorn hedge, and that he saw the bird.]

[§ 1685. *Two*.—Starston. From the late Mr. Scales's collection, 1885.

The box containing them was inscribed "Black Cap, Rev. W. Whitear, Starston," shewing that Mr. Scales had received them from one of the authors of the 'Catalogue of the Norfolk and Suffolk Birds' (Trans. Linn. Soc. xv. pp. 1-62). Some account of Mr. Whitear, who died 10 December, 1826, with extracts from his Calendar, will be found in the 'Transactions of the Norfolk and Norwich Naturalists' Society' (iii. pp. 231-262).]

[§ 1686. *Four*.—Palma, Canary Islands, May 1893. From Mr. S. B. Wilson.]

SYLVIA RUEPELLI, Temminck.

[§ 1687. *One*.—Burnabat, near Smyrna, 1 May, 1887. From Dr. Krüper, through Mr. Dresser, 1889.

Taken in the hills by Dimitri Elytheroglou. Dr. Krüper's notes on the habits of this species are recorded in the 'Journal für Ornithologie' for 1861 (p. 279) and 1875 (pp. 262, 263).]

SYLVIA ORPHEA, Temminck.

ORPHEAN WARBLER.

- § 1688. *One*.—From Mr. H. F. Walter, 1852.
- § 1689. *One*.—20 May, 1857. From Mr. Tristram.
- § 1690. *One*.—Djendeli, 20 May, 1857. From Mr. W. H. Simpson.
- § 1691. *One*.—Djendeli, 1 June, 1857. From Mr. Tristram.
“Lot 98” at Mr. Stevens’s, 9 February, 1858.
- § 1692. *One*.—Chemora, 2 June, 1857. From Mr. Tristram.
“Lot 99” at Mr. Stevens’s, 9 February, 1858.
- § 1693. *Two*.—Madracen, Algeria, 4 June, 1857. From Mr. Salvin.
- Brought by an Arab. The bird was numerous on the wooded hill-sides and several were shot from the nest. The nests were generally like Blackcaps’ but thicker.
- § 1694. *One*.—Madracen, 5 June, 1857. From Mr. W. H. Simpson.
- § 1695. *One*.—Madracen, June, 1857. From Mr. W. H. Simpson.
- [§ 1696. *One*.—From Mr. H. F. Walter, 1852.]

[§ 1697. *One*.—Chemora, Algeria, 1 June, 1857. From Mr. Salvin.

From a nest of five eggs brought by an Arab. Mr. Salvin's notes on this species as observed by him in Algeria are published in 'The Ibis' for 1859 (p. 306).]

[§ 1698. *Three*.—Madracen, Algeria, 6 June, 1857. From Mr. Tristram.]

[§ 1699. *Five*.—Spain, 1872. From Lord Lilford, 1873.

One of these is of much larger size than the rest.]

SYLVIA RUFA (Boddaert).

GREATER WHITETHROAT.

§ 1700. *One*.—Eton, "J. W." Prior to 1843.

An egg with a remarkable dark blotch.

§ 1701. *Three*.—England. Prior to 1843.

[Apparently from different nests.]

[§ 1702. *Two*.—Blo-Norton, Norfolk. From Mr. C. H. Browne, 1850. From different nests.]

[§ 1703. *One*.—Hockwold, 1851. From Mr. Newcome.]

[§ 1704. *One*.—Elveden, 5 June, 1852.]

[§ 1705. *Four*.—Hockwold, 1852.]

[§ 1706. *Four*.—Hockwold Fen, 3 June, 1853.]

[§ 1707. *One*.—Coton, Cambs. 19 May, 1856. "E. N."]

- [§ 1708. *One*.—Gogmagog, Cambs. May, 1856. From Mr. W. Farren.]
- [§ 1709. *Five*.—Leck, Donegal, 27 May, 1862. “R. H.” From Mr. Robert Harvey.]
- [§ 1710. *Four*.—Norfolk, 6 July, 1872. “F. N.” From Mr. Norgate, 1874.]
- [§ 1711. *Three*.—Malaga, Spain, 8 June, 1874. From Mr. Saunders.]
- [§ 1712. *Five*.—Sparham, Norfolk, 21 May, 1875. From Mr. Norgate.]
- [§ 1713. *Five*.—Bloxworth, Dorset, 2 June, 1876. “E. N.”

My brother's note is that he found this nest not twenty yards from the Garden-Warbler's before mentioned (§ 1673) and in a similar position. “The bird was on, and I saw her distinctly.” Just beyond this nest, and also among the blackberries, was one of a Harvest-Mouse, out of which the owner jumped as my brother put his hand into it.]

SYLVIA CURRUCA (Linnæus).

LESSER WHITETHROAT.

- § 1714. *Four*.—England, prior to 1843.
- § 1715. *One*.—Bearwood, Berkshire, 1846.
- § 1716. *Two*.—From Mr. F. Bond.
- [§ 1717. *One*.—Elveden, 1845.]
- [§ 1718. *One*.—Barnham, Suffolk, 1845.]

[§ 1719. *One*.—From Mrs. Thomas Walker, 1847.]

[§ 1720. *Six*.—Barnham, 1849. From two nests.]

[§ 1721. *Three*.—Barnham, May, 1851.]

[§ 1722. *Two*.—From Mr. Salvin.]

[§ 1723. *Four*.—St. Neot's, Hunts. 12 May, 1865. "G. D. R."
From Mr. Rowley.

From a nest in a low bramble in a plantation on Paxton Hill. The bird seen
by Mr. Rowley. The eggs fresh.]

[§ 1724. *Four*.—St. Neot's, 1 June, 1867. "G. D. R." From
Mr. Rowley.

From a nest at Baulk-piece plantation, Priory Hill. The eggs incubated.]

[§ 1725. *Five*.—Bloxworth, Dorset, 16 May, 1876. "E. N."]

My brother's notes state that, having twice or thrice heard and seen a Lesser
Whitethroat near the same place in a hedge, he looked it over carefully, and
on the 9th found the nest in a very thin whitethorn, about four feet higher
than the bank on which the hedge grew. "The first egg was laid on the 12th,
and on the 13th I took one out—the remainder on the 16th, when I found the
bird on the nest, and could distinctly see her grey back while on, and as she
flew off:"]

SYLVIA CONSPICILLATA, La Marmora.

§ 1726. *One*.—Djendeli, 15 May, 1857. "T. & S. (Bird.)"
From Mr. Simpson.

§ 1727. *Two*.—Djendeli, 18 May, 1857. From Mr. Tristram.

§ 1728. *Two*.—Djendeli, 19 May, 1857. From Mr. Simpson.

§ 1729. *Four*.—Djendeli, 19 May, 1857. From Mr. Tristram.

[§ 1730. *One*.—Djendeli, 20 May, 1857. From Mr. Salvin.]

[§ 1731. *Three*.—Madracen, 30 May, 1857. From Mr. Salvin.]

[§ 1732. *Two*.—Madracen, 30 May, 1857. From Mr. Tristram.]

[§ 1733. *Twelve*.—Teneriffe, Canary Islands. From Señor Gomez, through Mr. Dresser, 1889.

From different nests, five being marked as a "clutch."]

SYLVIA MELANOCEPHALA (Gmelin).

[§ 1734. *One*.—Algiers, 21 April, 1856. From Mr. Tristram.]

[§ 1735. *One*.—Algeria, 1856. From Mr. Tristram.]

[§ 1736. *One*.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1863.]

[§ 1737. *Two*.—Malaga, Spain, 28 June, 1874. From Mr. Howard Saunders, 1875.]

[§ 1738. *Two*.—Attica, 28 April, 1888. From Dr. Krüper, through Mr. Dresser, 1889.

Obtained by Christo Leonis at Chasia in the Osia Hills.]

SYLVIA SUBALPINA, Bonelli.

[§ 1739. *Two*.—From Herr Möscher, 1862.]

[§ 1740. *Four*.—Mount Parnassus. From Dr. Krüper, through Mr. Dresser, 1889.

From different nests, taken by Pantelis Basiliou in the shrubs, 1 and 13 May, 1888, and 1 and 3 May, 1889.]

MELIZOPHILUS UNDATUS (Boddaert).

DARTFORD WARBLER.

§ 1741. *Two*.—Farnham, Surrey. From Mr. Salmon, 1846.

Taken in that neighbourhood three or four seasons ago. Mr. Salmon, writing from Godalming under date "26 January, 1846," says:—"This bird was formerly very abundant in this immediate vicinity; now it is scarce, I have not seen a single specimen for several years."

§ 1742. *Four*.—"Nîmes." From M. Parzudaki, 1856.

§ 1743. *Three*.—Fordwich, Kent, 1854. From Mr. Bond, 1856.

Given to me by Mr. Bond, who had three sets of eggs with two complete nests, from the neighbourhood above mentioned.

§ 1744. *Four*.—[Farnham, 1858?]

[These, I believe, were obtained for Mr. Wolley by Mr. F. Godman in 1858, at the same time as some of the following.]

[§ 1745. *One*.—Farnham, 1856. From Mr. Salvin.]

[§ 1746. *Three*.—Farnham (?), 1857. From Mr. Salvin.]

[§ 1747. *Four*.—Farnham (?), 1858. From Messrs. F. and P. Godman.]

[§ 1748. *Three*.—Farnham (?), 1858. From Messrs. F. and P. Godman.]

[§ 1749. *One*.—Bloxworth, Dorset, April 1853. From Mr. O. Pickard-Cambridge, 1871.

Mr. Pickard-Cambridge said it was from a nest of four eggs taken by him on the Heath at Bloxworth, near the gravel-pit—a place I well know. The nest was not found by watching, but the bird was put off and well seen by him.]

[§ 1750. *Four*.—East Suffolk, 26 April, 1890. “E. N.”¹

Concerning these I extract the following from my brother's notes written the next day :—“ I drove to the heath, but unfortunately a heavy thunderstorm came on, so that it was late before we got to the Dartford Warbler's spot. The rain still continued for another half-hour, but we set to work at once, formed a line, and walked the gorse. In less than ten minutes a pair of birds got up between the man and myself, and on my pointing them out to him he at once said he had never seen that bird before. We watched them for some few minutes, but could make nothing of them. I suppose, as it was cloudy, they would not come to the top of the gorse, but remained out of sight. We walked some little way on, and then turned back further on the heath again, and after we had passed the place where we had seen the pair the boy saw a bird on the top of a gorse-bush—the sun then shining brightly. This bird was just on the side of a low hill, and it flew up the slope to the level, close to a cart-track, and disappeared. We went below and soon saw another bird come from an opposite direction and fly to the top of a gorse-bush, when it was joined by the one just before seen. We could make out pretty clearly that the second was a cock, as it erected its crest and jerked its tail high up over its back. The other bird soon dropped again into some thick gorse about ten yards off, and there my man said he felt sure was the nest. We, however, had a search where the boy had first seen the bird, but with no success; and as I expected Mr. A. H. Evans to join me, I walked to meet him. On looking round after I got to the end of the heath, I saw the man go up the slope to where we had lost sight of the supposed hen bird, and coming down again he held up his hand, by which I felt sure he had found the nest. After waiting some time for Mr. Evans, who had been delayed, I went back to the man, who told me he had found the nest

¹ The discovery of this bird in Suffolk or Norfolk had been very earnestly sought by my brother Edward and myself in our younger days, and many a long ride or drive did we take hoping to come across it on some of the furzy heaths then existing within ten or fifteen miles of Elveden. Not a trace of it did we ever find, and I feel sure that, though there were plenty of places apparently suited to its habits, it did not occur in that district, while in no part of either county had it been recorded save as a straggler. In the early spring of 1884 my brother, who had just gone to live at Lowestoft, one day observed a Dartford Warbler in a patch of furze on a small remnant of heathland close to that town, and from the bird's behaviour judged that it was not a mere stranger; but, within a few days after, that patch of furze was stubbed, and of course he never saw the bird again. More than five years later (12 September, 1889) he met with a pair on another heath in East Suffolk, when his suspicion as to the species being a true native of the county was confirmed. The following spring he and I went together (16 April, 1890) to this heath, and after waiting about a quarter of an hour he saw a bird near the place where he had before observed the pair, and it was soon after joined by another. Our time was very short, and we had no chance of finding out whether they had a nest; but ten days later he repeated his visit accompanied by a man well skilled in watching birds, and a boy, with the result, described in the text, of discovering the first nest of the species ever found, so far as we know, in East Anglia.

and seen the old bird fly off it. We walked up the cart-road, and just within twenty yards of the top of the slope, to the left of the track, the gorse had been cut away quite lately for the space of about three yards, so that what was left stood up with its stems almost exposed. Within a foot of the extreme top of a bush was the nest, built just as a Linnet's would be. The bird flew off when I touched the bush, and was not more than a yard from me. She dived down into the gorse and we came away. I sent the boy back to the end of the heath to meet Mr. Evans, while the man and I walked about to find others. In about ten minutes Mr. Evans appeared, and we at once went back to the nest. The bird again flew off, and after waiting about a minute it crept up to the top of a tall gorse-bush and uttered the harsh cry 'hack hack,' something like a Greater Whitethroat's cry. It erected its crest, jerked up its tail over its back, and seemed very angry. Mr. Evans then took the eggs out of the nest and packed them, and then the nest itself, which was composed of coarse bents, and lined with finer ones and a little hair. The sun still continued to shine, and we walked along the edge of the slope, and almost directly Mr. Evans and the man saw another bird with some stuff in its mouth. It flew to the top of the slope, and we saw it once more without anything in its mouth, so we supposed it had been to its nest, but that we could not find, and we went further on to look for more. In a few minutes the man said he heard a bird singing, the note of which he did not know. I confess I did not hear it, but we soon saw a Dartford Warbler sitting on the top of a bush, and it presently flew up about twenty feet into the air singing a very low song. It afterwards flew to some distance on the heath, and we lost sight of it. It was then late, and I had to come away, leaving Mr. Evans there. We came to the conclusion that we must have seen four pairs of birds. I blew the eggs this morning; they were only just incubated."

Mr. Evans failed to find another nest that day or the next, and told me he thought that they had been mistaken as to the number of birds seen, and that there was only one pair, which they kept seeing over and over again. About a month later he again visited the heath, and found another nest with six eggs, belonging, he thought, to the same pair of birds.]

[§ 1751. *Four*.—East Suffolk, 4 May, 1893. "E. N."]

Later in the year 1890 (10 May), on another heath in East Suffolk, my brother found a pair of Dartford Warblers which evidently had young, and by diligently watching the parents—one of them on the third trial flying out within a foot of his face—he saw a young bird fully fledged, but with a very short tail, flutter away through the furze. No doubt the rest of the brood were there, but he was unable to see them. The old birds were very actively feeding, constantly searching on the ground, sometimes on a bare sandy place made by a cart-track. It was easy to distinguish the cock from the hen, as the former nearly always had his crest erected and his neck stretched out; but he never sang a note. In April 1891 my brother twice went to this locality, once in company with Mr. Southwell, and each time saw Dartford Warblers, while he also found a pair on a third heath not far off. Both of these places I subsequently visited with him. He did not find a nest in that

year, nor did he look for any in 1892; but on the 24th of April, 1893, having seen and watched a pair of these birds which evidently had a nest on the former of these two heaths, he returned three days later, but failed to find it. Not discouraged by this want of success he revisited the locality on the 4th of May accompanied by his niece, and taking with him, as he had also done on the 27th of April, the man he had before employed. The following extract from his notes describes what occurred:—

“It was nearly an hour before a Dartford Warbler shewed itself—E. [his niece] saw it first—a hen bird I think, of course at the place where we had seen them before, and within one hundred yards of where the young bird was found (10 May, 1890). At our last visit (27 April, 1893) my man was sure the bird had not begun to sit. We soon saw the other bird of the pair, but they were very loth to shew themselves. In less than a quarter of an hour—while we were watching on different sides of the patch of gorse, but within sight of each other—E. saw a bird go into a smaller bush, some ten by fifteen feet; and as after some minutes it did not come out again, the man and I went to the spot, and he immediately found the nest by carefully parting the gorse from the top. As we had not actually seen the bird go off, we left it for half an hour, when, returning, she fluttered off within a foot of my face—no doubt about her. The nest was on high ling about eighteen inches from the ground, but under the green part of the gorse, which was altogether not more than 30 inches high. I do not think we should have discovered this bird without E., for my man’s eyes are not good at long distances, but he is good at finding a nest when he knows where to look. The eggs were fresh, so he was right in thinking the birds were not sitting when we were there on the 27th of April; but I cannot account for their being so much later this year when everything is forwarder than usual. We afterwards came to the other heath, but could not see a Dartford Warbler, though we remained an hour. The day was not very favourable, there being a cold strong easterly wind and not much sun.”¹

PHYLLOSCOPUS SIBILATRIX (Bechstein).

WOOD-WREN.

§ 1752. *One*.—Norfolk. From Mr. J. D. Salmon, 1846.

§ 1753. *One*.—From Mr. J. P. Wilmot, 1846.

¹ [On the 21st April, 1896, my brother and I visited this heath, but we had not much time, and the weather was unfavourable. We saw only one bird, with which we could do nothing. A few days later he went again, accompanied by Mr. A. M. Chance, when a bird was seen in the patch of gorse where the fledging had been observed in 1890, as above mentioned. After some watching the nest was found, built in the top of the ling, not at all in a thick place, and about eighteen inches from the ground, the bird flying off it. There were three eggs, which proved to have been incubated some four days.]

§ 1754. *Two*.—Newcastle-on-Tyne. From Mr. J. H. Tuke, 1847.

§ 1755. *Three*.—Bearwood, Berkshire, 1850. From Mr. H. F. Walter.

§ 1756. *Two*.—Bearwood, 1852.

§ 1757. *Five*.—[Note lost.]

§ 1758. *One*.—Yorkshire. From Mr. Bond, 1856.

[§ 1759. *Two*.—Durham. From Mr. Proctor, 1851.]

[§ 1760. *Four*.—Elveden, 14 June, 1852.

From a nest of five which my brother Edward found, as he did those entered below, by watching the birds.]

[§ 1761. *Two*.—Elveden, 9 June, 1854.

From a nest of six.]

[§ 1762. *Two*.—Elveden, 28 June, 1854.

From a nest of five.]

[§ 1763. *Three*.—Elveden, 2 June, 1857. "E. N."

My brother's notes state that the first egg was laid 27th May. On the 2nd June he found that the nest had been disturbed, apparently by a Mouse (or perhaps a Weasel), and contained only three eggs, which he took, the hen bird being close by. He had known this pair of Wood-Wrens for four or five years, and their range in the covert they inhabited was very limited, while their nest was always at one or the other end of their beat. The cock seldom went near the nest after the first eggs were laid.]

[§ 1764. *Five*.—Elveden, 11 June, 1857. “E. N.”

These from the second nest of the same pair of birds, about twenty-five yards from the site of the first. There were five eggs when he found it on the 10th, and he put the hen off it when he took them the next day. The cock was singing within thirty yards.]

PHYLLOSCOPUS TROCHILUS (Linnæus).

WILLOW-WREN.

§ 1765. *Four*.—Kaaressuando, 18 June, 1854. From Pastor Engelmarek.

The nest, now before me, is of grass lined with white and coloured Grouse-feathers. The bird is called “*Riekko-tianen*” by the boys here, from its use of these feathers.

§ 1766. *Two*.—Lapland, 1854.

Found by Elias in a nest with a dome lined with feathers. In another nest is also a wavy Duck’s feather. Quite fresh.

§ 1767. *Two*.—Kaaressuando, 21 June, 1854.

Willow-Wren’s, as the nest proves.

§ 1768. *Two*.—Mortensnäs, East Finmark, 1855. “J. W.”

I found the nest on the ground over the hill at Mortensnäs, and after trying in vain to catch the bird shot it. Mr. A. Newton agrees with me in considering it to be exactly our *Sylvia trochilus*. He has a skin he got at Hammerfest, and we have put this bird in spirit. The nest is of fine grass with abundance of winter-feathers of the Grouse.

§ 1769. *Five*.—Varanger Fjord, 1855. “J. W.”

I caught the bird on the nest and Mr. Newton examined it with me. It was decidedly our species. The nest was on the ground.

§ 1770. *Two*.—Nyimakka, 1857.

§ 1771. *Six*.—Above Mukka-uoma, 3 July, 1857.

§ 1772. *Six*.—Wassiku-niemi, 24 June, 1857.

Brought with the nest to Muoniovara, 27 June.

§ 1773. *Two*.—Lapland, 1857.

Brought to Muoniovara, 6 July.

[Very fine eggs with large blotches almost as in those of *Parus cinctus*, but the markings not so red.]

§ 1774. *Five*.—Kenta-saari, Särkjärwi, 2 July, 1857.

§ 1775. *Three*.—Koski-maa-lahta, 1857.

Brought to Muoniovara with the nest, 13 July.

§ 1776. *Three*.—Palkia-lahena, 18 June, 1857.

Brought to Muoniovara by Ruhala Matti's boy Isak.

§ 1777. *Four*.—Utkajäkki, Muunioniska, 9 June, 1859.

Found by Lizawajnio Erik and brought to Muoniovara by his daughter.

§ 1778. *Two*.—Lapland, 1859.

Out of five brought by Heiki's boy.

[§ 1779. *Four*.—Elveden, 1847. From two nests.]

[§ 1780. *Four*.—Elveden, 1848.]

[§ 1781. *One*.—Barnham, 1851.]

[§ 1782. *Seven*.—Elveden, 1852. From six different nests.]

[§ 1783. *One*.—Elveden, 1853.]

[§ 1784. *One*.—Elveden, May, 1854. “A. N.”]

[§ 1785. *Seven*.—Lurgy, Leck, Donegal, 16 May, 1863. From Mr. Robert Harvey, 1864.

Mr. Harvey wrote that this nestful was taken by George Lucas, from the sloping bank of a river-side, sheltered by some dead brambles and long withered grass.]

[§ 1786. *Five*.—Lurgy, Leck, Donegal, 16 May, 1863. From Mr. Robert Harvey, 1864.

Mr. Harvey wrote that this nestful was taken by the same person as the last, the nest being at the foot of an apple-tree in a garden, and that he sent these two sets as they illustrate the only two varieties he has ever seen of the eggs of this species—the one being copiously covered with minute red spots, and the other sparingly marked with larger blotches of the same colour.]

[§ 1787. *Six*.—Abbotsley, Huntingdonshire, 18 May, 1864. From Mr. Rowley.

Taken by Mr. Charles Perceval Rowley.]

[§ 1788. *Six*.—Sparham, Norfolk, 18 May, 1875. From Mr. Norgate.

Taken by Mr. Norgate.]

[§ 1789. *Seven*.—Taverham, Norfolk, 22 May, 1875. From Mr. Norgate.]

PHYLLOSCOPUS BONELLII (Vieillot).

[§ 1790. *Five*.—“France.” From M. Fairmaire, through Herr Seidensacher, 1865.]

[§ 1791. *Two*.—Central Spain, 1867. From Mr. Dresser, 1868.

Taken by Manuel de la Torre.]

PHYLLOSCOPUS FORTUNATUS, Tristram.

[§ 1792. *Four*.—Palma, Canary Islands, May, 1893. From Mr. S. B. Wilson.

With remains of a fifth in the nest, which is an open one. I am not in a position to express any opinion as to the validity of this species. It was originally described (*Ibis*, 1889, p. 21) as having pale-coloured legs; but according to Mr. Meade-Waldo, examples from La Palma have the legs darkly-coloured. Moreover, according to Dr. A. König (*Journ. für Orn.* 1890, pp. 368-371), the nests should be oven-fashioned, whereas that accompanying these specimens is not.]

PHYLLOSCOPUS COLLYBITA (Vieillot).

CHIEFFCHAFF.

§ 1793. *Two*.—Epping. From Mr. Pratt, 1846.

§ 1794. *Ten*.—Bearwood, Berks. 1846 (?). From Mr. H. F. Walter.

[Probably from three nests.]

§ 1795. *Two*.—Bearwood, Berks. 1850. From Mr. H. F. Walter.

[§ 1796. *One*.—Cherry-Hinton, Cambs. 1850. From Mr. Saville.]

[§ 1797. *Two*.—Whittlesford, Cambs. 1851. From Mr. C. Thurnall.]

[§ 1798. *Two*.—Torquay, Devon, 1851. From Mr. E. Burt.]

[§ 1799. *Four*.—Cockington, Devon, 1853. "E. N."]

[§ 1800. *Five*.—Rugely, Staffordshire, 1853. From Mr. R. W. Hawkins.

From as many different nests.]

[§ 1801. *One*.—Herefordshire? From the late Mr. Scales's Collection, 1885.]

[§ 1802. *Five*.—Cavenham, Suffolk, 21 May, 1891.

These taken by my brother Edward, who found the nest with two eggs on the 18th. Its site was exactly that of a Chiffchaff's (a cock bird of which was singing close by), being on the top of an elm-sucker, about a foot from the ground, and it was made of grass. But he wrote:—"Though I visited it at least six times, I never saw any bird go to it, and I never touched the eggs till I took them, when, to my surprise, I found they were red-spotted and not purple-spotted. Of course if I had not been [going away] I should have left the eggs and watched the hen bird when she was sitting." He had no doubt about the nest being a Chiffchaff's until he took the eggs. Then he thought he might be mistaken; but I believe he was originally right. There is very little red—that is, orange-red—in the spots on the eggs now, though perhaps they are rather less purple than those on Chiffchaffs' eggs commonly are.]

REGULUS CRISTATUS, Koch.

GOLDEN-CRESTED WREN.

§ 1803. *One*.—Beeston, Notts., in or before 1846.

The nest suspended underneath the branch of a fir-tree in the garden.

§ 1804. *Two*.—Wirksworth, Derbyshire, in or before 1846.

§ 1805. *Four*.—Long Island, Loch Awe, Sutherlandshire, 21 April, 1851.

These were in a beautiful nest under a dead branch of blackthorn covered most exquisitely with long lichen. While we were engaged in cutting off the branch the hen bird came very near and I could examine her minutely. Just before she made her appearance a pair of Long-tailed Titmice were pecking about near us; offering an illustration of the necessity of caution in attributing nests to the birds seen near them. We saw Coal-Titmice on the same island, also two Woodcocks.

§ 1806. *Three*.—Cambridge.

[§ 1807. *Six*.—Elveden, prior to 1848.]

[§ 1808. *Four*.—Elveden, 1848.]

[§ 1809. *Three*.—Elveden, 1849.]

[§ 1810. *One*.—Elveden, April 1852.]

[§ 1811. *One*.—Elveden, 1859.]

[§ 1812. *Eight*.—Leck, Donegal, 25 April, 1863. “R. H.”
From Mr. Robert Harvey, 1864.

Mr. Harvey writes that he took this nestful from a fir-tree distant about fifty yards from his door.]

[§ 1813. *Eight*.—Priory Hill, St. Neot's, 1864. From Mr.
Rowley.

The nest was shewn to me by Mr. Rowley, *in situ*.]

[§ 1814. *Eight*.—Sparham, Norfolk, 8 May, 1877. From Mr.
Norgate.]

REGULUS IGNICAPILLUS, Brehm.

FIRE-CRESTED WREN.

[§ 1815. *Three*.—“Pomerania.” From Pastor Theobald, 1859.

The Pastor said he had them from Pomerania, probably from Dr. Krüper, with whom he has correspondence. I saw other eggs like these in his collection and those of III. Erichsen and Fischer. Also to the best of my recollection M. Hardy at Dieppe has eggs like these of *R. ignicapillus*, so that they are probably right.]

[§ 1816. *Nine*.—Alten Kirchen, Coblenz, 21 May, 1868. From
Herr Karl Sachs, through Mr. Dresser.

From a nest in a fir-tree, ten feet high.]

REGULUS MADERENSIS, Vernon-Harcourt.

[§ 1817. *Two*.—Madeira. From Dr. Guillemard, 1889.

These were obtained by Padre Ernesto Schmidz, of the Jesuit establishment in Madeira, to whom they were brought with the nest, unfortunately not preserved, as those of the *Bibis*, or *Regulus maderensis*; and Dr. Guillemard thinks that they are so, though they are not *Regulus*-like in general appearance, being white freckled with pale orange spots, so as to resemble eggs of a *Parus* or *Phylloscopus*. Eggs of this species do not seem to have been obtained before.]

MOTACILLA LUGUBRIS, Temminck.

PIED WAGTAIL.

§ 1818. *Two*.—Beeston. Not later than 1843.

From a Robin's nest in ivy at the top of a wall which had been robbed of its contents about a fortnight before it was taken possession of by the Wagtails. My brother George substituted Sparrow's eggs, one by one, as the Wagtail laid, till he had got five eggs. The supposititious eggs disappeared soon afterwards, as the Robin's had done before. George repeatedly saw the bird on the nest.

[§ 1819. *Two*.—Elveden, April, 1847.]

[§ 1820. *One*.—Elveden, April, 1848.]

[§ 1821. *One*.—Elveden, 1849.]

[§ 1822. *Four*.—Elveden, June and July, 1851. From two nests.]

[§ 1823. *Two*.—Elveden, April, 1852.]

[§ 1824. *Two*.—Elveden, May, 1853.]

[§ 1825. *Five*.—Leck, Donegal, 24 June, 1862. “R. H.”
From Mr. Robert Harvey.]

[§ 1826. *Five*.—St. Neot's, Hunts., 16 May, 1864. From
Mr. Rowley.]

[§ 1827. *Six*.—Sparham, Norfolk, 30 May, 1873. From
Mr. F. Norgate.]

[§ 1828. *Five*.—Sparham, 17 May, 1875. From Mr. F. Nor-
gate.

Taken by Mr. Norgate.]

MOTACILLA ALBA, Linnæus.

WHITE WAGTAIL.

§ 1829. *Two*.—Switzerland. From M. Nager-Donazain, 1847.

§ 1830. *Six*.—Torneå Valley, 7 June, 1853.

Shortly before reaching the Arctic Circle, near the top of a good-sized Scotch fir, was tied up a hollowed-out piece of the trunk of a tree. The men said there was a nest in it, and, climbing up, I found a White Wagtail's with seven eggs. The birds were plentiful about. This is the first nest-box, called here a *tylla* [*tila*], I have seen.

§ 1831. *Three*.—Muoniovara, 10 June, 1853¹. “J. W.”

[O. W. tab. J.]

These were in a nest in the recess of a pile of firewood in an out-house of the yard of Handelsman Forström, our landlord at

¹ [This was the day of Mr. Wolley's first arrival at Muoniovara, on the Swedish side of the river Muonio, which was for so long a time his head-quarters in Lapland, and accordingly the present seems to be a not inappropriate place to

Muonioniska [Muoniovara]. I saw the bird on the nest, and it was clearly the continental White Wagtail. The children took an interest in it; so I put back two eggs, which were immediately covered by the hen bird. They were a little sat on.

§ 1832. *Four*.—Patsjoki, 8 June, 1855.

[Taken as Mr. Wolley was ascending the river which flows from Lake Enara, and while its upper part is wholly in Finland, for the greater part of its course it divides Norway from Russian Lapland. There is nothing to shew in which of the three countries the nest was found.]

§ 1833. *Three*.—Hornö, East Finmark, 17 June, 1855. “Bird seen. A. N.”

[The nest found by myself, and its contents shared by me with Mr. Wolley.]

§ 1834. *Two*.—Vardö, East Finmark, 1855.

From Herr Reen. I saw the bird on Vardö and the neighbouring islands.

§ 1835. *Five*.—Quain-by, Vadsö, East Finmark, 1855.

Found by a lad, the brother of Margareta, who brought so many eggs. He described the bird well, but did not know its name. The nest, now before me, is like a Wagtail's, made of grass, moss, roots, and so forth, lined with cow- and rein-hair, and of considerable bulk.

[These are very large eggs.]

mention the view thence (Plate J) copied, by permission, from Pettersson's 'Lappland' (Stockholm: 1866). Looking eastward across the backwater-lake (*wuopio*) in front of the house, the river is seen, and beyond it the village and church of Muonioniska on the Finnish side, while in the distance is the southern end of the Pallas-tunturi range, and the nearer hill to the right is Ollos-tunturi. The prospect is very wide and of singular beauty, scarcely any drawing being able to do it justice, though that of Captain Pettersson, who was no contemptible landscape-artist, calls it to remembrance, even if it should fail to give an idea of the view to those who have not seen it. The original drawing must have been taken in 1860, only three years after Mr. Wolley left Lapland.—Ed.]

§ 1836. *Three*.—Kyrö, Kemi Lappmark, 1857.

Brought to Muoniovara, 17 June, by Kemio Johan. There were six originally; two were sold at Mr. Stevens's, 23rd February, 1858, to Mr. Braikenridge.

§ 1837. *Two*.—Reykjavík, Iceland. From Herr Christian Zinzen, 1858.

§ 1838. *Six*.—Särki-lompalo, East Bothnia, 8 June, 1858.

Found by Heiki on the roof of a fish-cellar.

§ 1839. *Five*.—Muotka-järwi, 12–18 June, 1858.

Out of six found by the girl Maria.

§ 1840. *Six*.—Niva, East Bothnia, 23 June, 1858.

Out of seven found by Johan Niva's boy, near his house.

[§ 1841. *Two*.—Valkenswaard, North Brabant, 1850. From Mr. Newcome.]

[§ 1842. *One*.—Valkenswaard, 1851. From Mr. A. Bots.]

[§ 1843. *Two*.—Hamont, Belgium, 29 April, 1856. From Mr. J. Baker.]

[§ 1844. *Three*.—Valkenswaard, 1856. From Mr. J. Baker.

From different nests, taken on the 27th and 29th of April, and 2nd of May.]

[§ 1845. *Two*.—Heeze, North Brabant, 1856. From Mr. J. Baker.

From different nests, taken on the 3rd of April and 3rd of May.]

[§ 1846. *One*.—Kyrkjuvogr, Iceland, 5 June, 1858.]

MOTACILLA BAICALENSIS, Swinhoe.

[§ 1847. *One*.—Dauria, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.

Received under the name of *Motacilla lugubris*, an obvious misnomer for *lugens*, by which epithet Drs. Dybowski and Parrex, in their list of the birds of Darasun (J. f. O. 1868, p. 334), mention the bird as being very common there. Subsequently Dr. Taczanowski (Bull. Soc. Zool. France, 1876, p. 149) has referred this form to the *M. baicalensis* of Swinhoe (Proc. Zool. Soc. 1871, p. 363), which Dr. Sharpe regards as a subspecies of *M. alba* (Cat. B. Br. Mus. x. p. 470).]

MOTACILLA PERSONATA, Gould.

[§ 1848. *One*.—Kuldja, 20 April, 1887. From Herr Tancreé, 1888.

Said by HH. E. F. Homeyer and Tancreé (Mitth. orn. Ver. Wien, 1883, p. 86) to be the commonest species of pied Wagtail in the Altai.]

MOTACILLA OCULARIS, Swinhoe.

[§ 1849. *One*.—"Amur," 20 May, 1885. From Herr Tancreé, 1888.

The late Dr. Taczanowski does not describe the eggs of this form of Wagtail, which has an extensive range in Eastern Asia, and even crosses Bering's Sea to Alaska; but he states (Faun. Ornithol. de la Sibérie Orientale, i. p. 367), on Colonel Przewalski's authority, that it breeds throughout Mongolia, avoiding the salt lakes.]

MOTACILLA MELANOPE, Pallas.

GREY WAGTAIL.

§ 1850. *Two*.—Northumberland. From Mr. John Hancock, 1844.

§ 1851. *Five*.—Kenleith Burn, Currie, Mid Lothian, 17 May, 1859.

Sent to me by Mr. Thomas Scott Finnie, who informed me that they were got by himself. When I visited him in January he had many good eggs from the neighbourhood taken by himself and well identified. The Grey Wagtail was one of which he had several eggs, and he was clearly able to distinguish it from the Yellow Wagtail.

[§ 1852. *Two*.—Durham. From Mr. Proctor, 1851.]

[§ 1853. *Three*.—Gillie Mill, Gamrie, Banffshire, 1852. From Mr. Thomas Edward.]

[§ 1854. *Four*.—Burn of Boyne, Boyndrie, Banffshire, 1853. From Mr. Thomas Edward.]

[§ 1855. *One*.—Cumberland. From Mr. T. C. Heysham, 1854.]

[§ 1856. *Three*.—From Mr. Thomas Edward.]

[§ 1857. *Four*.—Leck, Donegal, 9 June, 1862. "R. H." From Mr. Robert Harvey.]

[§ 1858. *Nine*.—Hornby Castle, Yorkshire. From Mr. Newcome, 1864.

From two nests, one of which contained six, the other five eggs, each sent separately at my request to Mr. Newcome by Savage, the gamekeeper, in whom every confidence could be placed.]

[§ 1859. *One*.—"Turkey." From Mr. Thomas Robson, 1867.]

MOTACILLA CITREOLA, Pallas.

[§ 1860. *Two*.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

Dr. Dybowski's notes on the nidification of this species, with a very insignificant figure of its egg, are given in the 'Journal für Ornithologie' for 1873 (pp. 82, 83, tab. ii. fig. 20).]

[§ 1861. *Two*.—Alexievka, North-eastern Russia, 21 June, 1875. From Mr. Harvie-Brown, 1876.

Notes on the breeding of this species by Mr. Harvie-Brown and Mr. Seeborn, who accompanied him to the lower part of the Petchora valley, will be found in 'The Ibis' for 1876 (pp. 123, 124).]

[§ 1862. *Four*.—Kooraika, Jennesei Valley, 19 June, 1895. From Mr. C. B. Hill, 1896.

Mr. Hill noted this as "a common species," and Mr. Popham's remarks (Ibis, 1897, p. 94) are to the same effect.]

MOTACILLA CITREOLOIDES, Hodgson.

[§ 1863. *One*.—Kuldja, 14 April, 1887. From Herr Tancreé, 1888.

According to HH. E. F. von Homeyer and Tancreé (Mitth. orn. Vereines in Wien, 1883, p. 86) this is the only species that breeds in the district.]

MOTACILLA RAI (Bonaparte).

YELLOW WAGTAIL.

§ 1864. *Two*.—England, not later than 1846.

[§ 1865. *One*.—Barnham, Suffolk, 1847.]

[§ 1866. *Three*.—Barnham, 1849.]

[§ 1867. *Eight*.—Thetford Warren, Suffolk, June 1852.

From three nests found by my brother Edward—one on the 12th, with five eggs, the other two, with five and three eggs respectively, on the 17th of the month—in a locality which I have elsewhere described (Yarrell, *British Birds*, ed. 4, i. p. 565, note):—"On the left bank of the Little Ouse, below Thetford, several pairs of this bird used to choose for their breeding-quarters some heathery mounds bordering a stretch of wet meadows; and there associated, so as to form, as it were, a little colony, three, four, or more nests might be found within the compass of a few yards. This was no doubt originally owing to the spot affording greater security from floods than any other near, and to it would seem to have resorted the whole population of Yellow Wagtails frequenting a considerable extent of the valley of the river. The mounds are of blown sand, based on a terrace of gravel, which latter having been largely excavated within the last ten years [written in 1874], has produced many flint implements of a very ancient type. It is perhaps not too much to suppose that the colony may have first established itself in days not long after the Palæolithic period."]

[§ 1868. *Six*.—Sparham, Norfolk, 12 May, 1875. From Mr. Norgate.

Taken by Mr. Norgate.]

[§ 1869. *Six*.—Sparham, 21 May, 1876. From Mr. Norgate, 1878.]

MOTACILLA FELDEGGI, Michahelles.

[§ 1870. *One*.—Greece, 1 June, 1858. From Dr. Krüper, through Herr Seidensacher.

Received under the name of *Motacilla melanocephala*. I cannot find any other record of Dr. Krüper's experience of this form in Greece or the Levant than the extracts from his manuscript printed in 1875 by Dr. Hartlaub (*Griechische Jahreszeiten*. iii, p. 225), nor can I guarantee the correctness of the specific title above used.]

MOTACILLA FLAVA, Linnæus.

BLUE-HEADED WAGTAIL.

§ 1871. *Three*.—From Mr. Hoy, through Mr. James II. Tuke, 1846.

§ 1872. *One*.—From Mr. Hoy, through Mr. Wilmot, 1846.

[This and the last no doubt obtained in one or other of Mr. Hoy's visits to the Netherlands. (*Cf.* Trans. Norf. and Norw. Nat. Soc. ii. pp. 390 *et seqq.*)]

§ 1873. *One*.—From Mr. Hewitson, through Mr. Wilmot, 1846.

§ 1874. *Six*.

§ 1875. *Four*. } Kaaressuando, 19–20 June, 1854. “J. W.”

§ 1876. *Six*.

These three nests found by Niemi's Apoo and myself during a thunderstorm in the night of the 19th and 20th of June. I saw and heard the birds of all the nests, which themselves had a peculiarity of construction in the use of the seed-stalks of moss.

§ 1877. *Four*.—Kaaressuando, 1854.

§ 1878. *Eight*.—Kaaressuando, 1855. From two nests.

[Two more of these eggs seem to have been sold at Mr. Stevens's, 7 March, 1856, to Mr. Troughton.]

§ 1879. *Two*.—Nälima, Torneå Lappmark, 1856.

Out of a nest of four from Nälima's maid-servant in Kaaressuando. The remaining two eggs from this nest were sold at Mr. Stevens's, 12th May, 1857, to Mr. Burney.

§ 1880. *Six*.—Muoniovara, West Bothnia, 16 June, 1856.
“L. M. K.”

Found by Forsström's son and taken by Ludwig by the side of the track to *wuopio*, the backwater-lake.

§ 1881. *One*.—Mukka-uoma, Euontekis Lappmark, 1856.

Found on Raake-järwen-tieva and brought with the eggs of *Satakiellinen* [§ 1455] and said to be *Kelta-sirkku* [Yellow Wagtail].

§ 1882. *Three*.—Kaaressuando, 1857.

Brought with the nest.

§ 1883. *Five*.—Karanesvaara, 1857.

Brought, if not found, by Ludwig with the nest, of fine grass lined with cow-hair.

