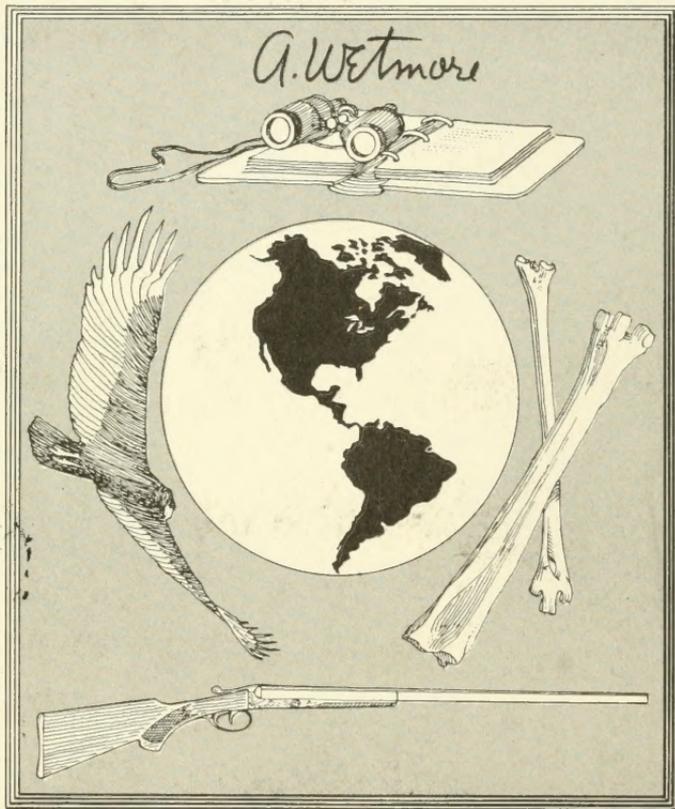
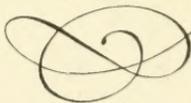


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THE
BIRDS OF CUMBERLAND,

CRITICALLY STUDIED,

INCLUDING SOME NOTES

ON THE

BIRDS OF WESTMORLAND.

BY

THE REV. H. A. MACPHERSON, M.A.,

AND

WILLIAM DUCKWORTH.



CARLISLE:

CHAS. THURNAM & SONS, 11 ENGLISH STREET.

1886.

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TO THE MEMORY
OF
JOHN HEYSHAM, M.D.,
AND
THOMAS COULTHARD HEYSHAM,
BOTH EMINENT NATURALISTS,
THIS STATISTICAL ACCOUNT OF THE
BIRDS OF THEIR COUNTY
IS GRATEFULLY DEDICATED.

“The good effects of faunal works . . . none can doubt. ‘Every kingdom, every province, should have its own monographer,’ wrote Gilbert White more than one hundred years ago, and experience has proved the truth of his assertion.”

PROFESSOR NEWTON, *Encycl. Brit.*, 9th Ed., Vol. XVIII, p. 18.

P R E F A C E.

To working ornithologists, the maritime counties of England are essentially of primary interest, both from the numerous species which regularly haunt the seaboard and estuaries, and from the frequent occurrence of rare European forms upon the coastline.

When, therefore, I came to Cumberland, in 1882, I naturally asked myself, "What is the Avi-fauna of this county?" An examination of faunal literature shewed that, while the counties of Durham and Northumberland, of Yorkshire, Lincolnshire, Norfolk, Sussex, Cornwall, and Somerset, had been treated of exhaustively, or in part, by Messrs. John Hancock (1874), W. E. Clarke (1881), J. Cordeaux (1872), H. Stevenson (1866-70), A. E. Knox (1849), E. H. Rodd (1880), Cecil Smith (1869), the literature of the Aves of the north-west of England was wholly of a meagre and unsatisfactory character.† I at once decided to devote every fragment of leisure to the elucidation of the Avi-fauna of Cumberland, and sought the fullest information on all hands, visiting all districts and sifting every fact presented to me with the utmost care. As my notes amassed, I proposed to my valued colleague,

† Mr. Mitchell's Birds of Lancashire, and A Catalogue of the Birds of Norfolk, by Mr. J. H. Gurney, junr., have since appeared; as, also, Mr. Armistead's Notes on some of the Birds of the Solway district (*Naturalist*, 1885, 1886).

Mr. W. Duckworth, who had already explored the fells and valleys of his native county for twenty years, that we should write a county "*list*" of Birds. Mr. J. G. Goodchild, the indefatigable Editor of the Cumberland and Westmorland Association for the Advancement of Literature and Science, most kindly requested that our list should be published in the "Transactions." To this we consented, but, unfortunately, when the list had been completed, and revised by Mr. O. V. Aplin, in August last, Mr. Goodchild found that it would be impossible to publish our list during the present year (1885), and that it could not appear in the "Transactions" before December, 1886. In consideration of the pains bestowed to incorporate our latest notes, Mr. Duckworth concurred with me in thinking that our right course would be to at once prepare the list for publication in an expanded form. In the task of enlarging the original text, I have strictly adhered to the principle of copying all descriptions of the habits of birds from our joint note-books, written in the open air, and frequently written together, but containing only rough and ready memoranda for personal use. Mr. Duckworth's observations refer especially to such inland-breeding species as the Dipper and Pied Flycatcher, while mine refer more particularly to Ducks, Sea Fowl, and Waders; but we have neither of us confined our observations to any one group, or to any one part of the county, though Mr. Duckworth is most at home on the fell-side, and I am best acquainted with the coast and salt marshes. The simplest language has constantly been employed, our single endeavour having been to arrive at correct conclusions,

and to present them to our fellow ornithologists fortified by facts which are incontestable. All descriptions of plumage are based on my local specimens, and have been incorporated in the text for the sake of such local observers as may have little or no access to works of reference. All species, marked with an asterisk, have been excluded from the census of Cumberland. The details, which refer to the Birds of Westmorland, have been added in deference to the urgent wishes of ornithologists interested in that county.

H. A. MACPHERSON.

Carlisle, October, 1885.

THE COUNTIES OF
CUMBERLAND & WESTMORLAND



INTRODUCTION.

Physical
features.

Situated on the borders of the two sister kingdoms, having its shores washed by the Solway and the Irish Sea, the County of Cumberland includes within its area of 1,515 square miles a rare diversity of physical features, bleak moorlands, lowland mosses, and upland tarns blending their influences to counteract the grave disadvantages imposed upon the county by its westerly position. The total area of Cumberland may be divided into three nearly equal portions of arable land; of grazings, and of waste, the latter comprehending such extensive woodlands as Penrith Beacon, Barron and Coombe Wood, and the plantations of the Netherby estate. The Pennine hills constitute the eastern boundary. About twelve miles south and west of Carlisle, the fells of Caldbeck rise gently from the Cumbrian plain, while behind them tower the massive proportions of Skiddaw (3,058 ft.), and a host of brother giants, containing in their generally well-wooded vales a cluster of lakes, of which Ulleswater (nine miles in length) is the largest, though the reedy Bassenthwaite is most favoured by wildfowl. The becks and rivers of Cumberland are numerous, including the Duddon, Derwent, Esk, Irt, Mite, Lyne, Irthing, Caldew, Petteril, but especially the rocky Eden, which, springing in Westmorland, flows steadily northward, to irrigate an undulating tract extending from the base of the Pennine range to the confines of the lake district. Between the western shores of Cumberland and the higher grounds, there extends a belt of low ground from two to five miles in

breadth, joining issue upon its border with the littoral sandhills which flank the coastline continuously, unless interrupted by modern industries, as between Maryport and Workington, or by natural features as at Whitehaven. But it is upon the Ravenglass estuary that the conical sandhills become most pronounced, affording shelter to a colony of Sandwich Terns, which, with many other species, breed increasingly under the vigilant protection of Lord Muncaster. Immediately south of the town of Whitehaven, the coastline, otherwise depressed, is diversified by the St. Bees sandstone, which, rising to a height of 333 ft. at Sandwith, affords a safe retreat to Raven and to Falcon upon its fatal precipices, the Razorbill and the Common Guillemot occupying the lower ledges, in close proximity to a flourishing colony of the Herring Gull.

Drainage.

The extension of surface drainage has rendered many portions of our fells and salt marshes less suitable for wildfowl than was formerly the case; but with the exception of Rockliffe lough, Tarn Wadling (100 acres), Cardew Mire (once a rushy bog, two miles in length and a quarter of a mile in breadth, where the Bittern is reputed to have bred), our mosses and loughs have for the most part escaped the doom of being converted to the prosaic uses of agriculture.

A large extent of moorland has also been reclaimed during the last thirty years, but despite these changes, the Black-headed Gull, and other moss-loving birds are on the increase. Nor should it be forgotten that the estuaries of the Duddon, at Millom; of the Irt, Mite, and Esk, at Ravenglass; of the Waver, Wampool, Esk, and Eden, on the Solway; combine with the numerous creeks intersecting our salt marshes (of which, between five and six thousand acres impinge on the Solway), to arrest the attention of waders and wildfowl during their periodical migrations.

Migration.

It has been ably suggested by Mr. Mitchell (Birds of

Lancashire, Introductory, p. x), that the numbers of the *Limicolæ* and *Anatidæ* which visit the west coast of England are greatly inferior to those of the east coast, and it is probably true of Cumberland; but it must be borne in mind that certain species are fully as abundantly represented on the west coast as on the east, *e.g.*, myriads upon myriads of Oystercatchers winter on the shingled shores of the Cumbrian Solway, whilst "clouds" of Dunlins are present on the entire Cumbrian coast, except during the breeding season. But, when Mr. Mitchell goes on to state, that Scandinavian and Siberian forms are "very irregularly represented on the west coast in comparison with species breeding in Scotland, Iceland, and Greenland," he appears to us, to adopt an uncertain footing; for, if it be granted that all the Whimbrels, Purple Sandpipers, Barnacle Geese, and other species probably nesting in the great north-west region thus created by Mr. Mitchell, are the identical individuals which visit the west coast of England during autumn and winter; we shall still have to account for the presence of the Grey Plover, Green Sandpiper, Bar-tailed Godwit, Woodcock, Solitary Snipe, Jack Snipe, Little Stint, Goldeneye, Smew, and a host of other visitants from north-east Europe. Or, if the Redwing and Siskin visit the western counties from Iceland and Scotland, at least the Fieldfare, the Brambling, the Short-eared Owl, arrive in dense numbers from Scandinavia. Whilst, therefore, the west coast route is no doubt followed by a large proportion of winter immigrants from the north-west, as well as by many summer visitants, *e.g.*, the Sand Martin, Common Sandpiper; it can hardly be denied that a route or routes must exist, by which the little *voyageurs* from north-east Europe annually travel in safety to the woods and shores of Cumberland. And the key to the problem lies in the fact, long since suggested by Mr. R. Gray, endorsed also, incidentally, by

Mr. Harvie-Brown, that a large number of species follow the trending of the Solway during their periodical journeys. On this subject precise data is sadly meagre, but our own experience, and that also of careful observers, enable us to suggest three probable migratory lines. Line No. 1 would start about Berwick, and, passing from north-east to south-west, would culminate on the Solway basin. Line No. 2 would start from Tynemouth, and, following the rivers Tyne and Irthing, would meet the first line on the Solway. Line No. 3 would start from the Durham coast, and, passing through Weardale or Teesdale, would enter Cumberland near Alston, thence trending south-west to empty its passengers on the Ravenglass and Duddon estuaries. It is impossible to do more than indicate these lines as probable, nor must it be supposed in any case that all species would uniformly adhere to these main tracks of migration. The fact, however, that a very large proportion of the rarer forms obtained in Cumberland have been found in close proximity to the lines of migration thus suggested, is full of significance; and the lines of flight thus perhaps adopted in autumn, appear to be reverted to by many species on their vernal migration. Thus, in 1885, a great rush of migrants passed over Rockliffe on April 17th, the passage commencing at 8-45 p.m., and being still in full swing at 10-30 p.m.; Wigeon, Goldeneyes, Geese, and many other species passing in the same direction, from south-west to north-east, wind north-west, night clear, birds flying high; the passage was resumed on the following evening, with wind west. It must, however, be pointed out, that while many species appear to use the routes thus delineated both in autumn and spring, yet certain species, *e.g.*, the Ruff, evidently strike eastward from some more southern point, when returning to their breeding grounds, since they rarely or never occur in Cumberland, except in autumn.

Further research may possibly indicate that the Solway basin is an ornithological junction, where the feathered passengers from north-east Europe either "take seats" for Ireland, or follow the coast line directly south; but, on this point, no satisfactory evidence seems to have been obtained hitherto.

Literature.

The literature of the Birds of Cumberland can hardly be said to extend over a longer period than a hundred years. Speed (1611), tells us that Cumberland is "overspread with great varietie of fowles" Childrey shrewdly remarks (*Britannia Baconica*, 1661), that the "Maritime parts are well furnished with Fish and Fowl." Robinson records the presence of Swans in the lakes, but his "Ocular observations" appear to have been confined to "Subterranean Matters" (*Essay towards a Natural History of Westmorland and Cumberland*, 1709). Clarke included a few items of bird lore in his *Survey of the Lakes* (1787); but the first attempt to render a statistical return of the Birds of Cumberland was made by Dr. Heysham, in 1797. Dr. Heysham contributed his essay to Hutchinson's *History of Cumberland*, a work which bears the date 1794 on its title page, but it was probably printed gradually, and internal evidence shows that the MS. was still in Dr. Heysham's hands in the spring of 1797. In this list, of about twenty pages, Dr. Heysham enumerates one hundred and sixty-seven species of Birds as having occurred to his knowledge in Cumberland, but the Mute Swan, Muscovy Duck, and other interlopers, are included in his estimates. Most of his notes are based on personal observation, and those upon the Swift, Hen Harrier, Goosander, and Waxwing, display considerable research. The Rev. W. Richardson at the same time contributed to the county history an essay on the zoology of Ulleswater, of which the Birds occupy about nine pages.

After a blank period of more than thirty years, Dr. Stanley, an ardent collector, contributed a list of the Birds of Whitehaven to Loudon's Natural History Magazine, and at the same time, Mr. T. C. Heysham, upon whom his father's mantle had descended, broke silence to furnish a series of reports from the Carlisle district to the Philosophical and other Magazines. Mr. Heysham's observations were anonymous at this period, but his *nom de plume* of "A Correspondent" was well known to all his cotemporaries except Professor Rennie, who lacerated Mr. Heysham's feelings, by referring his important notes on the nesting of the Pied Flycatcher to the pen of Dr. Stanley of Whitehaven. Mr. T. C. Heysham was a personal friend of Mr. Yarrell, who derived many notes from Mr. Heysham. Mr. Heysham's scattered writings exhibit the characteristics of extreme caution and great thoroughness, his scientific researches not being limited to ornithology. He had almost reached middle life when he began to publish his observations, and they consequently bear ample traces of his matured genius. Another student of the Birds of Cumberland, or at least of its borders, was the late Sir W. Jardine, whose notes on the Birds of the Solway were embodied in his *Birds of Great Britain and Ireland* (1838-43). In 1854, a list of the Birds of West Cumberland was contributed to the *Zoologist* by Mr. Robson, but had better have been omitted. Its value was shewn at once by the criticisms of Mr. R. Birbeck. In 1865, 1867, and in 1878, the *Zoologist* published essays on the Avi-fauna of the Lakes, contributed by Mr. H. Saunders, Mr. J. Cordeaux, Mr. W. A. Durnford, followed in 1879 by a comprehensive account of the Birds of Ravenglass written by a resident ornithologist, Dr. Parker of Gosforth, and supplemented by subsequent notes.

In 1881, Mr. Charles Murray Adamson included in his "More Scraps about Birds" the most important notes on the

waders of the Solway that had appeared since Mr. Heysham's reports, though written in the same period.

In 1882, the late Mr. W. Dickinson inserted a few notes on Birds in his small work "Reminiscences of West Cumberland," privately printed. Mr. Dickinson was a man of many talents, and his notes, though short, are worthy of their author.

Further references exist in Yarrell's British Birds, of which the fourth edition is really a new work; in Mr. Harting's Handbook of British Birds; in the Zoologist, Field, Morris' Naturalist, Loudon's Natural History Magazine, Philosophical Magazine, local newspapers, and elsewhere; all necessary references to which have been incorporated in the text. Valuable data relating to the physical features of the county will be found in papers published in the Transactions of the Cumberland and Westmorland Association, especially Mr. J. Jackson's "Notes on Inglewood Forest," and Mr. Harrison's paper on Mosses.

MS.
information.

The only early MS. information, available, exists in Edmund Sandford's History of Cumberland, of which the original copy exists in the archives of the Dean and Chapter of Carlisle. Unfortunately, the last sheet, containing, apparently, an account of the netting of Sea Birds at St. Bees, is imperfect in this copy. The only references to Birds in the remaining MS. have been incorporated in the text. Sandford was a cadet of the house of Askham. Of recent information, some MS. notes kept by the late Mr. Proud were kindly lent to us by his daughter, the late Mrs. Wannop, and have been augmented by our correspondence with his son, Mr. W. Proud, of Chico, Butte County, California.

Mr. J. W. Harris generously supplied an admirable list of the Birds of Cumberland drawn up by himself, thus adding the Fulmar and Little Crake to the census.

Dr. Parker of Gosforth also supplied a detailed and very valuable paper on the Birds of Ravenglass.

In addition to the information thus conveyed, the whole area of the county has been covered by district lists, annotated by resident observers : Alston, Mr. B. Greenwell, supplemented by Mr. J. Walton ; Penrith, Mr. T. Hope, supplemented by Messrs. Lunson and Fleming ; Ulleswater, Mr. W. Hodgson, A.L.S. ; Millom, Mr. T. N. Fostlethwaite, supplemented by Mr. W. A. Durnford (list of *Anatidæ*), and Mr. R. Moore (birds of the estuary) ; Ravenglass, Dr. Parker, supplemented by Mr. Reynolds ; Whitehaven, Dr. Lumb ; Keswick, Capt. Kinsey Dover, supplemented by Mr. John Birkett and Mr. Greenip ; Cockermouth and Bassenthwaite, Mr. H. P. Senhouse ; Cleator, Mr. F. D. Power ; Longtown, Mr. Plenderleath ; Lyneside, Mr. H. Kerr ; Bewcastle, Mr. Crow ; Brampton, Capt. Johnson ; Carlisle, Mr. J. B. Hodgkinson, Mr. Tom Duckworth, supplemented by Mr. J. Cairns, Mr. Henry Halton, Mr. P. Shepherd, Mr. J. Graham, Mr. Ritson, Mr. W. Sharp, Mr. J. Davidson, Mr. B. Johnston, Mr. James Fell, Mr. S. Watson, Mr. G. Dawson, and many others. The important district of the Solway has received the especial attention of Mr. A. Smith at Rockliffe, Mr. Tremble at Burgh, and Mr. R. Mann at Allonby.

Whilst the heartiest acknowledgments are due to these gentlemen for their zealous co-operation, cordial thanks are tendered also to Mr. John Hancock, Mr. J. H. Gurney, junr., Professor Newton, Mr. A. G. More, Mr. J. E. Harting, Mr. Francis Nicholson, Mr. W. E. Clarke, Mr. F. S. Mitchell, Mr. W. A. Durnford, Mr. J. J. Armistead, Mr. J. R. Earle, Mr. T. Horrocks, the Rev. H. H. Slater, Mr. J. Backhouse, junr., but especially to Messrs. E. Bidwell and O. V. Aplin, for the indulgence with which various enquiries have been answered and progress furthered.

The most acceptable feature of the work, to general readers, is undoubtedly constituted by the delightful Dotterel experiences of Mr. Francis Nicholson of Altrincham.

Faunistic
changes.

The chief faunistic changes which have taken place during the last hundred years are identical with the departure of the White-tailed Eagle, the Marsh Harrier, the Kite, the Chough, the Bittern, and other breeding species which only occur as stragglers at the present time; and, with the increase of the Pheasant, the Partridge, and many small species of birds in proportion to the pains expended to destroy their natural enemies.

Some species are slowly pressing forward, such as the Pied Flycatcher. Others have progressed by leaps, such as the Starling, Stockdove, Jackdaw, and the Rook. Some, while holding their ground with firmness, are forced to concentrate themselves and to breed less sporadically than formerly; the Shelldrake is an instance. The Quail and Grasshopper Warbler are tolerably numerous in some seasons, and scarce in others; but such has always been the experience of observers. Some species are slightly decreasing, *e.g.*, the Barn Owl. Others appear only on passage in the districts in which they formerly bred, as the Wryneck. The Nuthatch has not been authenticated in Cumberland during the present century. On the other hand, the Lesser Spotted Woodpecker has bred with us, and possibly the Hawfinch; but it would be unsafe to infer that Cumberland is the north-west breeding limit of these two species, on the evidence of isolated facts. But the Siskin, always a winter visitant, has for some years past regularly nested in the north of the county, and the Turtledove appears to do the same.

Certain winter visitants are scarcer than formerly, *e.g.* the Grey Lag Goose; but others, *e.g.* the Barnacle, are on the increase. Nor does a local decrease, of necessity, imply that a

species is becoming less plentiful. Frequently it points to the conclusion, that a species has slightly changed its quarters. Thus, Mr. W. Hodgson, A.L.S., considers that, during his thirty years' close study of the lakes' fauna, the Ring Ouzel has decreased greatly in the Ulleswater district; but we know as a fact that it has become more numerous on the Cumbrian portion of the Pennine range, the breeding birds having somewhat shifted their nesting quarters to the north-east. Again, while we learn from Mr. F. S. Mitchell (B. of Lancashire, p. 51), that the Pied Flycatcher is more scarce than formerly in Lancashire, we point, in reply, to its extension of breeding ground in Cumberland, as shewing that this species is working its way steadily northward.

Census. The present essay includes a total of 250 species, or 84 residents, 81 periodical visitants, and 85 irregular and accidental visitants.

The strength of Cumberland lies in its breeding species. Cumberland, a county of 1,515 square miles, possesses 116 breeding species; Lancashire, 1,887 square miles, 114; Yorkshire, 6,150 square miles, as worked out by Mr. W. E. Clarke, 120. Not only are Cumberland and Lancashire destitute of many of the rare forms which have been detected on the Yorkshire coast, such as the two species of Bluethroat Warbler; but even the scarce stragglers, which have occurred in all three counties, have occurred far more sparingly in the two western counties; thus, the Spoonbill has occurred nine times in Yorkshire, but only twice in Lancashire and twice in Cumberland; the Scops Owl has occurred nine times in Yorkshire (1881), but only once in Cumberland and once in Lancashire. But this phenomenon is naturally accounted for by the connection between the east coast of England and the continent.

Among the rarer Palearctic forms obtained in Cumberland

are the Two-barred Crossbill, Parrot Crossbill, Roller, Goshawk, Iceland Falcon, Pallas' Sand Grouse, Cream-coloured Courser, Collared Pratincole, Spotted Redshank, and Rose-coloured Pastor. That pelagic wanderer, Wilson's Petrel, has twice occurred. The only three purely Nearctic species, as yet obtained in Cumberland, are the Buff-breasted Sandpiper, Surf Scoter, and Red-breasted Snipe.

Species
rejected.

The Swallow-tailed Kite, Nutcracker, Crested Tit, Spotted Sandpiper, were included by the late Mr. J. Robson in a list of the Birds of West Cumberland (*Zool.*, 1854, p. 4167, *et seq.*), but the first-named appears to have been represented by an immature Peregrine (*J. W. Harris* MS.), and not one shred of evidence was adduced in support of the others. The Nightingale has been included as ranging into Cumberland by Dr. Kinahan and others; but, though we could adduce supposed recent occurrences on the good faith of gentlemen well acquainted with the song of this species, yet the production of a specimen in the flesh is necessary to substantiate its claims.

Conclusion.

British ornithology is essentially progressive, and it is much to be wished that all visitations of rare species to Cumberland may, in future, be fully chronicled. The subject of migration is still shrouded by a good deal of mystery, and all notes which include data as to wind and weather, and the direction of the flight of migrating birds, are of real value. Changes also occur from time to time in the distribution of breeding birds, and those require to be carefully worked out. The authors, therefore, rely upon the continued support of their fellow observers, and will at all times be glad to identify specimens or to render any other assistance in their power.

Whilst the birds of Cumberland have chiefly occupied their attention, the mammals of their county have not been entirely forgotten. The Bats and the *Cetacea* especially

invite research, but information as to the distribution of the Dormouse, Red Bank Vole, and Harvest Mouse, would be highly valued.

The classification adopted is that of the "Ibis" list, but the British Long-tailed Titmouse, British Coal Titmouse, and Pallas' Grey Shrike, are considered unworthy of full specific rank.

Communications, intended for either author, may be sent to the care of Mr. W. DUCKWORTH, 8a George Street, Carlisle.

ERRATA.

- p. 8, line 15, *read* in *brackets* from "it possessed" to "wings," inclusive.
- p. 49, for Pityopscittacus, *read* Pityopsittacus.
- p. 124, footnote, for "was shot," *read* "were shot."
- p. 128, line 14, for "Zool., 1889," *read* "Zool., 1879."

THE BIRDS OF CUMBERLAND.

Family TURDIDÆ. Sub-Family TURDINÆ.

GENUS TURDUS.

T. *Viscivorus* MISSEL-THRUSH.

The Missel-Thrush is a generally distributed resident, breeding with equal freedom among the heather-clad rocks at St. Bees, and in the orchards of farmsteads; remarkably familiar when nesting. The resident birds gather into small parties in September. Large flocks occasionally visit us on migration, and we once saw a drove of a hundred birds settle in Kingmoor wood to roost.

At the close of the last century, this species was scarce in Cumberland. Dr. Heysham had to go to Kirkclinton, a distance of nine miles, to examine a nest of the Missel-Thrush in 1782, and carefully describes the eggs. It was probably rare at that time in the other northern counties, since it is said that Bewick, living at Newcastle, found it difficult to secure a specimen. (*Yarrell*, B. B., Vol. I, p. 261, 4th ed.)

T. *Musicus*. SONG-THRUSH.

The Song-Thrush is an abundant resident, but no influx occurs in autumn, and many districts are destitute of Song-Thrushes during the winter months. Variation in the genus *Turdus* occurs less

frequently than in the genus *Merula*, but we have local notes of a white Song-Thrush, of another in which the upper parts are white, and of a third of a uniform buff.

Two white Fieldfares and one pied bird have come under our notice, besides two pied Redwings. All these were wild specimens. A caged Song-Thrush, belonging to Mr. Coulthard of Blackwell, unexpectedly assumed a dress of a uniform black in its third autumnal moult. In two successive seasons Nature strove to correct the freak, and the bird became much lighter, being, at its death, a pale melanoid form.

T. *Iliacus*. REDWING.

The Redwing is a common winter visitant, generally dispersed through cultivated districts. Owing to its dependence on live food, it is one of the first birds to succumb to severe frost, and many perished in the winters 1879 and 1880.

An interesting passage of Redwings immediately over the centre of the city of Carlisle was observed, in 1884, by Mr. Cairns, on October 21st. About midnight a stream of Redwings began to pass, and the movement continued for about thirty minutes, the birds seeming to just clear the chimneys, calling loudly, and all flying in a southerly direction. The night was calm, but very dark, and the birds appeared to be attracted by the street lights.

T. *Pilaris*. FIELDFARE.

The Fieldfare is a winter visitant, most abundant from October to March inclusive, and almost as

gregarious during the winter as in its breeding quarters. Stragglers, and occasionally large flocks, linger into the second week of May before departing northward.

T. *Merula*. BLACKBIRD.

The Blackbird is a common and increasing resident, nesting later in mountainous situations than in cultivated districts. In April, 1883, a female Blackbird chose a curious site for her nest, in a water-spout above the porch of a private house at Carlisle, the male bird frequently singing upon the gables. Unfortunately, when a heavy shower came, the nest was flooded, and the eggs were chilled. The female at once re-commenced to build, but chose a more normal situation. We have often found the nest in the interior of cattle-sheds.

T. *Torquatus*. RING OUZEL.

The Ring Ouzel is a local summer visitant, breeding in many elevated districts, especially on the Pennine range, and at rare intervals on lower grounds. A few pairs annually nest on the face of the broken precipices immediately south of the town of Whitehaven.

A variety of situations are selected as the nesting site.

We examined one nest in an old pit level, and have seen others placed in nearly the same situation as that of the Dipper, upon a face of rock overhanging a little pool on a fell "beck." It often happens that these birds frequent a few stunted whin bushes on the bare fellside, in which case it is

difficult to approach the nest without being seen at a long distance, when the warning cry of the "fell throistle" rings out to startle every bird in the vicinity.

Upon the breeding grounds, the food of the Ring Ouzel appears to consist principally of slugs and beetles. Consequently, fresh fruit is eagerly sought after, when the birds descend to lower grounds in early autumn; nor are they content to take toll of the scarlet rowan berries alone, but venturing into gardens in small droves, composed of both adults and young, they proceed to levy blackmail on the cherries, raspberries, and gooseberries.

Some notes on a charming pet bird of this species will be found in the "Zoologist," 1883, pp. 295, 296.

GENUS SAXICOLA.

S. *Enanthe*. WHEATEAR.

The Wheatear is an early summer visitant, nesting numerously among the sand hills of the coast and about the stone walls of our fells. It is rarely seen in the lower arable districts during the breeding season, but regularly visits the salt marshes of the Solway on spring and autumn migration, being most widely distributed at the latter season.

GENUS PRATICOLA.

P. *Rubetra*. WHINCHAT.

The Whinchat is a common summer visitant, nesting generally in meadow lands and on railway

cuttings. Adult males vary considerably in tint, and this is partly due to the presence or absence of the long buff fringes of the upper parts, which appear to become atrophied as the season advances.

P. Rubicola. STONECHAT.

The Stonechat is resident and numerous, but local in its preferences, chiefly confined to the coast line and the higher grounds, and nowhere more strongly established than at St. Bees Head. Some immature birds, as well as adults, pass the winter on our coast, but an influx occurs in early spring.

GENUS RUTICILLA.

R. Phoenicurus. REDSTART.

The Redstart is a summer visitant, decidedly scarce near the coast line, but plentiful in elevated districts. The same nesting hole of the Redstart is occupied year after year, and is very often contiguous to a dwelling-house. One hole above the lintel of a barndoor, which was in constant use, was occupied by birds of this species for fifteen years in succession. In 1879, we observed a pair of Redstarts ousting a pair of Pied Flycatchers from their nestinghole.

R. Titys. BLACK REDSTART.

The Black Redstart is a rare visitant to Cumberland. In the spring of 1876 a pair of Black Redstarts were shot at Scotby by Mr. Trueman, and were fully identified by Mr. A. Sutton and others. Mr. Dickinson met with the Black Red-

start in the Lake district on three occasions (*H. P. Senhouse*, MS.) Immature birds are most likely to occur in November, and should be searched for in the neighbourhood of stables and kitchen middens, which they frequent for food. They are fond of perching on houses and on telegraph wires.

GENUS ERITHACUS.

E. Rubecula. REDBREAST.

The Robin is a common resident, but many leave us in autumn, first appearing in the gardens after quitting the woods in which they breed, and then quietly slipping away southward. In autumn, solitary stragglers haunt the narrowest creeks of our salt meadows. In severe weather, when the ground was covered with snow, we have seen the Robin miles away from houses, feeding by the river side, between the water and the snowline.

Sub-Family SYLVIINÆ.

GENUS SYLVIA.

S. Cinerea. WHITETHROAT.

The Whitethroat is a summer visitant, breeding in great abundance, but chiefly restricted to the cultivated districts. It has occurred on migration at St. Bees lighthouse.

S. Curruca. LESSER WHITETHROAT.

The Lesser Whitethroat is a very scarce summer visitant, tolerably established in the Lake district, and breeding irregularly in the north of the county.

It becomes very familiar in confinement and is passionately fond of ripe fruit in autumn.

S. atricapilla. BLACKCAP.

The Blackcap is a local summer visitant, scarce in the Lakes, and not observed by ourselves or reported by others in south Cumberland. It breeds in many localities in the north of the county.

S. hortensis. GARDEN WARBLER.

The Garden Warbler is an increasing summer visitant, fairly numerous in north Cumberland, but scarce elsewhere. Dr. Heysham, in whose time the Garden Warbler was a rare visitant, found his first nest on the west side of Botchergate, Carlisle, June 2nd, 1797.

GENUS REGULUS.

R. cristatus. GOLDCREST.

The Goldcrest is a common resident, uniformly distributed through spruce and fir woods. The nest is placed at various heights, but constantly beneath the cover of a long bough, and its whereabouts is soon learned from the active movements and shrill tre-tre of the female. A very pretty sight, is to watch a party of young Goldcrests, which have evacuated their nest, arranging themselves to roost in a long row on a branch of larch. The hustling and scimmaging which ensue, as the birdlets sleepily jostle their brethren, are amusing to a quiet eye. A large influx of Goldcrests is noticeable in our plantations in October, but Mr. Nott informs

us that in 1884, great numbers of Golderests fluttered against St. Bees lighthouse at midnight on September 16th, wind S.E., light breeze, weather gloomy. A *lund* arrival was noticed at Carlisle at the same time. A caged Golderest was partial to egg food and dried ant cocoons, mealworms it refused, but eagerly accepted from our fingers the larvæ of clothes moths, seizing them by the head and striking them repeatedly against a perch before proceeding to swallow them.

