

[Only a selection of the Fauna is given in the following pages. Had the Insects, Reptiles, Starfishes, Zoophytes, Molluscs, Plants, etc., which Edward found in Banffshire, been given, it would have more than filled the present volume.]

SELECTIONS FROM

THE FAUNA OF BANFFSHIRE,

BY THOMAS EDWARD, A.L.S.

MAMMALS.

MELES TAXUS [Badger or Brock]. See p. 102. Sparingly met with in our wooded districts.

MUSTELA MARTES [Pine Marten].

Found chiefly in the higher parts of the county. One was observed, in 1848, to descend from a tree in the hills of Boyndie, and go into a rabbit's hole. The hole was stopped up, and a spade was brought to dig the animal out. It had, however, escaped by another outlet from the burrow.

MUSTELA PUTORIUS [Polecat or Fumart]. See page 116.

MUSTELA VULGARIS [Weasel or Whitret].

More frequent than the polecat. Whilst the latter would seem to delight more in plantations and whins, the other would appear to think more of old dykes, grassy hillocks, and small cairns of stones. Both are very destructive, killing much more than they devour. See p. 111.

MUSTELA ERMINEA [Ermine or Stoat].

This species is often mistaken for the weasel. They are very similar during summer, their colours being then the same. In winter, however, the ermine changes to a pure white, excepting in a portion of the tail, which is always black. In this state they are all but universally called "White," or rather "Fite Futrates." The true weasel never changes.

LUTRA VULGARIS [Otter].

Often met with in suitable localities along the sea-shore, as well as by many of our streams and streamlets. See p. 115.

CANIS VULPES [Fox, Tod Lowrie, or Reynard].

A well-known animal, especially in the country districts. See pp. 109, 219.

FELIS CATIS [Common Wild Cat].

The wild cat is now, perhaps, extinct with us, though at one time it was frequently found in the woods and rocky glens of the more alpine portions of the interior. One which I had the pleasure of seeing, and which was killed in Glen Avon, measured over four feet in length, and was well proportioned in every other respect. It was altogether a very formidable looking animal.

TALPA EUROPE [Mole or Moudiewort].

This harmless creature is often met with. It is very useful to agriculturists by turning up the fertile soil, yet they constantly wage war against it. Pure white varieties are sometimes met with.

ERINACEUS EUROPÆUS [Hedgehog].

Even since I remember, "hedgey" was altogether unknown, or at least very seldom seen, in Banffshire. Now he is plentiful, and seems to be still on the increase. See p. 102.

VESPERTILIO PIPISTRELLUS VESPERTILIO DAUBENTIONII [Bat or Backie].

These are both to be found here. The first is the most common. It appears that we have another species of bat here. It is larger than either of the other two. I have met with it in our woods.

Sciurus vulgaris [Squirrel].

It is only of late that this agile and tricky little quadruped has become domiciled in this county.

MYOXUS ARVELLANARIUS [Dormouse].

I am not quite sure whether we have this animal or not; I think I have taken it, but am not able to ascertain the fact with certainty.

MUS MUSCULUS [Common Mouse].

There is no doubt about this sly little domestic. Specimens of various colours—such as white, gray stripped with white, reddish, and yellow—sometimes occur. Musical individuals of the genus are not infrequent. See p. 110.

Mus sylvaticus [Long-tailed or Wood Mouse].

Is to be found in almost every conceivable situation, except in towns.

MUS MESSORIUS [Harvest Mouse].

This sleek little thing, the smallest of British quadrupeds, is now well ascertained to be a native of Banffshire. I have myself taken it several times.

MUS RATTUS [Black Rat].

This, the native British rat, though at one time very abundant, is so no longer. It has been expelled or driven back, as the Celts have been by the Scandinavians, by the Norway rat. The

black rat is seldom seen now. Pure white varieties have been found.

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MUS DECUMANUS [Norwegian Rat or Rottin].

Very plentiful, and bids fair, erelong, to extirpate his weaker relative, the Black Rat. See p. 113.

ARVICOLA AMPHIBIUS [Water Rat].

To be found on the banks of all our streams. It is sometimes turned up with the plough, at a considerable distance from the water. It is a curious circumstance that the water rats of England are mostly of a light brown colour, whilst those of Scotland are usually jet black.

ARVICOLA AGRESTIS [Short-tailed Field Mouse].
Plentiful, and very destructive to young trees.

ARVICOLA PARTENSIS [Meadow Mouse].

Like the last in appearance and habits. It is recognisable by its much longer tail.

Sorex Araneus [Common Shrew]. Plentiful.

Sorex fodiens [Water Shrew].

Found along burnsides, and occasionally in ditches.

SOREX REMIFER [Black Water Shrew].

Not so frequently found as the last. The water shrew is very difficult to be taken. I never could manage to trap any of them. They baffled all my ingenuity. My only resource was the gun, and even with it I have often had enough to do. I have sat for from six to seven hours without moving, watching for an opportunity of shooting the water shrew, and been doomed to disappointment at last.

LEPUS TIMIDUS [Common Hare or Maukins]. Very plentiful in the low grounds. See pp. 106, 274.

LEPUS VARIABILIS [Blue or Alpine Hare].

This species is only to be met with in the hills and mountains, except when driven down by stress of weather. In very severe winters they occasionally descend in great numbers to the lower part of the county, at which time they are of a pure white.

LEPUS CANICULUS [Rabbits].

Very plentiful, in every conceivable spot, from the rocky shore, the sandbank, the quarry hole, the stony cairn, the old dyke, the garden, the orchard, and the open field, to the thickest woods. White, black, cream coloured, stripped, and pied varieties, occur. See pp. 106, 275.

CERVUS ELAPHUS [Stag, Red or Highland Deer].

This, perhaps the fleetest, as he is the noblest of our wild animals, still holds his place in the county, though not now so numerous as he used to be.

CERVUS CAPREOLUS [Roe Deer].

The roe seems to be more widely distributed than the red deer; and whilst the latter usually inhabits the more sequestered heath, grassy dells, and wooded glens of the higher lands, the other is mostly found in the plantations and copies of the lower levels. See p. 106.

PHOCA VITULINA [Seal or Selch].

Stray individuals of this aquatic tribe pay us a visit now and then.

They are common in Cromarty Firth.

DELPHINUS PHOCÆNA [Porpoise or Sea Hog].

This is another watery visitant, much more frequently seen than the seal.

DELPHINUS DELPHIS [Stripped Porpoise or Dolphin].

A specimen of this beautiful porpoise was taken here in 1853.

DELPHINUS TURSIO [Bottle-nosed Porpoise].

This species is said to have been taken here, though there are some doubts as to the fact.

DELPHINUS DEDUCTOR [Pilot Whale].

Several of these have from time to time been met with. There are other species of whales which have been captured here. One, reported to have been a monster for size, is said to have been found amongst the rocks, so far back as about the beginning of last century, betwixt the Boyne and the point known as the King's Head, but of what species is not accurately known. It is stated in the "Statistical Account of the Parish of Rathven," which extends about ten miles along the coast west of Cullen, that the porpoise, the grampus, and the spermaceti whale, are frequently seen along the shore.

BIRDS.

AQUILA CHRYSAETOS [The Golden Eagle].

The eagle breeds in the highest parts of the county, in the rocky heights near Ben Avon (see p. 121). They have also been seen hovering about the sea-braes between Banff and Portsoy.

AQUILA ALBICILLA [The Erne or Sea-Eagle] has also been found.

AQUILA HALIAETUS [The Osprey, Fish Hawk, or Fishing Eagle] has also been found. A very fine male specimen was shot amongst the high cliffs of Gamrie Head. Another was seen at Melrose, a few miles from where the other was obtained.

FALCO PEREGRINUS [The Peregrine Falcon, Blue or Hunting Hawk].

The Peregrine is one of our native hawks, and breeds annually, though very sparingly, and usually in inaccessible places in some of our highest headlands. Peregrine falcons have been taken from their nests in Troup Head. As to the manner in which they devour their prey, see p. 223.

FALCO ESALON [The Merlin].

A daring little fellow that breeds on several of our hills, more particularly on the Knock, the Bin (Huntly), Auchindoon, and Benvennis. When strolling along our sea-braes early one morning, I heard a tremendous noise of rooks and jackdaws ahead of me, and on coming to the spot I found them attacking a little merlin. One would have thought that such a host would have smothered the little creature in a twinkling. But such was not the case. The crows did not assail him all at once, nor yet singly; but three, four, and as many as seven, would be on him at a time, the main body keeping at a short distance, encouraging their companions, as it were, with their cawings. After a while, one of these storming parties would retire, and then another would sally forth to the charge. The merlin, however, being of lighter mettle and swifter of wing, managed, with wonderful dexterity, generally to avoid their attacks; now rising, now descending, and now turning in a zigzag direction, first to one side, then to the other; and succeeding, whilst doing so, in giving one or other of his adversaries a pretty severe peck, which had the effect of sending him screaming away. At last, however, a crow, which seemed more courageous than the rest, rushed at the merlin with such fury that I actually thought he would have swallowed him up at once, or sent him headlong into the sea. But no! the merlin withstood the shock, and contrived to deal his assailant a thrust as he approached and passed him. The merlin now rose considerably higher, and was followed only by this single opponent, who returned with redoubled fury to the combat. Up, up they soar, fighting as they go. They close, they scream, they grapple, and their feathers fly like dust. Down they come, locked in deadly embrace. I run to catch But no! See! they part, mount again and them both. again, scream, close, and, as before, fall, but not this time to the earth; they part and mount again. But 'tis now their last time; for the hawk, rising several yards above his bold and venturous antagonist, rushes down upon him with a yell, such as hawks alone, when irritated, know how to utter, and with such force that both fell right down into the sea, above which they were then fighting. I looked to see them rise again; but they did not. After a little splashing, all was over with the crow, but not with the hawk: he was still alive, although in a very precarious situation, from which he made several unsuccessful attempts to rise, but could not. It would seem that in dealing the death-blow to his tormentor he somehow or other got himself entangled, perhaps by his talons entering some of the bones of the crow, from whence he could not extract them. Both met with a watery grave, for on my leaving the place, they were both fast drifting seaward, a breeze blowing off the land at the time, with the crows hovering over them and still cawing.

FALCO NISUS [The Sparrow-Hawk].

This is another daring individual. When standing on our Links not long since, and speaking to one of our keepers, something struck me on the breast and fell to the ground. Instantly, and like a flash of lightning, down rushed a sparrow-hawk, and picked up a thrush from betwixt us; it rose with its booty, and was out of sight before we could raise our guns to fire at it. The keeper grumbled a great deal at our seeming stupidity.

FALCO TINNUNCULUS [The Kestrel].

This mouse-, insect-, and caterpillar-eating bird, or hawk if you will, is very common with us. When a boy I kept, amongst a host of others, several of this species. I remember that when a mouse, a young rabbit, a leveret, and a middle-sized rat, were presented at the same time, either of the former was sure to be pounced upon, whilst the latter usually lay unheeded. Since then, during my thirty years of taxidermal practice, I have often dissected this bird, and found in its stomach the remains principally of the smaller quadrupeds, insects (chiefly beetles), and caterpillars. Yet this poor bird is persecuted with as much severity as birds of the most destructive kind.

FALCO PALUMBARIUS [The Goshawk].

One was shot at Tomintoul a short time ago, and two others one at Hillton, the other at Macduff. It is rather a rare bird.

FALCO MILVUS [The Kite].

This bird was once plentiful here, but it is now rarely seen. A splendid specimen was recently shot at Eden, about four miles from Banff.

FALCO BUTEO [The Buzzard]. Occasionally met with.

FALCO LAGOPUS [The Rough-Legged Buzzard].

More frequent than the last. One in my collection was killed on the hill of Dunn, and another in the museum was shot at Forglen. The nests of this species have also been found in the neighbourhood, though rarely.

FALCO APIRORUS [The Honey Buzzard].

A still rarer species. A splendid specimen was shot at Gamrie a few years ago. They are usually termed "Gleds" with us.

FALCO ERUGINOSUS [The Marsh Harrier].

Specimens of these birds are occasionally shot in this neighbourhood.

FALCO CYANEUS [The Hen Harrier].

Occasionally met with. The male is known here by the names of gray, blue, and lead hawk; the female by the name of ring-tail.