§ 1884. *Six*.—Lapland, 1857.

With the nest.

§ 1885. *One*.—Zana, Algeria, 1857. From Mr. Simpson.

§ 1886. *Six*.—Muotka-järwi, 1859.

Brought to Muoniovara by the girl Maria, 23rd June.

[§ 1887. *Four*.—Valkenswaard, 1851. From Mr. A. Bots.]

[§ 1888. *Four*.—Valkenswaard, 1854. From Mr. R. Reynolds.]

[§ 1889. *Two*.—Polmak, East Finmark, July, 1855.]

[§ 1890. *One*.—Kappelle, Zuid Beveland, 3 May, 1856. From Mr. J. Baker.

From a nest in which was a Cuckow's egg (§ 727).]

ANTHUS PRATENSIS (Linnæus).

TITLARK OR MEADOW-PIPIT.

§ 1891. *Three*.—Kaaressuando, 20 June, 1854.

With the nest made of grass.

§ 1892. *Four*.—Mukka-uoma, 1854.

These are the eggs of an *Anthus*, and *A. pratensis*, or a bird extremely like it, was abundant at Mukka-uoma.

§ 1893. *Five*.—Naimakka, 1854.

§ 1894. *Two*.—Patsjoki, 8 June, 1855. “J. W.”

I saw the bird going from the nest on an island in the Patsjoki.

§ 1895. *Two*.—Vadsö, East Finmark, 19 June, 1855. “Bird shot. W. H. S. and A. N.”

§ 1896. *Six*.—Vadsö, 1855.

§ 1897. *Four*.—Vadsö, 1855.

§ 1898. *Three*.—Savi-järwi, West Finmark, 1856.

By Hendrik Tuorimaa.

[Two of these were sold at Mr. Stevens's, 30 May, 1860, to Mr. Braiken-ridge.]

§ 1899. *Four*.—Nälima, Torneå Lappmark, 1856.

With the nest, which has some woollen band in it and is chiefly lined with Reindeer-hair.

- § 1900. *Three.* }
 § 1901. *Six.* } Naimakka, 1856.

Both nests made of fine grass and Rein-hair lining.

- § 1902. *Two.*—Kyrö, Kemi Lappmark, 1856.

Found by Piety in a nest which had four eggs, one of them being a Cuckow's [§ 717].

- § 1903. *Five.*—Naimakka, 1856.

Found on Lammas-vaara on the Swedish side of the river.

- § 1904. *Seven.*—Naimakka, 1856.

From a nest of eight.

- § 1905. *Two.*—Iceland. From Herr Christian Zimzen, 1858.

[§ 1906. *Two.*—Elveden, 1849.]

[§ 1907. *One.*—Barnham, Suffolk, 5 May, 1851.]

[§ 1908. *Five.*—Barnham, 28 April, 1852.]

[§ 1909. *Four.*—Thetford Warren, Suffolk, 12 June, 1852.]

[§ 1910. *Two.*—Hockwold, Norfolk, 1852.]

[§ 1911. *Two.*—Thetford Warren, 30 May, 1853.]

- [§ 1912. *One*.—Exmouth Warren, Devonshire, July, 1853¹.]
- [§ 1913. *One*.—Vadsö, East Finmark, 19 June, 1855. “Bird seen. W. H. S. and A. N.”]
- [§ 1914. *Four*.—Burwell Fen, Cambs. 22 May, 1856. “E. N. Saw bird.”]
- [§ 1915. *Three*.—Feltwell, Norfolk, June, 1856.]
- [§ 1916. *Two*.—Feltwell. “E. N.”]
- [§ 1917. *One*.—Coquet Island. From Mr. Salvin, 1856.]
- [§ 1918. *Three*.—Utskåla, Iceland, 12 July, 1858.]
- [§ 1919. *Five*.—Leck, Donegal, 30 May, 1862. “R. II.” From Mr. Robert Harvey.]

ANTHUS TRIVIALIS (Linnæus).

TREE-PIBIT.

§ 1920. *Five*.—England, in or before 1846.

¹ [‘The Zoologist’ for 1852 contained a note (p. 3707) from Mr. Powys, afterwards Lord Lilford, stating that on the 12th of July in that year a friend of his, Mr. W. W. Buller, found a Shore-Lark’s nest with four eggs near Exmouth. The statement naturally caused some surprise, and in the following summer, just about the very same day, my brother Edward, then staying with me at Torquay, went to the place, the position of which we had ascertained from Mr. Powys, to find if any bird of that species could be seen. Needless to say that none rewarded his diligent search, and the egg above entered was the sole result of his long day’s work. Lord Lilford was very unwilling to doubt his original informant, now long dead, and not until 1895 did he sorrowfully admit to me that he must have been deceived.]

§ 1921. *Five*.—Muoniovaara, West Bothnia, June, 1853.

These were in a nest of fine grass in the wood—six eggs, much sat upon. Watching near I saw an *Anthus* which appeared to belong to them, and I shot it; but I am not sufficiently familiar with the species to say with certainty that it is *A. arboreus*.

§ 1922. *Four*.—Kaaressuando. From Pastor Engelmarck, 1853.

§ 1923. *Two*.—Kyrö, 1854.

Brought by the Lapp Piety.

§ 1924. *Two*.—Lapland, 1854.

§ 1925. *Five*.—Sadio, Kemi Lappmark, 1856.

With the nest, made of fine grass and lined with cow-hair.

§ 1926. *One*.—Kuskio-vaara, 1856.

Brought by Kyrö Niku.

§ 1927. *Three*.—Muunioniska, 1857.

Brought on the 6th of July by Lauttas Verdinna.

§ 1928. *Four*.—Muunioniska, 1857.

Found in the spring by Simon Hendrik Siipi on Rija-järwi-rauta.

§ 1929. *Five*.—Viksi, West Bothnia, 11 June, 1858.

Found by Anton under a rotten tree-stem. He said it was the same bird as at Muotka-järwi they call "*Pelto-lintu*"—i. e. "Field-bird."

[This name does not seem to be diagnostic.]

§ 1930. *Five*.—West Bothnia, 14 June, 1858.

Found by Anton on the ground on the south side of Kumalakki.

§ 1931. *Four*.—Muoniovaara, 14 June, 1858.

Found on a hillock by Tibergs Johan about two hundred fathoms from his house.

§ 1932. *Three*.—Karanixin-vaara, 1859.

Brought to Muoniovara, 17th of July, by Carl Liljela, having been found by him some two weeks previously.

[§ 1933. *One*.—Blo-Norton, Norfolk. From Mr. C. H. Browne, 1850.]

[§ 1934. *One*.—Valkenswaard, North Brabant, 1850.]

[§ 1935. *One*.—From Dr. Frere, 1851.]

[§ 1936. *Three*.—Kingsbury Middlesex, 1850. From Mr. F. Bond.]

[§ 1937. *Two*.—Devizes, Wilts. From Mr. A. C. Smith, 1852.]

[§ 1938. *Five*.—St. Neot's, Huntingdonshire, 20 May, 1864.
From Mr. Rowley.

The nest in a wheat-field.]

[§ 1939. *Four*.—Taverham, Norfolk, 30 June, 1876. From Mr. Norgate.]

[§ 1940. *Four*.—High Lodge, Brandon, Suffolk, 10 June, 1884. From Mr. Norgate.]

[§ 1941. *Four*.—Carlton - Colville, Suffolk, 21 May, 1890.
"E. N."]

My brother wrote that going to Carlton in hope of seeing a Woodcock which had been reported to be there, a friend told him of a bird's nest which he had found the week before with six eggs, of which he had taken three and left them at the farm-house. My brother went with him to the nest, finding it to be that of a Tree-Pipit, two birds of which species he had just heard singing. The nest was in ordinary meadow-grass on the bank of a small stream not a foot wide. There were a good many oak-trees in the field, but no bushes of any kind. My brother took one egg, and his friend gave him the other three which he had previously taken.]

ANTHUS CERVINUS (Pallas).

[At the beginning of the year 1855 the position of *Anthus cervinus* as a regular member of the European Fauna was not assured. Some of the best authors refused to acknowledge it as a good species¹, and but few ornithologists suspected that it was other than a chance visitor to our quarter of the globe. Yet its true character as a native of the extreme north of the Continent might have been inferred long before from the discovery of Lovén, who, according to Sundevall (K. Vet.-Ak. Handl. 1840, p. 44), at that time an unbeliever in its specific validity, had met many examples in the summer of 1837 among the birch-shrubs of the Tana, and stated that by its song alone he could distinguish it from *A. pratensis*. More than a dozen years later the result of Schrader's far longer and still unparalleled experience² was published in the 'Journal für Ornithologie' for 1853 (pp. 252, 253), and gave the first account of its nidification and other habits in Europe. In the meanwhile Professor Liljeborg had recorded its occurrence (K. Vet.-Ak. Handl. 1850, pp. 279, 318) at Schuretskaja in Russian Lapland and near Tromsö in Norway³. These

¹ [Naumann's having described and figured (Vög. Deutschl. iii. p. 777, Taf. 85. fig. 1) an example as a very old male of *A. pratensis*—an error noticed by Thiene-mann in 1848 (Rhea, ii. p. 173)—helped to confirm this mistaken notion.—ED.]

² [In what year Schrader ascertained that it was a regular summer-visitant to and native of Lapland I cannot tell. Possibly the so-called "*Anthus montanus*, Koch?" of his first list (Isis, 1842, p. 617) may have been this species; but it is expressly stated (*tom. cit.* p. 618) that he met with it only once, and that, on the evidence of his fellow-traveller Malm (Naturhist. Tidsskrift, ser. 2, i. p. 196), was on the 16th of July, 1841, at Seus(*qu. Syys?*)-järwi between Enara and Utsjoki. During Schrader's subsequent sojourn at Nyborg, from March 1842 to July 1843, and again from September 1848 to August 1850, he had abundant opportunity of observing the species, as is shewn by his notes, the publication of which we owe to Herr Pässler, who subsequently, in an article dated 10 January, 1860 (Journ. für Orn. 1859, pp. 464-469), ably vindicated the dignity of *A. cervinus* as a species.—ED.]

³ [There is a German translation of this paper in 'Naumannia' for 1852, part ii., and the passages referred to are at pages 98 and 112.—ED.]

notices were probably known to few, if to any, in England, and certainly neither of my companions nor myself was aware of them; we were therefore quite unprepared to find this beautiful and very distinct species not uncommon in some localities on the shores of the Varanger Fjord. However the zealous naturalists then living on its northern shore, HH. Nordvi and Sommerfelt, did not seem, to me at least, to have formed a positive opinion on the subject, for which, indeed, there was plenty of excuse looking to the dissidence that prevailed among the leading European ornithologists—the matter being further complicated by doubts as to whether the *Anthus rufogularis* of the eldest Brehm (Vög. Deutschl. p. 340) was or was not identical with the *Motacilla cervina* of Pallas (Zoogr. Ross.-Asiat. i. p. 511). The result was that we at the time believed we were making a discovery of some importance, whereas we were only confirming one that had been already announced. In 1860 I communicated a rather long account of our experience to the late Dr. Bree, in both editions of whose ‘Birds of Europe not observed in the British Isles’ (ed. 1, ii. pp. 157, 160; ed. 2, iii. pp. 100–102) it will be found, and thence it was transferred, with a few corrections, to Mr. Dresser’s ‘Birds of Europe’ (iii. pp. 304–306). The main facts only need be stated here. Early in June 1855 Mr. Wolley shot, near Vadsö in East Finmark, a Pipit that puzzled him. This, for want of time to attend to it, he left with other specimens in a cold cellar while he proceeded on his way to Enara, whence he returned on the 19th of that month¹ to join Mr. Huddlestone (at that time Simpson) and myself at Vadsö, where we had arrived the day before. He was vexed to find this specimen half-eaten by mice; but I at once, from my recollection of the figure given in Dr. von Middendorff’s ‘Sibirische Reise’ (Bd. ii. Th. 2, tab. xiv. fig. 1), recognized in its remains a male *Anthus cervinus*—a species with which I certainly had no expectation of meeting. A few days after, when in company with Mr. Huddlestone, I had the good fortune to find a nest, which by that gentleman’s clever capture of the hen bird, was determined as belonging to the same species (§ 1943). It then was plain to us that some eggs (§ 1942) which had been previously brought to Mr. Wolley at Vadsö were also those of *A. cervinus*, though their parentage had not been at the time suspected. On the morrow we moved further up the fjord, and in a few days more reached Nyborg, a small settlement at the head of the Varanger, or, to be more particular, of the Mæsk Fjord, as this part of it is called. Here willows and birches grew with far greater luxuriance, even at the water’s edge, than lower down the inlet. Some even attained to nearly twice the height of a man, and formed thickets which, the intervening spaces being exceedingly boggy, were not easily explored. In this secluded spot we found *A. cervinus* not un plentiful. We could scarcely go out of the house without seeing one; and in the immediate neighbourhood we procured several more identified nests, making a total of five, and a series of nine birds. We also had abundant opportunities of watching their habits, and, above all, of contrasting them with those of *A. pratensis*, which was not uncommon in the district. The two species had, according to our observation, entirely different haunts, *A. pratensis* occupying a station less wooded (saving the expression) than that of *A. cervinus*, which latter,

¹ [In my communication to Dr. Bree I stated that Mr. Wolley returned from Enara “a day or two later” than the 22nd of June. Mr. Huddlestone, by kindly lending me his journal, enables me to correct this misstatement.—ED.]

however, we found at times feeding on the sea-shore, a habit in which we did not there notice the former to indulge. No one with ears could for a moment be in doubt about their respective notes. It is true that the full song of *A. cervinus* did not differ so strikingly from the more feeble performance of *A. pratensis* as does the joyous burst of *A. trivialis*, but it had an unmistakable likeness to the louder and perhaps harsher strain of *A. obscurus* (*petrosus*), and in all cases was sufficiently characteristic for one to be quite certain as to the species of the performer even when he was not in sight. All the nests I saw were simply built of dry bents, without any lining of feathers or hair, and I may add that it was only in this restricted locality in East Finmark that we saw the bird. I believe that Mr. Wolley never met with it elsewhere in Lapland, though, from my knowledge of its eggs, I have now little if any doubt that a nest of four contained among a number collected for him by Pastor Engelmarck in 1853 near Kaaressuando belong to it; as also two obtained at Naimakka in 1854. There being in neither case evidence stronger than that afforded by the specimens themselves¹, I do not include them in this Catalogue; but the later observations of HH. Palmén and Sahlberg (Öfv. Finska Vet.-Soc. Förh. 1876, pp. 241, 242), who found the species in several localities in Torneå (or Enontekis) Lappmark, and many examples breeding on Ounastunturi, increase the probability of the correctness of my view.

In the enumeration which follows of the eggs of this species taken in the district just mentioned I depart from my usual way of placing first those that were in Mr. Wolley's collection, but arrange the whole series, so far as possible, chronologically.—ED.]

§ 1942. *Four*.—Vadsö, East Finmark. Early in June, 1855.

[These were no doubt brought to Mr. Wolley by one of the many children he employed to find nests for him around Vadsö, and did not attract his particular attention, his only note upon them at the time being "Something like Tree-Pipits." They are, however, thoroughly characteristic of the species, and our subsequent experience so assured him that they belonged to *A. cervinus* that he felt justified in offering for sale, on the 7th of March, 1856, a fifth specimen from this nest, which was bought by M. Parzudaki².]

¹ [The resemblance of some eggs of *A. cervinus* to some of *Emberiza lapponica* is so close that I do not attempt in all cases to discriminate between them, unless note has been taken of the lining of the nest, which in the case of the latter seems to be always furnished with feathers, while that of the former is, as above stated, a simple structure devoid of such luxury.—ED.]

² [Mr. Wolley's note on the species in the Sale-catalogue is as follows:—"This very distinct and striking species breeds on the shores of the Arctic Ocean. Its appearance and song are quite characteristic, and its eggs have most interesting peculiarities. It must occasionally have visited England; but in its winter dress it would be very generally overlooked."—ED.]

[§ 1943. *Four*.—Vadsö, 22 June, 1855. “Bird caught. W. H. S. and A. N.”

O. W. tab. xi. figg. 7, 8.

This nest was found by me, as above stated, and I transcribe with a few corrections the details furnished by me to Dr. Bree :—On the evening of the day mentioned Mr. Hudleston and I, in the course of a bird’s-nesting walk to the north-east of the town of Vadsö, at the distance of perhaps a couple of miles, came upon a bog, whose appearance held out greater promise to our desires than we had hitherto met with in Norway. We had crossed the meadows near the houses, where Temminck’s Stint and the Shore-Lark were trilling out their glad notes, and had traversed a low ridge of barren moor, where the solicitude of a pair of Golden Plovers plainly told us that they had eggs or young near us. A Dunlin’s nest was speedily found, and the bird procured to identify it, for we had hopes of all sorts of Waders in that remote district. A little while after, as I was cautiously picking my way over the treacherous ground, I saw a Pipit dart out from beneath my feet, and alight again close by, in a manner which I was sure could only be that of a sitting hen. I had but to step off the grass-grown hillock on which I was standing to see the nest ensconced in a little nook, half covered by herbage. But the appearance of the eggs took me by surprise; they were unlike any I knew—of a brown colour, indeed, but of a brown so warm that I could liken it only to that of old mahogany-wood, and compare them in my mind with those of the Lapland Bunting. However, there was the bird running about so close to me that with my glass I could see her almost as well as if she had been in my hand. That she was a Pipit was undeniable; and thoughts of a species till then unseen by me began to dawn upon my imagination. I replaced the eggs without disturbing the nest; and carefully marking the spot, we retired. In half an hour or so we returned, going softly to the place; and Mr. Hudleston, reaching his arm over the protecting hassock of grass, dexterously secured the bird in his hand as she was taking flight. I then at once knew from her pale fawn-coloured throat that the nest we had found belonged to a species which, up to that time, as I believed, had been known in Europe only as an accidental visitant—*Anthus cervinus*. How our discovery had been anticipated I have before told.]

[§ 1944. *Four*.—Nyborg, East Finmark, 29 June, 1855.

O. W. tab. xi. fig. 9.

From a nest of five eggs with large young inside. The fifth specimen, I believe, was given to Mr. Salvin in return for his care in mending the four that remain.]

§ 1945. *Three*.—Nyborg, 30 June, 1855. “J. W.”

Bree, Birds of Europe, plate; O. W. tab. xi. fig. 10.

This nest I took at Nyborg a couple of hundred yards to the east

of Herr Skencke's house. It was on the ground, rather under the crowberry-bushes. I many times saw the hen bird on the nest, and got close to her—an extremely well-marked example, very dark on the chin. The eggs were not much sat upon.

[There were five eggs in this nest; but two passed at Mr. Stevens's rooms on the 30th of May, 1860, into the possession of Mr. Tristram and Mr. Troughton. One of the specimens still in the collection formed the subject of the very bad figure given by Dr. Bree (*ut supra*), and another is figured in the present work.]

§ 1946. *One*.—Nyborg, 3-4 July, 1855. "Bird shot. J. W. and A. N."

O. W. tab. xi. fig. 11.

In a nest of young birds, which from the look of the egg we at first supposed to be Lapp Buntings—for there was one of the latter flitting around with the usual cry of anxiety. Afterwards we saw the Pipit on the nest quite distinctly, and I shot it. It was a hen *A. ruficularis*—the spots on the breast large. There were no feathers in the nest¹. The young were some days old—the egg probably addled, but not dry. Had we not seen the hen bird, we should certainly have gone away with the conviction that the nest was a Lapp Bunting's, though Mr. Newton had before remarked on the absence of the palatal knob in the young birds.

§ 1947. *Six*.—Nyborg, 3 July, 1855. "Bird caught. J. W."

The nest was not far from the house to the eastward, and the bird was caught upon it by me and skinned. Probably a second laying.

§ 1948. *Four*.—Kieli-järwi strand, 11 July, 1857.

From a nest of five found by Ludwig on his return from Norway. The cock bird caught.

¹ [Feathers, as already stated (page 371, note ¹), seem to be always used by the Lapp Bunting, but never by this Pipit.—Ed.]

- [§ 1949. *One*.—Alexievka, North-eastern Russia, 23 June, 1875. From Mr. Harvie-Brown, 1876.

Many nests were found by Mr. Harvie-Brown, Mr. Seeböhm, and their men at this place (*Ibis*, 1876, p. 122).]

ANTHUS BERTHELOTI, Bolle.

- [§ 1950. *Sixteen*.—Teneriffe, Canary Islands. From Señor Gomez, through Mr. Dresser, 1889.

Five of these came in a separate box marked "clutch."]

- [§ 1951. *Six*.—Palma, Canary Islands, May, 1893. From Mr. S. B. Wilson.

With the nest.]

ANTHUS SPIPOLETTA (Linnaeus).

WATER-PIBIT.

- § 1952. *Seven*.—Switzerland. From M. Nager-Donazain, 1847.

Bree, B. Eur. pl.

[One of this lot of eggs was figured, as above cited, by Dr. Bree, whose artist contrived to break it.]

- [§ 1953. *Six*.—Switzerland. From M. Nager-Donazain, 1859.]

- [§ 1954. *Four*.—Switzerland. From M. Nager-Donazain, 1865.]

ANTHUS OBSCURUS (Latham).

ROCK-PIPIT.

§ 1955. *One*.—Orkney, 1845. From Mr. J. Hancock.

§ 1956. *One*.—Orkney. From George Harvey, of Stromness, 1848.

[§ 1957. *Three*.—Brownsman, Farne Islands, 21 June, 1851.

Taken by my brother and myself on our first visit to these islands.]

[§ 1958. *Three*.—Unst, Shetland Islands, 1854. From Mr. J. Smith.]

[§ 1959. *Two*.—Coquet Island, June, 1856. "O. S." From Mr. Salvin.]

[§ 1960. *Four*.—Brownsman, 18 June, 1856. "Bird well seen. A. & E. N."

Taken by ourselves on our second visit, when Mr. Salvin was in our company.]

[§ 1961. *Two*.—Brownsman, June, 1856.]

[§ 1962. *Twelve*.—Unst, 1856. From Mr. J. Smith.]

[§ 1963. *Five*.—Rathlin Island, Ireland, 15 June, 1863. From Mr. Robert Harvey, 1864.

Mr. Harvey writes that these large eggs were a nestful found by Mr. Gage in a tuft of grass on a ledge of rock at Karkin Bay in Rathlin.]

[§ 1964. *One*.—From the late Mr. Scales's collection, 1885.]

[The following belong to the form known as *Anthus rupestris*, Nilsson.]

§ 1965. *Three*.—Lille Vadsö, East Finmark, 4 June, 1855.

Probably *Anthus rupestris*, for I have shot (and compared with Kjørboelling's account [Danmarks Fugle, p. 143]) that bird in this [Varanger] Fjord. The eggs were found to-day by one of the twin lads Aspisen. The nest now before me is lined with very fine round grass. The lad said the bird was brown, and light beneath, and was not the Shore-Lark, of which I held a specimen in my hand. It was on the island, Lille Vadsö. The eggs were several days incubated.

§ 1966. *Four*.—Lille Vadsö, East Finmark, June, 1855.

Found by a lad who had previously brought in a similar nest of eggs from the same island. They seem to be *Anthus rupestris*. The nest of sheep-grass with a very little rein-hair.

ANTHUS CAMPESTRIS (Linnaeus).

TAWNY PIPIT.

§ 1967. *Five*.—Ain Djendeli, Algeria, 12 May, 1857. "O. S."
From Mr. Salvin and Mr. Simpson.

The nest was swamped by the irrigation of the field, and was shewn to them by an Arab deserted.

[Mr. Salvin's observations on this species (under the synonym of *A. rufescens*) in Algeria will be found in 'The Ibis' for 1859 (pp. 310, 311). I believe I am right in assigning the above five eggs to the same nest; but my friends shared its contents and afterwards gave them to Mr. Wolley and my brother.]

§ 1968. *Two*.—Ain Djendeli, 13 May, 1857. "O. S." From Mr. Salvin.

These seem to have been from a nest on which Mr. Salvin caught the bird.

§ 1969. *One*.—16 May, 1857. From Mr. Tristram.

- § 1970. *Two*.—18 May, 1857. From Mr. Tristram.
- § 1971. *Three*.—20 May, 1857. From Mr. Tristram.
- § 1972. *Two*.—Ain Djendeli, 16 May, 1857. “Bird. W. H. S.” From Mr. Simpson.
- [§ 1973. *Four*.—Ain Djendeli, 18 May, 1857. From Mr. Tristram.]
- [§ 1974. *One*.—Ain Djendeli, 18 May, 1857. From Mr. Simpson.]
- [§ 1975. *One*.—Ain Djendeli, 23 May, 1857. } From
- [§ 1976. *One*.—Madraccn, Algeria, 1857. } Mr. Salvin.]
- [§ 1977. *Five*.—Blois, 1 July, 1859. “E. N.”]

These are from a nest found by my brother Edward in the old bed of the River Loire, where some days before he had found a Short-toed Lark's nest, to be presently mentioned (§ 2088). The place was frequented by at least two pairs of this Pipit, of which he wrote in his note-book:—“It is most peculiar in its habits, which are more like those of a Wagtail than a Pipit. Its note too, when it has young (as one pair certainly had), is very like that of the Yellow Wagtail. When near its nest or young it would run before me, as fast as I ordinarily walked, for at least one hundred yards, keeping always a good thirty yards ahead, and it was then very difficult to put up. On the 30th of June I put up a bird of this species from some of the thick coarse grass on the *course*, and while looking at it through my glasses another rose about ten yards off. On going to the spot I found there was a nest containing five eggs, placed close by a thistle of a sort which is very common there. I took one egg and placed a snare. After putting the bird off the nest once more I had to go home. The next day I went again, and had the mortification of seeing the bird caught in the snare but escape before I could get up to it. She never returned again, as the nest was much knocked about. It is composed outwardly of coarse bents and moss, and inwardly of fine bents—in every respect like a Common Titlark's.”

These eggs differ so much from any that were obtained in Algeria by Canon Tristram's party, that my brother was inclined to doubt whether they could be those of *A. campestris*; but, so far as I know, there is no other species to which they could belong.]

ANTHUS RICHARDI (Vieillot).

[§ 1978. *Five*.—Dauria, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.

In the 'Journal für Ornithologie' for 1868 (pp. 334, 339), H.H. Dybowski and Parrex mention this species as common and nesting at Darasun, and notes of its habits by the former of these observers, with particular description of its eggs, one of which is figured reduced in dimensions, were contributed to the same journal for 1873 (pp. 83, 84, tab. ii. fig. 21).]

OTOCORYS ALPESTRIS (Linnaeus).

SHORE-LARK.

I found the Shore-Lark very common in East Finmark on all the cultivated lands near the sea, and also up the hills, although less numerous. It was very delightful to hear it singing as it sat on a post, or on a rail, or on a barn top. At one house where I was staying, it used to come on the roof soon after midnight and sing for several hours in the cool sunshine. Its nests, of which I found several, were placed, like common Larks', in a depression of the ground, often near a stone, and there was nothing very striking in the nesting habits or actions of the bird. One, whose nest I had some difficulty in finding, betrayed it by running on its eggs whilst I was watching it a few feet distance. The nests, when taken out of their place, are found to be of a loose structure, and are generally lined with down from the willow or other plants. The number of eggs commonly four, or sometimes five. The bird appears to be double-brooded, the first eggs being very early, the second laid in July. I found from experience that if its nest and eggs are taken it will have a new nest and eggs twice again, at least, and not far from the original spot. It breeds on the highlands in the north of Lapland, quite in the interior of the country. In the autumn, flocks of it are to be seen in the corn-fields, like Common Larks in other countries, on their way south along the course of the rivers.¹

¹ [The above paragraph was written in 1856 for Mr. Hewitson's use, and is quoted from his work, he having kindly given me permission to cite in this book all the information furnished to his last edition by Mr. Wolley. This passage did

§ 1979. *Four*.—Mountains above Mukka-uoma, 10 June, 1854.

O. W. tab. xi. fig. 13.

§ 1980. *Four*.—Mountains above Mukka-uoma, 10 June, 1854.

O. W. tab. xi. fig. 14.

These eight eggs of the Shore-Lark from two nests—one somewhat sat upon, the other nearly fresh—were found on the mountains by Olli Naimakka in the night and morning of June 9th to 10th on his way over from Norway. He walked the birds up and said they were "*Kello-lintu*" [Bell-bird]—the same bird as that of which I had shewn him a skin in Kaaressuando. They were in the somewhat level treeless ground with knolls on both sides. Bits of the nests he brought with him had willow-down intermixed, but it is possible they might have come from another nest he had [a Wagtail's].

§ 1981. *Four*.—Ekkerö, Varanger Fjord. "J. W." 29 May, 1855.

§ 1982. *Four*.—Komagvær, Varanger Fjord. "J. W." 30 May, 1855.

Hewitson, *Eggs of Brit. Birds*, ed. 3, pl. xlv.* fig. 1.

§ 1983. *Three*.—Komagvær. "J. W." 30 May, 1855.

O. W. tab. xi. fig. 15.

[These eleven eggs, from three nests as above, were carefully inscribed by Mr. Wolley, but never entered by him in his book, though they are mentioned in the note printed under the next section. From the dates and localities written on the eggs it is clear that they must have been taken by him when walking along the coast from Vadsö to Vardö in East Finmark. Lille Ekkerö is the name of an island and Store Ekkerö that of a peninsula in the Varanger Fjord, but both are marked as islands in the Norwegian

not reach Mr. Hewitson in time to be included in its regular place and therefore was printed on a leaf to be inserted by the binder (*Eggs of Br. B.* ed. 3, i. p. 178*), while, as the references below shew, the eggs sent at the same time were figured on a supplementary plate (xlv.*).—ED.]

chart of 1849. Mr. Wolley was, I remember, much taken with the fact that the latter was now joined to the mainland—no doubt by the process of upheaval still going on in that district, and, I believe, that it was on this peninsula, which perhaps not fifteen years before had been insulated, that he took his first nest of the Shore-Lark. Komagvær, the locality of the other two nests, is on the coast further to the north-east. The eggs of the first two nests, notwithstanding the early date, seem, from the way in which they have been blown, to have been much incubated.]

§ 1984. *Three*.—Vadsö, East Finmark, 3 June, 1855. “Bird seen well. J. W.”

O. W. tab. xi. fig. 16.

As soon as I arrived by the ‘Gyller’ from Vardö on my second visit to Vadsö, I went to the Quain-by to see if any eggs had been found for me. One lad, a Norwegian, had found a nest, which he said belonged to the bird I had formerly shewn him, but of which he did not know the name. It was three or four hundred yards from the furthest house. As we came near, the boy pointed out the spot, and with my glass I could distinctly see the head, tail, and part of the back of a Shore-Lark. After watching it a little, I went nearer, and it left the nest directly, flying behind a heap of stones at some distance. The nest was in a little cup somewhat deeper than necessary to hold it; no shelter, but grass and so forth around, not yet grown. The nest now before me is made outside of a few little twigs and plant-stalks, further in of fine sheep-grass, and it is lined with tufts of reindeer-hair and the seeds of *Compositæ*. On the whole a good mass of nest, but, from the cup in which it was placed not requiring much care in its construction, it does not hold together well. It was in an enclosed field. I had previously found three other nests [§§ 1981–1983], the eggs of which, already written upon, will be subsequently entered herein.

§ 1985. *Four*.—Vadsö, 5 June, 1855. “Saw bird. J. W.”

O. W. tab. xi. fig. 17.

§ 1986. *Four*.—Vadsö, 5 June, 1855. “Saw bird on. J. W.”

Of the second of these nests, I watched the bird as it sat on the

nest, which was sunk rather in a hole. They were both found by children, who took me to them. I also saw clearly the bird of the first nest.

§ 1987. *Four*.—Vadsö, 1855.

These are from one of three nests of Shore-Lark, all lined with usual kind of material and found by Finn [*i. e.* Quain] children. The eggs all mostly fresh.

[Most of the eggs from the other nests, I believe, were sold at Mr. Stevens's in 1856.]

§ 1988. *Five*.—Vadsö, 1855.

Found by the girl Margareta who got so many nests. She says that the same pair of birds built three times this season in nearly the same spot. One of the nests was within a few inches of a previous one. The nest which held these five eggs is of the usual appearance.

§ 1989. *Four*.—Vadsö, 1855.

From the same girl as the last.

§ 1990. *Five*.—Vadsö, 1855.

Hewitson, Eggs of Brit. Birds, ed. 3, pl. xlv.* fig. 2.

The nest is very much of the character of ordinary Shore-Larks, of fine grass and leaves, with tufts of hair and pieces of the cotton of the willow. The eggs are above the average size.

§ 1991. *Five*.—Quain-by, Vadsö, 1855.

O. W. tab. xi. fig. 18.

Found by a lad, brother of Margareta. The nest now before me is lined with tufts of rein-hair and a little vegetable cotton as usual.

[§ 1992. *Four*.—Nyborg, East Finmark, 6 July, 1852. From Pastor Sommerfelt, 1855.]

From a complete nest of five given to me at Nyborg by the Pastor.]

[§ 1993. *Four*.—Vadsö, 20 June, 1855.

This is one of the many nests found by the children at Quain-by, and brought to me when at Vadsö.]

[§ 1994. *Three*.—Vadsö, July, 1855.

As the last.]

[§ 1995. *One*.—Vardö, East Finmark, 1855.]

OTOCORYS BILOPHA (Temminck).

[§ 1996. *One*.—Lilford Aviary, 1890. From Lord Lilford.

I understood that the bird which laid this egg had come from Marocco.]

ALAUDA ARVENSIS, Linnæus.

SKYLARK.

§ 1997. *Four*.—Not later than 1843.

§ 1998. *One*.—Whittlesford, Cambs. 1854. From Mr. F. Bond, 1856.

Taken and, I suppose, identified by Mr. Charles Thurnall.

[§ 1999. *One*.—Elveden, 1845.]

[§ 2000. *Three*.—Elveden, 1847. From two nests.]

[§ 2001. *One*.—Barnham, Suffolk, 1848.]

- [§ 2002. *Two*.—Elveden, 1849. From different nests.]
- [§ 2003. *One*.—Elveden, 23 April, 1851.]
- [§ 2004. *Three*.—Elveden, 1852. From different nests.]
- [§ 2005. *One*.—Feltwell, Norfolk, 1852.]
- [§ 2006. *One*.—Cavenham, Suffolk, 1852.]
- [§ 2007. *One*.—Whittlesford, Cambs. 1852. From Mr. F. Bond.]
- [§ 2008. *Two*.—Thetford Warren, Suffolk, 1853. From two nests.]
- [§ 2009. *One*.—Wicken Fen, Cambs. 1853.]
- [§ 2010. *One*.—Hockwold, Norfolk, May, 1853. "A. N."]
- [§ 2011. *One*.—Feltwell, June, 1856. "E. N."]
- [§ 2012. *One*.—Coquet Island, June, 1856. From Mr. Salvin.]
- [§ 2013. *Four*.—Leck, Donegal, 2 June, 1862. From Mr. Robert Harvey.]
- [§ 2014. *Four*.—St. Neot's, Huntingdonshire, 16 June, 1864. From Mr. Rowley.]
- [§ 2015. *Four*.—Norfolk, 14 July, 1872. "F. N." From Mr. Norgate, 1874.]

[§ 2016. *Three*.—Bloxworth, Dorset, 18 May, 1876. “E. N.”

My brother's note is: “I saw one of the parents, the hen I think, get off this nest on the 16th, when there were two eggs in it. I visited it again on the 18th, when there being only three I took them. The nest on the heath.”]

[§ 2017. *Four*.—Hockering, Norfolk, 19 May, 1876. From Mr. Norgate.]

ALAUDA ARBOREA, Linnæus.

WOODLARK.

§ 2018. *Two*.—From Mr. R. Mansfield, 1844.

§ 2019. *One*.—From Mr. J. P. Wilmot, 1846.

§ 2020. *One*.—From Dr. Pitman, 1846.

[Dr. (now Sir Henry) Pitman soon after sold his collection to the late Mr. H. F. Walter.]

§ 2021. *One*.—Yorkshire. From Mr. Tuke, 1846.

§ 2022. *Two*.—Elveden, 1853. “A. N.” From Messrs. A. and E. Newton.¹

The nest was found while building by one brother and the eggs taken by the other; the bird seen upon it.

¹ [I have elsewhere suggested (Yarrell, Br. B. ed. 4, i. pp. 626, 627) that the Woodlark may have been “a comparatively recent colonist” in the neighbourhood of Thetford. It was quite unknown to the country-people of the district, and the late Mr. Salmon told me he had no recollection of having ever met with it when he lived there, some fifteen or twenty years before. I find from my brother Edward's notes that he heard the bird singing at Elveden in the spring of 1848 and that of 1849, and again once, but once only, in the summer of 1850. In the following year the species was observed by one or the other of us on twelve occasions between the 31st of March and the 13th of July, and we learnt where to look for it, since it is extremely limited in its distribution; and, in the breeding-season, as we afterwards became aware, wanders hardly more than one hundred and fifty

§ 2023. *Four*.—Elveden, 27 April, 1859. “J. W.”

The nest was shewn to me by Messrs. A. & E. Newton. It was on the ground in a little tuft, a track of dried grass (perhaps accidentally) leading up to it. They shewed me several nests of this bird, mostly already taken by themselves—some of last year. They were all on the level ground and some paces outside of the covert. The birds when disturbed at one nest went to another at several hundred paces' distance, or less.

[During a short stay at our home, my brother and I had the pleasure of introducing Mr. Wolley to this species, whose acquaintance he had not before made.]

[§ 2024. *Three*.—Valkenswaard, North Brabant, 1851.

Selected out of a large number sent direct to me by Arnold Bots.]

yards from its nest. In 1852 we applied ourselves seriously to watching the habits of this species, with the result of finding nine nests, two of them containing young, belonging to six pairs of birds. Nearly all of these were discovered by my brother, who took great trouble about them. The haunt of a pair being found by hearing the cock sing, and the song is recognizable a long way off, he had to be patiently watched, until he joined his mate on coming off her nest to feed. Since she was always careful to expose herself as little as possible, she was often not easily detected, and once seen, an eye had to be kept on her until she returned to her nest, a fact usually though not always announced by the cock flying away, and often mounting aloft to deliver his song. This procedure on our part was almost invariably successful, though the preliminary watching of the cock was often protracted, depending much on the time of day, for the hen hardly ever left her nest except early in the morning and towards sundown. In this way nearly all but two or three of the nests we found, both then and subsequently, were procured. Having supplied our own wants, we did not take so much trouble in subsequent years; but I see, from notes made at the time, that between 1852 and 1859 inclusive we found twenty-eight nests, all but seven with eggs, which were generally four in number. I may here quote from information, with which I in 1854 supplied Mr. Hewitson (*Eggs of Br. B.* ed. 3, i. p. 180), that “the localities to which the birds are most partial are old sheep-walks in the vicinity of Scotch fir-trees. On places such as these the herbage is so scanty that they can hardly be said to choose a tuft of grass as the situation of their nests, though they generally select a spot where the bents are the thickest; I have, however, found a nest where the tuft was as short as a well kept lawn, and I have seen one secluded in a clump of heather. Their nests are usually more compact than those of the Skylark, and will bear being taken up from the hole in which they are built.” I may add that I do not remember having ever heard the Woodlark sing when perched on a tree or seated on the ground, as some writers state they have.—Ed.]

§ 2025. *Three*.—Elveden, 14 April, 1852.

[From a nest of four, the *first* found by us. There were four eggs, which had been incubated about a week.]

[§ 2026. *Seven*.—Elveden, 1852.

From six nests found between 15 April and 24 June.]

[§ 2027. *Three*.—Elveden, 1853.

From different nests—two found 14 April, the third 24 June.]

[§ 2028. *One*.—Elveden, 7 April, 1856. “A. & E. N.”]

[§ 2029. *Two*.—Elveden, 23 April, 1856. “A. N.”]

[§ 2030. *Three*.—Elveden, 10 April, 1857. “E. N.”]

My brother wrote: “This nest was on the east side of a clump [of old Scotch firs] about five yards from the covert. I have found a Woodlark’s nest in the same place several times. I found it by seeing the old bird fly in a direct line to it on the 8th of April, but left it till the 10th, in the hope that she might lay more eggs. They had been incubated about seven days.”]

[§ 2031. *Three*.—Elveden, 17 April, 1857. “E. N.”]

My brother’s notes are: “These I found by watching the hen bird run near the nest, and then putting her off. They were fresh, and before they were blown had a deeper pink hue than I ever saw before in Woodlark’s eggs. I have known of a pair of birds near this spot for several years and have often found their nest.”]

[§ 2032. *Three*.—Elveden, 30 March, 1859. “A. & E. N.”]

My brother wrote at the time: “We found this nest in a low dead furze bush. There was one egg in it on the 26th. The hen flew off when we went to take it, the cock flying overhead, at the same time uttering his alarm-note.”]

[§ 2033. *Four*.—Elveden, 30 March, 1859. “A. & E. N.”]

My brother’s note is: “After taking the nest before mentioned, we saw

[at another place] a cock Woodlark in an evident state of alarm. A. watched it as it sat on a [Scotch-fir] tree, while I walked about to look for the nest, which I was not long in finding, as the hen flew wildly off before I got within ten yards of her. The nest was about eight yards from the old bank of the furze-covert.”]

[§ 2034. *Four*.—Elveden, 7 April, 1859. “A. & E. N.”

My brother wrote: “I have several times this spring seen a pair of Woodlarks on the Glebe lands. Yesterday A. and I walked there and soon found them feeding on the old bank by the side of the [Scotch-fir] plantation. From the manner of the hen it became evident that she had a nest, and after watching them for about twenty minutes, they both got up and flew towards another plantation. I was able to mark one of them down directly, but the other dropped without either of us clearly seeing it, and we could not find it even with the aid of a glass. The one I marked down remained on the bank by the side of the covert for some two or three minutes and then flew away, apparently singing as he went, but we were the wrong way for the wind to be able to hear him. On walking to where we believed the hen had alighted, it was not very difficult to determine where the nest was, as there was only one tuft of grass that looked tempting. She allowed us to approach within a yard before she flew off. The eggs were fresh.”]

