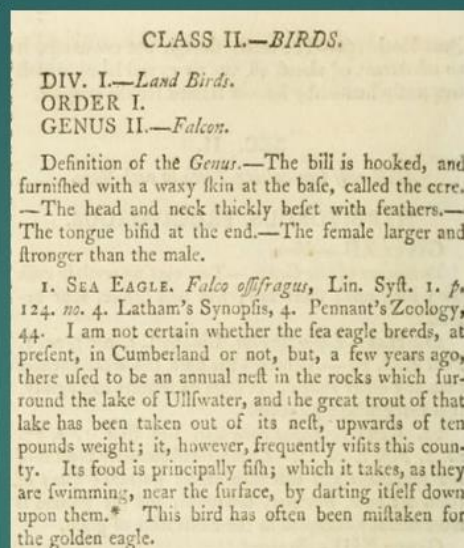
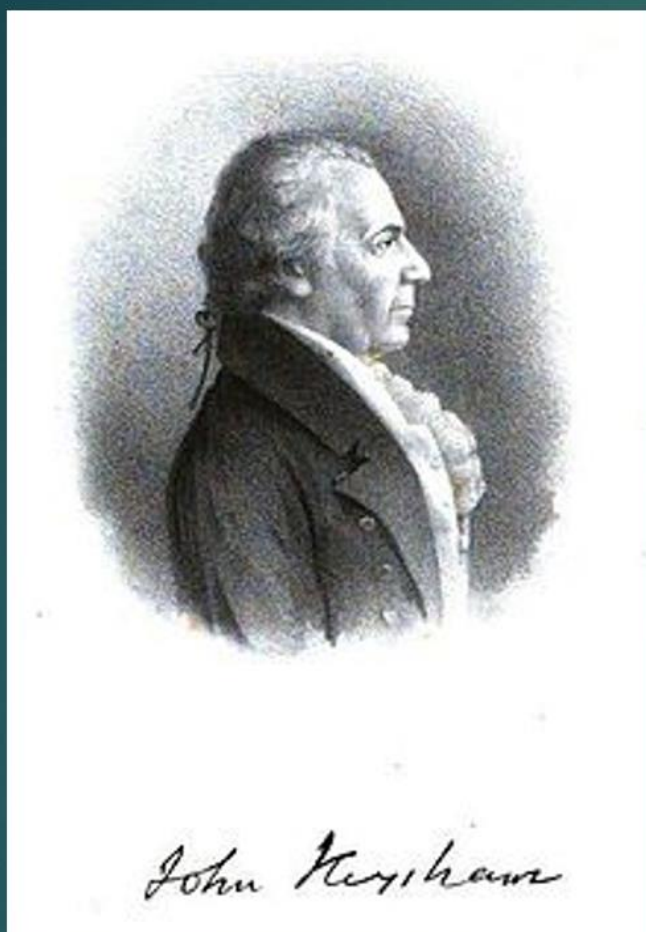


## BIRDS IN CUMBERLAND IN THE 18<sup>TH</sup> CENTURY:

An annotated transcription of the ornithological entries in J. Heysham's 'A Catalogue of Cumberland Animals' of 1794

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## Birds in Cumberland in the 18th century: An annotated transcription of the ornithological entries in J. Heysham's 'A Catalogue of Cumberland Animals' of 1794

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**Abstract:** An annotated transcription is presented of the ornithological entries in J. Heysham's 'A Catalogue of Cumberland Animals' of 1794.

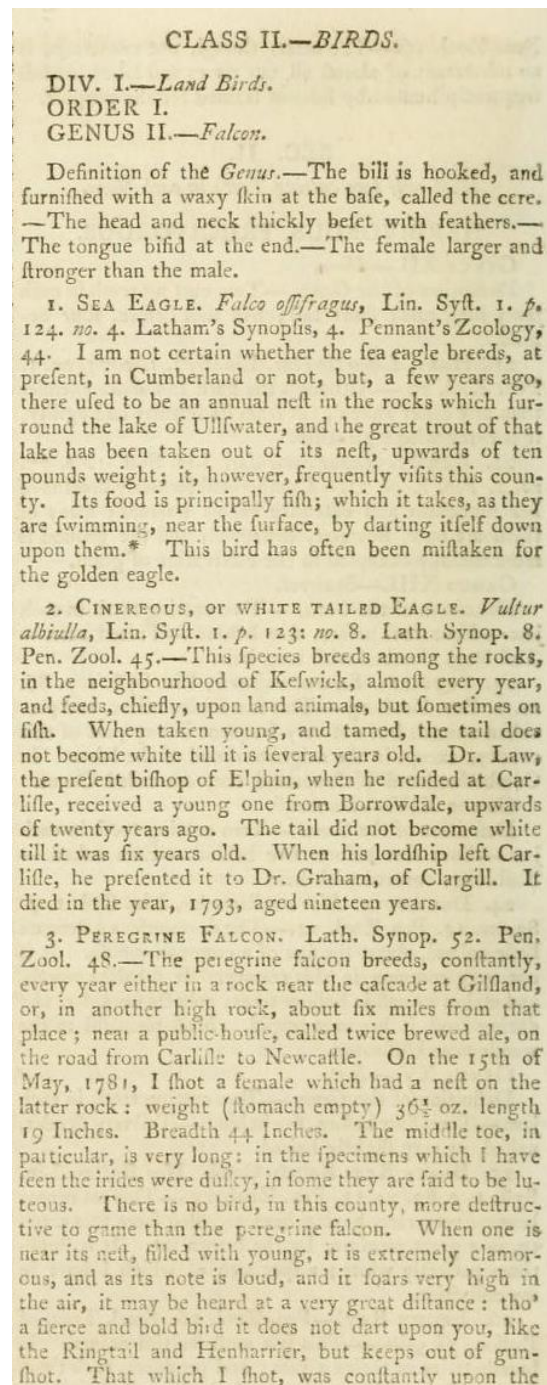
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The following is an annotated transcript of the first serious attempt to list the birds found in Cumberland. It was published in 1794 (although curiously makes reference to some birds taken during the winter of 1795/96 – see under Mallard, species 162) as part of a two volume work edited by William Hutchinson with the splendidly prolix title *The History of the County of Cumberland, and some Places Adjacent, from the Earliest Accounts to the Present Time: Comprehending the Local History of the County; its Antiquities, the Origins, Genealogy, and Present State of the Principal Families, with Biographical Notes; its Mines, Minerals, and Plants, with other Curiosities, Either of Nature or of Art*. The first volume opens with a lengthy contribution, some 54 pages in total, compiled by John Heysham, M.D., of Carlisle, and entitled 'A Catalogue of Cumberland Animals'. A substantial part of this 'Catalogue' is given over to birds and this is what appears below. A facsimile of the first few entries is shown in Figure 1. Editing comprises only the conversion of the text into modern script – thus 'fcarce' in the original has become 'scarce' here, 'fpecies' has become 'species' and so on – and the correction of a number of obvious errors or inconsistencies in punctuation. Many of the names, both vernacular and scientific, applied to birds have changed in the intervening two centuries. In most cases it is not difficult to deduce which species was intended but a few are more difficult to decipher. In view of this the column to the left shows the transcript of the original text, and that to the right gives the modern names together with other comments as appropriate. Modern vernacular names are those in common use by British birdwatchers, and not the modern International English names – further details are given on the British Ornithologists' Union's website: [www.bou.org.uk/british-list](http://www.bou.org.uk/british-list).

### John Heysham – a biographical sketch

John Heysham was born in Lancaster on 22nd November 1753, the son of a shipowner. He was educated at a Quaker school at Yealand near Burton in Westmorland, and later apprenticed to a surgeon in Burton for five



**Figure 1** (right). The opening part of Heysham's 'Catalogue' dealing with birds.

years. From there he attended medical classes in Edinburgh, gaining his M.D. in 1777. The following year he took up a practice in Carlisle where he remained for the rest of his life (details from the *Dictionary of National Biography*, Lee 1891 and Lonsdale 1870).

Heysham is best remembered by naturalists for his *Catalogue*, but perhaps his greatest claim to fame concerns the statistical records he kept between 1779 and 1788 of births, deaths and marriages, the incidence of disease and the causes of death based on his work as a physician and surgeon in Carlisle. These he published in 1797, and they were later to form the basis of the actuarial tables used by insurance companies to calculate annuities *etc.*

We know very little about how Heysham's interest in natural history came about, though presumably it began in his formative years in Lancashire. His only published work on natural history was his *Catalogue of Cumbrian Animals* published in 1794.

Heysham died on 23rd March 1834 and was buried in St. Mary's Church, Carlisle.

#### **General comments on the ornithological entries in Heysham's *Catalogue***

Heysham's list admits 169 species, though nine (Canary, species 59, Peacock 95, Turkey 96, Guinea Fowl 97, Domestic Hen 98, Domestic Goose 151 & 152, Muscovy Duck 157 and Domestic Duck 163) are not birds found in the wild and have no proper place in a list of Cumberland's birds. Moreover a number of species (Great Northern Diver, Herring Gull, Black-headed Gull, Common Gull and probably Great Spotted Woodpecker) are included twice, because such birds have a number of different plumages and it was not generally recognised at the time that these related to a single species rather than several different ones. With the omission of these two groups the number of genuine wild bird species recorded becomes 155. It includes all the more common species of land birds, but is comparatively weak on waders (no Sanderling and no godwits, for instance). A number of more unusual species are included, among them Red Kite, Honey-buzzard, Hobby, Hoopoe, Wryneck, Waxwing, Ptarmigan and Spotted Crake.

Heysham's list ostensibly covers the whole of Cumberland, but those specific records due to Heysham himself such as the Peregrine he shot near Gilsland or the Merlin he took at Rockcliffe all derive from places within at most 30 km of Carlisle. He appears to have been ignorant of the presence of breeding seabirds at St. Bees Head, a place which he

appears never to have visited. Similarly his knowledge of the Lakeland Fells appears to have been limited and it is doubtful that he ever visited them himself, for all that places like Keswick were becoming tourist attractions around the time he was writing. His information about the status of birds beyond the immediate area around Carlisle seems to have been provided by his large circle of correspondents and other contacts, who kept him supplied not simply with records, but in many instances with specimens too – this was an age when the gun ruled.

Unusually for the period his species accounts give some clue as to where he obtained his information as regards identification. Three main sources are cited, Linnaeus's *System Naturae*, written in Latin, Pennant's *British Zoology* (based on the species numbers he gives, *e.g.* Pen. Zool. 48 for the Peregrine, he appears to have had access to the 1776 version, not the original one of 1768) and Latham's *General Synopsis*, published in three volumes (the second and third of which were each issued in two parts) between 1782 and 1785. Entries in Heysham's list are in the order in which they appear in Pennant (1776) and Latham (1782-85) and the scientific names are also those used in these two works.



*John Heysham*

## Ornithological entries in Heysham's 'A Catalogue of Cumberland Animals'

### CLASS II. – BIRDS

#### DIV. I.-Land Birds

#### ORDER I.

#### GENUS II.-Falcon

Definition of the *Genus*.—The bill is hooked, and furnished with a waxy skin at the base, called the *cere*. The head and neck thickly beset with feathers.—The tongue bifid at the end.—The female larger and stronger than the male.

1. SEA EAGLE. *Falco ossifragus*, Lin. Syst. 1. p.124. no.4. Latham's Synopsis, 4. Pennant's Zoology, 44. I am not certain whether the sea eagle breeds, at present, in Cumberland or not, but a few years ago, there used to be an annual nest in the rocks which surround the lake of Ullswater, and the great trout of that lake has been taken out of its nest, upwards of ten pounds weight; it, however, frequently visits this county. Its food is principally fish; which it takes, as they are swimming, near the surface, by darting itself down upon them.<sup>1</sup> This bird has often been mistaken for the golden eagle.

2. CINEREOUS, OR WHITE TAILED EAGLE. *Vultur albiulla*, Lin. Syst. 1. p.123: no. 8. Lath Synop. 8. Pen. Zool. 45.—This species breeds among the rocks, in the neighbourhood of Keswick, almost every year, and feeds, chiefly, upon land animals, but sometimes on fish. When taken young, and tamed, the tail does not become white till it is several years old. Dr. Law, the present bishop of Elphin, when he resided at Carlisle, received a young one from Borrowdale, upwards of twenty years ago. The tail did not become white till it was five years old. When his lordship left Carlisle, he presented it to Dr. Graham, of Clargill. It died in the year, 1793, aged nineteen years.

3. PEREGRINE FALCON, Lath. Synop. 52. Pen. Zool. 48.—The peregrine falcon breeds, constantly, every year either in a rock near the cascade at Gilsland, or, in another high rock, about six miles from that place; near a public-house, called twice brewed ale, on the road from Carlisle to Newcastle. On the 15th of May, 1781, I shot a female, which had a nest on the latter rock: weight (stomach empty) 36½ oz. length 19 inches. Breadth 44 inches. The middle toe, in particular, is very long: in the specimens which I have seen the irides were dusky, in some they are said to be luteous. There is no bird, in this county, more destructive to game than the peregrine falcon. When one is near its nest, filled with young, it is extremely clamorous, and as its note is loud, and it soars very high in the air, it may be heard at a very great distance: tho' a fierce and bold bird it does not dart upon you, like the Ringtail and the Hen harrier, but keeps out of gunshot. That which I shot, was constantly upon the wing, upwards of five hours, before it perched upon the rock. The male feeds the young birds, after the female is killed.<sup>2</sup>

4. KITE. *Falco milvus*, Lin. Syst. I. p.126. no.12. Lath. Synop.

#### **Osprey *Pandion haliaetus***

There has been much debate about the identity of the species described in this section, in particular a tetchy exchange in the columns of *The Zoologist* in the 1890's. The interpretation favoured here is that proposed by Macpherson (1889); further details are given in note (1).

#### **White-tailed Eagle *Haliaeetus albicilla***

See comments in note (1) below.

#### **Peregrine *Falco peregrinus***

#### **Red Kite *Milvus milvus***

<sup>1</sup> Superest haliaetos, clarissima oculorum acie, librans ex alto sese, visoque in mari pisce, praeceps, in eum ruens, et discussis pectore aquis rapiens – PLINY.

<sup>2</sup> Hawking was a favourite diversion among our ancestors, and various statutes were made for the preservation of several species of Falcons and Hawks.

"If any person shall take away any hawks or their eggs, by any means unlawfully, out of the woods or grounds of any persons, and he thereof convicted, at the assizes or sessions, on indictment, bill, or information, at the suit of the king, or of the party, he shall be imprisoned three months, and shall pay treble damages; and after the three months are expired, shall find sureties for his good abearing for seven years, or remain in prison till he doth. 5.E1.c.21.S, 3.

But by a more ancient statute, no man shall take away ayre, faulcan, goshawk, tassel, laner, or laneret, in their warren, wood, or other places nor purposely drive them out of their coverts accustomed to breed in; to cause them to go to other coverts to breed in, nor slay them for any hurt done by them: on pain of 10l half to him that will sue before the justices of the peace, and half to the king.

Corrected for typing errors in the original; see also note (2).

43. Pen. Zool. 53.—The kite breeds in the woods, near Armathwaite; and also, in those near Ullswater. It builds its nest in trees, and lays two or three eggs, which are of a whitish colour, spotted with yellow. The kite in this county, is called *Glead*.

5. COMMON BUZZARD. *Falco buteo*, Lin. Syst. 1. p.127. no.15. Lath. Synop. 28. Pen. Zool. 54.—The common buzzard builds its nest sometimes in trees, and sometimes in rocks, and lays two or three eggs; of a dirty white colour, spotted with dark brown.

6. HONEY BUZZARD. *Falco apivorus*, Lin. Syst. 1. p.130. no.28. Lath. Synop. 33. Pen. Zool. 56.—This bird is very rare in Cumberland. I have only been able to meet with one specimen, which was a female, which weighed 32 oz. I am informed it makes its nest in high trees, and breeds in the woods at Lowther.