FALCO CINERASCENS [Ash-coloured Harrier].

I have only met with one of this species here. It was a first-rate specimen,—a male, and a very pretty bird.

STRIX OTUS [The Long-eared Horned Owl].

Plentiful. I once found a nest of this bird with eggs about the middle of March. See p. 121.

STRIX BRACHYOTUS [The Short-eared Owl, Woodcock, or Grass Owl].

A migrating species with us. Specimens are frequently met with by sportsmen when out shooting snipes, woodcocks, etc.

STRIX FLAMMEA [The Barn Owl].

This bird, though common in England, is very rare with us. I know of only four being procured within twenty-four years. One is in my own collection.

STRIX ALUCO [The Tawny or Brown Owl].

Almost equal in numbers to the long-eared owl, which is plentiful.

STRIX NYCTEA [The Snown Owl].

One of the most magnificent of the owl tribe. What a splendid and showy bird! I think the term "glistening" or "spangled" might, with all truth and justice, be applied to this shining species. What a noble-looking bird! What beautiful eyes! the pupil dark, and the iris like two rings of the finest burnished gold, set, as it were, in a casket of polished silver. I am glad, nay proud, of being able to give this king of British owls a place in my list, and of being able, perhaps for the first time, to say that at least one pair have been known to breed within the district. A few miles west of Portsoy, and not far from Cullen, stands the bold and towering form of Loggie Head. In connection with this rocky promontory, and about midway up its rugged height, there is a narrow cave or chasm called "Dickie Hare." In this cave a pair of these owls bred in 1845. Unluckily, however, for them, a party of fishermen belonging to Cullen, returning one morning from their vocation discovered their retreat, by observing one of the birds go in. This was too good to lose sight of, so up the dangerous and jagged precipice scrambled one of the crew, and managed to reach the aperture where the bird disappeared; but instead of only one, as he expected, he was not a little surprised to find that he had four to deal with, two old and two young ones well fledged; and the apartment was so narrow that only one person could enter at a time, so that help was out of the question: and his ambition grasped the whole. What was he to do, or what could he do? Turn?—then the birds would have flown. No! but, just as I would have done had I been in his place, he set upon them all; and, after a prolonged and pretty severe battle, in which he got himself a good deal lacerated and his clothes torn by the claws of the birds, he succeeded in capturing them all alive, except one of the young ones, which fell a sacrifice to the struggle. The state of excitement which the little town was in as the man landed with his prizes, and the news of his morning's achievement spread, may in some measure be imagined, but can hardly be described.

STRIX PASSERINA [The Little Owl].

I give this bird a place on the authority of a Mr. Wilson, who informs me he saw one in a wood near this place.

MUSCICAPA GRISOLA [The Spotted Fly-Catcher].

It is somewhat strange, but not less strange than true, that this sylvan and garden-loving species should also be found nestling and inhabiting our wild and rocky ravines; yet such is the case. I have met with them twice.

MUSCICAPA ATRICAPILLA [The Pied Fly-Catcher].

I have a specimen of this bird, a male, in my possession, which was shot about thirteen miles from this place.

CINCLUS AQUATICUS [The Dipper, or Water-Cockie].

Every means has been put in requisition to destroy this little bird. It was abundant thirty years ago; but it is now rarely to be seen. It was supposed to destroy the young salmon, hence it has been shot down wherever found. But I have never as yet found anything appertaining to fish in its stomach, and I have dissected about forty,—water insects and their larvæ being what I have most frequently observed.

TURDUS VISCIVORUS [The Missel Thrush].

About twenty years ago such a bird was scarcely known among us, but now it bids fair to outnumber the common species; for as the one gains ground, the other seems to lose it.

TURDUS PILARIS [The Fieldfare].

A winter visitor. We call them "Hel-in-piets," that is "Highland piets." They arrive in October, and depart in April. Some seasons they occur in thousands, but in others only sparingly.

TURDUS MUSICUS [The Song Thrush or Mavis].

Usually very common in this neighbourhood, but becoming superseded by the missel thrush. (For its singing propensities see
p. 269.) There is one fact in connection with the rearing of
these birds which I must not omit to mention,—namely, that if
any of the young refuse to open their mouths to receive food
when offered, the old one knocks them soundly on the head
with his bill until they did so. I have observed this frequently,
and was not a little amused at it.

TURDUS ILIACUS [The Redwing].

A winter visitor, like the fieldfare, but not nearly so numerous.

TURDUS MERULA [The Blackbird, Blackie].

Generally distributed, but not in great plenty in any place. White varieties have occasionally been met with, as well as pied. When the winter storms send the thrushes to the sea-shore to seek for food, this bird betakes himself to farm-steadings and stable-yards, so that he never suffers so much as the thrushes do.

TURDUS TORQUATUS [The Ring Ouzel].

Rare. A few breed now and then among the higher districts of the county.

ACCENTOR MODULARIS [The Hedge Sparrow].

Generally distributed, but nowhere in abundance.

SYLVIA RUBECULA [Robin Redbreast].

This rather bold, red-breasted gentleman, or cock-robin as we call him here, is somewhat more numerous than the last.

SYLVIA PHŒNICURUS [The Redstart].

Frequents our gardens, and breeds there,

SYLVIA TITHYS [The Black Redstart].

I am only aware of two of these birds having been seen in our county.

SYLVIA RUBICOLA [The Stonechat].

SYLVIA RUBETRA [The Whinchat].

Neither of these birds are very numerous with us; but they may occasionally be seen in suitable localities,—the first is with us all the year, and the other, though migratory, is occasionally seen in winter.

SYLVIA GNANTHE [The Wheatear].

A summer visitor. Wheatears generally appear on the sea-coast first, from whence they disperse inland. They are called with us the "Stone Chatterer."

SYLVIA PHRAGMITIS [The Sedge Warbler].

Comparatively rare. It is only of late years that this bird has visited us. How pleasant and enchanting it is to wander by the margin of the running stream either at latest even, or at earliest morn, or even during summer's midnight hours, and hear the sedge warbler pouring forth his long harmonious song,—himself all the while hid in some neighbouring bush. See pp. 51, 125.

SYLVIA ATRICAPILLA [The Blackcap].

Rarer even than the last. A most noble songster, though I prefer the thrush.

SYLVIA CINEREA [The Whitethroat].

More numerous than either of the two last. It arrives about the same time.

SYLVIA SIBILATRIX [The Wood Wren].

Very rare. It is only seen at intervals, though it is supposed to breed here.

SYLVIA TROCHILUS [The Willow Wren].

Common throughout the whole county. It is found in plantations, whins, brooms, and in gardens and orchards. It generally nests on the ground. It is a very lively songster.

SYLVIA RUFA [The Chiffchaff]

The only bird of this kind that I have seen, is one that I took myself in the Duff House policies.

REGULUS CRESTATUS [The Golden-crested Regulus or Wren].

Wherever there are suitable woods, this bird is to be found among us in pretty fair numbers.

PARUS MAJOR [The Great Titmouse],

PARUS CERULEUS [The Blue Titmouse],

PARUS ATER [The Cole Titmouse], and

PARUS CAUDUTUS [The Long-tailed Titmouse].

These birds all exist in the county in about equal numbers. It is rather an interesting and pleasant sight, and one which I have often witnessed, to see small bands of these lively, active little birds, together with the goldcrests and creepers, all in company, foraging about amongst the leafy trees in winter; the tits on the branches, the creepers on the trunk, and, if there is no snow on the ground, the goldcrests generally lower down, near about the roots. All is life, bustle, and animation, each cheering the other with its tiny note. See p. 69.

PARUS PALUSTRIS [The Marsh Titmouse].
This bird is very seldom seen among us.

PARUS CRESTATUS [The Crested Titmouse].

This rare British Tit is an inhabitant of the higher and middle districts of the county, where it breeds occasionally.

Bombycilla garrula [The Waxwing].

This bird is an occasional winter visitor. Some seasons large flocks appear, then only a few; then, again, perhaps none; and this may be the case for many succeeding seasons.

MOTACILLA TARRELLI [Pied Wagtail].

Wherever there is a stream or a quarry, you will meet, in summer, with a pair or two of these active little insect-eaters. During winter, they are invariably to be seen on lawns, or about mills and farm-steadings. They remain with us all the year round.

MOTACILLA BOARULA [The Gray Wagtail].

This is our yellow wagtail, being known by no other name. Though generally distributed throughout the country, it is not nearly so abundant. It sometimes breeds in company with the sand martin.

MOTACILLA CAMPESTRIS [Ray's Wagtail].

Only an occasional visitor with us. They breed plentifully amongst the hillocks which stretch along the line of coast between the Don (Aberdeenshire) and Newborough,—then again from Peterhead to Fraserburgh.

ANTHUS ARBOREUS [The Tree Pipit].

This bird is frequently seen; it breeds near Inverkeithnay, Rothiemay, and Inveraven.

Anthus Pratensis [The Meadow Pipit].

Plentiful throughout the whole county.

Anthus obscurus [The Rock Pipit]. Known all along our coast. ANTHUS RICARDI [Richard's Pipit].

I have only seen this bird once, at the foot of the Knock Hill.

ALAUDA ARVENSIS [The Skylark or Laverock].

Universally distributed along the whole length and breadth of the county. It is, I think, the most numerous bird we have. Towards the months of October and November a great diminution of its numbers takes place. But a little after New Year's Day they again begin to make their appearance. Where they have been in the meantime, I have never been able to ascertain; one thing is certain, however, that I have seen them returning from the east and from the north, in immense numbers. (See pp. 127, 269.)

ALAUDA ARBOREA [The Wood Lark].

I have seen but one of these birds, in the avenue of Duff House. It was alone and in song at the time—May 27, 1850.

EMBERIZA NIVALIS [The Snow Bunting].

Seen in large flocks during winter, and exhibiting a motley mixture of pure white, jet black, dull tawny, and deep chestnut,—a beautiful band across the wings being conspicuous only in flight. They arrive about the beginning of November, and depart about the first of April. They sing beautifully, in a sweet low lift.

EMBERIZA MILIARIA [The Corn Bunting].

This bird is not very numerous with us.

EMBERIZA SCHENICLUS [The Black-headed Bunting or Ring Fowl].

It frequents the mosses. I have found their nests in bushes, amongst reeds, or on the ground. It is called the "Moss Sparrow" by the country people. I once saw a black variety of this bird, and another almost yellow.

EMBERIZA CITRINELLA [The Yellowhammer].

More numerous than either of the two last. The common name here is "Skite." It is not particular as to the place where it builds its nest. I have seen one built in a rut on a cart-track, close by the wayside. On passing afterwards, I found the nest had been destroyed by a cart-wheel passing over it.

EMBERIZA COILUS [The Coil Bunting].
Very rarely found in this quarter.

FRINGILLA CŒLEBS [The Chaffinch]. Abundant.

FRINGILLA MONTIFRINGILLA [The Brambling].

A winter visitor. A few may be met with every season.

FRINGILLA MONTANA [The Tree Sparrow].

To be found in several localities throughout the county.

FRINGILLA DOMESTICA [The House Sparrow]. Numerous.

FRINGILLA CHLORIS [The Green Finch].

Pretty generally distributed throughout the country, and especially in woody places. The bird is easily tamed.

FRINGILLA COCCOTHRAUSTES [The Hawfinch]. A rare bird with us.

FRINGILLA CIRIS [The Painted Finch].

A migratory species. Only one specimen has been seen.

FRINGILLA CARDUELIS [The Goldfinch].

These birds have in a great measure been captured by the birdcatchers. (See p. 270.)

FRINGILLA SPINUS [The Siskin].

Fewer than before. They have been thinned by the bird-catchers. A tamable bird.

FRINGILLA CANABINA [The Linnet].

There is no house bird that possesses so many names as this one. It is the rose lintie so long as it retains its red breast; but when that is gone or wanting, it is then the gray lintie, the whin lintie, the brown lintie, and so on. Cultivation is driving the linties away, by tearing down every whin, knoll, and brae, where it is possible for the plough and spade to work their way.

FRINGILLA LINARIA [The Lesser Redpole].

This is found most plentifully in the higher districts of the county; but in severe winters, large flocks of them descend to the lower grounds.