[§ 2035. *Four*.—Elveden, 16 April, 1859. “A. & E. N.”

My brother's note is: “We watched a pair of Woodlarks, and felt certain that they had a nest. After a few minutes the hen flew round a clump of [Scotch-fir] trees and we lost her. On walking to the place where we thought she had alighted, A. almost trod on her as she sat on her nest, which was about ten yards from the clump. The eggs had been incubated but a few hours. In March we found a Woodlark's nest [not far off], but for some reason the birds forsook it before any eggs were laid, and on this 16th April we found a destroyed nest [close by], both of which, I think, had belonged to this pair of birds.”]

[§ 2036. *Four*.—Elveden, 16 April, 1859. “A. & E. N.”

My brother's note is: “These were found by a dog, who probably put the bird off, but we did not see her, and our attention was drawn by the dog smelling in a tuft of heather. Luckily she did not break the eggs. We had seen a hen Woodlark but a few minutes before.”]

[§ 2037. *One*.—From the late Mr. Scales's Collection, 1885.

I keep this egg to remind me of the fact that in one of his letters to me he told me he had never known the Woodlark to breed in Norfolk.]

ALAUDA CRISTATA, Linnæus.

CRESTED LARK.

§ 2038. *Two*.—From M. Lefevre, 1847.

§ 2039. *Two*.—From M. Perrot, 1847.

§ 2040. *Two*.—Ain Djendeli, Algeria, 11 May, 1857. From Mr. Salvin.

[Mr. Salvin's notes on this species were printed in 'The Ibis' for 1859 (p. 314).]

§ 2041. *Two*.—Djendeli, 14 May, 1857. From Mr. Simpson.

§ 2042. *Two*.—Djendeli, 16 May, 1857. From Mr. Simpson.

§ 2043. *Three*.—Ain Djendeli, 16 May, 1857. From Mr. Salvin.

All these of Mr. Tristram's taking. He got the Arabs to find the nests and then went to identify them. He took no Larks' eggs from the Arabs' hands. This is the common Lark of the country.

§ 2044. *Four*.—Cairo, Egypt, 15 March, 1858. From Mr. Tristram.

A complete sitting.

[§ 2045. *Two*.—Kef Laks, Algeria, 22 April, 1857. From Mr. Tristram.]

[§ 2046. *Two*.—Kef Laks, 24 April, 1857. From Mr. Tristram.]

[§ 2047. *One*.—Ain Beida, 2 May, 1857. From Mr. Salvin.]

[§ 2048. *Two*.—Ain Djendeli, 16 May, 1857. From Mr. Salvin.]

[§ 2049. *Two*.—Haracta, Algeria, 9 June, 1857. From Mr. Simpson.]

[§ 2050. *Four*.—From M. Parzudaki, 1857.]

[§ 2051. *One*.—"South Russia." From Herr A. Heinke of Kamuschin, through Dr. Günther, 1862.]

[§ 2052. *Four*.—Madrid, 1867. From Mr. Dresser, 1868.

Taken by Manuel de la Torre. Referable to the form described by Dr. C. L. Brehm (Naumannia, 1858, p. 210) as *Galerita thekle*, the specific validity of which is not generally recognized.]

CERTHILAUDA DUPONTI (Vieillot).

[§ 2053. *One*.—Algeria. From Captain Loche, through Mr. Salvin, 1861.]

MELANOCORYPHA CALANDRA (Linnæus).

§ 2054. *One*.—Ain Beida, Algeria, 4 May, 1857. "W. H. S." From Mr. Simpson.

The initials on the egg shew that it was taken by Mr. Simpson himself.

§ 2055. *One*.—Ain Beida, 7 May, 1857. From Mr. Simpson.

One of Mr. Tristram's eggs.

§ 2056. *Four*.—Algeria, 18 May, 1887. From Mr. Tristram.
A complete sitting.

§ 2057. *One*.—Ain Beida, 18 May, 1857. From Mr. Simpson.

[§ 2058. *Two*.—Ain Djendeli, 15 May, 1857. From Mr. Salvin.

Mr. Salvin's notes on this species appeared in 'The Ibis' (1859, p. 315).]

[§ 2059. *Two*.—Ain Beida, 17 May, 1857. From Mr. Simpson.]

[§ 2060. *Two*. }
[§ 2061. *Two*. } Ain Beida, 1857. From Mr. Tristram.]

[§ 2062. *One*.—"South Russia." From Herr Heinke of Kamuschin, through Dr. Günther, 1862.]

MELANOCORYPHA SIBIRICA (J. G. Gmelin).

[§ 2063. *Two*.—"Sarepta." From Herr Möschler, 1862.]

[§ 2064. *One*.—"South Russia." From Herr A. Heinke of Kamuschin, through Dr. Günther, 1862.]

[§ 2065. *Two*.—"Volga." From Herr Möschler, 1865.]

[§ 2066. *Four*.—"Sarepta." From Herr Möschler, 1866.]

[§ 2067. *Two*.—"Russia." From Herr Möschler, 1869.]

MELANOCORYPHA YELTONENSIS (J. R. Forster).

[§ 2068. *One*.—"Astrakan." From Herr Heinke, through Herr Schlüter, 1888.]

CALANDRELLA PISPOLETTA (Pallas).

[§ 2069. *One*.—Sarepta. From Herr Rüsbeil, senior, through Herr Schlüter, 1888.]

CALANDRELLA BÆTICA "Lilford," Dresser.

[§ 2070. *One*.—Lilford Aviary, 1892. From Lord Lilford.]

CALANDRELLA MINOR (Cabanis).

[§ 2071. *Sixteen*.—Fuertaventura, Canary Islands. From Señor Gomez, through Mr. Dresser, 1889.

Five of these sent in a separate box, marked "clutch."]

CALANDRELLA BRACHYDACTYLA (Leisler).

SHORT-TOED LARK.

§ 2072. *One*.—From M. Lefevre, 1847.

§ 2073. *One*.—Sidi Khalipha Cherif, Algeria, 8 May, 1857.
From Mr. Salvin.

From a nest of four taken by Mr. Simpson.

[See Mr. Salvin's notes (Ibis, 1859, p. 315).]

§ 2074. *One*.—Chemora, Algeria, 9 May, 1857. From Mr. Salvin.

The nest found by Mr. Tristram on the road between Sidi Khalipha Cherif and Chemora.

§ 2075. *Three*.—Ain Beida, Algeria, May, 1857. From Mr. Salvin.

Taken by Mr. Simpson between the 15th and 20th of May. Mr. Salvin says that the nests were generally on the sheltered (*i. e.* the south-east) side of a small bush.

§ 2076. *One*.—Ain Beida, 1 May, 1857. "O. S." From Mr. Salvin.

Taken by Mr. Salvin himself.

§ 2077. *Two*.—Djendeli, Algeria, 18 May, 1857. From Mr. Simpson.

Mr. Simpson satisfied himself well as to the species, identifying, I believe, various nests.

§ 2078. *Four*.—Algeria, 16 May, 1857. From Mr. Tristram.

A complete sitting.

§ 2079. *Four*.—Algeria, 1857. From Mr. Tristram.

§ 2080. *Three*.—El Tharf, Algeria, 20 May, 1857. "W. H. S." From Mr. Simpson.

Taken by Mr. Simpson himself, as his initials on the eggs shew.

[§ 2081. *Two*.—Algeria, May, 1857. From Mr. Salvin.]

[§ 2082. *One*.—Ain Beida, 6 May, 1857. From Mr. Salvin.]

[§ 2083. *One*.—Near Chemora, Algeria, 9 May, 1857. From Mr. Salvin.]

[§ 2084. *Two*.—Ain Beida, 2 May, 1857. From Mr. Tristram.]

[§ 2085. *Two*.—Algeria, 7 May, 1857. From Mr. Tristram.]

[§ 2086. *One*.—Plain of Roumila, Algeria, 9 May, 1857. From Mr. Simpson.]

[§ 2087. *One*.—Djendeli, 19 May, 1857. From Mr. Simpson.]

[§ 2088. *Five*.—Blois, 20, 21 June, 1859. "E. N."]

My brother Edward wrote: "On the left bank of the Loire, and about half a mile above the bridge at Blois, is a sandy tract of ground which has probably been the old bed of the river, and across it is a bridge or causeway said to have been built by the Romans. In 1856, when the Loire overflowed its banks and did so much damage to the crops, this place was flooded to a considerable depth, and the soil washed away. Consequently it is at present extremely rough. Here and there are large mounds of sand covered with a coarse grass like the Marram of the Norfolk coast, and in other places are gravel and sand generally running in lines in the direction in which they were carried by the water. All this is surrounded by a high embankment for the purpose of breaking the force of the water should a similar catastrophe occur. The place is used as the Blois race-course, and the running-ground has been levelled. While walking on this ground on the 20th June, a Short-toed Lark got up from almost under my feet from a tuft of trefoil, and I found there a nest containing five eggs. I visited the nest several times that afternoon, in the hope of catching the old bird, but without success. I took two of the eggs and returned the next day, setting a horse-hair snare over the nest; but I did not succeed in catching the bird, and so that evening I took up the other three eggs. I had plenty of opportunities of watching the bird, and I have no doubt as to the species; but it was extremely shy, skulking behind tufts of grass or large stones, and running very fast; but I had several good looks at it with my glass. I had only once before seen the bird, and that was about one hundred and fifty yards from the spot where I found the nest. After taking the nest I never saw the species again, though I was constantly at the place. The nest is much more securely built than that of either *Alauda arvensis* or *A. arborea*, composed outwardly of coarse grass and bents, and lined with thistle-down."

AMMOMANES DESERTI (Lichtenstein).

[§ 2089. *One*.—Jericho, 3 March, 1858. From Mr. Tristram.]

[§ 2090. *Two*.—Wilderness of Judæa, 23 April, 1864. From Mr. Tristram.]

From a nest of four, of which the remaining two were given to Mr. Cochrane.]

FRINGILLA CÆLEBS, Linnæus.

CHAFFINCH.

§ 2091. *Four*.—In or before 1843.

[From apparently different nests.]

§ 2092. *Two*.—16, 17 April, 1844. "J. W."

[Probably taken at or near Beeston; but the locality not marked.]

[§ 2093. *One*.—Elveden, 1843.

A dwarf egg, measuring .63 by .49 in.]

[§ 2094. *One*.—Elveden, 1846.]

[§ 2095. *One*.—Stetchworth, Cambridgeshire, 1846.]

[§ 2096. *Three*.—Elveden, 1847.]

[§ 2097. *One*.—Barnham, Suffolk, 1848.]

[§ 2098. *Two*.—Elveden, 1849.]

[§ 2099. *Two*.—Elveden, 1851. From different nests.]

[§ 2100. *Two*.—Elveden, 1852. From different nests.]

[§ 2101. *One*.—Elveden, June, 1856.]

[§ 2102. *Four*.—Leck, Donegal, 24 April, 1863. "R. H."
From Mr. Robert Harvey, 1864.

Mr. Harvey writes that he took these himself from a silver-fir close to the avenue of Leck Glebe, adding:—"This is the third nestful of these curiously pink eggs of *F. cælebs* that I have taken in successive years in nearly the same spot." These are most beautiful eggs, such as I have hardly ever seen before; small and much rounded. Hardly any one would suppose that they belonged to this species.]

[§ 2103. *Five*.—Leck, 3 May, 1863. "R. H." From
Mr. Robert Harvey, 1864.

Mr. Harvey writes that he took this nestful himself, and considers them typical eggs (which they certainly are), to contrast with the last.]

[§ 2104. *Four*.—St. Neot's, Hunts. 12 May, 1864. From
Mr. Rowley.]

[§ 2105. *Four*.—Norfolk, 4 May, 1869. "F. N." From
Mr. Norgate.]

[§ 2106. *Five*.—Taverham, Norfolk, 15 May, 1875. From
Mr. Norgate.]

[§ 2107. *Five*.—Sparham, Norfolk, 19 May, 1875. From
Mr. Norgate.]

[§ 2108. *Four*.—Bloxworth, Dorset, 12 May, 1876. "E. N."

My brother's note is that he found this nest about the 1st or 2nd of the month, in a little thorn-bush about four feet and a half from the ground. The first egg was laid on the 8th. The bird was upon the nest when he went to take it.]

FRINGILLA SPODIOGENYS, Bonaparte.

[§ 2109. *One*.—Algeria, 1856. From Mr. Tristram, 1858.]

FRINGILLA TINTILLON, Webb & Berthelot.

[§ 2110. *Four*.—Ponta Delgada, St. Michael's, Azores, June, 1866. From Mr. Frederick Godman.

Given to me with the nest, which has not a very strong family resemblance to that of a Chaffinch or Brambling, being composed outwardly of grass and fine roots with a few bits of lichen stuck on, and lined with horse- or cow-hair and a few white feathers—apparently Goose's. Mr. Godman told me that the nest was taken by George Brown in his own garden.]

[§ 2111. *Twelve*.—Teneriffe, Canary Islands. From Señor Gomez through Mr. Dresser, 1889.

Three sets of four each with the nests, looking like untidy Chaffinches'.]

FRINGILLA TEYDEA, Webb & Berthelot.

[§ 2112. *One*.—Lilford Aviary, 1890. From Lord Lilford.]

FRINGILLA MONTIFRINGILLA, Linnæus.

BRAMBLING.

[In the autumn of 1853 Mr. Wolley sent word from Muoniovara to Mr. Hewitson concerning this species, "It breeds here plentifully, but I was too late for the nest"; and the only Bramblings' eggs he obtained in that year were eleven, being the contents of two nests, which he found in the possession of the pastor of Karessuando, who was familiar with the bird. All these were sold at Mr. Stevens's, 26 January, 1855—the purchasers being Messrs. Burney, Frere, Gunney, Knapp, Milner, and Walter. It may be remarked that even in the third edition of his work, Mr. Hewitson had only eggs of this species which had been laid in captivity to figure, and those procured by Mr. Wolley, which did not reach England until 1854, were probably the first "wild" specimens ever seen in this country.]

§ 2113. *Three*.—Mukka-uoma, Torneå Lappmark, 1854.

From the old woman of the other house at Mukka-uoma. The nest like a Chaffinch's; moss, feathers, hay, and very fine strips of apparently birch-bark. I see many Bramblings about.

[A fourth egg from this nest was given in 1860 to Dr. David Walker, for the Belfast Museum.]

§ 2114. *Six*.—Kaaressuando, 19 June, 1854. "Bird snared."

O. W. tab. xi. fig. 25.

The nest found by Elias, the bird snared and brought to me. It is a hen now before me:—white over the rump, yellow in the axilla, secondary wing-coverts tipped with tawny; the latter pen-feathers with a white spot near the base of the outer web; upper part of the head brown and black, neck black and grey in broad longitudinal pieces. Eggs nearly fresh.

§ 2115. *Four*.—Kaaressuando, 19 June, 1854.

Found near the last nest the same evening by one of the men, and in all probability of the same species. Eggs fresh. In both nests grass, feathers, seed-down, moss, birch-cuticle, lichen (not much of the latter), and in the lining very fine grass, feathers, and rein-hair. In the construction of the second nest pieces of wasps' nest have been used.

§ 2116. *Three*.—Muonioniska, East Bothnia, 1854.

Brought with the nest at midsummer by Macki's Colli and said by him to be *Hürkä-Peipponen* [literally, Bull-Finch], but as Elias was present he had perhaps put the name into Colli's mouth. However, everything has the look of Brambling, and Bramblings are now (July 7) as usual singing or droning outside the house: but then a few days ago I saw a hen Chaffinch in the garden.

§ 2117. *Five*.—Muonioniska, 1854.

Brought to me by Puntz's lads in a nest just like a Chaffinch's or Brambling's, lined with some hairs and willow-down. Both white and speckled Grouse's feathers employed in its construction.

§ 2118. *One*.—Lapland, 1854.

§ 2119. *Two*.—Idio-uoma, Torneå Lappmark, 1854.

Brought by the finders and named by them "*Härkä-Peipponen*." These eggs are almost without doubt what they pretend to be—Brambling's.

§ 2120. *Five*.—Bremma - lombola, Russian Lapland [?] ¹,
14 June, 1855. "J. W."

O. W. tab. xi. fig. 26.

A nest of six found by myself. As I went up the Patsjoki there were only two eggs in the nest. Coming down the river the nest was full; but being wet was perhaps deserted. Bremma-lombola is the site of the Swan's nest of last year [*cf.* § 2464].

§ 2121. *Four*.—East Finmark. From Pastor Sommerfelt, 1855.

With the nest—perhaps from last year—given to me by the Pastor. It is made principally of moss, willow-cotton, birch-fibre, feathers, and grass, and lined with hair, feathers, and mouse-hair.

§ 2122. *Three*.—Uoma-vaara, Sadio, Kemi Lappmark, 1855.
"With nest."

O. W. tab. xi. fig. 27.

Found by Mikel Sadio. He said he saw the birds: the cock made the noise it usually does, and the hen flew from the nest. He is sure of the bird, though he remarked the unusual appearance of the eggs. Piety says that Mikel and his brothers are in the habit of speaking the truth and are also in the way of knowing birds, inasmuch as they catch a great number of small birds every year. The nest

¹ [I have no map shewing this *lombola* (or *lompalo* according to the modern way of spelling the word, which means a wide and sluggish reach in a river—almost a "Broad" in the East-Anglian sense); but I believe it is in Russian, as distinct from Finnish, territory, though very near the border-line, which cuts the Patsjoki or Pasvig river in lat. 69°.—Ed.]

was about a quarter of a mile (Swedish) from Sadio. Two skins—a cock and a hen Brambling—were brought and identified by Mikel, but not from the nest. He says that in almost every house there is a different name for the bird, “*Jernü-ainen*,” “*Isaakka*,” and so on.

§ 2123. *Seven*.—Sadio, 1855.

O. W. tab. xi. fig. 28.

Found by the youngest of the Sadio brothers, who knows birds well. Mikel said his brother was familiar with the bird and distinguished it at once from the other *Peipponen*, which is properly Chaffinch. This nest was just at the back of the fence at Sadio.

§ 2124. *Six*.—Ketto-järwi, Sadio, 1855.

Found by the Sadio brothers mentioned above.

§ 2125. *Four*.—Rowa, East Bothnia, 1855.

With the nest found by Johan Erik of Rowa.

§ 2126. *Five*.—Rowa, 1855.

With the nest found by Nils of Rowa, both he and his brother [Johan Erik just mentioned] know the bird well by the name of *Pohjasen-Pappi*. This and the last nest are as usual.

§ 2127. *Five*.—Saari-järwi, West Finmark, 1856.

Found by Tuorimaa Hendrik.

[One of these eggs is perceptibly larger than the other four; but I do not think it is a Cuckow's.]

§ 2128. *Three*.—Kaaressuando, 1856.

From Pieten Josa.

[Beautiful eggs, very warmly coloured, but I think rightly attributed to this species rather than to the Chaffinch.]

§ 2129. *Seven*.—Sadio, 1856. “With bird.”

Found by Sadio Mikel—brought with the nest and the bird carefully kept upon it to this day (24th October). The nest is largish, made externally principally of willow-down, lichen, and bleached grass-fibre, lined with rein-deer hair and feathers of Grouse and Siberian Jay and wing-feathers perhaps of Titmouse.

§ 2130. *Five*.—Sadio, 1856. “With head.”

To this nest there is only the head of the bird, an unmistakable Brambling. The nest is like the last, but with more moss (*sammal*) in its structure.

§ 2131. *Six*.—Kyrö, 1856.

With the nest, now before me, found by Kyrö Niku.

§ 2132. *Four*.—Efvre-Muonioniska, 1857.

Found by Auttima Pekka's son Carl, *i. e.* Peter Grape's son. The large egg is probably also a *Fringilla montifringilla*, but it has been said, I think by Mr. Malan, that a Cuckow's egg resembles the bird's eggs in whose nest it is placed, not unlikely to be a mistake.

[I do not know that Mr. Malan ever published anything to this effect, or expressed any opinion on the subject other than in the letter to Mr. Wolley from which an extract has been before given (§ 711); but it is very likely that the latter had some recollection of this in his mind when writing the passage above printed. I see no reason to suppose that Mr. Malan had anticipated the views subsequently published by Dr. Baldamus ('Naumannia,' 1853, pp. 307-325).]

§ 2133. *Five*.—Kiwi-järwi, Enontekis Lappmark, 13 June, 1857.

Found by Maria Muotka-järwi on Kiwi-järwi strand.

§ 2134. *One*.—Kyrö, 1857.

[This has no further history and is one of the Cuckow-like specimens of the Brambling's egg, or perhaps really a Cuckow's.]

- § 2135. *Six*.—Kotti-maa, Enontekis Lappmark, 23 June, 1857. "With head."

Found by Maria Muotka-järwi. The head of the bird now before me clearly belongs to a hen Brambling.

- § 2136. *Five*.—Palo-laj, Muotka-järwi ?, 23 June, 1857.

[There is some confusion in the entry of these eggs in the book, and they may possibly have been taken at Kätkessuando in East Bothnia.]

- § 2137. *Three*.

Seem to be *Fringilla montifringilla*—label lost.

[I cannot think what else these eggs can be, but they are somewhat abnormal in appearance, and the loss of any particulars of their history is much to be regretted.]

- § 2138. *Seven*.—Sources of the Tana, 22 June, 1857. "J. W. Bird seen on."

O. W. tab. xi. fig. 29.

[These must have been taken by Mr. Wolley on his way to Norway: they were never entered by him in his note-book, but were packed in the nest, to which was affixed a memorandum with the above particulars.]

- § 2139. *Three*.—Karasjok, 19 June, 1856. From Pastor Sommerfelt, 1857.

- § 2140. *Five*.—Bonakes, East Finmark, 21 June, 1856. From Pastor Sommerfelt, 1857.

[The eggs included in this and the preceding section were not entered in his book by Mr. Wolley, and in each case the name of the locality was written on the specimen by the Pastor in an abbreviated form; but I believe I have interpreted both correctly. Bonakes, however, is very far north for a Brambling to breed.]

- § 2141. *Two*.—Aita-järwi, Enontekis Lappmark, 13 June, 1857.

Out of six found by Maria Muotka-järwi.

§ 2142. *Three*.—Akki-joen-vuoto, 30 June, 1857.

Out of four found by the same.

§ 2143. *One*.—Wisando-rannalla, 16 June, 1857.

Found by the same.

[All the eggs in the last three sections have a considerable resemblance to each other, and are somewhat abnormal in the style of colouring.]

§ 2144. *Three*.—Wisando-koski-maa, 7 June, 1858.

O. W. tab. xi. fig. 30.

Out of six found by Maria Muotka-järwi in a birch tree about a fathom and a half high on the Swedish side of the river.

§ 2145. *Two*.—Suando-ranta, 16 June, 1858.

Found by the same above Wisando-koski.

[One of these is above the usual size, and may be a Cuckow's.]

§ 2146. *One*.—20 June, 1858.

Out of six found by the same near Sorwioja.

[Two of the same nest were sold at Mr. Stevens's, 8th March, 1859, to Mr. Troughton and Mr. Scales respectively, and the last-named gentleman possessed two more. The sixth egg was broken.]

§ 2147. *Four*.—1858.

Brought by Johan Ratama's daughter 4th July.

§ 2148. *Three*.—Sadio, 1858.

Out of five found by Mikel.

§ 2149. *Three*.—Kyrö-vaara, Kemi Lappmark, 19 June, 1858.

Found by Mathis Mathisen in a Scotch-fir tree.

[§ 2150. *Two*.—Nyborg, East Finmark, July, 1855.]

[§ 2151. *Two*.—Polmak, East Finmark, July, 1855.]

[§ 2152. *Five*.—Tana, East Finmark, July, 1855. From Pastor Sommerfelt.]

[§ 2153. *One*.—Tana, 17 July, 1855. From Herr Brodtkorb.]

[§ 2154. *One*.—Nyborg, July, 1855.]

[§ 2155. *Two*.—Polmak, 1855 (different nests).]

[§ 2156. *Five*.—Iso Rota, 10–16 June, 1860.

Found by Maria Muotka-järwi at a place the name of which was written *Isoste Rodaste* by old Knoblock, to whom the eggs were brought; but Dr. J. N. Reuter has kindly told me that these words, which had much puzzled me, are the elative case of the nominative *Iso Rota* as above given.]

[§ 2157. *Four*.—Ketto-mella, Enontekis Lappmark, 29 June, 1860.

Found by Piety. With these four eggs was a fifth, differing from them in size and colour, so that I had little hesitation in ascribing its parentage to a Cuckow, and have so entered it (§ 729). But the case seems to be one of some interest in its bearing on the question of the frequent assimilation of the parasite's egg to those of its victim. These Brambling's eggs are abnormally coloured, being of the bluish variety, which is not very common, while that of the presumed Cuckow presents the average Brambling coloration. It is enough here to notice this fact, for to discuss any possible explanation of it would be out of place.]

CARDUELIS ELEGANS, Stephens.

GOLDFINCH.

§ 2158. *Three*.—Rugby. Not later than 1843.

My brother George took these in a hedge at Rugby; he saw the old bird on the nest, which was “made entirely of sheep’s wool, very compact and beautiful.”

[§ 2159. *One*.—Tetworth, Huntingdonshire, 22 June, 1848.]

[§ 2160. *One*.—Barnham, Suffolk, 1848.]

[§ 2161. *Four*.—Cambridgeshire. From Mr. C. Thurnall, 1853.

From two nests.]

[§ 2162. *Five*.—Elveden, 9 June, 1857. “E. N.”

My brother’s note states that these were from a nest which he found in an apple-tree in the kitchen garden—“they had been incubated about a couple of days. The hen bird was on the nest when I got up the tree.” He goes on to remark that “this year I have seen much less of Goldfinches than for some time . . . other years have I known of one or two pairs about the house, but never but once before have I found their nest or heard of its being found here.”]

SPINUS VIRIDIS, Koch.

SISKIN.

§ 2163. *One*.—From Mr. T. Reid, 1844.

§ 2164. *Two*.—From the Geneva Museum, 1846.

With the nest, which last I exchanged with Mr. John Hancock. A third egg was given to Mr. Wilmot.

§ 2165. *Four*.—Dunrobin, Sutherland, 14 May, 1851.

My correspondent wrote:—"There can be no doubt as to the certainty of the eggs, as the birds screamed and fluttered about the lad when going up to the nest, and we saw them sitting on the same twig with the nest, but not on the nest." A fifth egg I gave to Mr. J. D. Salmon, 7 March, 1853.

[§ 2166. *Ten*.—Elveden (in confinement), 1851.

All these were the produce of a single bird, which, with her mate, built three nests in succession ('Zoologist,' pp. 3707, 3708).]

[§ 2167. *Five*.—Scotsburn, Ross-shire, 1 May, 1859. From Mr. John Hancock.

These were received by Mr. Hancock from the captor of the Crossbills' nests (§§ 2320-2326). The nest was in a spruce about fifty feet high.]

SPINUS CITRINELLA (Linnæus).

CITRIL.

[§ 2168. *Six*.—From M. Nager-Donazain, 1859.]

[§ 2169. *Two*.—Lucerne, Switzerland, 1 June, 1864. From Herr Seidensacher, 1865.]

[§ 2170. *Four*.—Urseren, Switzerland. From M. Nager-Donazain, 1865.]

[§ 2171. *Five*.—From Herr Seidensacher, through Mr. Dresser, 1868.]

LINOTA CANNABINA (Linnæus).

LINNET.

§ 2172. *Three*.—England, not later than 1846.

[§ 2173. *One*.—Exning, Suffolk, 1846.]

[§ 2174. *One*.—Elveden, 1848.]

[§ 2175. *Nine*.—Hockwold, Norfolk, 1852. From six nests.]

[§ 2176. *One*.—St. Mary Church, Devon, 1852.]

[§ 2177. *One*.—Feltwell, Norfolk. “E. N.”]

[§ 2178. *Five*.—Thetford, Suffolk, 15 May, 1857. “E. N.”

My brother's note says that these were from a nest, in a furze bush, by the road-side, which he found by the bird flying off.]

[§ 2179. *Four*.—Leck, Donegal, 30 May, 1862. “R. H.”
From Mr. Robert Harvey.]

[§ 2180. *Five*.—St. Neot's, Huntingdonshire, 29 April, 1864.
From Mr. Rowley.

Taken from a spruce-fir by Mr. Charles Rowley.]

LINOTA FLAVIROSTRIS (Linnæus).

TWITE.

§ 2181. *Two*.—Alston, Northumberland. From Mr. Hewitson,
1844.

§ 2182. *One*.—Orkney. From Mr. George Harvey of Stromness, 1848.

§ 2183. *Three*.—Sutherlandshire, 26 May, 1849.

I took this nest, with the eggs nearly hatching, in the little burn where I got the Kestrel's [§ 159] and some other nests. I shot the old birds.

§ 2184. *Five*.—Shetland. From Dr. Frere, 1849.

[§ 2185. *Six*.—Unst, Shetland, 1854.]

[§ 2186. *Six*.—Unst, 1855.]

The eggs in both these sections were sent by the correspondent before mentioned (§§ 75-79), to whom I was introduced by Dr. Frere.]

[§ 2187. *Five*.—Leck, Donegal, 30 May, 1862. "R. H." From Mr. Robert Harvey.]

LINOTA HORNEMANNI, Holböll.

§ 2188. *Two*.—Greenland. "Bird taken." From Captain Holböll, through Mr. S. Stevens, 1855.

From two different nests, the birds of which were marked *Linota holbölli*.

[The true *Linaria holbölli* of Brehm (Handb. der Naturgesch. aller Vögel Deutschl. p. 280) seems, so far as Mr. Dresser and I were able to make out, to be only *Linota linaria* in winter-plumage, when it may be easily mistaken for the larger *L. hornemanni*, which, to the best of my belief, is the proper name of the large form breeding in Greenland, and to that this egg certainly belonged. For the latest information on the subject I may refer to Herre Winge's 'Conspectus Faunæ Groenlandicæ' (Aves, pp. 289-296).]

[§ 2189. *Two*.—Labrador, 1851. From Mr. Frederick Bond.

These were given to us by Mr. Bond as well as the nest. He told us they were brought home by the mate of a whaler, and shewed us the birds that came with them.]

[§ 2190. *One*.—Greenland. From Sysselmand H. C. Müller, 1859.

This was given to me at Copenhagen, and, if I am right in my ideas as to the distribution of the species of Redpoll, is most likely that of *L. hornemanni*.]

LINOTA LINARIA (Linnæus).

MEALY REDPOLL.

The Mealy Redpoll most seasons is seen throughout the winter in Lapland, though the greater number go southwards. Even in the breeding-time it seems to be a gregarious bird, for a considerable number of nests are to be found in a small space of the birch-forest, and the region of birch trees seems to be its proper habitat. In 1854 I principally met with it in a small district at a great elevation towards the Norwegian frontier. In 1855, when all soft-billed birds were so scarce after the preceding severe winter in the south, the Mealy Redpolls were abundant everywhere, from the very strands of the Arctic Ocean, over the mountains, where the nests were often close to the ground (as, indeed, they are sometimes in other situations), to the extensive forests of Muonioniska.

The eggs are very variable in size, shape, and marking, generally less than eggs from Greenland, where the bird, whether it be considered distinct or not, appears to be of a larger size; but it is remarkable how precisely nests from such distant parts of the world resemble each other in materials and structure; not a twig nor a filament in the pretty nests from Greenland but what is repeated in the equally pretty Lapland nests.

The time for laying seems very variable. In one wood eggs and young birds are to be found in every stage of advance before there could have been time for any to belong to a second brood.

[These paragraphs, written by Mr. Wolley in 1856 for Mr. Hewitson's use, are here reprinted, with some slight alterations, from the third edition of that gentleman's work (pp. 202* *et seq.*). He also figured (pl. li. *) two eggs out of several sent to him for that purpose; but the particular specimens he chose I have not been able to identify with certainty. He confessed that he was not a believer in the distinctness of the Mealy and the Lesser Redpoll, and admitted the former as a species rather against his will. This may have led him to relax his accustomed care in portraying the subject of his figures.

It is to be borne in mind that some of the eggs here entered as those of *Linota*

linaria may belong to the closely-allied, but somewhat smaller, form *L. exilipes*, which is certainly found further to the eastward, though I have no knowledge of its breeding in Lapland.

I take this opportunity of referring to a remarkable seasonal change in these birds, of which Mr. Wolley seems to have been the first observer, though he never published his explanation of the fact, made known to me while I was with him in the summer of 1855; and I here repeat what I have elsewhere (Yarrell, Br. B. ed. 4, ii. p. 139) stated on the subject:—"It had long been known that examples differed greatly in the size and especially in the length of the bill, and many naturalists were inclined to believe that this difference indicated two races, if not species, of Redpoll. A certain amount of it indeed was obviously rather apparent than real, being due to the length of the feathers on the bird's face, and thus the bill of a specimen obtained in winter always seemed much shorter than that of one procured in summer; but from repeated examination of birds killed out of the same flock he [Mr. Wolley] satisfied himself that during the latter season the horny covering of the mandibles was constantly growing longer, and attributed the fact to the softer nature of the food then eaten, observing that when winter really sets in, and the birds were living solely on hard seeds, the edges and tip of the mandibles were rapidly worn down, so that the bill at the beginning of spring became considerably shorter than it was at the end of the preceding summer." The accuracy of this view, which I think cannot be questioned, was confirmed by the happy conjecture of Dr. Gloger ('Journal für Ornithologie,' Nov. 1856, pp. 437, 438), who was the first to publish it, though the publication did not take place until more than eighteen months after I had been informed of it by Mr. Wolley.]

§ 2191. *One*.—Mukka-uoma, 10 June, 1854.

§ 2192. *Four*.

O. W. tab. xi. fig. 31.

§ 2193. *Five*.

§ 2194. *Five*.

O. W. tab. xi. fig. 32.

§ 2195. *Four*.

O. W. tab. xi. fig. 33.

Mukka-uoma, 10 June, 1854.

§ 2196. *Three*.

§ 2197. *One*.

These are from a dozen to twenty nests found by my men and myself, and perhaps in every instance taken by myself, near the river [Köngämä] not far from the Norwegian mountains, on the 10th of June. Two of the nests had already young in them, and the eggs of others were nearly ready to hatch. They were generally placed in a good thick fork of a tree, made of bents, willow-down, and so forth, and lined with feathers, mostly, but not always, white. The nests were often as much as ten feet from the ground, but generally within reach of a man, and by the side of a mere we found two very near the bottom of the tree. The birds sat very close; I shot one and examined others closely. They are of the species which is so abundant at Muonioniska in autumn and spring. The usual number of eggs is five, sometimes six, but I did not see more.

[Other eggs taken on this occasion were sold at Mr. Stevens's, 26th January, 1855, to Mr. Gurney, Sir W. Milner, and Mr. Wilmot. In the 'Catalogue' of the sale, the date "18 June" was accidentally inserted instead of "10 June."]

§ 2198. *Six*.—Nyimakka, June, 1854.

O. W. tab. xi. fig. 34.

Two nests of Mealy Redpoll, both fresh, brought to me on the 16th of June. Several other nests were hard sat upon, and at that time there were young birds already hatched.

[The eggs from each nest seem to be quite distinguishable.]

§ 2199. *One*.—Mukka-uoma, 1854.

This curious little egg was found in a Mealy Redpoll's nest by Larkis Abraham. He left it for a day or two, hoping for another such egg, but no other egg was laid.

[It is a dwarf, one of the smallest bird's eggs I have ever seen, measuring only .43 by .36 in. It appears to have a thicker shell than usual, and some characteristic marking.]

§ 2200. *Two*.—Jeris-järwi, July, 1854.

Given to me with the nest, from the look of which they are doubtlessly of this bird.

§ 2201. *Two*.—Muoniovaara, July, 1854.

With the nest, lined with willow-down and having shreds of inner bark outside. Found by Ludwig some six feet up in a willow-tree close to his father's house, sometime between the 10th and 20th of July. There were three fresh eggs in the nest. Ludwig found on the Russian side another nest with five eggs nearly hatching, and a third with young birds ready to fly, all within a few days.

§ 2202. *Two*.—Nyimakka, 1854.

O. W. tab. xi. fig. 35.

From a nest of five, no doubt Mealy Redpoll's; brought to Ludwig at St. James's tide by the Nyimakka lads.

§ 2203. *Two*.—Idio-uoma, 1854.

Brought with the nest, evidently a Mealy Redpoll's. It is made of fine faded grass, lined with feathers, willow-down, and reindeer-hair.

§ 2204. *Three*.—1854.

[Not entered in his book by Mr. Wolley.]

§ 2205. *Four*.—Vadsö, East Finmark, 1855.

These look like Mealy Redpoll's, as does the nest, which is made of sticks, bark-bands looking like silver-paper, stringy lichen, and so forth. It is lined with feathers and cotton-wool!

§ 2206. *One*.—Varanger Fjord, East Finmark, 1855.

From a nest of four, brought by a boy.

§ 2207. *Two*.—Varanger Fjord, 3 July, 1855.

Found by a Lapp girl in a district where Mr. Newton and I had often examined the birds, of which we saw several pairs the evening the nest was found. We met with nothing but the Mealy Redpoll of British authors.

§ 2208. *Three*.—Neiden, East Finmark, 1855.

Brought to me at Nyborg, 9th July, by Pastor Sommerfelt, from Paul Christian Ekdahl.

§ 2209. *Four*.—Nyborg, East Finmark, 1855.

From three different nests.

§ 2210. *Four*.—Ounas, Enontekis Lappmark, 1855.

Brought by Piety, who says he never saw so many Redpolls as there have been this year. This nest was on a tuft on the ground.

§ 2211. *Five*.—Sadio, 1855.

Called "*Orpiainen*" by Mikel.

§ 2212. *Four*.—Ollos-uoma, East Bothnia, 23 June, 1855.

"L. M. K."

§ 2213. *One*.—Kangas-järwi, East Bothnia, 1855.

Taken by the lad Johan, Louisa's brother.

§ 2214. *Three*.—Kangas-järwi, East Bothnia, 1855.

Hewitson, Eggs of Br. B. ed. 3, pl. li. fig. 2?

Taken by Carl Johan

§ 2215. *Eight*.—Rowa, 1855.

Peter found them and Johan Eric brought them.

§ 2216. *Six*.—Finland, 1855.

From two nests found by Heiki.

§ 2217. *Five*.—Kangas-järwi, East Bothnia, 1855.

From Johan Olsen, with the nest.

§ 2218. *Seven*.—Muoniovaara, 1855.

From two nests found by the boys of the other house (Tiberg's) and blown by Ludwig.

§ 2219. *Four*.—1855.

Hewitson, Eggs of Br. B. ed. 3, pl. li. fig. 1?

§ 2220. *Three*.—1855.

Brought by Heiki.

§ 2221. *Four*.—Kyrö, 1856.

From Niku.

[§ 2222. *Five*.—Nyborg, East Finmark, 29 June, 1855. "Bird snared. A. N."]

O. W. tab. xi. fig. 36.

The nest was built in the top of a birch-stump, the middle of which had rotted away, leaving a kind of cup formed by the upstanding bark, just of convenient size to hold the bedding for the eggs.]

[§ 2223. *Three*.—Nyborg, 30 June, 1855. "Bird shot. A. N."]

[§ 2224. *Two*.—Vadsö, 1855.]

[§ 2225. *Two*.—Nyborg, 1855.

From different nests.]

LINOTA RUFESCENS (Vieillot).

LESSER REDPOLL.

§ 2226. *Three*. [Apparently from different nests.]

Taken by my brother George, who says, in a letter, "I am certain of the Lesser Redpoll. I have taken the nests at various places—at Rugby, at Beeston, and, I believe, at Wirksworth. I watched the birds for some time."

[The substance of the above was communicated to Mr. Hewitson, and published by him in 1843 in the second edition of his 'Eggs of British Birds' (i. p. 166).]

[§ 2227. *Two*.—Barnham, Suffolk, 14 May, 1846.

From a nest of six eggs, built against the trunk of a larch-tree, six or seven feet from the ground (Zoologist, p. 1497).]

[§ 2228. *One*.—Barnham, April, 1848.]

[§ 2229. *One*.—Barnham, May, 1849.]

[§ 2230. *Eight*.—Elveden, May, 1852.

From five out of six different nests, all of which my brother or I found between the 5th and 28th of the month, mostly by watching the birds from their watering-places, which several years' experience shewed us was the only way to ensure success. The nests were nearly all in young larches of no great height, and built close to the trunk; but one was in an old and tall larch, many feet from the ground, and, being built near the outer end of an horizontal branch, the taking of it was attended by considerable difficulty and some danger. The operation was, however, effected by tying the branch to the one immediately above it, and then, after sawing it off at the butt, by carefully rotating it horizontally as it hung, until the nest was brought within reach.]

[§ 2231. *Five*.—Leck, Donegal, 29 May, 1862. "R. H."
From Mr. Robert Harvey.]

[§ 2232. *Two*.—Cambridge, May, 1873. From Mr. John Baker.

These were found by two of Mr. Baker's boys in a garden at the back of the Colleges. The nest, which was given to me at the same time, was built in and upon that of a Long-tailed Titmouse. It is the first known by me to have been taken in Cambridgeshire.]

PYRRHULA EUROPÆA (Vieillot).

BULLFINCH.

§ 2233. *Si.v.*—England, not later than 1846.

§ 2234. *Four*.—Bearwood, Berkshire, 1846.

§ 2235. *One*.—Rowa, East Bothnia, 1855.

Apparently a Bullfinch's, and the only one I have got in Lapland.

[This most likely belongs to the larger form, *P. major*, Brehm.]

§ 2236. *Five*.—Elveden, 27 April, 1859. "J. W."

The nest, shewn to me by Messrs. A. and E. Newton, in a laurel, about five feet from the ground. The hen bird sat very close upon the nest, which was beautifully made.

