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Christmas 1907.
BIRDS OF THE LOCH AND MOUNTAIN
GOLDEN EAGLE SEVEN WEEKS OLD.
BIRDS OF THE ROCKY MOUNTAINS

BY E. GORDON C.

Reynolds & Company Limited

1880
BIRDS OF THE LOCH AND MOUNTAIN

BY

SETON P. GORDON, F.Z.S., M.B.O.U.

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TO

MY MOTHER

TO WHOSE SYMPATHY AND ENCOURAGEMENT
I OWE SO MUCH
PRE FACE

I HAVE always had a great love for the solitude and calm of the lone Scottish mountains, where a peace and happiness are to be found unknown to the dwellers in the plains. Here one seems to be apart from the sorrows and anxieties of the world, and the days I have spent among the Ptarmigan and Golden Plover at a height of considerably more than 3,000 feet above sea level I shall always remember as the happiest of my experience. What can be more lovely than a mid-winter sunset from a dark, lofty mountain, with many a snow wreath lingering on its slopes? As the sun sinks, the wide expanse of hill and valley is lit up in the soft glow, and the snow fields on the sister hills are changed from spotless white to a glorious rosy tinge, while the snow-white Ptarmigan, wheeling across in the setting sun, have their plumage transformed to pink as they catch its rays.

To obtain the photograph of the Ptarmigan on her nest, I was on the hills from midnight till one o'clock the next afternoon.

I know the mountains at every season of the year, but think that they are at their finest during the month of June, when all Nature at this height looks at her best, and the air is laden with the scent of the mountain plants.

In the following pages it has been my endeavour to give an account of the lives and habits of the best known of the mountain nesting birds.
The photographs of the Golden Eagle and Ptarmigan are, I venture to think, if not unique, at least almost so. To obtain the photograph of the eyrie of the Golden Eagle, a ladder and rope had to carried up the hill. When this was done, it was found that the ladder was not long enough to reach the first branch of the pine tree on which the eyrie was built. Accordingly, when I had climbed as high as possible, the keeper raised the ladder and supported it on his chest, thus adding several feet to its length, and enabling me to gain a foothold on the branch from which I obtained the photograph, the camera being hauled up afterwards by the rope. The photographing of the eyrie was rather a risky proceeding, for the camera was in constant danger of falling to the ground, and the branch on which I was standing was old and rotten in the extreme, but luckily held my weight.

Although I have been exceptionally fortunate as regards weather conditions while photographing and studying the birds of the mountain at their haunts, a friend and I had rather an exciting experience last April on Ben Much Dhni, 4,300 feet above sea level, and the second highest mountain in our Island. At this season of the year, the hill is more deeply covered with snow than at any other time, and when we made the ascent, all the burns were completely bridged over by the snow wreaths, while every lochan was thickly coated with ice. On reaching the cairn on the top, the weather, which hitherto had been mild and spring-like, changed completely, the wind veering to the north, while thick mist, accompanied by a
blinding snow-storm, enveloped the summit. Had it not been that the snow was soft, and that the footmarks we made during the ascent served as landmarks, the consequences might have been rather unpleasant, on nearly every side were lofty precipices, and the mist limited the view to a few yards.

Many a time I have sat up all night to take notes on the wakening of the birds, which, in this part of the world, commence to sing considerably earlier than their English relations. In June, the Thrush and Blackbird are often in song before 2 o'clock a.m., while the Sandpipers and Oyster Catchers by the river never cease to call all night long.

The work has to me been indeed a labour of love, and none save those who have actually taken up this branch of Natural History can form any idea of the fascination it holds for the true lover of Nature—a fascination which is enhanced by the difficulties to be overcome, and the patience and perseverance necessary to secure the photographs of some of our wariest birds at their native haunts.

Seton P. Gordon.

ABOUYNE, ABERDEENSHPRE.

'September, 1897.
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BIRDS OF
THE LOCH AND MOUNTAIN

THE GOLDEN EAGLE

The Golden Eagle is, without doubt, the noblest of our British birds, and has its home amongst the most desolate forests and mountains of Scotland. It has long since become extinct as a native of England, and when one reads in the newspapers of a "Golden Eagle" being captured or shot in the latter country, it is usually a specimen of the White-Tailed or Sea-Eagle.

These last mentioned birds are to a large extent migratory, and so pass through England in spring and autumn to and from the nesting sites in the far north. A few—a very few—attempt to rear their young in the north of Scotland and in the Shetlands, but with small chance of success, as, although the eggs are hatched off safely, the natives frequently take the young when half grown.