FRINGILLA BOREALIS [The Mealy Redpole]. A rare species.

Fringilla montium [The Twite].

Another mountain as well as sea-shore rocky species. It is the most elegant of all our linnets.

LOXIA PYRRHULA [The Bullfinch].

This is another prize for the trapper. But great numbers are annually destroyed by gardeners and nurserymen, who believe that they are destructive. Yet their principal food consists of insects; and insects are also the chief food for their young. hope a better day will arrive for these lovely little birds, when they will be cherished and encouraged rather than hated and The bullfinch is easily taught to whistle, or to "pipe" familiar tunes.

LOXIA CURVIVOSTRA [The Crossbill].

This bird is on the increase. They nest with us, and have done so for some years. There is a great diversity of colour and size amongst them.

LOXIA PITYOPSITTACUS [Parrot Crossbill].

While walking one morning round the Whinhill, and just as I reached the south side, I was rather surprised at hearing the voice of what I knew to be a stranger. On looking to a low, bare wall, about three or four yards in front of me, I beheld, in all his pride and beauty, a male parrot crossbill. This is the only instance, to my knowledge, of its existence amongst us.

LOXIA LEUCOPTERA [White-Winged Crossbill].

About fifty years ago, a large flock of these birds suddenly made their appearance on the "Castle trees," in this neighbourhood. Their strange appearance and gaudy plumage soon attracted notice,—nearly the whole town flocking to see the "foreigners." They appeared quite exhausted, many of them dropping from the trees.

STURNUS VULGARIS [The Starling].

The starling has been rapidly increasing of late years. At one time single starlings were rarely to be seen, whereas flocks of this bird now appear towards the close of every season.

STURNUS PREDATORIUS [The Red-Winged Starling].

A pretty bird which occasionally visits this county.

PASTER ROSEUS [Rose-Coloured Pastor].

This is another rare beauty, occasionally seen in this county.

CORVUS CORAX [The Raven].

A few of these birds inhabit the precipitous parts of the coast, where they breed in company with the falcon, kestrel, gull, guillemot, etc. The raven will tame pretty well; it will talk hoarsely, and do mischievous tricks.

CORVUS CORONE [Carrion Crow], and CORVUS CORNIX [Hooded Crow].

Both occur in about equal numbers. (See p. 271.)

CORVUS PRUJILEGAS [The Rook].

Many large rookeries exist in the county. (See p. 126.)

CORVUS MONEDULA [The Jackdaw]. Very plentiful. (See p. 25.)

CORVUS PICA [Magpie].

One of the most bashful of birds. It is very sparingly distributed, and in some places is scarcely known. Our keepers both shoot and trap them wherever found.

PICUS MAJOR [Greater Spotted Woodpecker].

Several pairs of this showy bird have been procured within our district. It is also found in the higher parts of the county. A specimen was shot near Banff, and when dissected, its stomach was found crammed with two species of grub, of a creamy or grayish colour. It contained also several beetles and a small spider.

Picus Minor [Lesser Spotted Woodpecker].

More rare than the last. One sent to me, fourteen years since, from Mayen, where it was shot, and another seen on the Lodge hills, are all that I am aware of. Very probably others have occurred.

YUNK TORQUILLA [Wryneck].

The late Professor Macgillivray, of Marischal College, Aberdeen, informed me that one was taken at or near Portsoy, by a pupil

of his. One, now in the Banff Museum, was taken six years ago, about fourteen miles from the town.

CERTHIA FAMILIARIS [Creeper].

Wherever there are suitable woods, these birds are sure to be found. We sometimes read and hear as extraordinary occurrences, that nests have been found in the hearts of trees that have been sawn up. Now, to those acquainted with the facts, these occurrences are easily accounted for. I know a tree myself which contains two nests, both with eggs. About seventeen years ago there was in the side of this tree a small aperture, about six feet from the ground, which led downwards to a cavity in the centre of the trunk. The opening was so narrow outwardly that it only admitted two of my fingers, but widened as it proceeded to the bottom, a distance of about eighteen inches. In this hole, at the time referred to, a pair of creepers built their nest and laid eggs, after which they disappeared. Next season a pair of blue titmice acted in a similar manner; and they also disappeared, doubtless in consequence of being tormented by boys, and of the narrowness of the entrance. The growth of the tree caused the hole to get less and less every year, and it has been for several years so completely closed that the point of the finest needle cannot be inserted. The tree, a sturdy beech, has the two nests and eggs in its very core. It is thus evident how easily these "extraordinary occurrences" may be accounted for.

TROGLODYTES EUROPÆUS [Wren].

The dear little wren, the lion of small birds, with his short, jerking little tail, I have known and admired from childhood. Who that has trod the woods in spring or summer has not heard a very loud, though by no means inharmonious song, proceeding from some bush or bank, and not admired it !-- and who is there, if he did not know the bird, that would not be surprised beyond measure at so small a creature being able to make such a loud noise? Of all the deserted nests I have ever met with, those of the wren would, I am sure, count twenty per cent over any other species. I am unable to account for this, but perhaps it arises from their building several before they get one to please them. I once found one of their nests in an old tin kettle. which had become fixed amongst the branches of a holly. The wren, like other birds, does not sing so well in confinement. When in their native haunts, there is a pathos in their voice and a music in their melody, which makes the heart thrill with pleasure.

UPUPA EPOPS [Hoopoe].

Three or four of these pretty birds have occurred here: one was taken at Duff House, in 1832, by a Mr. Mackay, in such a state of exhaustion as to allow itself to be captured by hand; another was seen by myself, a few years back, in the same place; and two others are said to have been since obtained in other parts of the county.

CUCULUS CANORUS [Cuckoo].

This is another sweet and darling gem. Well do I remember. when only a little fellow, rummaging about the Den of Rubislaw, near Aberdeen, how surprised I was on hearing the sound of "Cuckoo, cuckoo," from a small plantation close by, and how overjoyed I was when I obtained a sight of the bird; and now that I am old, the sweet voice of the harbinger of sunny days still cheers me. They are not very numerous with us along the sea-coast, but are very frequent in the higher districts. They generally appear about the end of April. It is said that they can retain their eggs for a number of days after they are ready for extrusion. I will relate, without comment, a circumstance of this sort which came under my own observation :-- A female specimen, shot in a garden here, was brought to me to be preserved. On dissecting it, I was agreeably surprised at finding in the oviduct an egg as perfect as if it had been obtained from a nest.

CORACIAS GARRULA [Roller].

I am only aware of one specimen of this pretty and rare bird being obtained in our county; it was a splendid specimen killed on the hills of Boyndie,

MEROPS APLASTER [Bee-Eater].

I give this species a place here from having heard that a greenish bird, somewhat less than a thrush, with a longish bent bill, and with two feathers of the tail longer than the rest, was killed in a garden between Huntly and Dufftown, about seven years ago. It has since been found at the hills of Boyndie, about two miles from Banff.

ALCEDO ISPIDA [Kingfisher].

Several of these sparkling gems have been taken here at different times. (See p. 52.)

HIRUNDO RUSTICA [Swallow], and

HIRUNDO RIPARIA [Martin].

These birds are in about equal numbers. The latter generally nestles in the corners of windows, the former in barns, etc.; they also breed along the sea-shore wherever there is a cave or projecting rock suitable. White and cream-coloured varieties are sometimes met with.

HIRUNDO URBICA [Sand Martin].

Wherever there is a bank of any height and not too hard, whether along the sea-shore or river-side, or a quarry or sand-hole, a colony of these active little creatures are almost sure to be met with during summer. It is surprising to see how they perforate these places, and the depth to which they will sometimes go, especially when we consider the remarkably feeble instruments with which they do it—namely, a very small and slender bill, and feet equally small and tender.

CYPSELUS APUS [Swift].

Of all our migratory species this is generally the last to arrive, and the first to depart. Next to the skylark, the swift appears to ascend highest in his aerial flights; and a very beautiful sight it is to see it, on a clear, still evening, gambolling about so far above the earth, and, it may be, screaming its farewell requiem to the departing sun. The swift is the first to depart, towards the end of August or beginning of September, and it returns about the middle of May; the sand martin next, or about the second or third week in September, and it usually returns about the third week in April; and the swallow and house martin commonly about the first week or middle of October, and it reappears about the 1st of May. Before I part with this interesting tribe I must become a little arithmetical. We are frequently told, and justly, of the great benefit swallows and other insectfeeders do, by the countless herds of noxious creatures which they destroy. I will relate an instance of my own experience in this respect. Picking up a swallow which had been shot by a friend, I found that its mouth was crammed with gnats and flies. Some of them were alive. They all seemed attached to the mouth by a glutinous fluid. The bird had apparently been catering for its young. Being desirous of making a further examination. I wrapped it in paper and put it in my pocket. On reaching home I opened the paper, when a number of the gnats buzzed out into my face, much to my regret; but I succeeded in counting upwards of 70, and I am quite sure there were more than 100 in all. Now it is a well-known fact that both birds assist in rearing their young. Well, say that they visit the nest every ten minutes (which is under the mark), and that every time of doing so, each bird conveys 70 insects; this in an hour amounts to 840; in a day of twelve hours, which is but a short day for a swallow at that season of the year, to 10,080; in a week of seven days, to 70,560; and in a fortnight, to 141,120. But if we carry the calculation a little further, by supposing that the birds rear two broods in a season, although the number is often three, we have, at the ratio at which we have been counting, a total of 282,240 insects destroyed in one year by two birds alone, while rearing their two broods!

CAPRIMULGUS EUROPASUS [Nightjar].

Of late years this species would appear to have become more numerous, but it is still very far from plentiful.

COLUMBA PALUMBUS [Ring Dove].

Or, as we have it, Cushie Doo. This bids fair to become one of the greatest pests of the farmers. The wild pigeons have increased amazingly within the last few years, and the damage they do is incalculable. This increase is caused by the almost total destruction of the hawk tribe, which tended greatly to thin their numbers.

COLUMBA LIVIA [Rock Dove].

A few pairs breed in the caverns along our coast. It is a rare case, however, to get a pure specimen; as domestic pigeons from the farms near, sometimes breed with them. I have seen white specimens, as well as those of a sand colour.

COLUMBA TURTUR [Turtle Dove].

Three or four specimens of this species are said to have been seen, and some of them obtained, within the county; but whether wild ones, or individuals that had escaped, has not been ascertained.

PHASIANUS COLCHICUS [Pheasant].

Introduced, but seems to thrive very well; it is a beautiful ornament to parks and woods. Partially pied varieties sometimes occur, and another called the "silver pheasant."

TETRAO TETRIX [Black Grouse].

Exists chiefly in the higher districts.

TETRAO EXOTICUS [Red Grouse].

Exists on all our moors and hills, but not in great numbers.

TETRAO LUGOPAGUS [Ptarmigan].

Less frequent than either of the two last. Ptarmigans inhabit the summits of our highest mountains; they are seldomer seen than those which frequent the lower ground. Like all others of the grouse tribe, they are yearly decreasing in number.

PERDRIX CINEREA [Partridge].

Pretty common. A very cunning and faithful mother is the female; for when she has eggs she never goes out, if time permits, without hiding them so carefully that it is almost impossible to detect their whereabouts; and if you take her by surprise, away she hobbles on one leg, and a wing trailing on the ground as if wounded. (See p. 254.)

PERDRIX RUFA [The Red-legged Partridge].

Commonly called the French Partridge; it has been recently found in Banff.

PERDRIX COTURNIX [Quail].

That this species is a regular visitor I am not prepared to say; but that it is an occasional visitor and breeds here is beyond all doubt. Nests and eggs of this species are sometimes met with in cutting grass; they are generally passed over as those of the landrail.

CHARADRIUS PLUVIALIS [Golden Plover].

Where moorfowl occur, the golden plover is generally to be met with. When the hills, heaths, and fields are covered with snow, the plover comes down from his alpine abode, and stays at the sea-side, where great numbers fall an easy prey to the gun of the sea-side fowler.

CHARADRIUS MORINELLUS [Dotterel].

Occasionally met with. On once asking an old keeper from the

higher grounds as to where this species breeds, he replied, "On the gray slopes of the highest mountains, far above all the other birds, except the ptarmigan." I am doubtful whether it breeds with us at all.

CHARADRIUS HIATICULA [Ringed Plover].