[§ 2237. *Two*.—Elveden, 1847. From different nests.

The second nest found by my brother with three eggs on the 10th May.]

[§ 2238. *One*.—Elveden, May, 1848.]

[§ 2239. *Three*.—Elveden, 5 May, 1851. From two nests, found on the same day.]

[§ 2240. *Seven*.—Elveden, 1852.

From two out of four nests found in May and June.]

- [§ 2241. *Four*.—Hockering Wood, Norfolk, 22 June, 1875.
From Mr. F. Norgate.

Taken by Mr. Norgate.]

URAGUS SIBIRICUS (Pallas).

- § 2242. *One*.—Dauria, 1867. From Dr. Dybowski, through
M. Jules Verreaux, 1868.

In their paper on the Birds of Darasun, in the 'Journal für Ornithologie' for 1868, Drs. Dybowski and Parrex state (p. 335) that this species was pretty abundant in the spring passage and not rare in summer. Its eggs were among those that they found (p. 339).]

CARPODACUS ERYTHRINUS (Pallas).

- [§ 2243. *Two*.—"Finland." From Dr. A. von Nordmann,
through Dr. Baldamus, 1861.

These were given to me by, at Osternienburg, Dr. Baldamus, when I had the pleasure of paying him a visit in August, 1861.]

- [§ 2244. *One*.—Helsingfors, Finland, 2 July, 1860. From
Mr. H. E. Dresser, 1865.

Mr. Dresser received this, among others, from his friends at Helsingfors, one of whom took it.]

- [§ 2245. *One*.—Dauria, 1867. From Dr. Dybowski, through
M. Jules Verreaux, 1868.

Drs. Dybowski and Parrex say (Journ. für Ornith. 1868, p. 335) that this species (the name of which is misprinted *erythreus*), though very abundant at Darasun during the passage in spring, is rare in summer, yet they obtained its eggs (*t. c.* p. 339).]

CARPODACUS GITHAGINEUS (II. Lichtenstein).

[§ 2246. *One*.—From Dr. Baldamus, 1861.

Given to me by the Doctor at Osternienburg.]

[§ 2247. *Ten*.—Teneriffe, Canary Islands. From Señor Gomez, through Mr. Dresser, 1889.]

[§ 2248. *One*.—Lilford Aviary, 1893. From Lord Lilford.]

PINICOLA ENUCLEATOR (Linnæus).

PINE-GROSBEAK.

The Pine-Grosbeak, though plentiful in Sweden during the winter, has been supposed to go to the east for the breeding-season; and, generally speaking, this is probably true; but in the northern and eastern part of Swedish Lapland, as well as in Finnish Lapland, a few Pine-Grosbeaks make their nests.

As the days grew longer I eagerly listened to the beautiful clear music of the bird in more than one locality; and one snowy morning I saw a hen watching me so very unconcernedly from a tree, that I climbed up to try to catch her in my hand. It was not until I nearly touched her that she flew off, as though she thought I was carrying the joke too far, but in a way that convinced me she had no nest.

I had made arrangements for working another part of the country, but I left a trusty Lapp in strict charge to visit a spot in Finland where I had ascertained that in previous years the bird had bred. On my return to that neighbourhood at the end of summer, I watched day after day for the arrival of my faithful Lapp. The nights were already becoming dark, when one evening¹ I saw the

¹ [Sunday the 12th of August, as I find from Mr. Hudleston's journal of 1855. The "trusty Lapp," as will immediately be seen, was Martin Piety, who brought with him Mikel Sadio, one of the brothers who next year made the great Waxwing discovery (*cf. antea*, pp. 213-224), and my belief is that this was the first time Mr. Wolley met any one of that remarkable family.—ED.]

well-known figure in a boat approaching our strand. I had scarcely shouted welcome before his wallet was in my hand, and my English friends [Mr. Huddlestone and the editor] were in triumphal procession to the house. First made its appearance a grim wolf's head [now in the Cambridge Museum]; then came forth some rein-deer gad-flies; next there was extracted an unknown nest; then a skinned Pine-Grosbeak; and, at last, were carefully unwrapped from a little case the wished for eggs, and there they lay in all their fresh discovered beauty before us.

At midsummer a nest was found with four fully-fledged young, about a hundred yards from the spot where the former nest had been. It is now in the British Museum. Externally it is made of remarkably open work of twigs and roots, generally in very long pieces. In the centre of the platform there is an inner bedding of barkless, fibrous roots, with a little of the hair-like lichen which grows so abundantly on trees in Lapland forests.

[These paragraphs are the only extracts, printed by Mr. Hewitson in May 1856 (Eggs of Brit. Birds, ed. 3, pp. 210* *et seq.*), from the longer communication on the subject made to him by Mr. Wolley before the season of 1856. Unfortunately they do not tell the story of the latter's many unsuccessful attempts to obtain eggs of this species during his second summer in Lapland (that of 1854), nor can I supply the deficiency. At that time few, if any, British ornithologists, Mr. Lloyd (Scandinavian Adventures, ii. p. 324) excepted, thought its eggs had been discovered; but there can be no doubt that in 1821 Prof. Zetterstedt found, as he himself tells us in his Travels in Lapland, published the following year (*Resa genom Sveriges och Norrriges Lappmarker*, i. p. 243), at least two nests near Juckasjärvi, on the 20th and 30th of June respectively. Nilsson, in all the editions of his *Skandinavisk Fauna* (from 1824 to 1858), refers to the passage in Zetterstedt's book, and partly quotes his description of the eggs, but gives him no credit for the discovery, to which, so far as I know, he was certainly entitled¹. In 1829 justice was done to Zetterstedt by Thienemann in his earlier work (*Fortpflanzung der Vögel Europas*, Abth. iii. p. 29), though he did not therein figure an egg as he subsequently did in his larger one (*Fortpflanzungsgeschichte der gesammten Vögel*, tab. xxxvi. fig. 1, p. 418); and he then said he had never compared but five specimens². In this country authentic examples were certainly unknown before Mr. Wolley's time, and he only became aware of Zetterstedt's having anticipated

¹ [In the preface (*Första*) to his edition of 1824, Nilsson takes exception to many of Zetterstedt's statements, and, in particular, to that wherein he declares Temminck to have been wrong in describing the eggs of this bird as white, arguing that birds' eggs vary much in colour.]

² [The eggs previously figured, or misfigured, by Schinz (*Nester und Eier der Vögel*, u. s. w. ii. p. 100, Taf. 36. figg. 15, 16) were, as Thienemann tells us, laid in captivity.]

his discovery two or three years later¹, or he certainly would not have said, as he did, in his Sale Catalogue of Eggs taken in 1856, that he had "had the good fortune to make known to naturalists, probably for the first time, the eggs of this species."]

§ 2249. *One*.—Kyrö, Kemi Lappmark, 26 May–2 June, 1855.
"With bird."

Hewitson, 'Eggs of British Birds,' ed. 3, pl. liii*. fig. 1.

The nest was found by Pehr Eriksson Kyrö (Martin Piety or Martin Pekka), the trustworthy Lapp, in company with Mikel Sadio. It was on the eve² of the Second *Heluntai* (*i. e.* 27th May) that they went to Ketto Mello, a little above Yli-Kyrö on the same side of the river. It was a little kind of dell where there were groups of small spruces. Piety first saw the bird fly up from the ground with some sticks or nest-lining in its mouth. It remained quite still and silent, and they were some time before they found the nest, apparently completed, but still without eggs. It was about two fathoms from the ground in a young spruce, three fathoms high. The branches about the nest, which was not quite touching the bole, thin, short, and open. Several days afterwards there was one egg; at the next visit there were three, and, again, several days later there were four. The nest and eggs were now taken, and it was found that the eggs were slightly sat upon. But first the old bird was snared, horsehair nooses being fixed into the bole of the tree so as to stand out over the nest. The skin now before me has been examined by my companions [Messrs. Simpson and Newton], and we are without doubt as to its being truly that of a hen PINE-GROSBEAK. The Sadio lad says that he saw at least ten old nests thereabouts, and Piety says that he has also seen nests in similar situations, but never anywhere else, *i. e.* there is always some favourite corner where they are placed year after year. At midsummer the lad found another nest, about a hundred yards off, containing four young birds nearly ready to fly.

¹ [As Zetterstedt's travels are not commonly to be met with, a translation of the passage may as well be given here:—"The *Swenska* (Swedish Parrot: *Loxia enucleator*) built its round nest on boughs of thick Scotch-fir and spruce bushes, near the stem, from four to six ells [8 to 12 feet] above the ground. The nest was interlaced with stalks, and outwardly covered with fine dry spruce twigs. On the 20th June there were three blue-green eggs with sparse (*glesa*) spots, which formed a dark zone at the larger end. These eggs were somewhat sat upon: in another nest on the 30th June the eggs had already large young."]

² [In the ecclesiastical sense, for 28 May = 2d Heluntai.—ED.]

He took it, and it is now in my possession. The nest which had the eggs was pulled to pieces by the children at his house in Sadio. The one before me is made externally of an extremely light network of thin trailing twigs laced into one another; one of these twigs completely encircles the nest, and goes halfway round it again, and seems to be about twenty-eight inches in length. This network of twigs is suddenly changed into a compact bedding of fine bare roots mixed with a few sprigs of hair-lichen, which form together almost a separate nest inside the outer network. Mr. Newton considers the nest to be very like that of a Bullfinch. A second nest from Kyrö appears to have been lined with fine grass and hair-lichen.

[Of the four eggs only one now remains in the collection, and that served, as above indicated, Mr. Hewitson in a supplementary plate to the last edition of his work, having been figured by him in the part which appeared on the 1st of May, 1856. A second egg was sold at Mr. Stevens's, 7th March, 1856, to Mr. Holland, a third was given to Mr. Wilmot, at whose death it passed, with the rest of his collection, to Mr. G. L. Russell, and is now in the Museum of the University of Cambridge. The fourth egg went to M. Parzudaki, who no doubt sold it.—Ed.]

§ 2250. *One*.—Kyrö, Ounasjoki, Kemi Lappmark, 1855.

Hewitson, 'Eggs of British Birds,' ed. 3, pl. liii*. fig. 2.

This egg, brought by the boy Johan Johansson, was found near Ala Kyrö by Pekka, brother of Mikel, Niku, and Sallanki Josa. Mikel Sadio was in Pekka's house the day before midsummer, that is, on the 23rd June, and Pekka talked about having seen the nest, but hesitated about being at the trouble of going to fetch it. However, Mikel urged him to do so, and Pekka went—if I rightly understood, in company with Autto Josa; at all events, Josa had seen the nest about a week before. In a very short time Pekka came back with the nest and two eggs, which appeared to have been deserted, and it was surmised that a Hawk had killed the mother some time before. This nest was not the one brought to me, which Pekka had in the house before, as Sadio Mikel witnesses [*ut suprâ*]. They all talked about the bird unanimously as *Leipiäinen* [properly Lark], which is their name for Pine-Grosbeak—the same bird as Mikel brought to me the skin of from another nest [§ 2249]. At the same time there was some talk among the dishonest part of the bystanders to pass them off for *Käpy-lintu*, by which they meant Crossbill, and supposed to be the object of my enquiries. Josa is an honest man,

and I am assured that this Mikel Sadio is quite trustworthy. The skin of a male Pine-Grosbeak was brought to me at the same time from some one in Kyrö, I am not sure of whom. Pekka and his brothers, children of the woods, are familiar with most of the birds of the country. This egg agrees with those of the thoroughly identified nest in every respect except that it is slightly larger.

[This egg was figured by Mr. Hewitson as above cited. In 1856 Mr. Wolley gave it to my brother and me for our collection.—Ed.]

§ 2251. *Four*.—Sadio, Kemi Lappmark, 11 June, 1856.
“Cock snared. L. M. K.”

From a nest found by Mikel Sadio on the night 6-7th June, when there was only one egg in it. Ludwig's note is :—“It was in the same kind of place as the Silk-tail's nest [§ 808], but about one hundred and fifty fathoms more towards the strand.” Ludwig first saw the birds, but Mikel found the nest, and Ludwig climbed into the tree—a spruce, a fathom and a half high; the nest about a fathom from the ground, and close to the base of the tree. I have sent the nest to England.

§ 2252. *Three*.—Sadio, June, 1856. “With hen. L. M. K.”

The nest was found by Ludwig on the same night as the first Waxwing's, *i. e.* 6-7th June, but the first egg was not laid in it till the 11th. So it was left for Mikel, who snared the hen bird, and brought it to Muoniovara, 29th June. The nest, now before me, is slight, made chiefly of fine grass, with just a little hair-lichen, and outside a few trailing roots, of which there have probably been more; but it has been in Mikel's hands.

2nd November, 1856. Sadio Mikel and Johan being at Muoniovara [*cf. antea*, p. 219], tell me that the *Käpy-lintu* makes its nest in a place where spruce and pine are blended, in a small tree without tree-hair, either a spruce or a pine, but mostly a spruce. He has seen old nests two fathoms from the ground, but they are generally six or seven feet. One could catch the bird in the hand were it not for fear of breaking the eggs. The cock bird, the red one, never sits on the nest. Mikel thinks that there were about the usual number of birds this year. Johan saw an old nest in the same tree with a new one. They build always about the same place; where

one finds old nests there will then be new. *Risti-nokka* [Crossbill] is also in Sadio, but he never could find its nest.

§ 2253. *Four*.—Sadio, June, 1856. “With hen.”

Brought by Mikel Sadio with the others, the bird carefully placed with each nest. This nest is entirely made of fine trailing branches or runners, principally of *Linnaea borealis*, and lined with tree-hair.

§ 2254. *Four*.—Sadio, June, 1856. “With hen.”

One of Mikel's nests (as above). This of runners with the bedding principally of grass and one or two bits of black tree-hair.

§ 2255. *Four*.—Sadio, June, 1856. “With hen.”

O. W. tab. xii. fig. 8.

This nest, mostly of sheep-grass, is another found by the Sadio lads, and one of those on which the bird was snared.

§ 2256. *Four*.—Sadio, June, 1856.

The nest like the rest, but with rather more tree-hair and less grass.

§ 2257. *Three*.—Sadio, June, 1856.

One of these eggs is a remarkably light variety. The nest is quite characteristic.

§ 2258. *Four*.—Sadio, June, 1856. “With hen.”

O. W. tab. xii. fig. 3.

One of Mikel's nests; entirely lined with grass, outside more root-fibres than usual. The bird is a hen, and lies before me, having been carefully kept with the nest and eggs since they were brought to Ludwig on the 29th June.

§ 2259. *Three*.—Sadio, June, 1856.

From a nest of four, one of Mikel's. The bird does not seem to have been snared. The nest, which is imperfect, is made of long thin roots and shoots mixed with fine grass-bents, or, at least, sheep-grass.

§ 2260. *Three*.—Sadio, June, 1856.

Probably one of the nests from which the bird was snared¹. It is in good condition, rather more crossed and interwoven than most of the others.

§ 2261. *One*.—Kyrö, Kemi Lappmark, June, 1856.

One of three brought by Kyrö Niku on the 26th June without the nest, but with the head of the female. Found in company with his brother Mikel near Ala-Kyrö.

[Another from this nest was given to Mr. Simpson: the third I cannot trace.]

§ 2262. *Ranta-autto*, Sadio, 16 June, 1857.

Found by Brita Maria, and so much sat upon that I have had much trouble in extracting the young.

§ 2263. *Two*.—Piko-vaara, Sadio, 16 June, 1857. "J. W."

O. W. tab. xii. figg. 1, 2.

Taken by myself, that is to say, I was under the tree, a quarter of a mile (Swedish) north of Sadio. They were cold and, the lads said, had been long in the nest. We saw no bird, but they said that the cock was in very fine red plumage. The nest was about ten feet from the ground in a young spruce.

§ 2264. *Three*.—Ruota Kyrö, Ounas-tunturi, Kemi Lappmark, 17 June, 1857. "Bird seen on. J. W."

O. W. tab. xii. figg. 4, 5.

¹ [It would appear that, after reaching Muoniovara, some confusion took place as to the precise nests belonging to the different birds, which at first [§ 2258] were carefully kept separate.—ED.]

Taken by myself in the night or early in the morning. The bird was very tame as usual, and came back to the nest in about five minutes after I had exchanged the two eggs in it for Redwings', on which latter it readily sat. The nest was in a gay young spruce, and so that I could reach it from the ground. The third egg was lying outside the lining of the nest among the external twigs, whither it had probably rolled when Mikel climbed up. The spot is near the Gyr-Falcon's nest, where Piety trapped the cock bird [§ 201].

§ 2265. *Four*.—Kyrö, June, 1857.

Taken by Kyrö Niku in the course of the week preceding the 14th June, when I received them. The nest is slight, lined, as usual, with very fine grass.

§ 2266. *Three*.—Sadio, June, 1857.

Found by the younger Johan of Sadio, and received by me in Yli-Kyrö on the 14th.

§ 2267. *Four*.—Kyrö, June, 1857.

With the nest; received by me as the last.

§ 2268. *Four*. }
 § 2269. *Four*. } Yli-Kyrö, 14 June, 1857.

O. W. tab. xii. fig. 9.

Two nests found by the boys Johan Johansson of Yli-Kyrö and Fredrik Sadio (the latter being Kyrö Jacob's servant-lad) in company, a few days before I received them. The name "*Käpylintu*" was of course given to them.

§ 2270. *Three*.—Ruona-lehta, Enontekis Lappmark, 19 June, 1857.

O. W. tab. xii. figg. 6, 7.

Brought by Johan Peter Wassara, without the nest, to Muoniovara, 24th June. These are small eggs.

§ 2271. *Four*.—Marta-vaara, Enontekis Lappmark, 20 June, 1857.

One of Wassara's nests, as the last.

§ 2272. *Two*.—Suas Kyrö, Kemi Lappmark, 20 June, 1857.

From Heiki.

§ 2273. *Three*.—Under Lumi-kero, Pallas-tunturi, 21 June, 1857.

From a nest of four eggs obtained by Heiki. Lumi-kero is one of the tops of Pallas-tunturi.

§ 2274. *Four*.—Under Lumi-kero, 21 June, 1857.

O. W. tab. xii. fig. 10.

From Heiki.

§ 2275. *Three*.—Wuontis-järwi, Pallas-tunturi, 23 June, 1857.

From a nest of four eggs obtained by Heiki.

§ 2276. *Two*.—Ranta-vaara, Kemi Lappmark, 22 June, 1857.

O. W. tab. xii. fig. 11.

Sent from Jacob of Yli-Kyrö by Heiki.

§ 2277. *Three*.—Kaivas Jänkkä-vaara, 22 June, 1857.

From Jacob of Yli-Kyrö.

§ 2278. *Four*.—Ala-Kyrö, June, 1857. "Bird snared."

O. W. tab. xii. fig. 12.

§ 2279. *Three*.—Ala-Kyrö, June, 1857. “Bird snared.”

These two nests I received in Yli-Kyrö on the 14th of June. They were brought by Mikel, Niku's brother; and with them two snared hen birds, which I do not doubt were, as he said, snared from them. The eggs were blended, but the bright green colour of four is sufficient to separate them from the others.

§ 2280. *Four*.—Kotti-maa, Muotka-järwi, 23 June, 1857.
“With head of hen.”

The girl Maria found them in Kotti-maa (homestead), and brought them to Muoniovara, blown by herself, on the 15th July.

§ 2281. *Three*.—Kaakkuri-lammas, Muoniovaara, West Bothnia, 30 June, 1857.

These were found by young Johan Tiberg (Toinen Allon Josa) as he was cutting wood on the rise of the hill just on this side of Kaakkuri-lammas, and therefore on Muonio-vaara. The tree was a long, thin pine with several large branches at the top.

§ 2282. *Three*.—Kyrö, 1857.

Out of a nest of four, one of two brought by Mikel Sadio, and found probably by his brother, who is servant to Jacob Larsson Kyrö, to whom they belonged. They are long narrow eggs.

§ 2283. *Three*.—Kyrö, 1857.

Brought with the last, but easily separated by their beautiful blue ground-colour, and entirely different character.

§ 2284. *Four*.—Wuontis-järwi, Enontekis Lappmark, June, 1857.

O. W. tab. xii. fig. 14.

One of three nests found in Wuondis-järwi, the village near Peldouoma, on the 22nd and 23rd of June, by Johan Sadio, and brought by Mikel.

§ 2285. *Four*.—Sadio, June, 1857.

O. W. tab. xii. fig. 15.

Found by Brita after midsummer.

§ 2286. *Four*.—Viksi-rotta, West Bothnia, 9 June, 1858.

Found by Anton at the same place and time as a Waxwing's nest (which was built in a Scotch fir) and eggs¹, but this in a spruce, about two fathoms from the ground.

§ 2287. *Four*.—Mielmuka-maa, 7 June, 1858.

O. W. tab. xii. fig. 13.

Found by Heiki's boy in a spruce, and brought by him to Muoniovara on the 12th.

§ 2288. *Three*.—Kiwi-järwi, 11 June, 1858.

Found by Mathias Kurkio-vaara and Mikel Hendriksson.

§ 2289. *Four*.—Kyrö, 4 June, 1858.

Found by Niku in a spruce at Harri-Sadio.

§ 2290. *Four*.—Kurkio-maa, 13 June, 1858.

Found by Johan Peter Wassara.

§ 2291. *Four*.—Ruona-leijas, 14 June, 1858.

Found by the above-named man.

§ 2292. *Four*.—Kurkio-maa-ranta, 15 June, 1858.

O. W. tab. xii. fig. 16.

Found by the same man.

¹ [Sent to Herr von Pelzeln for the Vienna Museum in 1861.]

§ 2293. *Three*.—Ripotiwa, Akkis-järwi, 15 June, 1858.

O. W. tab. xiii. fig. 17.

Another nest by the same man.

§ 2294. *Four*.—Pipoharju, Akkis-järwi-ranta, 16 June, 1858.

Found by the same.

§ 2295. *Four*.—Motka-maa, 17 June, 1858.

As the last.

§ 2296. *Four*.—Kosin-koski-ranta, 11 June, 1858.

Brought by Simon Peter of Salmijärwi.

§ 2297. *Four*.—Pipoharju, 17 June, 1858.

Brought by the same.

§ 2298. *Six*.—Sieppi, June, 1858.

Out of eleven eggs from three nests, the contents of which were mixed, brought by Sieppis Johan, having been found by himself between the 1st and 19th of June, about half a mile (Swedish) from his house.

[I have found it impossible to separate the nests, though some of the eggs are very remarkable. Other specimens from the number are in the collections of Mr. Crowfoot, and the late Dr. Brewer, Mr. Graham Manners-Sutton, and Mr. Newcome.]

§ 2299. *Four*.—Nuoli-kaakkuren-eno, June, 1858.

Brought by Petter Rowa (Ponsi); found in a spruce between the 13th and 19th.

§ 2300. *Four*.—Yli-kellon-kanko, 7 June, 1858.

Brought by Piety; found in a spruce about two fathoms and a half high.

§ 2301. *Four*.—Kaiwos-jänkä-vaara, Ounas-joki, 10 June, 1858.

Brought by Piety. The nest in a spruce about two fathoms and a half high.

§ 2302. *Three*.—Peldouoma, 1858.

O. W. tab. xii. fig. 19.

Brought by Samuel Samuelsson, 30th June.

§ 2303. *Four*.—Ala-rowa, Wuondis-järwi, 30 June, 1858.

Brought by Mikel Sadio, 4th July.

§ 2304. *Three*.—Ala-rowa, 1858.

O. W. tab. xii. fig. 20.

Brought with the last; found by Fredrik Sadio.

§ 2305. *Four*.—Kello-järwi-ranta, June, 1858.

Brought with the last; found by Johan Kyrö.

§ 2306. *Three*.—Kellon-paikan-järwi, Pallas-tunturi, 26 June, 1858.

Found by Heiki.

§ 2307. *Three*.—Oidemaa, Kyrö, 11 June, 1858.

Found by Jakob Kyrö, a quarter of a mile (Swedish) from the house.

§ 2308. *Three*.—Suas-kankalda, 19 June, 1858.

Found by Johan Kyrö.

[One of these eggs is the smallest in the series, measuring only '74 by '62 in., so that it may be regarded as a dwarf. In character it resembles one of its companions, which differ remarkably from each other.]

[§ 2309. *Four*.—Jankotiwa, 13 June, 1860.

Brought to Muoniovara by Johan Petter Wassara, 23rd June.]

[§ 2310. *Four*.—Ekker-järwi, 19 June, 1860.

Brought to Muoniovara by Gustav Wassara, the same day as the last.]

[§ 2311. *Three*.—Niwungi-selkä, 22 June, 1860.

Brought with the last, and by the same man.]

[§ 2312. *Four*.—Hankas-hanka, Kyrö, 17 June, 1860.

O. W. tab. xii. fig. 18.]

[§ 2313. *Four*.—Hankas-hanka, Kyrö, 17 June, 1860.

These two nests, belonging to Mikel Kyrö, brought by the Wassara men to Muoniovara.]

[§ 2314. *Three*.—Suas-korra, 20 June, 1860.

Sent to Muoniovara by Petter Kyrö with other eggs, among them three which, he said, were Lapp Owls', but they proved to be Rough-legged Buzzards' with the spots scraped off! One of the few cases of a deliberate attempt at robbery that, on the part of the Finnish peasants, have come to my knowledge.]

[§ 2315. *Three*.—Aita-söllästa, Motka-järwi, June, 1860.

Found between the 10th and 16th by Maria, and brought to Muoniovara by her on the 30th.]

[§ 2316. *One*.—"Labrador." From Herr Möschler, 1869.]

LOXIA PITYOPSITTACUS, Bechstein.

PARROT CROSSBILL.

[§ 2317. *One*.—"Wernland, Sweden, 1859." From Mr. John Hancock, 1860.

Mr. Hancock informed me that it was taken by the late Mr. H. W. Wheelwright, who seems to have been the first of our countrymen to obtain eggs

of this bird, specimens being sent to Mr. Hancock by him in 1858 (Ibis, 1860, p. 170—where his name is miscalled “Wainwright”); but in his account of it (Ten Years in Sweden, pp. 343, 344) he does not state that he ever took the nest himself.]

[§ 2318. *One*.—Kyrö-vaara, Kemi Lappmark, 12 June, 1861.

Brought with the nest to Muoniovara, 25th June, 1861, by Piety, having been found as above by the boy Petter Mattisson at the top of a spruce, about eight fathoms from the ground. The egg was laid before the 12th of the month, and when the boy saw that there were no more, he took it. Piety saw this pair of *Ristinokkas* about a spruce-tree, but did not see the nest, so he told this boy he should watch the pair of birds, because they certainly had a nest there, as the boy since found. Piety said that he was sure of this being a *Ristinokka*'s egg and nest, because he had seen since a similar nest, which he had examined, but it never had an egg in it, though there was a pair of *Ristinokkas*. He intended to examine this nest again when he returned.

This he did, and all the result of a ten days' search was a single bird, which he thought was the small kind of *Ristinokka*, but its skin duly arrived in England, and is certainly that of a *Loxia pityopsittacus*.

The empty nest above spoken of was just at the top of a very high tree, making it very hard to find.]

[§ 2319. *Five*.—Gårdsjö, Wermland, 31 March, 1868. “Bird shot.” From Herr E. O. Stenström.

My brother Edward wrote:—“These eggs, with the nest and bird, were given to me at Gårdsjö by Herr Stenström, and were taken by Hans (the man who went to Lapland as a ‘collecting-lad’ with Mr. Wheelwright in 1863) in the presence of F. and Herr Stenström. The nest had been previously found by Hans, and, as described to me, was placed in a scrubby Scotch-fir tree about fifteen feet from the ground. The hen-bird was on it when they visited it, and on Hans getting up the tree it flew off to a neighbouring tree, when F. shot at it and missed it. After Hans had come down with the nest and eggs, the bird returned to the top of the same tree, and he shot it. On the 30th of April I went with Hans to see a Parrot-Crossbill's nest which he had found some days before with young birds in it. This was in a forest about two miles to the north-east of Gårdsjö. The ground there is rocky and poor, and the trees, nearly all Scotch firs, are stunted in their growth. The nest was in a Scotch fir, which was about twenty-five feet high, and at about eighteen feet from the ground. The young had apparently just left it. The nest from which these eggs were taken was, they said, about a mile further on, but as it was a bad day I did not go to the spot. When they took it the snow lay deep on the ground. Hans had found another nest with four eggs, a few days after the first one, and Herr Stenström shewed it to me. Both he and Hans agreed that this species breeds earlier than the Common Crossbill, and when I left Gårdsjö the first week in May, in their opinion the latter had not begun to build.”]

LOXIA CURVIROSTRA, Linnæus.

§ 2320. *Four*.—Balnagown, Ross-shire, April, 1857. From Mr. John Hancock.

One of several nests sent to Mr. Hancock by a correspondent of his. The note accompanying these specimens is as follows:—"Taken early in April, 1857. The eggs were quite fresh." The nest, now before me, is neat and compact, made externally of sticks of fir and heather and a few splinters of decayed wood. There is a little fine grass mixed and lined with white hair-lichen, and a little moss and sheep's wool. With some of the nests the birds were sent to Mr. Hancock, and they were all Common Crossbills.

[Mr. Hancock, in the notes printed by Mr. Hewitson in the last edition of his work (p. 213), states that, though he and Mr. Charles St. John found three Crossbills' nests in one day in 1850, the young had flown from each of them. This was in the Findhorn woods, and it was not until 1854 that he obtained, through that gentleman, from Ross-shire a nest with eggs—a statement confirmed by Mr. St. John's posthumously-published volume (*Natural History & Sport in Moray*, pp. 75, 76, and 124, note). For several years after, and, as the succeeding entries shew, especially in 1858, Mr. Hancock continued to receive eggs from the same quarter, taken, as he subsequently told me, by a young man, Robert Macdonald, whom he had instructed, so that they could be thoroughly trusted.]

§ 2321. *Four*.—Benlochan, near Balnagown, 6 March, 1858. From Mr. Hancock.

The information accompanying this nest was to the effect that it was found while being built on the 27th of February, and taken on the 6th of March, there being then ten inches of snow on the ground. It was on the bough of a fir about five-and-twenty feet high. I had particularly asked Mr. Hancock to obtain for me a nest taken as early in the year as possible, that there might be no chance of it being that of a Greenfinch or any such bird. The nest is made chiefly of moss with a few sticks, and fine lichen with a bit or two of wool in the lining.

§ 2322. *One*.—Scotsburn Wood, Ross-shire, 16 March, 1858.
From Mr. Hancock.

Obtained by me at the same time as the last. The nest, said to have been twenty-three feet from the ground in a Scotch fir, is like the last.

[At Mr. Stevens's, 30th May, 1860, three other eggs from this nest passed into the possession of Mr. Burney, Mr. Simpson, and the late Mr. Wilmot respectively.]

§ 2323. *Four*.—New Tarbet, 19 April, 1858. From Mr. Hancock.

From the same man. Found in a small plantation about three miles from Tarbet House. The note accompanying the nest is marked "Red and Green bird"; meaning thereby that one bird was in red, the other in green plumage.

§ 2324. *Five*.—Balnagown, May, 1858. From Mr. Hancock.

Sent by the same correspondent as the foregoing to Mr. Hancock. The eggs sat upon.

[§ 2325. *Four*.—Ross-shire, March, 1858. From Mr. Hancock.

With the nest from the same man.]

[§ 2326. *Four*.—Ross-shire, April, 1858. From Mr. John Hancock.

With the nest, as the last.]

[§ 2327. *Three*.—Kiwi-joen-ranta, Kyrö, 18 May, 1862.

Brought with the nest to Muoniovara on the 25th of May by Kyrö Niku, who said that he took them as above in a Scotch fir three fathoms and a half from the ground, and that they were certainly *Ristinokka's* (as, indeed, they seem to be), for he saw the bird upon the nest. The nest is to all appearance a Crossbill's, and the eggs are so small that I suppose them to be those of *Loxia curvirostra*. All his endeavours notwithstanding, Mr. Wolley never succeeded in getting a Crossbill's nest in Lapland.]

LOXIA BIFASCIATA, C. L. Brehm.

- [§ 2328. *One*.—"Archangel." From Mr. C. F. Craemers, 1876, through Mr. Salvin.

Mr. Craemers, a young Russian who worked for some time in London with Mr. Dresser, on returning to his own country in 1875 was especially enjoined by the latter to obtain eggs of this species, but arrived too late to procure them. The year after a fine series of skins of the bird, together with a nest and two eggs, were sent to Mr. Craemers by a friend in Archangel, near which town they had been obtained, as may be seen by Mr. Dresser's 'Birds of Europe' (iv. p. 144), and the present is one of those eggs. Notwithstanding its large size, I think it may be trusted.]

SERINUS HORTULANUS, Koch.

SERIN.

- [§ 2329. *One*.—Algeria, 1856. From Mr. Tristram, 1858.]

- [§ 2330. *One*.—"Carinthia." From Herr Möscher, 1862.]

SERINUS SYRIACUS, Bonaparte.

- [§ 2331. *Two*.—Hazreen, Palestine, 16 June, 1864. From Mr. Tristram.

The place is in the valley of the Kadisha in the Lebanon. There were four eggs, the remaining two being in Mr. Salvin's collection. Canon Tristram (Proc. Zool. Soc. 1864, p. 447) described this species as new under the name of *S. aurifrons*, which—Mr. Blyth having pointed out (*Ibis*, 1867, p. 45) that he had applied that name to another species,—Mr. Dresser (*Birds of Europe*, iii. pp. 555, 556) changed to *S. canonicus*. The Canon's notes on the bird's habits, with two excellent figures by Mr. Wolf, are given in 'The Ibis' for 1868 (pp. 207, 208, pl. vii.), and repeated in the 'Fauna and Flora of Palestine' (p. 85).]

SERINUS CANARIUS (Linnæus).

CANARY BIRD.

[§ 2332. *Eleven*.—Teneriffe, Canary Islands. From Señor Gomez, through Mr. Dresser, 1889.

Out of a dozen sent, the twelfth being broken. Five of them came in a separate box marked "clutch."]

[§ 2333. *Three*.—Palma, Canary Islands, May, 1893. From Mr. S. B. Wilson.

With the nest.]

LIGURINUS CHLORIS.

GREENFINCH.

§ 2334. *Four*.—England, not later than 1843.

[§ 2335. *One*.—1845.]

[§ 2336. *One*.—Stetchworth, Cambridgeshire, 1846.]

[§ 2337. *One*.—Barnham, Suffolk, 1848.]

[§ 2338. *Three*.—Elveden, 1849.

From two nests.]

[§ 2339. *Four*.—Elveden, 1851.

From three nests.]

[§ 2340. *Two*.—Elveden, 1852.

From different nests.]

[§ 2341. *One*.—Elveden, 1853.]

[§ 2342. *One*.—Barnham, May, 1854.]

[§ 2343. *One*.—Lackford, Suffolk, 2 June, 1857. “E. N.”

My brother's note is:—“From a nest of five in a young Scotch fir, which I found while looking for nests of Redpoll, two or three pairs of which were about, and I found one nest containing young.”]

[§ 2344. *Two*.—Elveden ?]

[§ 2345. *Six*.—St. Neot's, Huntingdonshire, 15 June, 1864.

From Mr. Rowley.

Mr. Rowley writes that this nest, on which he saw the bird, was taken by himself, adding that a sitting of six eggs is only obtained once in about fifty nests.]

[§ 2346. *Five*.—Sparham, Norfolk, 18 June, 1875. From

Mr. F. Norgate.

Taken by Mr. Norgate.]

[§ 2347. *Five*.—Leck, Donegal, 2 June, 1864. “R. H.”

From Mr. Robert Harvey.]

[The following belong to the North-African form named *Ligurinus aurantii-ventris* by Prof. Cabanis.]

[§ 2348. *Eight*.—Algeria, 1856. From Mr. Tristram, 1858.]

[§ 2349. *One*.—Algeria, 1857. From Mr. Osbert Salvin.]

COCCOTHAUSTES VULGARIS, Pallas.

HAWFINCH.

§ 2350. *Three*.—Near Eton, not later than 1844.

These were bought at “the wall” at Eton of a boy, who did not know what they were. Mr. C. Coleridge pointed them out to me as the eggs of the Grosbeak, and I have since been able to confirm this opinion. He has been informed by Windsor park-keepers that the bird breeds there every year.

§ 2351. *Five*.—Finchley, Middlesex, 1857. From Mr. Salvin.

Taken by a man who is employed by Mr. Salvin. The bird is in all the oak-woods about Finchley.

[§ 2352. *One*.—Epping, Essex. From Mr. Henry Doubleday, through Mr. R. Reynolds, before 1848.

To Mr. Doubleday is due the discovery that the Hawfinch is indigenous to England, it having been before considered but a stray winter-visitant. He had for some years suspected that it bred in Epping Forest, and in the summer of 1832 found there several of its nests, as first announced by Mr. Hewitson, who figured two of its eggs from that locality (*British Oology*, pl. xliii. No. x., published 1 Dec. 1832); but the fact seems to have been unknown to Mr. Selby, though he in 1833 stated (*British Ornithology*, i. ed. 1, p. 324, note) that he understood the species had been found breeding in Windsor Forest. This was most likely true, but nothing is said of it by Mr. Jesse, who was so well acquainted with that neighbourhood. He, however (*Gleanings*, iii. p. 154), knew of a nest at Roehampton in 1835. Some years later, in 1837, Mr. Doubleday published an excellent account of the bird's breeding-habits (*Mag. Zoology and Botany*, i. pp. 448–450), and it was soon after found to inhabit many parts of the country, and in some places to be numerous.]

[§ 2353. *Three*.—Epping, 1851. From Mr. F. Bond.]

[§ 2354. *Three*.—Caen Wood, Middlesex, 15 May, 1856.
From Mr. Salvin.]

[§ 2355. *Two*.—Duckworth's Wood, Middlesex, 2 June, 1856.
From Mr. Salvin.]

[§ 2356. *Five*.—Caen Wood, 2 June, 1856. From Mr. Salvin.]

[§ 2357. *Four*.—Finchley, 1857. From Mr. Salvin.]

[§ 2358. *Two*.—St. Neot's, Huntingdonshire, 9 May, 1865.
From Mr. G. D. Rowley.

From a nest of three in a low apple-tree.]

[§ 2359. *Five*.—Rushford, Suffolk, 13 June, 1889. From
Mr. A. Moore Laws.

Taken by a gamekeeper from a small oak tree near the lodge.]

[§ 2360. *Six*.—Epping Forest. From Mr. Sealy's Collection,
1893.

The inscriptions shew that these were from three nests.]

PASSER DOMESTICUS (Linnæus).

HOUSE-SPARROW.

§ 2361. *Eight*.—England, in or before 1846.

§ 2362. *Six*.—Muonioniska, East Bothnia, 19 May, 1854.

Identified—the bird seen to fly off—by myself. From an old Martin's nest in Hietase's yard, where there are such a vast number of Martins' nests [*cf.* § 787]. It was made of straw, hay, Grouse- and Capercally-feathers, reindeer-hair, and so forth, and looked just like an English Sparrow's nest. The boys wage war against them for their enmity to Martins.

§ 2363. *Nine*.—Beeston, 1 June, 1859. From three nests.

[Four of these are marked "J. W.," and were therefore taken by Mr. Wolley himself.]

[§ 2364. *One*.—Elveden (?), before 1847.]

[§ 2365. *Four*.—Elveden, 1847.

From two nests.]

[§ 2366. *Seven*.—Elveden, 1852.

From different nests.]

[§ 2367. *Three*.—Magdalene College, Cambridge, 1853.

From different nests.]

[§ 2368. *One*.—Clay - Hithe, Cambridgeshire, May, 1856.
"E. N."]

[§ 2369. *Four*.—Elveden (1856?).]

[§ 2370. *Five*.—Leck, Donegal, 1 May, 1863. "R. H."
From Mr. Robert Harvey, 1864.

Mr. Harvey wrote that he took this nest himself from the ivy on the front of his house, Leck Glebe.]

[§ 2371. *Five*.—Priory Hill, St. Neot's, Huntingdonshire,
25 June, 1864. From Mr. Rowley.

From a nest in a creeping plant against the side of the house.]

[§ 2372. *Five*.—Norfolk, 2 June, 1870. "F. N." From
Mr. Norgate, 1874.]

PASSER ITALIÆ (Vieillot).

[§ 2373. *Three*.—Sicily. From Signor Luigi Benoit, through Mr. Robert Birkbeck, 1854.]

PASSER HISPANIOLENSIS (Temminck).

§ 2374. *Four*.—Chemora, 24 May, 1857. From Mr. Simpson.

[§ 2375. *Two*.—Biermandraez, Algeria, 12 May, 1856. From Mr. Tristram.]

[§ 2376. *Seven*.—Algeria, 1856. From Mr. Tristram.]

[§ 2377. *Two*.—Chemora, 24 May, 1857. From Mr. Simpson.]

[§ 2378. *Five*.—Chemora, 1857. From Mr. Tristram.]

[§ 2379. *Two*.—Chemora, May, 1857. From Mr. Salvin.

Of these eggs Mr. Salvin's note is simply "Brought by some Arabs," and it refers as well to those of the first and of the two preceding sections; but he went on to say of the species, as subsequently printed, with some slight alterations, in 'The Ibis' (1859, p. 314), that it "is found in great numbers during the breeding-season in the tamarisk thicket at Chemora, and in the marsh at Zana. The Arabs destroy the eggs and young as much as possible on account of the great mischief this bird does to their crops. The nests are placed as thick as they can be, the whole colony, of perhaps 100 to 200 pairs, occupying only five or six trees. The noise proceeding from one of these 'Sparrow-towns' is so great that it may be heard at a considerable distance, and guided by the sound one may walk directly to the nests. Our eggs were selected from about 800, which were brought by four Arabs one Sunday morning, and gravely displayed by them after they had sat down in a row." Canon Tristram's note is that ten eggs were taken the day before.]