The most common and easiest way to take the young birds is to lower some cotton wool into the eyrie. The eaglets think the cotton wool is some enemy approaching them, and turn on their backs, striking upwards with their powerful claws. Soon these become hopelessly entangled in the wool, when the Eaglets are hauled up to the summit of the cliff.
The Golden Eagle, although much more common than the Sea-Eagle, is nowhere met with in any great numbers; but, thanks to the protection afforded by most of the Scottish proprietors—not to speak of the comparatively useless "Wild Birds Protection Act"—it is fairly holding its own. It is welcomed in deer forests, as it keeps down the numbers of Grouse, which often render the stalker's best-laid plans useless by suddenly rising and alarming the deer by their loud "quack, kurr!—go back, go back." Whether the Grouse is really warning the deer of their danger, or whether the call is used only for alarming its own species, is very uncertain; but I am inclined to think that the bird utters its alarm note automatically when in danger, or else to warn any other members of the species which happen to be in the vicinity.

Quite recently a Golden Eagle was shot near Tomintoul in defiance of the Order strictly protecting it. There was a Grouse drive going on, and it was noticed that the Grouse were flying much quicker than usual. Soon a Golden Eagle came in sight, when it was shot down by one of the guns! Incidentally, also, I may mention that the Kestrel is another bird the shooting of which is prohibited by law, and yet keepers and others shoot it regularly, without any notice being taken by the authorities.

The Golden Eagle is the first of our birds of prey to commence nesting operations. The same eyrie is used year after year until it becomes a very large structure. One eyrie I know was used steadily for about fifteen years. Then one winter there was an exceptionally heavy fall of
snow, which broke down the branch on which the nest was built. Luckily, however, branch and eyrie were caught on another branch a little lower down, and there remained; next spring the Eagles returned to their home as if nothing had happened. When a new eyrie is being built, the old birds begin to look for a suitable nesting site in February, if the winter be open, and building operations are commenced during March. The usual situation for the eyrie is on an ancient pine, or on a ledge of rock commanding a good outlook. When a tree is chosen, the eyrie is usually placed on some large branch about half-way up, and at some distance from the trunk. It is very strange that the Eagles prefer quite a small cliff to nest on, or a tree which can easily be climbed, while there are usually inaccessible precipices or unclimbable trees in the neighbourhood.

The eyrie is composed almost entirely of pine branches, very large near the bottom, and getting gradually smaller towards the top. It is a remarkable fact that the Eagles never use dead branches for the eyrie, but always break them off the trees; and if these branches are examined, it will be found that nearly every one bears the marks of the Eagle’s strong beak where it has broken them off. The inside of the eyrie is usually lined with rough grasses, upon which the eggs rest. Once I found in an eyrie a large red rubber ring, which the Eagles evidently thought improved the look of their home. The eggs number two as a rule, but sometimes three are found. At times the Eagles will leave their old eyrie, and will build a new one in the vicinity; but they seem loth to desert their old home altogether, as they repair it to a certain
EYRIE OF THE GOLDEN EAGLE.
extent each spring, although the eggs are laid in the new structure. In one glen that I know of there are three eyries within half a mile of each other—two of them deserted. Last spring the Eagles repaired to a certain extent one of the eyries which they had not used for years, although they did not ultimately nest there. If the hen bird is killed just before the nesting season, the male will sometimes himself repair the eyrie, although it is not very neatly done, and will use it as a kind of larder. The Golden Eagles rarely use any call note, but in early spring male and female soar round and round each other, uttering a ringing note sounding not unlike the cry of the wild geese. Sometimes, when the hen is flushed from the eyrie, she will use the same note, but she usually soars up in silence.

The eggs are laid about the first week of April, and the young are hatched out a month or so later. The Eagle is very tame when brooding, and will not leave the eyrie until absolutely obliged to do so. Before the young are hatched the hen bird, when disturbed, usually flies right away from the eyrie, and is not seen again while the intruder is near the nest. She usually alights on a rock commanding a good view of her eyrie, and watches proceedings from there. The Eaglets, when first hatched, are like little balls of down, with pink eyes, and squeak plaintively when taken up in the hand. They grow very rapidly, and leave the eyrie early in July. A great deal has been said and written about Eagles attacking anyone attempting to steal their eggs or young; but, as far as my experience goes, there is not the slightest ground for this belief. Usually, when one is photographing the young
birds, the Eagles are nowhere to be seen; and if they are visible, they are mere specks in the sky, apparently ignoring one's presence. The only occasion on which I have ever seen them near the eyrie was while I was photographing a fully-fledged Eaglet, and then they passed and repassed the nest at a distance of about 100 feet, but never showed the least inclination to attack, nor did they utter a single cry.