These breed with us, and remain all the year round. I have found their eggs on the sand by the beach, and forty miles inland. They likewise nestle on the shingly banks and islands along our river-courses. They are known here by the names of "sea lark" and "sunny liverock."

VANELLUS MELANOGASTER [Gray Plover]. Rather rare, and I believe only a winter visitor.

VANELLUS CRISTATUS [Laproing].

Found on heaths and moors, and in fields, where they breed. Many of them leave us towards winter. This is another species which endeavours to mislead you when searching for its eggs. Of all our field and heath birds, the lapwing is one of the most useful in destroying destructive insects, such as Zabrus aibbus, etc.

STREPSILAS INTERPRES [Turnstone]. An occasional visitor, generally in winter. (See p. 242.)

CALIDRIS ARENARIA [Sanderling].

A regular visitor, generally arriving in August, a few of them remaining through the winter. I have met with them, too, in summer, when their predominant colour, instead of being whitish, is a most beautiful reddish fawn. On their first arrival here they are very tame, allowing you to approach within a yard or two. (See p. 175.)

Hæmatopus ostralegus [Oystercatcher].
Why this bird is called oystercatcher, I cannot understand. Had it been named "limpetcatcher" I could have understood it. I have crawled amongst the rocks in order to see them feed; when I have seen the limpet driven from its hold, and scooped out of its shell with as much apparent ease as I could have picked up a Gammaris locusta: but I have never seen it attempt to catch an oyster. On this part of the coast its food generally consists of the limpet, and very rarely of Acmaa testitudinalis. I have counted as many as forty-one of the former in the stomach of a single bird, whilst of the latter I have not met with more than three or four examples. The oystercatcher is a summer visitor with us, arriving here to breed. Now and then it may be seen during winter. Large flocks visit us some seasons, generally in September, and after remaining for a day proceed farther south. "Sea piet" is the name the bird is known by here.

ARDEA CINEREA [Heron].

We have some small spots where these birds breed, but which hardly deserve the name of heronries. At one time, however, they were in greater numbers. I remember taking from the stomach of one a large water-rat, three middle-sized trout, and fifteen minnows. Some time ago, a person belonging to this town, whilst passing through one of the streets, was startled at being hit on the head by something which had fallen from above, and which proved to be a small fish, the five-bearded rockling, apparently quite fresh. On looking up he saw nothing but a "craigie" passing over the houses, pursued by a number of crows. Of course the fish had dropped from the heron; but the man could not be persuaded that it had not dropped from the clouds.

ARDEA PURPUREA [Purple Heron].

One of these birds is said to have been shot about thirteen miles from hence. My late friend, the Rev. Mr. Smith, saw fragments of the bird some time afterwards, and believed it to be of this species.

ARDEA EGRETTA [Great White Heron].

Two of these birds were observed to frequent various parts of our coast about twenty-six years ago; but a specimen has not since been procured.

ARDEA STELLARIS [Bittern].

Three or four of these birds are known to have paid us a visit. One in the Banff Museum, a very pretty one, was killed near Banff about twenty-four years since; another in the Moss of Park, and one or two at Balveny.

PLATALEA LEUCORODIA [Spoonbill].

One of these rarities was found in a ditch in a wood near here, by a young naturalist; he says it could easily have been shot, for he approached quite close to it, and it did not appear at all shy. It has since been found in this neighbourhood.

IBIS FALCINELLUS [Glossy Ibis].

On one occasion I perceived three of these birds hovering about the coast for a whole day, but I could not get a shot at them; it was in winter and during a very severe storm.

NUMENIUS ARQUATA [Curlew].

Plentiful in certain localities along the shore in winter; they retire in spring to the alpine and sub-alpine districts. Their note in winter is simply "Whaup," with sometimes a loud scream when come upon suddenly. In summer, however, and whilst among the moors and hills, it is more varied, being then "Poo-l-ie, poo-l-ie," then "Coor-lie, coor-lie," with a long "Wha-a-up" at the end. They are not then so shy as when seen by the sea-shore.

Numenius Phasopus [Whimbrel].

Seldom a summer passes but a whimbrel or two may be met with along the shore, and sometimes in some of our mosses. I think they breed with us. They are generally very shy, and not easily approached. Their call-note at once distinguishes them from the curlew.

TOTANUS CALIDRIS [Redshank].

We have this red and long-legged gentleman rather sparingly with us, but we have him all the year. There are certain spots coastwise not much frequented, where, for seven or eight months in the year, you will seldom if ever fail to meet with a few; and when disturbed their wild scream accords well with the solitary places which they frequent, especially where there is a low hollow murmuring from the ocean. This is another species, which, lapwing-like, will flap about you when in the way of their nest, and for noise they exceed them completely. They generally breed in marshy and boggy places and about the grassy margins of lochs, but I have also found them amongst bents and dry sandy places by the sea-shore.

TOTANUS HYPOLEUCOS [Common Sandpiper].

The common sandpiper (or, as we have it, "Kittle-needie," from its cry) is one of our summer birds; there is scarcely one of our streams but has its "kittle-needies" in the season. They breed on the banks.

Totanus glottis [Greenshank].

This is a rarity with us. I have one in my possession, out of two which were shot in the moss of Banff.

RECURVIROSTRA AVOCETTA [Avocet]. More rare than the preceding.

LIMOSA MELANURA [Blacktailed Godwit].
Only two specimens have been taken here.

LIMOSA RUFA [Bartailed Godwit].

A few of these may generally be observed every autumn, either by the sea-side or in our mosses. They do not stop long with us; a few days at most sufficing. Perhaps we have not suitable localities for them.

MACHETES PUGNAX [Ruff].

Rare. Three, I think, have been obtained, all birds of the year, and all in autumn.

SCOLOPAX RUSTICOLA [Woodcock].

Though a pair or two have been known to breed, the woodcock can hardly rank with us but as a winter visitor. In some seasons they are more numerous than in others. Does the snow affect the colouring of this species? My reason for asking this question is because, in very severe and snowy weather, I have seen many of them of a remarkably light colour; but in milder seasons, and when there were little or no storms or frost, I have never seen any of them with the same gray-like coating.

SCOLOPAX GALLINAGO [Common Snipe].

Though many of these breed and remain with us all the year, still we receive great additions annually from elsewhere, and generally towards the end of autumn; but neither during summer nor winter are they so plentiful as they were. Drainage is said to be the cause of their comparative scarcity.

SCOLOPAX GRISEA [The Brown Snipe].

Some specimens of this bird have been met with near Banff, but it is rarely seen.

SCOLOPAX GALLINULA [Jack Snipe].

A winter visitor only, so far as I am aware,—and by no means so numerous as the preceding. The jack snipe would appear to be a solitary animal; at least I have never seen more than two of them together (of course in winter), but more commonly only one; in fact, they are nearly always seen single. Unlike the others, however, I have seen them return to the same spot three times, after being as often fired at.

TRINGA SUBARQUATA [Curlew Sandpiper].

I have only met with one specimen of which I can speak with certainty.

TRINGA CANUTUS [Knot].

A few generally visit us every autumn on their southward passage. They are remarkably easy of approach.

TRINGA MINUTA [Little Stint].

A very fine little fellow. I once had a desperate hunt after one. (See p. 140.)

TRINGA TEMMINCKII [Temminck's Stint].

Mr. Taylor, gamekeeper to the Earl of Fife, once shot a specimen on the Deveron bank.

TRINGA VARIABILIS [Dunlin].

This bird breeds in a few of our marshy places, and may now and then be met with along the coast. Towards autumn large flocks appear, but they do not remain long. Specimens may be picked up occasionally, during winter, almost pure white, except the bill, legs, and feet, which retain their usual colour. This species appears to differ considerably in size, the legs and bills included,—the larger birds often having the shortest bills.

TRINGA MARITIMA [Purple Sandpiper].

A rock-loving species whilst with us, never leaving the rocks unless from necessity. They are gregarious, and huddle so closely together that I have known as many as twenty-three killed at one shot. I have killed them occasionally during summer, their colour being then of a rufous or rusty character, or more like that of the dunlin, the purple gloss and dark gray plumage of winter having all but disappeared.

GALLINULA CREX [Landrail].

"Corn craig" or "crake." Very sparingly distributed here. It arrives generally at the beginning of May, and departs usually in September, but I have seen it as late as December. These birds often feign themselves dead, when hard pressed, rather than fly,—a fact that may seem incredible to those who have

paid no attention to such things. Is it possible that these birds remove their eggs on its coming to their knowledge that their nests have been discovered? I knew of a nest which contained seven eggs. I took one, and, wishing to get all that the hen would lay, left the remainder untouched; I also carefully obliterated all my foot-marks, to prevent others from suspecting anything if the nest was found. I went back three days afterwards, when, although there were no signs of human footprints, all the eggs were gone.

GALLINULA PUSILLA [Little Crake].

Only one of this British rarity has been procured here, so far as I know. It occurred at a place called Thornton, on the banks of the Isla.

GALLINULA CHLOROPUS [Moorhen].

The "waterhen." In consequence of our having but few lochs, and those very small, we have not many of this species. As skulkers, they almost rival the landrail.

RALLUS AQUATICUS [Water Rail].

Far more scarce than the last; in fact it is almost a rarity. Perhaps their skulking habits prevent their being oftener seen.

FULICA ATRA [Goot].

An occasional visitor. On the loch of Strathbeg (Aberdeenshire), where they are pretty numerous, they breed, and remain all the year round. In very wet summers the water of this loch rises at times considerably above the usual level; on such occasions I have seen the coot sailing nobly along with her nest beneath her.

PHALAROPUS PLATYRHYNCHUS [Gray Phalarope].

Three specimens were procured on the sands of Sandend.

PHALAROPUS HYPERBOREUS [Rednecked Phalarope].

One specimen, a male, was shot on the beach here, in the spring of 1855.

ANSER.

Of the genus Anser we are remarkably scanty. Several kinds of geese have from time to time been procured, and not an autumn or spring passes without many large flocks being seen passing and repassing, but to what species they belong it is difficult to say. That the Graylag (ANSER FERUS), the Brent (A. BERNICLA), the Egyptian (A. ÆGYPTIACUS), and the Spurvinged (A. GAMBENSIS), have been met with, is beyond doubt; but that these are all that have visited us, it is hard to say. The Brent is very numerous in certain seasons along the coast.

Cyc

The genus Cygnus is still more scantily represented. Some of them visit us in passing to and from their breeding grounds.

ANAS TADORNA [Common Shieldrake].

This pretty bird is only a winter visitor with us, and then not in large numbers.

ANAS CLYPEATA [Shoveller].

This pretty bird is quite a rarity here. In the latter part of the winter of 1837-8, which was of great severity, a mutilated specimen of the shoveller was found dead amongst the rocks at Blackpots.

ANAS STREPERA [Gadwall].

Another great rarity, so far as I am aware; one, a female, procured in the Deveron by Dr. Leslie, about the time the shoveller above alluded to was picked up, is the only one I know of.

ANAS ACUTA [Pintail Duck].

I remember being roused rather early one morning, many years ago, by a loud knocking at the street door, and a person calling at the top of his voice, "Rise, man, Tam! I've brought a rare bird t' ye—a Duke." Being awake, I immediately jumped up. On seeing the bird, I was delighted to observe a beautiful male pintail. It had been shot that night on the Deveron.

ANAS BOSCHAS [Wild Duck].