PASSER MONTANUS (Linnæus).

TREE-SPARROW.

§ 2380. *Two*.—From Mr. Williamson, of Scarborough, 1843.

Mr. Williamson obtained them from a Mr. Garth, who knows the bird well.

§ 2381. *Twenty-three*.—Cambridgeshire. From Mr. Frederick Bond, 1859 ?

[One a dwarf. Nearly all taken, I believe, at or near Whittlesford.]

[§ 2382. *Two*.—Whittlesford, Cambridgeshire. From Mr. Charles Thurnall, 1851.]

[§ 2383. *Two*.—Cambridge, 1852.]

[§ 2384. *Two*.—Grantchester, Cambridgeshire, 1852.]

[§ 2385. *Two*.—Whittlesford, 1852. From Mr. Charles Thurnall.]

[§ 2386. *Two*.—Grantchester, 1853. “E. N.”]

[§ 2387. *Five*.—Wangford, West Suffolk, 4 June, 1853. “A. & E. N.”]

From a hole in a solitary old tree (an elder, if I remember right) growing at some distance out on the warren, and, so far as my experience goes, a very uncommon situation for this species to choose. One of the birds flew off as we were riding past it.]

[§ 2388. *Three*.—Grantchester (1854?). “E. N.”]

[§ 2389. *Four*.—Grantchester (1854?). “E. N.”]

[§ 2390. *Two*.—Upware, Cambridgeshire, May, 1856. “Bird seen. E. N.”]

[§ 2391. *Five*.—Clay-Hithe, Cambridgeshire, 16 May, 1856. “Saw bird. E. N.”]

[§ 2392. *Four*.—Hickling, Norfolk, 30 May, 1876. From Mr. Norgate.]

[§ 2393. *One*.—Beachamwell, Norfolk. From the late Mr. Scales's Collection, 1885.]

PETRONIA STULTA (Gmelin).

[§ 2394. *Five*.—Bethany, Palestine, 22 April, 1864. From Mr. Tristram.

A complete “sitting”: the nest in a hole inside a cave. The Canon's notes on this species as observed by him in the Holy Land are printed in ‘The Ibis’ for 1868 (pp. 204, 205).]

MONTIFRINGILLA NIVALIS (Linnæus).

§ 2395. *One*.—From M. Nager-Donazain, 1846.

I gave specimens also to Mr. Yarrell and Mr. John Hancock.

[§ 2396. *One*.—Mont St. Gotthard, 1859. From Mr. Rowley.]

[§ 2397. *Four*.—“Switzerland.” From Herr Möscher, 1866.]

[§ 2398. *Three*.—"Switzerland," 27 May, 1866. From Herr Seidensacher, 1867.]

[§ 2399. *One*.—"Switzerland." From Herr Seidensacher, 1867.]

PLECTROPHANES NIVALIS (Linnaeus).

SNOW-BUNTING.

I have never been able to ascertain the truth of the report that the Snow-Finch breeds in the Grampians. On the Clova, the Argyleshire and the Sutherlandshire mountains, as well as in Shetland and Orkney, I have looked for it in vain. In the Färoe Islands I first met with it in the breeding-season. A pair or so on several of the high mountains, a small colony on the north side of Wideroe, and a good many birds on the most north[-east]erly island, little Fugloe. In these dreary spots a simple echoless song first draws one's attention to the handsome cock-bird. He sits upon a fragment of rock, cheering his sombre-coloured mate, who is brooding over her treasure in some sunless hole not far off. Be careful not to disturb him, there is something so soft and pleasant in his notes. There he is at last, in all the joy and comfort of home, the snow-storm wanderer of our land! Since we saw him last he has bravely struggled over the beaconless sea. He has trimmed his wedding-dress and wooed his bride. In some place where the ground is covered with rough stones he has found a dry recess, in which with his partner's help he has built a compact nest of the finest grass-stalks, and lined it with feathers. Wait a little and he will shew you where it is. Must you carry off the beautiful piece of work? You will at least make the best substitute you can out of the reindeer-moss which you will find near, and the wool which you will have with you. Or if there are eggs and you will take them, you must reflect that you cause a few hours uneasiness, but that the parents will have all the pleasure as well as all the trouble of nest-making over again. In such an artificial cradle as I have just suggested, I left five young Snow-Finches upon Pallas-tunturi, a mountain in Finland. It was on the 22nd of June last, and they were apparently about a week old. Now some days ago the first flock arrived in this village, and I thought

of my friends of the mountain. I am told they are likely to make a long visit, that when the snow is deep they will be fed and snared. But many will escape, and perhaps before Christmas some of them will see your noble cedar-trees at Oatlands. There must be hard weather first. Even up here the bird is called *Pulimu-kainen*, the Snow-Finch¹.

§ 2400. *One*.—"Iceland." From Mr. D. Graham, 1847.

[Mr. Henry Milner took Mr. Graham to Iceland in 1846 (*cf.* §§ 1305, 1306).]

§ 2401. *One*.—Loysinga Fjall, Strömöc, Færöes, 13 July, 1849.
"J. W. *ipse*."

SNOW-FINCH.—We first found breeding on Loysinga Fjagl, near the summit; one pair. One of our party found the nest with some difficulty. It was a foot or so under a stone which we moved. There were in it four young, nearly full-fledged, and one egg—rotten and with two holes in it. Such as it is, I prize it much. The young reached Thorshavn alive by the hands of the carpenter, but died under Sysselmand Müller². The young had a deal of white about them. The nest was neatly made of grass and wool. I shot the male, he had insects in his mouth; the female was very shy.

¹ [The foregoing was written by Mr. Wolley from Muoniovara, 8th October, 1853—after his first season in Lapland—to Mr. Hewitson, for the use of that gentleman, in the third edition of his 'Eggs of British Birds' which he was then bringing out, and he therein printed (pp. 185, 186) the greater part of it. What follows will shew that Mr. Wolley's experience of the species was greatly increased in the five succeeding years, all of it, however, confirming the accuracy of his previous statements. He always objected to speak or write of the Snow-Bunting, maintaining that it was a "book-name," and of comparatively recent invention, while the only bird properly entitled to be called a "Bunting" was the *Emberiza miliaria*. All that is true enough, but common custom was too strong for him, and in the next year he is found using the word in the more general sense, which for a long while has been accepted. No doubt the name *Pulimu-kainen* (more properly written, I believe, *Pulmukainen*) is applied to the bird in Northern Finland, but Mr. Wolley seems to have been misinformed as to its meaning. *Lumi-Pirkku*, which is literally Snow-Bunting, seems to be that by which the bird is more commonly known.—ED.]

² [The Sysselmand did not mention this fact in his 'Færøernes Fuglefauna' (Vid. Medd. Nat. Forening, 1862, Kjöbenhavn, 1863, p. 17), and, writing no doubt from memory, says that the nest Mr. Wolley found contained five young, without noticing the egg. In Baron von Droste's German translation of Herr Müller's paper (Journ. für Orn. 1869, p. 117) notice of the nest is omitted.—ED.]

July 18, in Wideröe shoot some Snowfowl [*Færoese Snjoufuglur*], of which there is a colony; they sit on stones and sing delightfully. The females are almost entirely brown, but a little white shows in their wings as they fly. I am exceedingly pleased with this colony. The nests seem to be under very large stones, which were scattered about.

19th July, in Fugloe, the north-easternmost island, see Snowfowl, of which I shoot one. This not in high ground, neither were those in Wideröe. In both islands they were near the northern end—in the one near Wideröe, in the other near Haltervig. I saw one settle like a Sparrow in the yard of the minister in Wideröe.

[The above paragraphs seem to have been copied from rough notes taken during Mr. Wolley's Færoese excursion, and put together after his return. They were not entered in his regular 'Egg Book,' which he had not taken with him, for more than a year later. Though the Snow-Bunting was already known to breed in the Færoes, I find no record of any nest having been taken or found before¹. Greatly pleased as he was with his capture, Mr. Wolley did not make much of it in his paper on the birds of these islands read before the British Association at its Meeting in Edinburgh the next year, and afterwards printed in Sir William Jardine's 'Contributions to Ornithology' (1850, p. 110). Therein the author merely stated that this species "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." It remains to be added that the egg he obtained is of abnormal appearance, and had it not been unmistakably inscribed by himself as the specimen taken in the circumstances above related, I should have hardly ventured to ascribe it to this species.—ED.]

§ 2402. *Ten.*—Iceland, 1854. From Mr. Proctor.

With two nests, made principally of fine grass, lined with Ptarmigan's feathers.

¹ [Debes, writing in 1670 (*Færoæ & Færoa Reserata* &c. Kjobenhavn: 1673, p. 124), knew that *Snee-Fuglene*, as he translated their name into Danish, were found at all times in the islands, keeping in the highest hills, though they were only seen in the early part of the year when there was sharp frost and snow. Graba did not find a nest, though on the 1st July, 1828, he must have been very near one on the hill behind Sandegjerde, where he obtained a cock and hen (*Tagebuch geführt auf einer Reise nach Färö. Hamburg: 1830, p. 218*). Holm writing in 1847 (*Naturhist. Tidskr., Ny Række, ii. p. 480*) says he had never seen or obtained the bird in summer-plumage. In 1872 Col. Feilden visited the very place where Mr. Wolley found the nest, but did not see a bird of the species there, meeting with it only on Skuöe; but he was especially unlucky in his weather (*Zoologist, 1872, p. 3218*).—ED.]

§ 2403. *Four*.—Vardö, East Finmark. From Herr Lehnsmann Reen, 1855.

I saw this species on the islands off Vardö, but do not know whether it breeds there.

[I also saw a cock bird on Hornö, one of these islands, on the cliff just above the landing-place, 18 June, 1855. It was evidently breeding, but we did not find the nest.]

§ 2404. *One*.—Havningberg, East Finmark, 3 July, 1857.
“J. W.”

Found by myself a little to the north of Vardö. I saw the cock go into a cleft of the rock, and on examining it I saw also the hen leaving her eggs. I had to go a long way to fetch a stick to extract the nest. There were large young inside the five eggs, and when I got to Muoniovara they were all of them broken.

[Only one was fit to be mended.]

§ 2405. *Two*.—Greenland. From Capt. Holböll, through Herr Sysselmand Müller, 1857.

§ 2406. *Five*.—Háfalci, South-western Iceland, 5 June, 1858.
“J. W.”

Found by myself on our way from Kyrkjuvogr to Keflavík. The hen bird flew near [Mr. Newton and myself], and as we stopped for a few minutes to watch, she flew down at about ten paces' distance behind a stone and did not appear again. I went to the place, when she flew out, and after removing a few stones we arrived at the nest, which is now before me. It is made externally of fine grass and a little moss—very little, a few fine roots and so forth: towards the interior it has still finer and lighter grass, while internally it is lined with fine white hair (horse's?), a bit of sheep's wool, and about a dozen Ptarmigan's feathers, of which two are coloured. It is a large compact nest.

I found another nest the same day near Útskálar, by the bird flying out of the hole with materials in her mouth.

§ 2407. *Four*.—Kyrkjuvogr, South-western Iceland, June, 1858.

This nest I found several days previously by the bird flying into it when I was standing very near. The cock was a dark bird, that is, without the full white of some specimens. The nest is much more simply built than the last—moss outside, coarser grass inside with a very little white hair and about ten feathers—Ptarmigan's, Raven's (two), and Duck's (three or four). Two of the eggs were taken on the 8th of June, the others later when the nest was deserted.

§ 2408. *Five*.—Kyrkjuvogr, 1858.

Found by myself.

§ 2409. *Six*.—Kyrkjuvogr, 23 June, 1858.

[There is no other information respecting these eggs, which were merely inscribed by Mr. Wolley, and not entered in his book; but from the difference in the coloration of some of them, one could scarcely believe them to be all from one nest were there not written evidence of the fact.]

[§ 2410. *Three*.—Iceland. From Mr. Proctor, 1852-1856.]

[§ 2411. *Six*.—Háfaleiti, 5 June, 1858. "J. W. and A. N."

Found immediately after that above mentioned (§ 2406). The eggs visible in the nest without removing any of the stones, and of remarkable beauty. The hen bird flitting from stone to stone close to us, so that we satisfied ourselves as to what she was. The cock did not come so near.]

[§ 2412. *Seven*.—Kalmanstiörn, South-western Iceland, 13 June, 1858. "A. N. and J. W."

I saw the hen bird fly out just behind the heels of our guide's pony, as he passed a mass of half-columnified lava. There were many likely crevices, so we withdrew for her to shew us which the nest was in. This she soon did by entering it, and we set to work to remove the rock covering it. During the operation Mr. Wolley had a narrow escape from serious injury by the fall of a great pillar of lava, which grazed his foot. The passage leading to the nest was quite five feet long.]

[§ 2413. *Six*.—Kyrkjuvogr, 16-19 June, 1858. "A. N. Bird caught."

I found this nest on the 16th, from seeing the bird which had just come off it. It was in a chink between lava-stones, very near the surface. There

being but three eggs I left it, till, going with Mr. Wolley on the 19th, he caught her as I pulled up the surrounding stones; and, having satisfied ourselves as to her identity, we let her go. The nest was not much more than one hundred and fifty yards from that which he found on the 8th (§ 2407).]

[§ 2414. *One*.—Kyrkjuvogr, 23 June, 1858.

From a nest containing four or five half-grown young, found by me after watching the old birds.]

[§ 2415. *One*.—Greenland. From Dr. David Walker, R.N., Naturalist to the 'Fox,' R.Y.S., 1860.

Like the two from Greenland already mentioned (§ 2405), decidedly larger than Old-World examples.]

[§ 2416. *Five*.—Quænanger-fjeld, South-western Finmark, 20 June, 1863.

From two nests, containing ten eggs in all, found by Turi Aslagnsen. The remainder were sold at Mr. Stevens's, 19th May, 1864, and bought by Messrs. Bounton, Rowley, and Pinckney.]

[§ 2417. *Four*.—Alken-horn, Safe Haven, Spitsbergen, 9 July, 1864. "A. N."

O. W. tab. M.

The morning after our arrival in Safe Haven, accompanied by Ludwig (who had joined me the day before we left England), I landed, with two others of our party, on the low ground near the point where the evening before we had seen some Grey Geese, and I was anxious to obtain one and determine the species to which they belonged. Sending Ludwig along the shore in the hope of his finding a nest, I kept the middle ground, while my other companions essayed to ascend the stupendous cliff which in one part shoots up into a grand peak, forming what our pilot called the Alken-horn¹. As I proceeded I saw several cock Snow-Buntings, the hens being presumably sitting; but some hours later when we had all forgathered, I saw one, which I had before noticed as certainly having a nest close by, go into the cleft of a

¹ [I have elsewhere attempted a description of this magnificent peak and the surrounding scenery (Ibis, 1865, pp. 202-204), which need not be repeated here. Some idea of it may perhaps be formed from the reproduction (Plate M) of a sketch I made at the time; but the actual site of this nest and that mentioned in the next section is concealed from view by the intervening glacier. I understand that the peak is now known by some other name.—ED.]

rock. The nest and eggs were easily seen from the outside, indeed they were visible from two points, as the cleft was open at each end; but we had a great deal of trouble to get at them, for we had nothing at hand strong enough to stir the bigger rocks. At length, by means of a ramrod and my walking-stick, the Doctor and Ludwig were able to push the nest so that I could just reach the eggs, three of which were much incubated, while the fourth was either laid more lately or was infertile. The nest was composed as usual and lined with Gulls' feathers. One of my companions shot the cock bird.]

[§ 2418. *Three*.—Alken-horn, 9 July, 1864.

This nest was found by Ludwig immediately after the last, and close by it. It contained six eggs, also hard sat upon. Of these I subsequently gave two to Dr. Malmgren, and Mr. Graham Manners-Sutton begged two more of me, while the remaining two are nearly good for nothing.]

[§ 2419. *One*.—Sabine Island, East Greenland (1869?). From the Second German Polar Voyage, through Dr. Finsch, 1870.

Of normal appearance. The only information I have with this egg is that it was obtained by the expedition to Sabine Island (Zweite Deutsche Nordpolarfahrt in dem Jahre 1869 und 1870, iii. p. 240), but no particular mention is made therein except it be that which Dr. Copeland found on the 12th July (*tom. cit.* pp. 193, 194).]

[§ 2420. *Five*.—North of Scotland, 19 June, 1888. "J. Y."
From Mr. John Young.

The first eggs of the Snow-Bunting, so far as I know, ever taken in this island¹, being the spoil of Mr. Young, who not only was at considerable trouble to make the discovery, but kindly permitted me to become possessed of them, adding to their value by lending me his journal, from which I make the following extracts:—

"June 19th. A lovely morning, got up at six and was off with M. by 8 A.M. We walked up to a shoulder of the hill to the north, but could not see a sign of a Snow-Bunting, so we wended our way along the stony tops without seeing a bird of any kind. A stag kindly shewed itself on the sky-line about 800 yards distant. On we walked, up and down, till we came to a steep slope on the south-east side of Ben ——. It was covered with loose stones, so

¹ [A nest, with young, was found in Sutherland, 8 July, 1886, by Messrs. B. N. Peach and A. Gray, full details of which, together with a most instructive note on the nesting of the bird by Mr. L. N. Hinxman, were published in 1887 by Messrs. Harvie-Brown and Buckley in their 'Vertebrate Fauna of Sutherland,' &c. (pp. 138-143).—ED.]

loose that the greatest caution was necessary to avoid their falling on one—large stones rolling down at the slightest touch. It was tedious work, and not a sign of the birds we were in search of. It was now one o'clock, and M. asked whether I would lunch. I replied, not until I get out of the cold north-east wind and to some water. So we trudged on, edging downwards. At the bottom of the corrie was a small loch, whose green water was remarkable. We had just got clear of the stones when I saw a bird fly to a green spring or soft bog. I called out to M. for my glasses, and he being about ten yards in advance came running back. It was indeed a Snow-Bunting—the hen bird—that I had seen; but we soon perceived the cock, in most lovely black-and-white plumage, feeding with her. We sat down and watched them. Presently the cock flew away to a distance of two hundred yards, and settled on a rock, sometimes flying up into the air, and uttering his short but melodious warble. The hen presently took a sweep round, alighting among the stones about one hundred feet above us. As she disappeared, we mounted to the stone which M. had marked. No sooner had he struck it than the bird reappeared within six feet of us. Then she flew about backwards and forwards close to us. I observed that she was suffering badly from a distressing complaint, well known to those who keep birds in confinement as 'asthma.' She then flew to some distance, but the cock came and drove her up to us. Seeing that she would not go on, we retired a few yards, when she disappeared. As we could not see the exact spot we tried to approach; but the moment we moved the treacherous stones betrayed us, and she reappeared. I then got higher up, where I could command the spot, and after she had again disappeared, M. cautiously approached. She instantly appeared again; but I marked the spot, and we went to it and moved the stones carefully, when in the course of a few minutes I had the satisfaction of seeing the nest with five beautiful eggs. Though perfectly invisible from without, it was not more than a foot or eighteen inches from the surface. The nest was neatly made of fine bents, with a foundation of coarse black moss, and two or three Ptarmigan-feathers with some tiny pieces of sheep's wool inside. The eggs were richly spotted with bright red, and quite fresh. Having blown them, we descended to the spring, where we had first seen the birds, and had our lunch at ten minutes to two o'clock. We met with no adventures going home, where we arrived at half-past six."

Subsequently, Mr. Young informed me that this nest was placed far above the line of heather-growth, and *Azalea procumbens* was the only plant to be seen, while patches of snow lay here and there. When removing the last stone which overlaid the nest, which he had already seen, he was much afraid lest something should fall upon it, but with some little difficulty he got it out safely. He also informed me that fifteen years before (*i. e.* 1873), upon one of the highest mountains in Scotland, he "came across an excited pair of Snow-Buntings, whose demeanour plainly shewed that they had a nest in the immediate vicinity. Our endeavours to find it were, however, frustrated by a heavy snow-storm, which forced us to retreat to the valleys below." He determined to renew the search, but was hindered by bad weather, and it was not until 1888 that he again had the chance of looking for a Snow-Bunting's nest in Scotland. As I correct these pages for the press I regret hearing of my good friend's death.]

CALCARIUS LAPPONICUS (Linnaeus).

LAPLAND BUNTING.

§ 2421. *One*.—"Greenland." From Mr. H. F. Walter, 1852.

Said to have come to Mr. Argent, from whom Mr. Walter had it with a series, from Denmark, where it had been received from Greenland.

§ 2422. *One*.—"Lapland." From Mr. A. Roberts, through Mr. John Evans, 1853.

§ 2423. *Six*.—Kaaressuando, 18 June, 1854. "Bird snared. J. W."

O. W. tab. xi. fig. 19.

§ 2424. *Five*.—Kaaressuando, 19 June, 1854. "Bird snared."

O. W. tab. xi. fig. 20.

These two nests of Lapp Bunting taken at Kaaressuando in the night of June 18–19th. Of the first I saw the birds and set Elias to watch, for I could not stand the gnats. Presently he saw the hen go to the nest, called me and laid a snare: in a short time she was caught. The cock was constantly seen—very characteristic with his red collar. The nest was placed on a dry bank in a marsh, somewhat concealed as a Titlark's, made of dry grass lined with white and coloured feathers. The second nest was found by Larkis Abraham, one of my men, after I left them.

§ 2425. *Five*.—Vadsö, East Finmark, June, 1855.

Brought to me at Vadsö.

[The nest does not seem to have been brought with these eggs, which may be those of the Red-throated Pipit, but they more resemble Lapland Bunting's, and Mr. Wolley appears to have thought them to be Bunting's of some kind.]

§ 2426. *Six*.—Vadsö, June, 1855.

Appear to be eggs of Lapland Bunting, as they were said to be by the girl who found and brought them to me, and to whom I had shewn a skin of the bird. The nest was of sheep's grass, lined with feathers.

[These eggs are remarkably like those of the Red-throated Pipit, but, apart from the finder's statement, the lining of the nest seems to give conclusive evidence in favour of their being Lapland Bunting's.]

§ 2427. *Seven*.—Vadsö, June, 1855.

Brought to me with the nest, which is lined with feathers and Lemming's hair.

§ 2428. *Three*.—Kaaressuando, 1857.

From a nest of four.

§ 2429. *Six*.—Kaaressuando, 1857.

O. W. tab. xi. figg. 23, 24.

If these eggs are not Lapp Bunting's I do not know to what bird to attribute them. The little boy Matthias Tuorimaa said that they were from two nests of "*Aita-liviainen*"—the Kaaressuando name for Lapp Bunting—and were on the ground in the marshes.

[The eggs of the two nests, from their different colouring, are easily separable—four of one and two of the other.]

§ 2430. *Four*.—"Greenland." From Dr. Kjærbölling, 1857.

Selected by me as varieties from eggs attributed to *Emberiza lapponica*.

[§ 2431. *One*.—"Labrador." From Mr. Frederick Bond, 1852.

Said to have been brought by the mate of a whaler. Mr. Bond kindly let us have the nest also, which we submitted to Mr. Hewitson (Eggs of Br. B. ed. 3, i. p. 183).]

[§ 2432. *Three*.—Vadsö, 20 June, 1855.

O. W. tab. xi. fig. 22.

There is a possibility of these eggs being Red-throated Pipit's, but at that time the Bunting was by far the commoner bird around the town.]

[§ 2433. *Five*.—Vadsö, 21 June, 1855.

O. W. tab. xi. fig. 21.

The nest, which was brought to me with these eggs, had feathers in its lining.]

[§ 2434. *Three*.—Vadsö, July, 1855.

Obtained from Herr Jemtoff.]

[§ 2435. *Six*.—Näljas-vaara, South-western Finmark, 19 June, 1862. "With birds."

Found by Piety and Turi Aslagsen, whom I caused to be sent to the Norwegian mountains in search of Snowy Owls' and Skuas' eggs. They brought also the skins of the birds.]

EMBERIZA SCHÆNICLUS, Linnæus.

REED-BUNTING.

§ 2436. *Five*.—Not later than 1844.

[Apparently from two nests. Mr. Wolley's notes are of some length, shewing that he had become well acquainted with the habits of this species, of which he had "frequently found the nest in the osier-beds at Eton," where these eggs were very likely taken.]

§ 2437. *Eleven*.—Kaaressuando, 21 June, 1854.

Two nests: found by boys there, and apparently Reed-Buntings'—a common bird about the place. One nest has merely fine sheep-grass for lining; the other has also rein-hair.

§ 2438. *Five*.—Näläma, 1854.

From the lad Pekka: he gave them no name.

§ 2439. *Six*.—Niemi, Muonioniska, 1855. “With bird.”

From a nest of seven found by Johan at the bottom of the fence. He snared the bird and brought it to Ludwig, saying it was “*Keekiäinen*,” which should properly be Lapland Bunting, but the skin now before me is evidently that of the Reed-Bunting, as is the nest.

§ 2440. *Three*.—Lapland, 1855.

§ 2441. *Five*.—Koskin-saari, Nyimakka, 1856.

With the nest found by Peter, who called them “*Hürkä-Peipponen*,” *i. e.* Brambling [§ 2116], but they seem to be Reed-Bunting’s.

§ 2442. *Four*.—Kaaressuando, 1857.

From Pieton Erki.

§ 2443. *Four*.—Kaaressuando, 1857.

From Tuorimaa Matthias. Found on the strand. I have made no note of the name, if any, that he gave the bird, but I am pretty clear that he distinguished it from “*Aita-liviäinen*,” *i. e.* Lapland Bunting [§ 2429], these eggs being apparently Reed-Bunting’s.

§ 2444. *Four*.—Kätkäsuando, 1857.

Brought by Anna Greta, 5 July, but belonging to Elias Vanhapiha.

§ 2445. *Four*.—Muotka-järwi, 1857.

Found and named by David.

§ 2446. *Five*.—Särki-järwi-strand, 18 June, 1858.

From a nest of six, found on the ground and brought by Maria of Muotka-järwi as "*Tie-lintu*."

§ 2447. *Five*.—Mukka-uoma, 1858.

Sent as "*Tie-lintu*" and received at Muoniovara in August.

§ 2448. *Ten*.—Kaaressuando, 1858.

Also called "*Tie-lintu*" and received with the last.

[§ 2449. *Two*.—Barnham, Suffolk, 1846.]

[§ 2450. *Two*.—Barnham, 1848.]

[§ 2451. *Five*.—Weeting Fen, Norfolk, 1852.

From two nests.]

[§ 2452. *Five*.—Feltwell Fen, Norfolk, 15 June, 1853. "A. & E. N."]

[§ 2453. *Five*.—Hockwold Fen, Norfolk, 17 June, 1853, "A. & E. N."]

[§ 2454. *One*.—Ely (1856?). "E. N."]

[§ 2455. *Three*.—Horningsea, Cambridgeshire, May, 1856. "Saw bird. E. N."]

[§ 2456. *Four*.—Feltwell Fen, 23 May, 1857. "E. N."]

My brother's note states that he found this nest in the sedge. The hen bird flew off it. The eggs were fresh.]

[§ 2457. *Five*.—Feltwell Fen, 23 May, 1857. “E. N.”

Found at the same time as the last. The hen bird also flew off the eggs, which were fresh.]

[§ 2458. *One*.—“South Russia.” From Herr A. Heinke of Kamuschin, through Dr. Albert Günther, 1862.]

[§ 2459. *Five*.—Malin, Donegal, 28 May, 1863. “R. H.”
From Mr. Robert Harvey, 1864.

Mr. Harvey writes:—“I took these eggs myself. I had gone with a party of anglers from Malin Hall in the morning to fish the Meentagh Lake at the foot of Slieve Snaght (Snowy Mountain) in the centre of the peninsula of the barony of Ennishowen, and not finding good sport I began birds'-nesting, and this nestful was my reward.”

[§ 2460. *Five*.—St. Neot's, Huntingdonshire, 27 May, 1864.
From Mr. Rowley.]

[§ 2461. *Five*.—Hickling, Norfolk, May, 1877. From Mr. Norgate.]

[The following seem to belong to a small race, in the existence of which Mr. Wolley was inclined to believe, though he could not satisfy himself on the subject. The birds were only observed in the more northern parts of Lapland, and I do not know that he ever procured specimens of them. Looking to the possibility of some future writer obtaining examples and describing them as distinct, I think it advisable to keep these eggs apart from the rest, and I may remark that Mr. Wolley never met with *Emberiza pusilla* or *E. rustica*.]

§ 2462. *Five*.—Kaaressuando, 1853. From Pastor Engelmark.

With the nest, which is made of grass, very fine inside. The Pastor said they were *Emberiza lapponica*.

[Mr. Wolley seems to have been at the time content with the Pastor's determination of these eggs, not then knowing that the Lapland Bunting lines its nest with feathers.]

§ 2463. *Three*.—Kaaressuando, 1854.

Brought by Johan Petersson Jatko, a boy and *dräng* to Tuorimaa Olli.

[These were probably from Nieri-järwi, a lake among the mountains about eight miles from Kaaressuando. Mr. Wolley was in doubt as to what they were.]

§ 2464. *Five*.—Patsjoki, Russian Lapland?, June, 1855.

From an island in the lake, Bremma-lombola, where were the Lapp graves attacked by a Glutton, and near the last year's Swan's nest. I saw the bird fly off [*cf.* § 2120].

§ 2465. *Three*.—Mukka-järwi-kenttä, Mukka-uoma, 1856.

Seem to be eggs of Reed-Bunting; but called by Naimakka's Pekka "*Härkä-Peipponen*," *i. e.* Brambling.

EMBERIZA PYRRULOIDES, Pallas.

[§ 2466. *One*.—"Astrakan." From Herr Möschler, 1865.]

EMBERIZA PUSILLA, Pallas.

[§ 2467. *One*.—"Archangel." From Herr Möschler, 1862.]

[§ 2468. *Three*.—Toorukkansk, Jennesei Valley, 15 June, 1895.
From Mr. C. B. Hill, 1896.

Mr. Hill informed me that the bird was shot from this nest, and its skin was in the possession of Mr. Popham, who wrote in 'The Ibis' for 1897 (p. 96):—
"We obtained a nice series of the beautiful eggs of this Bunting, which show great variation in size, ground-colour, and markings. The birds were by no means uncommon, and were remarkably tame at their nests, returning to their eggs at once if we withdrew a few yards from the spot, so that there was never any difficulty in satisfactorily identifying their eggs after we had shot one or two birds to make certain. Six nests were discovered, the greatest number of eggs in one nest being five."

EMBERIZA RUSTICA, Pallas.

[§ 2469. *One*.—" Archangel." From Herr Möschler, 1862.]

EMBERIZA LEUCOCEPHALA, S. G. Gmelin.

[§ 2470. *Two*.—" Russia." From Herr Möschler, 1869.]

[§ 2471. *One*.—Irkutsk, River Angara, 25 May (O. S.?).
From the Museum of St. Petersburg, through Mr. Dresser,
1868.

One of a nest of five, mentioned by Mr. Dresser (B. Eur. iv. p. 220); but no further information was furnished to him. The most complete account of the nidification of this species known to me is that in Dr. Taczanowski's 'Faune Ornithologique de la Sibérie Orientale' (i. pp. 592, 593).]

EMBERIZA CIA, Linnæus.

§ 2472. *One*.—From the Geneva Museum, 1846.

[This is very like an egg of *E. cirrus*.]

[§ 2473. *One*.—" Rhineland." From Herr Möschler, 1862.]

[§ 2474. *One*.—Lebanon, Palestine, 16 June, 1864. From
Mr. Tristram.

From a nest of six near Hazreen. I do not find that Mr. Tristram has published any notes on the breeding of this species, but in his 'Fauna and Flora of Palestine' he says (p. 72) that it "is found in the mountain regions in summer and winter alike, but in small numbers," adding that he met with it "all through Lebanon."

[§ 2475. *One*.—" Coblenz." From Herr Möschler, 1866.]

[§ 2476. *One*.—Near Malaga. From Don Francesco de los Rios, through Herr Schlüter, 1888.]

[§ 2477. *Five*.—Mount Parnassus. From Dr. Krüper, through Mr. Dresser, 1889.

From four nests, all taken at Agoriani, by Panagiotis Pallas, between 3 June, 1887, and 20 June, 1888.]

[§ 2478. *One*.—Kuldja, 9 May (O. S. ?), 1887. From Herr Taneré, 1888.

Received as the egg of *Emberiza stracheyi*, but neither under that name nor that of *E. cia* is the bird mentioned by HH. E. F. von Homeyer and Taneré in their paper on the ornithology of Western Siberia (Mitth. orn. Ver. Wien, 1883, pp. 81-92). Dr. Sharpe (Cat. B. Br. Mus. xii. p. 540) states that "*E. stracheyi* is only a dark-coloured race of *E. cia*, and in some examples can scarcely be distinguished from the latter species," of which it seems to be an Eastern form.]

EMBERIZA CIOIDES, Brandt.

[§ 2479. *One*.—Siberia. From Dr. Dybowski, through M. Jules Verreaux, 1873.

Dr. Dybowski's account of the nidification of this species, accompanied by figures of two of its eggs, is given in the 'Journal für Ornithologie' for 1873 (pp. 87, 88, tab. ii. figg. 25, 26). This specimen was sent by me to Dr. Taczanowski for verification in 1888.]

[§ 2480. *One*.—Siberia. From Dr. Taczanowski, 1889.

Dr. Taczanowski describes the eggs of this species as being very variable (Fauna Orn. Sib. Orient. p. 583.)

EMBERIZA AUREOLA, Pallas.

[§ 2481. *Two*.—"Archangel." From Herr Möschler, 1862.]

[§ 2482. *Two*.—"Archangel." From Herr Möschler, 1865.]

- [§ 2483. *Six*.—Dauuria, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.

Dr. Dybowski's notes on the nest and eggs of this species were printed in the 'Journal für Ornithologie' for 1873 (p. 90).]

- [§ 2484. *One*.—Lilford Aviary, 1893. From Lord Lilford.

Laid some days before the 6th of June, 1893, when it was received by me with the information that the same bird had since laid two more eggs. It is strictly normal in character.]

EMBERIZA SAHARÆ, Levaillant, jun.

- [§ 2485. *One*.—El Atauf, Mzab, 27 April, 1870. From Mr. J. H. Gurney, junior.

One of three from a nest on which the old bird was seen. Mr. Gurney's notes on the nidification of this species are in 'The Ibis' for 1871 (p. 292).]

EMBERIZA CÆSIA, Cretzschmar.

- [§ 2486. *Two*.—"Greece." From Herr Möschler, 1869.]

- [§ 2487. *One*.—Burnabat, near Smyrna, 1 May, 1885. From Dr. Krüper, through Mr. Dresser, 1889.

Taken in the hills by Dimitri Elevationoglou. Dr. Krüper has described the nidification of this species in the 'Journal für Ornithologie' (1875, pp. 267, 268).]

- [§ 2488. *Five*.—Mount Parnassus. From Dr. Krüper, through Mr. Dresser, 1889.

From different nests, all taken at Angoriani, by Panagiotis Pallas, between 28 April, 1887, and 1 May, 1889.]

EMBERIZA HORTULANA, Linnæus.

ORTOLAN.

- § 2489. *Five*.—From Mr. R. Mansfield, 1844.
- § 2490. *Two*.—From M. Perrot, 1846.
- § 2491. *Two*.—From M. Perrot, 1847.
- § 2492. *Ten*.—Valkenswaard, North Brabant, 1851. From Messrs. A. and E. Newton.
- [§ 2493. *One*.—Valkenswaard, 1847.]
- [§ 2494. *Two*.—Valkenswaard, 1850. From Mr. Newcome.]
- [§ 2495. *Seven*.—Valkenswaard, 1851.
- Selected from a large number (about fifty) sent to my brother and myself direct by Mr. A. Bots. The ten previously mentioned (§ 2492) were from the same number.]
- [§ 2496. *Two*.—Valkenswaard, 1855. From Mr. John Baker.]
- [§ 2497. *One*.—"South Russia." From Herr A. Heinke, of Kamuschin, through Dr. Albert Günther, 1862.]

EMBERIZA SPODOCEPHALA, Pallas.

- [§ 2498. *Six*.—Dauria, 1867. From Dr. Dybowski, through M. Jules Verreaux, 1868.

Dr. Dybowski describes the nidification of this species in the 'Journal für Ornithologie' for 1873 (p. 89).]

EMBERIZA CINEREA, Strickland.

[§ 2499. *One*.—Burnabat, Asia Minor, 10 May, 1889. From Dr. Krüper, through Mr. Dresser.

Taken on the hills near Smyrna by Dimitri Elevationoglou. I do not know that Dr. Krüper has anywhere published his discovery of the nest and eggs of this species. For several years he was unsuccessful in finding them (*Journ. für Ornith.* 1875, pp. 268–270; and *Griechische Jahreszeiten*, ii. p. 199).]

EMBERIZA CIRLUS, Linnæus.

CIRL-BUNTING.

§ 2500. *Two*.—Isle of Wight. From Mr. C. A. Bury, 1844.

Mr. Bury kindly sent with these the following note:—"The eggs of the Cirl-Bunting are from two different nests; but I have every reason to tell you they are both genuine, and Mr. Dawson, a better judge, pronounced them to be so this afternoon. Of one I have the fellows and the nest; and I know that before I placed them in my collection I satisfied myself fully on the point. The other agrees better with the description given of the Cirl-Bunting's egg; but did not come into my possession till after it was blown, and it is from its appearance and measurement alone that I judge it to be genuine, for I do not, as of the other, know its history."

§ 2501. *Two*.—Isle of Wight. From Mr. J. F. Dawson, [1845 ?].

[Judging from appearance only, I should say decidedly that all the four eggs last mentioned were Yellowhammer's; but, in deference to the authority of of the gentlemen from whom they were obtained, I venture to leave them here.]

§ 2502. *One*.—From the late Mr. J. D. Hoy, through Mr. James H. Tuke, 1846.

§ 2503. *Two*.—From M. Perrot, 1846.

§ 2504. *One*.—Tangier. From M. Favier, 1847.

[§ 2505. *One*.—Sussex, 1846. From Mr. George Swaysland.

Said to have been taken in Stanmer Park, near Lewes.]

[§ 2506. *Seven*.—Paignton, Devon, 1851. From Mr. Edward Burt.

From two nests, well identified by Mr. Burt.]

[§ 2507. *One*.—Whitstone, Devon, 1852. From Mr. J. Truscott.]

[§ 2508. *Three*.—Torquay, Devon, 1853. From Mr. Edward Burt.]

[§ 2509. *Twelve*.—Isle of Wight. From Mr. A. F. Scaly, 1893.

From the relics of Mr. Scaly's collection. The inscriptions shew that they belonged to three nests, the first of four, the second of two, and the last of five eggs—the first two nests having been procured by the late Mr. W. Farren, as was most likely the third.]

EMBERIZA CITRINELLA, Linnæus.

YELLOW BUNTING.

§ 2510. *Eight*.—England, not later than 1846.

§ 2511. *Five*.—Muonioniska, East Bothnia, 1855.

Found by Niemi's Apoo on the cultivated land. He snared the bird and brought it to Ludwig, who found that it was *Sirkku*, *i. e.* Yellowhammer.

[These eggs are unusually large, quite equal in size to most Great Buntings'.]

§ 2512. *Two*.—Lapland, 1856.

From Piety, under the name of "*Iso Sirkku*"; but seem to be Yellowhammer's.

[Also eggs above the usual size.]

§ 2513. *Five*.—Kihlangi, 29 May, 1858.

Found by Matti's boy of Kihlangi, under a little bush near their house.

[Small specimens.]

§ 2514. *Three*.—Lapland, 8 June, 1859.

Brought by Lizawaynio Erik's daughter; found behind the fence. The nest had horsehair in it.

[§ 2515. *One*.—Chippenham, Cambridgeshire, 1846.]

[§ 2516. *Two*.—Elveden, May, 1847.]

[§ 2517. *Two*.—Elveden, May, 1848.]

[§ 2518. *Three*.—Elveden, 1857.]

[§ 2519. *One*.—Hockwold, Norfolk, May, 1852.]

[§ 2520. *Four*.—Elveden, May and June, 1852. From three nests.]

[§ 2521. *Six*.—Cöthen, Anhalt. From Dr. Baldamus, 1861.

Given to me at the time of my visit to the Pastor at Osternienburg in August 1861. A nestful of singular beauty; the eggs almost like Snow-Bunting's.]

[§ 2522. *Four*.—Lapland, 1862.

Brought to Muoniovara by Kyrö Niku in what appeared to be the lining of a Waxwing's nest, and said by him to have been found in a spruce about three fathoms from the ground! There cannot be much doubt, however, of their being Yellowhammer's eggs, and the story was most likely a pure invention.]

[§ 2523. *Four*.—Knockbrask, Donegal, 4 May, 1863. From Mr. Robert Harvey, 1864.

Mr. Harvey writes that this nestful was taken for him by George Lucas, from under a bramble in a ditch-side, and adds:—"I do not consider them handsome or typical eggs, but it is the only nest I got this year with so many as four eggs. I very commonly find this bird sitting on three eggs."

[§ 2524. *Five*.—Abbotsley, Huntingdonshire, 23 May, 1864. From Mr. Rowley.]

[§ 2525. *Four*.—Norfolk, 5 June, 1870. "F. N." From Mr. Norgate.]

[§ 2526. *Four*.—Hockering, Norfolk, 6 June, 1876. From Mr. Norgate.]

EMBERIZA MILIARIA, Linnæus.

GREAT BUNTING.

§ 2527. *Six*.—England, not later than 1846.

§ 2528. *One*.—Ain Djendeli, Algeria, 13 May, 1857. From Mr. Simpson.

[§ 2529. *Four*.—Barnham, Suffolk, 1849.

From two nests.]

[§ 2530. *Three*.—Barnham, 1851.]

[§ 2531. *Three*.—Elveden, 1852.]

[§ 2532. *One*.—From Mr. W. F. W. Bird, 1853.]

[§ 2533. *Four*.—Listillion, Donegal, 1 June, 1863. From Mr. Robert Harvey, 1864.]