R. Ignicapillus. FIRECREST.

The Firecrest is a rare winter visitant, and we have but one record of its occurrence in Cumberland. "In 1845 I killed a Firecrest with a stone at Rosehill, two miles from Carlisle. It was identified, after a careful reference to *Yarrell*, as an adult male, it possessed the three black facial stripes and golden tint on the body above the wings, by expert ornithologists. The bird was preserved by Mr. Story, and from his collection passed into that of the late T. C. Heysham." (*Mr. J. Graham* in lit.)

GENUS PHYLLOSCOPUS.

P. Rufus. CHIFF CHAFF.

The Chiff Chaff is a very local summer visitant, scarce in the south and east of the county, tolerably plentiful in the lake district, and increasing in north Cumberland. Twelve years ago it first made its appearance in certain districts near Carlisle; and in April, 1879, as Mr. Plenderleath informs us, its

not-to-be-mistaken notes were heard for the first time in the woods of Netherby, where, since then, it has nested regularly.

P. Trochilus. WILLOW WARBLER.

The Willow Wren is a common summer visitant, and has latterly increased in numbers in the north of the county. Though later in arrival than the Chiff Chaff, it is an early nester, but its passage appears to be protracted considerably. Thus, in 1885, a large influx of Willow Wrens occurred in the Carlisle district about April 19th, but on the 20th of the May following Mr. Nott observed hundreds of this species fluttering on the lantern of St. Bees lighthouse, together with a few common Whitethroats; and, as he kindly sent us specimens, there is no doubt as to the identity of the species. The domed nest of the Willow Wren is built of moss, dried grass, and dead leaves, and is lined with a warm quilting of feathers.

It is usually placed on the ground, generally under the shelter of a small plantation, and is by no means difficult to find if the anxious motions of the old birds be carefully watched.

In some rare instances the nest is slightly elevated. Mr. Shepherd lately found a nest of the Willow Wren placed in a short scrubby hazel bush about two feet from the ground, and caught one of the old birds sitting upon seven eggs. Another was discovered by Mr. Plenderleath in a spruce fir about two feet from the ground, and we found a third built into some brambles at the same height. Yet another

nest was detected by Mr. Tom Duckworth in the interior of an old tin pan, under the cover of a thick hedge.

Variation of plumage in the direction of leucotism is rare in the *Sylviade*, but in 1879 two Willow Warblers were shot near Cummersdale, presumably birds of the same nest as they were both nestlings, in which the ground colour is white, blotched with olive on the upper parts.

On August 5th of the present year, we had the pleasure of observing a still prettier variety near Warwick Bridge, and of hearing its familiar song. The entire under parts were of a very delicate cream colour, the upper parts being a shade or two darker.

P. Sibilatrix. WOOD WARBLER.

The Wood Wren is a local but numerous summer visitant, delighting in well-sheltered valleys clothed with old timber, but not confined to such situations. Its domed nest is similar in material and situation to those of the Chiff Chaff and Willow Wren, but while those species constantly line their nests with feathers the Wood Wren is content to quilt the interior with hair and fine grass.

GENUS ACROCEPHALUS.

A. Streperus. REED WARBLER.

The Reed Warbler is a rare summer visitant, stragglers occasionally appearing to find their way into Cumberland.

A nest of the Reed Warbler, containing four eggs, was taken on the Eden, in 1840, by Mr.

Graham. An adult bird was shot some years ago at Bassenthwaite, and was examined by Mr. Hodgson, A.L.S., but a diligent search through the reed beds of that locality during the present summer was not rewarded by the detection of the Reed Warbler. Mr. H. Kerr informs us that he has seen the Reed Warbler on the Lyne in the breeding season.

A. Phragmitis. SEDGE WARBLER.

The Sedge Warbler is a widely distributed summer visitant, nesting among tangled hedgerows as well as by the water side.

In Mirebank we once found six nests, all containing eggs, in a small patch of undergrowth a few yards in diameter. A nest of the Sedge Warbler, built in a whin bush (*Ulex Nanus*) on Kingmoor, contained five eggs of a uniform pink. Hewitson states that he received a clutch of pure white eggs from T. C. Heysham. The elder Heysham, however, considered the Sedge Warbler "a very rare bird." He shot a specimen on the Eden in 1796, and subsequently secured two nests in the neighbourhood.

GENUS LOCUSTELLA.

L. Nævia. GRASSHOPPER WARBLER.

The Grasshopper Warbler is a local summer visitant, rare in the Lake district, not reported from south Cumberland, but well established in several localities in the east of Cumberland, tolerably plentiful near Carlisle, and numerous on the Solway littoral. It varies greatly in abundance or scarcity in different seasons, a fact due, no doubt, to the species taking

a more easterly direction on the spring migration, in those years in which it is scantily represented with us.

When crossing Newbiggan Fell, one bright May morning, about 7 a.m., we saw upwards of a dozen Grasshopper Warblers at once, all in the act of uttering their peculiar cry from the topmost sprigs of some tall heather.

Mr. Hodgson informs us that, on one occasion, he observed a "flock" of Grasshopper Warblers, evidently newly arrived, on a bank of gorse near Kirkbride, April 23rd, 1868.

The following are extracts from Mr. W. Duckworth's note-books ;—

"May 6th, 1881, 8 p.m. While coming up one of the Stainton lanes to-night, I heard the peculiar note of the Grasshopper Warbler. The sound apparently came from a thin hawthorn hedge, with a rough bottom ; and I thought it would be a good opportunity of testing the supposed ventriloquism of the bird. After marking the place, I crept quietly on hands and feet until I was just opposite the bird, which I could distinctly see sitting on a lower branch of the hawthorn on the further side. Here I remained for fully a quarter of an hour, while all the time the bird kept uttering its sibilant note, sometimes so low that you could hardly catch it, at others loud and clear. This fully settled in my own mind what I had long suspected, that the supposed ventriloquism was merely due to the bird's great command over its voice, and its long range from p. p. to f. f. f., aided by the motion of its head."

“April 30, 1885. While on Kingmoor to-night, I caught a glimpse of a bird moving along the hedge bottom. Its motion at once struck me as that of the Grasshopper Warbler. Bringing the binocular to bear upon it, as it crept about apparently on the feed, for twenty minutes I caught occasional glances of it, when, at last, I heard its well-known note, but so short and low that at first I could hardly recognise it. This it repeated after two or three minutes interval, the note growing louder and longer each time, until, when I came away, it being too dark to see, the Grasshopper Warbler was in full song.”

The sibilant cry or song of the Grasshopper Warbler starts a little before dusk, and is sustained all night in warm summer weather, usually ceasing about 8 a.m. But the danger of dogmatising too nicely on such a point is well shown by the fact that, when studying the numerous Warblers which haunt the extensive scrub north of a little village on the Rhine, in July, 1884, we were positively amazed by the noise as well as the abundance of Grasshopper Warblers in a certain quiet corner. There they were, reeling away most noisily around us, with as much energy at midday as if the hour had been 5 a.m. The thickets were very dense, and the peasants followed regular tracks, so that the birds were secure from all intrusion and had lulled their apprehensions to rest.

The nest of the Grasshopper Warbler is most difficult to find; at least all those which we have met with have been most carefully concealed. The

easiest method for finding the nest is to go after sundown, just allowing time enough to see, to the place which you believe contains the birds, and, there arrived, carefully tap all the heather, whin, and likely tussocks of grass with a long stick. The bird sometimes flies directly away from the nest, but never very far. Generally it runs off and creeps out of your sight, or takes short flights from covert to covert. Possibly some pairs rear two broods, for we have found the full clutch of eggs on the 17th of May; and Mr. Tom Duckworth has obtained perfectly fresh eggs on August 6th. Nestlings have spotted tongues. Mr. Tom Duckworth remarks that eggs of this species which he has received from the south of England are not so large or so beautifully mottled as his local specimens.

Sub-Family ACCENTORINÆ.

GENUS ACCENTOR.

A. *Modularis*. HEDGE SPARROW.

The Hedge Sparrow is a numerous resident, breeding up to 1,200 feet on the east fells, where it is known as the creepy-dyke. One or two white and pied specimens have come under our notice locally—the prettiest being a bird in the collection of Mr. Hodgkinson. In this bird, which was obtained near Carlisle, the primaries are white, and so are the throat and lower parts, but a slight zone of brown crosses the breast from side to side.

Family CINCLIDÆ.

GENUS CINCLUS.

C. Aquaticus. DIPPER.

The Dipper is to be found on nearly all our northern streams, and has decidedly increased of late years. It is resident, and each pair occupies its own portion of the river, though stragglers appear outside the breeding limits during winter. The nest is composed of fine dried stems, lined with oak leaves, and is placed within a circular dome of moss, being itself saucer-shaped. We have never found any feathers in the lining. The nest, considered as a whole, appears large for the Dipper, and has an entrance at the side. It is frequently placed under the beams of bridges, or by the side of a waterfall; at other times it is attached to the face of a rock, or is placed in the roots of a tree. Generally, the nest is somewhat difficult of access, unless the stream is low; and here the Dipper is sometimes at fault, for, building early as it does, when the rivers are swollen by the winter's rain; what are then safe places become less so in the drier summer months. Often before the young are fledged, the water falls so much that there is a dry pathway between rock and river.*

The height of the nest above the water varies considerably; we have seen it so near the stream as to be only two feet above low-water mark; and,

* In 1773, Miss Calvin of Penrith gave Pennant a drawing of a Dipper in first feather, subsequently figured and described as the "Penrith Ouzel" (Tour to Alston, p. 159. B. Zool., 1812, Vol. I, p. 399.)

again, as high as fifteen or sixteen feet above the water, with a clear plunge into a pool as deep. The building of the nest, in which both birds take part, is chiefly carried on in the hours of early morning, and commonly occupies about a fortnight in construction, though in one instance a nest was built and received six eggs within the space of fifteen days. Occasionally a pair of Dippers will commence to build in February, and yet only commence incubation in the first week of April. We have seen four nests placed side by side on a favourite ledge of rock, two belonging to the current year and two to the previous year, but one alone containing eggs, the rest being in different stages of decay. Our earliest clutch of eggs was completed on March 3rd, and we have found eggs as late as July 7th, two broods being commonly reared, and many of the first broods flying in the latter half of April.

The normal full complement of a clutch is five eggs.

The natural diet of the Dipper consists of aquatic insects, but it occasionally feeds on small fish. "This summer," says Capt. K. Dover, writing in 1881, "I saw the Dipper in pursuit of a minnow in a small pool of water about two feet deep and two or three yards in extent, which it caught after a good deal of turning and twisting about, using its wings like the flappers of a seal. After securing the fish, it flew a couple of yards to be safe from the water, and then gave the fish a peck upon the shoulder, and, after a second or two, another on the

tail, and then, after a second or two more, it took it up and swallowed it, head first. A few minutes after this, I saw the Dipper take another minnow from under a stone in shallow water, which it demolished in a minute or two, eating it in the same way as it ate the first."

The Dipper usually progresses under water by using its wings or diving, but we have witnessed its capacity for walking on the bed of a burn upon several occasions.

The sweet Thrush-like song of the Dipper is most often uttered in frosty weather, but we have listened to it in every month of the year.

Family PARIDÆ.

GENUS ACREDULA.

A. *Caudata*. LONG-TAILED TITMOUSE.

The Long-tailed Tit is a fairly numerous resident, having largely increased since the gun licence came in, prior to which we had known an entire brood to be shot off by mischievous boys, owing to these Titmice roosting in a clump. Though we are not able to give specific rank to the British form, opposed as we are to the needless multiplication of species, it may be well to remind observers that the white-headed continental form has occurred in Northumberland, and may be detected in Cumberland also in mid-winter. The appearance of a flock of adults of this form in their snow-white caps is refreshing to an insular observer. We examined one nest of this species, which had a piece of moss

hanging over the entrance, which had to be moved every time the birds went in or out. A white variety was repeatedly seen at Harker, in April, 1884.

GENUS PARUS.

P. Major. GREAT TITMOUSE.

The Great Tit is a generally distributed resident, decidedly plentiful in wooded districts. A nestling in our possession learnt the song of a Blackcap Warbler.

P. Ater. COAL TITMOUSE.

The Coal Tit is a fairly numerous resident, breeding all over the county, but especially partial to young plantations. British specimens have generally olive backs, as contrasted with the slate-grey back of typical German specimens, but intermediate forms occur.

P. Palustris. MARSH TITMOUSE.

The Marsh Tit is a local resident, breeding sparingly in wooded districts, and nesting in the pollarded ashes and willows along the fell becks, as high as suitable wood extends. In autumn, family parties feed eagerly on thistle seed, but the Marsh Tit is insectivorous as well as vegetarian.

P. Cæruleus. BLUE TITMOUSE.

The Blue Tit is an abundant resident, nesting in a variety of situations, from a church steeple downwards. Mr. Plenderleath observed a Blue Tit

which laid her eggs in a nest of the Hedge Sparrow, from which the rightful tenant's eggs had been removed. In autumn, the Blue Tit is more widely distributed than in the breeding season, and if encouraged, individual pairs will haunt a backyard year after year, arriving in September and retiring to breed in spring, but constantly feeding on scraps and picking bones in the interval. The colour of the Blue Tit becomes much intensified in early spring.

Family SITTIDÆ.

GENUS S I T T A .

S. Cæsia. NUTHATCH.*

The Nuthatch may possibly prove to be an occasional visitant, but the only satisfactory occurrence dates back to 1782, when Dr. Heysham received one of a pair of Nuthatches from Armathwaite (where they were probably nesting) on May 11th. The late Mr. Robson refers the species to Wythop woods, but adduces no evidence (Zool., 1854, p. 4168).

Family TROGLODYTIDÆ.

GENUS T R O G L O D Y T E S .

T. Parvulus. WREN.

The Wren is a generally distributed resident. Its numbers were much reduced by the severe winters 1879-81, but the species has since recovered its former proportions.

Family MOTACILLIDÆ.

GENUS MOTACILLA.

M. Alba. WHITE WAGTAIL.

The White Wagtail is a casual visitant on spring and autumn migration, but does not appear to have bred with us. It is a slighter bird than the Pied Wagtail, and the gorget upon the breast is much smaller than in the Pied Wagtail. Some female Pied Wagtails have very grey backs in summer, but their gorgets are constantly more extensive than in the White Wagtail. When studying the White Wagtail in Norway and Switzerland, and other parts of the continent, it has always seemed to us that the call-note of the White Wagtail was softer and less incisive than that of the Pied Wagtail. Two White Wagtails were seen on the Irthing, in the spring of 1850, by Mr. W. Dickinson. An adult female was shot at Alston in the autumn of 1866. Mr. F. D. Power had an excellent view of two White Wagtails near Cleator Moor, April 11th, 1874. Early in April, 1880, a single bird was observed near Hutton John by Mr. Hodgson. We detected a single bird on the Caldew, April 20th, 1883, and watched another tripping over the lawn at Rose Castle, April 15th, 1884, and met with a third on Burgh Marsh on September 5th, 1885.

The White Wagtail was first recorded for Cumberland by Mr. T. C. Heysham, an example having been shot on the Caldew by Mr. J. Cooper.

M. Lugubris. PIED WAGTAIL.

The Pied Wagtail is a generally plentiful resident, but the majority of those which breed with us are summer visitants, flocking before their departure in September, returning in pairs and singly in early spring. The Pied Wagtail, like the continental form (*M. Alba*), is fond of pursuing flies on the roofs of houses, especially in spring and autumn.

M. Melanope. GREY WAGTAIL.

The Grey Wagtail is a common resident, generally distributed along our becks and rocky rivers. The majority of those which breed with us withdraw before the approach of winter, returning in early spring to their old haunts; but a few examples generally winter in Cumberland, as was the case in the severe winters 1879–81.

The following note on the nesting of the Grey Wagtail has been furnished by Mr. Tom Duckworth:—

“The Grey Wagtail breeds on the banks of all our rivers, at least I have found it nesting on the Eden, Caldew, Petteril, Irthing, Gelt, Lyne, Cairn, Croglin, the Ive, and the Roe, and several of their tributaries. It is a very early breeder, as I have found many nests in the first week of April, containing the full complement of six eggs, occasionally advanced in incubation. It breeds twice in the season, the second brood being fully fledged in the second or third week of July.

“The Grey Wagtail nests in the holes of bridges, in walls by the river side, and in some instances in the roots of trees overhanging the water; but, as a rule, it prefers to build on a ledge of rock. The Grey Wagtail nests year after year in the same place. I know of an enchanting little spot in the Fairy Dell, on the river Petteril, where I have known the Grey Wagtail to nest for eighteen successive years. It nests in some of the most romantic situations. I recollect finding a nest at Dub Spout on the Caldew, built on the top of a small rock in a cavern, a most beautiful sight; another was placed within a few yards of a much-frequented footpath.

“The nest is composed externally of roots, moss, and sometimes a little couch grass; and, in most districts, is lined inside with white horsehair, though an alternative lining of fine roots with a small portion of hair is sometimes substituted. The Grey Wagtail sits very closely, and I have touched a brooding bird with my finger before it moved.”

Although birds of the second brood are generally fully fledged in the middle of July, we found a clutch of fresh eggs on July 13th, but this occurred at a height of 1,200 feet above sea level.

From that height, the breeding stations extend to where the Eden is influenced by the spring tides.

M. *Raii*. YELLOW WAGTAIL.

The Yellow Wagtail is a summer visitant, but local, breeding irregularly in the centre and north

of Cumberland, but only tolerably numerous in the south. Upon its arrival in spring, it haunts ploughed fields in the neighbourhood of our larger rivers.

GENUS ANTHUS.

A. *Pratensis*. MEADOW PIPIT.

The Meadow Pipit is a common resident species, breeding plentifully on our moorlands and coast-line. Partial migrations occur in March and September.

A bird of the year, of a uniform white, except where tinged with canary, was shot near Silloth, September 8th, 1884.

A. *Trivialis*. TREE PIPIT.

The Tree Pipit is a numerous but somewhat local summer visitant, breeding generally in wooded districts, but more strongly established within a ten-mile radius of Carlisle than elsewhere in the county. We have taken seven or eight well-marked varieties of the eggs of the Tree Pipit.

A. *Richardi*. RICHARD'S PIPIT.

In the spring of 1839, Mr. W. Dickinson discovered two examples of this rare straggler from eastern Europe, upon Castlerigg Fell. (Rem. W. Cum., p. 14, *H. P. Senhouse*, MS.)

A. *Obscurus*. ROCK PIPIT.

The Rock Pipit is a local resident, a few pairs nesting on Rockcliffe marsh and elsewhere on the coast-line. During autumn and winter, but especially in October, a few single birds and small

parties are constantly to be met with on our salt marshes, seldom rising when disturbed, but flitting up and down the narrower creeks, and looking very dark at a little distance.

Family ORIOLIDÆ.

GENUS ORIOLUS.

O. Galbula. GOLDEN ORIOLE.

The Golden Oriole is a rare casual visitant, but from its peculiar call-note and rich flute-like song, is hardly likely to have occurred without detection. A female or immature male was shot at Irton in 1857 (Zool., 1879, p. 488); another was obtained near Penrith by T. Hope; several others were seen near Lorton in 1878. (*H. P. Senhouse*, MS.)

Family LANIIDÆ.

GENUS LANIUS.

L. Excubitor. GREAT GREY SHRIKE.

The Great Grey Shrike is a rare winter visitant, but few seasons pass without one or more specimens being obtained in the county, and others observed; for though easily approached at first, this Shrike is naturally a shy bird, and its rapid flight renders it difficult to shoot, if its suspicions are aroused. We have notes of about twenty-five Cumbrian Grey Shrikes, and have examined half the number, only three of which can be referred to the sub-species *Lanius Major*, characterised by the presence of a

single narrow wing-bar. Of these, the first was shot at Egremont in 1880, and is in the possession of Capt. Johnson of Castlesteads. The second was shot some few years ago at Barrock Park, where it is preserved. The third, a female, possibly not quite thoroughbred, as the bases of the secondaries are slightly tinged on the inner edge with greyish white, was shot at Carlisle, January 16th, 1884.

Grey Shrikes have chiefly occurred in Cumberland from October to March, and no occurrences at midsummer have as yet been substantiated in the county. In 1866 an example was shot near Wigton, on April 14th; another was observed at Stainton, April 11th, 1828; and in 1884 another lingered at Carlisle until the 10th of May. Our earliest autumnal occurrence is that of a fine adult male, with the usual two bars, shot near Slaggyford, on the borders of Cumberland, on September 13th, 1884, which contained the body of a small bird. Our most recent notes refer to a bird observed at Orton in December, 1884; to a second obtained by Mr. Crow, in a poletrap, near Bewcastle, about the same time; and to a third observed by Mr. Cairns, near Floriston, on March 11th, 1885. Mr. Cairns had alighted from his trap to investigate the movements of a Sparrowhawk, when a Grey Shrike flew up and settled on the hedge beside him. Mr. Cairns subsequently followed the Shrike a considerable distance, but not having a gun with him, was unable to decide the character of its wing-bars.

The following extract from Mr. Macpherson's paper on Shrikes (Trans. Cum. and Westd. Assocn.,

No. IX, pp. 106, 107) relates to a male of the Great Grey Shrike, with two well-developed wing-bars, caught in November, 1883, in Kincardineshire, N.B. :—

“ From December 14th to 21st, this bird, a nearly mature male, lived partly on liver, partly on an allowance of one Sparrow per diem. From December 21st to 27th I gave him two birds a day. On December 28th I found him devouring a mouse, which he must have caught for himself in the aviary ; when I disturbed him, he was holding it half-devoured in one foot. On December 28th, I gave him a dead Blue Tit. He almost at once spitted it through the neck on an upright thorn ; he then pulled the head off, and swallowed it, feathers and all ; he returned to flay the breast, after which he took the bird off the thorn and respitted it, the thorn now passing through the lumbar region, and the tail being now uppermost ; he then tore the flesh off, swallowing many feathers, which he afterwards threw up as pellets ; finally, he took the trunk of the Tit off the thorn and carried it to a corner of a perch, where he left it, but mounted guard over it. I then tossed him a dead Wren, which he ate in the same way. I usually left him a supply of live Sparrows, which he killed and hung whenever his larder was bare. I had some misgivings at first as to whether he would not kill the Sparrows one after another, and hang them in one long row. But he was quite well disposed to them, and only killed them when he wanted a fresh meal. He seemed to prefer house mice to Sparrows ; but whatever his

food, he always hung it, whether given him alive or dead, before holding his post-mortem upon it."

Writing in 1829, in the *Philosophical Magazine*, Mr. T. C. Heysham observes—"For the last five or six years the Cinereous Shrike has visited this neighbourhood (Carlisle) pretty regularly, scarcely a winter passing without one or more having been either seen or obtained."

Again, in 1832, he writes of "the Greater Butcher Bird or Cinereous Shrike (*Lanius excubitor*): During the months of November and December (1831), three of these birds were obtained in this vicinity. A female, killed on the 24th of November, had been feeding greedily on the larvæ of *Scotophila purpurea* and *Amarta myrtilli*, several of which had been swallowed entire, and with little or no injury. The stomach also contained a very fine specimen of *Carabus hortensis*, two or three of *Phosphuga atrata*, and the *elytra* of several species of *Agonum*."

L. *Collurio*. RED-BACKED SHRIKE.

The Red-backed Shrike is a scarce summer visitant, a few pairs breeding annually in the lake district. In the north of the county it only occurs irregularly. Mr. Tom Duckworth found a nest some years ago, near Newby Cross, and we have seen the thorns festooned with insects, in other seasons.

A pair nested near Carlisle in 1883, and another pair were observed near Gilsland. In August, 1885, we observed an immature specimen being vigorously mobbed by some small birds.

We have studied this Shrike in confinement on several occasions, and in 1883 kept a brood alive for many months. In July the tarsi and toes of these young birds were of a delicate French grey; when they died, in December, the light grey had become iron-grey; and had the birds survived the winter, doubtless these soft parts would have become black, as in the adult bird.

“On one occasion I had an excellent opportunity of noting the courtship of the Red-backed Shrike. During the forenoon of October 25th, the sunlight happened to stream into my rooms, and fell on the Shrike’s cage.

“The Rock Thrush began to sing and so did the second male Shrike. Twice did the Shrike sing most of the Rock Thrush’s song; as he sang on, his amatory instincts grew, and he began to bow as he sang, raising himself to his full height, and then bowing grotesquely, first on one side and then on the other. As he sang on, he moved backwards and forwards, bowing all the time, until at last he fairly bowed his astonished brother bird off the perch. Presently, there came a pause, and then the singing and bowing set in again; once more he bowed his fellow off the perch, and so pleased was he, that he fired off the rest of his spirits in a continuation of clattering war cries, swaying his tail excitedly; the performance ended, he flew wildly backwards and forwards from one end of the aviary cage to the other, as though seized with a paroxysm of migratory fever.” (Trans. Cum. & West. Assocn. IX, pp. 101, 102.)

L. *Pomernanus*. WOODCHAT SHRIKE.

The Woodchat Shrike is an accidental summer visitant. In the spring of 1872 the late Mr. W. Dickinson observed a single example near Stainburn tannery, and stood within twenty yards of it for some minutes. Another was seen at Woodside many years since by James Cooper. (*J. B. Hodgkinson*, MS.)

Family AMPELIDÆ.

GENUS A M P E L I S.

A. *Garrula*. WAXWING.

The Bohemian Chatterer is a rare winter visitant. Probably a few individuals visit us in most seasons. A few stragglers appeared on the edges of our plantations in the winters 1878-9, 1883-4, 1884-5, and if the peculiar running "trill" were more generally known, doubtless others would have been detected. Those shot have generally permitted of a close approach, whilst feeding greedily upon "choops," the seed-vessels of wild roses. Several were shot near Carlisle in 1829, and two of these were brought to Mr. T. C. Heysham, who quotes the opinion recorded by his father, Dr. Heysham, as early as 1797, that the number of the waxen appendages does not depend upon sex, but upon the maturity of the individual. Dr. Heysham records the presence of a great flight of Waxwings in the winter 1786-7, and received the last on March 22nd, some time after its death. A similar visitation

occurred in Cumberland, as in Norfolk and other counties, in the winter 1866-7, the majority of the birds being obtained on the eastern borders of Cumberland, in the vicinity of one of our probable tracks of migration. We have seven skins obtained near Alston on this occasion by B. Greenwell, who shot many more; at Garrigill, some beautiful examples were shot by Mr. Joseph Walton. In other years, these wanderers appear to visit us chiefly by a more northern track, occurring repeatedly in the same localities near Carlisle in different years. Mr. G. Parkin has kindly favoured us with photographs of a Waxwing, shot at Stapleton, near Brampton, December 4th, 1875, in which the silky plumage of this bird is well shewn.

Family MUSCICAPIDÆ.

GENUS MUSCICAPA.

M. Grisola. SPOTTED FLYCATCHER.

The Spotted Flycatcher is a common summer visitant, arriving early in May, and constantly repairing to the same breeding haunt.

Mr. B. Johnson reminds us that a Spotted Flycatcher has nested in the summers of 1883, 1884, and 1885, upon one identical branch of a small tree on Kingmoor; though the situation is close to a road, and the locality is constantly ransacked by egg-collectors, the Flycatcher has in each season reared her brood in safety. The Spotted Flycatcher is partial to ivied garden walls. We lately saw a

nest in a Chilian pine (or "Monkey-puzzler"), a tree seldom used by any birds as a nesting site. Many pairs nest upon rocks by the river side, where wood prevails, and range up to an elevation of 900 feet.

M. Atricapilla. PIED FLYCATCHER.

The Pied Flycatcher is an extremely local summer visitant, and generally arrives between the middle and end of April, thus preceding the Spotted Flycatcher. The head-quarters of the Pied Flycatcher, during its sojourn with us, are at Lowther Park, on the borders of Cumberland and Westmorland. In this locality the Pied Flycatcher nested in the time of Dr. Heysham (1797), the abundance of fine timber which clothes the hanging banks of the river Lowther possessing many attractions for the present species, as also for the Wood Wren, which is extremely numerous. From the neighbourhood of Lowther, to which the majority of our Pied Flycatchers appear to first proceed on vernal migration, many pairs evidently pass on to breed in the centre of the lake district, though they are always local, and absent, or nearly so, from the south and west of the district.

When Hewitson made a tour through the English lakes, he only met with the Pied Flycatcher on the Eden near Edenhall, on the Eamont and Lowther, besides a few examples on the borders of Ulleswater.

In the last-named district a few pairs now nest sporadically. Others pass down the Eden valley, to nest at sparing intervals, until Wetheral is reached, a few miles above Carlisle. Others, again, travel

along the Gelt, Irthing, and other rivers, a considerable colony nesting on the eastern fells near Renwick, while stragglers nest intermittently in other localities, as near Alston.

In the Carlisle district, as elsewhere, the Pied Flycatcher prefers to nest in the neighbourhood of water, but the choice of locality varies. A nest which Mr. W. G. Smith lately found in a small wood near Upperby, was placed in the hole of a tree, and contained three eggs of the Pied Flycatcher. "The nest was made of dried grass and roots, lined with hair. After I took the three eggs someone pulled the nest out, and the bird laid a fourth egg on the bottom of the decayed wood."

In the year 1877, we had an opportunity of studying the habits of a Pied Flycatcher from the date of their arrival on May 7th until incubation started at the end of the first week in June. The locality was a narrow wooded valley, watered by a tributary of the Eden, which has its source among the Pennine fells. On May 8th, the day after their arrival, the Pied Flycatchers had mated, and had dispersed themselves at varying intervals along the wooded banks of the beck.

The number of birds in the flock, when first observed, was twenty-six. On the morning of the 8th we came across three pairs which had already selected nesting holes, and the males were amusingly fussy, popping in and out of the nests twenty times within a quarter of an hour. On the 13th we watched the females carrying materials to their nesting holes, which in this locality were placed at

varying distances from the ground, from one foot to fourteen feet.

We constantly scrutinised the progress of one particular nest, but seldom saw the birds near it during the day, the building being chiefly carried on in the early morning. On May 26th the first egg was laid; on the 28th three eggs were taken from one nest, but four more were laid by the 2nd of June, and the female began to sit. Another female began to sit on a complement of six eggs on June 6th, and a third commenced to incubate a clutch of seven eggs.

A good many pairs of Pied Flycatchers breed at Edenhall, but the best locality for studying the habits of the species is unquestionably Lowther, where the woods fairly echo with the lively song of the Pied Flycatcher during the month of May. In this locality the Pied Flycatchers chiefly affect the immediate vicinity of the river; ever and anon a male bird darts out of the woods as though about to cross the stream, but checking his course in mid-career poises himself for a moment's rest upon the summit of some grey rock in the river bed. During our protracted study of the Pied Flycatcher, we have never happened to find a nest of this species in any cavity, other than in a natural tree; but, as it occasionally nests in gardens, it is probable that holes in walls are sometimes selected. Sometimes the tree-hole selected is situated in the roots, only a few inches raised above the ground; but at other times the elevation chosen is very considerable. Mr. T. C. Heysham found a pair of Pied Fly-

catchers nesting for two successive summers in the stump of a felled tree. So frequently is a favourite hole used in successive seasons, that we have more than once found it necessary to block up such holes in order to secure the bird from certain robbery. The eggs are normally from six to nine in number, and vary in their precise tint of blue, some specimens being exceedingly pale. When the eggs are incubated, the female Pied Flycatcher sits so closely, that actual force is required to lift her off the eggs.

The Pied Flycatcher differs from the Spotted Flycatcher, inasmuch as it possesses a very decided song, commencing with some notes resembling those of the Great Tit, and passing into a sweet strain suggestive of the song of the common Redstart. The Pied Flycatcher is frequently to be seen among the highest branches of forest trees; while the Spotted Flycatcher is content with a lower elevation. The flight of the Pied Flycatcher is not so rapid as that of the common bird, nor does it obtain its food as exclusively on the wing. The Pied Flycatcher loves to take up its position at the extremity of a dead bough, whence it can watch the tiny insects stirring in the grass beneath. A caged female constantly exhibited a high degree of adroitness in darting down upon any insect introduced into her cage.

Mr. Heysham kept two young males in confinement, taken from the nest on June 21st.

Although such a local species, the Pied Flycatcher has undoubtedly increased in Cumberland of late years. The late Mr. Heysham stated in

1829 that the species had only nested in the Carlisle district for five or six years, and it is within our personal cognizance that the Pied Flycatcher has become fairly established in districts to which it was formerly an extremely irregular visitant. During migration, odd birds are seen at a distance from their favourite breeding stations. Thus, on one occasion, a single male was seen by Mr. R. Mann at Aiglegill, in the immediate neighbourhood of the Solway. In the present spring, we found a nest completed for eggs on May 5th. Great numbers of Pied Flycatchers appeared on migration at the Isle of May, Pentland Skerries, Flamborough, and Spurn, about the same time, *i.e.* during the first week of May, 1885. (Migration Report, 1885, p. 186.)

When visiting the Pied Flycatchers at Lowther Castle, in 1884, we availed ourselves of a kind permission to obtain some specimens for the Carlisle Museum; and finding the species in great abundance, we shot four males and a female, on May 19th, all apparently paired birds, nest building operations having, of course, started some days previously. Mr. John Hancock states (Cat. B. of N. and D., p 79), from an examination of a large series, that the adult male in the breeding season (of which he gives a delightful figure), "is black on the upper parts with a broad obscure band of grey across the rump, and a transverse band of white in front of the head; the under parts are white, and the white patch on the wing is very conspicuous."