Plentiful, especially in winter. Among the sandy bents almost close to the ocean's verge, and on the tops of our heath-clad hills and moors, I have found this species breeding; as well as on a tree about thirteen feet from the ground, and on a rock in the craigs of Alvah. This latter nest was placed on a ledge fully thirty feet above the water, and had eight or nine feet of perpendicular rock above it. There is a hill near here, which I believe they used frequently to nestle on, but which they have now quite deserted-viz. Fern or Whin Hill, better known as Gallow Hill. It was on this hill,—or rather piece of ground, for it hardly deserves the name of hill, -that the celebrated freebooter M'Pherson finished his earthly career. It is a rough and stony place where he lies, covered with heath and whin. The pheasant and wild duck used not unfrequently to breed on his very grave. On a small island on the Deveron stood a tall old poplar. About five feet from the ground it divided into two arms, one stretching upwards, whilst the other bent over the river, and it is with this one that I am now concerned. In 1839 the Deveron, like the other rivers in Scotland, rose far above its usual height, so far indeed that it reached the arm of the tree alluded to, on which it deposited a good deal of rubbish. A female wild duck built her nest, a few years afterwards, amongst the debris thus left, and succeeded in rearing a brood of thirteen young ones. Neither nest nor bird, though known of by some salmon-fishers who had a station close by, was disturbed. One morning the female was observed by these men to leave her nest and fly up and down the water in an unusual manner. Presently she was joined by the male, and both disappeared beneath a bank a little above where the nest was. The fishermen, who had watched them, observed the female reappear alone, and, after flying up and down once or twice, again settled down on the water, just below the tree

which contained the nest. After sailing about for a few minutes, she was heard to give a "quack," when down went something into the water, and presently a young one was seen by her side. Away she swam with it to the bank referred to, consigning it to the charge of the male; after which she returned, and, having again sailed about for a short time, gave another "quack," when down came another youngster, which she also led away to the bank. In this way she continued until all were safely removed. The female never gave more than one "quack," and she never carried more than one young one at a time: nor did she return after taking away the thirteenth.

ANAS QUERQUEDULA [Garganey].

Two specimens of this species were shot in December 1840; and one is said to have been obtained at Cullen, in the spring of

ANAS CRECCA [Teal]. Occasionally met with in winter.

ANAS PENELOPE [Wigeon].

One of our rarest duck visitors. A splendid male specimen was killed at Boyndie in September 1853.

ANAS AMERICANA [American Wigeon].

A mutilated male specimen of this rare duck, shot on the Burn of Boyndie, in January 1841, was for many years in my posses-

ANAS MARILA [Scaup Duck]. Pretty frequent during winter.

ANAS FULIGULA [Tufted Duck]. Very rare.

ANAS CLANGULA [Goldeneye].

A regular winter visitor, generally coast-wise, but they are also met with on mill-dams some miles inland.

ANAS GLACIALIS [Longtailed Duck].

Abundant, but always keeping near the coast. I have shot them when in their full breeding dress, which gives them quite a different appearance. In spring they are very clamorous, pursuing each other through the water, and diving and skipping about like Merry Andrews. The noise they make on such occasions is so loud that I have heard it, on a still morning, nearly three miles off. They are generally among the first birds to arrive and the last to leave.

MERGUS CUCULLATUS [Hooded Merganser].

I was told by an old gunner and bird-stuffer that he had shot a specimen of this species, but I cannot vouch for his accuracy.

Mergus serrator [Redbreasted Merganser].

Not very plentiful. All along the coast, in suitable localities, they are met with, singly, and two or three together, rarely more.

MERGUS MERGANSER [Goosander].

A winter visitor. The male is a very showy gentleman. As

many as seven or eight specimens were procured at one shot, on the Deveron. I have seen as many as five or six together.

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PODICEPS CRISTATUS [Great Crested Grebe]. An occasional visitor.

PODICEPS RUBRICOLLIS [Rednecked Grebe].

Of more frequent occurrence, but generally in immature plumage.

PODICEPS AURITUS [Eared Grebe]. Less frequent than the last.

PODICEPS MINOR [Little Grebe].

A winter seldom passes without an opportunity occurring to obtain this species. It is one of the most expert divers we have.

COLYMBUS GLACIALIS [Great Northern Diver].

Some seasons pretty plentiful. Splendid specimens are at times procured, but they are generally immature.

COLYMBUS ARCTICUS [Blackthroated Diver], and

COLYMBUS SEPTENTRIONALIS [Redthroated Diver].

Winter visitors, in about equal numbers. A few of them gradually fall victims every spring to getting entangled in the bag-nets set for salmon. They not unfrequently visit our larger streams, where they make great havoc among the smaller of the finny tribe.

URIA BRUNNICHII [Brunnich's Guillemot] has been once met with.

URIA TROILE [Common Guillemot],

URIA LACHRYMANS [Ringed Guillemot],

URIA GRYLLE [Black Guillemot].

MORMON FRATERCULA [Puffin], and

ALCA TORDA [Razorbill].

All these species breed with us, but the black guillemot only rarely. I have procured several ringed guillemots both in winter and summer; I have also been shown places in the cliffs where the fishermen say they breed.

ALCA ALLE [Little Auk].

A winter visitor. In December 1846 a terrific sea-storm raged here for the greater part of the month; at its termination I counted between the Burn of Boyne and Greenside of Gamrie, a distance of about nine miles, nearly sixty of these little birds lying dead, besides a number of guillemots and razorbills. Great numbers were also found dead in the fields throughout the county.

CARBO CORMORANUS [Cormorant].

Frequent, except for a short time during summer. A pair or two may breed with us, but that is all. Like the divers, they destroy great numbers of fish.

CARBO CRISTATUS [Shag].

Only, I believe, an occasional visitor.

SULA BASSANA [Gannet].

A spring and autumn visitor, and occasionally during summer and winter. When overtaken, as they sometimes are, by strong north winds, I have known them driven to great distances inland, where they are frequently seen lying dead. Immature specimens are now and then procured during their autumnal passage. From their different plumage they are looked upon as distinct from the "solan goose," as the gannet is here called.

STERNA CANTIACA [Sandwich Tern].

An occasional visitor, generally in summer.

STERNA DOUGALLII [Roseate Tern].

Two specimens have been obtained between Banff and Cullen.

STERNA HIRUNDO [Common Tern].

STERNA ARCTICA [Arctic Tern].

Annual visitors, generally in autumn. During some seasons they come in immense numbers. Although they do not breed with us, they do so on part of the sandy shores of the adjoining counties of Aberdeen and Morsy.

STERNA MINUTA [Lesser Tern].

This pretty little lady-like bird does not breed with us, but does so in the places mentioned for the two preceding. It is only an occasional visitor.

STERNA NIGRA [Black Tern].

I know of only one instance of its having been found here.

LARUS SABINI [Sabine's Gull].

I had an exciting chase after a specimen, but failed in capturing it; it was the only one I have seen or heard of here.

LARUS MINUTUS [Little Gull].

I believe only two specimens have been met with.

LARUS CAPISTRATUS [Masked Gull].

I am informed that two of these birds were killed about thirty years ago.

LARUS RIDIBUNDUS [Blackheaded Gull].

Like the common and arctic terns, this species, although it has no breeding-grounds with us, breeds on either side in great numbers, and is a frequent visitor here, chiefly in spring and autumn.

LARUS TRIDACTYLUS [Kittiwake].

Breeds with us, but not in such numbers as formerly.

LARUS EBURNEUS [Ivory Gull].

Several specimens have been shot near Gamrie. It is a polar bird, almost pure white.

LARUS CANUS [Common Gull].

Abundant during winter and spring. The gull may be met with all the year round, though I believe it does not breed with us.

LARUS LEUCOPTERUS [Iceland Gull].

Sometimes, during winter, a specimen of this northern bird may be obtained, but mostly in an immature state of plumage.

LARUS FUSCUS [Lesser Blackbacked Gull].

Met with now and then, but not in great plenty. It does not nestle here.

LARUS ARGENTATUS [Herring Gull].

Breeds at Gamrie Head and at Troup. Numbers are taken when young by the fishermen and their children, and brought up quite tame, walking about the villages like poultry.

LARUS MARINUS [Great Blackbacked Gull].

Like his lesser brethren, this gentleman is but a visitor here, and generally goes before he gets his black coat.

LARUS GLAUCUS [Glaucous Gull].

A female, in an immature state of plumage, was killed in Gamrie.

LESTRIS CATARRACTES [Common Skua], and

LARUS RICHARDSONI [Richardson's Skua].

Both are to be met with as visitors, the latter the rarer of the two.

PROCELLARIA GLACIALIS [Fulmar Petrel].

An occasional winter visitor. I had a specimen sent me from Gamrie, which approached a boat so closely that one of the fishermen knocked it down with an oar; this was several miles out at sea.

PUFFINUS MAJOR [Great Shearwater], and

PUFFINUS OBSCURUS [Dusky Shearwater]. Only winter visitors.

THALASSIDROMA PELAGICA [Stormy Petrel].

A visitor, like the rest of its kindred, but more frequent, and may be met with at intervals all the year round. The superstitious dread of this little bird by sailors and fishermen is well known.

With the stormy petrel ends my List of the Birds of Banffshire. Many species given as "rare" may turn out to be of frequent occurrence, and many given as "occasional visitors" may prove to be natives. Species, too, not mentioned in this List may have to be included in the birds of the county; and no one will be more pleased to hear of such additions than myself.

FISHES.

LABRAX LUPUS [The Basse or Sea Perch].

This is a rare species with us, only three having come under my notice. One of these, a beautiful specimen, was found dead in our river, the Deveron, not far from its mouth, in 1839.

ACERINA VULGARIS [The Ruffe or Pope].

One is said to have been obtained off Troup Head about forty-two years ago.

TRACHINUS DRACO [The Great Weever].

Occasionally found. The fish is said to be possessed of very poisonous qualities, insomuch that a prick or even a mere scratch from either of the rays (which are hard and spinous) of the first dorsal or back fin, causes the severest pain imaginable. On the continent, where they are more numerous than they are here, and where they are used as an article of food, there is a very stringent law which forbids them being brought to market, or even exposed for sale in any shape whatever, unless these spines are all cut off; and in order to enforce obedience, parties found transgressing the law are severely punished.

TRACHINUS VIPERA [The Little Weever].

Specimens of the little weever are not unfrequently met with; which would seem to indicate that they are more numerous in the Firth than the preceding.

MULLUS BARBATUS [The Red Surmullet].

This and the striped red mullet (M. SURMULETUS) have both been obtained, the latter being the most frequent.

TRIGLA CUCULUS [The Red Gurnard] is pretty frequent; as is also

TRIGLA HIRUNDO [The Sapphirine Gurnard].

Some splendid specimens of this latter fish are annually brought on shore by our fishermen towards the end of autumn.

TRIGLA GURNARDUS [The Gray Gurnard].

This is our commonest gurnard; and, judging from the numbers taken, must be very numerous. They are known here by the term of 'Crunack.' They are not much esteemed as an article of food, even among the peasants; and they are, in consequence, seldom brought to market.

TRIGLA PÆCILOPTERA [The Little Gurnard].

Somewhat rare. I remember once taking one from the stomach of a great northern diver, which was shot between Findochtie and Speymouth, in the spring of 1840, and which was sent me for the purpose of being preserved.

COTTUS SCORPIUS [The Short-spined Cottus].
Pretty frequent.

COTTUS BUBALIS [The Long-spined Cottus].

Rather plentiful. I find them in abundance, in pools left by the tide, or beneath stones at low water. Many of them exhibit some most beautiful markings.

COTTUS QUADRICORNIS [The Four-horned Cottus].

I have never found this species but in the stomachs of other fish; which leads me to conclude that they generally inhabit deep water; or, at least, that they do not come so near the shore as the preceding species.

ASPIDOPHORUS EUROPEUS [The Armed Bullhead].

This is another stomach species. But I have found these, also, though very sparingly, amongst the rocks at low tide.

GASTEROSTEUS TRACHURUS [The Rough-tailed, Three-spined Stickle-back] and

GASTEROSTEUS LEIURUS [The Smooth-tailed Stickleback] are both plentiful. The former along the coast, and the latter in our streams and rivulets.

SPINACHIA VULGARIS [The Fifteen-spined Stickleback].

Common amongst the pools along the shore. I have seen this species with sixteen and seventeen spines. They are known amongst our fishermen by the very peculiar denomination of "Willie-wan-beard."

CHRYSOPHRYS AURATA [The Gilt-head].

I have only seen two specimens of this fish which have been procured with us. The one was taken off Buckie in 1841; and the other was brought on shore at Portsoy, in 1839. They appear to be scarce, from the fact that the fishermen do not know them.

PAGELLUS CENTRODONTUS [The Sea Bream].

This is a more common species,—numbers appearing annually. In some seasons they appear in greater abundance than in others. They are sold here under the name of "Perch."

Brama Raii [Ray's Bream]. Rare.

CANTHARUS GRISEUS [The Black Bream].

A few of these are generally procured every autumn, or about the beginning of winter. They are known and sold here under the term of "Old Wife."