Mr. Harvey writes:—"I do not consider this nestful to be good typical representatives of the species. They are too clouded and indistinct; but it is the only complete nestful I could get this season. It is strange how difficult I find it to procure eggs of this bird, which is very abundant here. These eggs were taken for me by George Lucas."

[§ 2534. *Three*.—Sparham, Norfolk, 16 June, 1868. From Mr. Norgate.]

Mr. Norgate's note is:—"I seldom obtain more than three eggs from a Bunting's nest."

[§ 2535. *Three*.—Sparham, 23 June, 1875. From Mr. Norgate.]

[§ 2536. *One*.—East Yorkshire, 13 July, 1884. "E. N."]

My brother Edward's note is to the effect that while driving on a road near Hornsea they stopped the carriage that one of his companions might gather some grasses. After picking some for a minute or two, he said he saw a brownish bird get up out of the grass close to him. On my brother going to the place, he found the nest with four eggs, almost on the ground, the grass being nearly three feet high, and the nest not three yards from the road, which was apparently not much used, except for farming purposes. He went away for about a quarter of an hour, but the bird had not returned when he came back. This egg was fresh, and is undoubtedly a Great Bunting's.]

[§ 2537. *Four*.—Palma, Canary Islands, May, 1893. From Mr. S. B. Wilson.]

EUSPIZA MELANOCEPHALA (Scopoli).

[§ 2538. *Two*.—Lebanon, Palestine, 17 June, 1864. From Mr. Tristram.]

From a nest of four near Hazreen. The Canon remarks of this species ('Fauna and Flora of Palestine,' p. 71) that "there is nothing of the Bunting in its habits and character."

[§ 2539. *Four*.—"Volga." From Herr Möschler, 1865.]

[§ 2540. *Four*.—"Smyrna." From Herr Möschler, 1866.]

EUSPIZA LUTEOLA (Sparrman).

[§ 2541. *Two*.—Kuldja, 10 and 16 May, 1887. From Herr Tancreé, 1888.

HH. E. F. von Homeyer and Tancreé (Mitth. orn. Ver. Wien, 1883, p. 90) mention this species as being very common in parts of the Altai district, but say nothing of its nest or eggs, which at that time were probably unknown to the latter; but Dr. Scully had long before discovered and given an account ('Stray Feathers,' iv. pp. 167, 168) of its nidification in Eastern Turkestan.]

[§ 2542. *Three*.—Deregez, Transcaspia, 26 May (O. S.), 1892. From Mr. Dresser, 1899. With the nest.

Taken by Mr. Zarudny, whose earlier notes on the species, under the name of *Emberiza icterica*, are published in the 'Bulletin de la Société Impériale des Naturalistes de Moscou' for 1889 (N. S. iii. p. 803).]

STURNUS VULGARIS, Linnæus.

STARLING.

§ 2543. *Four*.—England. Not later than 1843.

§ 2544. *Four*.—Bearwood, Berks., April, 1847.

Taken by Mr. H. F. Walter and myself.

§ 2545. *One*.—Færøes, 1850.

[No doubt sent to Mr. Wolley by one of the Sysselmen—Müller or Winther. The species is included in the list of those which he "found breeding" in the Færøes when he was there in 1849 (Contr. Orn. 1850, p. 108).]

[§ 2546. *One*.—Elveden, 1845.]

[§ 2547. *One*.—Elveden, 1847.]

[§ 2548. *Three*.—Elveden, 1851.]

[§ 2549. *Two*.—Elveden, 1851.]

[§ 2550. *Three*.—Elveden, 1852. From different nests.

[§ 2551. *One*.—Elveden, 1853.]

[§ 2552. *One*.—Elveden, 26 May, 1854. "A. N."

From a nest of *Gecinus viridis*, and much speckled with stains like some eggs of that bird (§§ 608, 610, 611, 613).]

[§ 2553. *Two*.—Elveden.]

[§ 2554. *Five*.—Rathlin, Ireland, 19 June, 1863. "R. H."
From Mr. Robert Harvey, 1864.

Mr. Harvey writes:—"This is so late a date to get eggs of this bird, that I imagine that it was a second laying, which I do not think is a common occurrence with it unless the first has met with some accident. My reason for saying so is that in June I have generally found the whole family, old and young—the latter well able to fly—going about. Gradually as the season advances these family-groups amalgamate, until in October they form large flocks, and migrate inland."]

[§ 2555. *Six*.—Priory Hill, St. Neot's, Huntingdonshire, 28 April, 1864. From Mr. Rowley.

The nest in a chimney.]

[§ 2556. *Four*.—Sparham, Norfolk, 24 April, 1867. "F. N."
From Mr. Norgate, 1874.]

[§ 2557. *Three*.—Sparham, 5 May, 1875. From Mr. Norgate, 1878.]

STURNUS UNICOLOR, Temminck.

[§ 2558. *One*.—"Sardinia." From M. E. Fairmaire through Herr Seidensacher, 1865.]

PASTOR ROSEUS (Linnæus).

ROSE-COLOURED STARLING.

[§ 2559. *One*.—From M. Edouard Verreaux, 1859.]

[§ 2560. *Five*.—Sarepta, South Russia. From Dr. Baldamus, 1861.]

[§ 2561. *One*.—Sarepta, South Russia. From Herr Möschler, 1862.]

[§ 2562. *Two*.—Smyrna, June, 1884. From Dr. Krüper, through Mr. Dresser, 1889.

Obtained in the Karagol hills, by Dimitri Eleytheroglou. I cannot find that any record of a visitation of this species to Smyrna has been published since that related by the Marchese O. Antinori ('Naumannia,' 1856, pp. 404-410; translation by Mr. Selater, 'Zoologist,' 1857, pp. 5668-5672), nor do I know whether Dr. Krüper himself witnessed one. According to his previous notes ('Journal für Ornithologie,' 1869, pp. 33, 34, and 'Griechische Jahreszeiten,' iii. pp. 218, 219) he had been singularly unlucky in his attempts to find the bird breeding.]

ORIOLOUS GALBULA, Linnæus.

GOLDEN ORIOLE.

§ 2563. *One*.—From Mr. Sadd, 1843.

§ 2564. *Two*.—"France." From Mr. Mansfield, 1844.

§ 2565. *One*.—From M. Perrot, 1846.

§ 2566. *Five*.—Valkenswaard, North Brabant. From Mr. A. Bots, 1851.

[These were sent direct to my brother and myself. Four of them we kept in our own collection.]

§ 2567. *Six*.—Holland. From Mr. J. Baker, 1857.

Selected out of several scores.

[§ 2568. *One*.—Holland. From Mr. R. Reynolds, 1845.]

[§ 2569. *One*.—Holland, 1848. From Mr. Newcome.]

[§ 2570. *One*.—Valkenswaard, 1850. From Mr. A. Bots.]

[§ 2571. *One*.—Holland, 1854. From Mr. R. Reynolds.]

[§ 2572. *Three*.—Holland, 1855. From Mr. J. Baker.]

[§ 2573. *Three*.—Holland, 1856. From Mr. J. Baker.]

[§ 2574. *One*.—"South Russia." From Herr A. Heinke of Kamuschin, through Dr. Albert Günther, 1863.]

[§ 2575. *Two*.—Holland? From the late Mr. Scales's Collection, 1885.]

PODOCES PANDERI, Fischer.

[§ 2576 *One*.—Utch-adji, Transcaspia, 26 May (O. S.), 1892.
From Mr. Dresser, 1899.

This is the fellow egg of one which Mr. Dresser kindly allowed me to exhibit at a meeting of the Zoological Society on the 30th November, 1897, and to have figured in its 'Proceedings' for that year (pl. li. fig. 10). He obtained it from Mr. Zarudny, whose excellent observations on this interesting form were published in the 'Bulletin' of the Imperial Society of Naturalists of Moscow for 1889 (N. S. iii. pp. 455-465, pl. v.), and have been most properly quoted by Mr. Dresser in the 'Supplement' to his 'Birds of Europe' (pp. 239-243). He was not only kind enough to give me this specimen, but also presented one of two nests he received to the Museum of the University of Cambridge.]

PYRRHOCORAX GRACULUS (Linnæus).

CHOUGH.

§ 2577. *One*.—Isle of Man, not later than 1843.

Mr. Biden, now of St. John's College, told me that he got a man to climb to the hole which he had seen a Chough enter, and that the man brought down the old bird and three eggs, of which this is one.

§ 2578. *One*.—Carnarvonshire. From Mr. Wilmot, 1846.

From a friend of Mr. Wilmot's in Wales.

§ 2579. *Six*.—Carnarvonshire. From Mr. Wilmot, 1852.

From the Welsh coast, through a friend whom Mr. Wilmot told me he had stopped from getting any more for fear of injuring the stock of the bird.

[Mr. Wilmot's manuscript catalogue, now with his egg-collection in the

Cambridge Museum, shews that these eggs were received "from Robert Jones, taken on a mountain in Aberdaron in Carnarvonshire called Mynydd yn Nglog, opposite to Bardsey Island."]

- [§ 2580. *One*.—Puffin Island, Anglesey, 21 May, 1853. From Lord Lilford.

Writing to me from London, on the 23rd of that month, Lord Lilford (then Mr. Powys) said:—"As I see by your list that the Chough's egg is among your *desiderata*, I have great pleasure in telling you that I have one for you which I took myself the day before yesterday on Puffin Island, at the north-east corner of the isle of Anglesey, out of the ruined tower of an old church. The old birds were flying about all the time we were at the nest, which contained three eggs and one young one." The egg reached me on the 13th of June following.]

- [§ 2581. *One*.—Cape Clear, Ireland, 1854. From Mr. Fickling's collection, 1855.]

- [§ 2582. *Two*.—Achill, Galway, April, 1855. From Lord Lilford.

A few hurried lines, dated the 12th of April, from Mr. Powys, whose regiment was that very day leaving Dublin for Devonport, merely say:—"I have got two Chough's eggs for you, taken in Achill. Where shall I send them?" These must have been just received by him, for, writing to me the day before, he did not mention them, and I failed to get any further information about them. He could not have taken them himself, but I believe he had been in Achill a short time previously and had probably arranged to have them sent to him. He brought them with him to England, and they reached me on the 19th of the month.]

- [§ 2583. *Five*.—Rathlin, Donegal, 10 May, 1862. From Mr. Robert Harvey.

A complete nestful. One of them very small.]

- [§ 2584. *Five*.—Rathlin, 2 April, 1863. From Mr. Robert Harvey.

Taken by Donald Dan, one of Mr. Gage's climbers.]

[§ 2585. *Four*.—Rathlin, 2 April, 1863. From Mr. Robert Harvey.

Taken on the same day as the last, and by the same lad.]

[§ 2586. *Five*.—Rathlin, 7 April, 1863. From Mr. Robert Harvey.

Taken by a young man whose surname is Black, but in the phraseology of the island called "Donald William," which means Donald the son of William, to distinguish him from other Donald Blacks, of whom there are many on the island.]

PYRRHOCORAX ALPINUS, Vieillot.

ALPINE CHOUGH.

[§ 2587. *One*.—From M. Verreaux, 1865.]

[§ 2588. *Three*.—From M. Favier, 1866.]

[§ 2589. *Three*.—From Herr Seidensacher, 1867.]

[§ 2590. *Two*.—From M. Verreaux, 1868.]

[§ 2591. *Four*.—Lilford Aviary. From Lord Lilford, 1884.

Laid in the aviary at various times between 1875 and 1881.]

NUCIFRAGA CARYOCATACTES (Linnaeus).

NUTCRACKER.

[§ 2592. *One*.—"Transsylvanian Mountains, April, 1847."
From Dr. Baldamus, 1861.

This is one of the eggs exhibited by me at a meeting of the Zoological

Society on the 10th December, 1861, and mentioned in that Society's 'Proceedings' (1861, pp. 396, 397) as having been received not long before from Dr. Baldamus, who entered it in the list of those which he was sending me as "*Nucifraga caryocatactes* aus den Transsylvanischen Gebirgen (Süd-Carpathen) durch H. von Bielz erhalten." At that time I was inclined to attach less value to it than to the others¹ which I then produced; but I afterwards found that it absolutely agrees in appearance with, and cannot be distinguished from, some of the thoroughly-authenticated specimens presently to be mentioned, notwithstanding that Baron Richard König-Warthausen (Journ. für Orn. 1861, p. 37) and the Ritter Victor von Tschusi-Schmidhofen (Der Tannenheher, u. s. w. Dresden: [1873] p. 11, note 2) declared against it, each of them having apparently had this very specimen twice under his eyes, since it seems to be that one of the three seen by Dr. Baldamus at Pesth in 1847, and there obtained by him as he has stated (Naumannia, 1851, ii. p. 71), "nicht ohne grosse Opfer;" for he himself has inscribed it "Mont. Transsylv. 4, 1847" (meaning that it was taken in those mountains in April, 1847). There is no need to repeat here the rest of his published statement, but I translate a passage from his letter to me of 20th April, 1861, respecting the two eggs² he was sending to me:—"I hold the example from the Basses Alpes to be much more authentic than that from Transsylvania, though I certainly saw from thence a nest and a second egg³ in the Museum of Pesth [in 1847]. For the authenticity of these last speaks [the fact] that the finder, Jurat von Bielz, did not realize the rarity of his find, and that by far the greater number of eggs collected by him were rightly determined. For the correctness of the Caire specimen [§ 2593], however, surety is given by the knowledge and proved honour of the man." I hold the judgment of the Baron König-Warthausen and the Ritter von Tschusi-Schmidhofen in very high respect, and in all that concerns this species the able paper of the former and the careful monograph of the latter make them especially authoritative; but it must be borne in mind that the Baron's paper was written when very great uncertainty existed as to what eggs of the Nutcracker were like, and that this specimen, vouchsafed by Dr. Baldamus's inscription, has no similarity to any Jay's that I ever saw, while its resemblance to well-determined eggs of the Nutcracker is perfect. The memory of the Doctor, however, was clearly at fault when he wrote to me that the Jurat found this egg himself, since the latter informed the Ritter (*loc. cit.*) that it was obtained for him by a young man. Moreover, it is evident that even nine years later Herr von Bielz did not know the Nutcracker's eggs or mode of nesting, since he states in his 'Fauna der Wirbelthiere Siebenbürgens' (Hermannstadt: 1856, p. 94) of this species: "Nest in hohlen Bäumen mit 5 bis 6 gelbgrauen, braunfleckten Eiern." He therefore well exposes himself to the unfavourable remarks of both his critics; but the whole matter is puzzling, as I do not like to suppose that the Doctor wrote upon the wrong egg.]

¹ Two of these, obtained from Mr. Wheelwright, in which I was then disposed to believe, appear to have been those of *Perisoreus infaustus*. Certainly they were not Nutcrackers'.

² The second being that of which an account immediately follows.

³ In his paper in 'Naumannia' (*ut supra*) he said there were in all three eggs.

[§ 2593. *One*.—"Basses Alpes, 21 April, 1858." From the Abbé Caire of Sanières, through Dr. Baldamus, 1861.

This is another of the eggs exhibited by me on the occasion just mentioned (Proc. Zool. Soc. 1861, pp. 396, 397), and that on which Dr. Baldamus set the most value, as above stated. Notwithstanding this, and its bearing a label "Casse-noix" in, as I believe, the handwriting of the Abbé, from whom the Doctor received it direct, as he did other specimens, I have long had great doubts as to admitting it; for it is indistinguishable from one variety of the eggs of *Corvus monedula*, and is very unlike what I consider to be the ordinary eggs of *Nucifraga*, having no trace of their characteristic bluish-green ground-colour. Indeed I had resolved to omit it from this catalogue until I observed that in the new edition of Naumann's great work (Naturgeschichte der Vögel Mitteleuropas, iv. pl. 48), where six specimens are figured, two of them (figs. 5, 6) seem to lead, as it were, to the present specimen. Unfortunately, it is not stated in the accompanying text where these eggs were obtained, though no doubt the editor and draughtsman were assured of their authenticity. Knowing also how much eggs of the *Corvidæ* will occasionally vary, I feel I should no longer be justified in suspecting the Doctor or the Abbé of a mistake, and I have the greater pleasure in including the present specimen, seeing that, according to the former, the latter was the first discoverer of the egg of this species, in the year 1846, near Sanières, in the Department of the Lower Alps, and subsequently sent several eggs to the Doctor, one of them being that figured by Herr F. W. Bädeker in the 'Journal für Ornithologie' for 1856 (pl. i. fig. 1, p. 32) and in 1861 in his better-known namesake's work (Lieferung 7).]

[§ 2594. *Four*.—Almindingen, Bornholm, 23 March, 1864. From HH. H. C. Erichsen, J. C. H. Fischer, and P. W. Theobald.

Proc. Zool. Soc. 1867, pl. xv. fig. 2.

In 1862 Herrer Kammerraad Erichsen, J. C. H. Fischer, and Pastor Theobald, three very keen oologists, whose acquaintance I had made (thanks to Mr. Wolley) at Copenhagen in 1859, were good enough to send me one of two nests, and the skin of a fully-fledged young bird, of this species, which they had procured on the 22nd and 23rd of May in a forest on the island of Bornholm, where they had previously been assured by a forester, Herr Rosen, that it yearly bred. These interesting examples¹, certainly the first of their kind ever seen in England, I lost no time in exhibiting at a meeting of the Zoological Society on the 24th of June in that year, giving an account of the circumstances in which they were obtained, as furnished to me by the Pastor (Proc. Zool. Soc. 1862, pp. 206-208), whose hopes, as well as my own, of soon possessing indubitable Nutcrackers' eggs were thereby much raised. In 1863 HH. Erichsen and Theobald returned to Bornholm, and accompanied by two

¹ Now in the Museum of the University of Cambridge.

lads, one of them (Laurits by name) recommended to them by the school-master, again made search, but were again disappointed as to eggs, for the only Nutcracker's nest they found (on the 9th of April) contained three young birds about a week old. They determined, however, not to be baffled, and in the following year, 1864, though unable themselves to revisit Bornholm, success crowned their efforts, as I had the pleasure of briefly announcing to the Zoological Society on the 24th of March, 1865 (Proc. Zool. Soc. 1865, p. 256), and of subsequently giving (again from the Pastor's information) the particulars of the taking of the nest by the same lads as had been with him and Herr Erichsen the year before. They had learnt to know the birds, and were taught precisely what to do. They kept on the watch all the winter, and as spring approached searched carefully for the nest. What followed I may here repeat from my published remarks (Proc. Zool. Soc. 1867, p. 163):—

“At length, on the 23rd of March, after eight days' labour, the nest was found, in the same part of the forest as that of the year before, being indeed only some fifty feet from the same spot. It was, therefore, in all probability built by the same pair of birds. It was on a fir tree, about fifty feet high, and built quite in the same manner as that of the former year. The seeker took the precaution first to climb up a near-extending tree, and then, seeing the Nutcracker on the nest, ascended the nest-tree itself and took the four eggs, which, when sent to Herr Theobald, were blown by him and found to be quite fresh. He writes, ‘They have, I think, a peculiar character, and I believe that they cannot be easily confounded with others. It is always difficult to give a proper description of a bird's egg; but I am not able to find any likeness between these and the supposed eggs of the bird pictured in Bädeker's plates*. They are smaller than the eggs of *Iica varia*, and larger than those of *Garrulus glandarius*. The ground-colour is a light bluish-green, not unlike that of an egg of *Sturnus vulgaris*, which they also resemble in form. Nevertheless they do not deny the type of the *Corvidæ*. They are sprinkled over with very fine spots of leather-yellow [buff] or perhaps olive. Two of them are spotted more distinctly; one is almost spotless.’”¹

It is unnecessary for me to add to the Pastor's description, which I have no doubt was quite accurate when it was written. I have only to add that the egg I had figured (as above) was the most strongly marked specimen. The next year he wrote to me that the same young men had been employed as before, but that owing to the long winter the birds were late, and that it was not until the 10th of April that a nest, containing three eggs, was found. In the hope that a fourth would be laid it was left till the 15th, when being taken they proved to be much incubated. Another nest with four fresh eggs was found on the 30th, and the Pastor stated that there was the strongest likeness between all the three sets thus obtained, and there was the same similarity in

* Journ. für Orn. 1856, taf. i. fig. 1, and Eier der Europäischen Vögel, taf. 1. fig. 14, and taf. lxxvi. fig. 4. Herein I may say that I do not agree with the Pastor, though when fresh they may have looked very different.”

¹ Heire Fischer published an account of the discovery, “Ægget af Nöddekriken (*Caryocatactes guttatus*),” in (Krøyer's) ‘Naturhistorisk Tidsskrift’ for 1864 (pp. 1-7).

the structure of the nests. In 1866 only one nest was found, and that was deserted by the birds after a single egg was laid in it. The four eggs of the first nest in 1864 were most liberally offered to me by the Pastor and his friends: though able to make some return for it, I always regard the gift with the warmest gratitude.]

[§ 2595. *Four*.—Tirol, “2 April, 1864.” From Dr. Baldamus, 1867.]

[§ 2596. *Three*.—“Oetzthal, Tirol, 18 April, 1864.” From Dr. Baldamus, 1867.]

These two sets of eggs, one of them with the nest, were received by me from my good friend, then living at Halle in Saxony, who told me they were of the best quality (“besterhaltigen”), and that one of them had been packed and set aside for me two years before. The eggs are inscribed by him as above, but the dates do not agree with those printed by the Ritter von Tschusi-Schmidhofen (*Der Tannenheher* u. s. w. p. 12), as furnished to him by the Doctor. Together with these specimens was a second nest and three eggs, inscribed as taken on the 23rd of March, which he kindly sent for my inspection as being the largest and most abnormally marked that he had seen; but according to his request I returned them to him. Unfortunately he never gave me any further information (though I asked for it) concerning the specimens I retained, nor am I aware of any other particulars of them being published save those that he communicated to the Ritter (*ut supra*), whence it would appear that they were part of the booty, consisting of five nests and eighteen eggs, procured by a forester (“Revierförster”) named Franz at Schlanders, and that all the nests were built in larch-trees at the height of from 20 to 30 feet. All the eggs submitted to me closely agreed with that which I before had from the Doctor as taken in Transsylvania in 1847 (§ 2592) as well as with the four from Bornholm (§ 2594), while the nests were in all essentials like those I had from that island. In return for the nest and seven eggs which he allowed me to keep, my friend asked me for some exotic eggs, whereupon I sent him about thirty, belonging to twenty-three species, from Madagascar and Mauritius, with which he expressed his satisfaction.]

[§ 2597. *One*.—Hochanger Alp, Styria, 23 March, 1867. From Herr Seidensacher, through Lord Lilford, 1868.]

This is one of four eggs received with the nest from Herr Seidensacher by Lord Lilford, who kindly gave it to me after they had been exhibited, on his behalf, by Mr. Selater to the Zoological Society (*Proc. Zool. Soc.* 1867, p. 687). It was then stated that they had been taken in a pine-forest at the elevation of about 3500 feet, and the Ritter von Tschusi-Schmidhofen (*Der Tannen-*

heher u. s. w. p. 13) gives the additional particulars, furnished by Herr Seiden-sacher, concerning them, that they were found, as above, near Bruck on the Mur, being the first nest and eggs obtained in Styria, by an agent of Dr. Fuster. The nest was very thick and solid, built of larch-twigs and bast, and having a wide and deep cup lined with hair. This egg is very similar to those of the Bornholm nest (§ 2594), and not long after it came into my possession Mr. Salvin told me he had just seen ten others in the hands of a London dealer, all believed to have come from the same quarter, which in general character closely resembled it.]

[§ 2598. *Three*.—Pale, Bosnia, 28 March, 1897. From Herr O. Reiser, through Mr. Bonhote.

At my suggestion Mr. Bonhote, while travelling in the Austrian dominions, called on the Ritter von Tschusi-Schmidhofen, by whom he was most courteously received and recommended to apply to Herr Reiser for Nutcrackers' eggs. On writing to him these were in due time sent, with others. They were marked as being somewhat incubated.]

[§ 2599. *Three*.—Stupari, Bosnia, 30 April, 1897. From Herr O. Reiser, through Mr. Bonhote.

As the last, but marked as being fresh. All these eggs shew very little variation in colouring, though there is considerable difference in size and shape.]

PERISOREUS INFAUSTUS (Linnæus).

SIBERIAN JAY.

[1855-6.] "This is the most difficult egg to get, even where the bird is common. Hence it is almost unknown, and is one of the principal desiderata to continental collections. It is even ranked with the Waxwing in the eagerness with which it is wished for. The bird breeds whilst everything is still covered with the winter's snow, and is extremely cautious not to betray its nest. Mr. Wolley obtained three injured eggs in 1854, but perfect ones in 1855."

[1856-7.] "Common as the bird is, and obtrusive as its habits for three parts of the year are, its eggs are perhaps the most difficult to procure of any. Before winter has shewn a sign of departing, it

begins to prepare its nest, and, in doing so, exercises all the cunning of its tribe to keep concealed the selected spot. Its eggs are, consequently, still unknown to most collectors, while, in some cabinets, they are represented by well-picked varieties of those of the Magpie, to which, indeed, they bear but slight resemblance."

[1857-8.] "The nests of this bird are extremely difficult to find, as I have experienced in the many blank days I have passed in succession in forests where I knew it was breeding, and where the snow, at night at all events, was in capital order for snow-skates. It requires long familiarity with the habits of the bird to know when and how to watch it to its nest, whose proximity it is so careful not to betray by any observable marks of anxiety."

[The preceding paragraphs from three of his Sale Catalogues, all that Mr. Wolley ever published concerning this species, will shew that he never laid claim to be thought the earliest discoverer of its eggs, yet I believe he practically was, as he certainly was the first to bring authenticated specimens to the knowledge of naturalists. His hesitation seems to have been in part due to the fact that in 1835 Prof. Nilsson (Skandinavisk Fauna, Föglarna, ed. 2, i. p. 185) had pretty accurately described, though at second hand and without naming his informant, the nest, and said of the eggs that they were somewhat smaller than Pies', by which we may infer that he was told they resembled those eggs in colour, which, roughly speaking, they to some extent do. But what I imagine to have chiefly influenced Mr. Wolley's guarded language was his wish to spare the feelings of his good friend Pastor Sommerfelt, who, when they met at Nyborg, in East Finmark, in the summer of 1855, must have mentioned the supposed nest and three eggs obtained by him from the Lapps at Karasjok, in West Finmark, in 1852, as he recorded some years later (Efv. K. Vet.-Akad. Förhandl. 1861, p. 77)¹. Now, out of mere diffidence, it was the Pastor's habit to send eggs which he had not seen before to Dr. Kjærbölling at Copenhagen for determination or confirmation, and it seems to me in a very high degree probable that the two eggs and part of a nest which the Doctor described at the Gotha meeting of the German Ornithological Society in July 1854 (Naumannia, 1854, p. 311; and Journ. für Orn. 1854, p. lxi), as being those of this bird obtained in West Finmark, must have been received from Pastor Sommerfelt, and were therefore those to which his subsequently published note referred. It is also pretty plain from the description given that they could hardly have been those of *Garrulus* or *Perisoreus infaustus*, whatever

¹ "When, on my arrival in Finmark [in 1851], I applied to the Lapps [*Finmerne*] to get its egg, all insisted that it only bred in the fir-woods. I then applied to the Karasok Lapps, and thence received, in the summer of 1852, three eggs, which were, however, nearly hatched out; they were taken in the first half of May. Later, I have received several nests from the Tana valley which were taken in April" (Sommerfelt, *ut supra*).

the remains of the nest might have been¹. I have no recollection of seeing any egg of this species in Pastor Sommerfelt's collection at Nyborg in 1855, and I think if there had been one it would have impressed itself on my memory, as I then believed that the three which Mr. Wolley had obtained the year before were the only specimens known, and my conviction still is that, setting aside those mentioned by Prof. Nilsson, they were the first which were discovered². I consider, then, that the Pastor was mistaken as to those which were sent to him from Karasjok in 1852. I have not the least wish to impugn his good faith or that of the finder of them. He was new to the country, and had no means of knowing what the eggs would be like. Moreover, he did not appreciate the need of carefully identifying eggs, especially those that were new to him, but thought it enough to submit his prizes (as I have mentioned was his practice) to an expert like Dr. Kjærbølling, who was pre-eminently one of those who believe that eggs can be determined by guess, and was wholly ignorant of the precise method of authentication followed by Mr. Wolley and those of his school. Had the Pastor published his statement in Mr. Wolley's lifetime, it is possible that the latter might have taken notice of it, but he would very likely have thought it not worth while to do so; just as I was content in a communication to Mr. Dresser (*Birds of Europe*, iv. p. 475) to let the matter pass in silence, as I knew it might cause annoyance to a man whom I held in great esteem; but now, all the parties to the business being removed, I feel it incumbent upon me to make the facts plain, and leave any deduction from them to the public. I am bound, however, to add that Prof. Sundevall in 1862, though erroneously giving 1850 for the year (*Svenska Foglar*, p. 111), naturally accepted Pastor Sommerfelt's statement, for, not being aware of the facts above stated, he had no reason whatever to hesitate about it.]

§ 2600. *Three*.—Rowtos-järwi, Finland, 1854.

O. W. tab. xiii. figs. 1, 2.

Brought to me [as *Kuukainen*] by Michel Keimio from Rowtos-

¹ [As before mentioned, Prof. Nilsson had in 1835 described what the nest was said to be like. Herr Malm had already stated that during his travels in Lapland in 1841-42 he had met with several nests of the species, but always empty (*Naturhist. Tidsskr.* ser. 2, i. p. 193; *Arch. Skand. Beitr.* p. 283). Herr Schrader, who was with him part of the time, did not find a nest (*Journ. für Orn.* 1853, p. 249), nor had any previous travelling naturalist in Lapland (*cf.* Löwenhjelms, *K. Vet.-Akad. Handl.* 1843, p. 391; and 1845, pp. 407, 445). Dr. von Middendorff in the far east of Siberia found a nest with naked young in 1844 (*Sib. Reise*, ii. 2, p. 157), and, writing in 1867 (*op. cit.* iv. p. 1046, note 8), said that Herr V. Falck had told him of his having found it breeding in Finland, though when or where was not stated.—ED.]

² [The two eggs described by Dr. Baldamus in '*Naumannia*' for 1853 (p. 425), from Finland, which he thought could scarcely be those of any other species than this, were shewn, by the figure of one of them which he gave in the same journal the next year (fig. 2), to be as unlike what we know its eggs to be as can be required to prove that his supposition was unfounded.—ED.]

järwi; found by Johan Samuel Mantuvaara. Whether they are so or not remains to be seen.

[This entry is not dated, but must have been made at the end of June or beginning of July 1854, just before Mr. Wolley was leaving Muoniovara for a short visit to England. He had not then seen the finder, and had no opportunity of speaking with him, till some time after his return to Lapland. These eggs were the first of the species obtained by Mr. Wolley. Whether they were the first known to naturalists is discussed in the prefatory note above.]

Dec. 26, 1854.—Samuel, who found these eggs, is now present. He found them, while much snow was still on the ground, in a smallish Scotch fir, with much black lichen. The nest was about two fathoms from the ground, rather less and flatter than a Thrush's [i. e. *Turdus pilaris*], made principally of lichen (*luppo*). Three eggs. He happened to be cutting trees, and when a tree fell it touched another and the bird flew out. It was on a hill. The tree was very thick and close in its branches.

§ 2601. *Three*.—Rowa, East Bothnia, 1855.

Found by Johan Eric Rowa, and the principal serviceable remains from several nests. They were brought to Ludwig 23rd June, and blown by him. On the 12th of August Johan Eric was at Muoniovara, and I talked with him about *Garrulus infaustus*. He found this year fourteen eggs of it—two nests with four, and two with three, eggs in each. The nests were generally in small trees on the south-east side of marshes, nearly the last trees towards the marsh, so as to be exposed to the morning sun (?). They were often so that from the snow you could reach them with the hand; but one that Johan found was in a tree as big as a stock, and about half-way up it. The nest is conspicuous enough, made of sticks and lichens, “with white lichen at the top, and feathers visible from the outside.” There was not more than a single nest in a neighbourhood. One of the brothers first looked for two days without finding a nest; but in this way he got to know the ground the birds frequented. It was no use watching the birds, “you may watch them for ever”; they may be flying half a mile (Swedish) from the nest. In the morning the birds collect in flocks to eat. When one happens to see a pair leave the flock, one can sometimes see them to a nest. After they have been going about for some time, one of them suddenly separates and flies along the ground, and then flies straight to its nest if it

believes itself unobserved. If the ground be open, the nest may thus be found. At its nest the bird is generally quite silent, but while one is climbing up [the tree] it will cry a little. When suddenly startled from its nest, it flies straight off. It may be nearly caught on [the nest], but when it has young it will scarcely leave the tree, and scolds roundly at an invader. The best way to find the nest is to quarter the ground regularly, and the *skidor* marks enable this to be done with great accuracy. The search must be made generally in the night, when the snow bears, and of course in such places as the bird has been ascertained to frequent. They believe it changes its ground from year to year or is not constant to the same place. They consider the best time for its eggs to be found is the last week in April; but in some nests there are young hatched a few days after *Valpurin* (the first of May), and in others a week after. But still they found a fresh nest towards the end of the first, or beginning of the second, week in May, and as the bird did not know it had been discovered, it afterwards laid three eggs, which were taken in due time. Just before St. Eric's day (18 May) they found eight nests with young. Martin Piety [being present] suggests that the great extent of burnt ground about Rowa may explain the facility of finding the nests, while the bird is abundant there. Besides the edge of marshes (*Myr*), the lads say that the nest may be found in dells, generally in spruce, but also in Scotch firs. "When the bird gets far from its nest it cries, and so also, if one tries to catch it on the nest, it puts its head on one side and cries. While one is at its nest it will come to some little distance and cry, generally with its mate. With young [in the nest] it is much the same." Johan wonders where it gets the feathers to make its nest when the ground is covered with snow, and suggests that it prepares its nest in the autumn. He has seen Titmice collecting feathers in winter. If the nest is touched before there are eggs, the bird will generally desert it. Many of these eggs of Johan's were spoilt by being kept so long before blowing.

This season Ludwig and Anton tried hard with my direction and assistance to find the eggs on Muoniovaara. We put meat in the woods, and watched early and late. Plenty of birds came, but we could not make out their nests. At last, early in April, Ludwig found one without eggs. I also examined it. Later in the season the tree was cut down, so I have not secured the nest. It was some twenty feet up in a Scotch fir. In May Ludwig found a nest near

it, with young. He put them in a cage, but the mother let them out by opening the fastening. This nest is before me, and is made at the bottom of a considerable quantity of old branches, mostly bleached and barkless, and in some cases covered with black lichen; then a lighter-coloured lichen and, at the top, feathers, with a little hares' down, spiders' nests, and so forth. The thicker part of three other nests is here—two from Rowa and one from Mantuvaara. They are [composed of] a considerable thickness of feathers, lichen, spiders' web, silvery bark—such as is found in Bramblings' nests—and other things. The feathers are mostly those of Capercally and white Willow-Grouse. The Mantuvaara nest is mostly made of cock Capercally's with a few Lapp Owl's feathers, and, as the latter bird was so scarce last winter, this would almost favour the notion that the feathers had been collected previously. An egg was sent with the Mantuvaara nest, which I have given to Mr. Newton. The lad who found it was Samuel, who sent me the eggs last year [§ 2600] ¹.

§ 2602. *One*.—Mantuvaara, Kyrö, Kemi Lapmark, 1855.

[The egg mentioned a few lines above. The nest is, I believe, that in the British Museum.]

§ 2603. *Four*.—Rowa, 1855.

O. W. tab. xiii. figs. 3, 4.

Found by Nils at the end of April, and brought to Ludwig at

¹ [In a note, written apparently on the 21st of May, 1857, concerning a nest of *Kuukainen* found two days before at Lombola Rowa, by Colli and Abraham of that place, through the bird being seized by a Hawk and its cries attracting their attention, Mr. Wolley says:—"The Rowa lads told me of the liability of *Kuukainen* to be taken off its nest by Hawks, often when men have just left it. Abraham, on this occasion, did not see the Hawk with the bird in its claws, which his brother said he met, but heard the cries." This nest seems to have been rather remarkable in its structure, and Mr. Wolley describes it as "made of more feathers than usual—a considerable mass, white Grouse and coloured hen Capercally—mixed with light lichen or tree-hair, and little bits of sheet lichen; also bits of wasps' nests and a good deal of willow-down, doubtless last year's, one or two spiders' webs, while there were rough dead twigs of spruce, a few dry bents, and some, as well as grass-leaves, in the silvery, macerated form, and a few bits of green moss of the trailing sort." I may remark that Dr. von Middendorff noticed that wasps' nests were among the materials of the nest of *Perisoreus* found by him (*ut supra*, p. 480, note ¹), and, as will be seen, the whole structure of the bird's nest was likened to a wasp's by one of Mr. Wolley's collectors (*ut infra*, § 2619).—ED.]

midsummer. The eggs marked α [fig. 3] and β [fig. 4] are beautiful varieties; β is remarkable for its under-tints being collected at one end, and its deeper markings at the other.

§ 2604. *Four*.—Rowa, 1855.

Out of five, which Nils took from two or even three nests. This year the number of eggs in a nest varied from three to four, never more.

[One of these, and one from those next to be mentioned, formed Lots 67 and 68 at Mr. Stevens's auction-room on 7 March, 1856, when they were bought by M. Parzudaki.]

§ 2605. *Two*.—Rowa, 1855.

Out of three. From Pehr Rowa, the hump-backed Punz. Probably the nest mentioned by Johan as found well on in May [p. 482].

§ 2606. *Three*.—Rowa, 1856.

Out of six, bought of the Punz lads, by Peter Parg, and brought to Muoniovara, 15 May.

[The other three of the six formed Lots 81 to 83 at Mr. Stevens's rooms on 12 May, 1857, and were bought by Messrs. Salmon, Walter, and Parzudaki.]

§ 2607. *One*.—Sadio, 1856.

Out of three brought to Muoniovara by Michel, who found them.

[The other two were Lots 79 and 80 at Mr. Stevens's, 12 May, 1857, and were bought by Messrs. Salmon and Walter.]

§ 2608. *Four*.—Modas-järwi, West Bothnia, 29 April, 1856.

Brought by Puna Johan, 12 May.

§ 2609. *Four*.—Muoniovaara, 30 April, 1856.

According to the entry made at the time in Knoblock's book, these eggs were found as above by Peter Nilsson "while he was hewing

wood about two hundred fathoms above his garth. He hewed down a little spruce-fir, and when he began to debranch it he saw two small eggs lie on the snow. So thought he to himself, Whence came they? And when he began to look round, he saw a nest among the branches, and he saw also that *Kuuki* sat fast on the nest [though] the tree was on the ground, and when he drove her off there were still two eggs in the nest”¹. Peck [*i. e.* Peter] has himself since told me the same story. Both before and after he looked much for *Kuukainen*’s nests, and Ludwig and Anton were for weeks almost constantly searching for them about Muoniovaara without success. In the beginning of the summer Peck found a nest, from which the young birds had just flown, in a tree against which he had laid a pile of wood, just when the eggs must have been laid.

§ 2610. *Four*.—Modas-järwi, April–May, 1856.

O. W. tab. xiii. fig. 5.

§ 2611. *Three*.—Modas-järwi, April–May, 1856.

Knoblock’s entry is :—“5 May. Johan Modasjärwi brought two *Kukki*’s nests. In the one there were three eggs, and in the other four eggs. Both found near his house, and when he found that in which there were four eggs, *Kukki* sat upon the nest, and he took her fast by the back, and cast her down from it. He thought that she was already brooding the eggs, but when he looked into the nest there was not any egg in it. So he thought she would now assuredly leave the nest, but when he went the next morning she had laid an egg.”

These seven eggs were mixed together, but there is no difficulty in separating them with certainty. The four eggs have a darker ground-colour, a fainter character of spots, and especially are of a more obtuse form at the smaller end than the three. Of these latter one is a remarkable Jackdaw-like variety.

¹ [This passage is copied by Mr. Wolley in the original Swedish, which I have tried to render as literally as possible. *Kuukainen*, the common Finnish name for this species, is often spoken of as *Kuuki*, *Kukki*, or *Kokki*—the word being used like a personal name, as, in English, Reynard is for Fox. The familiar nature of the bird, so well known to those naturalists, from Linnæus downward, who have made its acquaintance, is sufficient explanation of this fact.—ED.]

§ 2612. *One*.—Kitkisuando, 2 May, 1856.

Out of three which Ludwig got as above, they having been found or taken by Elias that morning. The part of the nest now before me is made of sticks, *luppu*, reindeer-hair in some quantity, a little rotten wood, fine grass macerated, green moss, feathers of Grouse and Capercally—a considerable mass. Two eggs were a good deal set on; the third was deformed and fresh—probably not fruitful. Elias had to dispute with the bird; first he took it by the tail, of which some feathers gave way, but then he seized it by the head and threw it out.

[The other two eggs from this nest formed Lots 80 and 81 at Mr. Stevens's, 23 February, 1858, and were bought by M. Parzudaki. The third, which is the deformed one, is somewhat flask-shaped and wrinkled at the smaller end.]

§ 2613. *Two*.—Akes-järwi, 8 May, 1857.

These are from three nests, containing in all eight eggs, mixed together when brought, but the lad [Gustaf Wassara] separates them as I should do. The nests were all some two fathoms high, in small spruce-trees. Two of them were found accidentally and supposed to be Pine-Grosbeaks'; the third was found by following the bird, which was carrying feathers. The birds were very bold, and would not leave the nests till men were on them. The nests, carefully brought, are before me. One was by the side of a marsh, another near the marsh so that it was visible, the third was some height up a hill.

2 August, 1857.—Two of those from the second nest, sent to Pastor Liljeblad at Sodankyla.

25 August, 1857.—The three from the first nest, sent with it to the Museum at Helsingfors by Herr Nylander.

[The remaining egg of the eight was offered as Lot 79 at Mr. Stevens's, 23 February, 1858, but did not meet with a buyer. I do not know what is become of it.]