Of our four breeding males, shot on May 19th, two answer this description, the black being as

nearly pure as possible, and the white forehead well-developed. The third male is very similar, but many of the feathers of the crown and nape are fringed with brown, being however black at the base, thus illustrating the truth of Mr. Hancock's surmise, that the change from autumn plumage to breeding plumage "appears to be brought about, not by a moult, but by an alteration in the tint of the feathers themselves." No doubt this third male would have assumed the full black dress in a few days, the change in colour gradually extending from the base of the feather to its extremity.

It would appear from the fourth male under examination, that the male of the year (hatched in the previous summer) wears a dress similar to that of the female during its first breeding season. This bird is of a uniform brown on the upper parts, scarcely at all darker than that of the female; the white forehead is present, the white wing-bar is broader than in the female, and the shoulders of the wings are black; but the breast and lower parts are not of the silvery white of the other three males, but are slightly tinged with brown, and decidedly less pure. This bird, a male by dissection, we shot in the act of singing lustily, and we believed it to be one of a pair. That some, if not all, of the males of the year thus resemble the female during the breeding season, is further evidenced by the fact that when re-visiting Lowther on June 14th of the same year, we observed a male attired in the same sober brown dress in full song. If this bird intended to change his plumage, he would probably have done so

between his arrival at the end of April and the middle of June. A nestling in the Carlisle Museum agrees with Mr. Hancock's description of first plumage, but the under parts are white, spotted with dark brown, which he does not mention as present in his specimen. At the beginning of August, 1881, we observed several broods of Pied Flycatchers with the old birds, in the neighbourhood of Geneva, the young birds being very obscure in tint. In the following September, we found the species very abundant among the walnut trees at Montreux. They no longer seemed gregarious, but were attired in the brown dress of autumn detailed by Mr. Hancock. A short account of the colony of Pied Flycatchers at Lowther will be found in the *Naturalist*, No. 114, January, 1885, pp. 125, 126.

Family HIRUNDINIDÆ.

GENUS HIRUNDO.

H. *Rustica*. SWALLOW.

The swallow is a common summer visitant, arriving both singly, in pairs, and in large flocks, during the month of April. The last parties to go, leave in October; but stragglers occur in November, and even later, for Mr. H. P. Senhouse once saw a single Swallow flying near Cockermouth on January 6th, and pointed it out to others, recording it in *The Field*. An immature bird, caught at Carlisle, on November 5th, 1884 (on which day another single bird appeared at Ravenglass), had begun to moult in our inclement climate. In May, 1884, a swallow of a lavender-grey

colour was observed for some hours by Mr. R. Mann, flying among a crowd of its fellows. Some old males are very bright in the breeding season, the lower parts being suffused with a delicate rose colour. Mr. J. Davidson possesses a Swallow exhibiting this intensity of vigour, but the rose colour faded considerably in lustre. We have ourselves observed similar birds, resting with their mates on telegraph wires.

GENUS CHELIDON.

C. *Urbica*. MARTIN.

The House Martin is a summer visitant, much harassed in nesting operations by the common Sparrow.

It is decidedly less subject to variation of plumage than the Swallow or Sand Martin, of both of which we occasionally examine albinos, invariably young birds. On August 10th, 1883, we observed a pied House Martin near Burgh, the white wings contrasting prettily with the dark upper parts (as in that beautiful Ethiopian form, *Hirundo Leucosoma*, figured in Messrs. Sharpe & Wyatt's Monograph of the *Hirundinidæ*).

In the Paris *Marché des Oiseaux*, young Martins are often offered for sale, together with young Swallows, Wrynecks, Wrens, and other small insectivorous birds, and the Frenchmen rear them successfully on raw liver, comminuted into a paste, and mixed with the meal of maw (or poppy) seed. With us such species are so seldom reared by hand, that it is noteworthy that a brood of young House Martins were lately reared by Miss Mann of Aigle-

gill. They thrive in confinement until the migratory season arrived, when they felt the fever of their race to hurry south, and were released accordingly.

GENUS COTILE.

C. Riparia. SAND MARTIN.

The Sand Martin is an abundant summer visitant, arriving on the Solway with the last days of March, and subsequently becoming generally distributed. In June, 1879, Mr. B. Johnson took a nest of this species in a gravel pit at Dalston, which to his astonishment contained an egg of the Swallow (*Hirundo Rustica*), in addition to a full clutch of eggs of the Sand Martin. The nest in question was difficult of access, and had not been tampered with. We have examined all the eggs in Mr. Johnson's collection, and there is no doubt as to the correctness of the observation. Possibly a Swallow had found her nest destroyed, and being forced to deposit the egg, resorted for shelter to the Sand Martin's nest. Males of this species, when pairing, fight pertinaciously, and we have approached within a foot or two of a pair of duellists, before they quitted the dust in which they were tussling and flew away.

Family CERTHIIDÆ.

GENUS CERTHIA.

C. Familiaris. TREE-CREEPER.

The Tree-Creeper is a fairly numerous resident, chiefly haunting the older woodlands. Its low song may frequently be heard in March.

Family FRINGILLIDÆ.

Sub-Family FRINGILLINÆ.

GENUS C A R D U E L I S .

C. Elegans. GOLDFINCH.

The Goldfinch is a local resident, having generally decreased of late years, though still numerous in the south of the county and in the Eden valley. A few pairs breed sporadically in the north of the county, and large flights are occasionally observed in autumn, even upon the lower fells, where thistles flourish. Several observers assure us that small parties follow the trending of the Solway at this season, flying from west to east or north-east, against a north or north-east wind. We have seen the nestlings fledged in the middle of June, and have also a note of a brood of nestlings taken in the nest on September 20th. The last nest we found was placed in the fork of a walnut tree at Interlaken, and contained unfledged young upon August 19th. A pair nested in a Carlisle garden during the present summer. E. W. Parker, Esq., sends us an interesting account of the abundance of the Goldfinch in the Eden valley:—"Goldfinches are very plentiful in this district, and after the nesting, in the months of August, September, and October, may be seen in flocks varying from twenty to a hundred birds, roving in search of thistles and "horse knops" (*Centaurea nigra*). Every year I have seen as many as thirty at a time in my kitchen garden in winter. They have built there, to my knowledge, for the

last seven years, in the apple and pear trees, and the number of nests increases every year. This year (1884) there were eight, but some of these, I know, were second nests. I have never seen Jackdaws destroy the young Finches, but have seen them destroy two nests containing eggs. Last year (1883) a Sparrowhawk took a whole nestful of young Finches, and I shot it with the last in its claws."

The Goldfinch frequently sports some white feathers upon the crimson zone which encircles the bill, the white varying in extent from a small spot no larger than a pea to an entire white throat; both sexes vary, and white-throated birds are known as "bastards" and "hobby" cheverels. Albinism, proper, is rare; but a caged female became perfectly white in moult, with the exception of about six crimson feathers on the forehead, a very faint and delicate crescent of pale brown on the chest, and a rich Goldfinch-yellow "bloom" on the wings, repeated on the breast and outer rectrices. This bird died in the following moult, and was dissected by Mr. G. Dawson, who informs us that the liver was diseased.* The crimson zone varies in extent, and in a bird in the Bellevue museum is produced to a point upon the breast, and very brilliant in tone. The white tips to the wing quills of the Goldfinch, termed "buttoning" by bird-fanciers, vary much in extent, and are all but absent in some of the caged

* Mr. Beddard informs us that liver disease is of frequent occurrence in the class *Aves*.

Abnormal plumage is probably due in most instances to defection in the dermal integument.

German examples kept by mule breeders. In the Rhine valley, where the Goldfinch is marvellously well established, and flies about the cottage roofs, in certain localities, with almost the familiarity of the Sparrow, we noticed this peculiarity, especially in the adult birds, which were so much engaged in tending their young broods as to permit of a very close examination with our binoculars.

GENUS CHRYSOMITRIS.

C. Spinus. SISKIN.

The Siskin is a local winter visitant, haunting the alders by our rivers in variable numbers, chiefly from November to March.

Since 1879, a few pairs have regularly bred near Longtown, several nests being found by Mr. Plenderleath, thus confirming the suspicions expressed by Mr. T. C. Heysham fifty years previously. Dr. Parker believes that he has seen the Siskin in the extensive fir woods at Muncaster in the breeding season.

GENUS LIGURINUS.

L. Chloris. GREENFINCH.

The Greenfinch is a common resident, plentiful in most parts of the county, but scarce in the south-east, where Mr. Walton has only observed it in a very few instances. Now, as in Dr. Heysham's time, the majority of those that breed with us depart before winter, possibly passing the colder

months in the Midlands or on the south coast. The movement is not, however, correlated with temperature, but with the supply of food.

GENUS COCCOTHAUSTES.

C. Vulgaris. HAWFINCH.

The Hawfinch is a very scarce winter visitant, occurring in small droves and also singly. It is possible that it has nested in Cumberland, for a Hawfinch was observed in summer at Woodside, many years since. A single bird was observed near Carlisle in the spring of 1884, and in August, 1882, a young bird was shot out of a party of five in the garden of Bridekirk Vicarage (*Rev. A. Sutton* in lit.) Mr. E. Sutton was attracted to these Hawfinches by the shrill notes of the young birds, with which he was previously acquainted, and writes that the bird which fell to his gun was certainly a young one, though he sees no grounds for concluding that it had been bred in that immediate locality.

In 1880, a female Hawfinch, together with a nest and clutch of three eggs, was obtained at Coniston, which is only five miles south of the Cumberland border. (*B. of Lancashire*, p. 60.)

GENUS PASSER.

P. Domesticus. SPARROW.

The Sparrow is an only too numerous resident, having increased immensely of late years. "Wherever there is grain," wrote Dr. Heysham, in words still

applicable, "there is an abundance of Sparrows; but in some of the vales about Keswick, where there is little or no grain produced, and few inhabitants, it is an extremely scarce bird." When the grain is ripe, a partial migration occurs from housetop to cornfield. White, pied, black, and buff varieties have come under our notice in Cumberland.

P. Montanus. TREE SPARROW.

The Tree Sparrow is a very scarce resident, a few pairs nesting annually in certain isolated localities.

We first ascertained the presence of the Tree Sparrow in Cumberland in 1871, when we observed a pair haunting the yard at Cairn Head, a lonely house situated at the foot of King Harry. We watched the birds passing in and out of a hole in the barn wall, from which we subsequently extracted the nest with three eggs.

During autumn, the Tree Sparrow wanders: stragglers may be observed at a distance from their breeding grounds; nevertheless it is at all times an exceedingly scarce bird in Cumberland.

GENUS FRINGILLA.

F. Cælebs. CHAFFINCH.

The Chaffinch is an abundant resident, more numerous in certain localities than even the House Sparrow. Despite the fierce combats which frequently ensue between rival males in the breeding season, the Chaffinch is chiefly gregarious during

the winter months. An excellent instance of the protective instinct of the Chaffinch occurred on the banks of the Eden, where we found a nest in a thorn bush at the water side. It was situated just above some wreckage, which had been deposited by a flood; and the nest, instead of being decorated with lichen, as would have been the case had it been built in an apple tree, was completely covered by small pieces of rotten wood, rendering it a difficult matter to distinguish the nest from the wreckage immediately below. The eggs in this nest were of the uniform pale blue type, without any spots.

A yellow variety of the Chaffinch, an old male, was shot near Carlisle in October, 1883. Another yellow Chaffinch was obtained in the Alston district by Mr. J. B. Hodgkinson.

F. *Montifringilla*. BRAMBLING.

The Brambling is a numerous but local winter visitant, large flocks arriving in October and November, departing in March, though a few linger until the end of April. The harsh chirrup of the Brambling, during its stay with us, conveys to an insular ear no more idea of the merry song of the male, among the fresh birches of its northern breeding ground, than the dull winter dress suggests the brilliancy of the summer dress, when the drab fringes of the upper parts have dried up and dropped off, and the feathers of the breast have become intensified by vernal passion and a burning sun.

Bewick's statement as to the presence of Bramblings in August on the fells of Cumberland was probably erroneous.

A male, exhibiting an entire black throat, was shot near Carlisle, November, 1882; and a second male, exhibiting traces of a black throat, owing to the black of the head extending to the chin, is preserved in the Taylor collection. (*Cp. J. II. Gurney, junr., Zool., 1885, p. 346, Macpherson, ib., p. 389.*)

GENUS LINOTA.

L. *Cannabina*. LINNET.

The Linnet is an abundant resident, though less plentiful than in the midland and southern counties. We have examined late broods in the nest in August, and in the open spring of 1884 a nestling was caught, barely able to fly, in March.*

L. *Linaria*. MEALY REDPOLL.

The Mealy Redpoll is a rare winter visitant. Stragglers stray across the east fells from Northumberland. We have the skin of an example shot out of a flock near Alston. Another was obtained near Penrith some years ago (*T. Hope, MS.*). A large and very white local example is in the Proud collection. In 1878, we studied the habits of this Redpoll on the Dovre Fjeld, and found the young exceedingly fearless and confiding. They were feeding on grass seeds, but often perched on rails and

* A wild hybrid between the Linnet and Goldfinch was captured at Cotehill by W. Little, November, 1885.

on the roofs of buildings. Many of them nightly roosted in the willow scrub of one "station," also much frequented by the young of the northern Bluethroat Warbler.

L. Rufescens. LESSER REDPOLL.

The Lesser Redpoll is a numerous but local resident, breeding sparsely in the south of the county, but most strongly established in the north of Cumberland, from Bowness-on-Solway to Brampton, at the base of the east fells. A variety of trees and shrubs are selected in turn to contain the nest, including alder, hazel, crab, birch, and willow. We have seen five nests at once in a single hawthorn hedge on the edge of Kingmoor. The height from the ground at which the nest is placed varies from four to twenty feet. The composition of the nest also varies, the exterior generally consisting of moss and dried grass, with a lining of beautiful satin-like down from the catkin of the willow. We lately examined nests composed of dead fir twigs, and others built of hawthorn and birch twigs. A lining of fine grass and hairs, with a few feathers, is often substituted for that of the catkin down. The most aberrant nest that has come under our notice was built entirely of cotton waste, and was situated in close proximity to the Caledonian Railway engine sheds, whence the birds must have procured the material.

The first eggs are usually laid early in May, but we have found fresh eggs in July.

Whilst nest-building is in progress, the Lesser Redpoll is gregarious, and we have watched a female

leaving her companions and slipping away to work at her nest, returning to the party after a short interval. Whilst the female, which is very fearless, is sitting, the male bird is constantly in attendance in the vicinity, and may be seen executing circular flights at a considerable height, as he trills forth his short love-song on the wing.

In autumn, many of our breeding Redpolls appear to leave us, their place being to some extent replaced by a larger race, with longer wings, which no doubt visits us from more northern breeding grounds. Old males exhibiting the crimson nuptial breast occur occasionally in autumn.

The young in nest dress are more striated than adults.

A male hybrid between the Lesser Redpoll and Bullfinch, which exhibited the most marked characteristics of its origin, was recently living in the possession of Mr. Scott of Carlisle. It had been produced in confinement.

L. Flavirostris. TWITE.

The Twite is a resident bird, nesting freely on the low-lying mosses, and also on the fells, but is rather local in its preferences. Mr. Hodgson considers that its numbers have decreased in the county generally during the last thirty years.

The nest is generally built in heather, where the ground is broken and dispersed with pools of peaty water, usually composed of sprigs of heath, lined with hair, wool, and feathers; but a nest which we examined on Solway Moss, in June, 1884, containing

a full complement of eggs, was entirely lined with peat fibre.

In autumn, small parties of Twites haunt the margins of our salt marshes, and an old female, which we shot out of a flock, in the middle of November, 1884, at Skinburness, was still deep in moult.

Sub-Family LOXIINÆ.

GENUS PYRRHULA.

P. Europæa. BULLFINCH.

The Bullfinch is a local resident, most widely distributed in search of food in autumn and winter. We lately found a nest with five eggs, placed upon a lopped branch of fir, lying horizontally upon the ground. Several feathered nestlings, which we dissected, had their crops crammed with garden seeds.

Of late years, some fine hybrids between this species and the Goldfinch have been reared in confinement by Mr. Scott of Carlisle, and other Cumbrian bird-keepers.

GENUS LOXIA.

L. Pityopsittacus. PARROT CROSSBILL.

The Parrot Crossbill has accidentally occurred in Cumberland in two different instances. A male and female in the Taylor collection were shot on the Irthing by the late Mr. Proud (*R. Leslie*, MS., *W. Proud* in lit.), circa 1847-50.

Three others, a red bird, a green bird, and a bird apparently changing from green to red (without

passing through an orange-yellow stage), were shot at Newby Cross, December, 1865, by Mr. J. Barnes (*J. B. Hodgkinson* in lit.)

L. Curvirostra. CROSSBILL.

The Crossbill is resident, but very local in north and east Cumberland, the number of residents being irregularly swelled by occasional flights which appear to arrive in autumn from Scotland or Scandinavia. In the lake district it is less frequently met with.

The diary of the late Mr. Proud supplies a concise description of the advent and subsequent residence of a large drove of Crossbills. In August, 1838, several big flocks appeared in the neighbourhood of Brampton, where only a single straggler had been shot during fourteen previous years. In March, 1839, Mr. Proud recorded that the Crossbills were still present in large parties. In April, their presence is again noted. In August, 1839, our chronicler observes that there were many Crossbills in the neighbourhood all the summer through, "so that they must have bred in abundance"; and though his search for nests was unsuccessful, he shot a bird in the striated nest dress, which we have examined in his collection.

A similar incursion of Crossbills occurred in the Penrith district in 1855, both young birds and eggs being obtained, as Mr. Hope informs us, on Penrith Beacon, and many pairs of adults "remaining to breed in the neighbourhood for several years." It was upon this information communicated to him, as to us, by Mr. T. Hope, that Mr. A. G. More

included the Crossbill as having bred in Cumberland, in his masterly essay on the Distribution of Birds in Great Britain during the nesting season. (*Ibis*, 1865, reprint, p. 39).

In other localities, chiefly on the Scottish borders, a few pairs of Crossbills appear to breed sporadically.

In 1856, Mr. James Fell observed a pair of Crossbills building in a small plantation at Cumwhinton, and after much patient watching, took the completed nest, containing four eggs on March 20th. Mr. T. C. Heysham purchased this nest and two eggs. The other two eggs exist in Mr. T. Armstrong's cabinet. In May, 1885, we had the pleasure of introducing our friend Mr. Edward Bidwell to the song of the male Crossbill, "Gip, gip, gip, ci, ci," the last two notes soft and slightly prolonged. We examined a newly-completed nest, which agreed in materials with nests in Mr. Bidwell's collection. Being unable to re-visit the spot, we tried to make arrangements for the nest being sent to us when the eggs were laid, but these accidentally fell through.

Two old birds and one of their brood were shot near Alston on April 15th, 1839. An unfledged nestling was caught at Armathwaite in 1860, and Mr. Greenwell subsequently shot a Crossbill in the striated first plumage, which is in our possession.

L. *Bifasciata*. TWO-BARRED CROSSBILL.

A notable visitation of this resident of north-east Europe occurred in the autumn of 1845, when a flock appeared in the neighbourhood of Brampton,

(Faint handwritten notes, possibly describing the visitation mentioned in the text above.)

and at once received the attention of Mr. Proud, who was already so well acquainted with the common Crossbill.

A marginal, pencilled note, in the late Mr. Taylor's copy of Jardine's *Birds of Great Britain*, brought to light by Mr. Cairns, runs thus:—"Nov. 1st, 1845. I have shot the White-winged Crossbill." The natural inference would be, that the female bird preserved in the late Mr. Taylor's collection fell to that gentleman's gun, but Mr. Leslie is under the impression that the specimen in question was presented to Mr. Taylor. At all events, the date of November 1st renders it tolerably certain that the birds had arrived during the previous few days, *i.e.* in October.

Mr. R. Leslie, who obtained most of the specimens, informs us that the first bird procured was shot by a son of the late Mr. Proud on a Sunday afternoon. Nine or ten others were shot by Mr. Leslie, two or three birds being too hard hit for preservation. Mr. J. B. Hodgkinson states (*Zool.*, 1847, p. 1638), that one of the birds preserved was an immature male, and this we have failed to trace. Two females were sent to Mr. T. C. Heysham (*Cooper*, *Zool.*, 1846, p. 1551), and one of these passed through the collections of Mr. H. Doubleday and Mr. T. Dix into that of Mr. H. Stevenson (*Zool.*, 1873, p. 3778). Another female was sent to Mr. John Hancock (*Cat. B. of N. & D.*, p. 50), and another, as stated above, exists in the Taylor collection. Another female and a fine crimson male are preserved in the Proud col-

lection. Another female and red male were presented to the Musgrave family, and are preserved at Edenhall. Thus eight preserved specimens are accounted for, but where the "immature male" of Mr. Hodgkinson went to, remains a mystery. During the winter of 1845-6, Mr. W. Proud observed two more white-winged Crossbills; and though no more were obtained, a loose note of Mr. Proud, sen., records that he "heard the white-winged Crossbill to-day," *i.e.* April 11th, 1846.

It is noteworthy that of the eight specimens extant, no fewer than six should be in female plumage.

Sub-Family EMBERIZINÆ.

GENUS E M B E R I Z A.

E. Miliaria. CORN BUNTING.

The Corn Bunting is an extremely abundant resident, but very local in its distribution, being rare in, or absent from, many suitable districts, but thoroughly established in others, as near Alston, Gretna, and Silloth. Formerly it was abundant around both Carlisle and Keswick, but it is now decidedly scarce in both localities.

E. Citrinella. YELLOW HAMMER.

The Yellow Hammer is a plentiful resident, breeding numerously in cultivated districts. Two canary-coloured specimens, obtained in Cumberland, are in Mr. Hodgkinson's collection.

E. Schœniclus. REED BUNTING.

The Reed Bunting is a common resident, chiefly restricted to the neighbourhood of water during the breeding season. We lately saw a caged example, which had been trained to sing the Skylark's song.

GENUS CALCARIUS.

C. Lapponicus. LAPLAND BUNTING.*

The Lapland Bunting appears to have occurred in Westmorland in a single instance, a solitary bird having been captured at Milnthorpe in 1843 (Zool., 1843, p. 316), but the month of "June" was probably an erroneous date.

GENUS PLECTROPHANES.

P. Nivalis. SNOW BUNTING.

The Snow Bunting is a winter visitant, arriving on our coasts in October and November, departing in March. In 1884, Mr. Cairns examined two old birds shot in the middle of April and almost in breeding plumage, but too hard shot for preservation.

The Snow Bunting is plentiful on the Pennine range, scarce on the lake mountains, chiefly noticed on the lower grounds (apart from the coast) in severe weather.

A male, in which the rectrices are tinged with canary yellow, was shot near Carlisle in the winter 1859-60.

Family STURNIDÆ.

GENUS STURNUS.

S. Vulgaris. STARLING.

The Starling is a most numerous resident, although, within the memory of many, a Starling's nest was considered a great rarity in the north of the county. Now it is so strongly established, that during the present summer (1885) we observed several pairs nesting in the holes of Sand Martins, presumably for want of more commodious quarters.

The first broods haunt our meadows in June, and are frequently unattended by any old birds, a percentage of which, as we can personally attest, rear second broods. During August, immense flocks, composed of both adults and young, haunt our salt marshes. In September, the Starlings begin to congregate at their favourite roosts, where great numbers gather in the gloaming, flocking in from all the country side. These vast assemblages of Starlings disperse about the 20th of October, the majority departing south to return in February, occurring in both passages at St. Bees light-house.

Upon a bright moonlight night these birds may be heard rehearsing their songs at the roost, and in the stillness of midnight the babel of their voices resembles, at a distance, the sound of a volume of rushing water. The individuals which reside near the marshes often imitate the cry of the Curlew to

perfection, and we have known Starlings which had caught exactly the notes of the Swallow, Goldfinch, and Pied Wagtail.

The movements of Starlings, when hawking flies in Swallow fashion, in great circles, are full of grace. The sexes of adult birds are readily distinguished externally, the females being much spotted with buff, and generally duller than the other sex. Birds in the drab nest plumage may be distinguished by the colour of the irides. On dissection, we have always found that those with hazel irides were males, and that birds with pale grey irides were females.

We have never met with a pied Starling, but a pure albino was shot about six years since at Cummersdale, and another white Starling was repeatedly seen near Cotehill in 1883. A third was killed some years since near Allonby.

GENUS PASTOR.

P. Roseus. ROSE-COLOURED PASTOR.

The Rose Pastor has occurred as a wanderer from south-east Europe in seven instances. An example was shot near Alston in June, 1837, and another was obtained in an orchard at Hayton in the same year; a third was shot at Flimby in 1838, a fourth at Papecastle in 1840, a fifth near Rose Castle, a sixth at High Seaton in 1854, and a seventh, a brilliant bird, was subsequently shot at Dub Mill, Allonby.

Family CORVIDÆ.

GENUS PYRRHOCORAX.

P. Graculus. CHOUGH.

The Chough is a rare casual visitant, possibly straying to Cumberland from the Isle-of-Man. An example was shot near Wigton, *i.e.* inland, in 1878; another was seen on the beach near Workington in the autumn of 1882. Though Dr. Heysham does not allude to the existence of the Chough in Cumberland, it resided in the county for the first half of the present century. Two or three pairs nested regularly at St. Bees until 1860 (*W. Mc.Comish* in lit.), but they appear to have become extinct soon after that year.

GENUS GARRULUS.

G. Glandarius. JAY.

The Jay is a resident but local species, and owing to the continual persecution to which it is subjected, is on the decrease. The late Mr. W. Dickinson on two occasions observed large flights of Jays passing through the county. (Cf. *Zool.*, 1883, p. 1. et seq.)

GENUS PICA.

P. Rustica. MAGPIE.

The Magpie is a generally abundant resident, nesting up to an elevation of 1,100 feet on our east fells, and flocking in winter. It is more strongly established in inland districts than in the vicinity of the seaboard.

GENUS CORVUS.

C. Monedula. JACKDAW.

The Jackdaw is an abundant and increasing resident, nesting in a variety of situations, from church towers to the rabbit holes of our river banks. Large colonies occupy the rabbit holes at Low House and Corby Castle.

In 1880, Mr. B. Johnson detected an *open* nest of the Jackdaw, built in an elm, near Dalston. Two eggs of the clutch are in Mr. T. Duckworth's cabinet.

C. Corone. CARRION CROW.

The Carrion Crow is a common resident, maintaining its footing bravely in spite of persecution.

A nestling of a uniform reddish-fawn colour was bred near Cotehill in 1884, the other three birds of the brood being in normal plumage.

C. Cornix. HOODED CROW.

The Hooded Crow is a scarce winter visitant, single stragglers appearing both inland and on the coast in October and November; one was sent to us at the end of September.

A hybrid between the Hooded and Carrion Crow was shot in Wastwater, in the autumn of 1867, by Mr. J. Barnes. Another, believed to have been shot near Brampton, is preserved in the Taylor collection. Both specimens exhibit rather a preponderance of the Hoodie's blood, but the Wastwater bird shows more of the Carrion Crow than the Brampton specimen.

C. Frugilegus. ROOK.

The Rook is a most abundant resident, and the mother rookeries are constantly sending out fresh colonists in all directions.

White, pied, and cream-coloured varieties occur with more or less frequency, and we possess an example in which the white and black portions of the plumage are symmetrically arranged, the bill and toes being also half white and half black.

A bird of the year, shot at Kirkandrews-on-Eden, in September, 1885, exhibits the interesting association of smoke-grey upper wing coverts, and primaries, secondaries, and rectrices barred terminally with smoke-grey, together with the usual colour of the species. This bird clearly belongs to the variety figured by Mr. Hancock. (Cf. B. of N. & D., p. 38.)

C. Corax. RAVEN.

The Raven is a local resident, now nesting in about a dozen localities in the lake district. During the summer months a pair of Ravens may be constantly observed slowly swinging around the precipices of Skiddaw, or the gloomy cliffs of Honister Pass. In the Zoologist, 1885, pp. 109, 110, Mr. R. J. Attye has described his descent, in April, 1884, to a Cumbrian Raven's nest, "placed upon a ledge of rock about midway down a cliff of 150 feet, and 30 feet above the nest the rock began to overhang." Mr. Attye subsequently visited three other nests in the district. The Raven suffers from persecution, but is probably nearly as abundant at the present time as half a century ago.

In 1784, Clarke wrote, "Ravens we have few, owing, I suppose, to the reward given for killing them. They build their nests in rocks, and lay four eggs." (Survey of the Lakes, App., p. 190.)

Dr. Heysham remarks—"In Cumberland, the Raven, for the most part, breeds in rocks, and begins to build its nest in February; though it has generally five young [in Skye, four is the usual number], never more than a pair are seen in the same neighbourhood. . . . Wherever there is at present a Raven's nest, there has always been one in the same place, or in the neighbourhood, for time immemorial."

Dr. Parker remarks that, in 1879, he visited a Raven's nest near Keswick, which was not more than twenty feet from the ground, and within five hundred yards of a farmhouse.

Early in the present century the Raven not unfrequently nested in tall trees in low-lying districts, and even now it is not entirely restricted to the lake district. We possess the skins of a pair of Ravens poisoned at the nest some years since near Alston, and a pair still nest on the Crossfell range.

In 1884, a pair of Ravens nested at St. Bees Head, and a second pair on a cliff near Tyndal Tarn; but in each case one of the old birds and a young one were shot, and the localities were not occupied during the present spring.

Edmund Sandford (1675) asserts that Ravenglass was "so called of a broode (airye) of Rauns there, and I have seen a white Raun ther much made on

and very tame for a mervaile and (made (?)) like a hawke to kill partridge and other fowles.”

Possibly this white Raven was sent to London, for John Evelyn records in his diary for October, 1658, “4. I din’d with the Holland Ambassador at Derby House : returning I diverted to see a very white Raven, bred in Cumberland.” In 1665, Evelyn again records his having seen a white Raven living in the collection at St. James’s Park, and as the Raven is longlived, it seems likely that it was the bird which he had previously recorded in 1658.

Dr. Stanley (1829) states that a Raven, “with a white ring round its neck, was seen and fired at some time since in the woods about Calder Bridge.”

An immigration occurs in winter to the eastern fells ; small parties of four or five are frequently seen.

Family ALAUDIDÆ.

GENUS A L A U D A .

A. Arvensis. SKYLARK.

The Skylark is a generally distributed resident. The Larks of our fells frequently descend to the coast after a heavy fall of snow, and specimens which we have shot on the sea-shore on such occasions appeared to be lighter in colour than the Larks which breed on our salt marshes. An important note, as bearing on the connection between Cumberland and Ireland, was recently communicated to us by the late Mr. Robinson of St. Bees, a singularly accurate outdoor observer. One forenoon, in the first week of October, 1876, Mr. Robinson

watched an immense stream of Larks, as they poured in from the Irish Sea to the highest cliffs at St. Bees. The birds did not, however, alight on landing, but the entire body proceeded to move inland in the same direction, flying from west to east. The day was dull and gloomy, with a slight breeze, and the birds flew low. This flight of Skylarks occupied upwards of half an hour in passing over Sandwith.

A. *Arborea*. WOODLARK.

The Woodlark is an extremely local resident, a few pairs nesting sporadically near Workington and Camerton (where we heard three individual males warbling delightfully in June, 1885), and also at St. Bees. Mr. Hodgson detected the presence of the Woodlark in the Ulleswater district some years since, and Mr. Reynolds has obtained snared birds in winter at Ravenglass. Our only note of the occurrence of the Woodlark in east Cumberland refers to a female shot near Alston, in March, 1866, which we presented to the Carlisle Museum.

GENUS OTOCORYS.

O. *Alpestris*. SHORELARK.

The Shorelark is an accidental visitant from northern Europe, and should be looked for on our salt marshes in winter. A single straggler was shot near St. Bees in 1862, from which locality the species had been previously recorded, but without particulars. (J. Robson, Zool., 1854, p. 4167.)

Family CYPSELIDÆ.

GENUS CYPSELUS.

C. Apus. SWIFT.

The Swift is a common summer visitant, generally observed from May 1st until the middle or end of August. Stragglers linger into September. In 1884, the first Swift appeared at Burgh on April 28th, and in 1885 a party of five arrived on April 26th; but these are earlier dates than the average. From the Swift's power of flight, and the elevation at which it probably migrates, it is possible that it is less affected by adverse winds than the majority of species.

C. Melba. WHITE-BELLIED SWIFT.

The Alpine Swift is an accidental wanderer from central Europe. Between 1832 and 1838, a single bird was shot near St Bees in the presence of the late Mr. T. Reeves, from whom it passed into the possession of the late Sir R. Brisco of Crofton. (*J. B. Hodgkinson*, MS., cf. Carlisle Museum Cat.)

Family CAPRIMULGIDÆ.

GENUS CAPRIMULGUS.

C. Europæa. NIGHTJAR.

The Goatsucker is a local summer visitant, usually arriving in Cumberland at the beginning of May, though Mr. T. C. Heysham observed it at Carlisle on the 17th of April. It breeds sparingly on the skirts of many of our commons and mosses.

Family PICIDÆ.

Sub-Family PICINÆ.

GENUS DENDROCOPUS.

D. Major. GREATER SPOTTED WOODPECKER.

The Greater Spotted Woodpecker is an exceedingly scarce resident, more frequently noticed in winter than during the summer months, but breeding, nevertheless in a few favourite localities.

In 1884, a pair nested near Corby, and two pairs bred in the vicinity in 1885. We have notes also of about six specimens shot in Cumberland in the nesting season.