The young are very liberally supplied with food by their parents. On one occasion I was photographing a young Eaglet only about a week old, and in the eyrie were two Grouse, quite fresh, and partly plucked by the old birds: the remains of a small bird, and the skin of a field-mouse. This latter had evidently proved too much for the young Eagle, as it was hanging out of its beak, and the Eaglet was looking
very uncomfortable. I revisited the eyrie about two months after, and found that the baby Eaglet had developed into a splendid bird, almost fully grown. The day was exceedingly hot, and the Eagle was lying gasping in the eyrie. Directly he caught sight of me he opened his beak wide and spread his wings, so that I was afraid he would take flight.

However, he soon became quiet again, and I was able to secure several photographs. To see what would happen, I held a stick out towards him, when he immediately made a grab at it and clutched it fast. All the time he was sighing and trembling just like a human being. In the eyrie were four Grouse, part of a hare, and, strange to say, a monk stoat. This is very unusual, and the keeper said he had never before heard of a stoat being found in an
cyrie. Very often only one Eagle is reared, and stalkers say that the other bird is thrown out of the cyrie, either by the old birds or by the stronger Eaglet. When the young birds leave the cyrie they remain near their home for several weeks, and are quite tame. They perch on some tree, and there await their parents, who are continually searching for food for them. The young are very easily distinguished from the adult birds by the fact of their having a great deal of
GOLDEN EAGLE NINE WEEKS OLD.

A GOOD YARN.
white amongst their plumage, while the old birds are of a uniform dark colour. The young birds retain the white for some months after they are hatched, and only last September I saw one which was quite easily identified as a young bird, although it must have left the eyrie more than two months previously.

The Golden Eagle preys chiefly on Grouse, Ptarmigan, and mountain hares. A short while ago a friend and I were crossing from Kingussie to Braemar. On the low-lying moors any number of Grouse were met with; but as soon as we reached the home of the eagles far up the glen, scarcely a Grouse was seen, while we noticed at least three Eagles soaring round and round in search of prey. The Golden Eagle will rarely attack the Hoodie Crow, but will
NESTING SITE OF THE GOLDEN EAGLE WITH EYRIE IN THE DISTANCE
sometimes do so when hard pressed for food. The Hoodie, on the other hand, will not hesitate to attack any Eagle venturing near its nest and young, and sometimes the strange spectacle is seen of an

infuriated Hoodie in full cry after a Golden Eagle, which usually seems only too glad to escape the fierce onslaught of its small opponent. The Grouse live in mortal terror of the Eagle, and directly they see one of these birds in the distance, they make a mad dash for life, sometimes flying for many miles, and crossing mountain ranges and
BIRDS OF LOCH AND MOUNTAIN

valleys. Once I saw a flock of birds flying very rapidly and at a great height. I thought they were some migratory birds on the wing, but it turned out they were Grouse attempting to escape from a Golden Eagle.

One of the most remarkable characteristics of this noble bird of prey is its ability to soar for long periods without any apparent motion of the wings, and I have seen them flying against a very strong wind with their wings almost motionless all the time. On a calm day the Eagle is unable to soar with the same grace as during windy weather, as there is not enough wind to support it easily. The Golden Eagle usually flies at a great altitude, and only recently I watched a hen bird at such a height that she was actually above the clouds, so that when a cloud came over she was hidden from sight, reappearing after it had passed.

In winter time the Eagles are sometimes hard pressed for food, and wander for long distances. They then run the risk of being caught in traps set for vermin on some Grouse moor, but the keepers usually set the bird at liberty if it is not too much injured by the trap. It is a strange fact that when the Golden Eagle is pursued by any small bird—the Missel-Thrush, for instance—it never turns upon its pursuer, although it could kill the smaller bird with the greatest of ease. In nature it seems to be the invariable rule that the pursued flies from the pursuer, no matter what their relative sizes may be.

It is pleasant to be able to record a slight increase of the Golden Eagle in some favoured localities, and I hope that with the continued
protection of our large landowners it will be able to hold its own for many a day, and will continue to add a charm to the lone glens and moorlands of the Highlands.

THE RED GROUSE

ALTHOUGH perhaps not quite such a fascinating bird as his near relative the beautiful Ptarmigan, the Red Grouse—Lagopus Scoticus—has nevertheless a great charm on his native hillside, as he rises near the intruder with a noisy "Kirr-kobak-kobak."

The Grouse is, I believe, to be found nowhere outside the British Isles, and is far less plentiful on the west coast than in the east and centre of Scotland, the reason being that along the west seaboard very little heather is met with owing to the excessive rainfall, and thus the Grouse does not find congenial haunts.