7. MOOR BUZZARD. *Falco aeruginosus*, Lin, Syst. 1. p.130, no.29. Lath. Synop. 34. Pen. Zool. 57.—This bird is very frequent upon our moors. It lays 4 or 5 eggs, of a dirty white colour, upon the ground, among heath or rushes. Young moor buzzards, are always of a rusty, chocolate, brown colour; but old ones have, generally, one or more large spots of white, or yellow. The crown of the head is, for the most part, luteous, in some specimens the chin is of the same colour, in others there is a white mark upon the breast, and in some the shoulders are either white or yellow: the legs are longer and slenderer, than in any other species of Hawk, except the following:-

8. HENHARRIER MALE. *Falco cyaneus*, Lin. Syst. 1. p.126. no.10. Lath. Synop. 74. Pen Zool. 58.

RINGTAIL FEMALE. *Falco pygargus*, Lin. Syst. 1, p.126, no.11. Lath. Synop. 75. Pen Zool. 59.

The male of this species, when arrived at mature age, differs as much in the colour of its plumage, from the female, as the black cock from the grey hen. The head, neck, back, and coverts of the wings being of a bluish grey; and the breast, belly, and thighs, white. Whereas the general colour of the female (the rump excepted, which is white, and hence its name) is dusky brown and rust colour. The young birds resemble the female in colour, and the sexes then can only be determined by the size, the female, as is stated in the definition being much larger than the males. At what age the henharrier acquires his masculine dress, I cannot exactly ascertain: but, I think the change takes place before he is able to procreate: as I never have seen two ringtails attend the same nest, and I have made accurate observations, on upwards of twenty nests when filled with young: and, invariably found each nest frequented by the henharrier and ringtail. Mr. Pennant, however, has, upon dissection, been able to discover the testes, before any alteration in the colour of the plumage took place. For, he says in his british zoology. "This has generally been supposed to be the female of the former;" viz. the henharrier, "but from some late observations, by the infallible rule of dissection, males have been found of this species".—The great difference in the colour, and this circumstance have induced, not only that gentleman, but Linnaeus, and Mr. Latham<sup>3</sup> to describe them as distinct species. On the contrary, Brisson, Ray, and Willughby, consider them as male and female.

When such great names, in natural history, entertain different

**Buzzard** *Buteo buteo*

**Honey-buzzard** *Pernis apivorus*

**Marsh Harrier** *Circus aeruginosus*

**Hen Harrier** *Circus cyaneus*

See also comments in note (3)

<sup>2</sup> cont II.H.T.c.17.

And no manner of person, of what condition or degree he be, shall take, or cause to be taken, on his own ground, or on any other man's, the eggs of any falcon, goshawk, or laner out of the nest; on pain (being convicted thereof before the justice of the peace) of imprisonment for a year and a day; and fine at the king's will: half to the king, and half to the owner of the round where the eggs were taken in." – BURN'S JUSTICE, Vol.2, p.284, fourteenth edit.

<sup>3</sup> From some facts and observations which I communicated to Mr. Latham, that accurate author, has altered his opinion – see Latham's supplement.

sentiments, upon a fact, if we can ascertain which of them are right, it will be of some importance to the science. Let us, therefore, in the first place, compare the two birds together.

1. The irides in both are yellow.

2. The wreath of short stiff feathers, surrounding the ears, similar to what we observe in the various species of owls, appears equally the same in the henharrier as in the ringtail; and is not, I believe, observable in any other species of hawk.

3. The form of the bill, length of the wings, size, colour, and shape of the legs are the same in both.

4. The shape of the body is the same.

5. All the henharriers are nearly of the same size and weight, viz. 17 inches in length, and 12 oz. in weight.

6. All the ringtails which are killed, at, or a little before the breeding season, are also of the same size and weight, viz. 20 inches in length and 19 oz. in weight.

7. Both birds have the same habits and manners.

8. Both prey upon, and seem fond of lizards.

9. In the breeding season both have the same note.

10. Henharriers vary a little in colour, some being of a much deeper bluish grey than others.

11. All the ringtails which I have dissected, and they are not a few, were females, and all the henharriers males. The same circumstance occurred to Kramer who opened twelve henharriers and found them all males; and thirteen ringtails which were females.

12. The young when taken from the nest, are all of the same colour, and resemble the ringtail, but are of different sizes.

13. The irides of young birds are not yellow.

In the year 1783, I had at the same time, and within 500 yards of each other, three nests of the ringtail and hen harrier, upon Newtown-common, about a mile and a half from Carlisle, in some very young plantations of the late Mr. Davison:—the first had seven eggs, the second had six eggs, and the third had four young ones when I found them. A ringtail was upon each nest; but the henharriers did not appear. I visited them again, a few days after, in the evening: at the nest with young ones, the ringtail was upon the nest, and the henharrier soon after appeared, they both flew about me and darted at my head; and, particularly, the henharrier came within a few inches of my head, twenty or thirty times, when I was handling the young. — They were both very clamorous, and had the same note. On the nest which had seven eggs I found the ringtail, and one young bird was hatched, the henharrier came very soon, and the same scene took place, as I have described, at the other nest. A few nights after, Mr. George Blamire accompanied me. We first went to the nest with young ones: both birds darted at us with great fury; I desired him to shoot the henharrier; he fired at him, wounded him, but he got away and we never saw him more. We then went to the first nest, the ringtail was upon it, and there were now six young ones. The henharrier did not appear. When the young of the third nest were fit for taking, Mr. Blamire shot the ringtail for me. June the 27th, the Rev. Mr. Shaw went with me to the first nest, with six young, they were of considerable size, but not feathered: the ringtail was upon the nest, and he shot her immediately: the henharrier did not appear. I left a rat trap near the nest. Next morning, viz. the 28th, I went again and found the trap had not been touched, but there were two birds, viz. a lark and a sparrow, in the nest. While I remained I did not see the henharrier, but as I was certain, from the small birds in the nest, that he had been there since the ringtail was killed: I went again at noon, and found one of the young birds caught by the neck in the trap. The lark and sparrow were gone, and in their place were two yellow hammers. I set the trap and baited it with one of the yellow

hammers, and retired into a small plantation of fir trees about sixty yards from the nest: I there lay concealed, and in less than five minutes, I both heard and saw the henharrier. He soon went to the nest, fed the young ones with what he had brought, then attempted to seize the yellow hammer in the trap, and was taken by the leg. I sent these birds to Mr. Latham. Both the ringtail and the henharrier, of the second nest, which had six eggs, and which were all hatched, were always very shy, and never came within shot. Of the four young birds which were taken out of the nest, from which Mr. George Blamire wounded the henharrier, and killed the ringtail; one, viz. the smallest, was killed by the others, in a few days. A second died, or was killed, by his companions, on the 20th March 1784; on dissection I found it be a male, the testes were very distinct, and were beginning to swell: his weight I could not ascertain, as his companions had eat[en] a considerable part of his breast: there was no alteration in his plumage; but the irides had undergone a considerable change, being at his death a yellowish white, September 14th, 1784, 12 o'clock at noon, I weighed the two remaining birds which were empty, not having been fed since three o'clock in the afternoon of the 13th. The larger weighed 15½ oz. and the smaller 11 oz. and 2 drs. They had neither of them changed their feathers, and did not then appear to be in moult. The irides of the smaller were of a yellowish white, the irides of the larger were but little altered. The larger died, in February, 1785; on dissection several eggs were found in the ovary. The smaller lived till the middle of March 1785: the testes were very distinct, but not much distended, and there was not the least change of colour in the feathers. Thus we see a male and a female lived very near one year and three-quarters, after they were taken from the nest.

It is highly probable, that confinement and a different kind of food, either greatly retards, or altogether prevents the change of colour. In June, 1785; I had three nests upon Newtown-common, and had frequent opportunities of seeing both birds, which were henharriers and ringtails; and which were almost all shot when flying about us at the nests, since that time I have seen several other nests, but never observed either two ringtails or two henharriers at the same nest. The duke of Buccleugh's gamekeeper has destroyed some hundreds, and has frequently shot both male and female from the same nest: lord Carlisle's gamekeeper has done the same.—The henharrier never sits upon the eggs, but will support the young after the ringtail is killed. They make their nest upon the ground; and the eggs are white, and rather larger than a pigeon's egg. Hence it is evident they are male and female, and not two distinct species.

9. KESTREL, *Falco tinnunculus*, Lin. Syst. 1. p.27, no.17. Lath. Synop. 79. Pen. Zool. 60. — The male in this species, differs much in colour from the female. It builds in rocks and hollow trees. It is often seen hovering in the air, and as if fixed to one spot for a considerable length of time.

<sup>4</sup> 10. HOBBY. *Falco subbuteo*. Lin. Syst. 1. p.127. no.14. Lath. Synop. 90. Pen. Zool. 61. — Mr. Pennant informs us, this bird breeds in England, but migrates in October. Whether it migrates or not, I am uncertain, but I have seen it in the beginning of November.

11. SPARROW HAWK. *Falco nisus*. Lin. Syst. 1. p.130, no.31. Lath. Synop. 85. Pen. Zool. 62.—The female is double the weight of

**Kestrel** *Falco tinnunculus*

**Hobby** *Falco subbuteo*

**Sparrowhawk** *Accipiter nisus*

<sup>4</sup> ¶ This mark denotes birds which migrate, or leave the county at particular seasons of the year.

N.B. Whenever the day of the month is mentioned without the year, the year, 1796, is to be understood; except in the observations respecting the henharrier and ringtail.

the male. In the month of October, I weighed an old male, which was 5½ oz, and in the month of June, a female, at which time it may be supposed to have lost weight, from incubation, which was 12 oz. She had, however, a lark half digested in her stomach. The sparrow hawk is a very bold bird, and will attack partridges and pigeons.

12. MERLIN. Lath. Synop. 93. Pen. Zool. 63.—Mr. Pennant says the merlin is a bird of passage, and does not breed in England, which is a mistake; it breeds in Cumberland, and remains with us the whole year: I have seen three nests, which were upon the ground among heath. June 22d, 1783, I killed a female merlin, on her nest on Rockliff [*sic*] moss: she weighed 8¾ oz, but had a small bird in her stomach. The colour was almost all either brown or ferruginous, so that, I imagine, the female birds do not acquire the blue ash coloured feathers, on the back &c. till they are several years old; as I have only met with one specimen so marked. After catching the female, which was in the evening, I left a trap at the nest, and went the next morning and found the male taken: he was 5¼ oz standing weight. The head, back, wings, coverts of the tail, were of a bluish ash colour. The tail had numerous bars of black, but the last bar was the most distinct, and above an inch broad. There was ferruginous colour in the tail, but the tip was dirty white. The merlin lays four eggs, which are covered with brownish spots, some of which are very small, and others pretty large, which are darker than the small spots. The merlin, though a bird of great spirit, will not approach near you, as the ringtail and some other hawks, when you are at the nest. He also flies differently from almost all other hawks, the tips of his wings when he sails being pointed downwards.—I have seen a merlin strike a blackbird: and three years ago, in the month of February, I got a fine cock partridge, which this bird had killed the moment before.

#### GENUS III.—Owl.

Definition of the *Genus*.—The bill is crooked, but not furnished with a cere.—Nostrils covered with bristly feathers.—Head large.—Eyes and ears large, and surrounded with a circular wreath of stiff feathers.—Tongue bifid.—Outmost toe capable of being turned backwards.

13. LONG EARED OWL. *Strix otus*. Lin. Syst. 1. p.132, no.4. Lath. Synop. 5. Pen. Zool. 65.—This species is not very numerous. It breeds in this county, and lays four or five eggs in an old magpie's, or crow's, nest. It receives its name from a tuft, of six feathers, on each side of the head, which are about an inch in length; and which it can erect or depress at pleasure. None of the Cumberland owls are, except the short eared owl, able to see distinctly, either in open day light or in a dark night. They therefore seek their food, during twilight or moonlight nights.

14. SHORT EARED OWL. Lath. Synop. 9. Pen. Zool. 66.—This species is a bird of passage, visits Cumberland in October, and retires in the spring. The horns, as they are called, consist of one feather on each side of the head, which it can raise or depress at pleasure; and in a dead subject are not easily discovered; which sometimes leads the examiner into difficulties.—Whether the horns are observable or not, it may be readily distinguished from all other owls, by the following marks. The inside of the quill feathers is of that colour which silk mercers call a *rose white*, except about three inches from the tip which is black brown; each feather, however, having a large spot of the same rose white. The spot on the second and third feathers, is as large as a shilling.

15. COMMON, BARN or WHITE OWL. *Strix flammea*, Lin. Syst. 1. p.133, no.8. Lath. Synop. 26. Pen. Zool. 67.

16. BROWN, or WOOD OWL. *Strix ulula*, Lin. Syst. 1. p.133, no.10. Lath. Synop. 28. Pen. Zool. 69.—This species is pretty

**Merlin** *Falco columbarius*

**Long-eared Owl** *Asio otus*

**Short-eared Owl** *Asio flammeus*

**Barn Owl** *Tyto alba*

**Tawny Owl** *Strix aluco*



frequent in our woods; where it breeds, generally in a hollow tree, or in the old nest of a crow, or magpie. With respect to the *Strix stridula*, of Linnaeus and other authors, I am uncertain whether it is to be met with in this country or not.

#### GENUS IV.—*Pies*.

Definition of the *Genus*.—The bill straight at the base, with the end more or less bent or hooked, and a notch near the tip of the upper mandible.—The base not furnished with cere.—The tongue jagged at the end.—The outer toe connected to the middle one as far as the joint.

17. GREAT SHRIKE, or BUTCHER BIRD. *Lanius excubitor*, Lin. Syst. 1. p.135. no.11. Lath. Synop. 4. Pen Zool. 71.—This is a beautiful and scarce bird. I have only met with three or four specimens. It feeds on insects and small birds; the latter of which it seizes by the throat, and after strangling, fixes them on a sharp thorn, and pulls them to pieces with its bill. In spring and summer it imitates the notes of other birds, by way of decoying them within reach that it may destroy them.

**Great Grey Shrike** *Lanius excubitor*

18. RED-BACKED BUTCHER BIRD. *Lanius collurio*, Lin. Syst. 1. p.136. no.12. Lath. Synop. 15. Pen. Zool. 72.—This species is more rare than the former, it is a bird of passage, and leaves us in the winter. Its manners and habits are similar to the former.

**Red-backed Shrike** *Lanius collurio*

#### GENUS XII.—*Crows*.

Definition of the *Genus*.—The bill is strong, the upper mandible a little convex, the edges are cultrated.—Nostrils covered with bristles. End of the tongue cartilagenous [*sic*] and bifid.—Toes, three forward, one backward: the middle one joined to the outer as far as the first joint.

19. RAVEN, *Corvus corax*, Lin. Syst. 1. p.155. no.2. Lath. Synop. 1. Pen. Zool. 74.—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, never more than a pair are seen in the same neighbourhood. Its chief food is carrion; but when pressed with hunger, will kill lambs, weak and disordered sheep, and even eat grain; as I have found wheat in its stomach. When taken young it is easily tamed, and may be taught to imitate the human voice.—Where ever there is at present a raven's nest, there has always been one in the same place, or in the neighbourhood, for time immemorial. It is therefore evident, the young ones must either migrate, to distant parts of the island, or leave the kingdom altogether. If one of the old birds, whether male or female be killed, during the breeding season, the survivor soon procures a new mate, and if both are killed, a fresh pair succeeds next year to the old habitation.

**Raven** *Corvus corax*

20. CARRION CROW, *Corvus corone*, Lin. Syst. p.155. no.3. Lath. Synop. 3. Pen. Zool. 75.—They are more numerous in the north of England, than, perhaps, in any country in the world. When they have young, they are more destructive to young ducks and chickens than any species of hawk.<sup>5</sup>

**Carrion Crow** *Corvus corone*  
See also comments in note (4).

21. ROOK, *Corvus frugilegus*, Lin. Syst. 1. p.156. no.4. Lath.

**Rook** *Corvus frugilegus*

<sup>5</sup> With regard to fowl not used to be eaten, together with certain other noxious animals, there were provisions made by an ancient statute, viz. 8.Eliz.c.15, intituled [*sic*] *An Act for the preservation of graine*, which, it were to be wished might be revived, with a proper consideration of the difference of the value of money betwixt that time and the present; by which it was required that the churchwardens should levy by an assessment, and pay, for the heads of every three old crows, choughs, or rooks, one penny; of sixe young crows, choughs or rooks, one penny; and for every sixe eggs of them, one penny; for every twelve staves heads one penny; for every head of merlen hawks, suresckytte, moldkytte,

Synop. 4. Pen. Zool. 76.—The male feeds the female during the whole season of incubation.—The rook feeds upon grain and insects.