Dr. Heysham remarks that all the four specimens he had examined had entire crimson crowns; presumably, these were birds in nest dress. (But cf. *Mitchell*, B. of Lancashire, p. 91; *Harting*, B. of Middlesex, pp. 107, 108.)

A detailed description of the habits of this Woodpecker in confinement will be found in the *Zoologist*, 1883, p. 473, et seq.

D. Minor. LESSER SPOTTED WOODPECKER.

The Lesser Spotted Woodpecker is an extremely rare casual visitant, but has nested in Cumberland in a single recent instance. An example was shot off a tall elm at Bellevue, Carlisle, between 1832 and 1838; another was shot at Paw Park. A pair of Lesser Spotted Woodpeckers were seen in Dalemmain woods in 1847. A pair nested at Edenhall in 1882, and were constantly observed by Mr. Raine, the head keeper.

GENUS GECINUS.

G. *Viridis*. GREEN WOODPECKER.

The Green Woodpecker is an exceedingly rare casual visitant, but paired birds have been seen in some few instances during the summer months. For some years a pair haunted Kirkclinton, where they probably nested. In 1840, three fresh eggs were taken, after a stiff climb, from a hole in an ash tree, by Mr. W. Mc.Comish (*Mc.Comish* in lit.) Mr. A. G. More included it as having bred in Cumberland (*Ibis*. 1865, reprint, 43), on the strength of the information supplied by Mr. C. S. Gregson that this species nested at Barron Wood, a fine stretch of old timber extending along the left bank of the Eden from Lazonby almost to Armathwaite, and at that time the favourite ground of the egg collectors of Penrith and Carlisle. The area of Barron Wood has been much curtailed of late years.

Sub-Family IYNGINÆ.

GENUS IYNX.

I. *Torquilla*. WRYNECK.

The Wryneck is a casual visitant of uncommon occurrence on vernal migration. In the experience of both the Heyshams, the Wryneck bred regularly in north Cumberland. A clutch of eggs, which are probably the most recent Cumbrian specimens, were taken at Rickerby about 1863, by James Fell, both old birds being shot at the same time. One or two stragglers occur in most years, on the vernal migration.

Family *ALCEDINIDÆ*.

GENUS *A L C E D O*.

A. Ispida. KINGFISHER.

The Kingfisher is a well-established resident, and fairly numerous, but an unceasing war is unfortunately waged against it by amateur gunners. In autumn it is more widely distributed than when nesting, and stragglers may be observed on the "runners" of our salt marshes.

Family *CORACIIDÆ*.

GENUS *C O R A C I A S*.

C. Garrula. ROLLER.

The Roller is an accidental visitant from southern Europe. An example in Mr. Hodgkinson's collection was shot at Carleton in the spring of 1868; another, which is in Dr. Lumb's collection, was shot near Thornholm in the same year.

Family *UPUPIDÆ*.

GENUS *U P U P A*.

U. Epops. HOOPOE.

The Hoopoe is a rare casual visitant on migration, but from its rapid flight and shy habits may be overlooked. A Hoopoe was shot at Middleseugh, Sept. 8th, 1831; a second at Dalston, Sept. 5th, 1832 (when its companion escaped); another at Calder Abbey in 1851; a fourth at Loweswater in 1852; and a fifth near St. Bees in 1877. A sixth

was shot near Allonby many years since. (*R. Mann*, in lit.)

Family CUCULIDÆ.

GENUS C U C U L U S .

C. Canorus. CUCKOO.

The Cuckoo is a generally distributed and numerous summer visitant. A Twite's nest at Newlands contained a Cuckoo's egg, May 24, 1858. (*W. Greenip*, MS.) We found another in the nest of a Reed Bunting. In July, 1885, as Mr. Cairns informs us, a young Cuckoo was found in the nest of a Chaffinch at Corby.

Family STRIGIDÆ.

GENUS S T R I X .

S. Flammaea. BARN OWL.

The Barn Owl is a fairly common resident throughout the county, but its numbers have decreased of late years by reason of persecution. In Cumberland, the Barn Owl often nests in the crevices of rocks overhanging our northern streams.

The pellets which we have examined from time to time have constantly proved to consist of the remains of shrews and field mice. We have failed to detect any avian bones.

Family ASIIONIDÆ.

GENUS A S I O .

A. Otus. LONG-EARED OWL.

The Long-eared Owl is a resident, breeding sparsely in fir plantations. It is rather scarce in

the lakes and west Cumberland, but becomes more numerous towards the Scottish border.

A. Brachyotus. SHORT-EARED OWL.

The Short-eared Owl is a widely-distributed winter visitant, arriving from Scandinavia in October, and scattering over our moorlands for the winter. Large flights occasionally linger for a few weeks in autumn among the sandhills of the coast. A few pairs often linger in spring to breed, instead of departing northward; but, unhappily, adults and young are generally killed off. Thus, in 1884, a pair of adults were shot on Solway Flow at the end of May; a brood of young were taken near Bowness; and two nests of young birds, together with the parents, were killed by a keeper in the Bewcastle district. Mr. Hancock mentions the occurrence of a young bird at Brampton, and others have occurred near Alston. A nestling taken on Lowmoor, Aspatria, lived for some years in the possession of J. Smith of Bassenthwaite, and was a tame and interesting pet.

GENUS SYRNIUM.

S. Aluco. TAWNY OWL.

The Tawny Owl is an abundant resident, nesting freely in wooded districts. From its habit of mousing on railway lines, this Owl is often felled by locomotives. Grey and ferruginous birds interbreed, but the latter form predominates.

GENUS NYCTALA.

N. Tengmalmi. TENGMALM'S OWL.

Tengmalm's Owl is an accidental visitant from northern Europe. An example was shot out of a fir tree in the Newton Manor coverts, Dec., 1876, and is in the possession of the Rev. C. F. Smith. (*C. A. Parker*, MS. ; *Zool.*, 1879, p. 117.)

GENUS SCOPS.

S. Giv. SCOPS-EARED OWL.

The Scops-eared Owl is an accidental visitant from southern Europe. An example in the collection of Mr. J. Whitaker was shot near Renwick, May 15th, 1875. (*Field*, May 22, 1875 ; *Zool.*, 1884, p. 51.)

GENUS ATHENE.

A. Noctua. LITTLE OWL.

The Little Owl is an accidental visitant from central Europe. An example was shot some years since at Westward, and was shewn in the flesh to Mr. R. Senhouse by General Sir H. Wyndham. (*H. P. Senhouse*, MS.)†

† If Graves can be credited, a pair of Little Owls "took up their abode in a barn" at Middleshaw, Westmorland, in the spring of 1811. (*Brit. Orn.* Vol. II., 1813.)

Family FALCONIDÆ.

GENUS CIRCUS.

C. Æruginosus. MARSH HARRIER.

The Marsh Harrier is a casual visitant of rare occurrence, chiefly in autumn, in the north of the county. Dr. Heysham considered it a numerous resident. An example of a rich chocolate-black was obtained by Mr. T. C. Heysham's chief collector, the late James Cooper, in the Bewcastle district.

C. Cyaneus. HEN HARRIER.

The Hen Harrier is a rare casual visitant, chiefly noticed in spring and autumn in the north of the county. It has certainly ceased to breed with any regularity on our moors; but eggs in the possession of Mr. F. Taylor were taken only a few years since on the Solway Flow.

In 1783 and 1784, Dr. Heysham, who seems to have anticipated Montagu in proving that the "ringtail" was the female Hen Harrier, found three nests of this species on Newtown common, Carlisle, within five hundred yards of one another. Prior to 1797, Dr. Heysham examined twenty broods of young ones, and dissected many adults.†

C. Cineraceus. MONTAGU'S HARRIER.

Montagu's Harrier is a rare casual visitant. An example, recorded by Mr. T. C. Heysham as

† A fine adult male Hen Harrier was shot near Drumburgh, in company with a female, Dec. 31st, 1885. All credit is due to Montagu for his careful study of his hand-reared Harriers (cf. Tr. L. S., IX, p. 182), but Dr. Heysham had set the matter at rest some years earlier.

having fed on the eggs of small birds, was shot near Harraby, Carlisle, by Mr. W. Hodgkinson. (*J. B. Hodgkinson*, MS.) Another was obtained some years since at Edenhall, and this is an adult male. Mr. John Hancock informs us that the two young birds referred to in Mr. More's Essay on the Distribution of Birds in Great Britain during the breeding season, as "bred in Cumberland," were killed at Wolsingham Park, Durham.

GENUS B U T E O.

B. Vulgaris. BUZZARD.

The Buzzard is a local resident, about twelve pairs (1885) attempting to breed among the mountains of the Cumbrian lakes, where the circling flight of this species, as it soars round and round at a great height, may be observed. When foraging, the Buzzard sweeps slowly up and down its favourite valleys. Two pairs also nest, if permitted, on the Pennine range. At the present time the Buzzard chiefly nests with us upon ledges of rock, but the late James Cooper harried a nest which was placed in a tall oak tree in Barron Wood. More recently Dr. Parker has recorded a nest built into a thorn bush: "Two Buzzards have for the last three or four years constantly haunted Blengdale, a small valley close to the village of Gosforth. There are no crags on the sides of the valley, and only some half-dozen trees in it; so the birds, rather than quit their accustomed haunts, built their nest in a common thorn bush about eight feet from the ground. Hearing of this unusual nesting place, I went to

examine it, but arrived too late. The nest was there in the bush, apparently based on the remains of an old one; but the three eggs, which were remarkably well-coloured specimens, had been taken that morning by a neighbouring gamekeeper. Exactly a month after, I revisited the valley, and found that the obstinate birds still held possession. About three hundred yards higher up than the bush was a small scaur, about twenty-five feet high, out of which grew a stunted tree holding a fresh nest, containing three eggs, on which the hen bird was sitting. Scrambling down to examine the eggs, I found the second lot almost as deeply coloured as the first three, which had meanwhile been placed under a tame hen Buzzard. She sat upon them for thirty-one days, and hatched all three; but in spite of the united care of both bird and keeper, they all died when about ten days old. The old bird always sucked and chewed a piece of meat for three or four minutes before she gave it to the young ones. Afterwards a half-grown Buzzard was procured from a third nest, and given to the tame one to rear; but this also she failed to do." (Trans. Cumb. Assocn., Part VI, 1880-1, pp. 108, 109.)

We examined a fine nestling taken this year (1885) in Patterdale; and a few Buzzards find their way in most years to our bird stuffers.

A tame Buzzard, now living in Carlisle, exhibits great adroitness in catching the sparrows which enter his aviary.

During the first half of the present century the Buzzard was a common bird in Cumberland, and

Mr. H. P. Senhouse, who has worked out the Bassenthwaite district with much enthusiasm, remarks upon the surprising number of stuffed Buzzards which he has observed in farmhouses.

The Buzzard is a rare visitant to the Cumbrian plain, but Mr. F. W. Bailey lately observed a fine fellow on the Caldew, near Carlisle, and another was shot some years since near Bowness-on-Solway.

An almost black local specimen of the Buzzard is in the possession of Mr. Sawyer of Threlkeld.

GENUS ARCHIBUTEO.

A. Lagopus. ROUGH-LEGGED BUZZARD.

The Rough-legged Buzzard is a scarce winter visitant, but examples are observed, if not obtained, in most years. It occurs most frequently in the north of the county, but Dr. Lumb possesses a fine recent specimen taken at Lamplugh.

GENUS AQUILA.

A. Chrysaëtus. GOLDEN EAGLE.*

The Golden Eagle is possibly a rare casual visitant. Mr. Goodchild opines that one or two of the Eagles which he has heard yelping among our mountain fastnesses may have been Golden Eagles, but agrees with us that there is no conclusive evidence of the occurrence of the Golden Eagle in Cumberland in the present century.

In the spring of 1775, an Eagle (believed to be a Golden Eagle), was shot in King Meadow, Carlisle,

by Mr. Foster, landlord of the Wheat Sheaf Inn, whose kitchen ceiling the stuffed bird adorned, with expanded wings, for many years. This Eagle had lifted many lambs from the neighbourhood.

The former residence of this species among the mountains of Cumberland is rendered slightly dubious, by reason of its not having been constantly distinguished from the White-tailed Eagle. But, since Richardson, at the close of the last century, expressed a strong opinion that most of the Eagles then seen in the Ulleswater district were Golden Eagles, adding that a Golden Eagle was certainly caught near Keswick in 1793; we conclude with Sir W. Jardine and Mr. Harris, that the Golden Eagle resided in Cumberland in the last century. In Westmorland, Mr. Richardson states that a pair of Golden Eagles tried to breed in Martindale in 1788 and 1789, the female being trapped in 1788; the male returned, after three weeks' absence, with a fresh partner. The male was killed in 1789, when the "relict" departed.

GENUS HALIAËTUS.

H. *Albicilla*. WHITE-TAILED EAGLE.

The White-tailed Eagle is a rare casual visitant. An immature specimen, wounded in the autumn of 1834 by Mr. Gill, near Alston, survived its injuries for many years. A second was captured by a shepherd on Black Coomb, in 1838. (*T. N. Postlethwaite*, MS., cited by Mr. Mitchell as taken "near Broughton-in-Furness," B. of Lancashire, p. 110.) Dr. Heysham stated, in 1796-7, that this species

bred annually near Keswick. A bird caught in Borrowdale in 1774 died in Bishop Law's possession in 1793. In Westmorland, Willoughby records this species as breeding at Whinfall Park; while in 1692, Aubrey was told that Eagles bred at Bampton, the cyrie being identical with that of Wallow Crag, Hawes Water. In the "Field," January 24th, 1885, Mr. John Watson remarks that records exist of a pair breeding "in Whitbarrow Scaur so lately as 1849." Formerly, a rope for descending to Eagle eyries was kept in Borrowdale. In a list of monies paid by the Crosthwaite Churchwardens, the following items appear:—"1750. To Jas. Bowe's man for one old eagle 1^s; to Jas. Bowe for two young eagles 1^s; 1752. to W^m Ware for one old eagle 2^s; to Jas. Gateskel for two young eagles 2^s; 1762. for two eagles and one fox 4^s 4^d; 1762. for foxes and eagles £1.6.6" (Zool., 1882, p. 108.)

GENUS ASTUR.

A. Palumbarius. GOSHAWK.

The Goshawk is an accidental visitant from continental Europe. An immature specimen was shot some years since near Penrith (*T. Hope*, MS.), and is preserved at Edenhall.

GENUS ACCIPITER.

A. Nisus. SPARROWHAWK.

The Sparrowhawk is a common resident, especially numerous in wooded districts. In 1885, Mr. J. Cairns, when walking over Solway Flow,

March 15th, saw a Sparrowhawk strike a healthy Grouse, which he picked up; but the biter is sometimes bitten, for Mr. Lalor found a fine adult Sparrowhawk in a Polecat's larder near Wigton.

Twenty-one eggs were taken from a female Sparrowhawk in succession, our correspondent at last finding the poor bird dead on her nest.

GENUS MILVUS.

M. Ictinus. KITE.

The Kite is a casual visitant of extremely rare occurrence. A Kite was shot near Carlisle, Nov. 13, 1856 (*T. Armstrong*, *Naturalist*, Vol. 7, p. 251); another was seen near Lorton in 1873 (*J. W. Harris*, MS.); a third was seen near Renwick by Mr. G. Lawrence, and in Geltsdale, in the autumn of 1881. Formerly a local but well-known resident, the first years of our century witnessed its extermination, the last *authenticated* Cumbrian nest being built in some ivy on the west side of Castle Head, and harried in 1809 by Mr. Gaskett and John Graves in the presence of John Pearson, who shot the last native Kite about 1840. (*W. K. Dover*, MS.) This bird is preserved by Mr. Sawyer of Threlkeld.

GENUS PERNIS.

P. Apivorus. HONEY BUZZARD.

The Honey Buzzard is a casual visitant of rare occurrence in autumn. A Honey Buzzard, immature, was shot at Raughton Head, Oct., 1832;

another near Penrith in the autumn of 1851; in 1855, a third at Scratchmere Scaur; a fourth near St. Bees in 1863; a fifth at Catlands, Wigton; while a sixth spent several days at Cotehill in the autumn of 1883, extracting a wasp's nest from the shelter of a gooseberry bush.

In 1783, a female Honey Buzzard was obtained on the 13th of June, by Dr. Heysham, near Carlisle; again, in 1857, a female was obtained from Schoolbank Wood, Alston, on June 10th, by Mr. B. Greenwell.

GENUS HIEROFALCO.

H. Candicans. GREENLAND FALCON.*

In Westmorland, a beautiful adult was shot in 1864 at Crosby Ravensworth. (*J. G. Goodchild*, Trans. C. & W. Assoc., Vol. VI., p. 161.) This specimen may be seen at Edenhall. In Cumberland a white Gyrfalcon was seen near Carlisle in the hard winter 1835-6 by Mr. Hodgkinson, and another white Falcon was seen on Burgh marsh some years later by Mr. J. Fell.

H. Islandus. ICELAND FALCON.

The Iceland Falcon is an accidental visitant. An immature bird, of which Mr. Macpherson retains the sternum and some feathers, was shot near Crossfell, Oct. 13, 1860. (*B. Greenwell*, M.S.)

An Iceland Falcon had been taken at Deanscale, Workington, in 1835, but this was possibly an escaped bird. (*J. W. Harris*, MS.)

GENUS FALCO.

F. *Peregrinus*. PEREGRINE FALCON.

The Peregrine is a resident species, about six pairs nesting in the wildest districts of Cumberland, despite the efforts of game preservers; for though the breeding birds are frequently destroyed, yet the traditional breeding places, which for obvious reasons we abstain from enumerating, are re-occupied from time to time by successive pairs. Some females are undemonstrative in the breeding season, but others exhibit the greatest distress. When visiting a Falcon's nest during the spring of 1885, we enjoyed, on two successive days, a close study of the birds, which happened to be a noisy pair. Long before we had reached the nest, the cry of the male, poised aloft, rang along the precipices, and the female, slipping off her nest in an overhanging cliff, hastened to join her mate, and to unite her cries with his. "Now she flies in magnificent circles overhead, passing to and fro within gunshot, or stooping, with a piercing wail, to caress the sea beneath; while he—the little partner of her choice—elects to remain aloft, exhibiting beautiful evolutions. At one moment he appears to hang in mid-air with scarcely an effort, at the next he cleaves his way for two hundred yards with a swift rush, and nearly closed pinions." (*Macpherson's Note-book*, May 30, 1885.)

The Peregrine Falcon is more widely distributed during the winter months than at other times. In

October and November, the Peregrine frequently visits the Solway salt marshes.

A wonderfully diminutive male Peregrine, shot in Cumberland, is preserved at Edenhall.

F. *Subbuteo*. HOBBY.

The Hobby is a casual visitant, of extremely infrequent occurrence.

A Hobby was shot in Borrowdale in 1854; a fine old male was shot at Castle Rigg in 1864, and is preserved by Mr. Sawyer; another was shot near Edenhall, where it is preserved. Messrs. Mann have obtained examples near Allonby on two occasions.

In the autumn of 1884, a pair of Hobbies, evidently on passage, were seen near Cotehill by Mr. Little, on November 25th, thus confirming Dr. Heysham's remark that he had seen the Hobby in Cumberland in November.

F. *Æsalon*. MERLIN.

The Merlin is a somewhat scarce resident, only nesting irregularly in the lake district, and on one or two of the Solway moors, but breeding generally upon the Bewcastle and Pennine hills, though always a local bird. Fortunately, the nest is often so well concealed in tall heather as to escape detection. It is situated in most instances in the neighbourhood of a "beck." Fresh eggs may be found from the beginning of May until the end of the month. The young, which are covered with grey down, show

fight on being molested. They are fed chiefly on Wheatears and Meadow Pipits, and are sedulously cared for by the parents, the male rearing the brood if his mate should happen to be trapped. When fledged, they love to perch like statues upon cornices of rock; but on a recent occasion we were led by their cries to discover a brood of young Merlins, which were perching in a clump of trees, at about forty feet from the ground. As we stood beneath, they rose, and, crossing the valley, settled in the heather on the other side.

In autumn, both adults and immature birds descend from the fells to lower grounds, and may often be seen on our salt marshes, where they feed chiefly on Skylarks and on Dunlins. At such times they haunt also the hedgerows, and often venture near the outskirts of towns. During the winter 1883-4, we constantly observed a Merlin frequenting the suburbs of Carlisle, apparently in quest of House Sparrows.

GENUS TINNUNCULUS.

T. *Alaudarius*. KESTREL.

The Kestrel is a resident, breeding so numerously that Mr. Hodgkinson once "counted twenty-seven Kestrels flying in the air at once," near Barron Wood; but comparatively few winter with us. A female Kestrel, assuming male plumage, is preserved in the Taylor collection.

On July 27, 1873, Mr. F. D. Power observed a *white* Kestrel hunting on Dent Hill.

GENUS PANDION.

P. Haliaëtus. OSPREY.

The Osprey is a casual visitant of uncommon occurrence. An Osprey was shot at Netherby in the spring of 1837 ; another was trapped at Barron Wood, 1869 ; a third was shot on Derwent in 1870 ; a fourth, storm-beaten and emaciated, was shot in 1881, at Gosforth, on September 23rd ; in 1883, a fifth, also tempest-driven, was closely seen at Rockliffe, Sept. 27th and 28th, narrowly escaping the indignity of being captured by a servant girl. In Ulleswater, Dr. Heysham states that the Osprey was resident and bred at the close of the last century.

Family PELECANIDÆ.

GENUS PHALACROCORAX.

P. Carbo. CORMORANT.

The Cormorant is resident, but local as a breeding species, a single colony nesting at St. Bees Head. Adults may be constantly observed on the Ravenglass estuary during the summer ; but it is not until the beginning of September that many Cormorants haunt our inland lakes or the estuaries of the Solway. In winter, single birds and small parties constantly fly up with the tide to fish for eels in favourite pools and inland waters, often resting in rows upon the mud flats at low water. Immature white-breasted birds are rather more numerous than adults on the Solway. A fine old bird was meshed in a flight-net on the Duddon in the winter 1884-5.

P. Graculus. SHAG.

The Shag is a winter visitant to our coast and estuaries, of decidedly infrequent occurrence. It is rarely obtained inland, though an example was secured on the Caldew in 1855, and an immature bird near Alston in 1866. Dr. Parker has hazarded an opinion that the Shag breeds at St. Bees Head (Zool., 1879, p. 118), but we are quite unable to confirm his conjecture. (Cited, Birds of Lancashire, p. 122.)

GENUS S U L A.

S. Bassana. GANNET.

The Gannet is an irregular visitant to our coast. Of late years but few herrings have frequented our coast, and Gannets have consequently been scarce; but when fish are abundant the Gannet arrives to display its powers of diving from a height. We lately saw a fine Gannet shot as he rose from the water, and found a splendid herring, quite fresh, in his gullet.

An example in the Carlisle Museum, in adult plumage, was captured alive at Whitehaven. We have two notes of Gannets captured a few miles inland during the prevalence of stormy weather.

Family ARDEIDÆ.

GENUS A R D E A.

A. Cinerea. HERON.

The Heron is a well-established resident, six large colonies existing in different parts of the

county, viz., at Muncaster, Eamont River, The Riddings, Greystoke, Wythop Woods (overhanging Bassenthwaite Lake), and Edenhall. A few pairs nest sporadically, also, on the Gelt, Caldew, and other rivers. At Edenhall there are two colonies, for the original heronry was deserted for some years in consequence of the advent of a squad of Rooks. The Herons in disgust left *en masse*; but, being crowded in their new quarters, the original colony sent out a draught of breeding birds to the old locality, which they proceeded to re-occupy.

A. Purpurea. PURPLE HERON.

The Purple Heron is an accidental wanderer from continental Europe. A single bird was shot near Alston about 1850, and is preserved at Edenhall, as recorded by Mr. Gould.

A. Alba. GREAT WHITE HERON.

The Great White Heron is an accidental wanderer from south-east Europe. An example was shot in Cumberland prior to 1821† (*Latham*, Gen. H. B., Vol. IX, p. 84); but whether this was the bird referred to Buttermere by Mr. J. Robson (*Zool.*, 1854, p. 4169) on the faith of the late Mr. John Rook, the artist, is unknown. The relatives of Mr. Rook have not been able to discover that he left any notes on birds.

A. Ralloides. SQUACCO HERON.

The Squacco Heron is an accidental visitant from south-east Europe. A specimen was shot in

† "One of them was shot not many years ago in Cumberland. Dr. Heysham." *Latham*, Gen. Syn., Vol. III, p. 91 (1785).

a meadow near the Eden at Kirkoswald, in the second week of July, 1845. (*Yarrell*, B. B., Vol. II, p. 563, 3rd ed.)

GENUS ARDETTA.

A. Minuta. LITTLE BITTERN.

An example of this rare visitant, in female plumage, in Mr. Hancock's collection, was caught by a dog on the river Petteril, near Carlisle, in 1850. (*J. Hancock* in lit.) The late Mr. J. Robson asserted that two others had been killed near Whitehaven, about 1854. (*Zool.*, 1854, p. 4169.)

GENUS NYCTICORAX.

N. Griseus. NIGHT HERON.

The Night Heron has twice occurred in Cumberland. An adult was shot at Beckfoot, Brampton, about 1850 (*W. Proud* in lit.), and entered the Proud collection. An immature bird was shot in Abbey Holme about 1866, and is in the possession of Messrs. Mann of Aigle Gill.

GENUS BOTAURUS.

B. Stellaris. BITTERN.

The Bittern is an irregular winter visitant, of decidedly uncommon occurrence. Eight examples were killed in the Carlisle district in the winter 1831-2, a flock having probably scattered over our mosses; and since then the species has been met

with on several occasions in the Carlisle district, three at least being obtained in the vicinity of the city.

The Bittern appears to visit the western border of the county rather more frequently than the north or east, and Dr. Lumb has a fine specimen which he shot a few winters since on his own shootings near Whitehaven.

Dr. Heysham says (1797)—“The Bittern is not so numerous as the Heron, and is always solitary. It breeds in bogs and makes its nest upon the ground. In the spring it makes a loud bellowing kind of noise, from which it is called in Cumberland Miredrum.” Similar evidence is adduced by Richardson: “Sometimes, though rarely, breeds by the side of Eamont, on the low grounds.”

Family PLATALEIDÆ.

GENUS PLATALEA.

P. Leucorodia. SPOONBILL.

The Spoonbill is a rare visitant, probably from Holland, and has only been obtained in Cumberland in two instances, though it is possible that certain “white Herons” seen on the Solway at different times may have been really Spoonbills. An immature male was shot on Scaleby Meadows, Nov. 7th, 1859 (Carlisle Journal, Nov. 11th, 1859), and was mounted by Mr. S. Watson. Another was shot near Bootle in 1876, and is in the museum of Mr. Wallace of Distington. (*H. P. Senhouse*, MS.)

Mr. Hancock kindly writes that a Spoonbill recorded at p. 130 of his Catalogue of the B. of N. and D., as "killed in Cumberland several years ago," was obtained in 1833, on Dalton Sands, *i.e.* in Lancashire, making a second occurrence for that county.

Family ANATIDÆ.

GENUS CHENALOPEX.

C. Ægyptiacus. EGYPTIAN GOOSE.*

The Egyptian Goose is a casual visitant, in all probability as an "escape" from ornamental waters. An example was shot on Derwentwater in 1850; another on the Solway at Sandsfield; another on the Eden at Carlisle on March 14th, 1885; and others have occurred, some very wary, but none the less in our opinion "escapes."

GENUS ANSER.

A. Cinereus. GREY-LAG GOOSE.

The Grey-lag Goose is a winter visitant, occurring on passage in November and April, but a few birds occasionally winter on the Solway, and when shot are considered extra big Geese by the fowlers. A Goose and Gander shot near Allonby by Messrs. Mann, weighed $9\frac{1}{2}$ lbs. and 10 lbs. respectively, and others have been shot by Mr. G. Holmes and Mr. A. Smith. A couple were shot near Bowness, in January, 1885; but the Grey-lag Goose is a scarce bird on the Solway.

A. Segetum. BEAN GOOSE.

The Bean Goose is the common grey Goose of the Solway, but it has become much scarcer in winter of late years, though large flocks occur in spring and autumn. The Geese which Mr. B. Greenwell obtained on the fells near Alston proved to be Bean Geese, and we believe that the wedges of Geese which we occasionally observe, flying from the east fells to the Solway, are composed of Bean Geese.

Mr. A. Smith states that the Bean Goose is certainly the common grey Goose of Rockliffé marsh, and Messrs. Mann assure us that the Bean Goose is the grey Goose of the lower portion of the Solway.

In spring, the grey Geese usually migrate from the Solway in a north-east or easterly direction, and the movement is reversed in autumn. Bean Geese occasionally linger on the Solway until spring is far advanced. In the summer of 1885 a party of nine grey Geese, believed to be Bean, haunted the Solway until the end of the first week in June.

A. Brachyrhyncus. PINKFOOTED GOOSE.

The Pinkfooted Goose is a casual visitant, of infrequent occurrence, on the Solway. Unfortunately no precise information is forthcoming as to grey Geese on the Duddon or Ravenglass estuaries; but Mr. Hodgkinson informs us that many years ago a good many Pinkfooted Geese visited the Solway. Of late years its visits have certainly been very irregular; and Mr. G. Holmes, who has shot a good

many examples on the Scotch side of the Solway, informs us that he has only shot a few stray "Pink-legs" on the English side.

A. *Albifrons*. WHITE-FRONTED GOOSE.

The White-fronted Goose is a casual visitant of irregular occurrence. Some years since Mr. Watson received several from the Carlisle district; two fine adults were shot out of a party of five near Allonby, in November, 1882, by Messrs. Mann; and a single bird was killed in the same locality in November, 1884.

GENUS CHEN.

C. *Albatus*. SNOW GOOSE.

The Snow Goose is an accidental visitant. Prior to 1884 it had only been detected in Ireland, of the British Isles; but on August 22nd, we observed a fine adult on the Cumbrian coast, near Allonby. Its appearance was unmistakeable, as it flew leisurely past us, while our glasses bore upon it, as it passed from west to east. We observed it coming up to us, and watched it depart, and at once remarked its identity. Had the bird been immature, some uncertainty might have arisen; but it was an adult, and the black primaries strongly contrasted with the white body plumage. The morning was fine and calm (time 9 a.m.), with a haze at sea, and the Goose had possibly lost its bearings. It was seen on two subsequent occasions, but unfortunately was too wary to be obtained. (*Yarrell*, B. B., 4th ed., Vol. IV, p. 277; *Migration Report*, 1885, p. 119.) An immature bird, winged near Chatham, Ontario,

Canada, moulted into adult plumage in 1884, and paired with a female of the domesticated Goose in the present spring, being in the possession of Mr. J. M. Macpherson. Unluckily, it strayed when the ice broke up, and was wounded, though not mortally, by a sportsman, who mistook it for a wild bird.

GENUS BERNICLA.

B. *Brenta*. BRENT GOOSE.

The Brent Goose is a casual winter visitant, of irregular or even rare occurrence on our estuaries. Two were shot at Ravenglass, out of a party of seven, in January, 1881, and Dr. Parker inclines to think that a few Brents occur in most years in that locality. To the Cumbrian side of the Solway, its visits are certainly few and far between. A bird in the Mann collection was shot at Skinburness. Two others, single birds, were shot at long intervals on Rockliffe marsh, by the late Capt. Mounsey and by John Allen respectively. The only occurrence of a large flock on the Solway happened in January, 1861, when W. Mackenzie, with a shoulder gun, killed four Brent Geese, out of a big party flying down the Eden, near Carlisle, the unusual event being chronicled in a Carlisle newspaper.†

B. *Leucopsis*. BARNACLE GOOSE.

The Barnacle Goose is a winter visitant to the Solway, and the Ravenglass and Duddon estuaries.

† About fifteen dark-breasted birds have been shot on the Solway during the present winter, 1885-6.

Upon the English side of the Solway, the marshes of Rockliffe and Newton are its chief feeding grounds, especially Rockliffe, where the western extremity of the marsh affords fine feeding ground to the Barnacle, on the sand between high tide mark and sound grazing land.

A small party of Barnacles generally arrives on the Solway during the last week of September, or even earlier.

In the present autumn (1885), Mr. R. Mann, when shooting on October 1st, near Allonby, saw a flock of ten Barnacles flying, high up, before the wind, south-west. On the 16th, at 4-45 p.m., we saw a flock of about three hundred birds, flying direct east towards Rockliffe marsh. After watching them some time, they turned in a northerly direction, but arrived on Rockliffe marsh the same evening. The afternoon was bright, with a strong east wind. In most seasons the bulk of the Barnacles which winter on Rockliffe marsh arrive in that locality between October 23rd and the end of the month. Barnacle Geese are extremely wary fowl, and feed chiefly by night; but upon the point of Rockliffe marsh, where the birds are a good deal harassed at night, Mr. A. Smith has observed that latterly they have adhered less strictly to their rule of feeding at night, finding it safer to feed by day in a locality where they can at once detect the approach of any sportsman on the marsh, than to feed at night, when they are pretty certain to be in danger. The food of the Barnacle consists of the young tender blades of grass which

grow upon the surface of the newly-formed portions of the marsh, for the tide is constantly increasing the superficial area of Rockcliffe, while at the same time it is wearing away Burgh marsh on the other side of the Eden.

The Barnacle is not wholly restricted to a herbaceous diet, but feeds in a small degree upon animal food obtained in the mud flats; Mr. A. Smith has observed, that, when the Barnacles are feeding on the mud, their soil is darker than at other times.