Elevation seems to be of little consideration to these hardy birds, and they are met with nesting on moors at sea level, and up to the elevation of a little over 3,000 feet, which is the highest level at which I have ever found a nest. At this height they have as their companions the Ptarmigan, while occasionally a cross between the two birds is met with. Their nesting season is comparatively early, considering the storms to which they are subject on the mountains, and often a later snowstorm than usual plays havoc with their nests. Especially was this the case during the spring of 1906, when, about the third week of May, a very severe blizzard visited nearly the whole of Scotland. In places drifts of great depth were rapidly
formed, and in one district after the storm a keeper found no less than nine hen Grouse dead on their nests during a single morning's walk on the moors. In another case a keeper told me that a certain Grouse had just finished laying, but had not commenced to brood, when the storm came on and covered nest and eggs with many inches of snow. The hen bird, however, remained near for over a week, until the eggs once more appeared from beneath the snow, when she took up the duties of incubation and hatched out her brood as if nothing had happened. However, many of the birds were not so fortunate, and in several instances I saw a pair of old birds with only one or two young ones, and in some cases none at all. Yet the extraordinary thing was that the shooting season was the most successful for years, and on a moor which suffered more than any, bags of 140 brace and upwards were got for days on end. The only explanation seems to be that in the majority of cases the birds had only just commenced to brood, and so were able to lay a second clutch within a short time; for as late as the end of August I came upon young birds still weak on the wing. A shepherd informed me that at the beginning of that month he had flushed a hen from her nest so weak that she was unable to fly. She had probably sat for two months at least on her eggs, and these most likely had been rendered infertile by the May snowstorm. I think, however, that, as regards late nesting, the Ptarmigan is easily first, for as late as September 23rd I have seen and photographed a Ptarmigan chick not yet fully grown, and on that date came upon a Ptarmigan's egg, which I should say was not more than a fortnight
GROUSE'S NEST AND EGGS
old at the outside. Grouse have been known to nest as early as February, but personally I have never seen eggs before the end of April, and the usual nesting time is the first three weeks of May.

The nest is, usually, made amongst fairly long heather or ling, and is well hidden. The eggs number from six to twelve; sometimes even more. They are beautifully speckled and blotched with dark brown, and harmonise very well with the surrounding heather. The hen is a fairly close sitter, especially when incubation is far advanced;
but even then is not nearly so easy to photograph as the Ptarmigan, which one can often stroke without causing her to leave the nest.

Last spring I discovered a hen Grouse brooding on the exceptionally large clutch of eleven eggs, and as she was sitting hard and I had no camera with me, I returned next afternoon, and after a long climb reached the nest, which was situated high up the slopes of a mountain well on to 3,000 feet in height. Unfortunately, the position of the sitting bird was such that her head was under the shadow of a neighbouring tuft of grass; so, although a good negative resulted, it was almost impossible to make out the bird in the print. But in natural history photography one soon becomes resigned to all sorts of disappointments, and so I put the bird off her eggs and
retired behind a neighbouring hillock, hoping that on her return the hen would sit more obligingly. As I was lying in my place of concealment, the sun set in full splendour beyond the mighty hills to the north-west, on which the winter snow still lay in deep wreaths, untouched by the summer sun. Suddenly, in the distance, that most beautiful of all the sounds of the bird world—the clear, mournful whistle of the soaring Curlew—was borne up from the moors to me, while every now and again the wailing pipe of the Golden Plover, which were nesting freely in the neighbourhood, and the call of a cock Grouse, as he settled down for the night, disturbed the silence of the evening. At length, after a wait of close on an hour, I ventured back to the nest; but, alas! the mother Grouse had not yet returned, and so I had to give up the attempt for that day, having had my ten miles’ journey for nothing. On my way down the hill, a cock Grouse rose at my feet in a great state of excitement; and, looking about, I saw crouching low on the ground a hen bird with her children beneath her wings. To photograph her required a good deal of careful stalking, but in the evening, when the frost begins to be felt, the old birds are more confiding than during the day, as the young birds would, if left uncovered, die of cold in a very short time.