22. HOODED, or ROYSTON CROW, *Corvus cornix*. Lin. Syst. 1. p.156. no.5. Lath. Synop. 5. Pen. Zool. 77.—The hooded crow is a bird of passage, visits Cumberland only occasionally, and never in great numbers. It is about the size of the rook. The breast, belly, back, and upper part of the neck, are of a pale ash colour. It breeds in the orknies [*sic*] and highlands of Scotland.

23. MAGPIE. *Corvus pica*, Lin. Syst. 1. p.157, no.13. Lath. Synop. 29. Pen. Zool. 79.—The magpie when taken young is easily tamed, and like the raven, may be taught to imitate the human voice. The magpie during the breeding season is very destructive to young poultry.

24. JAY. *Corvus glandarius*, Lin. Syst. 1. p.156. no.7. Lath. Synop. 19. Pen. Zool. 79.—This beautiful bird builds its nest in woods, and lays five or six eggs; which are of a curious olive colour, marked with pale brown. Mr. Latham says, the eggs are the size of a pidgeon's [*sic*] egg, whereas they are very little larger than those of a blackbird. The jay is a very restless noisy bird. When tamed may be taught to talk.—The food of this bird, I believe, consists altogether of vegetable substances. Many birds live entirely upon animal food; but I think no british bird except the jay, feeds entirely upon vegetables.

25. JACKDAW. *Corvus monedula*, Lin. Syst. 1. p.156. no.6. Lath. Synop. 9. Pen. Zool. 81.—The jackdaw builds its nest, in rocks, castles and steeples; and is never found far removed from the habitations of man. It feeds upon grain, fruits, and insects; but in the breeding season will destroy young ducks and chickens. Most of the species of this genus, will permit a man without a gun, or even with an unloaded gun, to approach within a few yards of them; but if he has a loaded gun, it is difficult to get within shot, hence the common observation, "That crows smell powder."

#### GENUS XIX.—*Cuckoo*.

Definition of the *Genus*.—The bill weak and arched.—Nostrils bounded by a small rim.—Tongue short and pointed.—Tail cumeated and consisting of ten feathers.—Toes, two forward two, backward.

26. CUCKOO. *Cuculus canorus*, Lin. Syst. 1. p.168. no.1. Lath. Synop. 1. Pen. Zool. 82.—Authors say that the neck of the female is, both before and behind, of a brownish red: I have, however, dissected three females, which could not, from their external appearance, have been distinguished from males; there being not the least appearance of brownish red, either upon the neck or breast. It is therefore probable, that the brown feathers on the neck and breast, only occur in young hens, as all the young birds are brown, mixed with ferruginous.

In one of these I found two yolks of eggs in the ovary, so large that I think they would have been layed in the space of a few days, if she had not been killed. In another which had been killed, very early in the morning, by Mr. George Blamire, I found an egg with the shell fully formed, and a large yolk which would probably have been covered with a shell in a day or two. Altho the cuckoo weighs five ounces or better, yet the egg was not larger than the egg of a hedge sparrow; it weighed exactly forty four grains, was of a

#### **Hooded Crow** *Corvus cornix*

See also comments in note (4).

#### **Magpie** *Pica pica*

#### **Jay** *Garrulus glandarius*

Whilst it is true that Jays take *some* vegetable matter in their diets, this is by no means the whole story, for they also take beetles, Lepidoptera larvae, nestlings and carrion, amongst other things (see Cramp & Perrins 1994).

#### **Jackdaw** *Coloeus monedula*

#### **Cuckoo** *Cuculus canorus*

<sup>5</sup> cont. busardes, schagge, cormeraunt, or ringtayle, two-pence, and for two eggs of them, one penny; for every iron or ospray's head, four-pence! for the head of every woodwall, pye, jay, raven, kytte, or king's fisher, one penny; bulfynce, or other bird that devoureth the bloth of fruit &c. \*And by another ancient statute, 24th H.8.c.10. Every township was required to keep crow net, to destroy, crows, rooks, and coughs – BURN's Justice, vol.2. p.293. fourteenth edition.

\* Some parishes in Westmorland, at this time, pay for the heads of house sparrows, and of some other birds mentioned above.

greyish white colour, marked with dull brown, and violet brown spots. From these dissections it is pretty evident that the cuckoo lays at least two eggs. The singular phaenomenon [*sic*] of the cuckoo not hatching her own eggs, but laying them in the nest of some other bird, is now ascertained by so many facts and observations as to place the circumstance beyond the reach of doubt or controversy. The cuckoo lays her egg and sometimes eggs (for two have been found in one nest) in the nests of several small birds, viz. water-wagtail, hedge-sparrow, tit-lark, &c. in this neighbourhood, most frequently in the nest of the tit-lark; I myself have found a young cuckoo in the last mentioned nest, and seen the tit-lark feed it. As the cuckoo feeds upon insects, instinct generally, if not universally, leads her to deposit her eggs in the nests of birds which make use of a similar food.

The cuckoo is a bird of passage, and in the neighbourhood of Carlisle is sometimes heard in the last week of April, and sometimes not till the first week in May. The old birds in general disappear in the latter end of July, or the beginning of August: the young ones are seen later. The flesh of the cuckoo is very delicate food. The cuckoo has a note in the spring very unlike that, from which it derives its name; but as I have always neglected to mark it down when I heard it, I cannot at present describe it. The colour of the young birds, in autumn, when they disappear, is so extremely different from the old ones, or any that appear in the spring, that those who contend that the cuckoo does not migrate must be compelled to acknowledge that the young birds moult *and change every feather* during their state of torpidity. – See Swift, *no.* 90. As the young birds are seen a month or six weeks after the old ones disappear, I ask, if they all become torpid, what enables the former to retain all the active powers of life so long after the latter have been totally deprived of all sensation and motion? The cuckoo was heard, in the neighbourhood of Carlisle, on the 29th of April, and on the first of May. In this county they are generally attended by the tit-lark.

#### GENUS XX.–*Wryneck*.

Definition of Genus.–The bill is roundish, slightly incurvated, and of a weak texture.–Nostrils bare of feathers, and somewhat concave.–The tongue long, slender worm shaped, and armed at the point–Ten flexible feathers in the tail. Toes, two backwards, two forwards.

27. WRYNECK. *Yinx torquilla*, Lin. Syst. 1. p.172. *no.*1. Lath. Synop. 1. Pen. Zool. 83.–This beautiful species is a bird of passage, and appears at least ten days or a fortnight, before the cuckoo. In the year 1787, I had a male sent me the first week in April. It lays its eggs, to the number of eight or nine, most frequently, in the holes which have been made in decayed trees by tit-mice. It sometimes makes no nest, but deposits its eggs upon bare rotten wood. I have taken a female upon the nest. Its note is loud and harsh. October first, although I have constantly visited the fields where, in other years, the wryneck was accustomed to frequent, yet I have neither heard or seen one this summer.

**Wryneck** *Jynx torquilla*

#### GENUS XXI.–*Woodpecker*.

Definition of the *Genus*.–The bill is strait, strong, angular, and cuneate at the end.–Nostrils covered with bristles.–Tongue very long, slender, worm shaped, bony, and jagged at the end; missile. Toes, two backward, two forward.–Tail consisting of ten, hard, stiff, sharp pointed feathers.

28. GREEN WOODPECKER. *Picus viridis*, Lin. Syst. 1. p.175. *no.*12. Lath. Synop. 25. Pen Zool. 84.–This bird is seldom seen in Cumberland, only occasionally visiting this county, but is pretty

**Green Woodpecker** *Picus viridis*

common in Yorkshire.

29. GREATER SPOTTED WOODPECKER. *Picus major*, Lin. Syst. 1. p.176. no.17. Lath Synop. 12. Pen Zool. 85.

30. MIDDLE SPOTTED WOODPECKER. *Picus medius*, Lin. Syst. 1. p.176. no.18. Lath. Synop. 13. Pen. Zool. 86.—Authors have some doubts whether these are distinct species, or only varieties. These doubts I am unable to ascertain. In all the specimens which I have seen (viz. four) in this county, the whole top of the head was crimson.

#### GENUS XXIII.—*Kingfisher*.

Definition of the *Genus*.—The bill long, strong, strait, sharp pointed.—Tongue short, broad, sharp pointed.—Legs short.—Three toes forward, and one backward; three lowest joints of the outmost toe connected to the middle toe.

31. COMMON KINGFISHER. *Alcedo ispida*, Lin. Syst. 1. p.179, no.3. Lath. Synop. 16. Pen. Zool. 88.—The plumage of the kingfisher is more beautiful than that of any of the british birds. It frequents the banks of rivers and feeds on fish, it balances itself in the air like the kestrel, for a considerable time, at a certain distance over the water, and when it sees a dish, it darts below the surface, and brings the fish up with its feet. It frequents the Caldew and the Peteril [*sic*], more than the Eden. Concerning the nest of this bird, the most fabulous and absurd relations have been recorded, by ancient writers, on natural history. On the 7th of May, a boy from Upperby brought me a kingfisher alive, which he had taken when sitting upon her eggs the night before. From him I received the following information “Having often this spring observed these birds frequent a bank upon the river Peteril, he watched them carefully, and saw them go into a small hole in the bank. The hole was too small to admit his hand, but as it was made in soft mould be easily enlarged it. It was upwards of half a yard long, at the end of it the eggs which were fix in number, were placed upon the bare mould, there being not *the smallest appearance of a nest*.” The eggs, one of which he brought me, are considerably larger than the eggs of the yellow hammer, and are of a transparent white colour.

#### GENUS XXIV.—*Nuthatch*.

Definition of the *Genus*.—Bill strait, triangular.—Nostrils, small, covered with bristles.—Tongue short, horny at the end and jagged.—Toes, placed three forward and one backward: the middle toe joined closely at the base to both the outmost: back toe as large as the middle one.

32. EUROPEAN NUTHATCH. *Sitta europea*, Lin. Syst. 1. p.177. no.1. Lath. Synop. 1. Pen. Zool.89.—On the 11th of May, 1782, I received a male nuthatch from Armathwaite, where a pair of them had been observed about ten days. In all probability they intended to have made their nest that year, in the neighbouring woods. They frequently perched upon the top of the castle, and made a very loud squeaking chattering noise. The hypochondria of this bird were of a deep and bright tawny colour, the under coverts of the tail were edged with the same. They breed and constantly inhabit the woods near Lowther-hall. The nuthatch collects hoards of nuts in the hollows of trees, from which they fetch one at a time, and place it in a chink of a tree, and then stand above it with the head downwards, strike it with all their force, break the shell, and catch the kernel. They also eat insects, and make their nests in hollow trees.

#### **Great Spotted Woodpecker *Dendrocopos major***

Quite which species Heysham had in mind here is unclear. Perhaps it was the Lesser Spotted Woodpecker *Dryobates minor*, in which only the males have a red cap (and which is a very unusual species in Cumbria), but more credibly it might refer to juveniles of the Great Spotted Woodpecker.

#### **Kingfisher *Alcedo atthis***

#### **Nuthatch *Sitta europaea***

See also comments in note (5).

GENUS XXVII.—*Hoopoe*.

Definition of the *Genus*.—The bill long slender and incurvated—Tongue short and sagittal.—Toes, placed three before and one behind; the middle one connected at the base to the outmost.

33. COMMON HOOPOE. *Upupa epops*, Lin. Syst. 1. p.183. no.1. Lath. Synop. 1. Pen. Zool. 90.—This beautiful bird is not a regular inhabitant of England, it only visits Cumberland occasionally and seldom.

**Hoopoe** *Upupa epops*

GENUS XXVIII.—*Creepers*.

Definition of the *Genus*.—The bill is slender, incurvated, and sharp pointed. — Tongue, sharp, pointed. —Toes, placed three before and one behind: back toe large: claws hooked and long. — Tail consisting of twelve feathers.

34. COMMON CREEPER. *Certhia familiaris*, Lin. Syst. 1. p.184, no.1. Lath. Synop. 1. Pen. Zool. 91.—This is one of the smallest of the british birds, being very little bigger than the golden crested wren. It runs up and down the branches of trees with the utmost facility. The creeper breeds in the woods at Corby.

**Treecreeper** *Certhia familiaris*

ORDER III.—*Passerine*.GENUS XXX.—*Stare*.

Definition of the *Genus*.—Bill strait depressed.—Nostrils guarded above by a prominent rim.—Tongue hard and cloven.—The middle toe united to the outmost, as far as the first joint.

35. COMMON STARE or STARLING. *Sturnus vulgaris*, Lin. Syst. 1. p.290, no.1. Lath. Synop. 1. Pen. Zool. 104.—The starling may be taught to speak. In the autumn they are found in considerable flocks on the sea coasts, not far from the shore.—They breed in old ruined buildings, and I am told, sometimes in rabbit warrens.

**Starling** *Sturnus vulgaris*

GENUS XXXI.—*Thrush*.

Definition of the *Genus*.—Bill straitish, bending towards the point, and slightly notched near the end of the upper mandible.—Nostrils oval.—Tongue slightly jagged at the end.—The corners of the mouth furnished with a few slender hairs.—The middle toe connected to the outer, as far as the first joint.

36. MISSEL THRUSH. *Turdus viscivorus*. Lin. Syst. 1. p.291, no.1. Lath. Synop. 1. Pen. Zool. 105.—In April, 1782, a nest of this bird was found in Mr. Dacre's garden at Kirklington, between two branches of an elm tree. The female was shot, and I took the nest, which contained four eggs, which were rather larger than the eggs of the common thrush. In colour & marks they greatly resemble the eggs of the chaffinch. The outside of the nest was made of moss, and different kinds of lichen. The inside was comprised of fine dead grass: it contained no clay or mud. In less than three weeks the male found another mate, and they built a nest exactly in the same part of the tree where the other had stood.

**Mistle Thrush** *Turdus viscivorus*

In severe winter the missel thrush either leaves Cumberland, or retires into the thickest woods. It begins to sing early in the spring. The missel thrush may be distinguished from the throstle by its superior size; by the spots upon its breast which are larger and blacker than those on the breast of the throstle; and by the inner coverts of the wings, which are white.

37. FIELDFARE. *Turdus pilaris*. Lin. Syst. 1. p.291. no.2. Lath. Synop. 11. Pen. Zool. 106.—The fieldfare is a bird of passage, appears in Cumberland in the beginning of October, and retires in the month of March or April.

**Fieldfare** *Turdus pilaris*

38. THROSTLE. *Turdus musicus*. Lin. Syst. 1. p.292. no.4. Lath. Synop. 2. Pen. Zool. 107.—The throstle, like the missel thrush, either leaves this county entirely, in severe winters, or retires into

**Song Thrush** *Turdus philomelos*

the most thick and solitary woods. The weather was so mild and open, in January, 1796, that the throistle was heard to sing on the 20th, and I myself heard it on the 25th of that month. In general the throistle does not begin to sing till February, and sometimes not till March.

39. REDWING. *Turdus iliacus*. Lin. Syst. 1. p.292, no.3. Lath. Synop. 7. Pen Zool. 108.—The redwing comes and returns the same time as the fieldfare.

**Redwing** *Turdus iliacus*

40. BLACKBIRD. *Turdus merula*. Lin. Syst. 1. p.295. no.22. Lath. Synop. 46. Pen. Zool. 109.—This bird is subject to varieties in colour, being often pied and sometimes wholly white. The male assists the female in incubation: May 23d, I examined a nest at Netherby, and found the male upon the nest, I had some difficulty in disturbing him; suspecting the female had met with some accident; in a little time I went again to the nest, and found the female in it, this circumstance I mentioned to Sir. James Graham's, gardiner, [*sic*] who assured me he had often seen the cock sitting upon the eggs.

**Blackbird** *Turdus merula*

41. RING OUZEL. *Turdus torquatus*. Lin. Syst. 1. p.296. no.23. Lath. Synop. 49. Pen. Zool. 110.—This species is very rare in Cumberland, it breeds upon the mountains, but I believe it leaves us in the beginning of winter.