§ 2614. *One*.—Kima-lakki, Muoniovaara, West Bothnia, 17 May, 1857. "J. W."

O. W. tab. xiii. fig. 6.

This *Kuukainen's* egg I and Anton Knoblock found by Kima-lakki, at the back of Muoniovaara. The day before, in the cold north wind, I had seen a bird hopping about the open spots of ground at the

back of the hill, picking berries in the shelter and in the sun. For nearly two hours I watched it, apparently little troubled by my presence, yet evidently remembering I was there. I even followed it from spot to spot. At last it flew, quicker than usual, into a tree near, and so in the direction of another. I followed as quick as I could, but it was out of sight directly, and I searched for a great distance in vain. The next morning I went to the hill with Anton on *skider* (the day before I was without them), and after waiting a little we saw a *Kuukainen* arrive from the same direction as yesterday, on which occasion the bird had first shewn itself by flying past me and alighting a little before us, and (as it afterwards appeared) a little after I had passed the nest.

We set to work to watch the bird carefully. Soon another came up, nearly from the same direction, and after feeding for a few minutes flew towards us, alighted close to our heads, and then shot off, so that Anton could not get to an open view in time to catch a sight of it. We searched long, and for an hour or two, at a good distance, not beginning to look in so open a wood as that near us. As we were on our return, Anton found a nest in a stubby or stunted Scotch fir with a good deal of *luppu* (tree-hair), some seven or ten feet from the ground. It was, as usual, made underneath of a good mass of white-looking sticks, and Anton, on climbing up, found an old white Grouse-feather in it. It was not in a place we should have expected to find it, and from several sides was well concealed.

Coming back to the hill, just as we were starting for home, after in vain calling to the Gos-Hawk, as indeed we had done before, Kukki came up, and I determined to watch it well. I sent Anton on its track, and began a careful observation. After ten minutes or a quarter of an hour, Anton called out: "There's the nest, and the bird on it." It was in a tree just before him, not more than three yards from where he had been standing, between him and me. He accidentally looked at it, and hardly thought anything of it, till he saw the bird sitting. The tree was a young Scotch fir, quite open, and the nest was supported, though imperfectly, by two strong branches, as it lay against the bole of the tree, on the south side of which it was, being on the west of the commencement of the hill. I climbed up, the nest being six or seven feet from the ground. The bird sat like a Thrush, or other bird, with its beak in the air, and now slightly open, its feathers at the sides well spread out. It did not offer to leave, and I stroked it on the back and put my hand under it; and it was not till I distinctly felt the young and the egg,

and had all my fingers under it, that it flew off. I now saw that there were two young and an egg. The young might be two days old, with their eyes still closed. They raised their mouths straight up to be fed. The nest was not neat, with few feathers in it. The old bird called several times, as my tame *Kuukainens* did, and soon came on the nest again. The other did not shew. The egg I found to be addled.

On the 15th I found an old nest on Laita-vaara in a very young spruce, some ten feet from the ground, to which a squirrel had made additions of *luppu*. It was, as usual, of numerous light grey sticks, among which were interspersed a good many spiders' webs, collected by the bird, and was lined with lighter-coloured tree-lichen, and various feathers, coloured as well as white. We could not find a new nest, though we watched some birds a long while.

[The egg mentioned above seems to have been the only one ever taken by Mr. Wolley himself.]

§ 2615. *One*.—Viksi, West Bothnia, May, 1857.

Out of four brought on the 17th May by Lassi, of Under Muonio, with the lining of the nest. He said they were found by his brother Johan and another on the south side of Viksi Rytö, about the preceding 12th or 13th. In the eggs were young nearly, but not quite, ready for exclusion. I had difficulty in extracting them. The lining of the nest is mainly the lighter tree-lichens, with many admixtures—a few bents, bark-filaments, macerated leaves like wasps' nests, spiders' nests, feathers (cock and hen Capercally, *Kuukainen*)—partly interwoven, but in abundance on the inside, reindeer-hair, a little green moss, a bit or two of very light rotten wood, and other things.

§ 2616. *Two*.—Modas-lombola, West Bothnia, May, 1857.

Out of three found by Niku Olli, and given to me on the 20th at Modas-lombola, where I blew them. The young inside with visible limbs. The nest is said to have been three fathoms high, in a smallish Scotch fir. The birds, for there were two in company, screeched near Olli as he was coming in the morning from shooting Capercally. One of them almost directly flew to its nest. Olli was not quite sure of the day on which he took them, though he said on the 19th. It was perhaps a day or two sooner.

[The third egg from this nest was sent to M. Parzudaki, 7 March, 1858.]

§ 2617. *Four*.—Sadio, 1857.

§ 2618. *Four*.—Sadio, 1857.

O. W. tab. xiii. figg. 7, 8.

Two nests of *Kuukainen* brought by Apoo with four eggs in each. Those of the first not at all incubated, but with a slightly bad taste, shewing they have been long taken. The inner part of the nest, now before me, is made chiefly of feathers and black *luppu*, with a few grass-stalks woven in. There appear also spiders' nests, sallow-cotton, rotten wood, and macerated grass-fibre. The feathers are chiefly of Capercally (cock and hen) and Grouse (white). I see among them one Siberian Jay's, and one apparently from the breast of an adult Gos-Hawk.

The eggs of the second nest were all so much incubated as to have large young inside, but a good deal putrified. They are a beautiful set of eggs, of the Butcher-bird type.

§ 2619. *Four*.—Mantu-vaara, 1857.

O. W. tab. xiii. figg. 9, 10.

On the 17th June Johan Samuelsson brought to Knoblock these eggs, sent by Pieti Rautosjärwi, from whom I had had an interesting letter¹ concerning the finding of them. In this nest one egg [fig. 10] is an unusual variety. The nests of this and the following came with the eggs, but no bird.

§ 2620. *One*.—Mantuvaara, 1857.

Out of three which came with the last from Rautosjärwi. The other two I have sent to Herr Liljeblad in Sodankyla, unwritten on,

¹ [Of this letter, which is in Finnish, Mr. Dresser has kindly furnished me with the following translation:—

“*To Mr. Englishman at Muoniovaara.*

“Englishman, greeting!!

“We have found two nests of *Kuukainen* with seven eggs, one containing three, the other four, and have also taken them together with the mother. The nest is made in a very peculiar fashion. We have marked the tree and place where we found it. This for your information. Perhaps we may find some more. It is impossible to describe the nest; it resembles that of a wasp. Nothing more to say.

“Pehr Raudus, farmer.”

—Ed.]

as part of the four eggs [§ 2613] to be sent in exchange for the *Uinilo* [*Mergus albellus*, see 'Ibis,' 1859, p. 73]. This remaining specimen has one side blown out.

[It is little better than a ruin.]

§ 2621. *Four*.—Vähänivaara-maa, 27 April, 1858.

O. W. tab. xiii. fig. 11.

Brought to Knoblock, on the 1st of May, by Erik, having been found by himself as above just behind Nybygge.

§ 2622. *Three*.—Kurkio-maa, 7 May, 1858.

Brought to Muoniovara, 9 May, by Johan P. Wassara, having been found as above in the place where he had his *kota* [hut].

§ 2623. *Four*.—Rowa, 1858.

Brought to Muoniovara, 9 May, by Carl Tippo, from Johan E. Ponsi [Punz], with no further particulars.

§ 2624. *Three*.—Patto-vaara, 11-17 April, 1858.

O. W. tab. xiii. fig. 12.

Brought to Muoniovara, 22 May, by Simon Mathisson Salmo-järwi, having been found by himself, as above, about a mile and a half (Swedish) from Salmo-järwi.

[The egg figured from this nest is about the largest I have seen of the species.]

§ 2625. *Three*.—Kaukikoski, East Bothnia, 11 May, 1858.

Bree, 'Birds of Europe, not observed in the British Islands,' ed. 1, i. pl.

Brought to Muoniovara, 24 May, by Anonis Johan's boy Carl, having been found as above on the river-strand, about three-quarters of a mile from Muonio. All broken.

[One of these is marked by Mr. Wolley as having been sent by him, 3 October, 1858, to Dr. Bree to be figured in his work.' Badly represented as it is, it seems to be the first true specimen ever figured.]

§ 2626. *Four*—Songamotka, 2–8 May, 1858.

O. W. tab. xiii. fig. 13.

Brought by the same boy as the last, but on the next day, and belonging to Elias, by whom they were found.

§ 2627. *One*.—Peldouoma, 1858.

O. W. tab. xiii. fig. 14.

Brought to Muoniovara, 30 June, 1858, by Samuel Pehrsson Angeli from Peldouoma.

[From the dark colour of this egg, I have sometimes suspected it might be a Pie's, to some small examples of which it bears a strong resemblance; but on comparison with a series its determination leaves no room for doubt, though it is unfortunately without any good history.]

[§ 2628. *Four*.—Terva-vaara, 24 April, 1860.

O. W. tab. xiii. fig. 15.

Brought to Muoniovara, 30 April, by Piko Heiki's boy Carl, having been found as above in a Scotch fir.]

[§ 2629. *Two*.—Terva-vaara, 1 May, 1860.

O. W. tab. xiii. fig. 16.

Brought by the same boy, 14 May, having been found in the same nest as the preceding. If laid by the same bird, the contrast between these eggs, as will be seen by the figures, is very great; but they are the extremes of the series.]

[§ 2630. *Four*.—Kyrövaara, 28 April, 1860.

Brought to Muoniovara, 9 May, by Johan Anto from Kyrö, having been found as above.]

[§ 2631. *Four*.—Kente-vaara, May, 1860.

Brought to Muoniovara, 23 June, by Johan Eric Sipi, having been found as above.]

[§ 2632. *Two*.—Lapland, 1860.

Out of four from three different nests, brought to Muoniovara, 30 June, by Maria Muotkajärwi, but without other particulars.]

[§ 2633. *Two*.—Knutima, Enontekis Lappmark, 16 April, 1860.

Brought to Muoniovara, 2 July, by Martin Pekka, having been found as above on the strand of the Aunas-joki.]

[§ 2634. *Four*.—Ketto-mella, Enontekis Lappmark, 20 April, 1860.

Brought with the last, and also found near the Aunas-joki.]

[§ 2635. *Five*.—Lalva-uoma, 24 April, 1861.

Brought to Muoniovara, 30 May, by Olaf Hendrik Wassara, having been found as above.]

[§ 2636. *Five*.—Welliala, 24 April, 1861.

Brought to Muoniovara, 30 April, by Olaf Wassara, and, like the last, said to be all from one nest. These are the only instances known to me of this species having five eggs in a nest, and I think that in this last case there may have been some mistake, as one of the eggs is very different from the other four, and indeed is an uncommon variety. But the Wassara Lapps were usually very careful.]

[§ 2637. *Three*.—Rowa-uoma, 6 May, 1861.

Brought in, 13 May, by Johan Eriksson Rowa, otherwise Punz. These eggs are very like ordinary Pies' in colour and shape, but are much smaller.]

[§ 2638. *Three*.—Salmo-vaara, East Bothnia, 28 April, 1862.

Brought by Simon Peter, of Salmojärwi, the same day.]

[§ 2639. *One*.—Kyrö, 1862.

One of two brought by Jacob Larsson, 10 May, without further particulars. The other egg I sent to Prof. J. T. Reinhardt for the Museum at Copenhagen.]

GARRULUS GLANDARIUS (Linnæus).

JAY.

§ 2640. *Six*.—Near Eton, not later than 1842.

These I obtained at “the wall” at Eton, where they are to be had in great plenty. I have frequently seen the nests, generally in low trees or bushes.

§ 2641. *Two*.—Sweden, 1856.

[Not entered by Mr. Wolley, but undoubtedly obtained by him near Kalmar, or on the Baltic islands.]

§ 2642. *One*.—From Mr. W. Felkin.

[Not entered by Mr. Wolley, and nothing more known of it. Mr. Felkin lived near Nottingham, and had an ornithological collection.]

[§ 2643. *One*.—Soham, Cambridgeshire, 1846.]

[§ 2644. *Two*.—Fakenham Wood, Suffolk, 1851.]

[§ 2645. *Two*.—Fakenham Wood, 1851.]

[§ 2646. *Three*.—Sapiston Grove, Suffolk, 5 May, 1854.
“A. N.”

Taken by myself, the nest having been shewn to me by Balam, the hurdle-maker. (*Cf.* §§ 627–630 and 1032.)]

[§ 2647. *Two*.—Sapiston Grove, 10 May, 1856.

From the same hurdle-maker as shewed me the last.]

[§ 2648. *Three*.—Fakenham Wood, May, 1856.

From the same.]

[§ 2649. *Five*.—Lound, Norfolk, 1875. From Mr. Norgate, 1878.]

[§ 2650. <i>Four</i> .]	} Hawkenden, Suffolk, 14 May, 1891. "E. N. saw bird."
[§ 2651. <i>Two</i> .]	
[§ 2652. <i>One</i> .]	

My brother wrote:—"In the afternoon we walked to Christner's Wood, an oak-wood of perhaps sixty years' growth, with hazel underwood, and covering about ten or twelve acres. The gamekeeper shewed us three Jays' nests. They were all built against the stem of the oak-trees which had been trimmed some three or four years ago, and small branches had sprouted out to the length of a couple of feet. At the top of these, at about ten or fifteen feet from the ground, were all the nests placed. Two of the trees were covered with straggling ivy, but the nests were very visible. The old bird was on the first nest, and allowed the man almost to touch her before she flew off. There were four eggs in this nest. The next nest contained five eggs, but the man poked it down with a pole, and three of them were broken; they had been incubated a couple of days or so. The third nest also contained five eggs, but four were broken in pulling it down, and so I have only one: it was incubated. The bird we did not see. On the 15th we went down a brook, one of the affluents of the Stour (which runs past here), about a mile and then turned up another affluent which runs from Stourfield. Here is some roughish ground on either side, long grass and low, thick, white and black thorn-bushes. Here we found a Jay's nest in a whitethorn bush, within reach of the ground. The bird sat very close, and my friend nearly caught her. It contained five eggs, and we left her.]

GARRULUS KRYNICKII, Kaleniczenko.

[§ 2653. *One*.—Smyrna, 16 May, 1863. From Dr. Krüper, through Herr Seidensacher, 1865.]

This specimen is larger than the average of English Jays', and a good deal larger than those sent to me by Mr. Robson (§ 2654). Dr. Krüper's notes on the habits and nidification of this species, under the name of *Corvus melanocephalus*, are published in the 'Journal für Ornithologie' for 1869 (page 33).]

[§ 2654. *Five*.—Turkey. From Mr. Robson, of Ortakeuy, 1867.]

In 'The Ibis' for 1870 (page 191) Messrs. Elwes and Buckley state of this

species, under the name of *Garrulus stridens*, that it was "Found near Constantinople by Mr. Robson, who says that it breeds in the Forest of Belgrade." I am without any other information from Mr. Robson on the subject.]

CYANOPICA CYANA (Pallas).

[§ 2655. *Six*.—"Siberia," 1867. From Mons. J. P. Verreaux, 1868.

These specimens are very much darker in general coloration than those of the Spanish Blue Pie. Dr. Dybowski's notes on the nidification of this species were published in the 'Journal für Ornithologie' for 1872 (page 452), and I believe it was from him that these eggs were obtained.]

CYANOPICA COOKI, Bonaparte.

[§ 2656. *Four*.—Casa de Campo, near Madrid, May, 1865. From Lord Lilford.

A complete nestful. Lord Lilford's notes on this species are in 'The Ibis' for 1866 (p. 378).]

[§ 2657. *Fourteen*.—Casa de Campo, May, 1865. From Lord Lilford.

'Ibis,' 1866, pl. x.

From various nests. The six specimens figured (*ut supra*) are from this series, but it is impossible to recognize the portrait of more than one of them, though in a general way the plate gives a good notion of the appearance of the eggs of this species.]

[§ 2658. *Six*.—Casa de Campo?, May, 1865. From Mr. Dresser, 1866.]

Mr. Dresser informed me that these eggs were all from one nest and were brought to him by a lad (Manuel de la Torre's servant-boy), at Madrid, on 15 May, 1865, who said he "had taken them near the town, probably in the Casa de Campo, where I took eggs of this bird with my own hands." (*Cf.* 'Birds of Europe,' iv. pp. 504-506.)]

[§ 2659. *Twelve*.—Casa de Campo, 1867. From Mr. Dresser, 1868.

Taken by Manuel de la Torre.]

[§ 2660. *Fifteen*.—Casa de Campo. From Lord Lilford, 1884.

Obtained from Manuel de la Torre.]

PICA RUSTICA (Scopoli).

PIE.

§ 2661. *Five*.—Wirksworth, not later than 1843.

Taken by my brother George.

§ 2662. *Two*.

[Probably taken at the same time as the last, but there is no note of the capture.]

§ 2663. *Six*.—Pentland Hills, 24 April, 1850.

These were taken, mostly by myself, during an excursion on the borders of the Pentlands, in company with Mr. Belcomb and Mr. W. Dumbreck. We found three or four Magpies' nests.

§ 2664. *Five*.—Muonioniska, May, 1854.

Out of six, found by the boy at Niemi.

§ 2665. *Two*.—Marrainen, 1857.

Out of three.

§ 2666. *Five*.—Sweden, 1857.

[These eggs were not entered by Mr. Wolley; but they were undoubtedly obtained either near Kalmar, or on one of the islands Oeland or Gottland.]

§ 2667. *Two*.—Muoniovaara, 18 May, 1858.

From a nest in the enclosed ground, taken by Tibergs Johan.

§ 2668. *Three*.—Kaksosiasas, 29 May, 1858.

Found by the same boy as the last.

§ 2669. *Ten*.—West Bothnia, 7 June, 1858.

Out of twelve, found on Iso and Kotti-saari [islands in the Muonio river], by Johan Larsson, of Muonioalusta.

[Nearly all the Lapland eggs of this species seem to be larger than those from elsewhere.]

[§ 2670. *Three*.—Stetchworth, Cambridgeshire, 1846.

From two nests.]

[§ 2671. *Three*.—Icklingham Heath, Suffolk, 1849.

The first egg was laid about the 17th of April.]

[§ 2672. *Four*.—Icklingham Heath, 1851.

From a nest of eight eggs found on the 8th of May.]

[§ 2673. *Four*.—Barnham, Suffolk, 1851.

From a nest of eight eggs found on the 2nd of May.]

[§ 2674. *Two*.—Devizes, Wilts. From Mr. A. C. Smith, 1852.]

[§ 2675. *One*.—Coton, Cambridgeshire, May, 1856. "E. N."]

[§ 2676. *Seven*.—Leck, Donegal, 20 April, 1863. From Mr Robert Harvey.

Out of a nest of eight.]

[§ 2677. *Six*.—Chase Wood, Walford, Herefordshire, 24 April, 1874. From Mr. Norgate.]

[§ 2678. *Seven*.—Sussex, 19 April, 1876. From Mr. Norgate, 1878.]

[The following seem to belong to the Eastern form named *Pica leucoptera* by Mr. Gould.]

[§ 2679. *Two*.—"Dauria." From Mons. J. P. Verreaux, 1868.

Obtained, I believe, from Dr. Dybowski, who says (*Journ. für Orn.* 1872, p. 453) that in 1868 the first laying was completed on the 20th of May.]

[§ 2680. *One*.—Tasram, Dras River, Ladakh. From Captain Cordeaux, 1895.

Captain Cordeaux told me that this was from a nest with three eggs in a poplar tree, and was taken by himself.]

PICA MAURITANICA, Malherbe.

§ 2681. *One*.—Djendeli, Algeria, 16 May, 1857. From Mr. W. H. Simpson.

[§ 2682. *One*.—Djendeli, 13 May, 1857. From Mr. Salvin.

Mr. Salvin's notes on the breeding of this species in the Eastern Atlas, as observed by him and his companions, are in 'The Ibis' for 1859 (page 312). In that district it is the common foster-parent of *Coccytes glandarius* (*cf.* §§ 701, 702).]

[§ 2683. *Three*.—Madracen, Algeria, 6 June, 1857. From Mr. Tristram.]

CORVUS MONEDULA, Linnæus.

DAW.

§ 2684. *Four*.—Nottinghamshire and Derbyshire, not later than 1843.

These [and others, apparently] were taken by my brother George—some opposite Willersley and one or two in Black Rock near Cromford. The Jackdaws are troublesome at Rock House, building in the chimneys. I have seen a very extraordinary nest at Eton, in one of the bell-towers, built up to the height of six or eight feet from a step up two or three other steep steps, and then running by a wall to a window, on the ledge of which the main part of the nest was placed. It was generally thought to have been built by the clerk, but this was clearly impossible. It was not the accumulation of years, but was evidently raised up merely to give a broader stand for the nest in the window. It was not a huge heap, but had the appearance that ten or twelve Jackdaws' nests carefully placed one upon another would have. It is described and figured by Mr. Jesse [*'Scenes and Tales of a Country Life,'* pp. 57-59, and frontispiece (London: 1844)].

[The celebrated nest at Eton is said by Mr. Jesse (*loc. cit.*) to have been built in seventeen days, in May, 1842. The nest of a Gos-Hawk already described (§ 117) subsequently reminded Mr. Wolley of it. For other instances of similar structures, as well as an attempted explanation of what Mr. Jesse considered to be a wonderful proof of the birds' reasoning-powers, see Yarrell's *'British Birds'* (ed. 4, ii. page 308).]

§ 2685. *Twenty*.—Bearwood, Berkshire, April, 1847. "J. W."

These formed part of the eggs taken by Mr. Henry Walter and myself at Bearwood this spring.

[Concerning these eggs Mr. Wolley, on the 3rd May, 1847, wrote as follows in *'The Zoologist'* for that year, pp. 1774, 1775:—]

"*On Jackdaws' Nests. Do Birds of the Crow tribe cover their Eggs?*

"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 score 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 material, 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 [*vide supra*]; 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 meantime 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 barrow-loads, recently dropped by the jackdaws. The keeper assured us 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.”

* By Mr. Waterton and others. *Vide* ‘Magazine of Natural History’ [v. pp. 143, 393, 487, 590, and 676; vi. p. 209].

§ 2686. *Two*.—Strelley, Nottinghamshire, 1851.

[These eggs were not entered in Mr. Wolley's book; but the inscription on the box containing them shewed that they were taken as above by Sysselemand Müller, of Thorshavn, when on a visit to Mr. Edge (Mr. Wolley's cousin and companion in his Färöese expedition) at Strelley.]

§ 2687. *One*.—Sweden, 1856.

[There is no entry of this egg by Mr. Wolley; but it was undoubtedly one that he obtained when with Mr. Simpson (*hodie* Hudleston) in Celand, and most likely at Melböda on the 6th or 10th of May, 1856.]

[§ 2688. *Three*.—Elveden, 22 April, 1847.]

[§ 2689. *Six*.—Elveden, 25 April, 1851.

Three of these are almost devoid of markings.]

[§ 2690. *One*.—Elveden, 25 April, 1851.]

[§ 2691. *Two*.—Elveden, 1 May, 1852.]

[§ 2692. *One*.—Hockwold, Norfolk, 1856. From Mr. Newcome.

From a nest containing several others, all so coloured as nearly to resemble Choughs' eggs.]

[§ 2693. *Five*.—Port Ballyrain, Donegal, 30 April, 1863. From Mr. Robert Harvey.

Mr. Harvey's note says that this nestful was from an old unoccupied house. The eggs are somewhat abnormal, and he considered them the produce of a last year's bird.]

[§ 2694. *One*.—Port Ballyrain, 30 April, 1863. From Mr. Robert Harvey.

A typical specimen from a nest in the same house and on the same day as the last.]

[§ 2695. *Three*.—St. Neot's, Huntingdonshire, 28 April, 1864.
From Mr. Rowley.

From a nest of four in a chimney at Priory Hill.]

[§ 2696. *Four*.—Norfolk, 29 April, 1867. From Mr. Norgate,
1875.]

[§ 2697. *Five*.—Fritton, 28 April, 1875. From Mr. Norgate,
1878.]

[§ 2698. *Four*.—Cassiobury Park, Herts., 30 April, 1872.
"C. B. W." From Mr. C. B. Wharton, 1887.]

[§ 2699. *Four*.—Cassiobury Park, 26 April, 1874. "C. B. W."
From Mr. C. B. Wharton, 1887.

These eight eggs were received by me from Mr. Wharton, who wrote with them as follows:—"Many years ago, when I exhibited them at a meeting of the Zoological Society, you seemed to take an interest in four Jackdaw's eggs that I had found daubed all over with clay, evidently by the bird itself. I now send them to you (one, you will see, I washed to prove what they were), and hope you will do me the pleasure to accept them. In the same box I send you four more eggs (not daubed) that I took from the very same hole two years afterwards. The piece of clay (with marks of the bird's beak upon it) that I found in the nest with the first four eggs I send to you in a separate box. I may remark that the nest was in a difficult place to get at, and could only be reached with the aid of a rope. I have sold my egg-collection, but these seemed too good to go to a stranger."

I perfectly remember Mr. Wharton shewing these eggs to the Zoological Society, and I think it was while they and the lump of mud were quite fresh, so that it was probably on the 7th of May, 1872, on which evening I attended a meeting; but no notice of the exhibition was taken in the printed 'Minutes,' as some people present either disbelieved the story or saw nothing remarkable in it. Having forgotten exactly what Mr. Wharton's explanation of the curious fact was, I asked him, when writing to thank him for the gift, how he accounted for it. He accordingly replied:—"The nest was placed about fifteen inches in from the end of a large broken branch. My theory is that this particular Jackdaw once found a Jay seeking his eggs (Cassiobury Park swarmed with Jays), and in this instance daubed them over with clay so that they might not be so easily seen by a bird flying past. But even then he lost them, thanks to his flying out as I passed beneath. The next year no eggs were laid in that

branch, and you have the plain ones laid there the following year. I am quite convinced that the daubing was not done by human agency, as there was not a mark on the bark of the tree anywhere till I went up it with a rope. I should like to know whether the two lots of eggs were laid by the same bird. I so dislike writing for the press that I published nothing about them anywhere."

So far Mr. Wharton. For myself I cannot say that I accept his way of explaining the matter, but I cannot offer a better one. The three unwashed eggs were and are completely covered with some earthy substance, so that the natural colour is wholly hidden; the fourth, which he washed, is an ordinary-looking Daw's egg. The lump of mud or clay is smaller than any of the eggs, and certainly bears marks, which I suppose are those of the bird's bill. The lump is of an irregular shape, rather longer than wide, and might pass at a distance for a small walnut, which the eggs also in their bedaubed condition somewhat resemble. I see no strong family-likeness in the two sets of eggs, and imagine them to be the produce of different mothers. A sketch accompanying Mr. Wharton's second letter shews that the branch which contained the nest was nearly horizontal, and broken off at some distance from the bole of a large tree.]

[The following belong to the form from Macedonia and other parts of the Turkish dominions, described in July 1846 by the late Colonel Drummond-Hay (Ann. & Mag. Nat. Hist. xviii. p. 11) as a distinct species and named by him *Corvus collaris*.]

[§ 2700. *Two*.—Turkey in Europe, 1869. From Mr. T. E. Buckley, 1870.

Obtained during Mr. Buckley's hurried visit to Turkey in company with Mr. Elwes, of which they published a series of interesting notes in 'The Ibis' for 1870. They were strongly of opinion (*tom. cit.* p. 190) that the "Collared Jackdaw" should be regarded as merely a local variety of *Corvus monedula*. This is no place to discuss questions of specific qualifications, and I content myself with quoting a footnote which I appended to the remarks of those gentlemen (*ut supra*):—"It seems as if *Corvus collaris* might be looked upon as the intermediate form between *C. monedula* of Western Europe and the *C. dauuricus* of Central Asia." In deference to the opinion of several authorities, and especially of Mr. Dresser (B. Eur. iv. p. 527), I keep the last distinct; but my own inclination is to consider it an extreme form of *C. collaris* and therefore of *C. monedula*,—*C. neglectus* of Eastern Asia, which apparently never assumes the hoary head, and yet frequently interbreeds with *C. dauuricus*, according to information given to that gentleman by Mr. Swinhoe, being yet another local race.]

CORVUS DAURICUS, Pallas.

[§ 2701. *Six*.—"Dauria," 1867. From Dr. Dybowski, through Mons. J. P. Verreaux, 1868.

Probably from Darasun (*cf.* Journ. für Orn. 1868, pp. 332, 339).]

[§ 2702. *Two*.—Siberia. From Dr. Dybowski, through Mons. J. P. Verreaux, 1873.

Dr. Dybowski's notes on this bird, under the name of *Lycos dauricus*, are published in the 'Journal für Ornithologie' for 1872 (pp. 453, 454).]

CORVUS FRUGILEGUS, Linnæus.

ROOK.

§ 2703. *Four*.—Wigwell, near Wirksworth, Derbyshire, not later than 1843.

All taken by my brother George.

§ 2704. *Twenty*.—Widmerpool, Nottinghamshire, 11 April [1843 or 1844]. "J. W."

Out of twenty-five which I took myself. They were mostly hard sat upon. They differ very much from one another, though for the most part eggs from the same nest were similar—all in one nest being long, in another large, in another small and round; whilst one nest had dark-coloured eggs, another had spotted, and so on. The nests appeared to be composed chiefly of *old* twigs of larch, hawthorn, elm, and so forth. I had the picking of eight or ten nests, there being five eggs in each.

§ 2705. *Forty*.—Loch Awe, Argyleshire, 19 April, 1851. "J. W."

Selected from fifty-six specimens, all that I can blow out of eighty or ninety, which I took yesterday out of small trees on an island in Loch

Awe, called Innis Fraoch [Heather Isle], on which are some ruins. One of the trees grows in a remarkable manner on the top of a wall, and in this, in one lump, were seven nests. Some of the eggs were already hatched, and others fresh-laid, there being only two or three eggs in the nest. The highest nests, and those in the best places, had the eggs most advanced—all of the nests lined with moss. The trees were ashes, Scotch firs, and so forth. Many Jackdaws were about the ruins, and also about Kilchurn Castle; but several of their nests that we examined were as yet without eggs. Lesser Black-backed Gulls also flew about a neighbouring island; many Ducks were about, and on an adjacent island I flushed two Woodcocks, and on the one with the ruins I put up a Heron. At Kilchurn Castle I climbed up so as to overlook the chimney which had been pointed out to me as that on which the Ospreys had their nest, until the pair were shot by the gamekeeper; but I could see no remains of the nest.

[§ 2706. *One*.—Chippenham, Cambridgeshire, 1846. From Mr. F. Tharpe.]

[§ 2707. *Two*.—Barnham, Suffolk, 1849.]

[§ 2708. *Thirteen*.—Barnham, 1851.]

[§ 2709. *Five*.—Wangford, West Suffolk, 9 April, 1853. “A. & E. N.”

Out of three nests, from a small rookery in a clump of trees on the Warren.]

[§ 2710. *Six*.—Letterkenny, Donegal, 7 April, 1863. From Mr. Robert Harvey.

This nestful was taken at the Port bridge of Letterkenny, from an ash-tree in Mr. McClintock's orchard.]

[§ 2711. *Four*.—Sparham, Norfolk, 14 April, 1871. From Mr. Norgate.]

[§ 2712. *Five*.—Sparham, 31 March, 1876. From Mr. Norgate.]

CORVUS PASTINATOR, Gould.

[§ 2713. *Three*.—"Siberia." From Herr Dode, 1871.]

[§ 2714. *One*.—"Siberia." From Dr. Taczanowski, through Mons. J. P. Verreaux, 1873.

Dr. Taczanowski, in the appendix to his report on the ornithological researches of Dr. Dybowski, states (Journ. für Orn. 1873, p. 114) that several sets of the eggs of this Rook, from which I suppose all these specimens come, were obtained in the district of Akscha, on the River Onon, by that naturalist, in company, it would seem, with Herr Godlewski, and presumably in the year 1871.]

CORVUS CORONE and CORVUS CORNIX, Linnaeus.

CROW.

[Holding as I do, for reasons elsewhere explained (Yarrell, *British Birds*, ed. 4, ii. pp. 274-288) and not needing repetition here, that no specific distinction can be maintained between the birds long known scientifically as *Corvus corone* and *Corvus cornix*¹, it is yet in accordance with the plan followed in the present work that the two forms of this dimorphic species should be treated separately, and the convenience of readers, especially those who differ from my view, will thereby be best served.]

(BLACK CROW.)

§ 2715. *Four*.—Wirksworth, Derbyshire, not later than 1843.

These were taken by my brother George and his friend Mr. Biden from two nests, one of which was low down in a spruce-fir. There is no rookery in the wood. They are large and unusually elongated.

¹ [My opinion has of late been further strengthened by reading that "Three races of Hooded Crow can readily be distinguished" (Oates, 'Fauna of British India,' *Birds*, i. p. 20).—ED.]

§ 2716. *One*.—Not later than 1842.

Sold to me at Eton as the egg of a “very curious and beautiful bird that built on the ground.” It is of the variety figured by Mr. Hewitson in his first edition [Br. Ool. pl. xci. fig. 3 (1835)].

§ 2717. *One*.—Clifton, Nottinghamshire.

This may be considered the type of a Carrion-Crow’s egg.

§ 2718. *Two*.—Dalgety, Fife, 27 April, 1850.

Taken by myself in a fir-tree in the wood where the heronry is. Many robbed Herons’ and Pheasants’ eggs lying about.

[§ 2719. *One*.—Elveden, 1845.]

[§ 2720. *One*.—Chippenham, Cambridgeshire, 1846. From Mr. F. Tharpe.]

[§ 2721. *One*.—Soham, Cambridgeshire, 1846. From Mr. H. Dobede.]

[§ 2722. *One*.—Whittlesford, Cambridgeshire, 1852. From Mr. Charles Thurnall.]

§ 2723. *Four*.—Whittlesford, 1852. From Mr. Charles Thurnall.]

[§ 2724. *One*.—Milton, Cambridgeshire, May, 1856.

Taken by my brother Edward.]

[§ 2725. *One*.—Sutherland, 1859.

From a correspondent who wrote that in his district the “Carrion-Crows are quite common,” and further on said that the nest was in a tree.]

[§ 2726. *Four*.—Sussex, 24 May, 1877. From Mr. Norgate, 1878.]

[§ 2727. *Three*.—Great Cotes, Lincolnshire, 21 May, 1890, From Mr. Cordeaux.]

These arrived unblown, and I found that the most deeply-coloured and regularly-spotted one of the three was quite fresh, the lightest-coloured and most streaky was a good deal incubated, and the third in an intermediate state.]

(GREY CROW.)

§ 2728. *One*.—Isle of Man, not later than 1843.

My brother George's friend, Mr. Biden, took this specimen in the Isle of Man. He found several nests, which were built on the ledges of cliffs often of easy access.

§ 2729. *One*.—Orkney, 1831. From Mr. J. D. Salmon, 1846.

This was taken by Mr. Salmon himself in the Orkneys during his bird-nesting excursion through those islands some years ago.

[Mr. Salmon's notes are in the 'Magazine of Natural History' (v. p. 423).]

§ 2730. *Two*.—Shetland. From Mr. Tuke, 1846.

Mr. Tuke writes :—"I obtain [Hooded Crows' eggs] both from Shetland and a friend in Ireland, where they seem to breed in considerable numbers. I wonder why they do not breed on our own cliffs."

§ 2731. *One*.—Hackwood, Hampshire. From Mr. H. Walter, 1846.

Taken at Lord Bolton's place near Basingstoke, and given to me by Mr. Henry Walter.

[A remarkable locality for the Grey Crow to breed in.]

§ 2732. *Five*.—Kinloch, Sutherland, 30 April, 1849. “J. W.”

I took these from a nest in an alder-tree about twelve feet from the ground, near Kinloch, between Tongue and Strathmore. I saw the bird leave the nest. The eggs a good deal sat upon.

§ 2733. *Two*.—Loch Laighal, Sutherland, 10 May, 1849.

I took these from a nest which I saw the bird leave, close to the road in the walk from Tongue to Altnaharrow. It was on the bank of the loch, and I think in an alder.

§ 2734. *Five*.—Loch Maddie, Sutherland, 11 May, 1849.
“J. W.”

These I took from a nest at the top of Mr. St. John's “Osprey” tree [*antè*, p. 55]. I do not remember whether I saw the bird of this nest, but I did of other nests on islands in the same loch. All were Grey Crows. In one nest were two young, one of which was much deformed about the mouth, having met with some accident. They crouch in the nest.

§ 2735. *One*.—Loch Maddie, 11 May, 1849. “J. W.”

This I found on an islet at the west end of the loch.

§ 2736. *Four*.—Loch Urigil, Sutherland, 19 May, 1849.
“J. W.”

On a little island overgrown with *Allium ursinum* was a Hooded Crow, which left its nest within shot. John Sutherland had destroyed the nest once before that season. It was in a low tree or shrub.

On the 5th June following, going with Mr. Edge from Scourie and Badcol, off the west coast of Sutherland, I took two young Grey Crows in Calva, snaring them with string and a ramrod. It was a very difficult spot to get at. Tough, the landlord of the inn at Scourie and an old gamekeeper, says that in the south, *i. e.* in Argyle, the Crows are darker, sometimes quite black. This and the story of the Black and Grey Crows breeding together convinces me they are varieties. In the Færoes I thought them greyer even than in

Sutherland. On the 22nd June, on one of the small islands off Scalloway, we took a nest, and from the backs of the young birds our two Færoese sheep ate the feathers, probably from nervousness, on our way home from the Færoes. The young birds died of cold, or were nibbled to death!

§ 2737. *Four*.—Assynt, Sutherland, 1851.

From John Sutherland, the Duke of Sutherland's gamekeeper at Ledbeg.

§ 2738. *Six*.—Orkney, 1850.

Out of fifteen specimens received from Mr. George Harvey, of Stromness. In 1849 I remarked from my own experience that "there is nothing else in Shetland and Orkney, *i. e.* no common Carrion-Crow, if this is distinct."

§ 2739. *Twelve*.—Orkney, 1851.

Out of twenty-eight, received, as before, from Mr. G. Harvey.

§ 2740. *Four*.—Færoes, 1852. From Herr H. C. Müller.

There is no other species in the islands.

§ 2741. *Four*.—Kitkisuando, May, 1854.

Brought to me on the 30th, and said to be unknown. They are evidently Hooded Crow, and were several days sat on.

[One of them is unusually large, and may very likely have been from a second nest.]

§ 2742. *Three*.—Rowa, East Bothnia, 1855.

Brought by Nils Punsu, 23 June.

§ 2743. *Four*.—Kuttainen, 1855.

Received on our way down the river. One of them is of unusual size.

- § 2744. *Four*.—Oiasen-saari, West Bothnia, 28–31 May, 1857.
“ J. W.”

From a tree in a little backwater out of Kiwi-poas, in which tree was one of Niemi's *tillas*. I first took two eggs, leaving one, which I marked, in the nest. Rautio's Colli took the other two on Whitsunday, and afterwards shewed me, as we rowed past, where they were from.

[The egg last laid of this nest is the lightest in colour.]

- § 2745. *Five*.—Toras Sieppi, East Bothnia, 4 June, 1857.

Found by Forsström's servant on his way home.

- § 2746. *Four*.—Lapland, 1859.

Found by Nullasjärwi Johan's boy.

- § 2747. *Four*.—Lapland, 1859.

From a nest of five, found by Vellitalla Johan.

- § 2748. *One*.—Færoes, 1859.

[A very singularly-coloured specimen, sent by Sysselmand Winther, with the last eggs received by Mr. Wolley before his death.]

- [§ 2749. *Eight*.—Unst, 1854. From Mr. J. Smith.]

- [§ 2750. *One*.—Minde, Mjosen Lake, S. Norway, 24 May, 1855.
“ W. H. S. & A. N.”

From a nest found by Mr. Simpson (*hodie* Hudleston) and myself on our way to join Mr. Wolley in Norway. In those days the railway was open to Eidsvold only, and the train left Christiania at the same hour as the steamer left Minde, so that we had a long afternoon at the latter place, which we employed in birds'-nesting, but with this result only.]

- [§ 2751. *Eight*.—Unst, 1855. From Mr. J. Smith.]

[§ 2752. *One*.—Argyllshire, 1855. From Mr. Peter Robertson.

This from the late much-respected forester at Black Mount, who had been so trusty a guide to Mr. Wolley, my brother, and myself to more than one Eagle's nest (§§ 28, 32, 36, 39, 41, 53).]

[§ 2753. *One*.—Shetland, 1855. From Mr. T. Southwell, 1856.]

[§ 2754. *Four*.—Unst, 1856. From Mr. J. Smith.]

[§ 2755. *Three*.—Black Mount, Argyllshire, 1857. From Mr. Peter Robertson.]

[§ 2756. *One*.—Egypt, 1862. From Mr. S. S. Allen.]

[§ 2757. *Five*.—Corvaddy, Donegal, 9 May, 1863. "R. H." From Mr. Robert Harvey.

Mr. Harvey writes:—"This nestful was taken in my presence, by my son John, from the top of a tall silver-fir in the plantation of Corvaddy Lodge, in this parish of Leck. I saw the hen bird leave the nest, and saw both birds flying and croaking about the tree as my son went up it.]

[§ 2758. *One*.—Turkey. From Mr. Robson, of Ortakeuy, 1867.]

CORVUS UMBRINUS, Sundevall ex Hedenborg.

[§ 2759. *Two*.—Egypt, 10 March, 1863. "J. H. C." From Mr. Cochrane.

These eggs I obtained at Mr. Leadbeater's, to whom Mr. Cochrane had sent them, with others, to be disposed of. I saw the skins of some of these Ravens with them. I am not aware that he ever published any notes on this species, which is much to be regretted.]

CORVUS LEPTONYX, Peale.