In severe weather, the Barnacle suffers severely, because the young tender blades, upon which it subsists, are early nipped by the frost. At such times, it is forced to feed upon coarse and stronger grass, and its flesh becomes bitter and less palatable in consequence.

It is interesting to wait upon the point of Burgh marsh, before daybreak, and listen to the cries of the Barnacles, feeding on the point of Rockcliffe marsh immediately opposite. About an hour after daybreak, they rise *en masse* from their feeding ground, and after wheeling up and down the Solway for a few moments, displaying their pretty barred grey, black, and white plumage against the mud flats, they fly seawards to the estuary of the Wampool, or, circling round, pitch in a long line upon the exposed mud half a mile to windward. Barnacle Geese are constantly vociferous, especially when feeding, and Mr. A. Smith compares the volume of sound produced by a flock of several hundred Barnacles feeding at night together, as

heard at a distance, to a pack of harriers in full cry.

When lying in wait for Barnacle Geese on Rockliffe marsh, Mr. A. Smith has repeatedly witnessed the Geese sparring and plucking one another's feathers. Sentinels are constantly posted to give the alarm.

Except when migrating, Barnacles do not occur far inland in Cumberland; but the late Mr. G. Mawson records (*Zool.*, 1865, p. 9733), that in January, 1865, when frost prevailed, a flock of Barnacles appeared in the neighbourhood of Cocker-mouth. At the same time, a flock, estimated at sixty birds, frequented a field near the Eden, about two miles above Carlisle, several of the party being shot by James Fell and others, by moonlight.

If frost be continued, Barnacles become tamed by hunger, and admit of an approach in broad daylight. Thus, in the winter 1860-1, a large flock of Barnacles flew over the top of a carpenter's shed at Bowness, within shot of the men who were at work inside. They settled in a neighbouring field, and several were shot in a few minutes. Again, in 1881, when a long-continued frost broke up on February 23rd, Barnacles were very tame on Rockliffe marsh, so that Mr. A. Smith walked within one hundred and fifty yards of them on the open marsh, a circumstance which had never before occurred in his long experience. Some of them were so weak that they could hardly rise from the ground.

The Barnacle has of late years become less plentiful than formerly on the basin of the Waver and Wampool ; but while—from 1868 to 1877 (excepting the winter 1869–70, in which *no* Barnacles visited Rockliffe marsh)—the Barnacles only frequented Rockliffe marsh for a few days out of every month, *since* 1877, and especially during the severe winters of 1879–80, 1880–1, these birds have spent the entire season at Rockliffe, and though naturally night feeders, may, as already remarked, be occasionally observed on the marsh during the day. Comparatively few Barnacles are obtained upon the English Solway, owing to the extreme caution of the large flocks in open weather ; but in November, 1883, seventeen fine Barnacles were shot on Rockliffe marsh in a single evening by a party of four guns.

The Barnacle leaves the Solway at the beginning of April, but has been observed in one or two instances at the end of the month. It has not occurred voluntarily in summer. A female was caught on the Solway early in July, 1884, but it could not fly, and had probably been pinioned, accidentally or otherwise. Winged birds run with great rapidity, and are difficult to capture. The female just alluded to has thriven in confinement, but is very shy of strangers. During the present spring (1885) she became extremely vociferous, no doubt desiring to attract a mate, as did a Gander which has also been under our observation. Mr. J. W. Harris remarks that a pinioned Barnacle lived for thirty years in confinement, and sat in three successive seasons upon her unfertilized eggs. Upon the whole, the

numbers of the Barnacles which visit the English side of the Solway have largely increased of late years. Mr. A. Smith informs us, that, whereas twenty years ago their *largest* flocks at Rockliffe numbered from two hundred to four hundred birds, they now consist of from six hundred to a thousand birds. Barnacle Geese appear to arrive upon the Solway by two routes. The first passes down the west coast of Scotland or the outer Hebrides. The second route, followed by birds which have passed down the west coast of Norway from the Arctic Circle, and then crossed the North Sea, appears to coincide with the valleys of the Tweed, the Lyne, and Liddell. In 1885, a flock of a hundred migrating Barnacles passed over Stanwix, Carlisle, on April 2nd, flying north-west, wind westerly. Probably the greater number of our Barnacles perform their journey *viâ* the west coast of Scotland, but a certain number also fly across the sixty miles of land between the Solway and our east coast. Mr. Smith has seen flocks of Barnacles, evidently tired birds, arrive on Rockliffe marsh, flying from east, or a point or two north of east, to the Solway.

It is always difficult to enlist the services of *inland* observers in the study of wild fowl, because they are generally ignorant of their identity; but at our request, Mr. A. Smith kindly cross-examined G. Cartner, who had often told him that, when working near Bewcastle, he had observed Barnacle Geese, as well as Grey Geese, flying from east to west. Cartner, being a native of Rockliffe, and a man of intelligence, was well qualified to

identify this species. "I have seen George Cartner," writes Mr. A. Smith, under date of September 28th, 1885, "who is well acquainted with the call of the Barnacle, and he tells me that while living in the Bewcastle district he often heard them passing over about this time, or rather later in October. They were always coming from the north-east or east. He also tells me that there was a large moss or moor, with very little water on it, near where he lived, and that his master had sheep on it, and that he had to go early in the morning to look after them. About this time in the year he often rose both Grey Geese and Barnacles, and one year he rose a party of Barnacles two mornings running. The third morning his master took a gun to get a shot at them, but the Geese had left."

Barnacle ganders killed in open weather average about $4\frac{1}{2}$ lbs., and 6 lbs. is the limit. Females weigh from $3\frac{1}{2}$ to $4\frac{1}{2}$ lbs. in condition.

B. *Canadensis*. CANADA GOOSE.*

The Canada Goose is a casual visitant. An example was shot and a second seen at Bassenthwaite a few years since, and others have occurred, no doubt "escapes," since the Canada Goose was kept as an ornamental fowl on English waters in the days of Francis Willughby.

GENUS CYGNUS.

C. *Olor*. MUTE SWAN.*

The Mute Swan is probably a rare casual visitant in severe weather from eastern Europe. A bird

killed on the coast at Drigg, in February, 1883, when its companion escaped, was very possibly a genuine wild bird; but it appears to us to be impossible to distinguish between wild birds and stragglers from private waters.

The following passage apparently refers to the Mute Swan at Bassenthwaite:—

“There come every year a number of Swans to winter upon this water, and in the spring, they breed on the little islands in the water, or in the sedge, growing by the sides of it; and as soon as the young brood gets wing, the old ones carry them into the southern rivers.” (*Robinson, Essay toward the Natural History of Westmorland and Cumberland* (1709), p. 60.)

C. *Musicus*. WHOOPER SWAN.

The Whooper is a scarce winter visitant, but individuals are killed from time to time, chiefly near the Solway and in the Eden valley. Mr. Dobson informs us, that, on one occasion, in early spring, he observed an interesting flight of Swans on Tyndal Tarn. A dense fog prevailed until midday, when it dispersed, and revealed a party of thirty wild Swans resting on the water. When the atmosphere cleared, the birds rose and flew off in a northerly direction. A similar party was noticed the same day at Talkin Tarn, and Mr. Dobson considered that the original flock had divided in the fog, and had sought shelter on the two tarns until the weather permitted the continuance of their journey.

C. Bewicki. BEWICK'S SWAN.

Bewick's Swan is a rare winter visitant, but Dr. Parker considers, that some of the wild Swans, which pass along our west coast every winter, should be referred to this species.

An example was killed near Edenhall some years since, and a second was obtained in that neighbourhood in the winter of 1879-80. On November 23rd, 1884, Messrs. Shepherd and W. Duckworth had an excellent opportunity of examining a single Bewick's Swan as it settled upon the ice on Monkhill lough. Capt. Johnson believes, that two Swans, shot many years since near Brampton, belonged to this species.

GENUS T A D O R N A.

T. Cornuta. COMMON SHELDRAKE.

The Sheldrake is a numerous resident; but owing to the growth of seaports and the development of mining industries upon our coast, it is chiefly restricted to the Duddon and Ravenglass estuaries and to the upper portion of the Solway during the breeding season.

During the present summer (1885) we observed many pairs near Cardurnock, and the strength of the colony breeding under Lord Muncaster's protection at Ravenglass, was estimated by the resident keeper as exceeding forty pairs.

In Cumberland, the eggs of the Sheldrake are constantly laid in rabbit-holes. A single deviation from this rule came under our notice near Silloth, where we found a Sheldrake's clutch placed above

ground, but amply protected by a very dense covert of furze.

In ordinary seasons, the majority of our female Sheldrakes lay from seven to twelve eggs in May. But, though May is the chief month for nesting, yet odd clutches are found from April to June inclusive, and old birds probably nest earlier than younger ones.

The Sheldrake generally flies from the entrance of her nesting-hole on to the nearest mud flats, but if rain is falling, the print of her feet may sometimes be detected on the wet sand. In the early hours of morning, the Sheldrake is less cautious than at other times, and may then be watched off her nest. Another method of ascertaining the whereabouts of a nest is to insert a long briar, to which a few flakes of the delicate greyish down are sure to adhere if the nest be occupied.

The distance at which the eggs are deposited from the entrance varies with the character of the soil and with the whim of the individual. Occasionally they are placed within a few feet of the entrance, but in a light sandy soil the distance is generally much greater.

The nests of such birds as lay a few feet from the entrance are often robbed, the eggs being placed for hatching beneath domestic fowls. The Sheldrake occasionally drops single eggs on the bare sand. The young ones in down are often captured, when making their way after their parents along the creeks of the salt marshes. They run with great rapidity, uttering a clear piping whistle, and

show considerable craft in concealing themselves by skulking under the foliage of a rank ditch or beneath the margin of a creek. Upon the Duddon, a practice is in vogue of shooting the later broods at the beginning of August, chiefly during the early morning, for during the day they frequent the mud flats with the old birds. A few Sheldrakes are shot by the punt gunners, or meshed in the flight nets upon the Duddon, but on the whole the adults are little persecuted, and the caution which they display, in feeding on the open mud flats, and resting on tidal waters during daylight, is quite superfluous. Only a comparatively small number of Sheldrakes pass the entire winter on our coast, but the breeding birds return in early spring, at which time the prominence at the base of the upper mandible is rising in the adult drake. Considerable parties of non-breeding birds may be observed on our estuaries during the summer months.

Inland, the Sheldrake has once occurred on Tyndal Tarn, where a single bird, now preserved in the neighbourhood, was shot a few years since.

The nestling, in down, is lavender-white in ground-colour; the dark chocolate of the crown is produced in a narrow band along the neck, passing into a broad band on the back, and extending a dark band over the shoulders, a similar band extending upwards from the thigh to the dorsal region.

In a feathered nestling shot on the Solway, in August, 1884, the forehead, chin, lower neck and under-parts are white; the crown, hind neck, and

wings brown ; wing coverts, back, and rump white ; tail quills white at the base, the rest brownish-black, fringed with pale buff.

GENUS M A R E C A.

M. *Penelope*. WIGEON.

The Wigeon is a common winter visitant, arriving numerously during the latter part of October and the first fortnight of November, and departing in March and April. During the present spring, a small party of Wigeon lingered into May on the Ravenglass estuary, and Mr. A. Smith once shot a bird, in the middle of July, which he thought had not bred at all, but had passed the summer on the Solway. September is the earliest month for the regular arrival of a flight of Wigeon on our coast. In 1873, Mr. F. D. Power heard a flight of Wigeon passing over Cleator Moor, on the 14th of Sept. ; in 1883, a brace were shot on Burgh marsh, on Sept. 22nd, and others were obtained about the same date ; in 1884, a big flock arrived on the Solway in the middle of September. In 1885, in company with Mr. Tremble, we observed six Wigeon on Rockliffe marsh, on September 5th, the earliest date in Mr. Tremble's experience, though he has often shot Wigeon in September ; on Sept. 13th, Mr. F. Ritson counted forty odd birds, as they rose out of the sedge on Monkhill ; we observed them in the same locality on the 18th, and obtained two old drakes shot on Rockliffe marsh the same evening. Others were shot by the punt gunners during the

latter portion of the month, and those we examined were drakes, doffing the duck plumage of the breeding season.

Wigeon are night feeders, and rest during the day on the gravel beds of estuaries, or in the rank vegetation of inland waters, which they occasionally leave to fly round at a considerable height, the drakes uttering their well-known whistle, and the ducks their harsher call, if the season be advanced.

GENUS D A F I L A.

D. *Acuta*. PINTAIL.

The Pintail is a winter visitant in sparing numbers, chiefly met with on our estuary rivers, though odd birds are shot on inland mosses in severe weather. During continued frost, the Pintail is more numerous than at other times; but though local specimens exist in most collections, and far more have been eaten, it is rarely present in large numbers. On a single occasion, two birds were shot out of a flock at Rockliffe, estimated to consist of about a hundred birds, by Mr. A. Smith, who considered that they were tired birds, anxious to rest upon the margin of the Eden. The entire flock departed on being fired into, and none were subsequently met with, so that the birds were evidently on passage, probably to Ireland. In a single instance also, two Pintails were shot by Messrs. Mann, out of a large flock, in the spring of the year, and these no doubt were on the vernal passage. Pintails obtained on other occasions by

Messrs. Mann, G. Holmes, J. Fell, and A. Smith, have been always stragglers, though Mr. Grayson considers the species of tolerably frequent occurrence on the south-west coast of the county. Personally, we have only met with the Pintail in Cumberland on two occasions, and on each we observed a single bird.

Mr. J. Backhouse, junr., kindly informs us that the Pintails recorded by him (Zool., 1882, p. 353), as nesting annually, and up to 1881, at Low Wood, near Ambleside, Westmorland, were pinioned and introduced stock.† We have examined Pintails shot in that county in winter.

GENUS A N A S.

A. *Boschas*. WILD DUCK.

The Wild Duck is an abundant resident, breeding plentifully near inland pools, as well as among the mosses of the coast. Elevated situations are occasionally preferred to contain the nest. An isolated pillar of red sandstone, on the Lyne, is, or was, a favourite nesting-place, and on the same river we found a nest on a sheer rock, about sixteen feet above the water. It contained eleven eggs, buried in grey down.

In some localities, where many pairs of Wild Duck breed, as at Moorthwaite, the Wild Mallards

† Miss Meyer, the owner of these Pintails, informs us that her birds bred in 1879, 1880, and 1881, after which she parted with them. They were in no sense wild birds.

pay frequent visits to the farmyard Ducks, thereby improving the flavour of the home breed, and restoring, in part, the degenerated powers of flight. Upon one occasion, a black and white domesticated Duck was induced by a wild drake to take to a free life, on Solway moss, and the offspring thus produced were shot ; several of them being black and white, like the old female. A pinioned but breeding Mallard, which we studied during the present summer (1885), began to doff his nuptial garb, and to go into eclipse, at the beginning of June. Drakes shot in September are assuming full plumage.

GENUS CHAULELASMUS.

C. Streperus. GADWALL.

The Gadwall is a winter visitant of rare occurrence, but has probably been overlooked. It has only been detected in the neighbourhood of the Solway. A drake, which had been consorting with some tame ducks, was shot as it flew away, at Grinsdale, on the Eden, October 21st, 1884. An immature drake was shot on the Lyne, on Jan. 3rd, 1885. The first weighed 1 lb. 6 ozs. ; the second, 1 lb. 11 $\frac{3}{4}$ ozs., though a fortnight's frost had prevailed.† Culmen, dusky black ; edges of mandibles, horn colour ; tarsi and toes, dull yellow ; webs, blackish, fringed in the immature bird with yellow ; claws, dark grey ; irides, dark hazel.

† We have weighed Gadwall which turned the scale at 2 $\frac{1}{2}$ lbs.

GENUS QUERQUEDULA.

Q. *Circia*. GARGANEY.

The Garganey is a rare casual visitant, of occasional occurrence in spring and autumn. It has once occurred in winter. Two drakes were shot on Tarn Wadling, before it was drained (*T. Hope*, in lit.); one was killed near Carlisle in 1857; a handsome drake was shot near Gilsland in the spring of 1882; and an adult drake was shot at Bowness-on-Solway in the autumn of that year. Two females were shot out of a small flock on Rockcliffe, March 11th, 1884, and a drake was shot out of a party of twelve on Millom marsh, December, 1884.

Q. *Crecca*. COMMON TEAL.

The Teal is a resident species, a few pairs nesting on the Solway mosses, and also in suitable localities in the lake district, and on the east fells, as on Crossfell. The young are hatched in May, but the drake remains with the female until the young are well feathered. In August, the home-bred birds repair to our salt marshes; but it is not until the arrival of birds from more northern districts, at the end of October, that Teal become numerous.

GENUS SPATULA.

S. *Chipeata*. SHOVELLER.

The Shoveller is a periodical visitant, but local in its choice of quarters, chiefly restricted to the Eden valley and the vicinity of the Solway, and not

reported from the Ravenglass or Duddon estuaries. In the north of Cumberland, the Shoveller is most numerous in September and April, but stray adults occur in August, and we observe a few pairs during winter near the Solway, whence they stray into the lake district, where Capt. K. Dover occasionally detects their presence. They are shy birds, and rarely observed in winter until they take wing, which they do in a peculiar undecided fashion.

From the irregular presence of single drakes in May, and from the fact that Mr. Tremble shot a young one on the edge of Burgh marsh, in the first week of August, further research may show that one or two pairs of Shovellers occasionally remain to breed on the Cumbrian side of the Solway.

GENUS FULIGULA.

F. *Cristata*. TUFTED DUCK.

The Tufted Duck is a winter visitant, constantly present with us from November to April, and tolerably plentiful near the Solway, being less frequently met with far inland. The drakes are usually in poor plumage in early winter; it is in spring that they are most attractive, raising the snow-white feathers of the flanks above their wings, until you begin to imagine that they are far whiter than is really the case. At this season they wander less than in winter. Old birds have long since paired, and the demure little female threads the track of her mate in and out of the mazy sedges, until the hope revives, that they may nest in Cumbrian waters.

A male Tufted Duck was shot a few years since on a small pond near Allonby, in the middle of July. (*R. Mann* in lit.) It is at the end of March and the beginning of April, that fowl is most abundant on the Solway, the birds collecting there before journeying *en masse* to their breeding grounds.

The following extract from Macpherson's notebook refers to Monkhill :—

“April 9th, 1885. Stealing silently along the hedgerow, at length I reached the lough edge, and squatting behind an old tree root, proceeded to take a survey of the lough with my binoculars. Yonder, in the shallows, a fleet of Black-headed Gulls in nuptial garb are resting lazily ; nearer to me again, are several pairs of wild Duck on the feed, the drakes showing conspicuously their white under-tail coverts, as they turn stern uppermost. In the centre of the lough the noisy Coots are preening themselves ; on the further side, but close in to shore, are seven Tufted Ducks, and four Goldeneyes are diving actively a little nearer to the mill. But the Goldeneyes are up, and, sure enough, round they swing, beating the air with their hard wing quills. Are they going off to Thurstanfield ? No ; they pitch just in a line with my old trunk, showing their white wing patches, as they settle on the water. A Peewit shrieks : the Tufted Ducks are off now, and round the lough they hurry, showing well, as they pass with necks outstretched, their dark heads and silvered bellies. They are down ; but not apparently to feed. Round and round they paddle. From time to time a drake flaps his

wings, or cranes his neck to re-arrange his wing coverts.

Quietly, I slip back, and, making a long *détour* over the fields, reach the north side of the lough unnoticed. And now we get a better view of the Tufted ones—five drakes, and two are ducks. How lightly they ride upon the tiny waves which the east wind creates; their breasts glisten like silver on the water. A drake begins to dive, darting forward with more grace than the clumsy Goldeneye. Now they are all diving, though they are never all down together, nor do they stay as long below as do the Goldeneyes. The Gulls scream: four Goldeneyes arrive to join their brethren, and now four more. A Dabchick is playing among the weeds; a pair of Shovellers rise out of yon quiet corner, and I retrace my steps, to find that six pairs of Shovellers are on the feed near the ‘runner.’ The rich chesnut body-colour of the drakes contrasts beautifully with their white necks as they swim through the thin weeds, slobbering, as they go, with their clumsy but serviceable ‘spoonbills.’ ”

F. *Marila*. SCAUP.

The Scaup is a winter visitor to our estuaries, arriving at the beginning of November, and departing at the end of March. It may often be observed in small parties among the sandbanks of the Solway, though it rarely ascends the Eden as high as Carlisle.

About six miles west of Carlisle, there are two small loughs, Thurstanfield and Monkhill, each fed

by a "runner," or small stream, both sheltered on two sides by wood or thickets, and both preserved. The distance from either lough to the Solway does not exceed three miles. Accordingly, when the weather is boisterous or the punt gunners are astir, many ducks leave the estuary to seek shelter on one or other lough. We have personally observed ten species of ducks on Monkhill lough (our favourite inland observatory), and two other species have occurred there. A small party of Scaups frequently favour both loughs in rough weather, and we have also observed single drakes and listened to their discordant cry. We have no notes of Scaups occurring far inland in Cumberland; but in January, 1881, two Scaups were shot on Hawes Water, Westmorland, some thirty miles from the sea. One of the two thus obtained is intermediate in plumage between the adult male and female, associating the white forehead of the female with the bottle-green head of the drake. It was not until examining this bird, that we realized the fact, which, indeed, is not generally remembered, that young male Scaups wear the white forehead of the female during the first autumn. Sir R. Payne-Gallwey states—"The *females alone* show the dirty white mark round the base of the bill, something like the White-fronted Goose" (The Fowling in Ireland, p. 103). Yarrell correctly states—"Young birds resemble the females, generally, but the light colour on the back is varied with brown spots. By the month of January, the young male has nearly assumed the glossy black head, but the mottled

whitish patch at the base of the bill is still present, and the breast is still brownish, and not black." (B. B., Vol. IV, p. 429, 4th ed.)

F. *Ferina*. POCHARD.

The Pochard is a winter visitant to our estuaries and lakes, but varies greatly in numbers in different seasons. It is for the most part a night feeder. Small parties, composed of five or six birds, may be observed during the forenoon on quiet waters, with their ruddy heads under their wings. The Pochard has never bred with us, though on one occasion several Pochards were observed by Mr. Watson on a small tarn, near Brampton, in the middle of May. Mr. Watson suspected that they might intend to breed in the locality, but there is no corroborative evidence.

GENUS NYROCA.

N. *Ferruginea*. WHITE-EYED DUCK.

The White-eyed or Ferruginous Duck is an accidental visitant from south-east Europe. A female was purchased with two Goldeneyes, shot in the vicinity, in Carlisle market about 1850 (*W. Proud* in lit.); two others, "killed on Braystones Tarn," and subsequently cooked, have been recorded on the authority of Canon Hoskins (Zool. 1879, p. 118, *C. Parker*, MS.)

GENUS CLANGULA.

C. Glaucion. GOLDENEYE.

The Goldeneye is a common winter visitant, arriving on the Solway early in October, but not generally distributed until the beginning of November; even then old drakes are scarce, pointing to the conclusion, that they pass the winter further north than females or birds of the year. Goldeneyes are partial to the deeper pools of our rivers, but it is chiefly odd birds which are shot far inland. The Goldeneye feeds largely in the early morning; and the young, on their arrival in October, are to be seen singly and in couples, diving sedulously, and affording many a chance to the fowler who is crafty enough to run in whilst the birds are under water, and shoot them as they come up and take wing. In severe weather, Goldeneyes are loth to leave a favourite pool, and may be seen diving as regularly as usual when the greater part of the surface is crusted with ice. If a shot be fired at a party of Goldeneyes, they rise immediately, headed by one or two old drakes, the white facial disks of which can easily be distinguished with a good glass, as they circle round the waters. One of the best places in North Cumberland to study the Goldeneye is Monkhill lough, where a score or so of Goldeneyes may generally be observed from November to April. In 1884 and 1885, a few Goldeneyes lingered until quite the end of April on Monkhill lough, constantly frequenting the deeper portions of the water, but seldom associating with Coots or other fowl. Old

drakes often feed at a distance from the younger birds, and dive more frequently, generally staying about twenty seconds under water; whilst the others dive for from ten to sixteen seconds.

Daniel soberly relates (Rural Sports, Suppl., p. 627), that one hundred and seventy Goldeneyes were caught together in a flounder net near Drumburgh; but the story is no doubt apocryphal.

Mr. Borrodale of Glasson, one of the oldest of the Solway fishermen, informs us that on one occasion he found that seventeen Goldeneyes had meshed themselves in his net. This number he considered extraordinary.

An immature Goldeneye, shot on October 16th, 1884, on the Eden, shows the commencement of the dull white ring of the mature female on the lower neck. A young male, shot on December 10th, exhibits traces of the white facial disks at the base of the bill.

In 1884, we observed a party of Goldeneyes, including two drakes in full plumage, at Monkhill lough, on April 28th. Their return commenced early in the following October, an immature bird being shot on October 10th, on the Eden. In 1885, we observed six Goldeneyes at Monkhill, on April 29th. These are our earliest and latest dates of arrival and departure.

GENUS H A R E L D A.

H. Glacialis. LONG-TAILED DUCK.

The Long-tailed Duck is a rare casual visitant to our coast during the winter months. An imma-

ture male was shot on the Derwent some years since (*J. W. Harris*, MS.) Another male bird was shot upon the river Ellen about 1855, by W. Ritson (*W. Hodgson*, MS.) Another immature bird was shot, out of a party of four, at Ravenglass, November 22nd, 1879 (*Zool.*, 1880, p. 109.) A female, in the Taylor collection, is believed to have been shot on the Solway. When visiting Monkhill lough, on January 24th, 1884, we recognised the presence of a Long-tailed Drake in the plumage of the second year, at the narrow and deepest end of the lough. We examined it with our glasses until a blinding shower of sleet dimmed the lenses. When the squall ceased, we again caught sight of the bird, and were scrutinising him with interest when he rose, and flying very low, proceeded to pitch in a direct line with the bush behind which we were crouching, at a distance of thirty-five or forty yards from shore. Presently he caught sight of us, and rose, but only to pitch again a few yards to our left, displaying his dark webs as he dropped his feet in settling. It was delightful to see a Long-tailed Duck at such close quarters, and to note the neatly rounded outline, the short blackish bill, and the pretty white and chocolate plumage. He did not utter any call-note, but after a time flew off to join the Coots in the centre of the lough. He looked very white and fairy-like beside the clumsy Coots, as the sun shone cut upon the waters. When fired at on several subsequent occasions, he invariably dived before the shot could reach him, and then swam, or took a long low flight, into the centre of the lough. When

feeding, he dived more quickly than the Goldeneyes, and swam also with great rapidity, as though cutting through the water. At other times he bowed or curtsied from side to side.

Though the Goldeneyes constantly rose when a shot was fired, and flew round high above the lough, the Long-tailed Duck generally contented itself with long low flights across the water, but on the few occasions when it fairly rose, and joined the Goldeneyes, it flew higher than any of its companions, and exhibited a peculiar wavy motion of the wings. With the exception of a few days at the end of February, we constantly observed this bird on Monkhill lough until March 19th, when it was shot by a local fowler, whilst diving at the deep end of the lough (where we had seen it first, on January 24th), and presented to the County Museum. It weighed 1lb. 10 ozs. The bill was violet grey, tarsi grey (darkest on the outside), toes light grey, webs blackish, irides dark hazel.

GENUS S O M A T E R I A .

S. Mollissima. EIDER DUCK.

The Eider Duck is a rare winter visitant. Dr. Stanley examined an immature bird, obtained near Whitehaven prior to 1829 ; two adults were caught in the fishgarth at Ravenglass in June, 1880 (Zool., 1881, p. 467), and others have been seen on the Solway (*R. Mann* in lit.), and shot on Wastwater. (*C. Parker* MS.)

GENUS *CEDEMIA*.*C.* *Nigra*. COMMON SCOTER.

The Common Scoter is a winter visitant, occurring chiefly singly, and in small parties, upon the Cumbrian side of the Solway, though more plentiful on the Scotch side. To the Duddon estuary it is a regular visitant, but not generally very abundant. In some seasons, however, large flocks visit the Duddon, probably detachments from Morecambe Bay, which appears to constitute the headquarters of the Common Scoter on the north-west coast of England. Stragglers occur on our inland waters and mosses, chiefly after heavy weather on the coast. It is probable that a few Scoters, obviously non-breeders, remain upon the west coast of England, as upon the east coast, during the entire summer. A fine old drake was caught alive in Silloth new docks on August 10th, 1885, after a severe gale. Mr. Clowes informed the late Dr. Gough that a few Common Scoters annually visited Windermere in the month of July, their stay being restricted to "a day or two." (Zool., 1848, p. 2230.)

C. *Fusca*. VELVET SCOTER.

The Velvet Scoter is a rare casual visitant to the English side of the Solway, but has not been obtained on any other part of the coast.

In the spring of 1883, we had the pleasure of handling in the flesh a fine adult female, which had been shot on the Solway, on May 2nd. It is now preserved in Mr. Mackenzie's possession.

Mr. G. Holmes informs us that, when punt shooting on the Solway, in winter, he has more than once observed the Velvet Scoter; and we have notes of supposed Velvet Scoters shot elsewhere, but Mr. Mackenzie's bird is the only authenticated specimen known to us.

Mr. J. J. Armistead informed Mr. Harvie Brown that he had observed several Velvet Scoters on the Solway during June, July, and August, 1882; but Mr. Armistead's observations refer to the Scotch side of the Solway, where Scaups and Scoters are reputed to be much more plentiful than on the English side. (Migration Report, 1883, p. 62.)

In the lake district, the late Dr. Gough recorded a male Velvet Scoter shot on Windermere lake, on May 23rd, 1848, by Mr. L. Watson of Ecclerigg, a female being seen at the same time (Zool., 1848, p. 2230). The specimen was retained by Mr. Clowes of Bowness.

Æ. *Perspicillata*. SURF SCOTER.

The Surf Scoter is an accidental visitant from north America. An adult male was shot, by a farm servant, on November 2nd, 1856, whilst diving in a pond at Crofton. (*T. Armstrong*, Naturalist, 1857, p. 250.) This rare specimen was secured for the collection of Mr. T. C. Heysham. At the Heysham sale, in May, 1859, it was purchased by Mr. J. H. Gurney, who had it re-stuffed by Leadbeater. It has remained ever since in Mr. Gurney's collection. (*J. H. Gurney, junr.*, in lit.) This is the Surf Scoter inadvertently included by

Mr. Harting (Hand-book, B. B., p. 163), as obtained in the month of August, and figured in Eyton's Rarer British Birds (1836).

Obs.—The Surf Scoter has recently been obtained on the Lancashire coast, making a second occurrence for the north-west coast of England. Mr. R. H. Thompson writes—"When sailing in the estuary of the river Ribble, about 2 p.m., on the 9th December, 1882, I shot a fine female Surf Scoter. It was swimming about five hundred yards from the shore opposite Lytham. The bird was quite alone, and allowed my boat to approach within about fifty yards, when I fired and killed it." (Zool., 1884, p. 29.) It was identified by Mr. A. G. More.

GENUS M E R G U S.

M. Merganser. GOOSANDER.

The Goosander is a winter visitant of tolerably frequent occurrence on our estuaries in immature or female plumage. The Solway is more favoured by its visits than any other part of Cumberland, and fifteen Goosanders, including three adult drakes, were shot on the Solway and its Cumbrian estuaries during the comparatively open winter of 1884-5. The Goosander is a wary bird, and is more frequently shot by punt gunners than by shore shooters, though single birds may be surprised by a sportsman who runs in while the bird is diving near a river bank.

One of the adult males just alluded to, however, was surprised in January last, while resting on the

mud under the shelter of Burgh marsh, a little below Sandsfield, and was shot as he rose. The crimson irides of the gasping bird, as the poor fellow breathed his last, were very beautiful, and so was the rich salmon-colour of his breast, which fades in skins. This bird only weighed 2 lbs. $4\frac{1}{4}$ ozs., and, though in magnificent plumage, was rather a small specimen.

Goosanders occasionally visit the lakes of Cumberland. Mr. Raine, the head keeper at Edenhall, informs us that a party of Goosanders in the dress of the "Dun Diver" have frequented the large pond at Edenhall for the last twenty winters, though drakes in the black and white or cream plumage have only occurred in three instances in his experience. It was from the scarcity of adult drakes that Dr. Heysham failed to satisfy himself that the Dun Diver was identical with the Goosander; for though he dissected several immature males, he only obtained a single adult male. Dr. Heysham adds that the largest of the Goosanders he examined weighed little more than 3 lbs., and that some birds weighed under 2 lbs.

The following passage is a brief extract from Macpherson's note-book:—"February 4th, 1885. Walked out to Thurstanfield lough, which I reached just as day was breaking. Observed a pair of Shovellers, and a large congregation of Wigeon. A big squad of Wild Duck were resting under the shelter of the north bank. A pair of Goosanders monopolised my attention. The female was generally to be seen in the centre of the lough, but the male

was very restless, constantly flying up the lough from the south-west corner, alighting near my cover at the north-east point, and then proceeding to dive with energy, remaining under water from thirteen to sixteen seconds. He then swam rapidly along the left side of the lough, diving at intervals, until he reached the further extremity of the lough. Thence he returned, flying low over the water, until he reached his former feeding place, when he recommenced diving. I watched the birds constantly for a couple of hours, but never saw either of the Goosanders take any but low flights over the lough."