**Ring Ouzel** *Turdus torquatus*

42. WATER OUZEL. *Sturnus cinclus*. Lin. Syst. 1. p.290. no.5. Lath. Synop. 50. Pen. Zool. 111.—This is a solitary species, frequents small rivers and brooks, and lives upon insects and small fish. It dives under water and runs after the fish at the bottom, in the same manner as on land. The water ouzel makes its nest in the banks of rivulets, which it frequents, and lays four or five eggs: the nest is composed of the same materials, and is of the same form, at the nest of the common wren, the hole only being considerably larger. On the 19th of May, being upon a fishing party on the Rae, I had an opportunity for the first time, of seeing the nest from which we saw the bird escape.—There were two eggs in the nest: the eggs are of the same colour as the eggs of the kingfisher, but are rather longer, and I think somewhat larger; one of them weighed 69 grains.

**Dipper** *Cinclus cinclus*

#### GENUS XXXII.—Chatterer.

Definition of the *Genus*.—Bill strait, convex, bending towards the point: near the end of the upper mandible a small notch.—Nostrils hid in the bristles.—Middle toe connected to the outer at the base.—Tongue sharp, cartilaginous and bifid.

43. BOHEMIAN or WAXEN CHATTERER. *Ampelis garrulus*. Lin. Syst. 1. p.297. no.1. Lath. Synop. 1. Pen. Zool. 112.—This beautiful bird only visits Cumberland occasionally, and then only in the winter season. In the beginning of the year 1787, great numbers were killed in the north of England. What distinguishes this from all other birds, are horny appendages from the tips of the secondary feathers, of the colour of the very finest red sealing wax. The females are said to be distinguished from the males, by the want of the appendages and yellow marks in the wing feathers; which, however, is not the case, as will appear from the following account. One of these birds was found dead, in Feb. 1784 near Burgh on the sands: it had six crimson appendages at the end of the second quills: the tips of the quill feathers rather a dirty white then yellow. I could not distinguish, upon dissection, whether it was male or female. On the 8th of February, 1878, Mr. Story sent me a specimen, which was killed near Keswick: on the right wing were six of the horny appendages, on the left only five: five of the quill feathers, and one of the secondaries in each wing, were tipped on the outer margin with a fine yellow; on dissection *this proved to be a female*. On the same day a flock of five or six of these birds were seen, feeding on the fruit of the hawthorn, near Blackwell, a mile

**Waxwing** *Bombicilla garrulus*

and a half from Carlisle. Two of them were shot and sent to me; one had seven red appendages on the right wing, and six on the left; the other had six on each wing; only four of the quill feathers had yellow tips, and the yellow in both was much *paler than in the last*. They proved to be males. On the 14th of February, 1787, Mr. Harrison of Penrith sent me another, which was killed near Temple Sowerby. On each wing were seven appendages, much larger than in the former.—Five of the quill feathers, and one of the secondaries in each wing (as was the case of the female sent by Mr. Story) were tipped with yellow: the appendages were much larger than in the four preceding specimens, and the four nearest the body were the largest: this bird was a male. On the 22nd of March, in the same year, I received another, which was killed at Ravensworth, and sent to me by Sir. Henry Liddell, Bart. on the right wing there were eight, on the left seven appendages, which were large. The two extreme ones, viz. the nearest and farthest from the body, were the smallest. The second, third, fourth, and fifth from the body were the largest: six of the wing feathers were tipped with yellow. In this bird all the tail feathers had also red horny appendages at the ends of the shafts, which, however were much smaller than those on the wings. The person by whom it was sent, neglected to deliver it for near three weeks, by which, the intestines, &c. were become so putrid, that I could not, after the most accurate examination, ascertain whether it was male or female. The red appendages and yellow tips on the wings does, therefore, not depend upon the sex, but most probably on the age of the bird: and the sex, I am persuaded, can only be ascertained by dissection.

#### GENUS XXXIV.—*Grosbeak*.

Definition of the *Genus*.—The bill is strong, convex above and below, and very thick at the base.—Nostrils small and round, and placed at the base of the bill.—Tongue as if cut off at the end.

44. COMMON CROSS BILL. *Loxia curvirostra*, Lin. Syst. 1. p.299. no.1. Lath. Synop. 1. Pen. Zool. 115.—This bird is known by the singularity of its bill, both mandibles of which, curve opposite ways, and consequently cross each other. They only visit Cumberland seldom, and in the winter season. I have only seen one specimen, which was killed near Crofton, the seat of Sir. John Brisco, Bart.

45. BULFINCH. [*sic*] *Loxia pyrrhula*. Lin. Syst. 1. p.300. no.4. Lath. Synop. 51. Pen. Zool. 116.—In Germany the bulfinch is taught to articulate several words.

46. GREEN GROSBEEK or FINCH. *Loxia chloris*. Lin. Syst. 1. p.304. no.27. Lath Synop. 35. Pen. Zool. 117.—This species is rarely observed in the winter season, but becomes plentiful towards the latter end of March and beginning of April.

#### GENUS XXXV.—*Bunting*.

Definition of the *Genus*.—Bill strong and conic, the sides of each mandible bending inwards: in the roof of the upper a hard knob, of use to break and comminute hard feeds.

47. SNOW BUNTING. *Emberiza nivalis*. Lin. Syst. 1. p.308. no.1. Lath. Synop. 1. Pen. Zool. 122.—This bird is never seen except in the winter, and even then seldom in the plains.

48. COMMON BUNTING. *Emberiza miliaria*. Lin. Syst. 1. p.308. no.3. Lath. Synop. 8. Pen. Zool. 118.—Remains with us the whole year, and has a very harsh disagreeable note. It makes its nest on the ground, and the eggs resemble those of the yellow hammer, but are somewhat larger.

49. YELLOW HAMMER or BUNTING. *Emberiza citrinella*, Lin. Syst. 1. p.309. no.5. Lath. Synop. 7. Pen. Zool. 119.—This is one of our most common birds.

**Crossbill** *Loxia curvirostra*

**Bullfinch** *Pyrrhula pyrrhula*

**Greenfinch** *Chloris chloris*

**Snow Bunting** *Plectrophenax nivalis*

**Corn Bunting** *Emberiza calandra*

**Yellowhammer** *Emberiza citrinella*

50. REED BUNTING or SPARROW. *Emberiza schoeniculus*. Lin. Syst. 1. p.311. no.17. Lath. Synop. 9. Pen. Zool. 120.—In marshy countries it builds among reeds, and fastens its nest to four, not at equal distances, but two, and two on each side, pretty near each other, the rest of the nest hanging free. In Cumberland it frequents hedges and road sides. Most, if not the whole of them migrate in the autumn.

51 TAWNY BUNTING.— Lath. Synop. 2. Pen. Zool. 121.—This species, like the snow bunting, is never seen except in winter; but in very severe weather it descends to the plains: I have seen flocks of them between the bridges at Carlisle.

#### GENUS XXXVII. — Finch.

Definition of the *Genus*.—Bill conic, slender towards the end and sharp pointed.

52. GOLD FINCH. *Fringilla carduelis*. Lin. Syst. 1. p.318. no.7. Lath. Synop. 51. Pen. Zool. 124.—This beautiful bird is universally known in this country, and may be taught to draw up its water in a bucket, and perform several other curious tricks and motions.

53. CHAFFINCH. *Fringilla coelebs*. Lin. Syst. 1. p.318. no.3. Lath. Synop. 10. Pen. Zool. 125.—The chaffinch, both male and female, remain with us the whole year, and make a beautiful nest in hedges and different kinds of fruit trees. In Sweden the females leave the males, and migrate in the month of September, and return in the spring.

54. BRAMBLING or MOUNTAIN FINCH. *Fringilla monti-fringilla*. Lin. Syst. 1. p.318. no.4. Lath. Synop. 13. Pen. Zool. 126.—This species only visits this county in the winter, and even then is only seen in the plains, when the frost is severe.

55. HOUSE SPARROW. *Fringilla domestica*. Lin. Syst. 1. p.323. no.36. Lath. Synop. 1. Pen. Zool. 137.—Wherever there is plenty of grain, there are 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 extreme scarce bird.—How many broods the house sparrow rears, each season, I cannot ascertain, but I am inclined to think they breed oftener than any other English bird. I have, myself, taken a nest which contained five young birds and five eggs.

56. COMMON or GREY LINNET. Lath. Synop. 73. Pen. Zool. 130.

57. REDHEADED LINNET. *Fringilla cannabina*. Lin. Syst. 1. p.322. no.28. Lath. Synop. 74. Pen. Zool. 131.—Not so plentiful as the former.

58. LESS REDHEADED LINNET. *Fringilla linaria*. Lin. Syst. 1. p.322. no.29. Lath. Synop. 75. Pen. Zool. 132.—This species is scarce, and not quite half the size of the common linnet. It frequents alder-trees, near brooks, in which tree it makes its nest.

59. CANARY BIRD. *Fringilla canaria*. Lin. Syst. 1. p.321. no.23. Lath. Synop. 62. Pen. Zool. 347.—Breeds only in houses and cages.

#### GENUS XXXVIII.—Flycatcher.

Definition of the *Genus*.—Bill slatted at the base; almost triangular: notched at the end of the upper mandible, and beset with bristles.

60. SPOTTED FLYCATCHER. *Muscicapa grisala*. Lin. Syst. 1. p.328. no.20. Lath. Synop. 1. Pen. Zool. 134.— The flycatcher appears in the beginning of May. It makes its nest on the sides of trees, and in holes of walls. The eggs very much resemble the eggs

#### Reed Bunting *Emberiza schoeniclus*

#### Lapland Bunting *Calcarius lapponicus*

Virtually all sightings of this species in Cumbria in the two centuries since Heysham's list was published have been of single birds; flocks as recorded by Heysham are without precedent and it is a great shame that he did supply further details. This was, possibly, a case of mistaken identity.

#### Goldfinch *Carduelis carduelis*

#### Chaffinch *Fringilla coelebs*

Whilst it is certainly true that most Chaffinches breeding locally remain in Cumbria throughout the year, some winter further south, usually at no great distance. There is also an influx of continental birds in the winter months.

#### Brambling *Fringilla montifringilla*

#### House Sparrow *Passer domesticus*

#### Linnet *Linaria cannabina*

See also comments in note (6).

#### Common Redpoll *Acanthis flammea*

See also comments in note (7).

#### Lesser Redpoll *Acanthis cabaret*

See also comments in note (7).

#### Canary

#### Spotted Flycatcher *Muscicapa striata*



of the redbreast. They disappear in the latter end of August, or beginning of September.

61. PIED FLYCATCHER. *Muscicapa atricapilla*. Lin. Syst. 1. p.236. no.9. Lath. Synop. 2. Pen. Zool. 135.—The pied flycatcher appears about the same time as the spotted, but is not so common: they breed at Lowther. On the 12th of May, 1783, I shot there two pair. They make their nests in the holes of trees.

#### GENUS XXXIX.—Lark.

Definition of the *Genus*.—The bill is strait, slender, bending a little towards the end, sharp pointed.—Nostrils covered with feathers and bristles.—Tongue bifid.—Claw of the back toe very long.

62. SKY LARK. *Alauda arvensis*. Lin. Syst. 1. p.287. no.1. Lath. Synop. 1. Pen. Zool. 136.

63. WOOD LARK. *Alauda arborea*. Lin. Syst. 1. p.287. no.3. Lath. Synop. 3. Pen. Zool. 137.

64. TIT LARK. *Alauda pratensis*. Lin. Syst. 1. p.287. no.2. Lath. Synop. 5. Pen. Zool. 138.

65. FIELD LARK. Lath. Synop. 6. Pen. Zool. 139.—This is not so frequent as the other species of larks.

#### GENUS XL.—Wagtail.

Definition of the *Genus*.—Bill weak and slender; slightly notched near the tip of the upper mandible.—Tongue lacerated at the end.—Tail long.

66. WHITE WAGTAIL. *Motacilla alba*, Lin. Syst. 1. p.331. no.11. Lath. Synop. 1. Pen. Zool. 142.—Appears very early in the spring, and does not leave us till late in the autumn.

67. YELLOW WAGTAIL. *Motacilla flava*, Lin. Syst. 1. p.331. no.12. Lath. Synop. 6. Pen. Zool. 143.—This species does not appear so early as the white wagtail, and is not so common.

68. GREY WAGTAIL. Lath. Synop. 4. Pen. Zool. 144.—Appears in Cumberland in the spring, and leaves it in October, or November, and in very mild winters, a few, I believe, remain with us the whole year. I saw two on the fifth of January, this year, between the bridges.

#### GENUS XLI.—Warbler.

Definition of the *Genus*.—Bill slender and weak.—Nostrils small and sunk.—The exterior toe joined at the under part, to the base of the middle toe.

69. RED START or RED TAIL. *Motacilla phoenicurus*, Lin. Syst. 1. p.335, no.34. Lath. Synop. 11. Pen. Zool. 146.—The redtail appears in April, and makes its nest in the holes of walls: its eggs are blue. The male is a beautiful bird. When a school boy, I have known the redtail make its nest in the same place for many years successively.—April 27th, the redtail appeared.

70. ROBIN RED BREAST. *Motacilla rubecula*, Lin. Syst. 1. p.337. no.45. Lath. Synop. 38. Pen. Zool. 147.—During the winter the redbreast becomes familiar with man, and is almost the only bird which cheers us with his song, during that dreary season — Children from their infancy are taught to respect him. When a boy, the robin was never taken in my springs, without exciting in my mind, disagreeable and painful sensations.

71. BLACKCAP. *Motacilla atricapilla*, Lin. Syst. 1. p.332. no.8. Lath. Synop. 5. Pen. Zool. 148.—The blackcap appears in May, and frequents the woods at Netherby and Corby, where it breeds. It disappears in the latter end of August, or the beginning of September.

72. PETTY-CHAPS. *Motacilla hippolais*, Lin. Syst. 1. p.330,

**Pied Flycatcher** *Ficedula hypoleuca*

**Skylark** *Alauda arvensis*

**Woodlark** *Lullula arborea*

**Meadow Pipit** *Anthus pratensis*

**Shore Lark** *Eremophila alpestris*

From the description given in Pennant's *British Zoology* (1776) under Field Lark the species referred to here is the Shore Lark.

**Pied Wagtail** *Motacilla alba*

**Yellow Wagtail** *Motacilla flava*

**Grey Wagtail** *Motacilla cinerea*

**Redstart** *Phoenicurus phoenicurus*

**Robin** *Erithacus rubecula*

**Blackcap** *Sylvia atricapilla*

**Chiffchaff** *Phylloscopus collybita*

no.7. Lath. Synop. 5. Pen. Zool. 149.— Appears in May, but not in great numbers. The inside of the mouth is red inclining to orange. The song of the petty-chaps is very melodious.

73. HEDGE SPARROW. *Motacilla modularis*, Lin. Syst. 1. p.329. no.3. Lath. Synop. 9. Pen. Zool. 150.—The hedge sparrow begins to sing in the beginning of February.

74. YELLOW or WILLOW WREN. *Motacilla trochilus*, Lin. Syst. 1. p.338, no.49. Lath. Synop. 147. Pen. Zool. 151.—Appears about the middle of April, and is very common. In this county it is called the miller's thumb. April 17th, I heard several yellow wrens, and on the 18th they were singing in almost every hedge. August 22d, I heard one for the last time.

75. GOLDEN CRESTED WREN. *Motacilla regulus*, Lin. Syst. 1. p.338, no.48. Lath. Synop. 145. Pen. Zool. 153.—This is the smallest of the Cumberland birds

76. COMMON WREN. *Motacilla troglodytes*, Lin. Syst. 1. p.337. no.46. Lath. Synop. 143. Pen. Zool. 154.—The common wren begins to sing about the middle of February, if the weather is temperate.

77. SEDGE BIRD. *Motacilla fulicaria*, Lin. Syst. 1. p.330. no.8. Lath. Synop. 21. Pen. Zool. 155.—This is a very rare bird. I have only seen one specimen, which I shot on the banks of the Eden, near Carlisle. It is a bird of passage and comes in May.

78. WHEAT EAR. *Motacilla oenanthe*, Lin. Syst. 1. p.332. no.15. Lath. Synop. 75. Pen. Zool. 157.—The wheat ear appears in the middle of March, the females come a week or ten days before the males.