DENTEX VULGARIS [The Four-toothed Sparus].

Although this species, like many more, bears the name "vulgaris," or common, it is not so with us. I am only aware of one specimen, which was taken off Troup Head.

Scomber scombrus [The Mackerel].

This beautiful and highly prized fish generally appears on our part of the coast about autumn,—in some seasons, in great plenty,—in others, not so numerous.

SCOMBER COLIAS? (The Spanish Mackerel?)

As will be seen, I have placed this species here as doubtful. A mackerel differing in many respects from the one noted above, and which agrees very well with Scomber colius, was taken off Portknockie, but by the time I had the pleasure of seeing it, it was a good deal disfigured. Still, as I have already said, it exhibited many of the markings and other characteristics of the Spanish Mackerel.

THYNNUS VULGARIS (The Tunny).

Several specimens of this fish have, from time to time, been taken with us. A very large one was captured in a salmon-net at Portsoy. It measured over nine feet in length, and six feet in girth.

XIPHIAS GLADIUS [The Sword Fish].

A small specimen of this fish—rare on this part of the coast—was caught in our harbour by a shrimper.

NAUCRATES DUCTOR [The Pilot Fish].

A very fine specimen of this rare and rather peculiar fish was taken in our bay some years ago, and was exhibited as a curiosity. It was unknown in the place, and also to the person who took it; but an old tar chancing to see it, who had seen some service abroad, having hitched up his trousers, and rid his mouth of a yard or two of tobacco juice, exclaimed, with something of a knowing air—"Well, I'll be blowed if that aint a Pilot; and a pretty one it is, too. We used to see them often, when sailing in the Mediterranean."

CARANX TRACHURUS [The Scad or Horse Mackerel], or, as it is termed here, the "Buck Mackerel," is not very numerous, and is very seldom used as an article of food. Its appearance here, is usually about the time of herring-fishing. I once found a rather strange variety of this species. It was about the usual size; but it was all over of a most beautiful golden yellow, finely striped and variegated with numerous lines of the brightest blue, except the fins, which were of the finest carmine.

LAMPRIS GUTTATUS [The Opah or King Fish] has occurred on several occasions; as off Troup Head, at Black Pots, on the shore near Portsoy, and at Buckie.

MUGIL CAPITA [The Gray Mullet].

I am only aware of two specimens of this Mullet which have been procured within our limits; the one at Gardenstown, the other at Cullen.

BLENNIUS MONTAGUI [Montagu's Blenny].

One specimen taken from the stomach of a haddock.

BLENNIUS GATTORUGINE [The Gattoruginous Blenny].

I have met with this species only on two occasions.

BLENNIUS YARRELLII [Yarrell's Blenny].

Rarely met with. I have a splendid specimen in my collection, which was found cast on shore between Gardenstown and Crovie.

BLENNIUS PHOLIS [The Shanny or Smooth Blenny],

GUNNELLUS VULGARIS [The Spotted Gunnel], and

ZOARCES VIVIPARUS [The Viviparous or Green Blenny].

Are all to be met with amongst the low-lying rocks along our line of shore.

ANARRHICUS LUPUS [The Wolf Fish].

Frequent, but seldom used as food. I find them pretty often cast on shore dead, after a storm; which would seem to indicate that their habitat is not always in deep water.

GOBIUS NIGER [The Black Goby].

These inhabiting the rocky parts of the coast, become, at times, the prey of the haddock, etc. Though they do not seem to be numerous in this arm of the sea, I meet with them occasionally in the stomachs of fishes.

GOBIUS MINUTUS [The Freckled or Spotted Goby].
This is another stomach species; as also the

GOBIUS RUTHERSPARRI [The Double Spotted Goby], which appears to be the rarest of the three,

CALLIONYMUS LYRA [The Gemmeous Dragonet].

This splendidly coloured fish is frequently met with; and the socalled

CALLIONYMUS DRACUNCULUS [Sordid Dragonet] is found in about equal number; for it is a general maxim, that where the husband is, there also should the wife be. Ichthyologists cling to the idea that these fish are distinct species. Out of about one hundred specimens which I have dissected, I have never yet found anything like roe or ova in those having the long rays on the first dorsal, and which are known as the Gemmeous; and in like manner I have never yet met with anything at all pertaining to a milt in those having the short rays, and which are known as the Sordid Dragonet. My conclusion is that they are only male and female of the same species.

LOPHIUS PISCATORIUS [The Angler or Fishing Frog, or, as it is called here, the Sea Devil] is frequently met with, but is not used as an article of food.

LABRUS BERGYLTA [The Ballan Wrasse].
Pretty frequent during summer.

LABRUS MIXTUS [The Blue Striped Wrasse].

Rare. A very pretty specimen was taken off Macduff.

CRENILABRUS MELOPS [The Gilthead]. Rare.

CRENILABRUS RUPESTRIS [Jago's Goldsinny].

I have only seen one of this species in the neighbourhood. A beautiful specimen which I found one winter's day, was cast on shore at the links.

ACANTHOLABRUS EXOLETUS [The Small-mouthed Wrasse].

Like the last, only one specimen of this fish has, as yet, come under my notice, and that one was captured off Troup Head.

CYPRINUS AURATUS [The Gold and Silver Carps, as they are termed], have been introduced, and have thriven pretty well, as at Macduff, where they have propagated to an amazing degree.

LEUCISCUS PHOXINUS [The Minnow].

This pretty active little fish is to be found in most of our streams. It is curious to see it stated in works on Ichthyology that this species is not to be met with north of the Dee, Aberdeenshire.

BELONE VULGARIS [The Gar Fish, or, as it is called here, "The Greenbeen,"] is by no means scarce, at certain seasons.

SCOMBERESON SAURUS [The Saury Pike].

Not so often met with as the last. In fact, it must be termed rare.

SALMO SALAR [The Salmon].

This valuable and highly-prized fish is found both along our coast and in our fresh waters. At one time, they were very numerous in the Deveron. From a pot or hole which once existed a little below the bridge which spans the river, at a little distance from the sea, and not far from the town, as many as one hundred, and sometimes more, have been taken at a haul. This was before stake and bag nets were so thickly planted along our sea-shore as they are now.

Salmo eriox [The Bull or Gray Trout]. Some large individuals of this species are often taken.

SALMO TRUTTA [The Salmon Trout].

These were at one time believed to be the young of the Salmon; and the tacksman gave orders that they should not be taken. Previously, they had been fished for with small-meshed nets, and sold as Trout, under the name of "Finnock." Time passed and the river beheld another tacksman, who, differing from his predecessor, gave orders that they should be again taken. Accordingly, they are now annually fished for, and are once more sold as "Sea Trout," "White Trout," and "Finnock."

SALMO FARIO [The Common Trout].

In all our streams. These also are taken, and sold with the last mentioned.

OSMERUS EPERLANUS [The Smelt]. Rare with us.

CLUPEA HARENGUS [The Herring].

This species abounds along this coast, towards the middle of summer, and the beginning of autumn. The fry of this fish is met with nearly all the year round.

CLUPEA LEACHII [Leach's Herring].

A rather smaller-sized herring than the common species. It is generally met with in small shoals in May and June.

CLUPEA SPRATTUS [The Sprat or Garnel Herring].

This is also met with about the same time, but in smaller numbers.

Alosa finta [The Twaite Shad].

Rare. A very fine specimen was taken in our river last summer, about a mile from the sea.

ALOSA COMMUNIS [The Alice Shad].

The same may be said of this species,—it is rare. They are termed, "rock herring."

MORRHUA VULGARIS [The Cod].

It is to the stomach of this species that I am most indebted for many of the rarer of the testaceous and crustaceous specimens which I possess. (For the cod's bill of fare see p. 284.) The cod is extensively fished for along this part of the coast, and may be termed the poor man's salmon. Great numbers are salted and dried, and in that state sent to the southern markets. I have occasionally met with a cod of a red colour, in all save the fins, which are generally of a yellowish tinge, and never larger than a common sized haddock. They are known here by the name of "rock codlings."

MORRHUA ŒGLEFINUS [The Haddock].

Like the cod, it is extensively taken, and largely cured and forwarded south. Our Buckie haddocks are well known for their excellence, and are far famed for their superior qualities. Like the cod, the stomach of this species is also a rich mine for the Naturalist.

MORRHUA LUSCA [The Bib or Whiting Pout].

Frequent; but not often brought to market, although they are most excellent eating. The fishermen generally cut them up and use them as bait.

MORRHUA MINUTA [The Power Cod].

Not known as an inhabitant of the Firth until recently. They are excellent eating. It is a great pity that they are so small and scarce.

MERLANGUS VULGARIS [The Whiting].

Often taken, but not so much admired as the Haddock.

MORRHUA POLLACHIUS [The Pollack or Sythe]. Frequent.

MORRHUA CARBONARIUS [The Coal-fish].

Like the last; when young, great numbers of them are occasionally taken in our harbours, in small-meshed nets. They are termed "Gerrocks."

MERLUCIUS VULGARIS [The Hake]. Found occasionally.

LOTA MOLVA [The Ling].

Fished for with the cod, and cured in the same manner. When salted and dried they are called "Kealing."

MOTELLA QUINQUECIRRATA [The Five-bearded Rockling].
Frequent among the pools left among the rocks by the tide.

MOTELLA CIMBRIA [The Four-bearded Rockling].

Rare. I have not met with it often.

Brosmius vulgaris [The Torsk or Tusk].

Taken with the cod and ling, and cured in the same fashion.

PHYCIS FURCATUS [The Great Forked Beard].

This fish is of rare occurrence with us, and that only at long intervals.

PLATESSA VULGARIS [The Plaice].

Plentiful, and highly prized by many for its very delicate flesh and agreeable flavour.

PLATESSA FLESUS [The Flounder], or as it is called here, the Common Fluke, and the

PLATESSA LIMANDA [The Saltwater Fluke] are also pretty frequent.
In the stomachs of these fish I occasionally find, among other matters, Tellina fabula, T. tenuis, T. punicea (a most beautiful little shell), Natica Montagui, N. Alderi, Philine scabra, Cylichna truncata, C. cylindracea, etc.

PLATESSA MICROCEPHALA [The Smooth Dab] and

PLATESSA POLA [The Pole Dab] are not so often met with.

PLATESSA LIMANDOIDES [The Yellow or Rough Dab], and the

PLATESSA ELONGATA [Long Flounder] are of rare occurrence.

HIPPOGLOSSUS VULGARIS [The Halibut] and

RHOMBUS MAXIMUS [The Turbot] are both met with, inhabiting deep water. They are seldom taken near the shore. The former is the more plentiful. The latter is known here as the Roan Fluke, and always commands a ready sale and a high price. The other is called the Turbot; and though it sells well, it is not so valuable as the true turbot, nor yet so eagerly sought after by the higher classes.

RHOMBUS VULGARIS [The Brill or Pearl Turbot].

This species is occasionally taken along with the two preceding, but must rank as rare with us.

RHOMBUS HIRTUS [Muller's Topknot] occurs at intervals along our whole line of coast.

Sole vulgaris [The Sole] is not so common with us as its name would seem to indicate.

Solea Pegusa [The Lemon Sole]. Rare.

MONOCHIRUS LINGUATULUS [The Solenette] is of more frequent occurrence. I have found it in the stomach of the cod and haddock.

LEPIDOGASTER CORNUBIENSIS [The Cornish Sucker].

I remember finding a small fish, on one occasion, where our fishermen clean their lines, and which resembled the above in almost every particular. It is the only specimen that has come under my notice.

LEPIDOGASTER HIMACULATUS [The Two-spotted Sucker].

Brought on shore, now and then, amongst the refuse entangled in the fishermen's lines, and occasionally in old shells, such as Fusis antiquus, Buccinum undatum, and Cyprina Islandica, etc.

CYCLOPTERUS LUMPUS [The Lump Sucker].

Frequent. Known here, by the name of "Paddle Cock." Not used as an article of food.

LIPARIS VULGARIS [The Unctuous Sucker]. Of partial occurrence.

LIPARIUS MONTAGUI [Montagu's Sucker].

I have only once met with this beautiful little fish here, and that but lately. It was brought on shore in an old shell. I should think it rare in the Firth.