The Goosander arrives on the Solway in October and November, departing at the end of March or the beginning of April. In 1883, an immature Goosander was shot on the Eden, at Rockliffe, on the 29th of September; but the bird had been driven up the river by stress of weather, and the date was decidedly an early one.

M. Serrator. RED-BREASTED MERGANSER.

The Red-breasted Merganser is a scarce winter visitant to our estuaries, arriving in October in scanty numbers. A fine adult male was shot on the Solway during the present spring (1885), but old males are very seldom met with on our tidal waters.

The Red-breasted Merganser is essentially a marine species, and rarely occurs inland. An immature bird was shot on the Caldew, above Carlisle, in the hard winter 1880-1, by Mr. F. W. Bailey; but its presence even at that short distance from the Solway is altogether exceptional.

M. Albellus. SMEW.

The Smew is a very rare winter visitant. We have only notes of eight Smews obtained in Cumberland during the last thirty years, and most of these were females or immature males. Three of the number were shot on the Eden, near Carlisle. The most recent specimen is a fine Smew, shot on the Lyne in December, 1883. Another, an immature bird, was shot on the Scotch side of the Solway, about five years since.

Family COLUMBIDÆ.

GENUS C O L U M B A.

C. Palumbus. RINGDOVE.

The Wood Pigeon is a common resident, nesting upon our eastern fells up to an elevation of eleven hundred feet. The number of residents is swelled by the arrival of large flights of Wood Pigeons, considered small in size, at the beginning of winter.

C. Œnas. STOCKDOVE.

The Stockdove is a numerous resident; and though Dr. Heysham was uncertain of its presence in 1797, we have reason to believe that a few birds have long bred in Cumberland, though the evidence on this point is decidedly conflicting. Between 1870 and 1875, the Stockdove certainly expanded its breeding quarters (if it bred in Cumberland prior to 1870) in a most remarkable degree, alike in the north, north-east, east, centre and west of the

county. Since 1875, it has nested commonly in many localities, sometimes nesting in old trees, as at Edenhall; at others, breeding in clefts of rock, as on the Eden, Lyne, Caldew, and in the lake district; or, again, frequenting the burrows of rabbits, as among the sandhills of the Ravenglass estuary. Its presence in winter, also, is noticed in many localities in which it formerly occurred only accidentally.

C. Livia. ROCKDOVE.

The Rockdove is an extremely local resident, a few pairs breeding in a single locality, on the precipices at Sandwith. The blue Pigeons nesting sparingly on the Eden, Lyne, and in other inland situations, are probably the feral descendants of dove-cote Pigeons.

GENUS TURTUR.

T. Communis. TURTLEDOVE.

The Turtledove is a summer visitant of irregular occurrence. During the present summer (1885), a pair nested near Scotby, their nest containing a single egg on June 2nd.

Dr. Parker believes, that he found a nest, some years since, in the Ravenglass district; and we observed a single bird on the edge of Drigg common, on May 29th, 1885, which possibly had a mate in the neighbourhood.

Adults and young birds have been shot, as well as seen, on several occasions, in the north of the

county, and it is probable that a very few pairs breed with us annually.

Family PTEROCLIDÆ.

GENUS SYRRHAPTES.

S. Paradoxus. PALLAS' SAND GROUSE.

The Pallas' Sand Grouse is an accidental visitant from the Steppes of central Asia. In 1863, an extraordinary wave of this species swept across Europe (*Newton*, *Ibis*, 1864, pp. 185-222), and two examples were shot in Cumberland. The first was shot in May or June, 1863, near Penrith (*Zool.*, 1863, p. 8724), and this was a fine male, though spoilt in stuffing (*T. Hope*, in lit.) The second was a female, shot about the same time, near Silloth, by Mr. Lightfoot, who informs us that he was taking an early stroll among the sandhills, when he saw a strange bird resembling a partridge resting in an adjacent meadow. He fired a long shot and secured this specimen, which, as he subsequently learnt, had been pursued unsuccessfully for three days by other gunners. The bird was skinned by James Fell, and is preserved in the Belle Vue Museum.

Family PHASIANIDÆ.

GENUS PHASIANUS.

P. Colchicus. PHEASANT.

The Pheasant is at present an abundant resident, but does not appear to have been introduced into Cumberland, as to other parts of England, by the

Romans, whose occupation of our county was purely military.

Edmund Sandford (1675) alludes to the Pheasant as an article of luxury, but does not hint at its naturalisation in Cumberland.

Clarke writes (1784)—“The other birds are such as the rest of the kingdom in general produces, except the Pheasant, which we have not” (Survey of Lakes, App., p. 190). It must, however, have been introduced about that time into both the north and south of Cumberland. “The Editors” of Hutchinson’s History of Cumberland, in a note attached to their account of the Parish of Muncaster, as to which their information was derived from the Rev. Mr. Nicholson, remark that the game of the district then consisted of “Hares, Partridges, Grouse, and some Pheasants, introduced by Lord Muncaster.” Dr. Heysham, writing about the same time (1794–7), states—“The Pheasant is a rare bird in Cumberland, but Sir James Graham and some other gentlemen are attempting to introduce them into the county.”

The downy nestling of the Pheasant is buff in ground-colour, mottled and streaked with dark brown on the upper parts. During the present summer (1885), a Pheasant chick was hatched out at Corby Castle, covered with pure white down.

GENUS CACCABIS.

C. Rufa. RED-LEGGED PARTRIDGE.

The Red-legged Partridge is an extremely rare visitant, having only occurred in a very few

instances in the south-east of the county, whither it had probably strayed from Yorkshire. In 1862, an attempt was made by the late Mr. Jackson Gillbanks, of Whitefield House, to establish this species, but the stock raised was soon shot off. A similar experiment was made about five years since in the Keswick district, but this also met with failure.

GENUS PERDIX.

P. Cinerea. PARTRIDGE.

The Partridge is a numerous resident, nesting up to the base of our highest fells. Sportsmen consider the fell birds to be generally smaller and more grey than those of lower districts. The Partridge rarely perches, but one of our correspondents shot an example off a barn roof; and Mr. Tom Duckworth observed a covey, which he had previously sprung, alight on a spruce fir, near Cannobie, October 13th, 1881. Birds, exhibiting white "horse shoes," occur almost every season in the Carlisle district.

GENUS COTURNIX.

C. Communis. QUAIL.

The Quail is a summer visitant, of local and irregular appearance. The trisyllabic call of the male is known to many, but the bebies annually reared are very few in number, and chiefly occur in the north of the county. The occasional presence of the Quail in early winter is attested to by Dickinson and T. C. Heysham.

GENUS O R T Y X.

O. Virginianus. VIRGINIAN COLIN.*

The Virginian Colin is an acclimatised species. It has not been introduced into Cumberland, but stragglers from other counties have occurred in two separate instances. One, shot near Allonby, some years since, is in the Mann collection. A second, obtained in the Carlisle district, is preserved by Mr. Little.

Family TETRAONIDÆ.

GENUS L A G O P U S.

L. Scoticus. RED GROUSE.

The Red Grouse is an abundant resident, breeding on all the higher grounds, where suitable stretches of heather prevail, from the Bewcastle hills to the Lancashire border. Large packs descend to the lower mooses in early winter. A single straggler recently appeared on the cliffs at St. Bees Head (*H. Nott*, MS.) A male hybrid between this species and the Black Grouse, believed to have been shot in Cumberland, is preserved in the possession of T. H. Horrocks, Esq., of Edenbrows, Carlisle.

Pied birds are shot occasionally, and a pretty, spangled, yellow variety sometimes makes its appearance in the Alston district, and on the borders of Cumberland and Westmorland.† Messrs. J. Walton and Sawyer have good specimens of this variety.

† A greyish buff variety was shot near Alston in 1878. Two Grouse of a "nearly white" variety "mottled with brown, was shot on the Appleby moors in 1883. (*P. Z. S.*, 1884, p. 45.)

Obs.—Lagopus Mutus. Ptarmigan. Mr. A. G. More has shewn conclusively (Zool., 1881, p. 44-47), that the Ptarmigan, which Pennant and Dr. Heysham believed to exist in the Keswick district, were of mythical origin, the birds in question being probably pied Grouse. But Mr. Jerry Smith of Bassenthwaite assures us that some Ptarmigan, imported from Scotland, were turned down on Skiddaw within his personal recollection. It is therefore possible that the white birds seen on Shap by Scotch keepers, who called them Ptarmigan, were in reality birds which had strayed from Skiddaw, where the experiment of introduction seems to have failed.

GENUS T E T R A O .

T. *Tetrix.* BLACK GROUSE.

The Black Grouse is an abundant resident, but somewhat local, being more strongly established in the east and north of the county, particularly in the Bewcastle district, than in the south or west. Edmund Sandford, writing about 1675, alludes to the presence of "black heath cocke and more cockes : and ther pootes, a delicate dianty feeding as phesants," on the Naworth estate ; but Dr. Heysham states about 1797, that "The black-cock is at present but a rare bird in Cumberland : it is most plentiful upon Sir James Graham's estate at Netherby. In general there is an annual brood upon Newtown common, within a mile of Carlisle." A few grey hens still breed on the lower grounds of the Solway district, and sit closely on their

eggs, allowing of a very near approach, when the mottled back and wings contrast prettily with the surroundings. But, the broods, thus bred on low grounds, repair to more elevated haunts in early autumn.

Obs.—*Tetrao Urogallus*. Capercaillie. A spirited effort has been made of late years by Sir F. Graham to introduce this species to the Netherby estate. Eggs imported from Scotland have repeatedly hatched out, but great difficulty has been experienced in rearing the chicks, and only one or two individuals have been brought to maturity. Thus, the species has not been established so far.

Family RALLIDÆ.

GENUS RALLUS.

R. *Aquaticus*. WATER RAIL.

The Water Rail is an extremely scarce resident, but its unobtrusive habits induce its presence to be overlooked. It breeds in a few localities in the north of the county, and eggs have been taken near Penrith. The number of resident birds receives a marked increase in the month of November, when the species is more widely distributed than at other times.

GENUS PORZANA.

P. *Maruetta*. SPOTTED CRAKE.

The Spotted Crake is an extremely scarce resident species, but has certainly bred near Wedholme

flow, where several young birds were shot in 1881. The Spotted Crake was constantly observed for some years in Biglands bog, a somewhat remote stretch of swampy meadow land, very difficult to wade, and about a mile in length, during the entire summer months. An example, in our possession, shot near Penrith, was constantly observed from November until it was shot in the following April; and a second, possibly its mate, was killed in May of the same year. Mr. T. Armstrong shot another near Monkhill lough, in June. The Spotted Crake is most frequently shot on the spring and autumn migration, and Mr. Watson once received five Spotted Crakes together, which had all been shot the same morning by a turnkey, who possessed a dog peculiarly sagacious in putting up aquatic birds. Mr. Dixon informs us, that, when Snipe shooting, in November, he has shot several Spotted Crakes on Cumwhitton moss.

P. Parva. LITTLE CRAKE.

The Little Crake is an accidental visitant. An example was captured alive in a ditch near Cockermouth Castle in 1850 (*J. W. Harris*, MS.) Another diminutive Crake, which must have belonged to this species or Baillon's Crake, was captured near Cotehill, about 1864, by W. Little.

GENUS C R E X .

C. Pratensis. CORN CRAKE.

The Corn Crake is an abundant summer visitant, arriving in the middle of April, but seldom calling

until the end of the month. Stragglers occasionally linger into early winter. A Landrail in poor condition was shot near Carlisle on December 22nd, 1883, having been observed daily for three weeks previously. A pure white Corn Crake was shot in Hetherington's Holme, Carleton, in June, 1863, and a pied bird, obtained near Carlisle, is in Mr. Barnes' collection.

GENUS GALLINULA.

G. *Chloropus*. MOORHEN.

The Moorhen is a common resident, nesting on our becks and tarns, inland and near the sea. In June, 1877, a Waterhen was caught near Gosforth and taken to Dr. Parker, "of a light fawn colour all over, except the usual white markings" (Zool., 1889, p. 117). Dr. Parker refers this specimen to the Hairy variety, of which sixteen other examples have been recorded by Mr. J. H. Gurney, junr. (Tr. Norw. N. S., III, p. 58, IV, p. 143.)

GENUS FULICA.

F. *Atra*. COOT.

The Coot is an abundant resident, breeding at Moorthwaite, Monkhill, Bassenthwaite, and in many other localities, though more widely distributed in winter than during the breeding season.

Family GRUIDÆ.

GENUS G R U S.

G. Communis. CRANE.

The Crane is an accidental visitant on migration. A single straggler, which had wandered west on the vernal passage, appeared in the neighbourhood of Allonby on the Solway, in the spring of 1869, and was identified by several persons. The exact date is supplied by the following entry in Miss Mann's diary for that year.—“Thursday, April 29, 1869, very cold morning Matthew and Tom fired two shots at a Crane, but did not get it.” Mr. Matthew Mann and Mr. Thomas Mann did, however, stalk their rare visitant to some purpose; for, though they did not bag the bird, they knocked out some grey feathers, which they sent to Mr. J. J. Armistead, who kindly tells us that they were certainly Crane feathers.

Family OTIDÆ.

GENUS O T I S.

O. Tarda. GREAT BUSTARD.

The Great Bustard is an extremely rare casual visitant. A single female was shot in a turnip field near Brampton, on the 8th of March, 1854, and weighed 11 lbs. (Zool., 1854, p. 4407; *Hancock*, Cat. B. of N. and D., p. 95.)

Family GLAREOLIDÆ.

GENUS GLAREOLA.

G. Pratincola. COLLARED PRATINCOLE.

The Pratincole is an accidental visitant from southern Europe. An example was shot near Bowness on the Solway, in 1807 (*Graves*, Brit. Orn., Vol. II, near the end). Another appears to have been shot in Lancashire in the same year (*Birds of Lancashire*, p. 174), and it is possible that these two specimens, the first recorded as obtained in Great Britain, had wandered to our shores in company.

Family CHARADRIIDÆ.

GENUS CURSORIUS.

C. Gallicus. CREAM-COLOURED COURSER.

The Cream-coloured Courser is an accidental visitant from north Africa or western Asia. An example was killed at Allonby, on the Solway, in October, 1864. (*Zool.*, 1865, p. 9418.)

GENUS CHARADRIUS.

C. Pluvialis. GOLDEN PLOVER.

The Golden Plover is a numerous resident, and generally distributed during the winter months. During the nesting season, it is chiefly restricted to elevated moors, but a few pairs breed on the mosses of low grounds. The nest is a mere depression in the ground, the eggs being laid from the middle of

April onwards. Early in August, immense flocks of Golden Plover desert the fells for the salt marshes of the coast, upon which they live gregariously, frequently associating with Peewits.

The axillaries of some of the specimens, which we have examined from the Solway, were slightly flecked with grey, but bore no resemblance whatever to the smoke-coloured axillaries of the rather smaller Eastern Golden Plover.

GENUS SQUATAROLA.

S. *Helvetica*. GREY PLOVER.

The Grey Plover is a winter visitant, arriving in and after September, and occurring irregularly on the coast. Large flights occasionally visit the Alston district, but their appearance is very irregular. We have observed a flock of Grey Plover near Carlisle on two occasions. To the upper salt marshes of the Solway the Grey Plover is a rare visitant, its favourite quarters on the Solway being on the estuary of the Waver and Wampool. Its numbers vary much in different years. During the present autumn, a large flight of Grey Plover arrived in this locality about September 24th, and we found the species numerous on the Waver in October. In company with Mr. Senhouse, we observed one flock of fully fifty Grey Plover, but those we obtained were shot out of very small parties. The Grey Plover shares the gravel beds and mud flats with the Bar-tailed Godwit; but, unlike the latter, it seldom ventures up the creeks, preferring to feed

on the open portions of the estuary. It is less partial to the salt marshes than the Golden Plover.

Mr. C. M. Adamson states that he has known Grey Plovers to occur on the Solway in May, "but their breasts were not quite black." (More Scraps about Birds, p. 145.)

Of late years, a few old birds, wearing the black breast, have appeared upon the Waver and Wampool, in August, but only as stragglers. As already remarked, the lower portion of the estuary of the Waver and Wampool constitutes the most favourite ground of the Grey Plover on the English side of the Solway, though the species occurs sparingly along our coast, in suitable situations, throughout the winter.

GENUS ÆGIALITIS.

Æ. Hiaticula. RINGED PLOVER.

The Ringed Plover is a common resident, breeding generally on the Cumbrian coastline, but nowhere more numerous than at Ravenglass. The nest is a slight depression in the sand, lined with bits of broken shells, and four eggs are laid in May. A few pairs formerly nested upon Burgh and Rockliffe marshes, and nests occurred on the latter marsh until about 1880, but the clutches being destroyed by high tides, the birds deserted the locality as a nesting-place. A few pairs nestle on gravel beds in our estuary rivers. Mr. C. M. Adamson caught an unfledged Ringed Plover "on the shores of the Solway, in the middle of September, 1844." A large immigration occurs in autumn.

GENUS EUDROMIAS.

E. Morinellus. DOTTEREL.

The Dotterel is a summer visitant, a very few pairs arriving at the beginning of May, to nest sporadically on the mountains of the lake district and the Crossfell range. At the close of the last century, Dr. Heysham expressed an opinion that the Dotterel bred on Skiddaw:—"The Dotterel comes in May, is a scarce bird in this county, but is more plentiful in Westmorland. In June, 1784, ten or twelve were shot upon Skiddaw, where they breed; on the 18th of May, 1786, I had two females sent from the neighbourhood of Appleby. On dissection, I found the eggs very small, so that it is possible they do not lay till June."

In 1834, Mr. R. Senhouse observed a number of Dotterel on Great Gable; and, about the same time, Mr. J. W. Harris received a young bird, only partially fledged, which had been discovered by a dog on Red Pike. A wing of this specimen was submitted some years later to Mr. T. C. Heysham, who pronounced that it had evidently been bred on Red Pike.

It was in 1835, that Mr. Heysham obtained the eggs of the Dotterel and the young in down, and his success was due to the acumen of his collector, the late James Cooper, to whose memory Mr. F. Nicholson has passed a fitting tribute in the following narrative, most kindly supplied at our request, and embodying the results of an unequalled

acquaintance with the Dotterel in England during the nesting season :—

“ It is doubtful if the Dotterel ever bred freely on the mountains of Cumberland and Westmorland, at least during the last hundred years. From the evidence of shepherds and men whose memory extends back to early in the century, it would seem that the Dotterel was never very numerous as a breeding species, but that it appeared very regularly each season, about the middle of May, in small flocks or trips of twelve or fourteen birds in each, on the tops of the highest mountains, where it spent a few days before pairing off and dispersing over the neighbouring hills for nesting purposes. During the last thirty years, judging from my own observations, the species seems to have been gradually disappearing from the district, until in this year (1885), I only saw three pairs during several days spent in visiting all the most likely ground. It is not quite clear why the Dotterel should be leaving the district, for it has apparently few enemies now, whilst formerly, when it was more numerous, it had many. Years ago it was quite the custom amongst the miners to have a day’s Dotterel shooting, and through the shepherds or the miners seeing them when going to their work, it soon got abroad when the Dotterel had arrived in spring, and every fellow who could procure the loan of a gun would have a day ‘mangt Dotterel,’ whilst they were as tame as barn-door fowls, and before they had distributed themselves over the fells. But now, through the mines being mostly closed, the gun tax, the extermination of vermin, and anglers using

feathers for artificial flies that are but little inferior to those of the Dotterel and more easily procured, one can hardly understand their scarcity.

“Mr. Heysham’s paper in the Magazine of Natural History for 1838 has become a classic, and been quoted *in extenso* by nearly every writer on British birds since; but it is rather misleading, as the late James Cooper, curator of the Warrington Museum, wrote in the Zoologist, 1861, and cannot be taken as a guide to those who intend to look for the eggs, for nest there is none: ‘The birds do not select the summits of the highest mountains, nor do they lay their eggs where the fringe moss grows, but in a depression upon short dense grass, a little below the summit.’ This, I may say, is correct, and quite tallies with my own observations, for I have generally found Dotterel frequenting the upper slopes of the highest mountains, and the summits of the spurs of the highest mountains, but not the summits of the highest mountains. The Dotterel only lays three eggs. When disturbed, the Dotterel usually runs off its eggs to a little distance, and is mute; but occasionally, if the eggs are hard sat, it will flutter off its nest as if wounded, and remain calling within about twenty yards, uttering a note which is somewhat like that of the Golden Plover, but much lower. After the young are hatched, the parent birds behave quite differently, and exhibit great anxiety for their safety. All the eggs I have taken I took in June, but that they sometimes lay at the end of May, and even in July, is evident, as I have found eggs hard sat the first week in June, and seen young ones then.

On several occasions I have come across young in July. James Cooper, who is alluded to above, was employed as a collector by Mr. Heysham, and was the 'able assistant' spoken of by him in his account of the Dotterel. Cooper was a remarkable man and deserves a passing notice. He it was who really discovered the first eggs of the Dotterel on Whiteside. He was a man who seemed capable of enduring any amount of fatigue. On the 28th of June, 1835, he walked from Carlisle to Whiteside, a distance of between thirty and forty miles, where he arrived late in the afternoon. He had not been long on the mountain, before he observed a pair of Dotterel. He searched for the eggs without success till darkness came on, when he determined to stay out on the mountain all night and renew his search at daybreak, which he did, and was rewarded by finding the eggs. He then walked back to Carlisle, never having been in bed since leaving there the previous day. Cooper was born near Cockermouth in 1792, of humble parentage, and, though he had few advantages, was a most intelligent man. As a collector he had few equals, and his knowledge of British Birds was so great, that when Mr. Yarrell compiled his History of British Birds, much of his information was the result of Cooper's experience. He was also an entomologist and added several new insects to the British lists. His death took place at Warrington, on the 1st of August, 1879, in the eighty-seventh year of his age. A few of the foregoing facts are taken from 'A short biography of James Cooper,' sent to me by the late Dr. Kendrick of Warrington."

The decrease in the number of Dotterel visiting the lake district is correlated with a great scarcity of the species upon the salt marshes of the Solway. Until recent years, a few Dotterel were constantly seen by herds and fishermen on Burgh, Skinburness, and Rockliffe marshes during the first fortnight of May ; when, if undisturbed, they lingered for about ten days, constantly frequenting the same portions of the marshes. In the present year (1885), a few Dotterel appeared on Burgh and Skinburness marshes early in May, and five were unfortunately shot for fishing feathers.

From the lake district, a few Dotterel are still sent to the dressers of flies, and many Dotterel flies are still made up, though they in reality contain very few Dotterel feathers. The axillaries of the Starling are used to supply the upper wing coverts of the Dotterel, and we lately observed a number of flies in preparation, the feathers of the Starling being of course the chief material.

It is probable that the small trips of Dotterel, which visit our salt marshes so irregularly, are resting on their way to more northern breeding grounds. Dotterel have been shot on two recent occasions on Crossfell in the month of March, and in 1884 an example was sent to Carlisle to dress flies, in the middle of April, but the former dates are exceptional.

We have no notes of the occurrence of the Dotterel in autumn ; but Dr. Heysham examined a bird " which was shot on the top of Skiddaw on the 16th of September."

It was in 1836, that the late Mr. Yarrell

exhibited before the Zoological Society the eggs and young of the Dotterel, obtained by Mr. T. C. Heysham in 1835. (P. Z. S., IV, 1836, pp. 1 & 2.)

GENUS VANELLUS.

V. *Vulgaris*. LAPWING.

The Lapwing is a generally distributed and abundant resident, gathering into immense flocks in early autumn. Many pairs breed upon our salt marshes, where the eggs, which are laid from March onwards, are more easily found than in inland situations. Four eggs are the proper complement, but this number is exceeded in some rare instances, and three different clutches of five eggs have recently come under our notice. A nestling, about two days old, caught on May 17, is light brown in ground-colour above, mottled with black; the nape lavender, forming a broad crescent; the chin is white; a black gorget bands the breast, and the underparts are white. Examples exhibiting variation in white wing quills have been obtained by Messrs. Heysham and J. B. Hodgkinson. An adult, in good condition, weighed 2 ozs. 2½ drhms.

GENUS STREPSILAS.

S. *Interpres*. TURNSTONE.

The Turnstone is a winter visitant, constantly to be met with from August until April, on shingled portions of our coast. We observed a Turnstone

at Ravenglass, on May 29th, in nearly full plumage; and birds in nuptial dress have been shot at Skinburness. On the Solway, we usually meet with Turnstones in small parties of five or six birds; but, on the west coast, Dr. Parker says that the flocks of immature Turnstones are large, and he has killed seven at a shot. Stray Turnstones occur on our estuary rivers in August. They seldom frequent our salt marshes, but odd birds are occasionally shot on their margins.

GENUS HÆMATOPUS.

H. *Ostralegus*. OYSTERCATCHER.

The Oystercatcher is an abundant resident, wonderfully numerous on the Solway during the winter months. Contrary to the habits of the species in the north of Scotland, the Oystercatcher, in Cumberland, is chiefly a littoral bird, constantly nesting on extensive beds of shingle, though a few pairs nestle among sandhills and in meadows near the sea, as well as on the margin of the Solway salt marshes.

The nest is a slight depression in the sand or shingle, frequently at a short distance above the mark of a high tide. It is generally lined with broken shells or inlaid with fine pebbles; but some nests have no linings, or are surrounded by a few coarse straws. Others, again, are lined with both pebbles and comminuted shells, fragments of rotten wood being carefully disposed around; and we have seen a nest on the edge of Rockcliffe marsh lined

with the flowers of the sea-pink (*Statice Armeria*). The first clutches are complete at the beginning of May, and the eggs are much incubated by the end of the month, unless the nests are robbed. The nests are often placed far apart, but a favourite spit of shingle may contain half a dozen nests, within a stone's throw of each other. The Oystercatcher does not sit very closely; but when the eggs are incubated, the females may occasionally be seen running off the nests, prior to taking wing. The young are active, and squat readily under the cover of long grass, or bolt into any convenient hole to avoid capture. If caught and released, the nestlings run off with great speed, halting from time to time to consider which way to turn. When the young are fledged, the adults continue their charge, and exhibit vociferous distress, if their progeny be endangered. When fully fledged, the young may be seen following the parents in twos and threes, for three eggs constitute a clutch, though we have found a clutch containing four eggs on two different occasions. In autumn and early winter, Oystercatchers gather into dense packs on the Solway, and feed on the mussel beds. From their wariness, they are difficult to shoot, as, if driven, they fly over the edge of the sea, carefully calculating their distance. After severe gales, many Oystercatchers wander inland, frequenting grass lands. In early spring, a few pairs frequently haunt the banks of larger streams, proceeding to breed on the coast and the gravel beds of our estuaries.

A nestling, in down, captured on June 16, and apparently about two days old, is a dark brown

ground on the upper parts, each tuft of down being fringed with light buff, and also streaked with black, which latter is most pronounced on the flanks; the throat is black, tipped with grey, and the lower parts are white. A nestling Oystercatcher, caught on July 5th, still retains a good deal of greyish-black down, especially about the tail, head, and throat. The upper parts are black, the coverts overhanging the white wing-bar being fringed with buff, though the actual tips are dark grey. The margin of the black gorget is buffish, the feathers being slightly tipped with grey. In this bird the base of the mandibles is orange-red, the extremity being black; but, in the downy nestling of June 16, the mandibles are dark green, yellow at the base. The tarsi of the downy bird are greyish above, brownish-yellow beneath; but in the older nestling (in life) the tarsi and toes are grey. In both nestlings, the irides are dark hazel, which appears to change to crimson during the first winter.

Family SCOLOPACIDÆ.

GENUS PHALAROPUS.

P. Hyperboreus. RED-NECKED PHALEROPE.

The Red-necked Phalerope is a rare casual visitant, hitherto only detected in Cumberland upon the Solway.

An immature bird was shot on Rockliffe Marsh, September 23rd, 1879; an adult, in summer plumage, was shot in the spring of the year by Mr. T. Mann,

whilst swimming in a small pond near Allonby; a third was shot on the Solway by G. Dawson; we observed a fourth at the point of Skinburness, September 8th, 1884, the under surface of the wings exhibiting in flight a silvery appearance.†

P. Fulicarius. GREY PHALEROPE.

The Grey Phalerope is a rare casual visitant on autumnal migration, and has been detected at different points of the Cumbrian coast in between twenty and thirty instances. Of these, a single bird was shot near Workington in the autumn of 1884; and we observed another near Beckfoot on October 8th, 1885, though we failed, accidentally, to secure the bird. At the same time, we received a fine example in the flesh, shot on the Sussex coast on October 6th.

Mr. R. Mann, from his long residence in immediate proximity to the Solway, has been singularly fortunate in meeting with the Grey Phalerope. "Three Grey Phalerope," he writes, "were once sent to my brother together to be stuffed, and the man who sent them, says that he shot the three at one shot from a flock of six. Another was sent which was killed in a stream near Dubmill, and I have also seen one or two more which had been killed in the neighbourhood. I have myself seen several Grey Phalerope at different times. Once I saw two together in Mealsbeck, a little west of Allonby, and I have also seen an odd one or two

† Another Red-necked Phalerope was shot on a pool at Kirkbride, October 20th, 1885.

when at Crookhurst. The Grey Phalarope is an active bird and can swim well. Its flight is not unlike that of the Common Sandpiper. The call-note is a peculiar twittering whistle. Any that I have seen were very tame, and if disturbed from the water, generally took a short flight and again alighted near the same place."

The only bird we have ourselves examined in full *winter* plumage, is a bird in Mr. Batey's collection, shot at Millom in December, 1876. The Grey Phalarope has only twice occurred in spring. An example was found dead at Cargo, in March, 1853, and this bird is preserved in Carlisle. In 1881, a pair of Grey Phalaropes were observed by Mr. H. P. Senhouse at Cockermouth, on April 13th. Far inland, a Grey Phalarope was shot on Park Fell, near Alston, on October 28th, 1843, and another was killed on Derwentwater lake during the last week of September, 1885 (*Capt. Dover*, in lit.)†

GENUS SCOLOPAX.

S. Rusticula. WOODCOCK.

The Woodcock is a local resident, nesting in a good many localities throughout the county; but more strongly established in the north than in the south or west. The nesting of the Woodcock in Cumberland is a modern feature; for though the occasional presence of the Woodcock in Cumberland during the summer was ascertained by Mr.

† During the visitation of 1866, a Grey Phalarope was killed in Cumberland on the early date of August 24th, three others being shot at Allonby in September (*J. H. Gurney, jun.*, "Grey Phalarope," p. 20).

T. C. Heysham, some fifty years since, he does not appear to have obtained either eggs or young, although he employed a number of amateur collectors. Since that time, the occasional nesting of the Woodcock has been recorded in the local papers; yet old residents, who have birdnested since their boyhood, consider the nesting of the Woodcock a purely modern development, and assure us that in their fathers' time the Woodcock was solely a periodical visitant. Now, two broods are often reared in a season, the birds of the first brood flying in May. It is interesting to watch the fighting of the old birds as they fly, in the twilight, from one plantation to another, uttering a hoarse croak at intervals. We have searched all day through the largest plantations in Cumberland, without flushing more than a single bird, and yet when dusk arrived, "cock" after "cock" passed and repassed to the feeding grounds.

The nest of the Woodcock is a slight but careful structure, composed of fine stems and a few dead leaves, generally placed near the foot of a tree in a fir plantation. The eggs are four in number, but it often happens that one of the clutch is addled. A keen eye is needed to detect the presence of the Woodcock, with her young, "as she crouches upon the bare ground under the shadows of the young firs, her back turned to the light, her head reposing in the shade. Three well-grown nestlings are crouching on one side of her, and beyond her is a fourth; upon our nearer approach, the old bird unwillingly rises, but the brood continue to squat, without attempting to escape."

In those favoured localities, in which the Woodcock is resident, birds may be found in every month; but the sportsman's supply depends chiefly on the large flights of Woodcock which arrive in October and November, resting a few weeks and then passing south, until at Christmas but few are to be found. The return passage occurs in March.

The assiduity with which Woodcock haunt certain favourite "runners" is noteworthy; if the owner be shot, a successor is almost certain to claim his possession.

Woodcock are rarely pied. A bird with white wing quills was shot some years ago near Edenhall, where it is preserved.

A nestling Woodcock in down, obtained on June 13th, is buff in ground-colour, richly mottled with bright reddish brown, which is darkest upon the crown, where it forms a triangular patch. A dark line extends from the base of the lower mandible to the eye. Another dark band extends from the small of the back to the fringe of the tail. Irides, dark hazel. Bill and feet, grey.

The following is an extract from Hutchinson's History of Cumberland, relating to Muncaster:—

"We were informed that formerly so great abundance of Woodcock frequented the woods in this manor, that, by a special custom, the tenants were obliged to sell them to the lord for one penny each; they were taken by springs and traps; but since the country was stripped of wood, they make a short stay here in their passage, and are of late years become very scarce." P. 567.

This scarcity of course refers to the later years of the eighteenth century.

GENUS GALLINAGO.

G. Major. GREAT SNIPE.

The Great or Solitary Snipe is a rare casual visitant in September, but has been obtained only in a few instances in the north and west of the county, the "Great Snipe" of sportsmen being generally large specimens of the Common Snipe.

The late Mr. W. Dickinson records an example, shot near Sylecroft, in the autumn of 1861, which weighed 10 ozs. ; a second, shot on Troutbeck moss ; and three others shot in different years near Workington.

Mr. T. C. Heysham records a Great Snipe killed near Bewcastle, in September, 1831, and a second shot at Dalston in the same month and year.