79. WHIN CHAT. Cumb. Utick. *Motacilla rubetra*, Lin. Syst. 1. p.332, no.16. Lath. Synop. 54. Pen. Zool. 158.

80. STONE CHAT. *Motacilla rubicola*, Lin. Syst. 1. p.332. no.17. Lath. Synop. 46. Pen. Zool. 159.—This bird appears early in the spring, and continues, I think, longer than any of the birds of passage.

81. WHITE THROAT. *Motacilla sylvia*, Lin. Syst. 1. p.330. no.9. Lath. Synop. 19. Pen. Zool. 160.—The white throat comes in the latter end of April, or beginning of May, and leaves us in September.—April 26th, I heard the white throat.

#### GENUS XLIII.—*Titmouse*.

Definition of the *Genus*.—Bill strait, a little compressed, strong, hard, and sharp pointed.—Nostrils, round, and covered with bristles.—Tongue terminated with bristles.

82. GREAT TITMOUSE. *Parus major*, Lin. Syst. 1. p.341. no.3. Lath. Synop. 1. Pen. Zool. 162.—All this genus are remarkably fruitful, some of the species lay from twelve to sixteen eggs.—The great titmouse is not so numerous as some of the other species. It builds its nest in holes of walls and trees.

83. BLUE TITMOUSE. *Parus caeruleus*, Lin. Syst. 1. p.341. no.5. Lath. Synop. 10. Pen. Zool. 163.—This bird frequents gardens and does great injury to fruit trees, by bruising the blossoms. It makes its nest in decayed trees and in walls.

84. COLE TITMOUSE. *Parus ater*, Lin. Syst. 1. p.341. no.7. Lath. Synop. 10. Pen. Zool. 164.

85. MARSH TITMOUSE. *Parus palustris*, Lin. Syst. 1. p.341. no.7. Lath. Synop. 8. Pen. Zool. 165.

86. LONG TAILED TITMOUSE. *Parus caudatus*, Lin. Syst. 1. p.342. no.11. Lath. Synop. 18. Pen. Zool. 166.—No bird in this country, makes so curious and elegant a nest as the long tailed titmouse. It is of an oval shape, with a small hole on the side, near the top.—The outer materials are moss, liverwort and wool curiously interwoven, and lined within with the softest feathers. It is often placed in the sloe-thorn, and frequently contains fifteen or sixteen eggs. The young follow the old birds till the spring.

See note (8).

**Dunnock** *Prunella modularis*

**Willow Warbler** *Phylloscopus trochilus*

**Goldcrest** *Regulus regulus*

**Wren** *Troglodytes troglodytes*

**Sedge Warbler** *Acrocephalus schoenobaenus*

**Wheatear** *Oenanthe oenanthe*

**Whinchat** *Saxicola rubetra*

**Stonechat** *Saxicola rubicola*

**Whitethroat** *Sylvia communis*

**Great Tit** *Parus major*

**Blue Tit** *Cyanistes caeruleus*

**Coal Tit** *Periparus ater*

**Marsh Tit** *Poecile palustris*

**Long-tailed Tit** *Aegithalos caudatus*

GENUS XLIV.—*Swallow*.

Definition of the *Genus*.—Bill short, weak, and broad at the base, and small at the point.—Mouth wide.—Short weak legs.

87. CHIMNEY SWALLOW. *Hirundo rustica*, Lin. Syst. 1. p.343. no.1. Lath. Synop. 1. Pen. Zool. 168.—This species makes its appearance about the middle of April, and departs towards the latter end of September, or beginning of October. It is the most numerous of the swallow tribe. April 21st. the swallow appeared. I have reason to think they breed twice every summer. September 19th most of them disappeared.

88. MARTIN. *Hirundo urbica*, Lin. Syst. 1. p.344. no.3. Lath. Synop. 3. Pen. Zool. 169.—The martin is not, I think, quite so numerous as the chimney swallow. They build their nests under the eaves of houses, and appear the latter end of April or beginning of May, and depart about the third week in September. Mr. Hodgson, surgeon, at Burgh upon the Sands, a village about five miles from Carlisle, has observed that the martins which annually build their nests under the eaves of his house, always disappear either on the 19th or 20th September. April 25th I saw two martins, and one of them entered an old nest.

The martin lays five white eggs, and begins to lay about the 27th of May. In a nest which I examined, the first of June, there were five eggs, and on this day the female began to sit. On the 12th of July, the young birds for the first time, began to leave the nest, they therefore must have remained in it about twenty-eight days after they were hatched. July 13th, the foundation of a new nest, about six inches from the old one, was formed, on the 21st the mud work or shell of the nest was finished, on the 5th of August the nest contained three eggs, one of which I examined, and found it was not in the least incubated. In getting the egg out I broke the nest; the next morning I saw a martin in the old nest. August 27th, I examined both nests, the broken one contained the two eggs I left in it: the old nest contained one young bird; which, from its size, had probably been hatched about a week. On the 17th of August, I examined several martins' nests, under the eaves of a house in the country, all of which contained eggs. September 12th, the young bird left the nest.—It is therefore evident that martins have annually, during their residence in this country, two broods. September 19th I apprehend they all disappeared except a very few, whose second broods had not left their nests; for, from that day till the 28th, I never observed more than three pair: this circumstance exciting my curiosity, I examined all the houses where they usually breed, and I found three nests which contained young birds, and saw the old ones frequently feed them. On the 29th their numbers increased, the young having taken wing from two of the nests. October 1st the young of the third nest took wing. October 5th I saw about twenty. October 7th I saw nearly the same number, but after that day I never observed one.

If all the martins which frequent Carlisle, except three pair, became torpid on the 19th of September, when the highest degree of the thermometer was 62, and the medium heat of the whole day was 56 $\frac{2}{3}$ .—How can we account for these three pair (emaciated and debilitated as they must in some degree have been, by the duties of incubation and supporting their young) remaining alive and active on the 23rd, when the highest degree of the thermometer was only 54, and the medium heat of the whole day was only 50? Yet these three pair remained here till the 7th or 8th of October. But if, on the other hand, martins migrate, nothing is more rational than to suppose that these three pair were prevented from accompanying their companions on the 19th, by an instinct, superior to the instinct which impels them to migrate, viz. natural affection to their offspring. The greatest part of the species having on the 19th no

**Swallow** *Hirundo rustica*

**House Martin** *Delichon urbicum*

duties of this kind to fulfil, obeyed the impulse of nature, and pursued their course to distant but more genial climes, and as soon as the few remaining had accomplished the same object, they also followed, for none were seen for more than six or seven days after the latest brood had taken wing.

89. SAND MARTIN. *Hirundo riparia*, Lin. Syst. 1. p.344. no.4. Lath. Synop. 10. Pen. Zool. 170.—This, although the smallest species of the genus, which inhabits England, appears the first. It comes the latter end of March, or the beginning of April. It digs horizontal holes three or four feet long, in the banks of rivers and sandbanks, at the end of which it places its nest.

**Sand Martin** *Riparia riparia*

A few years ago, Mr. Graham, of Edmund-Castle, when making some pieces of water near his house, formed two sand banks. In these banks the sand martin soon began to breed, and as the sand is very loose and dry, the banks shoot down almost every winter, which leaves none of the holes more than a foot long. I examined every one of the holes in both banks, the last and present spring. At the end of most of them I found old nests, in some none, and no torpid birds in any of them. On the 17th of April, which was very warm, I spent the day at Edmund-Castle, and was constantly on the look out for sand martins, but saw none. — On the 19th, however, they made their appearance there in considerable numbers, and several were seen on the same day, at other places where they frequent.

90. SWIFT or BLACK MARTIN. *Hirundo apus*, Lin. Syst. 1. p.344, no.6. Lath. Synop. 34. Pen. Zool. 171.—The swift sometimes comes the last week in April; but, in general not till the first week in May, and, I believe, the same number of pairs come annually to the same place. They build, for the most part, in castles and steeples, where these are wanting under the slates of houses. They depart the first week in August.

**Swift** *Apus apus*

Some of the swallow tribe are said to be now and then found in a torpid state, during the winter, in caverns and the hollows of rocks, &c. Such examples, however, I conceive to be very rare, and if they ever do occur, are most probably diseased birds, or late broods. There is not the least doubt, but that they, in general, migrate to warmer climates. The swift, we see, comes in the latter end of April, or beginning of May, and departs the first week in August. And, as the weather is, for the most part, much hotter in August, than it is in the beginning of May, nothing can be more absurd than to suppose that swifts should become torpid, during one of the warmest months of the year, and more especially, as they sometimes appear when our mountains are covered with snow, and when we have extreme cold frosty nights, which often occur, both in the latter end of April, and beginning of May. The spring of the year 1789, was remarkably cold and late; yet, in that year, I observed two swifts flying very vigourously, [*sic*] early in the morning of the 30th of April. The frost had been so severe in the night that there was ice of considerable thickness, and all our mountains were covered with a thick snow. If therefore these birds become torpid in this country, it appears, I think, pretty certain that their states of torpor and activity, must depend upon some other principle than the temperature of the atmosphere; unless, indeed it be alleged that they grow torpid from heat, and owe their restoration to life, vigour, and activity, to cold! And it is likewise evident that they must remain in that state very near nine months of the year, and only enjoy life little more than three!

I have examined swifts every month, while they remain with us, and could never observe any symptoms of moulting. If therefore they do not migrate, they either do not moult, or they moult in their torpid state, and it certainly is not easy to be conceived, that so important a process in the œconomy [*sic*] of the feathered tribe, should be carried on, during an almost total cessation of every vital

function. In short, from the observations I have made, on the appearance and disappearance of birds of passage, I am strongly inclined to believe that *cæteris paribus* as many woodcocks remain, during the summer, in England, as swallows in winter. Such instances when they occur, can only be considered as exceptions to a general law of nature, and, in all probability are occasioned either by disease or debility of the individuals, which renders them unable to obey that instinct, by which the rest of the species are so regularly and uniformly directed.

“Yea, the stork in the heaven knoweth her appointed times; and the turtle, and the crane and the swallow, observe the time of their coming: but my people know not the judgment of the Lord.”

*Jeremiah, c.8. v.7.*

May 9th, after an absence of upwards of nine months, the swift this day made its appearance at Carlisle. Between six and seven o'clock in the evening, I saw a solitary one flying about the cathedral, where they frequent and breed annually. I am satisfied it had come sometime during the day; for I had not only looked attentively myself, for them, every morning and evening, since the first of May: but had also employed a person of observation, who lives near the cathedral to do the same.

Since the commencement of the present month, viz. May, the weather has been remarkably cold; the wind almost invariably in the east; the nights frosty; and for the three last days, the nearest hills, and even a part of the plains have been covered with snow. Whereas, almost all of the month of April was temperate and warm, and from the 17th to the 28th the weather was even hot and sultry.

May the 10th, in the morning, I saw three swifts, and in the evening, four at the same time. May the 11th. in the morning, I saw eight. May 25th, some of them I think began to build their nests, as I saw them enter holes in the cathedral.

July 15th, I observed several frequently enter their nests, and have seen no young birds. July 18th, I, for the first time, saw several young swifts.

August the 3d they began to disappear: on the 4th I only saw a very few: on the 15th, I saw two pair, on the 16th only one pair, which were the last I observed though I looked very attentively for them, every morning and evening, till the beginning of September.

Although perfectly satisfied by my own observations; that, every day of the month of April was warmer than the first ten days of May, when swifts first appeared: and that the first sixteen days of August, when they disappeared, were considerably hotter than the same period in May: yet in order to elucidate the subject as much as possible, I deemed it necessary to ascertain the exact temperature of the air, at the times when they appeared and disappeared. I therefore applied to J.Mackenzie, Esq. who resides at Brampton, nine miles from Carlisle, a gentleman of science & singular accuracy: & indeed, the only gentleman who keeps a meteorological diary of the weather in the neighbourhood of Carlisle. He was obliging enough to send me the following extracts, from his register: and also those which I have inserted in the observations on the *Martin*.

#### TEMPERATURES

From the above extracts from Mr. Mackenzies register; it appears, that on the 21st of April, the thermometer stood as high as 68; and on the 9th of May, the day the first swift was seen, it stood only at 46: the air was therefore no less than 21 degrees colder than it was on the 21st of April. On the 3d of August when swifts began

to retire it stood at 64; and on the 16th, when the last were seen, it was at 71: the air was therefore 25 degrees hotter when they finally departed, than it was when they first appeared.

I shall here observe, that of the Cumberland birds which migrate: thirty eight appear in the spring, and depart either in the autumn or beginning of winter; and forty three appear during the winter, and depart on the spring.

GENUS XLV.—*Goatsucker*.

Definition of the *Genus*.—Bill short, bent at the end, gape very wide: on the edges of the upper mandible several stiff bristles.—Tongue small; entire at the end.—The tail consists of ten feathers; not forked.—Legs short.—Toes united by a membrane as far as the first joint.

91. GOATSUCKER. *Caprimulgus europeus*, Lin. Syst. 1. p.346. no.1. Lath. Synop. 5. Pen. Zool. 172.—The goatsucker visits Cumberland about the middle of May, and disappears about the middle of August. Towards the latter end of June, or the beginning of July, they lay two eggs, upon the ground, which, in colour, very resemble the plumage of the bird. Their food consists entirely of insects, which they prey upon only during the twilight. In the male there is an oval white spot on the inner webs of the three first quill feathers, and another at the ends of the two outermost feathers of the tail. None of the young birds have these white marks on the wings or tail. All the males have them when they appear with us in the spring and summer; it is hence evident they moult during the time of their disappearance.— See no.26. Cuckoo, and no.90. Swift.

**Nightjar** *Caprimulgus europaeus*

ORDER IV.—*Columbine*.

GENUS XLVI.—*Pigeon*.

Definition of the *Genus*.—Bill weak, slender; strait at the base, with a soft protuberance in which the nostrils are lodged.—Tongue entire.—Legs, short.—Toes, divided to their origin.

92. STOCK DOVE. *Columba oenas*, Lin. Syst. 1. p.279. no.1. Lath. Synop. 1. Pen. Zool. 101.—I am doubtful whether this bird at present exists in Cumberland in its native wild state, as I have never had an opportunity of seeing it. But our common tame pigeon, and most of its beautiful varieties derive their origin from it.

**Stock Dove** *Columba oenas*

See also comments in note (9)

93. RING DOVE. *Columba palumbus*, Lin. Syst. 1. p.282. no.19. Lath. Synop. 29. Pen. Zool. 102.—In some parts of England they migrate, but remain in Cumberland the whole year. When grain, which is their common food, becomes scarce, they feed upon turnips.

**Woodpigeon** *Columba palumbus*

94. TURTLE DOVE. *Columba turtur*, Lin. Syst. 1. p.284. no.32. Lath. Synop. 40. Pen. Zool. 103.—In the south of England, where these birds are plentiful, they appear late in the spring, and depart in autumn. It is seldom seen in its wild state in Cumberland. One, however, a young bird, was taken in a trap, in the year 1786, not far from Corby, but this perhaps might have been bred in a cage and made its escape.

**Turtle Dove** *Streptopelia turtur*

ORDER V.—*Gallinacious*. [sic]

GENUS XLVII.—*Peacock*.

Definition of the *Genus*.—Bill convex and strong.—Nostrils large.—Head small, crested.—Spurs on the legs.—Feathers above the tail very long, broad, expansible, consisting of ranges of feathers; adorned at their ends with rich ocellated spots.

95. PEACOCK. *Pavo cristatus*, Lin. Syst. 1. p.267. no.1. Lath. Synop. 1.

**Peacock**

GENUS XLVIII.—*Turkey*.

Definition of the *Genus*.—Bill convex, short and strong.—Nostrils open, pointed at one end, lodged in a membrane.—Head and neck covered with naked carunculated flesh.—Tail, broad, extensible.

96. TURKEY. *Meleagris gallopavo*, Lin. Syst. 1. p.268. no.1. Lath. Synop. 1.—Of this bird we have several varieties.

Turkey

GENUS XLIX.—*Pintado*.

Definition of the *Genus*.—Bill convex, strong, and short; at the base a carunculated cere; in which the nostrils are lodged.—Head and neck naked, slightly beset with bristles.—Wattles hanging from the cheeks.—Tail short, pointing downwards.