ANGUILLA ACUTIROSTRIS [The Sharp-nosed Eel] and

Anguilla latirostris [The Broad-nosed Eel] are both found. The former is the most numerous, and brings the highest price.

CONGER VULGARIS [The Conger or Great Eel].

This large species is often met with, but is not used as food.

AMMODYTES TOBIANUS [The Sand Eel], and

AMMODYTES LANCEA [The Sand Lance].

The latter the most numerous. Both these are used by our fishermen for bait.

SYNGNATHUS ACUS [The Great Pipe Fish] and

SYNGNATHUS TYPHLE [The Lesser Pipe-fish] are both met with, and are accounted by the fishermen to be superior to any other bait.

SYNGNATHUS LUMBRICIFORMIS [The Worm Pipe-fish] is met with; and is not so rare as one might expect.

HIPPOCAMPUS BREVIROSTRIS.

This rare and peculiar horse-headed looking creature has been met with here. Two were found cast on shore at the sands of Boyndie, near Banff, after a severe sea storm.

ORTHAGORISCUS MOLA [The Short Sun-fish] and

ORTHAGORISCUS OBLONGUS [The Oblong Sun-fish] have been occasionally met with. Several have been brought on shore by the fishermen of Gardenstown, Crovie, and other places.

ACIPENSER STURIO [The Sturgeon].

Rare. One has been taken in a salmon net.

Scyllium canicula [The Small Spotted Dog-fish.]
Found occasionally.

GALEUS VULGARIS [The Tope].

I am only aware of two instances in which this fish has been found within our limits: the one near Buckie, the other in the bay of Banff.

ACANTHIAS VULGARIS [The Picked Dog-fish].

Plentiful; often too much so.

SCYMNUS BOREALIS [The Greenland Shark].

In May 1849 a large specimen of the above shark was captured by some fishermen belonging to Pennan, off Troup Head. When brought on shore, it measured thirteen feet nine inches in length, and eleven feet in circumference where thickest.

ECHINORHINUS SPINOSUS [The Spinous Shark]. (See pp. 228, 231.)

SQUATINA VULGARIS [The Angel Fish], or as it is here called (like the Angler), "the Sea-devil," is sometimes procured. A large specimen was cast into our harbour during the winter of 1851.

Torpedo vulgabis [The Cramp-fish or Electric Ray].

A specimen of this fish is said to have been taken about six miles off Loggie Head, near Cullen, in 1817. Others are stated as having been caught.

RAIA OXYRHYNCHUS [The Sharp-nosed Skate].

Large individuals of this species are sometimes taken, with the more frequent of our Rays. One measuring upwards of seven feet in length, and over five in breadth, was captured by our fishermen some years ago.

RAIA INTERMEDIA [The Flapper Skate].

A small skate, agreeing in many essential points with the flapper, was taken, in a bag-net set for salmon, some years ago, said to be a young one of the above species, and as such I include it here.

RAIA BATIS [The Blue or Gray Skate] and

RAIA CLAVATA [The Thornback].

Taken, occasionally, in great numbers; the former being the most numerous and the most prized.

RAIA RADIATA [The Starry Ray].

This small species is picked up now and then.

Petromyzon Marinus [The Lamprey], or, as it is called here, the Lamper Eel, is often met with.

PETROMYZON FLUVIATILIS [The River Lamprey].

Considered rare. A very fine specimen was taken in the Deveron, some years since.

Petromyzon Planeris [Planer's Lamprey or Lampern] has also occurred. These fish are generally termed "Nine-ee'd Eels," and are by no means held in high estimation.

GASTROBRANCHUS CECUS [The Myxine or Glutinous Hag].

This very curious and singular animal, whether you call it a fish or a worm, is of frequent occurrence.

ADDITIONS.

Perca fluviatilis [Perch].

Several of these fishes have been taken in the Deveron.

TRIGLA BLOCHII [Bloch's Gurnard] in the Moray Firth, at Banff.

An example of this gurnard (or, as we call them, "crunacks")
was captured here in a rock-pool. (See p. 281.) I am not
aware of the species ever having been detected on this part of
the coast before.

SEBASTES NORVEGICUS [Norway Haddock].

One taken off Buckie in 1859 is the only instance of this fish having been taken on our coasts.

THYNNUS PELAMYS [Stripped Tunny].

A fine specimen of this tunny is in our Museum, taken off Whitehills in 1867.

AUXIS VULGARIS [The Plain Bonito].

Several of these have now come under my notice. One taken in a herring-net off Cullen measured over 20 inches in length and 12 in circumference behind the first dorsal. One very peculiar feature connected with it was, that if stroked down when wet it gave the hand all the appearance of having come across a piece of metal newly black-leaded. I am not aware of this peculiarity being mentioned in Yarrell or elsewhere.

ZEUS FABER [The Dory].

I have now ascertained that many of these fish have been taken here, chiefly in salmon-nets. It would seem that the dory is by no means an uncommon summer visitor on this part of the coast.

CAPROS APER [Boar-fish].

At least one example of this curious-looking fish is now known to have found its way to our shores. It was taken in a bag-net near Crovie in August 1862, and was sent here to be stuffed and named.

TRICHIURUS LEPTURUS [Silvery Hair-tail or Bald Fish].

A very fine specimen of this fish, which is rare in the British seas, and especially on the east coast of Scotland, was found in the Firth here in April 1876. Although the head and tail were a good deal injured, it measured over 12 feet in length.

GOBIUS GRACILIS [Slender Goby]. Frequent.

GOBIUS ALBUS [White Goby].

Frequent also. Numbers of these little fish are to be met with in our rock and sandy pools, whilst others are only to be found at extreme low water.

Gobius Nilssonii [Nilsson's Goby]. (See pp. 375-6.)

LABRUS DONOVANI [Donovan's Wrasse].

A specimen of this wrasse was captured in the bay of Boyndie in August 1863. The fishermen said that there were more, but they only managed to hook the one, and looked upon it as a curious species of mackerel. It was mostly of a beautiful pea-green colour, but striped with numerous yellowish lines.

LABRUS MICROSCOPICUS [Microscopical Wrasse].

It was during the summer of 1861 that I first observed this minute species. It was not, however, until 1864 that I had an opportunity of submitting a specimen for examination to some of our best ichthyologists, amongst whom was Mr. Couch. (See p. 334.)

TINCA VULGARIS [Common Tench].

One specimen taken in our bay in 1864 is the only example I have seen. It is now in our Museum.

SCOPELUS HUMBOLDTII [Argentine].

This beautiful little creature would seem to be a regular winter visitor with us. I took it first in January 1863; and, since then, I have never inissed it during that month. It is of various sizes. I have taken Argentines from under one inch to about three inches in length. I have never seen them in summer.

COUCHIA GLAUCA [The Mackerel Midge].

Of all the little fish that I have yet found, this one resembles the Five-bearded Rockling, more than any of the Midges do the other Rocklings.

COUCHIA THOMSONI [Thomson's Midge].

I first took a few of this species in May 1863. They were new to me, and as I could not find them in Yarrell, nor in other works of the same kind which I had an opportunity of consulting, I thought they might prove an undescribed form. Since that time, however, I have seen Mr. Thomson's work, and have now no doubt but that my fish are identical with those taken by that gentleman in Strangford Lough, County Down, in July 1838, and named as above. (See p. 337.)

COUCHIA MONTAGUI [Montagu's Midge].

I first obtained this species in October 1864. (See p. 341.)

COUCHIA EDWARDII (Edward's Midge).

First taken at Banff, November 1865. (See p. 344.)

RANICEPS TRIFURCATUS [Tadpole-fish].

Several of these are now known to have been found in this part of the Firth.

RHOMBUS MEGASTOMA [The Whiff].

This species seems to be rather rare with us. I have a very fine specimen which I found at the place where our fishermen clean their lines.

RHOMBUS ARNOGLOSSUS [The Scaldfish or Smooth Sole].

This would appear to be another very scarce species with us. I have never met with it but in fish stomachs, and very seldom there. It is about the smallest of British flat-fish.

Monochirus Variegatus [Variegated Sole].

This species would appear to be met with occasionally. Two pretty large ones were exposed for sale in our market in September 1860.

ECHIODON DRUMMONDII [Drummond's Echiodon].

In March 1863 I took the first specimen of this strange-looking fish that I had ever seen. Since then, however, I have met with it several times, and always in winter,—save once, when I obtained

it in summer. They were unknown in the Firth before. Specimens from here are now in the British Museum, London.

ACESTRA ÆQUOREA [Equorial Pipe-fish]. This species and the

ACESTRA ANGUINEA [Snake Pipe-fish] are both occasionally found.

The latter, however, are seemingly the most frequent.

CHIMERA MONSTROSA [Northern Chimaera].

A specimen of this deep-sea and rather rare species was brought into our harbour in 1859 on board a herring-boat. It was found floating, and quite dead. The first dorsal was somewhat injured, and the cord-like portion of the tail was wanting. It was unknown to the fishermen who found it, and who, for want of a better name, called it the "devil."

SCYLLIUM MELANOSTOMUM [Black-mouthed Dog-fish].

I am led to believe that this species does occasionally occur with us. It is generally mixed up with the commoner sorts.

ZYGÆNA MALLEUS [Hammer-headed Shark].

A specimen of this strange-looking animal was found dead on the shore about two miles beyond Whitehills in 1861. It was a middling-sized specimen, measuring about five feet in length and about eighteen inches across the head. It had lain some time, for the skin was blackish, and had the appearance of charred or burnt leather.

LAMNA CORNUBICA [Porbeagle].

It is now well known that the Porbeagle finds his way here occasionally, and usually about the herring season. There is a very fine specimen in our Museum.

ALOPIAS VULPES [The Fox Shark].

So far as I have been able to learn, this shark appears to be very rarely met with here. It has, however, been found.

NOTIDANUS GRISEUS [Brown or Mediterranean Shark].

A large specimen of this shark was taken in the Firth here, and brought on shore at Whitehills in December 1857. After being exhibited in Banff by the fishermen, its captors, as an unknown monster, it was bought for the Banff Museum, where it now is. This shark is the first known to have been found in the British seas.

RAIA MIRALETUS [Homelyan Ray]. Occasionally met with.

RAIA SPINOSA [Sandy Ray].

This species is well enough known to the fishermen, but they do not often take it.

RAIA CHAGRINEA [Shagreen Ray]. This is also occasionally taken.

AMMOCATES BRANCHIALIS [Pride or Mud Lamprey].

We have, at least, one species of this peculiar genus as an inhabitant of the Deveron.

CRUSTACEA.

STENORHYNCHUS ROSTRATUS.

TENUIROSTRIS.

INACHUS DORSETENSIS.

LEPTOCHIRUS.

HYAS ARANEUS.

,, COARCTATUS.

EURYNOME ASPERA. From deep water.

CANCER PAGURUS [Parten].

PIRIMELA DENTICULATA. In rock pools, and from deep water.

CARCINUS MŒNAS. See p. 271.

PORTUMNUS LATIPES. Amongst sand at low tide.

POLYBIUS HENSLOWI.

PORTUNUS PUBER.

- HOLSATUS.
 - CORRUGATUS.
- ,, DEPURATOR. ,,
- MARMOREUS.
- LONGIPES.
- PUSILLUS. From stomachs of fish.

PINNOTHERES PISUM. Inside of Mediola mediolus.

VETERUM. Once from Gamrie; inside of Pinna pectinata.

EBALIA TUBEROSA.

CRANCHII. TUMEFACTA, or BRYERII.

ATELECYLUS HETERODON

DROMIA VULGARIS.

LITHODES MAIA.

PAGURUS BERNHARDUS. Common in rock pools when young.

- PRIDEAUXII. CUANENSIS. Both these are brought in from deep water.
- ,, LEVIS. Frequent in the stomachs of flukes.
- ,, FERRUGINEUS. This little fellow was only added to the list in 1866.

Porcellana longicornis. In rock pools.

GALATHEA SQUAMIFERA.

- STRIGOSA. ,,
- DISPERSA. ,,
- NEXA. ,,
- Andrewsii.

MUNIDA BAMFFICA. From deep water.

CALLIANASSA SUBTERRANEA.

GEBIA STELLATA.

,, DELTURA.

CALOCARIS MACANDREI.

HOMARUS VULGARIS.

NEPHROPS NORVEGICUS.