Another was obtained near Carlisle in 1881, and is preserved in Mr. G. Coulthard's possession. No doubt others have occurred, but the species is a rare visitant, and misconceptions are frequent.

G. Cælestis. COMMON SNIPE.

The Common Snipe is a numerous resident, and its bleating in the breeding season may often be heard on our mosses.

Mr. Heysham secured a specimen, with white primaries, in October, 1832, and a much-pied Snipe haunted the drains of Cardew Mire in the autumn of 1884.

GENUS LIMNOCRYPTES.

L. *Gallinula*. JACK SNIPE.

The Jack Snipe is a common winter visitant, arriving most numerous in October, and generally distributed. In the opinion of sportsmen, it has become less numerous of late years, whilst the Common Snipe is on the increase.

GENUS TRINGA.

T. *Alpina*. DUNLIN.

The Dunlin is a numerous resident, extremely local in its choice of breeding grounds. A few pairs nest upon the east fells, especially in the Bewcastle and Alston districts, but the stronghold of the species is Rockcliffe marsh, the property of G. W. Mounsey-Heysham, Esq., by whom it is preserved. A few pairs nest upon Burgh marsh, upon Glasson moss, upon Bowness and Wedholme flow, and at Skinburness; Dr. Parker has obtained eggs in the Ravenglass district. From the lakes it appears to be wholly absent during the breeding season, at least so far as Cumberland is concerned; we have never observed it on any of the lake mountains, and the evidence of Mr. F. Nicholson, of Mr. Greenip, and other correspondents, is equally conclusive. It has, however, occurred near Keswick in a single instance, *i.e.*, in mid-winter.

The Dunlin is a later breeder than the Redshank, and though Mr. C. Murray Adamson once found four young Dunlins on Burgh marsh, on May 20th, it is not until the beginning of May that the

breeding birds repair in any numbers to Rockliffe marsh for nesting purposes.

Upon the salt marshes, the nest is chiefly embedded in a tussock of long coarse grass, the blades of which are often drawn carefully over the nest; but, on Rockliffe marsh, many nests are placed among the blushing sea-pinks which cover the northern portion of the ground. At first, the nest is a mere depression in the soil, with little if any lining; but a lining of fine stems is carefully added as laying proceeds.

Upon the coastline, the eggs are chiefly laid early in May; but on the east fells incubation is rather later, and we have found fresh eggs as late as the middle of June.

Dunlins exhibit considerable anxiety about their nest, if incubation be advanced; and it is interesting to watch the little birds flying round an intruder, uttering a gentle trill, or alighting on the ground to run nimbly for a few paces. Some birds sit very close indeed, and may be captured on the nest. The last Dunlin's nest which we found during the summer of 1885, was on Wedholme flow, June 6th. We were searching for the eggs of a pair of Great Black-backed Gulls, which were sailing magnificently overhead, uttering measured imprecations, when the sharp cry of the startled Dunlin arose, and we saw the bird going away. There, sure enough, on a little dry knoll of heather, surrounded on all sides by boggy ground, was a Dunlin's nest, lined with a few straws, and containing four rich-coloured eggs, all much incubated.

It often happens that some days elapse between the laying of the first egg of a clutch and the second ; indeed Mr. A. Smith informs us, that he has known thirteen days elapse between the laying of the first two eggs.

But while the majority of Dunlin lay on our marshes at the beginning of May, laying again and again if their first clutches be robbed or destroyed by a high tide, large flocks may be observed on the coast at the same time. Thus on May 8th we observed a flock composed of about a hundred Dunlin and nearly as many Ringed Plovers, on the coast at Bowness. As soon after daylight as the tide had retired sufficiently to allow of their feeding, they scattered over the mud exposed, and the twitter of the Dunlins, repeated at intervals by the whole flock, created a sort of running murmur, very grateful to an ornithologist.

Large flocks congregate on our coast-line from autumn until the following breeding season, haunting the sandbanks, and retiring to rest upon the shingled beach or the salt marshes. When seen at a distance, a flock of some thousands of these birds may easily be mistaken for a dark cloud. The effect of their evolutions, as each individual bird moves with exact precision in the same direction as its fellows, alternately exhibiting the silvered belly (of winter) and the dark upper parts, can never fail to refresh the observer. The numbers of resident birds are largely increased in autumn by Dunlins from more northern breeding grounds, and these appear to be rather larger than our home-bred Dunlins.

T. *Minuta*. LITTLE STINT.

The Little Stint is a rare casual visitant to the Solway, but has not been detected elsewhere upon our west coast. Mr. Adamson has shewn that 1839 was an *Annus Mirabilis* for the Little Stint upon the Solway, James Cooper sending him no less than ten specimens, with the information that he had seen ten times more Little Stints that autumn than in all his previous experience. Of late years, the Little Stints' visits to the Solway have been few and far between. Mr. S. Watson has received several during his long practice as a bird-stuffer, the last, now in Mr. Hodgkinson's possession, having been killed at Bowness-on-Solway in the autumn of 1879. James Fell also shot a single Little Stint out of a party of Dunlins at Skinburness; but Mr. A. Smith has never obtained a specimen, and Mr. Tremble has only once shot a Little Stint on Burgh marsh during twenty years' experience. This was a solitary bird, which frequented a creek near the monument. Cooper twice shot Little Stints in winter, *e.g.*, a bird shot on Burgh marsh, November 19th, 1831; once he shot a Little Stint in summer dress, June 1st, 1839.

T. *Temmincki*. TEMMINCK'S STINT.

Temminck's Stint is an accidental visitant to the Solway. Two immature birds were shot on Rockliffe marsh, September 1st, 1832; a third was obtained on the 5th of the same month. In 1839, a fourth was shot in the same locality on Sept. 2nd, by James Cooper.

T. *Subarquata*. CURLEW SANDPIPER.

The Curlew Sandpiper is a periodical visitant, a few immature birds occurring on the Solway in September, when migrating to their winter quarters. In 1884, a young male was shot on the 3rd of September. The Curlew Sandpiper has also been obtained on the vernal migration. Cooper shot two on Rockliffe marsh, on May 24th and 27th, 1833, and observed a small flock in May, 1838. Again, in 1885, we had a near view of a Curlew Sandpiper on Rockliffe marsh, on the 9th of May. Inland, the Curlew Sandpiper has once occurred on the border of the county, near Alston.

T. *Striata*. PURPLE SANDPIPER.

The Purple Sandpiper is a winter visitant in very sparing numbers, the sandy shores of Cumberland being eminently unsuited to this rock-loving species. It occurs in autumn at one or two points of the Cumbrian Solway, but is more frequently met with on the open coast near St. Bees.

The Purple Sandpiper has occurred inland, a single specimen being felled by the telegraph wires, near Barrock Park, October 24th, 1884.

T. *Canutus*. KNOT.

The Knot is a winter visitant, arriving on the Solway and coast in September and October, departing in March and April. Odd pairs have been shot on the river Waver in May, which had partly assumed the red breast of summer; and stragglers have been obtained in that plumage in August.

The Knot is an extremely gregarious bird, and large parties feed together on the mud flats, or fly to and fro uneasily, as the rising tide covers their favourite sandbanks. It is more abundant upon our coastline in winter than any other wader, except the Oystercatcher and Dunlin.

GENUS MACHETES.

M. Pugnax. RUFF.

The Ruff is a scarce visitant on autumnal migration. In recording two Reeves, shot on Rockliffe marsh, on August 23rd and 25th, 1832, Mr. T. C. Heysham wrote—"From various sources of information, we are strongly inclined to think that a few young Ruffs annually resort for a short time to the salt marshes in the vicinity of the Solway Frith, during their autumnal migration." During the last twenty years, Mr. Tremble has never failed to shoot one or two Ruffs, chiefly young birds, at the end of August or during September. In the present autumn (1885), Mr. Tremble shot a young Ruff out of a party of six, as they skimmed swiftly along the edge of Burgh marsh; and, for the first time in Mr. Tremble's experience, we saw the survivors flying out to the mud banks of the channel, in advance of a party of Peewits. In 1884, a Reeve was shot on Rockliffe marsh, on August 30th. Six specimens were shot on Burgh marsh, on September 8th, and another Reeve was shot at Skinburness, on September 10th. There are no authenticated specimens of the Ruff obtained

in Cumberland in spring, but a Reeve accidentally nested near Burgh in a single instance. The eggs were sent to Mr. C. Murray Adamson, and are now in Mr. Hancock's collection. Inland, the Ruff has occurred in three instances in the Alston district, when migrating across country to the western coast. A male was killed on Ale fell, in August, 1838; a second was killed in the same locality, in September, 1864; a third bird, now in our possession, was shot on the fells near Garrigill, in September, 1880.

GENUS CALIDRIS.

C. Arenaria. SANDERLING.

The Sanderling is a periodical visitant, large flocks appearing on the coast in spring and autumn, but not remaining to winter. The Sanderling lingers in spring until the middle of May, when the breeding plumage is nearly complete in some individuals; though in others it is but little developed. Inland, a Sanderling was shot, in 1864, at Barrock Park, where it is preserved.

GENUS TRINGITES.

T. Rufescens. BUFF-BREASTED SANDPIPER.

The Buff-breasted Sandpiper is an accidental visitant from north America. A single bird, which was unaccompanied by any other *Tringæ*, was shot near the monument on Burgh marsh, in September, 1876, by John Dawson, and was skinned by his brother, George Dawson, in the presence of Mr. Hill of Carlisle. This bird was only pinioned by a

shot, and is a very perfect specimen. It is now in the collection of Mr. G. Dawson of Belle Vue, Carlisle, where it may be seen.

GENUS TRINGOÏDES.

T. Hypoleucus. COMMON SANDPIPER.

The Common Sandpiper is a summer visitant, arriving in small parties in the middle of April, and proceeding to elevated breeding grounds during the latter portion of the month.

Many pairs of Common Sandpipers breed on the banks of our lakes and rivers, but the nest is difficult to find, being frequently placed on the bare shingle (which closely assimilates to the colour of the eggs) or sand, under the shelter of the broad leaves of the butter bur. When the young are hatched, the old birds exhibit the greatest solicitude for their welfare, and on the banks of our wooded rivers may be observed to perch on trees, in order to secure a fuller view of the intruder. Thus, in 1883, "On June 25th, Mr. Duckworth and I found young Sandpipers on the Eden. One of the old birds crossed the river and perched on a dead branch of an ash, from fifteen to twenty feet above the bank; there it contentedly remained for twenty minutes, when we left it perching as calmly as any Finch could do." (Zool., 1883, p. 128). The fact came under our notice again in 1884, witness the following extract from one of Macpherson's notebooks:—"June 13th. To Cotehill, with J. R. Earle, Having failed to find any Crossbills, we sought the Eden, and crossing a gravel bed disturbed a

Common Sandpiper, which began to wheel about us, crying loudly to his mate, which responded at intervals from the further bank. Having lost sight of the male for a few moments, we were surprised to see him dart off a dead bough. Naturally, we lay down, and he alighted on a bough of willow, whence he listed his love song for exactly eight continuous minutes; then, gently expanding his pinions, he flew to a higher branch, on which he perched for two minutes. He next took a turn up and down the river, once more alighting on a large tree, about thirty feet from the ground, and nearer to us than had been the case at first. He alighted on this tree near to the trunk, but finding his perch not entirely to his liking, he proceeded to trip down the curved branch with some care, securing his footing with his long toes, which we could distinguish through the glasses; arrived in the centre, he perched crossways on the bough, and recommenced calling to his mate. Some twenty minutes later, I heard her reply softly, and glancing round, spied her on a rock in the bed of the river. Scarcely had I pointed her out to Earle, than she flew to the further bank, alighting on a branch of a half-submerged tree; there she preened herself for twenty minutes. Just as the male Sandpiper had completed one hour and five minutes, by my watch, on his perch, a beautiful Pied Flycatcher flew into the next willow, with a green caterpillar in his bill. An instant later his mate appeared. Forgetting the phenomenon of the perching Sandpiper, Earle and I started to our feet together, thereby disturbing

the little wader ; away he ' glode,' chanting his love song up the waters until it died away in the distance. A moment after, the Pied Flycatchers darted across Eden, and disappeared in the dense foliage of the further bank."

In autumn, the Common Sandpiper haunts the creeks of our salt marshes in trios and quartettes, departing in September, though an example was shot in October, 1884, on the Eden.

The young of the Common Sandpiper are clever in hiding under tussocks, and if captured, answer the adults with a low piping cry, almost identical with that of the adult.

A downy bird, captured on Bassenthwaite lake on June 13th, and about one day old, is grey in ground-colour, mixed with black ; from the base of the mandibles, a dark stripe extends backwards, converging behind the eye to meet a dark medial band, which runs from a point just above the upper mandible to the nape. The chin, breast, and lower parts are white. The down of the tail is very long and fine. Our friend, Mr. E. Bidwell, first drew our attention to the fact that the legs of the chick of the Common Sandpiper are not simply "pale green," as stated by Yarrell, in life, but are mottled with black, which fades after death. In the living chick above described, the legs were a pale greenish-grey, the frontal portion of the tarsi being adorned with a single black streak, and the toes also mottled with black. Yarrell figured the Common Sandpiper in down from a specimen sent to him by T. C. Heysham.

GENUS HELODROMAS.

H. *Ochropus*. GREEN SANDPIPER.

The Green Sandpiper is a periodical visitant to the Solway salt marshes, haunting the smaller creeks in small parties, but more often singly, from the end of July until the middle of September. It occurs in suitable localities all along the coast line in autumn, but must be considered constantly a scarce bird. The Green Sandpiper has been obtained in Cumberland during the breeding season, an adult having been shot near Alston in June, 1839. It has once occurred in mid-winter, an adult being shot at Cardewlees on January 3rd, 1885.

GENUS TOTANUS.

T. *Glareola*. WOOD SANDPIPER.

The Wood Sandpiper is a very rare visitant. In August, 1867, a party of five Wood Sandpipers visited a small rushy pond, since drained, at Edenhall. Two examples were shot in the presence of Mr. Raine, and are preserved at Edenhall.

T. *Calidris*. REDSHANK.

The Common Redshank is a numerous resident, many pairs breeding on Rockliffe marsh, and a few others on Skinburness and Burgh marshes. It does not appear to breed on the Duddon, but Mr. Turner believes that a few pairs breed near Ravenglass, and Mr. Baillie informs us that during the present

spring (1885) he observed some Redshanks evidently nesting on a moss on the Caldbeck fells.

Upon Rockliffe, where the Redshank has nested in increasing abundance of late years, the nest is usually a saucer-like depression in a thick tussock of coarse grass, slightly lined, and carefully concealed. The nests are generally placed a considerable distance apart. The eggs, four of which constitute a clutch, are laid in April, generally from the middle to the end of the month. If a Peewit's egg be substituted for that of the Redshank, the old female will complete the clutch, but if the first egg be taken and no Peewit egg exchanged, she deserts the nest, and forms a new one. The young readily conceal themselves, but their whereabouts may be guessed by the anxiety of the parent birds, which wheel to and fro in loud dismay, uttering their prolonged call-note, which is peculiar to the breeding season.

In autumn, adults and birds of the year leave the higher marshes of the Solway, haunting the creeks at Skinburness with a provoking knock of alarming other birds. To "cut like a Redshank" is a Cumbrian proverb, and the wildness of this species gives a point to the saying. At Skinburness, the Redshank flies up and down the creeks in parties composed of five or six birds, but we have counted twenty in a flight in September. Sir W. Jardine once killed thirteen Redshanks at a shot in this favourite locality.

A nestling in down, caught on May 17th, on Burgh marsh, the upper parts are buff, mottled with

dark brown, and tinted with ferruginous on the crown and pinions; the chin, white; breast, buffish; lower parts white. In three nestlings of another clutch, the ferruginous tint just alluded to is absent, the ground-colour being so pale as to approach grey rather than fawn-colour. The legs of the downy young are incipient yellow, sometimes mottled with flesh-colour.

T. *Fuscus*. SPOTTED REDSHANK.

The Spotted Redshank is an accidental visitant. Mr. C. M. Adamson, in his invaluable work, "More Scraps about Birds," supplies, at p. 79, the fullest particulars known to us regarding the specimens of this rare wader obtained by Mr. T. C. Heysham. Mr. Adamson quotes a letter written by the late James Cooper, Mr. Heysham's most successful collector, dated August 19th, 1840, in which he says—"I forgot to tell you of my Friday's journey. . . . I went up Eden-side, and about three quarters of a mile above Rockcliffe, I saw a Spotted Redshank, which rose and flew towards Sandsfield." Mr. Adamson adds that Cooper informed him that he stuffed a Spotted Redshank which had been shot at Cardurnock, in 1829, for Mr. Heysham, and that he saw another in 1833. Yarrell appears to have accepted Stanley's authority for the occurrence of a Spotted Redshank at Whitehaven, but the meagre entry in Stanley's list (*Loud.*, Nat. H., 1830, p. 171), "*Scolopax Totanus*, Spotted Redshank, rare," is clearly insufficient for that conclusion. A specimen preserved in the Proud collection was shot by Mr. Proud, sen., "in the marshy backwaters of the

Irthing," near Brampton, in the autumn of 1849 or 1850. (*W. Proud*, in lit.)

T. Canescens. GREENSHANK.

The Greenshank is a periodical visitant, of constant though scarce occurrence on the Solway and west coast in August and September. Mr. Fleming has two good specimens which he shot inland on the Eden at Little Salkeld, in 1864; but specimens are seldom met with far from our coastline. The Greenshank haunts the gravel beds of the Solway, and the outlets of the larger creeks, often in parties of two or three, but as frequently solitary, restlessly flying along the margin of the marsh, the long dark wings skimming swiftly over the mud, while its plaintive note, "tu, tu, tu," floats across the water.

In autumn, when immature birds chiefly occur, the Greenshank is an uneasy, suspicious bird, and difficult to obtain. Mr. Tremble on one occasion killed two Greenshanks and a Turnstone on the edge of Burgh marsh at a shot, on a bright moonlight night.

A Greenshank, shot on the Eden near Carlisle, August 15th, 1832, and opened by T. C. Heysham, contained a bearded loach; while two immature birds, shot on August 25th, had been feeding on sparlings (*Osmerus Eperlanus*) and shrimps.

GENUS MACRORAMPHUS.

M. Griseus. RED-BREASTED SNIPE.

The Red-breasted Snipe is an accidental visitant from North America. A single immature female

was shot on Rockliffe marsh on September 25th, 1835, by J. Cooper. A high tide had covered the whole of the marsh, with the exception of a few elevated patches, on one of which the bird was observed, feeding busily. The stomach contained the *elytra* of some small *coleoptera*. (*Loud.*, Mag. N. H., Vol. IX, 1836, p. 186.)

Mr. C. M. Adamson states that in June, 1858, he found this specimen in a ruined condition. (*More Scraps about Birds*, p. 67.)

GENUS LIMOSA.

L. *Lapponica*. BAR-TAILED GODWIT.

The Bar-tailed Godwit is a periodical visitant, of regular occurrence on our estuaries on migration. A few small parties winter on the Solway. Jardine observes that he never failed to meet with specimens at the end of August and in September (and our own experience is similar), at Skinburness and on the Wampool; but the open coast and the higher portions of the Solway are not so favoured, though odd birds are shot on the salt marshes of Burgh and Rockliffe, and even at Carlisle. Mr. Adamson shrewdly remarks that he did not see this wader on the Solway "in such flocks as come to the Northumberland coast at this season" (September).

L. *Egocephala*. BLACK-TAILED GODWIT.

The Black-tailed Godwit is a rare casual visitant to the Solway, but has not been detected in any other part of the county. In 1832, an immature

male was shot on Rockliffe marsh in August, and a few occurrences followed at long intervals until 1884, when two immature birds were shot at Bowness and Skinburness respectively, in September and October. Their long tarsi and toes were of a delicate slate-grey, many shades lighter than the tarsi of the Bar-tailed Godwit. An adult in breeding plumage, shot on Burgh marsh in May, 1876, is in the possession of Mr. W. H. Doeg.

GENUS NUMENIUS.

N. Phaeopus. WHIMBREL.

The Whimbrel is a numerous periodical visitant, in May and August, frequenting the margins of the higher salt marshes at the former season, but almost entirely restricted during autumn, like the Bar-tailed Godwit, to the lower portion of the Solway. Mr. Tremble has only shot a single Whimbrel at Burgh in autumn, in his twenty odd years' experience. Stragglers accidentally linger into November on the Solway, as happened in 1883, when we handled a fresh killed bird in the middle of the month. In 1884, we saw a good many on the Solway in September, but they generally hurry south in autumn.

N. Arquata. CURLEW.

The Curlew is an abundant resident, nesting plentifully on our fells and inland mosses, and in lesser numbers in fields and mosses near the coast.

A pair generally nestle in a rough strip of waste land within three miles of Carlisle. The nest of the Curlew is a slight depression with a scanty lining, and four eggs constitute a clutch. On the lower grounds, the eggs are generally laid during the latter half of April; but during the present spring (1885), we examined fresh eggs on Glasson moss in the first half of May, and on the eastern fells we once found a clutch of fresh Curlew eggs at the beginning of June. The nests are more frequently situated on the edge of a moss, or in some rough meadow adjoining, than in the centre of the waste. The young run at the end of May and the beginning of June. From their acuteness in hiding, they are more difficult to find than the nests, but neither can be found, except accidentally, unless the movements of the old Curlews be carefully studied. Throughout the summer, a few Curlews, apparently non-breeders, may be observed feeding on the mud flats of our estuaries. In August, large parties of Curlews repair to the salt marshes, performing regular flights to and from their favourite feeding grounds. Mr. Tremble believes that the Curlews which frequent Burgh marsh feed largely on spiders in early autumn. Many Curlews haunt the more open parts of the Solway, and their movements, as they fly to and fro in small parties, probing the mud in all directions, and feeding along the margin of the retiring tide, may be conveniently studied, with a good pair of glasses, from the shelter of a breakwater or a heap of wrecked timber.

In March of the present year (1885), Mr. Hodgson observed an interesting movement of Curlews from his station at Flimby, on the Solway. For ten or fourteen days, single pairs of Curlews continued to cross the Solway from the direction of Kirkeudbright, "apparently on their way to the uplands of Cumberland for breeding purposes."

A nestling captured on June 6th, and apparently three days old, is greyish-fawn in ground-colour, mottled with black on the upper parts, the buff growing warmer on the pinions; the lower parts are buffish-white, with something of the golden lustre of the downy Wigeon; bill dark grey, irides dark brown, tarsi and toes slate-colour.

Family LARIDÆ.

Sub-Family STERNINÆ.

GENUS STERNA.

S. Macrura. ARCTIC TERN.

The Arctic Tern is a periodical visitant on spring and autumn migration. Several of the specimens which we have examined were shot on the coast near Workington. As a straggler, the Arctic Tern has been obtained in autumn near Alston. It is possible that a few pairs breed at Ravenglass, probably on the south side of the estuary; but on this point our evidence is not conclusive.

S. Fluvialis. COMMON TERN.

The Common Tern is a summer visitant, arriving at the beginning of May, to nestle in considerable

numbers in two localities, viz., among the sandhills at Ravenglass, and on the margin of Rockcliffe salt marsh. In Sir W. Jardine's time (circa, 1840), a third colony, composed of a few pairs, nested on the shingle at Skinburness, but this breeding station has not been occupied of late years. Inland, the Common Tern has occurred more than once near Alston, an individual preserved at Garrigill having been shot very late in autumn, when the fells were sprinkled with snow.

S. Dougalli. ROSEATE TERN.

The Roseate Tern is an accidental visitant. An example was shot, many years since, on Burgh marsh (*T. C. Heysham*), and another was shot, in the same locality, in 1872, by Mr. Tremble. In the spring of 1880, a Tern, believed to be a Roseate Tern, was repeatedly fired at on the Esk, but was not obtained. The Roseate Tern should be recognised by its slender shape, darting movements, and long tail feathers. Yarrell stated in the first three editions of his *British Birds* (cf. Vol. III, p. 394, 1st ed.), that this Tern probably bred "on some of the low flat islands in the Solway Frith." There are no islands in the Solway. Cardurnock is locally called "the island"; but no Terns breed there.

S. Minuta. LESSER TERN.

The Lesser Tern is a summer visitant, many pairs nesting on the Ravenglass estuary. In Sir W. Jardine's time, a second colony existed at Skinburness, and would possibly have been there

yet, had they not been so much persecuted. A few birds as late as 1882 frequented the locality, but, being repeatedly fired at, at length deserted the place. In 1885, the first Lesser Terns arrived at Ravenglass on May 1st, wind southerly. In 1885, also, we found a good many nests, containing fresh eggs, generally two in a clutch, on May 29th. The nest is a depression in the sand or on the shingle, at no distance from the water. It is frequently lined with fragments of small shells, but some nests have no lining. In 1884, we found a nest containing a newly-hatched bird and a chipped egg, and a second nest, with two newly-hatched nestlings, on June 16th; the other nests containing clutches of two eggs and of three eggs, all apparently incubated.

S. Cantiaca. SANDWICH TERN.

The Sandwich Tern is a summer visitant, a few pairs nesting in a single locality on the Ravenglass estuary. The exact date of the foundation of this colony is uncertain, but its founders probably came from Walney. Mr. Farren well recollects the arrival of the first pairs. Now about seventeen pairs breed there, the number increasing every year, the birds being carefully protected by Lord Muncaster. In 1884, the Sandwich Terns arrived on the estuary on April 23rd, and we examined seven downy nestlings and several clutches of incubated eggs on June 16th. In 1885, we examined a single nestling in down (its fellow was just hatching out), on May 29th, and fourteen clutches of eggs, some of them fresh and others evidently much incubated.

In this locality, where the Sandwich Terns breed among the sandhills, the nest is a slight hollow in the sand, frequently in the centre of a tussock of dry grass, a few large straws being carefully disposed around the eggs. The eggs are generally two, but sometimes three and sometimes only one, in number; some olive, some cream, and others bluish-green in ground-colour, with rich blotches of blackish-brown, especially at the larger end. The young can run with some speed, if alarmed, but prefer to squat perfectly motionless, save for respiration and the blinking of their eyelids. On being handled, a nestling threw up a small fish, which was dubbed a "herring-fry."

The time of the arrival of the Sandwich Tern varies considerably. In 1885, the first pair appeared at Ravenglass, on the 6th of April, wind south-east, rain. During autumn, the Sandwich Tern is of course more widely distributed than in the nesting season, and immature birds had been occasionally shot on the Solway, prior to the establishment of the nesting station at Ravenglass.

The nestling is covered with fine lanceolate down, buff, grey, and black filaments being intermixed; the lower parts are white. In the nestling, the bill is dull ochre, tip horn colour, tarsi and toes livid, webs and soles orange, the latter colour being most developed in newly-hatched birds, and becoming less and less marked in older specimens. The irides are dark hazel.

Mr. Mitchell remarks (B. of Lancashire, p. 209), that in 1878 Mr. Durnford found a young Sandwich

Tern on Walney island, "almost ready to fly," on May 21st; but a reference to the *Zoologist*, 1878, p. 120, shows that Mr. Durnford referred to the 21st of *June*, and not to the month of May; the latter would have been an extraordinary date.

GENUS HYDROCHELIDON.

H. Nigra. BLACK TERN.

The Black Tern is a rare casual visitant, on spring and autumn migration, following the western coastline and trending eastward of the Solway. Our latest notes refer to two adults, observed on the Solway on October 20th, 1884, and to another which haunted a "runner" near Aiglegill, on and after April 27th, 1885. Mr. T. Armstrong recorded in the *Naturalist* (Vol. VII, 1857, p. 251), that he took a clutch of the eggs of this species on Solway flow in 1855, but he appears to have parted with them. The locality being a heather-covered moss, with sedgy pools interspersed, is as likely as any in the county, but there are no other records of the presence of the Black Tern in full summer. Far inland, a Black Tern was shot some years since at Talkin Tarn, probably on its way to or from the east coast.

Sub-Family LARINÆ.

GENUS RISSA.

R. Tridactyla. KITTIWAKE.

The Kittiwake is a fairly numerous winter visitant, immature birds occurring constantly in the

neighbourhood of the seaboard. We have recently examined several freshly-killed Kittiwakes, obtained on the eastern borders of the county, but it is of very irregular occurrence far inland.

GENUS L A R U S .

L. *Glaucus*. GLAUCOUS GULL.

The Glaucous Gull is a rare casual visitant in winter. An immature bird was shot near Raven-glass, on November 23rd, 1877, (Zool., 1879, p. 119), another was shot near Bowness in the winter 1883-4. Mr. R. Mann refers to this species, a large white Gull shot some years ago at Allonby, and mounted by Mr. T. Mann.

L. *Leucopterus*. ICELAND GULL.

The Iceland Gull is a casual visitant of rare occurrence on the Cumbrian coast in mid-winter. An immature bird was shot at Calder's mouth, February 20th, 1880 (Zool., 1880, p. 221); a second, also immature, and not in company with any other Gulls, was shot by Mr. R. Moore, on the edge of Millom salt marsh, January 28th, 1882, and is now in our possession.

Mr. T. C. Heysham recorded, as new to Cumberland, an immature Iceland Gull killed on the Solway at Browhouses; but Mr. Heysham evidently mistook the exact locality of Browhouses, which is on the Scotch, not on the English, side. This early specimen was killed on February 8th, 1835.

L. Argentatus. HERRING GULL.

The Herring Gull is an abundant resident, but only nests in a single district, upon the high cliffs at St. Bees. Between three and four hundred yards of cliff are occupied by the birds of this colony, which, if disturbed when sitting, fill the air in a white cloud, in which we have detected birds in a transitional state, not having fully assumed the lavender mantle of the adult, although presumably paired birds. The nest varies in size, and is placed upon a grassy ledge, the eggs, generally three in number, being laid during May, chiefly at the beginning of the month. The young, which are adepts at eluding observation by squatting, are clothed with grey down, mottled with black. During autumn and winter, with us, the immature birds are chiefly solitary, but their gregariousness or the contrary depends chiefly upon the relative abundance of food.

The Herring Gull frequents our rivers and feeds in inland meadows in stormy weather. Large "mobs" of immature birds may be observed in the immediate vicinity of the breeding colony at St. Bees throughout the summer.

In Westmorland, a colony of Herring Gulls exists at Foulshaw moss, near Arnside, abandoning their love for a precipitous cliff or an isolated stack, and nesting in great numbers on low marshy grounds. When Mr. W. A. Durnford visited this colony in May, 1879, he remarked (Zool., 1879, p. 339), that the Lesser Black-backed Gulls, which

shared the shelter of the moss, seemed "to exceed the Herring Gulls in the proportion of nearly ten to one." Mr. F. S. Mitchell, who visited Foulshaw moss during the summer of 1885, found, to his surprise, that the Lesser Black-backed Gulls have nearly disappeared from their nursery. Mr. Mitchell informs us that he found the Herring Gull very strongly established, but that he only observed five or six pairs of *Larus Fuscus* on the moss.

L. *Fuscus*. LESSER BLACK-BACKED GULL.

The Lesser Black-backed Gull is a numerous species, breeding gregariously in four localities, and generally distributed along the coast in winter. many pairs nest upon Bowness, Wedholme, and Solway flows, where the eggs are laid in May. Owing to the destructive propensities of this Gull, many eggs are taken or destroyed at these stations, notwithstanding which, the species does not exhibit any signs of decreasing.† A fourth colony exists on Butterburn flow.

Two nestling birds in the possession of Mr. R. Mann became great pets. They exhibited great expertness in catching mice, which became a favourite item in their bill of fare.

The nestling in down is grey, mottled with black, but its texture may be a trifle finer than that of the Herring Gull, which it closely resembles.

† The eggs are taken by the keepers, all localities named in this work, as holding breeding birds, being strictly preserved. The authors' thanks are due to various proprietors for permission to visit their properties, *which are closed to collectors.*

L. Canus. COMMON GULL.

The Common Gull is a winter visitant, constantly present on the coast, and frequently to be seen feeding inland, during the colder months of the year.

We cannot substantiate the statement of the late Dr. Gough, that the Common Gull bred in Cumberland (Ibis, 1865, p. 81), but a few adults as well as immature birds pass the summer with us.

L. Marinus. GREAT BLACK-BACKED GULL.

The Great Black-backed Gull is a resident species, about fifteen pairs nesting (1885) upon Bowness and Wedholme flows, in the neighbourhood of the Solway.

Dr. Stanley states, "A colony of these birds breed on a margin of a lake in this neighbourhood, called Devoke water, and are known here by the name of the Devoke Water Maws" (*Loud., Mag. Nat. Hist.*, 1829, p. 276). This colony continued to exist for many years, and has only recently become extinct.

Adult and immature birds are generally distributed on our coastline in winter.

L. Ridibundus. BLACK-HEADED GULL.

The Black-headed Gull is an abundant resident, no less than nine extensive colonies nesting in Cumberland, exclusive of a few localities frequented by single pairs. Upon Salta moss, Wedholme, Bowness, and Solway flows, the birds nest gregariously upon the heather, these localities being

in fact extensive mosses in the neighbourhood of the Solway. Inland, there are two large breeding stations at Denton fell and Bolton fell, and here also the birds build their nests in the heather. Another colony exists at Greystoke Park, and was visited in 1884 by Mr. Hodgson, who thus describes it:—"The locality is a long shallow pool, with islets of rushes on which the nests are constructed, when I saw it last, the later broods were hatched and the place swarmed with young birds, from a few hours to probably a few weeks old. They scuttled about the pool with great animation, swimming and diving with agility, and quickly hiding among the rushes and equisetæ, when any danger threatened. The old birds are quite valorous in defence of their young, and when one of my boys, who is a promising ornithologist, managed to capture one of a callow brood, he was attacked with such impetuosity by the bulk of the old birds present, that he was glad to release the captive. About two hundred and fifty pairs bred there this season."