97. GUINEA HEN. *Numida meleagris*, Lin. Syst. 1. p.273. no.1. Lath. Synop. 1.—The male can only be distinguished from the female by the wattles. In the male they are larger and of a bluish purplish colour. In the female they are red.

Guinea Fowl

GENUS LI.—*Pheasant*.

Definition of the *Genus*.—Bill convex, short and strong.—Head more or less covered with carunculated bare flesh on the sides; which, in some, is continued upwards, to the crown, and beneath, so as to hang pendent under each jaw.—Legs (for the most part) furnished with spurs behind.

98. DOMESTIC COCK. *Phasianus gallus*, Lin. Syst. 1. p.270. no.1. Lath. Synop. 1.—Of this species we have innumerable varieties, from the large Indian, to the small bantam cock.

Domestic Hen

99. COMMON PHEASANT. *Phasianus colchicus*, Lin. Syst. 1. p.271. no.3. Lath. Synop. 4.—The pheasant is a rare bird in Cumberland: but Sir James Graham and some other gentlemen, are attempting to introduce them into the county.

**Pheasant** *Phasianus colchicus*GENUS LIII.—*Crows*.

Definition of the *Genus*.—Bill convex, strong and short.—A naked skarlet [*sic*] skin above each eye.—Nostrils small, hid in the feathers.—Legs strong, feathered to the toes, and sometimes to the claws.

100. BLACK COCK or BLACK-GROUS. *Tetrao tetrix*, Lin. Syst. 1. p.274. no.2. Lath. Synop. 3. Pen. Zool. 93.—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.

**Black Grouse** *Lyrurus tetrix*

101. MOOR GAME or RED GROUS. Lath. Synop. 13. Pen. Zool. 94.—Plentiful on most of our heaths and mountains.—Linnæus I think has not described this bird.

**Red Grouse** *Lagopus lagopus*

102. PTARMIGAN. *Tetrao lagopus*, Lin. Syst. 1. p.274. no.4. Lath. Synop. 10. Pen. Zool. 95.—The Ptarmigan is become a very scarce bird in Cumberland; and I believe is no where [*sic*] to be found in this county, except on the lofty mountains about Keswick. In winter they are nearly white.

**Ptarmigan** *Lagopus muta*

Probably no entry in Heysham's list has caused more confusion than this one; further details in note (10).

GENUS LIV.—*Partridge*.

Definition of the *Genus*.—Bill convex, short and strong.—Nostrils covered above with a callous prominent rim.—Legs naked.—Tail short.

103. COMMON PARTRIDGE. *Tetrao perdix*. Lin. Syst. 1. p.276. no.13. Lath. Synop. 8. Pen. Zool. 96.

**Grey Partridge** *Perdix perdix*

104. QUAIL. *Tetrao coturnix*, Lin. Syst. 1. p.278. no.120. Lath. Synop. 24. Pen. Zool. 97.—The quail is not plentiful in Cumberland. They breed here; but the whole, or most of them,

**Quail** *Coturnix coturnix*

disappear towards the latter end of October.

DIV. II.— WATER BIRDS

ORDER VII. — With Cloven Feet.

GENUS LXV.—*Heron*.

Definition of the *Genus*.—Bill long, strong, and sharp pointed.—Nostrils linear.—Tongue pointed.—Toes, connected by a membrane as far as the first joint.

105. COMMON HERON. *Ardea Major*, male: *Ardea cinerea*, female, Lin. Syst. 1. p.236. no.11. and 12 Lath. Synop. 50. Pen. Zool. 173.—The male is distinguished from the female by the length of its crest. The Heron, in winter is a solitary bird, and frequents marshy places, and the banks of rivers and streams.—In the spring, it is gregarious: like rooks, great numbers of them breed together, and build their nests in the highest trees. Food, fish and reptiles.

A remarkable circumstance, with respect to these birds, occurred not long ago, at Dalham Tower, in Westmorland; the seat of Daniel Wilson, Esq.

There were two groves adjoining to the park: one of which, for many years, had been resorted to by a number of herons; who there built and bred. The other was one of the largest rookeries in the country. The two tribes lived together for a long time without any disputes: at length the trees occupied by the herons, consisting of some very fine old oaks, were cut down in the spring of 1775, and the young brood perished by the fall of the timber—the parent birds immediately set about preparing new habitations, in order to breed again: but, as the trees in the neighbourhood of their old nests were only of a late growth, and not sufficiently high to secure them from the depredations of boys, they determined to effect a settlement in the rookery: the rooks made an obstinate resistance; but, after a very violent contest, in the course of which, many of the rooks, and some of their antagonists, lost their lives, the herons at last succeeded in their attempt—built their nests:—and brought out their young.

The next season the same contests took place, which terminated like the former, by the victory of the herons:—Since that time, peace seems to have been agreed upon between them: the rooks have relinquished possession of that part of the grove which the herons occupy: the herons confine themselves to those trees they first seized upon: and the two species live together in as much harmony as they did before their quarrel.

This bird, which is now seldom or ever seen upon a table, was, in former times, esteemed very delicate food. “In the 27th year of the reign of Edward the first, an order was made concerning the price of victuals: a fat cock to be sold at three halfpence, a fat capon for twopence halfpenny, two pullets for three-half-pence, a goose for fourpence, a mallard for three-half-pence, a partridge for three-half-pence, a pheasant for fourpence, a heron for sixpence, a plover for a penny, a swan for three shillings, a crane for twelvepence, two woodcocks for three-half-pence, a fat lamb, from Christmas to shrove-tide, for sixteenpence, and all the year after for fourpence.” — *Echard's Hist. of England, Edward II, p.323.*

106. BITTERN. *Ardea stellaris*, Lin. Syst. 1. p.239. no.21. Lath. Synop. 17. Pen. Zool. 174.—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 *Mire-Drum*.

GENUS LXVII.—*Curlew*

Definition of the *Genus*.—Bill long, incurvated.—Nostrils linear, longitudinal, and placed near the base.—Tongue short, sharp pointed.—Toes connected, as far as the first joint, by a membrane.

107. CURLEW. *Scolopax arquata*, Lin. Syst. 1. p.242. no.3.

**Grey Heron *Ardea cinerea***

Grey Heron's still breed at Dalham Tower but Rooks have long since forsaken this site.

**Bittern *Botaurus stellaris***

**Curlew *Numenius arquata***



Lath. Synop. 1. Pen. Zool. 176.—The curlew breeds upon our mountains and moors, and makes its nest upon the ground. After the breeding season is over they remove, for the winter, to the sea coasts.

108. WHIMBREL. *Scolopax phaeopus*, Lin. Syst. 1. p.213, no.4. Lath. Synop. 6. Pen. Zool. 177.—The whimbrel resembles the curlew in colour and form, but is only about half the size. It is not frequent in Cumberland.

GENUS. LXVIII.—*Snipe*.

Definition of *Genus*.—Bill, long, slender, weak and strait.—Nostrils linear, lodged in a furrow.—Tongue, pointed, slender.—Toes divided, or slightly connected; back toe very small.

109. WOODCOCK. *Scolopax rusticola*, Lin. Syst. 1. p.243. no.6. Lath. Synop. 1. Pen. Zool. 178.—The woodcock is sometimes seen in Cumberland the last week in September: but they are seldom plentiful till the middle, or latter end of October. They begin to take their departure in March: but a few are seen almost every year, in April. Instances, though very rare, occur of their breeding in England. Like other birds, they are subject to variety in colour. On the 8th of October, 1786, I met with a specimen; the general colour of which was a fine pale ash colour, with frequent bars of very delicate rufous. The tail was brown, tipped with white: the bill and legs were flesh colour. In Lancashire great numbers of woodcocks are taken in traps, in moon light nights: long rows of stones or sticks, about four or five inches high are made on the commons where the woodcocks frequent. In these rows several intervals or gateways are left, in which the traps are placed. When the woodcocks, running about in search of food, comes to one of these rows he will not cross it, but runs along the side of it till he comes to a gateway which he enters and is taken.

110. GREEN SHANK. *Scolopax glottis*. Lin. Syst. 1. p.245. no.10. Lath. Synop. 18. Pen. Zool. 183.—This species is only seen in the winter; and even not frequently at that season.

111. RED SHANK. *Scolopax caledris*, [sic] Lin. Syst. 1. p.145. no.11. Lath. Synop. 20. Pen. Zool. 184.—The red-shank is a very scarce bird in Cumberland; and is only seen in winter.

112. COMMON SNIPE. *Scolopax gallinago*, Lin. Syst. 1. p.144. no.7. Lath. Synop. 6. Pen. Zool. 187.—The snipe breeds and continues in this county the whole year.

113. JACK SNIPE. *Scolopax gallinula*, Lin. Syst. 1. p.244. no.8. Lath. Synop. 8. Pen. Zool. 189.

GENUS LXIX.—*Sandpiper*.

Definition of the *Genus*.—Bill, strait, slender, about an inch and a half long.—Nostrils small.—Tongue slender.—Hind toe weak.

114 LAPWING or PEWIT. *Tringa vanellus*, Lin. Syst.1. p.248. no.2. Lath. Synop. 2. Pen Zool. 190.—The lapwing appears the latter end of February, or beginning of March, and departs in October. It makes its nest upon the ground; and lays four or five eggs, of a dirty olive spotted with black.

115. GREY PLOVER. *Tringa squatarola*, Lin. Syst. 1. p.252. no.23. Lath. Synop. 11. Pen. Zool. 191.—They are not so numerous as the pewit or golden plover; and I am not certain whether they breed upon our moors or not.

116. COMMON SANDPIPER. *Tringa hypoleucos*, Lin. Syst. 1. p.250. no.14. Lath. Synop. 23. Pen. Zool. 204.—They appear in the

**Whimbrel** *Numenius phaeopus*

**Woodcock** *Scolopax rusticola*

**Greenshank** *Tringa nebularia*

**Redshank** *Tringa totanus*

It is strange that Heysham should consider the Redshank a scarce bird, for they are currently not uncommon on the Solway coast and breed at Rockcliffe Marsh, a site Heysham appears to have been familiar with, and it seems very unlikely that they did not breed there at that time too.

**Snipe** *Gallinago gallinago*

**Jack Snipe** *Lymnocyptes minimus*

**Lapwing** *Vanellus vanellus*

**Grey Plover** *Pluvialis squatarola*

**Common Sandpiper** *Actitis hypoleucos*

spring, and breed upon the ground, upon the banks of our rivers. Their eggs, considering the size of the bird, are extremely large and of a dirty yellowish white, marked with numerous dusky spots.

117. DUNLIN. *Tringa alpina*, Lin. Syst. 1. p.249. no.11. Lath. Synop. 33. Pen. Zool. 205.—The dunlin appears the first or second week in May, and breeds on our moors. On the 19th of June, 1783, I shot several old ones upon Rockliff-moss.—I saw several young birds which had left the nest, tho' they were not feathered. At this season they seem to be a very stupid bird; for when I fired at them and did not kill, they only flew a few yards and settled again. I have never met with any in the winter.

**Dunlin** *Calidris alpina*

118. PURRE. *Tringa cinclus*, Lin. Syst. 1. p.251. no.18. Lath. Synop. 30. Pen. Zool. 206.—The purre appears upon our sea coasts in the beginning of winter, and disappears in the beginning of spring.

**Turnstone** *Arenaria interpres*

GENUS LXX.—*Plover*.

Definition of the *Genus*.—Bill obtuse.—Nostrils linear.—No back toe.

119. GOLDEN PLOVER. *Charadrius pluvialis*, Lin. Syst. 1. p.254. no.7. Lath. Synop. 1. Pen. Zool. 208.—The golden plover is plentiful, breeds upon our moors and remains with us the whole year.

**Golden Plover** *Pluvialis apricaria*

120. DOTTEREL. *Charadrius morinellus*, Lin. Syst. 1. p.254. no.5. Lath. Synop. 14. Pen. Zool. 210.—The dotterel comes in May, is a scarce bird in this county, but is more plentiful in Westmoreland. In June, 1784, ten to twelve were shot upon Skiddaw, where they breed: on the 18th May, 1786, I had two females sent from the neighbourhood of Appleby. On dissection I found the eggs very small, so that it is probable they do not lay until June. They leave this county the latter end of September, or beginning of October. I have seen one, which was shot on the top of Skiddaw on the 16th of September.

**Dotterel** *Charadrius morinellus*

GENUS LXXI.—*Oyster-catcher*.

Definition of the *Genus*.—Bill long, compressed, cuneated at the end.—Nostrils linear.—Tongue, scarce a third of the length of the bill.—No back toe.

121. PIED OISTER-CATCHER or SEA PIE. *Haematopus ostralegus*, Lin. Syst. 1. p.257. no.1. Lath. Synop. 1. Pen. Zool. 213.—The sea pie breeds upon our shores, and lays its eggs upon the bare ground, above high water mark.

**Oystercatcher** *Haematopus ostralegus*

GENUS LXXIII.—*Rail*.

Definition of the *Genus*.—Bill slender, a little compressed, and slightly incurvated.—Nostrils small.—Tongue rough at the end.—Tail very short.—Body much compressed.

122. WATER RAIL *Rallus aquaticus*, Lin. Syst. 1. p.262. no.2. Lath. Synop. 1. Pen. Zool. 214.—The water rail visits this county in the beginning of winter, and leaves it pretty early in spring.

**Water Rail** *Rallus aquaticus*

GENUS LXXV.—*Gallinule*.

Definition of the *Genus*.—Bill thick at the base, sloping to the point: the base of the upper mandible reaches far upon the forehead, where it becomes membranaceous.—Body compressed.—Wings short and concave.—Tail short.

123. LAND RAIL or CORN CRAKE, *Rallus crex*, Lin. Syst. 1. p.261. no.1. Lath. Synop. 1. Pen. Zool. 216.—The land rail appears in the beginning of May, and is generally heard in the first of beginning of the second week of that month. They make their nests upon the ground, and lay from ten to fifteen eggs. In the year 1794;

**Corncrake** *Crex crex*

my servants, when mowing a field of grass, found a nest containing twelve young birds which appeared to have been hatched the day before. They were covered with a darkish brown coloured down. They were taken out of the nest and put into a hat till I went to the field, I replaced them in the nest, but they immediately wandered from it. The old birds did not appear while the men continued mowing in the neighbourhood of the nest. Two days afterwards they were all found in good health, in an adjoining field, by the same men. Their usual note is something like the word *creck*, *creck*, often repeated.—They disappear in October. May 4th, the land rail was heard this day. The egg is less than the egg of a crow, and larger than that of the magpie; it is of a dirty flesh colour marked with brown and dull purple spots.

124. SPOTTED RAIL. *Rallus porzana*, Lin. Syst. 1. p.262. no.3. Lath. Synop. 18. Pen. Zool. 215.—The spotted rail is a very scarce bird. I have only had an opportunity of seeing one specimen, which was a male: it was killed upon the banks of the Eden in the beginning of June.

125. WATER HEN. *Fulica chloropus*, Lin. Syst. 1. p.258. no.4. Lath. Synop. 12. Pen. Zool. 217.—This species remains with us the whole year, is very common, and frequents the borders of small brooks and ponds. They build their nest in some low bush by the water side; and lay from seven to ten eggs, which are of a dirty yellow, marked with reddish brown spots.

#### GENUS LXXVIII.—Coot.

Definition of the *Genus*.—Bill thick, sloping to the point: the base of the upper mandible extending far up into the forehead.—Body compressed.—Wings short.—Tail short.—Toes long, furnished with broad scalloped membranes.

126. COMMON COOT. *Fulica atra*, Lin. Syst. 1. p.257. no.2. Lath. Synop. 1. Pen. Zool. 220.

#### GENUS LXXIX.—Grebe.

Definition of the *Genus*.—The bill is strong, slender and sharp pointed.—Space between the bill and eye bare of feathers.—Body depressed.—Feathers very smooth and glossy.—Wings short.—No tail.—Legs placed far behind, compressed and serrated behind.—Toes furnished on each side, with a broad plain membrane.