CRANGON VULGARIS.

- SPINOSUS. ,,
- SCULPTUS. ,,
- TRISPINOSUS.
 - ALLMANNI.

NIKA EDULIS.

ATHANAS NITESCENS.

HIPPOLYTE SPINOSUS.

- or Doryphorus Gordoni.
- VARIANS.
- CRANCHII. ,,
- THOMPSONI. ,,
- PANDALIFORMIS.

PANDALUS ANNULICORNIS.

Mysis flexuosa.

" LAMORNÆ

- VULGARIS.
- SPIRITUS. . ..
 - MIXTA. First taken as British at Banff, in 1863, by T. E.
- SPINIFERA. Burrows in sand. First taken at Banff by T. E. in 1862, and some years afterwards in Sweden, by M. Goes.
- HISPIDA. N.S. Taken at Banff by T. E. in December 1863.

CYNTHILIA FLEMINGII.

THYSANOPODA COUCHII.

- LONGIPES. ,,
 - Norvegicus.
 - ALATA,
 - ENSIFERA. N.S. Taken at Banff by T. E. in 1863.
 - BATEI. N.S. Do. do. 1862.

DIASTYLIS RATHKII.

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ECHINATA.

CUMA SCORPIOIDES.

- ,, COSTATA. Burrows in sand.
- LUCIFERA. New to Britain. Found at Banff by T. E. in July 1865.

HALIA TRISPINOSA.

VENILIA GRACILIS.

TALITRUS LOCUSTA.

ORCHESTIA LITTOREA.

- MEDITERRANEA.
- DESHAYESII. ,,
- BREVIDIGITATA. N.S. First taken at Banff by T. E.

ALLORCHESTES NILSSONII.

IMBRICATUS.

NICEA LUBBOCKIANA.

OPIS QUADRIMANA. N.S. First taken at Banff by T. E.

MONTAGUA MONOCULOIDES.

- MARINA. With eggs in December. ,,
- ALDERE. ••
- POLLEXIANA. Eyes red. With eggs, in November and December, of a greenish colour. A most beautiful variegated species.
- NORVEGICA. First taken at Banff as British by T. E.

LYSIANASSA COSTÆ.

- AUDOUINIANA. ••
- ATLANTICA. ٠.
- LONGICORNIS. With young in December.

Anonyx Longicornis. Of a straw colour, spotted with red. Eyes large, oblong; white with red markings.

ANONYX EDWARDSII. Eyes red, with black spots. With eggs in December.

Anonyx obesus. N.S. Eyes red, round, and small. First taken at Banff by T. E.

Anonyx denticulatus.

- HOLBOLLI. "
- MINUTUS. "
- PLAUTUS. N.S. First taken at Banff as British by T. E.
- LONGIPES.
 - AMPULLA. Eyes red.

CALLISOMA CRENATA. With eggs in November.

LEPIDEPECREUM CARINATUM. N.S. First taken at Banff by T. E.

AMPELISCA GAIMARDII. With eggs in December of a green colour.

BELLIANA. • •

PHOCUS SIMPLEX.

- HOLBOLLI. With eggs in December and March.
 PLUMOSUS. Two other new species of this genus have been taken at Banff by T. E., but are not yet named.

WESTWOODILIA CÆCULA.

HYALINA.

ŒDICEROS PARVIMANUS. With eggs, which are of a bright orange colour, in September, October, and November. A sand-burrower. ŒDICEROS SAGINATUS. With eggs, which are reddish, in January. First taken at Banff as British by T. E.

MONOCULODES LONGIMANUS. N.S. First taken at Banff by T. E.

,, CARINATUS.
STIMPSONI.

KROYERA ARENARIA. With eggs in August and September.

Amphilochus manudens.

DARWINIA COMPRESSA. N.S. First taken at Banff by T. E.

SULCATOR ARENARIUS.

UROTHOE BAIRDII. Eyes black; with eggs in December.

, MARINUS. With eggs in December.

.. ELEGANS. Burrows in sand.

LILJEBORGIA SHETLANDICA.

PHÆDRA ANTIQUA.

ISASA MONTAGUI.

IPHIMEDIA OBESA.

,, Eblana.

OTUS CARINATUS.

Pereionotus testudo.

ACANTHONOTUS OWENII.

DEXAMINE SPINOSA. With eggs, which are of a greenish colour, in April.

DEXAMINE BEDLOMENSIS. Colour a deep and brilliant orange, occasionally mixed with red and brown. The eyes, which are slightly raised, are round and of a bright crimson. The female, which is similar to the male, has eggs, which are of a pea green, in April and May, and again in October.

ATYLUS SWAMMERDAMII. With eggs, which are of a brownish colour, in September.

ATYLUS GIBBOSUS.

., BISPINOSUS.

PHERSUA BICUSPIS.

. FUCICOLA.

CALLIOPE LÆVIUSCULA.

,, Ossiani. N.S. First taken at Banff by T. E.

GRANDACULIS.

EUSIRUS HELVETIÆ. N.S. Taken at Banff by T. E., the first of the genus taken in Britain. A burrower, and very sluggish in its habits.

LEUCOTHOE ARTICULOSA.

, FURINA. First taken as British at Banff by T. E.

HORA GRACILIS.

STIMPSONIA CHELIFERA.

MICRODEUTOPUS GRYLLOTALPA.

- ,, Websterii.
- ,, ANOMALUS.
- versiculatus.

PROTOMEDEIA HIRSUTIMANA. N.S. First taken at Banff by T. E. WHITEI. N.S. First taken at Banff by T. E. With eggs, which are of a very dull green, in November.

BATHYPOREIA PILOSA. Eyes red.

- ROBERTSONI.
- ., PELAGICA. Eyes red.

MELITA PALMATA.

- " OBTUSATA.
- ", PROXIMA. With eggs, which are of a purplish colour, in December. Eyes brownish.
 - GLADIOSA.

EURYSTHEUS ERYTHROPHTHALMUS.

,, BISPINIMANUS. N.S. First taken at Banff by T. E.

AMATHILLA SABINI.

GAMMARUS MARINUS.

- .. GAMPYLOPS.
- ,, LOCUSTA.
- ,, TENUIMANUS.
- " Edwardsii.
 - PULEX.

MEGAMDERA SEMISERRATA.

- LONGIMANA.
- ,, Othonis.
- ,, Alderi.
- ., BREVICAUDATA.

EISCLADUS LONGICAUDATUS.

AMPHITHOE RUBRICATA.

LITTORINA.

SUNAMPHITHOE HAMULUS.

PODOCERUS PULCHELLUS.

- ,, VARIEGATUS.
- ,, CAPILLATUS.
- ., PELAGICUS. Eyes black.
- ,, ocius.
- ,, FALCATUS.

CERAPUS ABDITUS.

,, DIFFORMIS.

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DERCOTHOE (CERAPUS) PUNCTATUS. With eggs in June.

SIPHONDECETES TYPICUS.

CRASSICORNIS.

NÆNIA TUBERCULOSA. With eggs in December. The female has the palms of the two first pairs much narrower than the male.

NÆNIA RIMAPALMATA.

CRATIPPUS TENUIPES. N.S. First taken at Banff by T. E.

COROPHIUM LONGICORNE.

BONELLII.

VIBILIA BOREALIS. N.S. First taken at Banff by T. E.

THEMISTO CRASSICORNIS. First taken as British at Banff by T. E. Great hordes of this species occasionally visit this part of the coast, and large numbers are sometimes destroyed in consequence of coming too near the land.

LESTRIGONUS EXULANS. Occasionally in vast numbers. KINAHANI.

HYPERIA GALBA.

,,

OBLIVIA. In great shoals at certain seasons.

These are the only species of this family which I have ever found on the Medusæ. I consider Lestrigonus Exulans to be the male of Hyperia Galba, and L. Kinahani the male of H. oblivia.

HYPERIA TAURIFORMIS. N.S. PREHENSILIS. N.S.

CYANEÆ. N.S.

All these three new species were first taken at Banff by T. E.; the males and females of all three being procured. The males differ but little from the females, except that they are somewhat larger.

DULICHIA VORRECTA.

FALCATA.

I look upon these as being male and female of the same species.

PROTO PEDATA.

Goodsirii.

PROTELLA PHASMA.

CAPRELLA ACANTHIFERA.

LOBATA.

TYPICA.

TANAIS VITTATUS. On tangle roots.

PARATANAIS FORCIPATUS.

RIGIDUS. On tangle roots.

ANCEUS MAXILLARIS.

,, (PRANIZA) CÆRULEATA.

I consider these two to be male and female of the same species.

ANCEUS (PRANIZA) EDWARDII. N.S. First taken at Banff by T. E. There is another species of Anceus or Praniza found here which I take to be the male of A. or P. Edwardii. I find them associated, and they have precisely the same habits. (See p. 299.)

PHRYXUS ABDOMINALIS.

,, FUSTICAUDATUS. N.S. First found at Banff by T. E. on Pagurus Bernhardus and Cuanensis.

AEGA TRIDENS.

- ,, PSORA.
- .. MONOPHTHALMA.

CIROLANA CRANCHII.

., SPINIPES.

EURYDICE PULCHRA.

JERA ALBIFBONS.

MUNNA KROYERI.

JANIRA MACULOSA.

ASELLUS AQUATICUS.

LIMNORIA LIGNORUM.

ARCTURUS LONGICORNIS.

GRACILIS.

IDOTEA TRICUSPIDATA.

- ,, PELAGICA.
- . EMARGINATA.
- LINEARIS.

SPHÆROMA RUGICAUDA.

DYNAMENE RUBRA. '

NÆSA BIDENTATA.

CAMPECOPEA CRANCHII.

LIGIA OCEANICA.

PHILOSCIA MUSCORUM.

Couchii.

PHILOUGRIA RIPARIA.

,, ROSEA.

PLATYARTHRUS HOFFMANII.

ONISCUS ASELLUS.

" FOSSOR.

PORCELLIO SCABER.

- . PICTUS.
- ,, ARMADILLOIDES.
- ,, PRUINOSUS.

ARMADILLO VULGARIS.

ADDENDA.

CHEIROCRATUS MANTIS.

HELLERIA COALITA.

NEBALIA BIPES. From deep water. Burrows.

PHOXICHILIDIUM COCCINEUM. In rock pools.

NYMPHON GRACILE.

Sea-spiders.

PALLENE BREVIROSTRIS.

Pycnogonum littorale. In rock pools.

Anomalocera Patersonii.

CETOCHILUS SEPTENTRIONALIS.

Both these are occasionally met with during summer, in millions.

NOTODELPHYS ASCIDICOLA. Found in the branchial sac of Ascidia mentula and communis.

Peltidium purpureum. From deep water.

CALIGUS DIAPHANUS.

RAPAX.

MINUTA. A variety of the foregoing. ,,

MICROPUS. ••

CURTUS. All these are found on various fishes.

ISONYX. On the common gurnard. First taken as British at Banff in 1864 by T. E.

LEPEOPHTHEIRUS PECTORALIS. On various flounders. NORDMANNII. On the short sun-fish.

CHALIMUS SCOMBRI.

TREBIUS CAUDATUS. Found on a Ling, Lota malva.

MONIMA FIMBRIATA, or FIMBRICATA. On the short sun-fish. First taken as British at Banff in 1862, by T. E.

LEMARGUS MERRICATUS. On the Short Sun-fish.

CECROPS LATTREILLII. Attached to the gills of the sun-fish, both short and oblong.

CHONDRACANTHIDÆ SOLESA. On the gills of Platessa vulgaris. First taken as British at Banff, in August 1863, by T. E.

LERNENTOMA CORNUTA. On gills of Platessa vulgaris. ASELLINA. On gills of Trigla gurnardus.

LERNEOPODA SALMONEA. Attached to the gills of the Salmon.

BASANISTES SALMONEA. On the gills of the common trout.

Brachiella Bispinosa. On gills of Trigla. N.S. First taken at Banff by T. E. in May 1863.

Anchorella uncinata. Attached to various fishes, such as the cod, haddock, whiting, etc.

ANCHORELLA RUGOSA.

LERNEA BRANCHIALIS. Attached to the gills of the cod and haddock.

Pennella fibosa? Found on the short sun-fish.



EDWARD'S HOUSE, LOW SHORE.