At Moorthwaite, near Crofton, these Gulls nest upon an island in the centre of the tarn, which, including the island, embraces an area of about nine acres. This station was explored during the present summer (1885), by Mr. B. Johnson, who calculated that there were between two and three hundred pairs of breeding birds. A few years prior to 1829, as narrated by Dr. Stanley, a pair of Great Black-backed Gulls left Devoke water for Ennerdale lake, and there "forcibly dispossessed a colony of Blackcaps, who for years had bred on a rocky island

in the centre of the lake, and compelled them to resort to the rocks on the margin, in consequence of which, the whole of the succeeding young brood, from a sudden torrent of rain sweeping down the mountains, were washed into the sea and destroyed." (*Loud.*, Nat. Hist. Mag., 1829, p. 276). A parallel to these birds nesting on the margin of the lake is afforded by a similar occurrence at Monkhill lough, where a number of Black-headed Gulls nested during a recent summer, in consequence of the water being remarkably low, and a large superficies of dried sedge thereby exposed.

A single pair nest at Devoke Water, and another pair nest upon an island in Seathwaite tarn, where Mr. T. N. Postlethwaite has found the nest composed of stag's-horn moss. The species has so generally increased of late years, that it is probable that one or two other small colonies remain to be recorded. Upon Solway and Bowness flows, many eggs are taken at the beginning of the breeding season, after which the birds frequently scatter, nesting more sporadically. In such localities, the young are of course reared some weeks later than at Ravenglass, where the extensive colony is strictly protected, few, if any, eggs being taken. It is inadvisable, however, to dogmatise as to the exact date of these Gulls laying in any one locality, for individuals vary greatly in their forwardness. In the present spring (1885), we examined two nestlings which could almost fly on the 29th of May, but the majority of young were still small, and a considerable number of nests still contained unhatched eggs.

In 1884, a few nests, also at Ravenglass, contained eggs on June 16th, though the majority of the young were well-grown, and some "fliers" had quitted the nursery with their parents.

The nest varies in size, being occasionally almost nominal, but in some instances a very cumbrous pile. The eggs vary considerably, the prettiest variety being of a bluish-green ground-colour, with few or no markings.

At Ravenglass, the nests are built among the sandhills on the north side of the estuary, the birds being so numerous that the utmost care is needed to avoid treading the young ones under foot.

It is amusing to capture a few of the larger nestlings, and to place them on the edge of the highest sandhills; their stolid appearance becomes irresistibly comical, as they slip down a few feet and then attempt to pull up, as though resenting the indignity; it is in vain, however, for the sand will slip beneath them, and down they glide *volentes* to the bottom of the pit.

The downy young are fed upon beetles and earthworms; and it is surprising to notice the quantity which will be disgorged in a compact mass, if the stomach and crop of a healthy individual be patted with sufficient persistence as to induce the sensations of sea-sickness. When the young are strong on the wing, the adults lead them to inland rivers and salt marshes, where they find a plentiful supply of food. They are not by any means dainty feeders, but, on the contrary, gather offal with avidity. During the spring, large troupes

of Black-headed Gulls may be seen following the plough, feeding on the worms and larvæ brought to the surface. In summer, they diet largely upon the perfect imago of the ghost moth, and their graceful pursuit becomes animated towards the gloaming.

The dark nuptial hood is rapidly assumed, generally with the first days of March, but there is no strict rule; we have seen several adults in full breeding plumage in January and February, and, in 1884, observed upon the Eden a single individual which had fully assumed the hood on December 19th, though the black bar on the tail, and the wing coverts mottled with brown, proved that it was not adult.

The downy nestling varies from fawn to grey in ground, mottled with black on the upper parts. A nestling of the fawn type, taken on Bowness flow, in June, exhibits a small bar of black upon the chin; the lower parts are buffy-white. The down lingers longest on the head, breast, and lower parts. A female in first feather, shot in August, 1884, exhibits the pretty immature plumage to be observed in so many of those which frequent our rivers during early autumn. The head is capped with cinnamon-brown; the neck, white; the back, scapulars, tertiaries, and smaller wing coverts, appear at first sight to be brown, but if the feathers be raised, it will be seen that the feathers are really lavender, broadly margined towards their extremity with brown. The tail is terminated by a black band. The upper breast is washed with

warm cinnamon, and this colour is more strongly developed in a younger fledgling obtained in June. A male killed in November has lost the cinnamon, and wears a slight cap of grey.

L. Minutus. LITTLE GULL.

The Little Gull is a rare casual visitant from Russia, in autumn and winter.

A fine immature bird in Messrs. Mann's collection was shot at Silloth, in the month of January; a second was shot in September, 1857, on Rockliffe marsh, by G. Dawson; a third was obtained at Westlinton, after the gale in which the "London" s.s. perished; "a splendid old bird" in winter dress was obtained on the Solway by J. B. Hodgkinson, some years since; and Sir W. Jardine records a fifth, "procured by Dr. Neill from some part of the Solway."

Sub-Family STERCORARIINÆ.

GENUS STERCORARIUS.

S. Catarrhactes. GREAT SKUA.

The Great Skua is a rare casual visitant. An example was shot by Cooper on Rockliffe marsh in the act of killing a Herring Gull (*J. B. Hodgkinson*, MS.) Another was shot on the coast near Whitehaven, and mounted by Mr. Grayson, in the autumn of 1865.

S. Pomatorhinus. POMATORHINE SKUA.

The Pomatorhine Skua is a rare casual visitant on autumnal migration. In all probability there is a

passage of this species down the Irish Channel annually, but it is generally after severe weather that examples are obtained on the coast. An adult male was killed near Whitehaven on October 16th, 1879, its companion escaping (Zool., 1880, p. 109). Another was obtained at the same time on Rockcliffe marsh by Mr. A. Smith. In 1884, a female in nearly adult plumage was shot at Bowness-on-Solway by G. Holmes, on October 24th; and several others obtained on the Solway, are preserved in Mr. G. Dawson's collection at Bellevue.

S. Crepidatus. RICHARDSON'S SKUA.

Richardson's Skua is a periodical visitant, arriving on the Solway in sparing numbers in August, departing in October. From its darting flight and habit of robbing the other Gulls, it is well known to the Solway fishermen, though it appears to be of infrequent occurrence on the open coast. Although this Skua is an autumnal visitant, it has occurred in a few instances both in mid-winter and in the height of summer. Thus an adult was shot at Skinburness on December 24th, 1880, by Mr. Johnston; while, in 1885, several birds spent the summer on the Solway, one of their number frequently flying some miles up the river Eden. A black Skua, believed to be a Richardson's Skua, and lately in the possession of Mr. T. Mann, was shot near Allonby, at midsummer. An immature bird was shot inland near Alston, on October 1st, 1857 (*B. Greenwell*, MS.), and a fine adult in the possession of T. H. Horrocks, Esq., of Edenbrows, was also obtained near Alston.

S. Parasiticus. BUFFON'S SKUA.

Buffon's Skua is a rare casual visitant. An example was obtained on Rockcliffe marsh in the autumn of 1879, by A. Smith. An adult male was shot near Kirkandrews-on-Eden on June 3rd, 1885, having, no doubt, strayed westward on its passage to the breeding grounds. It was killed by a fisherman, and was kindly presented to us in the flesh by Dr. Macdougall. Its slender shape, and the long central rectrices, combined with the black cap and delicate grey mantle, render it a most interesting specimen. Though in very perfect plumage, the body was indifferently nourished, and only contained the remains of three earthworms. The tarsi were bluish-grey in the fresh specimen, a narrow stripe of black extending for about one inch up the inside of the tarsi, toes and webs black, irides dark brown, interior of mouth pale flesh-colour. The central tail feathers extend seven and a half inches beyond the next. Tarsus one and a half inch, middle toe one and two-fifths of an inch, wing twelve inches.†

Family PROCELLARIIDÆ.

GENUS PROCELLARIA.

P. Pelagica. STORM PETREL.

The Storm Petrel is a winter visitant, occasionally blown far inland by severe gales, and picked up dead or in an exhausted state. A few years since,

† Mr. Armistead states (*Naturalist*, March, 1886) that another was obtained near Allonby some years since.

a storm-driven bird was caught in the centre of Carlisle, and others have been shot in its suburbs. It has occurred more than once in the Alston district. On one occasion the remains of a Stormy Petrel, which appeared to have been eaten by a Hawk, was found near Brampton by the late Mr. Proud. In June, 1884, we visited the lonely Ascrib isles on the north-west coast of Skye, and dug a Storm Petrel's burrow out of the soft turf. At its extremity, we found a solitary bird sitting on its one white egg. A few yellow straws were disposed around.

P. Leucorrhœa. LEACH'S PETREL.

Leach's Petrel is a rare casual visitant, specimens having been obtained inland and on the Cumbrian coast in seven or more instances. An example in the Mann collection was obtained on the Solway, near Silloth, a second bird escaping. Another was felled by telegraph wires at Carlisle, on Oct. 28th, 1884. Mr. J. J. Armistead records others from the Scotch side of the Solway. On October 3rd, 1885, at 11 a.m., when a westerly gale prevailed, we observed a Petrel, apparently a Fork-tailed Petrel, resting on the waves, near the viaduct at Bowness which spans the Solway (scaring the wild-fowl). Its white rump shewed up well to the glass. From time to time it expanded its long dark wings, and rose a foot or two above the water, but strove in vain to fly seaward against the gale, being evidently exhausted. After a rest, it flew nearer to us (we were lying in wait at the edge of the

water, the tide being so far out that it was impossible to wade to it), and we scrutinised the light wing coverts with care ; but before it was quite within range, a strong gust blew it away to the Scotch side of the estuary, where we saw it darting to and fro until it disappeared from view.

GENUS OCEANITES.

O. Oceanicus. WILSON'S PETREL.

Wilson's Petrel is an accidental visitant, but has occurred on two different occasions. The first was obtained many years ago by the late Mr. T. C. Heysham (*Yarrell*, B. B., Vol. III, p. 516, 1st ed.), but the exact locality appears to be at present unknown, though there is reason to think that it may have occurred in the Alston district. Mr. J. H. Gurney, junr., informs us that he examined this specimen at Mr. H. Saunders' sale, when it entered Lord Lilford's collection, and that he is fully satisfied of its authenticity as a Cumbrian specimen. The second occurrence (hitherto unrecorded) took place in 1881, in the vicinity of Brampton. Capt. Johnson, an ornithologist of long standing, examined this bird in the flesh, and remarks that its identity was rendered certain by the conspicuous patches upon the webs of this rare Petrel. It was found dead after some boisterous weather by one of Capt. Johnson's servants, but was not in sufficiently good preservation to admit of its being mounted.

GENUS PUFFINUS.

P. Anglorum. MANX SHEARWATER.

The Manx Shearwater is an irregular visitant to the Cumbrian Solway, having only been obtained on its shores in one or two isolated instances. But Dr. Parker considers it not uncommon on the open coast, and obtained a dead bird in February, 1880, and a live specimen on August 24th, 1881. Formerly it bred on the Calf of Man immediately opposite our coast, and when Professor Macpherson, as a Commissioner of Northern Lights, enquired after the Shearwater in that locality during the present summer (1885), he was told that though it had been driven from its nesting haunts by rats, large numbers were still observed in the neighbourhood. It is therefore possible that the Manx Shearwater may still breed on some part of the coast of Man.

GENUS FULMARS.

F. Glacialis. FULMAR.

The Fulmar Petrel is a very rare casual visitant, but has possibly occurred without detection. A single example was found, some years since, on the beach near Mowbray, washed up dead by the tide. (*J. W. Harris*, MS.)

Family COLYMBIDÆ.

GENUS COLYMBUS.

C. Glacialis. GREAT NORTHERN DIVER.

The Great Northern Diver is a rare visitant to our lakes and estuaries during the winter months.

Unlike the Red-throated Diver, which is chiefly observed in spring and autumn, the Great Northern Diver passes the winter with us. Dr. Parker observed a Great Northern Diver on Wastwater, in October, 1878, and remarks that the bird still haunted the lake in the following January. In 1791, a Great Northern Diver was captured, exhausted, near Keswick (*Dr. Heysham*), in the unusual month of July. Others have since occurred, at a considerable distance from the sea. Thus, "in the winter of 1833 a large bird made its appearance on Talkin tarn. People flocked to see this astonishing bird, but no one could make out what it could be. All the sporting men were allowed to carry guns to shoot it if possible. However, it was a shy, wary bird, and a very dexterous swimmer and a more dexterous diver, so that all the efforts to get it proved uneffectual, although it was chased with boats and watched at every corner. Many pounds of powder and shot were fired at it to no purpose, for it still swam on with all the majesty of its species. I cannot remember that it was ever compelled to take wing, but the moment a shot was fired it was under water, and dived an astonishing distance before it re-appeared. It would not allow any of the Duck tribe to stop on the tarn, but chased them about until they were obliged to leave. The following spring it disappeared, and was not seen until the autumn, when it was watched with as much anxiety as ever. A party from Brampton, mustering several guns, determined to have another try to shoot it, and, getting the boat in full sail, they

sailed about for some time, until, coming tolerably near, they fired a volley, and the poor bird was shot. A ball, fired by Dr. Gill, had passed through the brain. . . . A fine specimen of the same bird, . . . was taken alive by a boy on the 16th ult., in the public street of Penrith. The cause of its not taking flight from its pursuer cannot be accounted for, as its wings were perfectly sound. It is recorded in the Carlisle Journal, December, 1837." (*Proud, MS.*)

An adult, in summer plumage, obtained in Westmorland near the source of the Eden, many years since, is in the possession of the Rev. R. Bower of Carlisle.

C. Arcticus. BLACK-THROATED DIVER.

The Black-throated Diver is an extremely rare casual visitant in winter. A single bird was shot on Monkhill lough some years since, and one or two others have occurred on inland waters.†

C. Septentrionalis. RED-THROATED DIVER.

The Red-throated Diver is a periodical visitant to our estuaries, a few adult and immature birds arriving in November, but not generally remaining to winter. In March and April, the Red-throated Diver re-appears on the Solway, especially favouring the basin of the Wampool and Waver, where as many as seven or eight may be seen at once. Its stay at this season is usually limited to two or three

† A Black-throated Diver, in the possession of W. Mackenzie, was shot near Silloth, November 19, 1885.

weeks, but single birds occasionally linger into early summer. Thus, a bird in full breeding plumage was shot on the Solway, near Bowness, on the 30th of May, 1885. Dr. Heysham records a Red-throated Diver captured in summer near Crossfell, and "carried about as long as it lived as a shew." Our only modern note of this species occurring inland refers to the same district as Heysham's bird, an adult having been shot near Alston in 1842, in the month of December. Two adults shot on the Solway in 1884, at the beginning of November, proved to be deep in the moult, their wing quills being almost rudimentary.

Family PODICIPIDÆ.

GENUS PODICEPS.

P. Cristatus. GREAT CRESTED GREBE.

The Great Crested Grebe is a casual visitant, of intermittent occurrence on our lakes and rivers, chiefly in autumn and winter. Several examples have been obtained in the lake district. In summer, its presence with us is accidental; but an adult, in breeding plumage, was shot on the Eden, near Carlisle, on July 19th, 1869, and a male, in which the assumption of breeding plumage is far advanced, was shot on the Eden, at Cargo, on March 4th, 1884.

P. Griseigena. RED-NECKED GREBE.

The Red-necked Grebe is a rare casual visitant, but has occurred in a very few instances in the

north of the county, and once in the lake district. In the severe winter 1880-1, an example, in winter plumage, was shot on the Eden, near Beaumont.

P. Auritus. SCLAVONIAN GREBE.

The Slavonian Grebe is a rare casual visitant, though more frequently met with on our estuaries in severe weather than the Red-necked or Eared Grebes. Mr. Tremble possesses a fine adult, which he shot a few years since on Monkhill lough, in the month of September. A bird, in full winter dress, was shot on the Solway in the hard winter 1879-80, and is in Mr. Coulthard's collection. Single birds occur from time to time in the lake district, as well as on the eastern borders of Cumberland.

On the Scotch side of the Solway, *i.e.* on the river Annan, Jardine "frequently" shot Slavonian Grebes in winter, and it was formerly more plentiful on the estuaries of the Eden and Esk than has been the case of late years.

P. Nigricollis. EARED GREBE.

The Eared Grebe is an accidental visitant, but has possibly been overlooked in one or two instances, having been formerly united by local observers with the Slavonian Grebe under the title of "Dusky Grebe."

A single bird was shot some years since on the Cumbrian side of Ulleswater. (*T. Hope*, MS.) A second was shot at Ravenglass. (*C. Parker*, MS.)

GENUS TACHYBAPTES.

T. *Fluviatilis*. LITTLE GREBE.

The Little Grebe is a local resident, breeding sporadically on inland tarns, chiefly in the north of the county, as at Moorthwaite and Cotehill. Mr. Little, who had several pairs under his constant observation during the present summer, remarks that the popular belief that the Little Grebe rarely rises upon the wing is fallacious. On the contrary, at Cotehill, where these birds are quite undisturbed, the nesting Dabchicks frequently fly from one pond to another. The whistling call-note of the male to the nesting female is very musical, and it is pleasant to hear a pair calling to and answering one another in the stillness of a fine summer evening. During the winter months, the Little Grebe is more widely distributed, and more partial to running water than during the breeding season. A nestling in down, obtained early in July, is black above, striped in zebra fashion on the neck with longitudinal bands of grey, and on the back with fawn; the lower parts are white; a crimson line passes above each eye, and the crown is tinged with crimson.

Family ALCIDÆ.

GENUS A L C A.

A. *Torda*. RAZORBILL.

The Razorbill is a resident species, a single colony being established on the cliffs at St. Bees.

About twenty years since, one of the Sandwith lighthouse keepers used to descend with a rope, and took many eggs. During winter, we find a few Razorbills washed up on our west coast, and Mr. Harris describes the destruction which occurred in the early autumn of 1862:—"In September, immediately after the equinox, large numbers of Common Guillemots, with a smaller proportion of the Razorbill, were washed up on the shore. Most of them were dead; but three or four, too much exhausted to make any effort to regain the retiring tide, but somewhat restored by their rest of three or four hours, showed great delight in being taken down to the water and set at liberty, seeming little the worse for their terrible buffeting. In the space of about half a mile between Flimby and Workington, I counted over a hundred lying on the shingle at high-water mark; and if the same thing occurred along other portions of the coastline, the destruction amongst these two species must have been enormous."

GENUS L O M V I A .

L. *Troile*. COMMON GUILLEMOT.

The Common Guillemot is an abundant resident, breeding at a single point on our coast at St. Bees Head.

Edmund Sandford (1675) furnishes some interesting information about this colony, which has existed from time immemorial:—"The aire of the sea is strong as to bear up diuers sorts of fowles

that cannot flye but when they are over the sea. Ther is fowles ther builds in the St. Bees rocke: it is called: thes fowles as bigg and swift of wing as duck and mallard: And build in the Rocke, they hangs over the sea: and they let downne a broad nett from the topp of the Rocke: And frights the fowles of ther nests, and the netts catch them: They cannot flye when they are half a mile from the sea." A subsequent passage evidently refers in detail to the fowling at St. Bees, but the greater part of the leaf of the MS. in the Dean and Chapter library (of which other copies are only transcripts) is unfortunately missing. The portion relating to the sea fowl runs:—"And I have seen at this day on the shelves of the Rocke as bigg a great broad nett cast by two men top of Rocke: catch them flying of ther at Rotington fowles cold not flye at all on land: and a v like Skeldrakes speckled winges the Rocke hanging just over the sea." Rotington is in the neighbourhood of St. Bees, and it appears from this passage that Sandford had witnessed the capture of the breeding birds by this curious method of fowling.†

The Common Guillemot seldom ascends our estuary rivers, but we have notes of one or two stragglers obtained some miles inland. Mr. Anson shot a good specimen of the Ringed variety at Skinburness.

† Pennant (Tour to Scotland in 1772) refers to St. Bees Head as "noted for the great resort of birds," but makes no mention of fowling.

GENUS U R I A .

U. *Grylle*. BLACK GUILLEMOT.

The Black Guillemot is a rare casual visitant to our open seaboard. Two adults, in breeding plumage, were shot in the neighbourhood of St. Bees, in 1862. We have no other notes of its occurrence, which is surprising, as the Black Guillemot "still breeds in small numbers in the Isle of Man." (*Yarrell*, B. B., Vol. IV, p. 82, 4th ed.)

GENUS M E R G U L U S .

M. *Alle*. LITTLE AUK.

The Little Auk is a rare winter visitant, having occurred in Cumberland in about twenty instances. Specimens have been obtained in a variety of ways, being shot on inland waters, caught in fishing nets, or washed up dead upon the coast after a continued gale.

A Little Auk, in Mr. Tremble's collection, was caught by a sheep dog in one of the numerous creeks of Burgh marsh; and on another occasion, Mr. Tremble observed a Little Auk swimming past Burgh marsh point with the tide. The most recent occurrences refer to November, 1883, when a Little Auk was shot on the Eden, near Cargo, and to November, 1884, when an adult was obtained near Brampton, and an immature bird shot whilst swimming in a small inland pond near Cockermouth.

A Little Auk captured alive on our coast, by Mr. J. W. Harris, "showed no concern when taken into the house, but sat and dressed its feathers, occasionally giving a low whistle." A specimen of the Little Auk, lately presented to the Carlisle Museum by Mr. H. P. Senhouse, was felled by telegraph wires near Bootle.

GENUS FRATERCULA.

F. *Arctica*. PUFFIN.

The Puffin is a winter visitant, not unfrequently washed ashore, exhausted or lifeless, after westerly gales. We have no notes of its occurring far inland in Cumberland; but in August, 1885, a Puffin was obtained at Kirkby Stephen, in Westmorland, at a distance of from forty to fifty miles from the sea.

ADDENDA.

Turdus Merula.

Mr. J. H. Gurney, junr., has favoured us with the following remarks on a specimen obtained near Cotehill by W. Little, February 4th, 1886:—

“This buff-coloured specimen of the Blackbird is not only deficient in colouring matter, but also in some parts of its plumage, for the centre tail feathers and some of the wing feathers have no barbules. This is evident to the naked eye, but is better seen under a powerful magnifying glass. The same appearance, only extending to the bird’s whole plumage, is presented by the hair-like variety of the Moorhen. The tail in this Blackbird may be compared with a cut of the corresponding feathers in the Moorhen given in Norwich Nat. Trans. (iii, p. 585). It is singular how the middle tail feathers of a bird seem more liable to lose the barbules than any other portion of the plumage.”

Lanius Excubitor.

The caution of the Authors, in declining full specific rank to Grey Shrikes with single wing bars, appears to be confirmed by Professor Collett’s paper (Ibis, 1886). At the present time (March, 1886), a Grey Shrike has taken up his residence on the outskirts of Carlisle, and an impaled, and partially eaten, Yellow Bunting was found upon his “beat” a few days since.

Milvus Ictinus.

The following extract from a letter of the Rev. H. H. Slater, F.Z.S., refers to the autumn of 1880 :—" I was staying at Patterdale, and had been up Deepdale, up the rocks at the end of it, intending to return by Dovedale. It was a furiously hot day, and I was tired with a long scramble after plants, and lay down on the top. Before long, I noticed a pair of Kites, above the tops of the hills, working round and round in great circles. I watched them for quite an hour, during which they were several times within six hundred yards, once nearer fifty. As far as I could tell, with the help of a binocular, they were immature birds."

Loxia Bifasciata.

Since the paragraph on this species was printed, we have examined two females in Mr. Bond's collection, formerly in that of Mr. T. C. Heysham. The score is thus raised to seven females, of which we know the present whereabouts.

Chaulelasmus Streperus.

A female Gadwall, shot near Silloth during the long frost of the spring of 1886, contained remains of vegetable substances. Weight 1 lb. 6¼ ozs.

Ædemia Perspicillata.

Mr. Gurney's Surf Scoter is included in Stevens' Catalogue of the Heysham sale as, " Lot 176 . . . shot near Crofton Hall, August, 1856 . . . with the trachea and breastbone attached." We prefer to accept Mr. Armstrong's date.

GLOSSARY OF NAMES USED IN CUMBERLAND.

Missel Thrush	Storm Cock, Churr Cock, Mountain Throstle.
Song Thrush	Throstle.
Redwing	Felty.
Fieldfare	Pigeon Felty, Bluewing, Felfaw.
Blackbird	Blackie.
Ring Ouzel	Fell Throstle, Mountain Crow.
Wheatear	Whiterump.
Whinchat	Utick, Woodchat (Alston), (Gorsechat, W.)
Whitethroat	Peggy, Nettle Creeper, Nannie (Streamere, W.)
Willow Warbler	Bottlety, Miller's Thumb.
Sedge Warbler	Water Nannie.
Grasshopper Warbler	Grasshopper Lark.
Hedge Sparrow	Dykey, Creepie Dyke, Hemplin (Bewcastle, old name).
Dipper	Bessy Douker, Water Piet, Water Crow.
Great Titmouse	Blackcap.
Blue Tit	Bluecap.
Wren	Chitty.
Pied Wagtail	Waterty Wagtail, Grey Hemplin (an old Bewcastle name), (Watty, W.)
Meadow Pipit	Titlark, Titling, Moss Cheeper (Ling Bird, W.)
Golden Oriole	Golden Thrush.
Spotted Flycatcher	Sea Robin, French Robin.
Pied Flycatcher	Lal Magpie (Little Magpie, Lowther).
Goldfinch	Goldie.
Greenfinch	Greenie.
House Sparrow	Sprug (Carlisle).
Chaffinch	Scoppie, Scobbie, Shelapple, Spink, Shiltie.
Brambling	Cock o' the North.
Linnet	Grey, Whingrey.

Lesser Redpoll	French Grey.
Twite	Heather Lintie.
Corn Bunting	Bunting Lark, (Grass Bunting, Alston)
Yellow Hammer	Yellow Yorling, Yellow Yitey, Yellow, (Bessy Blakeling, W.)
Reed Bunting	Blackcap, Reed Sparrow.
Snow Bunting	Fell Sparrow, Snow Bird, Snow Flake, Cock o' the North.
Jay	Jay Piet.
Magpie	Piet.
Jackdaw	Jack.
Carriion Crow	Corbie, Dope.
Hooded Crow	Norwegian Crow.
Rook	Crow.
Swift	Devilen.
Night Jar	Night Hawk.
Barn Owl	White Owl, Chimney Owl, Cliff Owl.
Tawny Owl	Jennie Owlet, Wood Owl, Brown Owl, Howlet.
Buzzard	Shreak (Wastwater, <i>fide</i> Dr. Parker, from its harsh cry).
Sparrowhawk	Blue Hawk.
Kite	Red Gled.
Merlin	Small Blue Hawk.
Kestrel	Red Hawk.
Cormorant	Scart, Black Diver, Water Crow (Upper Solway).
Heron	Héronsue, Willy Fisher.
Bean Goose	Grey Lag.
Pink-footed Goose	Pink Legs.
Brent Goose	Bean Goose.
Sheldrake	Shell Duck, Gravel Duck.
Wigeon	Lough Duck, Lough Teal.
Wild Duck	Grey Duck.
Shoveller	Spoonbill.
Scaup	Bluebill, White Pochard.
Goldeneye	Whiteside.
Scoter	Black Duck.
Goosander	} Sawbill, Dun Diver, Goosandrew, Gravel Duck.
Red-breasted Merganser	

Ringdove	Cushat.
Stockdove	French Cushat, Scotch Cushat, Rock-dove.
Partridge	Patrick.
Quail	Wet-me-feet.
Corn Crake	Daker Hen (W.)
Grey Plover	Silver Plover.
Ringed Plover	Sea Bellet.
Lapwing	Tewfit, Peesweep.
Oystercatcher	Musselpecker, Sea Piet, French Magpie.
Dunlin	Sea Mouse.
Knot	Grey Knot.
Common Sandpiper	Willie Liltie, Willie Wicket, Sand-lark, Summer Snipe, Sandy Piper.
Redshank	Redlegs.
Curlew	Whaup.
Common Tern	Sea Swallow.
Great Black-backed Gull	Herring Gull.
Black-headed Gull	Common Gull.
Richardson's Skua	Bo'sun's Mate, Black Gull, Sea Hawk.
Storm Petrel	Mother Carey's Chicken.
Red-throated Diver	Speckle-backed Diver.
Common Guillemot	Old Wife.
Puffin	Sea Parrot, Manx Puffin.

[Total, 85.]

NOTE.—Obvious synonyms, such as Waterhen for Moorhen, have been generally excluded from the foregoing list. Some of them are merely wrong identifications, *e.g.*, the Brent with the Bean Goose, but these are given as actually in use. Others are of old standing, *e.g.*, Miller's Thumb was a synonym of the Willow Wren in the elder Heysham's time, and Richardson similarly alludes to Wet-me-feet as an Ulleswater name of the Quail. The letter W., in brackets, stands for Westmorland. Mr. R. Service records, that the Cormorant is called an "Elder," on the Scotch side of the Solway. (Zool., 1883, p. 77.)

THE MACHELL MS.

The accompanying remarks on this Manuscript have been kindly furnished by Mr. R. S. Ferguson, F.S.A.

The Rev. Thomas Machell, once Fellow of Queen's College, Oxford, and Rector of Kirkby Thore, Westmorland, a member of the ancient family of Machell of Crackanthorpe in that county, by his will, proved February 28, 1698, left to Archdeacon (afterwards Bishop) Nicolson a mass of loose papers relating to the history of the counties of Westmorland and Cumberland. These the Archdeacon bound up into six volumes, and placed in the library of the Dean and Chapter of Carlisle. The papers mostly relate to pedigrees and antiquities; but among them are a few notes on natural history. Mr. Machell's will and an account of these six volumes are printed in the Transactions Cumberland and Westmorland Antiquarian and Archæological Society, Vol. IV, p. 1, and a pedigree of Machell of Crackanthorpe, with a notice of this earliest of local antiquaries by E. Bellasis, Lancaster Herald-at-Arms, will appear in Vol. VIII of the same Transactions.

The notes subjoined have been obligingly transcribed by Mr. Bell of the Dean and Chapter Library.

Machell, speaking of Westmorland in general, says:—

Avifauna of
Westmorland.

“ For Fowle—They haue wood cock partridge g^me, all sortes of plovers (curlew) mawes & wilde ducks, w^h doe not only appear here at seasons, but breed in the countrey. And so likewise do your Gor fowle more polates. But w^h are yet for greater rarities, Herins (or Cranes) Orspreys, & Eagles or Vultures; & the mical Doterall; But, they haue no Pheasants. The species of them being soe tame a fowle are long since destroyed, and, since the great forrests have bin depopulated of their wood & verdure, so that there is little or none on the mountanes for want of copses & covert, to fly too at severall

Introduction
of the
Pheasant.

stages, they could never yet be restored agane. But it hath bin lately attempted by Mr. Lowther to restore that game who 2 or 3 years since brought young ones over out of Yorkshire hither; but the countrey people destroy'd them, before they increased to any considerable replennishing number." (Vol. I, p. 137.)

Eagles.

"Grisedale. About the year 1679 one Christopher Daws 24 years of age spying an *Eagle* in the bottom of this Dale w^h was feeding on a sheep; and either for want of air to waft her, or by haueing fill'd her belly too full was not able to rise: he struck freely at her wth his *fell staff*' & broake her wing; upon w^h she betooke herselfe for shelter to a great stone, and thence made her salleys as she saw occasion, wounding him in the leggs wth her Tallons, & beating him briskely wth her wings. But at last when he had no other shift, he fell down upon her wth his whol body; and took her alive." (Vol. I, p. 778.)

"In 1669 one William Thomas of Deepdale Bridge End being but a youth of 17 years old encounter (*sic*) an Eagle on the like occasion, but she so seemeth was not able to flye by reason her feathers were mouted and spent by hatching her young ones, for it was about midsomer tide. He chased her several times round a stone; and at last tooke her by falling upon her, but not without som loss of blood. . . . Mr. Mounsey to whom she was brought alive, & who kept her a week and kild her afterwards by running a penknife into her heart: and gave the Coat of her to Thomas Smyth a Newcastle Merchant for 3^{li} of Tobacco." [In 1685 the Taylor's Guild at Carlisle bought 3 lbs. of tobacco for 1s. 9d.]

He then goes on to mention (p. 724) that it was "A sort of Eagle called an Iron (or Earn or Erne) here. In Scotland a Naron, being of a Blackish brown colour" [*i.e.* a Golden Eagle], and gives the measurements, together with a sketch of the bird—"From the point of one wing to the other 6 foot 4 inches. From the end of the Beeke to the point of y^e Tale 3 f. 4 in." *Id.* [The sketch is conventional, and the tarsus consequently is not feathered.]

Eyries. "And two miles further s from hence (Deepdale) in an huge Rock w^{ch} is called Ling bone and stands west from Hartsop about a mile are large eagles bred." (Vol. I, p. 718.)

"Gresmere. Eagles build in Blea Crag." (Vol. II, p. 128.)

Mute Swan. "There were swanes formerly kept on the foot of Deepthwaite [in Kendal Ward] wh sat and Bread there." (Vol. II, p. 173.)

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