127. TIPPET GREBE. *Colymbus urinator*, Lin. Syst. 1. p.223. no.9. Lath. Synop. 2. Pen. Zool. 222.—This bird is very rarely to be met with either in this county or in any part of the island. I received a male which was shot in the beginning of December, 1782, in a small brook, called Wampool, not far from Wigton. It was alone, at least the person who killed it saw no more. Its stomach, which was muscular, contained half digested vegetables and a number of feathers. The breast and belly is of a fine, glossy, silvery, white, and is used for making ladies' muffs and tippetts: hence its name.

128. LITTLE GREBE or DOBCHICK. *Colymbus auritus*, Lin. Syst. 1. 222. no.8. Lath. Synop. 10. Pen. Zool. 226.—This bird which is not uncommon in Cumberland, makes its nest very thick and places it in the water, so that it is constantly wet.

#### ORDER IX.—Web footed Birds, with short legs.

##### GENUS LXXXIV.—Auk.

Definition of the *Genus*.—Bill strong, thick and convex.—Nostrils linear, placed parallel to the edge of the bill.—Tongue almost as long as the bill.—No back toe.

129. RAZOR BILL. *Alca torda*, Lin. Syst. 1. p.210. no.1. Lath. Synop. 5. Pen. Zool. 230.—They do not breed here, being only seen in winter.

**Spotted Crane** *Porzana porzana*

**Moorhen** *Gallinula chloropus*

**Coot** *Fulica atra*

**Great Crested Grebe** *Podiceps cristatus*

**Little Grebe** *Tachybaptus ruficollis*

**Razorbill** *Alca torda*

This species will almost certainly will have bred at St. Bees Head in Heysham's day, just as does today.

130. PUFFIN. *Alca arctica*, Lin. Syst. 1. p.211. no.4. Lath. Synop. 3. Pen. Zool. 232.—Puffins are only seen in Cumberland in winter, and even then but seldom.

131 LITTLE AUK. *Alca alle*, Lin. Syst. 1. p.211. no.5. Lath. Synop. 11. Pen. Zool. 233.—One of these birds, the only specimen which I have seen, was shot on the river Eden, near Armathwaite-Castle, in the latter end of January, 1794: it weighed  $4\frac{1}{4}$  oz.—The cheeks and occiput were white, and formed a white ring round the neck.

#### GENUS LXXXV.—*Guillemot*.

Definition of the *Genus*.—Bill slender, pointed: the upper mandible slightly bending towards the end: base covered with short feathers.—Nostrils lodged in a hollow near the base.—Tongue slender, almost the length of the bill.—No back toe.

132. FOOLISH GUILLEMOT. *Colymbus troile*, Lin. Syst. 1. p.230. no.2. Lath. Synop. 1. Pen. Zool. 234.—This bird visits Cumberland only in the winter.

133. BLACK GUILLEMOT. *Colymbus grille*, Lin. Syst. 1. p.220. no.1. Lath. Synop. 3. Pen. Zool. 236.—These, like the former, are only seen in winter.

#### GENUS LXXXVI.—*Diver*.

Definition of the *Genus*.—Bill, strong. Strait, pointed: upper mandible the longest; edges of each bending inwards.—Nostrils linear: the upper part divided by a small cutaneous appendage.—Tongue long, and pointed; serrated on each side, near the base.—Legs thin and flat.—Toes, four in number, the exterior the longest, the back one small, joined to the interior by a small membrane.—Tail short, and consists of twenty feathers.

134. NORTHERN DIVER. *Colymbus glacialis*, Lin. Syst. 1. p.221. no.5. Lath. Synop. 1. Pen. Zool. 237.—This is a large bird, weighing sixteen pounds. It visits this island but seldom, and for the most part in the winter season. One however, of them, was caught alive, near Keswick, in July 1781. It was as is supposed making for the lake, but grew tired before it had power to reach it.

135. IMBER. *Colymbus immer*, Lin. Syst. 1. p.222. no.6. Lath. Synop. 2. Pen. Zool. 238.—This bird, which appeared to be a female, was shot on the Eden near Carlisle, on the 21st of January, 1789.—It weighed 7 lb. 10 oz.

136. SPECKLED DIVER or LOON. Lath. Synop. 3. Pen. Zool. 239.—This species is more frequent than the two preceding, but is seldom seen except in the winter: there was one however taken alive, in the summer, a few years ago, near Cross-Fell; and was carried about as long as it lived, as a shew.

#### GENUS LXXXVIII.—*Tern*.

Definition of the *Genus*.—Bill strait, slender, and pointed.—Nostrils linear.—Tongue slender and sharp.—Wings very long.—Back toe very small.—Tail forked.

137. GREAT or COMMON TERN. *Sterna hirundo*, Lin. Syst. 1. p.227. no.2 Lath Synop. 14. Pen. Zool. 254.—This bird appears in the spring, in this county, breeds here, and departs in the autumn.

138. LESSER TERN or SEA SWALLOW. *Sterna minuta*, Lin. Syst. 1. p.228. no.4. Lath. Synop. 18. Pen. Zool. 255.—This bird comes and departs at the same time as the former. Both are very clamorous.

#### GENUS LXXXIX.—*Gull*.

Definition of the *Genus*.—Bill strong, bending down at the point: on the under part of the lower mandible, an angular

#### **Puffin** *Fratercula arctica*

The Puffin too would almost certainly have bred at St. Bees Head at the end of the 19th century.

#### **Little Auk** *Alle alle*

#### **Common Guillemot** *Uria aalge*

This is another species that Heysham was unaware bred at St. Bees Head.

#### **Black Guillemot** *Cephus grille*

And this is yet another.

#### **Great Northern Diver** *Gavia immer* [?]

See also comments in note (11).

#### **Great Northern Diver** *Gavia immer*

See also comments in note (11).

#### **Red-throated Diver** *Gavia stellata*

#### **Common Tern** *Sterna hirundo*

#### **Little Tern** *Sternula albifrons*

prominence.—Nostrils oblong and narrow, placed in the middle of the bill.—Tongue a little cloven.—Wings long.—Legs small, naked above the knees.—Back toe small.

139. HERRING GULL. *Larus fuscus*, Lin. Syst. 1. p.225. no.7. Lath. Synop. 3. Pen. Zool. 246.

140. WAGEL. *Larus naevius*, Lin. Syst. 1. p.225. no.5. Lath. Synop. 6. Pen. Zool. 247.

141. WINTER GULL. Lath. Synop. 13. Pen. Zool. 248.

142. COMMON GULL *Larus canus*, Lin. Syst. 1. p.224. no.3. Lath. Synop. 8. Pen. Zool. 249.—These four species, I believe all breed and remain in Cumberland the whole year, and they have nearly the same habits and manners.

143. BLACK HEADED or PEWIT GULL. *Larus ridibundus*, Lin. Syst. 1. p.225. no.9. Lath. Synop. 9. Pen. Zool. 252.—This is a bird of passage; appears upon our rivers, the latter end of April or beginning of May. In the year 1785, I saw one so early as the 13th April. It breeds upon the banks of rivers, and departs early in autumn.

144. BROWN-HEADED or RED-LEGGED GULL. Lath. Synop. 11. Arct. Zool. 533. E.—Sir James Graham, Bart. sent me a bird of this species, which was shot upon his estate on the banks of the Esk, June 1st, 1783: it was a female, weight 7 oz.; length 14 inches; Breadth 2 feet 11 inches; the bill and legs were red; edges of the eye-lids scarlet; head mouse colour, spotted with white; neck, throat, and belly, white; back and scapulars ash coloured; coverts of the wings dusky edged with a dirty white; the exterior sides, and part of the interior sides of the four first quill feathers, black tail consisted of twelve feathers, ten middle tipped white with black, near an inch broad, which formed a black bar, the two outmost almost quite white. It is clear, from this description that it neither agrees with the tarrock or the pewit, and it could not be a young bird as it was killed in June, and the ovary contained eggs. From the last circumstance, it is probable it would have bred in this country if it had not been shot.

#### GENUS XCI.—*Merganser*.

Definition of the *Genus*.—Bill slender, a little depressed, furnished at the end with a crooked nail; edges of the mandibles very sharply serrated.—Nostrils, near the middle of the mandible, small and subovated.—Toes, the outer toe longer than the middle one.

145. GOOSANDER. *Mergus merganser*, Lin. Syst. 1. p.208. no.2. Lath. Synop. 1. Pen. Zool. 260.—The goosander, which is supposed to be the male of the bird, we shall next take notice of, is a large beautiful bird, and weighs about 4 lb. It is found upon our rivers only during the winter, and even then not very frequently.

146. DUN-DIVER. Lath. Synop. 2. Pen. Zool. 260.—This bird has generally been considered as the female of the goosander. The following circumstances which have come under my observation however, render this opinion somewhat doubtful.

1. The dun-divers are far more numerous than the goosanders.

2. The dun-divers are all less than the goosanders (the largest I have seen being little more than 3 lb.) but of various sizes, some being under two pounds.

3. The crest of the dun-diver is considerably longer than the crest (if it can be so called) of the goosander.

4. Dun divers have upon dissection, been found to be males.

5. The neck of the largest dun diver, and which has proved to be a male, is nothing like so thick as the neck of the goosander.

On the 26th of December, 1783, I dissected a dun-diver, which was rather more than three pounds in weight. Its length was 27

#### **Herring Gull *Larus argentatus***

See also comments in note (12).

#### **Herring Gull *Larus argentatus***

See also comments in note (12).

#### **Common Gull *Larus canus***

See also comments in note (13).

#### **Common Gull *Larus canus***

See also comments in note (13).

#### **Black-Headed Gull *Chroicocephalus ridibundus***

#### **Black-headed Gull *Chroicocephalus ridibundus***

The general description conforms to a Black-headed Gull, and the details concerning the tail identify this as a first-year bird (that is one hatched the previous spring), some of which do breed at the end of their first year of life.

#### **Goosander *Mergus merganser***

#### **Red-breasted Merganser *Mergus serrator***

inches, and its breadth 35 inches. It proved to be a male, the testes though flaccid, were very distinct, and about half an inch in length.

In the middle of January, 1786, I received two dun-divers, both of which I dissected. The first was a small one, almost two pounds in weight; it proved to be a female; the eggs being very distinct. The second was much larger and weighed three pounds; its crest was longer, and its belly was of a fine yellowish rose colour: it was a male, and the testes were beginning to grow turgid.

I have only dissected one goosander, and that proved to be a male. Therefore, until a goosander be found upon dissection, to prove a female; or two goosanders to attend the same nest, the doubt respecting these birds cannot be clearly ascertained.

147. SMEW. *Mergus albellus*, Lin. Syst. 1. p.209. no.5. Lath. Synop. 5. Pen. Zool. 262.—The smew is a beautiful bird, only to met with in this county during the winter, and then but seldom.

**Smew** *Mergellus albellus*

GENUS XCII.—*Duck*.

Definition of the *Genus*.—Bill strong, broad, flat or depressed; and for the most part furnished at the end with a nail: edges of the mandibles marked with sharp lamellae or teeth.—Nostrils small and oval.—Tongue broad, edges near the base fringed.—Toes, middle toe the longest.

148. WILD or WHISTLING SWAN. *Anas cygnus ferus*, Lin. Syst. 1. p.194. no.1. Lath. Synop. 1. Pen. Zool. 264.—The wild swan may be distinguished from the tame swan by the following external marks. The bill of the wild swan is, from the base to the middle, of a yellowish white, and from thence to the end black.

**Whooper Swan** *Cygnus cygnus*

The bill of the tame swan is red, with the tip and sides black.

In the wild swan the space between the base of the bill and the eyes, is covered with a naked yellow skin, and the eyelids are also bare and yellow.

In the tame swan the naked skin between the base of the bill and the eyes, is black: and over the base of the upper mandible, there is also a black and callous knob.

But upon dissection, the wild swan is not only found to essentially differ from the tame swan, but from all other birds. In the wild swan, there is a large cavity in the breast bone; into this cavity the windpipe enters, and makes a turn before it enters into the cavity of the thorax.

A flock or two of wild swans generally visit Cumberland every severe winter. Last winter a flock frequented the Esk, near Netherby, three of which were shot.

149. MUTE or TAME SWAN. *Anas cygnus mansuetus*, Lin. Syst. 1. p.194. no.1. Lath. Synop. 2. Pen. Zool. 265.

**Mute Swan** *Cygnus olor*

150. GREY GOOSE. *Anas anser*, Lin. Syst. 1. p.197. no.9. Lath. Synop. 21. Pen. Zool. 266.—The grey goose is only seen here in winter, but breeds in many of the fens in England. It is the origin of our domestic goose.

**Greylag Goose** *Anser anser*

151. TAME GOOSE. *Anas anser domesticus*, Lin. Syst. 1. p.197. no.9. Lath. Synop. 21. var. A.

Domestic Goose

152. CHINESE GOOSE. *Anas cygnoides australis*, Lin. Syst. 1. p.194. no.2. Lath. Synop. 12.—This goose is now rendered domestic.

Domestic Goose

153. BEAN GOOSE. Lath. Synop. 23. Pen. Zool. 267.—This bird is very frequent in Cumberland in severe winters.

**Taiga Bean Goose** *Anser fabalis*

See also comments in note (14)

154. WHITE-FRONTED GOOSE. *Anas erythropus*, Lin. Syst. 1. p.197. no.11. Lath. Synop. 22. Pen. Zool. 268.—This species is pretty common in the winter.

**White-fronted Goose** *Anser albifrons*

155. BERNACLE. *Anas erythropus mas*, Lin. Syst. 1. p.197. no.11. Lath. Synop. 27. Pen. Zool. 269.—Linnaeus considers this bird as the male of the white-fronted goose, which is certainly an error, as there is now no doubt but they are different species.—They

**Barnacle Goose** *Branta leucopsis*

are very frequent upon our coasts in the winter.

156. BRENT GOOSE. *Anas bernicla*, Lin. Syst. 1. p.198. no.13. Lath. Synop. 27. Pen. Zool. 270.—This species is not often seen, and only in the winter.

157. MUSCOVY DUCK. *Anas moschata*, Lin. Syst. 1. p.199. no.16. Lath. Synop. 31.—This species has for sometime become domestic, and will mix with the common duck, and produce a mongrel breed.

158. SCOTER DUCK. *Anas nigra*, Lin. Syst. 1. p.196. no.7. Lath. Synop. 36. Pen. Zool. 273.—These birds, I think, never frequent our rivers, but confine themselves during the winter, to the sea coasts.

159. SCAUP DUCK. *Anas marila*, Lin. Syst. 1. p.196. no.8. Lath. Synop. 49. Pen. Zool. 275.—This is a beautiful duck, but very rare. I have only seen one specimen; which was shot in a very severe winter.

160. GOLDEN-EYED DUCK. *Anas clangula*, Lin. Syst. 1. p.201. no.23. Lath. Synop. 76. Pen. Zool. 276.—This bird, so called from its yellow iris, is pretty frequent in the winter; and remains longer with us, I think, than any of the migrating web footed birds. I have seen one so late as the 8th day of April.

161. SHIELDRAKE. *Anas tadorna*, Lin. Syst. 1. p.195. no.4. Lath. Synop. 51. Pen. Zool. 278.—This is a beautiful bird, remains with us the whole year, and breeds upon the sea coast, in rabbit warrens. It may be easily tamed if taken when young.

162. MALLARD. *Anas boschas*, Lin. Syst. 1. p.205. no.40. Lath. Synop. 43. Pen. Zool. 279.—This bird is the origin of our common duck. They appear in great numbers in the winter, many of these are shot, many migrate in the spring, and a few breed in this county. Wild ducks, and indeed all the migrating species of this genus appear in the greatest numbers during the severest winters. During the present winter, viz. 1795 and 1796, which has been remarkably mild, only few have been seen. Last winter, Sir James Graham and his gamekeeper, shot, upon his own estate, near one hundred brace of wild ducks, a great number of wild geese, and three wild swans. This winter not more than a brace or two of ducks were killed, at Netherby, and neither wild geese or swans were seen upon his estate.

163. TAME DUCK. *Anas boschas domestica*, Lin. Syst. 1. p.205. no. 40. Lath. Synop. 43.

164. POCHARD. *Anas ferina*, Lin. Syst. 1. p.204. no.31. Lath. Synop. 68. Pen. Zool. 284.—This is scarce duck. I have only seen one specimen which was a male, and weighed 1 lb. 14 oz. I received it on 1st of January, 1788.