[The discovery that *Corvus corax* is replaced in Barbary by a very distinct species is undoubtedly due to Colonel Irby (Ibis, 1874, pp. 264-266), who described it as *C. tingitanus*; but it has since been found that he was anticipated in giving it a name by Mr. Peale, the ornithologist of Commodore Wilkes's squadron, who, in 1848, described and figured as *C. leptonyx* (U.S. Expl. Exped. viii. p. 105, pl. xxix.) a Raven which he had shot near Funchal, and it is now admitted that the Raven of Madeira is specifically identical with that of Mauritania. Had Mr. Wolley preserved the specimen he obtained at Tangier in 1845, its distinctness from the European bird might have then been recognized. At that time he could have had very little experience of Ravens, though, as will appear, he was the possessor of a tame one.]

§ 2760. *One*.—Tangier. From Mons. Favier, 1847.

Bought, with others, of Mr. Williams, of Oxford Street [§ 2]. It bears M. Favier's label "*Corvus corax*." If so, it is a small specimen. Ravens were abundant at Tangier in 1845, when I shot one.

§ 2761. *One*.—Kef Laks, Eastern Atlas, 21 April, 1857.
From Mr. Simpson.

Given to me to shew the locality.

§ 2762. *One*.—Khifan M'satka, Eastern Atlas, 25 April, 1857.
From Mr. Tristram.

[§ 2763. *One*.—Algeria, 1857. From Mr. Tristram.]

[§ 2764. *Twelve*.—Tenerife, Canary Islands. From Señor Gomez, through Mr. Dresser, 1889.

Four of these are marked as being from one nest.]

[§ 2765. *One*.—Palma, Canary Islands. From Mr. S. B. Wilson, 1893.]

CORVUS CORAX, Linnæus.

RAVEN.

§ 2766. *One*.—From Mr. Sadd, not later than 1843.

Rather an unusual variety. In the year 1841 there were three nests on the South Foreland. All the young birds were caught on the sands before they could fly well. I purchased one of them at St. Margaret's for eighteenpence—a fine well-grown bird—in September*. At Filey, in Yorkshire, they sell for twenty-five or thirty shillings; they are obtained on the Speeton and Buckton cliffs. I saw two flying about the cliff below Scarborough Castle this summer, 1843. At the inn at Malton there are two, a young one and a fine venerable old fellow with a long beard, who, they say, is teaching his new companion to talk nicely. The eggs, which are scarce, sell for three or four shillings each.

[This egg is most likely from Madingley, near Cambridge, where, or at Quy, until about 1858, a pair nested yearly; but their eggs were usually taken.]

§ 2767. *Three*.—Iceland, from Mr. Proctor, 1844.

These specimens are small, but Mr. Henry Milner says this bird is very abundant in Iceland.

§ 2768. *Six*.—Copt Hall, Essex, 1846. From Mr. Argent.

Mr. Argent said these were sold to him by Mr. Pratt, a watchmaker at Epping, who had them from Colonel Conyers's keeper. The eggs of the first nest were pale. It was taken; the birds laid again, were both shot, and the nest robbed a second time.

§ 2769. *One*.—Orkney. From Mr. George Harvey, 1848.

The Raven is abundant in Orkney. I saw nine on the cathedral of St. Magnus at Kirkwall, where there is a nest every year, close

* Flew away for the last time from Beeston in July, 1850. Poor Grip!

to a Kestrel's. Large flocks are often to be seen, especially after a take of Bottle-nosed Whales. I saw one trapped at Kirkwall, and of another the foot left behind. This I was going to put into my pocket; but the man, who had just taken it out of his own, would not let me have it on any account, for luck's sake. Possibly he could not comprehend what I wanted it for. In Shetland the Raven is equally abundant.

§ 2770. *One*.—Orkney, 1850. From Mr. George Harvey.

§ 2771. *Nine*.—Orkney, 1851. From Mr. George Harvey.

Out of seventeen.

§ 2772. *One*.—Isle of Wight, 1851. From Mr. John Evans, 1853.

This was obtained by Mr. Evans at the same time and place as the Peregrine Falcon's eggs above mentioned [§ 224]. It was taken on the same cliffs.

§ 2773. *Two*.—Ireland, 1851. From Mr. J. Davis, through Dr. Frere, 1852.

§ 2774. *Two*.—Færoe, 1851. From Sysselmand M. A. Winther.

Herr Müller brought with him this year from the Færoes two black-and-white Ravens, which went to Strelley, and one of them died soon after from an attack by the Eagle. There is at this time [1851] a black-and-white Raven in the Zoological Gardens, probably from the Færoes.¹

¹ [Time out of mind pied or white Ravens had been known to occur, though rarely, in various places; but in the Færoes so often as to give rise to the belief that they formed a distinct species. In 1655 the 'Museum Wormianum' mentions (p. 292), under the name of *Corvus versicolor*, the skins of two as sent thence; and not long after (1672) Debes tells of one which he had alive (Færoa Reserata, p. 125), though he justly considered it only a variety. Brisson described and figured a specimen in 1760 as the *Corbeau blanc du Nord* (Ornithologie, Suppl. p. 33, pl. ii. fig. 1), and in 1817 Vieillot (Nouv. Dict. d'Hist. Nat. Nouv. éd. viii.

§ 2775. *Two*.—Færøe, 1852. From Syssemand Müller, 1853.

§ 2776. *Six*.—Aiti-järwi-pahta, West Finmark, 8 May, 1854.
“J. W. *ipse*.”

Taken by myself on my way back from Norway, a mile or so before we came to the Finnish frontier, where I entered an enemy's land¹. *Pahta*² means “rock,” and the little cliff where the nest was stands at the southern end of the lake of Aiti, on the east side. I drove a little out of the track to it, expecting there might be something, and as we got to the edge of the lake the old birds came croaking over us. Ludwig soon waded through the snow to the nest, which was in a corner most easily accessible to man or fox, and not more than eight or ten feet from the level ground. I then followed Ludwig. The nest was made as usual of sticks, and thickly lined with reindeer's hair, amongst which were fragments of woollen cloth gathered, as our Lapp guide said, on the spots whence *cotas* had been moved. The Ravens took their loss tolerably patiently; but followed us overhead a short way. I packed the eggs in a little basket I had had for coffee-cups. Ludwig blew them at Palojoki, and they have reached Muunioniska in safety—difficult travelling for eggs though it be in a *pulka*. They were a little sat on.

p. 27) gave the supposed species a systematic name, *C. leucophæus*, besides figuring it (Galérie des Oiseaux, pl. 100) and enlarging on its ferocity; though, no doubt unknown to him, Landt in 1800 (Forsøg til en Beskrivelse over Færøerne, p. 244; Engl. transl. p. 220) had pointed out that black and pied birds paired together, and the young of either colour might be found in the same nest. The same opinion was as forcibly expressed by Graba in 1830 (Tagebuch geführt auf einer Reise nach Färö, p. 51). In his paper on the Birds of those islands (Contributions to Ornithology, 1850, p. 110) Mr. Wolley wrote: “I saw the black and white variety which has been called a species under the name of *C. leucophæus*; but two were shewn 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.” A dozen years afterwards Syssemand Müller wrote to the same effect (Færøernes Fuglefauna, p. 13), and about the same time he was good enough to send me some specimens, completely bearing out Mr. Wolley's opinion; but when I last saw my good friend (29 June, 1894) he told me he was afraid that all the pied Ravens had been killed off.—ED.]

¹ [Mr. Wolley had crossed the frontier. War with Russia had been proclaimed during his excursion to Alten and Hammerfest.—ED.]

² [More correctly spelt, I believe, *Pakte*, the Lapp word for “cliff,” but the *k* seems to be silent.—ED.]

§ 2777. *Four*.—Hammerfest, 70° 49' N. lat., 2 May, 1855.
 “J. W. *ipse*.”

I had been up, on a very stormy day, to near the highest point of the island [Qvalö], where I had seen Mountain-Ptarmigan on comparatively low ground. Going by the lake I heard the uncanny cry of two Ravens, and, knowing there was a nest, as I went over they came to meet me. I soon saw the nest. It looked very accessible from below; but on going above it was not so easy. From no spot was it possible for me to get the eggs without a rope or some other assistance. Luckily there were some willow-bushes near. I cut a long stick, curled the end into a loop, and made a net of some string I had in my pocket, with the meshes, as I thought, sufficiently small. Standing on a spot from which I could easily see the eggs, I soon had two in my net; but when I got it on high ground there was only one, for the other had slipped through the meshes. Of the four that are left, one is not bigger than a Crow's, and had no yelk. The broken egg was of similar size, but of a dark green colour, with the markings at the smaller end. The nest was a good mass of sticks, lined with sheep-grass. The birds were very bold or tame, one of them dashing close to my head. They sat by, clucking, “drawing corks,” setting up the feathers of their head and throat, and shewing the white of their eye-lids, just as old Grip [see § 2766, note] used to do. There was deep snow everywhere except on the steep rocks; but a purple saxifrage had its petals already unfolded, though not quite opened. There was a good deal of it growing on the rocks below the nest and thereabouts.

§ 2778. *Siv*.—Greenland. From Captain Holböll, through Sysselmand Müller, 1856.

Two of these are very curious eggs.

[Holböll, in 1843 (Naturhist. Tidsskrift, iv. p. 390), designated the Greenland Raven *C. corax* var. *littoralis*; but Prof. J. T. Reinhardt (Ibis, 1861, p. 7) and Herre Winge, in 1898 (Consp. Faun. Groenl. p. 269), have wisely (as it seems to me) ignored any such distinction.]

§ 2779. *Siv*.—Lauska-pahta, West Finmark, 27 April, 1857.
 “L. M. K.”

Taken by Ludwig, in company with another man, from an old

Falcon's nest about a quarter of a mile (Swedish) to the north of Autsi-järwi.

§ 2780. *Four*.—Vuorasjoen-pahta, West Finmark, 22 April, 1858.

Brought by Piko Heiki, and found by him, in company with Lassi, in an old Falcon's nest about twelve ells from the ground, and a mile from Mortas. Fine dark-coloured eggs.

§ 2781. *Three*.—Kattila-järwi-pahta, West Finmark, 1 May, 1858.

Brought and found as the last. Very lightly-marked eggs.

[Ravens having been well nigh extirpated from every inland station in most parts of England, the following particulars of the later history, extending over fifteen years, of what I believe to have been the last pair which inhabited East Anglia¹ may have some interest for the reader. His first thought will naturally be that they form a continuous record of plunder, and so it is; but I must premise that the old birds were spared from destruction, and they could easily have been destroyed, only on condition that they should never take off their young. My brother Edward and I had great difficulty, for some years at least, in saving these Ravens. Over and over again we ascertained, from examination of the pellets they cast up, that Moles formed their principal food,—Rabbits' bones or fur occurring but rarely, and these were possibly obtained from an animal which had already died in the open—and Moles were creatures which a man was especially employed to kill²; but gamekeepers and others in authority would not believe us. Superstition undoubtedly aided us; but all gamekeepers were not superstitious. Though no instance was known of the birds' attacking a sheep or lamb, indeed the Ravens generally kept away from the folds, yet the shepherds were as bitterly hostile as the gamekeepers. One shep-

¹ The only tradition of other Ravens in West Suffolk I ever heard was of a pair at Ickworth, and another at either Fakenham or Sapiston. About 1848 Mr. Newcome had a live bird from Middleton, near Lynn, in Norfolk, and I think there had been a nest at Weeting not long before.

² The mole-catcher alone might be said to have a grievance; but he did not know that the Ravens preyed on his game, and, moreover, if he had stirred in the matter we should have shewn him up, for we were aware that he wisely recognized the value of a "close time" for Moles, in order that there might be the more for him to kill, his profits depending on the number.

herd, or his "page," set a trap and caught one of the pair by a toe; but he did not dare to kill it, and so let it go; first, however, taking a strip of white rag, he made a slit near one end, through which he passed the other end, and then slipped the loop over the bird's head, so that the loose end hung down in front. That bird was never again seen alive. I heard of what had happened, and saw its disconsolate mate, the hen as I believed. Some time after, I found the dead bird on the ground in the Icklingham Belt. It had seemingly worried itself to death, and was wasted to a skeleton. It turned out that that season's lambing proved very disastrous—never had so many ewes been known to warp. It was hard on the flock-owner, but I think that shepherd never set a trap for a Raven again, and he certainly did not like being asked about the business. The surviving bird was sitting at the time, but she forsook her nest. She found another mate and a second nest was built, but of that more presently.

It was in 1848 that we first came to know that a pair of Ravens had a nest in a "hurst"¹ on Icklingham Heath. A warrener there told my brother that formerly, and for many years, they had built on one of the high poplar trees near the village of that name, but were driven away by Rooks, which took possession of the trees and established a rookery there². By the then game-keeper at Elveden, from the boundary of which this hurst was only about a mile distant, they were looked upon as fresh arrivals, and he much wished to destroy them. This, however, he could not do without leave from the owner of the ground, at that time Mr. Daniel Gwilt, who, I am glad to say, was always inclined to afford the old birds a modified protection. They certainly bred that year, for my brother was able to calculate when their first egg was laid; but what became of the brood I know not. I think it possibly got off, and some damage was alleged to have ensued. Be this as it may, the next year the nest was in the same place, and, as will be immediately seen, my brother obtained two eggs from it. In 1850 we did not

¹ Hurst is not an East-Anglian word, and in Suffolk I only know it as applied to certain clumps of Scotch fir-trees, cruciform or triradiate in shape, which then stood, four on Icklingham Heath and three on Elveden. These were planted, on what at the time must have been almost a treeless tract, as shelter for sheep in lambing-time, the flock being folded, according as the wind might blow, in the leeward angle. The trees were at least as old as, if not older than, those which formed the two well-known Elden Gaps planted by Admiral Keppel in or about 1768, when the Act of Parliament (8 Geo. III.) for making the turnpike-road from Thetford to Barton Mills, and so to Newmarket, was passed. The Icklingham Belt above named was a narrow plantation running for about a mile and a half along the boundary between the two parishes of Icklingham and Elveden. It was also of Scotch firs, but not quite so old. The Duke's Ride Plantation, so called from a green road used by a former Duke of Grafton that ran partly by its side, and presently to be mentioned, was in Elveden, and mostly of Scotch fir, but planted still later.

² This was no doubt the current story; but it was also said that the Raven-tree had been blown or cut down.

trouble the Ravens, and indeed saw but little of them—only about once in each of the first four months of the year; but on the 2nd of May my brother saw the pair alone, and hence it may be inferred that no brood was brought off, though there is no doubt that they nested, and most likely in the same place. Towards the end of February, 1851, he went to the hurst, but saw no birds, nevertheless the nest was found there on the 13th March with three eggs, to which two others were afterwards added. In 1852 we brought away from the nest two young birds, which lived and were well known at Elveden as “Grip” and “Ralph” for the next eleven years¹. I will not enlarge on their doings further than to say that after a twelvemonth or more they became a great attraction to their wild parents, one or both of whom would visit them almost daily, arriving about nine in the morning and staying in their company for some three or four hours. On at least one occasion they were joined by a stranger, so that we had the pleasure of seeing five Ravens at once within one hundred yards of the house, and they kept up this habit till 1863, when my acquaintance with them ceased. In 1853 six eggs were laid in the old place; but in 1854 the birds were much disturbed by the largest trees in this hurst being cut down, and their nest was either forsaken or destroyed. They built a second in the same hurst, and it was while the hen was sitting that the cock met the deplorable fate at the shepherd’s hands already described. On a new mate being found, a third nest was built, not in the hurst, but on a tree which stood on the heath just outside the western end of the belt. Herein a young bird was hatched and grew to be fully fledged, when it seemed to have been blown out of the exposed nest, and to have been so much injured that it could not fly properly. It probably came to an untimely end, as it was not seen after the first ten days of its leaving the nest. In 1855 what remained of the old hurst was again tenanted, as it was also in 1856; but in 1857, to our great delight, the birds took up their quarters in the Duke’s Ride Plantation at Elveden, when six eggs were laid. In 1858 they occupied a tree in the belt itself, and laid seven eggs, the greatest number I ever heard of a Raven laying—but two of them were addled. In the three succeeding years they returned to the plantation at Elveden, and in each of those years seven eggs were again laid. In 1862 and 1863 the nest was undisturbed so far as I was concerned, but I have no reason to think that the eggs or young escaped, and in the course of the next twelvemonth the old birds, as I afterwards heard, were killed—probably by poison, as, through the intercession of my friend the late Mr. Newcome, strict orders had been given by the new owner of Elveden that they should not be shot or trapped.]

[§ 2782. *Two*.—Icklingham Heath, Suffolk. March, 1849.

My brother Edward wrote from Elveden, on the 25th March, 1849, to me at Cambridge:—“Last week George Leeks (the son of a warrener) told me

¹ In 1863 I gave them to Mr. Frederick Godman, and they lived for some time at his father’s house, Park Hatch; but they were continually quarrelling, and one at last killed the other.

there was a Raven's nest on Icklingham Heath. He had been told by a man at work in the Belt. I therefore told him to tell the man I would give him two shillings if he would get me the eggs. When Napthen (the gamekeeper) heard of the nest, he wished to go himself and try to shoot the old birds—then I should get the eggs for nothing. Friday afternoon (23rd March) was the day appointed; but the man in the Belt had been beforehand, and had got two of the eggs for me. He said that Mr. Gwilt (the owner of the land) wished for a young bird, and did not want the nest to be disturbed; he therefore had not taken the other three eggs. The eggs were much sat on, and one burst in blowing it. The other is a very good specimen. I calculate that the first egg was laid on the 10th of this month—last year on the 12th.”]

[§ 2783. *Five*.—Icklingham Heath, 13–17 March, 1851.

My brother went to the Heath on the 25th of February, but saw no birds. One of the hursts had been wholly cut down. The nest was found with three eggs on the 13th of March, when one was taken, the others on the 17th.]

[§ 2784. *One*.—Icklingham Heath, 15 March, 1852. “A. & E. N.”

It seems that there were only four eggs when this was taken, but a fifth may have been laid afterwards. On the 23rd of April two young birds were taken from this nest, and they lived about the house at Elveden for eleven years. One of them clung so fast to the nest as to leave one of his hind claws in it, but its loss never seemed to cause him any inconvenience. When this bird was growing his first plumage, the longest primary on one side was perfectly white, but on moulting the following autumn it was succeeded by one of the normal colour, and no white feather appeared again so long as I had the bird's acquaintance. In the spring of 1861 these birds carried a great many sticks to the foot of two Portugal laurels in which they were fond of sitting, but did not succeed in getting them any higher. They also began to fight one another, and on one occasion I found the bigger one bloody and much exhausted. I am pretty sure from the resemblance of voice that they were of the same sex, and probably males.]

[§ 2785. *Four*.—Icklingham Heath, 21 March, 1853. “A. & E. N.”

Out of six eggs, which were hatching. My brother and I were present when they were taken, and I rather think he climbed the tree, which was in the same old hurst as before.]

[§ 2786. *Three*.—Icklingham Heath, 13 March, 1854. “A. N.”

These eggs were taken out of the nest by the gamekeeper, and lowered to me by a string. He left two others in it. The nest was in what remained of the old hurst, most of which was being cut down.]

[§ 2787. *Two*.—Icklingham Belt, 11 April, 1854. “E. N.”

The first time the nest had been in the Belt. My brother seems to have been present at the taking, and, as before, two eggs were left in the nest, which was the third built that year by the birds.]

[§ 2788. *Three*.—Icklingham Heath, 17 March, 1855. “A. N.”

I found the nest on the 5th March in the old hurst—a tree which I think had been used once before. As there was a new warrener on the ground, I had to make fresh arrangements about the birds. On the 17th I took the gamekeeper with me, and he got up to the nest, in which there was seven eggs. I had them all lowered to me, and chose four of them. They were about three-fourths incubated. They are rather small eggs. We must have given away one of them, but to whom I know not. The old Falcon which we have so often seen at the hurst at this season was there as usual; her chief prey is Stock-Doves, and it is much to the credit of the warrener that he does not kill her, as the Doves are one of his perquisites.]

[§ 2789. *One*.—Icklingham Heath, 18 March, 1856. “A. & E. N.”

The nest was in the same hurst as before, and there is no note of any one being with us. I think my brother climbed to it. There were four young birds about two days old, and this egg, which was rotten. I visited it again on the 11th of April, when there were only three young, which I saw the gamekeeper take out of the nest. The old birds were very fierce, but did not actually attack him. The young we took were given to Mr. Salvin.]

§ 2790. *Three*.—Elveden, 5–12 March, 1857. “E. N. *ipse*.”

My brother wrote that this nest, the first ever known in the parish, was built in a Scotch fir-tree on the north-east side of the Duke's Ride Plantation near the end. Out of it he took two eggs on the 5th of March, leaving four others. They appeared to have been sat upon for about six days. The third egg was taken by the gamekeeper about a week after.]

[§ 2791. *One*.—Icklingham Heath, 20 April, 1857.

This was from a second nest of the same pair of birds, in the old hurst, and taken by the gamekeeper. It was rotten, and another egg, in the act of hatching, and two young birds just hatched were also in the nest. My brother seems to have been present.]

[§ 2792. *Four*.—Icklingham Belt, 11 March, 1858. “A. N.”

This nest was found by my brother on the 8th of February, and a few days after I went with him to it; but I left it till the 11th of March, when I felt sure there must be eggs, though not more than a week before I had seen one of the old birds at the house with a big stick in its beak, flying off with it after letting me come within fifteen yards. On the day last named I met the gamekeeper by appointment at the nest, which he himself had found in the meanwhile. As I rode across the heath I heard the old birds' well-known croak of anger and distress, and saw them dashing about wildly. Arrived at the nest I found that he had already, contrary to my orders, been up to it, and had taken out four of the seven eggs. As the Icklingham warrener was present, I did not think it advisable to send our man up again, that I might see the remaining eggs, which he assured me were just like those he had already brought down—two of them he had picked out because he found by shaking them that they were already addled. Accordingly I packed them up and came away, the warrener promising, in return for a gift, that the birds should be no further molested. This nest was about half-way up the belt, and nearly in a straight line between the old Raven's hurst and the drift-way at the end of the Duke's Ride Plantation.]

[§ 2793. *Four*.—Elveden, 1–23 March, 1859. “A. & E. N.”

On the 19th of February my brother and I rode out to see if we could find the Ravens' nest. In the Icklingham Belt there was that of last year (§ 2792) still standing, but untenanted, and nearly in the middle of the old hurst on the heath was one of former years; but the tree was dead, owing to so many of its neighbours having been cut down. Of course we saw the old pale-coloured Falcon which always haunts the heath at this time of year. On the 23rd of February the gamekeeper came to say that he had found the Ravens' nest at the lower end of the Duke's Ride Plantation, and in the course of the day we went to it. My brother got up the tree, which was an easy one to climb, and by no means one of the highest, though with a good thick head. The nest contained an egg, and he unfortunately had no pencil with him to mark it, but he took a good look at it that he might know it again. On the 1st of March we went again to the nest, and he got up as before, finding six eggs, three of which he took, and among them what he believes to have been the first laid one, which is now marked accordingly.

On the 23rd we again went to the nest, and my brother climbed to it, finding three young and one egg, so that another must have been laid before he took three out of the first six. The egg still remaining, which he brought down, had been cracked, and on blowing it I found a dead bird in it, about one half incubated.]

[§ 2794. *Four*.—Elveden, 29 February, 1860. “A. N.”

The nest was in the Duke's Ride Plantation, close to but not on the same tree as last year's. I found it one day in February, and H. P. N. tried to climb to it, but did not succeed. I was in fear lest the great gale of the 28th of February should blow it down, and accordingly went the next day to see after it. The gamekeeper met me at the nest and climbed up. He reported seven eggs, and I told him to bring me down four, which he did. Only two young birds were hatched, or at least grew to maturity. These I sent about the middle of April to Dr. Griffith.]

[§ 2795. *Five*.—Elveden, 4 March, 1861. “A. N.”

Early in February I walked to the end of the Duke's Ride Plantation, and sat down there for about half an hour with W. G. N. Just as we were going away, the Ravens arrived and settled on the breck about two hundred yards from us. On being put up, they flew short distances, and from their manner I was confident they were about to have their nest near that of last year. Later in the month the gamekeeper told me they had completed their nest there, and I rode to see it a few days after. It was last year's nest repaired, I suppose, for the season. On the evening of the 4th March I went with a lad to the place, and he, climbing up the tree, told me there were seven eggs in the nest. I therefore desired him to bring down five, leaving, if he could, two sound ones in it. This he did, and I blew the five the same night, finding them all sound, and about three or four days incubated. He told me that the nest was lined with Rabbits' “fluck.” The old birds were about, as usual, making a great disturbance all the time. I think that they have not been quite so constant in their attendance at the house this year as usual.]

[§ 2796. *Four*.—Unst, Shetland, 1854. From Mr. J. Smith.

These very extraordinary eggs my brother and I do not hesitate to attribute to *Corvus corax*, though we have never seen or heard of any belonging to that species in the least like them. They are of the size and have the grain of Ravens'; but have a cream-coloured or pale flesh-coloured ground, blotched with reddish-brown and pale lavender, so as to present very much the general appearance of some Ralline eggs, *e.g.* those of *Porphyrio*. Of course, there is a strong similarity between them and those of the South-African *Corvus capensis*, which are usually, if not always, coloured in the same way, and often more brilliantly. Just as great a divergence from the normal coloration is

shewn by certain Gulls' eggs laid every year on some of the islands off the northern coasts of Norway, with which I became acquainted in 1855.¹

Mr. Smith was unable to say what these eggs were when he sent them, and in reply to my enquiries wrote that he could only be sure that they were taken "on the sea banks" (*i. e.* cliffs) of Unst.]

[§ 2797. *Five*.—Rathlin, Ireland, 20 March, 1863. From Mr. Robert Harvey.

Mr. Harvey's note is :—"The nest was on the face of Slieve-a-cheirn, which is the highest cliff on the north side of the island, about 445 feet above the level of the sea, and nearly perpendicular. The Ravens breed in it every year."]

¹ [I had previously seen eggs publicly sold in London as Eagles' which at the time I felt sure were not so, though I was unable to form an opinion as to what they were; but immediately I saw the pink or red eggs of Gulls from Hornö, Reenö, and other Norwegian localities I recognized their origin. In Dr. Hennicke's edition of Naumann's 'Naturgeschichte der Vögel Mitteleuropas' a Rook's egg of the same lively coloration is figured (Taf. 47. fig. 26), which Herr S. J. Thienemann, the writer of the accompanying letterpress (iv. p. 114), informs us was one of two obtained in 1896 by the Forstrat J. von Wangelin from a rookery near Merseburg, where it is the practice yearly to destroy all Rooks' nests and eggs (Ornithologische Monatschrift, xxiii. pp. 264, 265). Baron von Koenig-Warthausen has been still more fortunate, as he possesses eleven specimens of this ruddy variety obtained from three Rooks' nests near his own residence in 1891, 1893 and 1894 (Jahreshefte des Vereins für Vaterl. Naturk. in Württemberg, 48ster Jahrg. p. lxiv; and Zeitschr. für Oologie, V. Jahrg. No. 2, p. 6).—Ed.]

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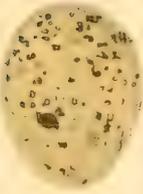
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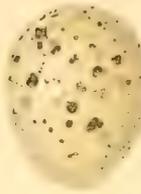
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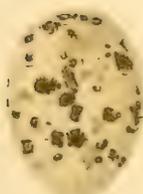
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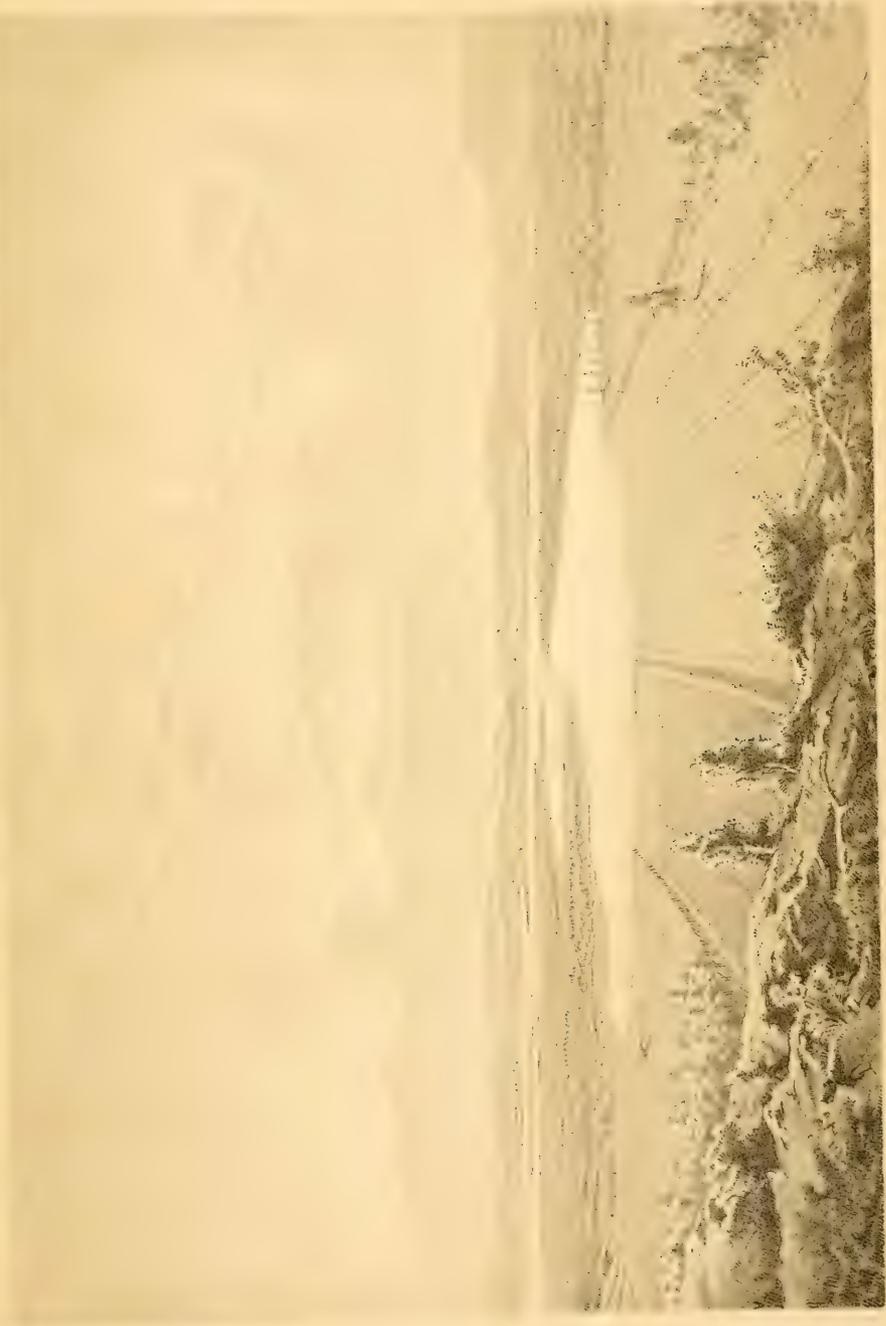
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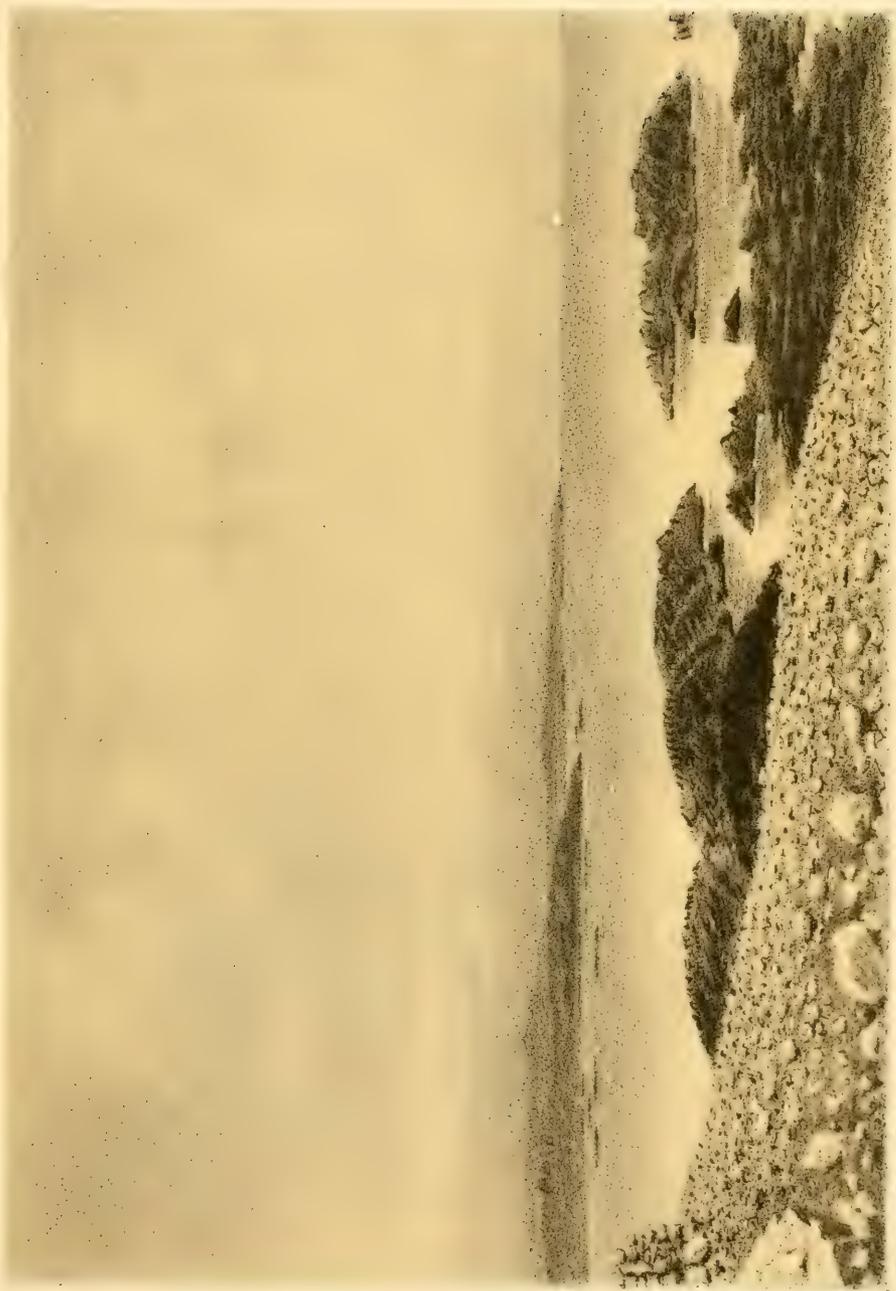




Adapted from Professor's Lapland.

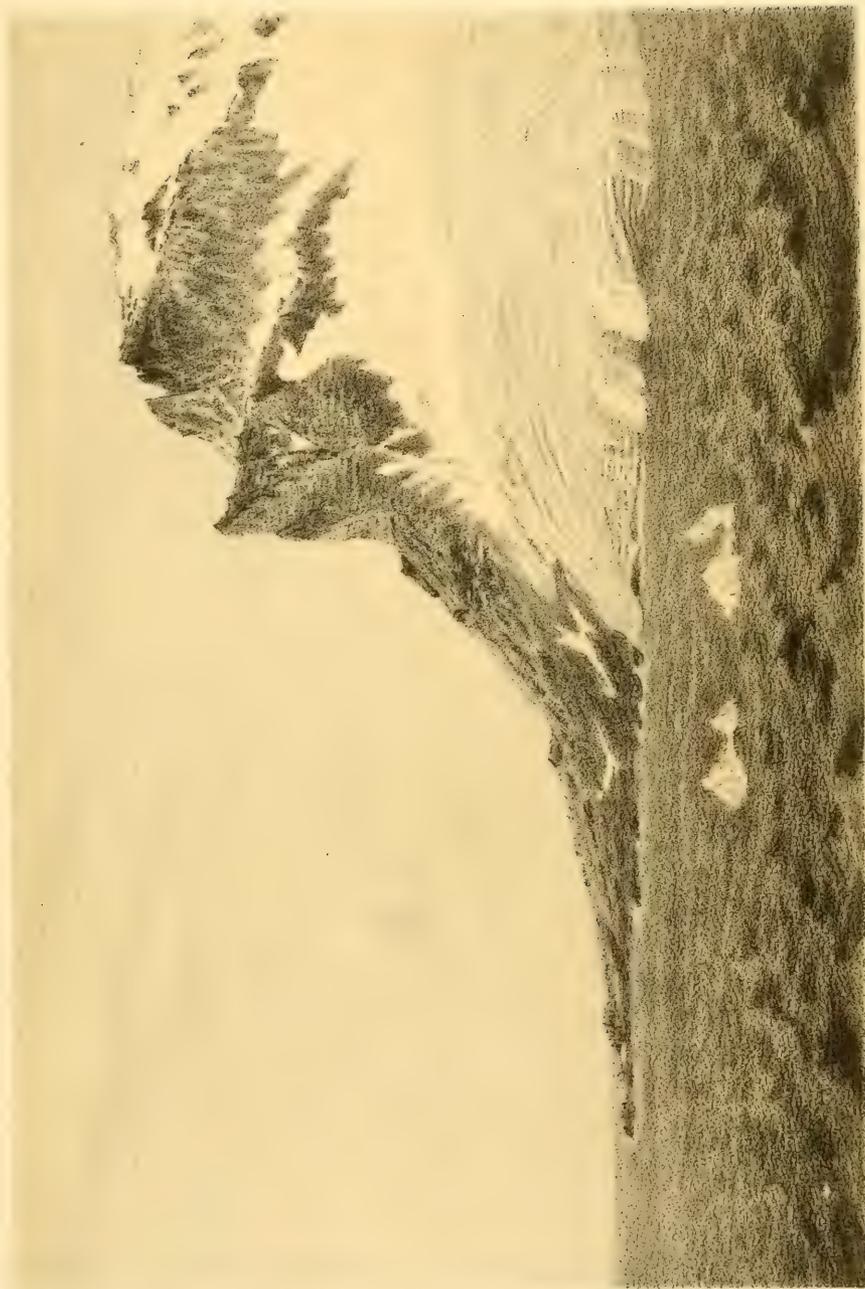


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Hammer Bay

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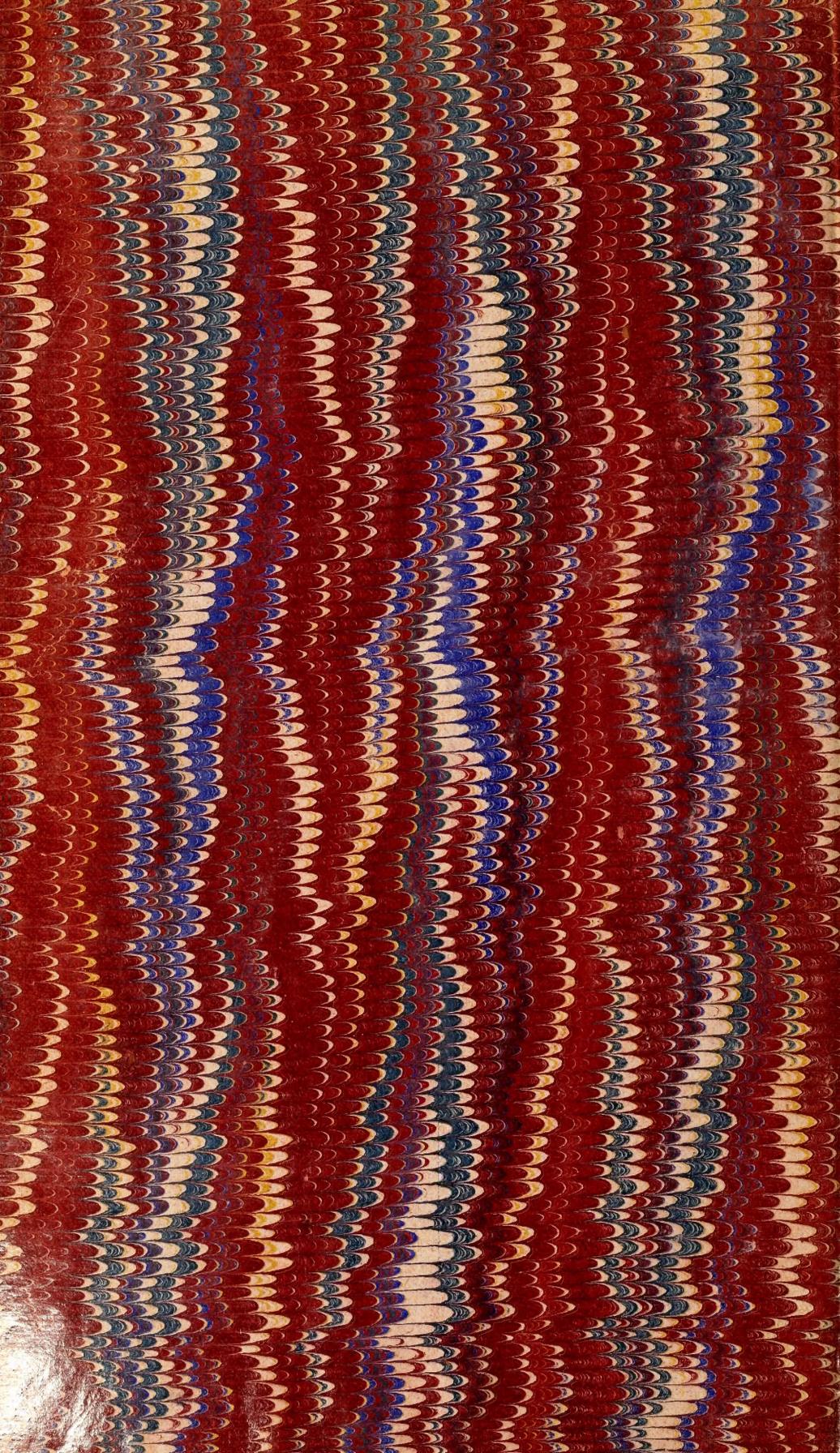
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