165. COMMON WIGEON. *Anas penelope*, Lin. Syst. 1. p.202. no.27. Lath. Synop. 63. Pen. Zool. 286.—The wigeon frequents our rivers and ponds, in considerable numbers, in the winter.

166. TEAL. *Anas crecca*, Lin. Syst. 1. p.204. no.33. Lath. Synop. 88. Pen. Zool. 290.—Like the wild duck, I imagine many of the teals migrate in the spring; but a few certainly breed in our mosses every year.

#### GENUS XCIV.—*Pelican*.

Definition of the *Genus*.—Bill long, strait, and either hooked or sloping at the end.—Nostrils small, and placed in the furrow that runs along the sides of the upper mandible, and in most of the species not to be discovered.—Face for the most part destitute of feathers, being covered only with a naked skin.—Gullet naked, and capable of great distension.—Toes four, all webbed together.

167 CORVORANT. *Pelecanus carbo*, Lin. Syst. 1. p.216. no.3. Lath. Synop. 13. Pen. Zool. 291.—The corvorant appears in considerable numbers on our coasts in the autumn. It has a very rank and disagreeable smell; and is, upon the whole, a very ugly

**Brent Goose** *Branta bernicla*

Muscovy Duck

**Common Scoter** *Melanitta nigra*

**Scaup** *Aythya marila*

**Goldeneye** *Bucephala clangula*

**Shelduck** *Tadorna tadorna*

**Mallard** *Anas platyrhynchos*

Domestic Duck

**Pochard** *Aythya farina*

**Wigeon** *Mareca penelope*

**Teal** *Anas crecca*

**Cormorant** *Phalacrocorax carbo*

bird. Almost thirty years ago, one of these perched upon the castle at Carlisle, and soon after removed to the cathedral, where it was shot at, upwards of twenty times, without effect: at length a person got upon the cathedral, fired at, and killed it. In another instance, a flock of fifteen or twenty perched at the dusk of the evening, in a tree, on the banks of the river Esk, near Netherby; a person who saw them settle, fired at random at them in the dark, six or seven times, without either killing any, or frightening them away: surprised at this, he went again at day light and killed one of them, and the rest took wing.

168 SHAG. *Pelecanus graculus*, Lin. Syst. 1. p.217. no.4. Lath. Synop. 14. Pen. Zool. 292.—The shag is much less than the corvorant, and in Cumberland is a scares bird.

**Shag** *Phalacrocorax aristotelis*

169 GANNET or SOLAN GOOSE. *Pelecanus bassanus*, Lin. Syst. 1. p.217. no.5. Lath. Synop. 25. Pen. Zool. 293.—The gannet does not visit this county at stated seasons, but only accidentally. I have only had an opportunity of seeing one specimen.—They breed in great numbers upon the Bass Island, in Scotland; appearing there in March, and departing in October or November.

**Gannet** *Morus bassanus*

In several species of birds, the male, in the adult state, differs very materially in the colour of the plumage from the female, e.g. Henharrier and Ringtail, Black Cock and Grey Hen, &c. And whenever this is the case, I believe, all young birds, whether male or female, invariably resemble the female more than they do the male.

Under no.105, Common Heron, I have stated, upon the authority of Echard, the value of different birds, in the reign of Ed. I. I shall here mention the present prices they are sold at in Carlisle.

- A cock . . . . . from 1s. 0d. to 1s. 6d.
- A chicken. . . . . — 0s. 6d. — 0s. 10d.
- A green goose . . . . . — 1s. 0d. — 1s. 4d.
- A stubble ditto . . . . . — 2s. 0d. — 2s. 6d.
- A fat goose at Christmas . . . . . — 3s. 6d. — 5s. 0d.
- A mallard . . . . . — 1s. 0d. — 1s. 2d.
- A black cock . . . . . 4s. 0d. — —
- A moor cock or red grouse, from — 1s. 8d. — 2s. 0d.
- A turkey . . . . . — 3s. 0d. — 4s. 0d.
- A partridge . . . . . 0s. 8d. — —
- A woodcock . . . . . 1s. 8d. — —
- A plover . . . . . from 0s. 6d. — 0s. 8d.

*N.B. It is probable that a few water birds, which only seldom or occasionally visit this county, may be omitted in the above catalogue; as I have only marked down such as I have examined or seen, and most of which are, at present, in my collection.*

ADDITIONS – BIRDS

SWIFT.—See no.90, p.14.—Since the sheet which contains the observations on this species was printed, William Milbourne, Esq., of Armathwaite-castle, informed me, that, in the latter end of the year, 1795; after the swifts which had bred, during the summer, in his house, disappeared, he ordered all the holes which contained their nests to be filled up and well pointed with mortar, with an intention of preventing them from breeding there in future. Sometime in the beginning of May, 1796, the usual number made their appearance, at Armathwaite, and soon after attempted to peck out the lime from the holes which contained the old nests. These attempts though frequently repeated, were ineffectual, they then became unusually noisy, and towards the latter end of the same month, departed and were not seen again. This circumstance, I

**Swift** *Apus apus*



think, renders the following conclusions highly probable.—First, that these birds do not conceal themselves, during the winter, in the holes where they breed.—Second, That the same individuals annually return to those places where they have been accustomed to frequent.—A swift, killed in July last, had in its mouth *forty-eight* flies (*conops calcitrans*) which came to life, with many others which did not revive.

May, 6th, 1797, at seven o'clock in the morning, I, for the first time this year, saw a single swift—7th, in the morning, I only saw one—8th, I looked for swifts several times this day, but saw no more than one—9th, I, this day, saw six pair at the same time, during all these days wind at east, cold, and nights very frosty, on the last day the mountains were covered with snow.

SAND MARTIN.—See no.89, p.14.—I have stated that soon after some sand banks were formed at Edmund-castle, they were annually frequented by sand martins. But, as part of these banks fall down every winter, the martins were in the spring under the necessity of digging new holes. Finding this to be invariably the case, they have this year totally deserted these banks, which strongly confirms the second conclusion made under the article swift, viz. that the same individuals, annually frequent the same places.

CHIMNEY SWIFT.—See no.87, p.13.—I have seen no swallow this spring without the long exterior feathers of the tail.

PETTY-CHAPS.—See no.72, p.13.—I never saw either the nest or the eggs of this bird till the second of June, 1797, when I found one in a hedge at the foot of the gardens on the west side of Botchard-gate; the female was on the nest, which contained five eggs. The nest is neither so deep nor so large as the nest of the white throat. It was made of the dried stalks of the goose grass (*galium aparine*) lined with very small fine roots, and contained neither hairs or feathers. I weighed three of the eggs, they were 35 grs. each. They are of a dirty white colour, marked with numerous dusky brown spots. The size, shape, and colour of the eggs are represented in the plate, Figure 1.



Plate 1. Eggs of Petty-chaps (left) and Sedge Bird (right)

SEDGE BIRD.—See no.77, p.13.—My servant, this year, found, in a hedge of my own pasture field, two nests of this bird, which were the first I had ever seen, each of them contained six eggs. The external part of the nest was composed of a pretty thick stratum of moss mixed with a few strong and thick stalks of dead grass. The inside was composed of fine slender dead grass, a very few feathers, and some white hairs. I weighed four of the eggs. The first weighed 23 grs. The second 22 grs, the third 24 grs and the fourth 20 grs. The size, shape, and colour of the eggs are represented in the plate, Figure 2.

**Sand Martin** *Riparia riparia*

**Swallow** *Hirundo rustica*

**Chiffchaff** *Phylloscopus collybita*

**Sedge Warbler** *Acrocephalus schoenobaenus*

## Notes

(1) Species 1 and 2: **Osprey** and **White-tailed Eagle**:

There has long been uncertainty as to the identity of the species referred to in the first two entries in Heysham's list and it is by no means clear which he had in mind. A second puzzle is why the list only includes two species of 'eagle' rather than the three generally recognised as occurring regularly in Britain at the time, namely White-tailed Eagle, Golden Eagle *Aquila chrysaetos* and Osprey. In the 18th century the latter was often referred to as the Silver Eagle, Fishing Eagle, or, according to Pennant, as the Sea Eagle, and was included in the family Accipitridae (hawks, vultures and eagles), and both Pennant and Latham treated it as an eagle. Modern practice is to place it in a separate family, the Pandionidae (ospreys). The question thus becomes which two species did Heysham have in mind when he referred to the 'Sea Eagle' (Species 1 in his list) and Cinerous or White-tailed Eagle (Species 2)? The interpretation favoured here is that originally proposed by Macpherson (1889); Species 1 *Falco ossifragus* is the Osprey, and Species 2 *Vultur albiulla* is the White-tailed Eagle. The evidence cited in favour of the identification of Species 1 as the Osprey can be summarised as follows: (i) it eats fish (which both the Osprey and White-tailed Eagle do, but the Golden Eagle does not), (ii) there is independent evidence (rather meagre evidence it has to be admitted) for the presence of breeding Ospreys in Lakeland (details in Macpherson 1889), and (iii) Heysham specifically says that his Species 1 is not the Golden Eagle ('This bird has often been mistaken for the golden eagle'). An alternative explanation has been proposed by More (1892) who identifies both of Heysham's eagle species as White-tailed Eagles. In support of this he notes again that both Heysham's eagles were fish eaters, and that the nest in Ullswater referred to in the Species 1 account was more likely to have been a White-tailed Eagle than an Osprey, and that other records show that White-tailed Eagles certainly bred hereabouts around the same time. More (1892) also emphasises that the bird reported by Heysham in his Species 2 account as having been taken in Borrowdale only developed its white tail after it was six years old, and must therefore have been a White-tailed Eagle. Macpherson (1892b) published a short note in response but it adds nothing new to the debate and does not answer some of the good points raised by More particularly with regard to the identity of the birds breeding in Borrowdale. Indeed the opening sentence of Macpherson's note ('I have been much entertained by the naiveness with which my friend Mr. A. G. More has laid down the law as to the large raptorial birds which once bred in Lakeland') captures well the tone of his response.

There remains the question of why Heysham did not include the Golden Eagle. Was this an oversight? Perhaps, but he mentions the Golden Eagle in an aside in the Species 1 account and it is clearly mentioned in the books by both Pennant and Latham a few pages before the entries for Osprey and White-tailed Eagle, so this is not entirely credible. More likely is that he was ignorant of its existence in Lakeland. As mentioned in the introductory text above, most of Heysham's experience of birds in Cumberland came from the area immediately around Carlisle; there are no specific records from the Lakes proper generated by himself.

- (2) Footnote to species 1: The quotation is from Pliny the Elder's *Naturalis Historia* ['Natural History']. It translates in full as follows: "The haliaetus is the last, and is remarkable for its bright and piercing eye. It poises itself aloft, and the moment it catches sight of a fish in the sea below, pounces headlong upon it, and cleaving the water with its breast, carries off its prey."
- (3) Species 8, **Hen Harrier**: This entry shows Heysham at his best, confidently explaining his reasons for thinking that the Hen Harrier and Ringtail were male and female respectively of the same species. His evidence is thorough and it is little surprise that he was able to convince Latham that this view was correct (see also footnote (3) on p.4). This section is memorable also for the observation that there were three pairs of Hen Harriers breeding on Newtown Common within 500 yards of one another and just a mile and half from Carlisle.
- (4) Species 20, **Carrion Crow** and species 22, **Hooded Crow**. In Heysham's time these were regarded as separate species, but for much of the intervening two centuries they have been treated as two subspecies of a single species. Recent evidence based on the analysis of DNA has, however, confirmed the original interpretation and they are once again classified as separate species.
- (5) Species 32, **Nuthatch**: At first sight the appearance of the Nuthatch in Heysham's catalogue is something of a surprise for the first attempts to map its distribution in detail suggest that it formerly had a much more southerly distribution and has only spread north into Cumbria (and more recently Scotland) in the past thirty or so years (see Sharrock 1976). There are suggestions that it might in fact be returning to areas it formerly occupied but from which it disappeared in the nineteenth century, possibly due to pollution arising from the industrial revolution, though the evidence for this is largely circumstantial. Nuthatches are very distinctive in appearance so it is very unlikely that this was a case of mistaken identity. They are, furthermore, very sedentary, so birds dispersing from some distant location seems very improbable. The possibility that they had been released locally, either as part of an

- attempted introduction, or simply as escaped caged birds, also needs to be borne in mind, but the most likely explanation seems to be that they were part of a relict population.
- (6) Species 56, **Linnet**: The absence of a scientific name here is curious, but appears to be because none appears in the 1776 edition of Pennant's *British Zoology*.
- (7) Species 57 & 58, **Lesser Redpoll** and **Common Redpoll**: For much of the time between the publication of Heysham's *Catalogue* and the present, the Redpoll and the Lesser Redpoll were regarded as different sub-species or races of a single species usually referred to simply as the **Redpoll** *Carduelis flammea*. It is only recently that they have formally been recognised once again as two separate species. the **Lesser Redpoll** *Acanthis cabaret* and the **Common Redpoll** *Acanthis flammea*.
- (8) Species 72, **Chiffchaff**. The name 'Petty-chaps' (or 'Pettichaps') was applied to a number of small warblers including the Chiffchaff, Willow Warbler, Wood Warbler and Garden Warbler (Lockwood 1984). That Chiffchaff was the species intended by Heysham is indicated by both the scientific name (*Motacilla hippolais*) and by the description in Pennant (1776).
- (9) What Heysham refers to as the 'common tame pigeon' is what today would be called the **Feral Pigeon**, and is a form of the **Rock Dove** *Columba livia*; the **Stock Dove** is currently to be found at low densities in Cumbria and was almost certainly to be found in Cumberland in Heysham's time.
- (10) Species 102, **Ptarmigan**. This entry has often been cited as evidence that the Ptarmigan lingered on in Lakeland until the end of the 18th century. The tone, however, is rather sceptical and the inclusion of the word 'lofty' is curious for it was also used by Pennant (and by Latham, who repeats verbatim Pennant's words – without attribution) and it appears that Heysham derived his information from Pennant (and see Sellers 2016 for further discussion)
- (11) Species 134 & 135, **Great Northern Diver**. The extraordinary weight (16 lb or about 7 kg) of the specimen mentioned by Heysham in the Species 134 account means that the species referred to can only have been a Great Northern Diver or a White-billed Diver *G.adamsii* (if indeed it was a diver at all), though the highest weights recorded for these two species are 4.5 and 6.4 kg respectively (Cramp & Simmons 1977, del Hoyo *et al* 1992). Heysham's bird had a black bill so White-billed Diver is ruled out. Pennant's account of the 'Northern Diver' (his species No.134) also rules out White-billed Diver and it seems possible the Species Nos. 134 and 135 both refer to the Great Northern Diver, one to birds in winter plumage, the other to birds as they appear in the breeding season.
- (12) Species 139 and 140, **Herring Gull**: At the end of the eighteenth century there was only a very poor understanding of moult and how birds' plumage varied with age, especially in those species such as the Herring Gull with deferred maturity. These two entries refer to adult and first winter plumages of the Herring Gull.
- (13) Species 141 and 142, **Common Gull**: Another pair of entries that appear to refer to the same species, the Common Gull, entry 141 to birds in immature plumage and 142 to mature birds. There is no independent corroboration of the statement that Common Gulls bred in Cumberland at the end of the 18th century, and, as Macpherson (1892a, p.427) observes 'we may not unjustly assume that he [Heysham] was mistaken' in this. Perhaps, but presumably Heysham said this for a reason (unfortunately not declared) and we should not be too quick to dismiss what he said – this is classic case of there being too little information to provide a definitive answer one way or the other.
- (14) The species that Heysham knew as the **Bean Goose** has since been split into two separate species, the **Taiga Bean Goose** *Anser fabilis* and the **Tundra Bean Goose** *Anser serrirostris*. It was the first of these two that Heysham was referring to.

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### **Cover illustrations**

*Left:* Likeness of John Heysham from Lonsdale (1870).

*Top Right:* The first entry in the birds section of Heysham's 'Catalogue of Cumberland Animals' of 1794.

*Bottom Right: Plate 1. Eggs of Petty-chaps (left) and Sedge Bird (right) from Heysham's 'Catalogue of Cumberland Animals' of 1794.*