Although on this occasion my photographs of the brooding Grouse on the nest were not satisfactory, I determined to make another attempt. So a day or two later I set out in the early morning, so as to get the sun in a good position. This particular hill-side is a very favourite one with the Red Grouse, and on my way up the hill I
came upon perhaps half a dozen nests, from several of which the young birds had just been hatched. My Grouse was sitting obligingly close as usual, but unfortunately I walked almost upon her before

![Image: Hen Grouse Covering Chicks]

I noticed her, and to my dismay she fluttered off at my feet in a great state of alarm, and it was well that she did so, for my next footstep would have been right on the top of her. However, hoping for the best, I walked on about half a mile, and then lay and waited for her return. A pair of
Curlew had young somewhere near, and for long they hovered suspiciously round me, uttering their whistle, "Whoo-ce, whoo-ce," while several pairs of Golden Plover joined in expressing their resent-

ment at my intrusion in no half-hearted fashion. Presently, however, all became quiet, and I had the rare experience of listening to a Skylark pouring out its rich song at a height of about 2,000 feet above sea-level. I had just started to return to the nest when a couple of Grouse rose at my feet, and by their behaviour I surmised that they had young, which turned out to be the case. I think
that perhaps young Grouse are more difficult to discover than any other young birds; but at length I found three or four downy youngsters, only a few hours old, hiding in the heath, while the nest containing two infertile eggs was only a few yards off. Marking the spot with my handkerchief, I returned as fast as possible for my camera; but by the time I got back, a few minutes later, the tiny youngsters had gone through long heather and ling a distance of between ten and twenty yards, which is rather an extraordinary record for such small chicks in so short a time. On returning to my Grouse's nest I was delighted to find her sitting as close as ever, and succeeded in getting some very good pictures of her on the nest at a distance of about six feet.

Sometimes a dwarf egg is found in a Grouse's nest, and I have in my possession one which is little bigger than a Blackbird's. The period of incubation is between seventeen and twenty-one days, depending somewhat, I think, on the altitude of the nesting site, and the amount of frost experienced. At times the hen Grouse will nest on an islet in a bog, and in such a position it must be a very difficult undertaking to get her young through the marsh. Often the hens are greatly disturbed by ants, and I have seen a nest, from which the mother bird had just risen, swarming with these insects, so probably she had been having a very uncomfortable time of it.

By the end of June the majority of the young Grouse are strong on the wing, for the young of both the Grouse and the Ptarmigan are able to fly long before they are full grown, and when only
little bigger than Sparrows. It is remarkable how the behaviour of the parent birds changes once the chicks are hatched. While they have only eggs, the hen bird when flushed usually flies straight away and the cock "whirrs" off as if he had no nest in the vicinity. When the hen's patience has been rewarded, however, and she is the proud mother of seven or eight healthy chicks, all this changes. Both birds are constantly on the look-out for enemies, and the hen Grouse will rise at your feet and flop along ahead of you as if badly wounded. Sometimes, even, she will not take wing at all, but will walk gently off, every now and again looking back at you reproachfully. The cock bird behaves in much the same way, only he does not appear so anxious about his chicks as the hen bird. When a pair of Golden Eagles are to be found
HOME OF THE RED GROUSE.
near a Grouse moor, they take enormous toll of the "bonny brown birds." Often the Eagle will chase a covey of Grouse without any apparent reason other than that of enjoying himself, and it is astonishing to see how easily he catches them up without a movement of his wings, although his victims are flying for their very lives. Usually in an Eagle's eyrie containing a couple of Eaglets will be found a Grouse or two perfectly fresh and half plucked, for the Eagles always make a point of thoroughly plucking all their prey before offering it to their young. I once saw a cock Grouse which had fallen out of an eyrie, with his crop packed full of tender heather shoots, showing that he had made a hearty meal just before being captured by the king of birds.

As the summer wears on, the Grouse form into packs; and as early as August 18th I have seen fully fifty together, flying high and steady, as though changing their feeding grounds.

During the winter months they often have difficulty in obtaining sufficient food when all the country side is covered with a deep coating of snow. Then they descend to the fields, and wander about amongst the stubbles, picking up any grains of corn they can find. If the harvest is a backward one, and the crops are not all secured before the snow comes, the farmers in the upland districts often suffer great damage to their crops, as the Grouse descend in large numbers, and would devour nearly every grain of corn if the farm hands were not constantly sent to the fields to scare them off.
THE CAPERCAILZIE

At one time this handsome member of the Grouse family was met with abundantly all over Scotland. Owing, however, to the destruction of the large pine forests and the growth of civilisation, it had become completely extinct by the beginning of last century. In 1837, or thereabouts, it was re-introduced, and has increased so rapidly that now it is met with nesting throughout Scotland, but has not as yet, I think, found footing in the sister country.

Like its near relative the Black Grouse, the cock bird is vastly different to the hen, being of much greater size, and also of quite a different colour. While the hen bird is clad in very subdued fashion in much the same colours as the hen Pheasant, the cock is resplendent in a bluish-black plumage, and his red comb is very pronounced.

He takes unto him several wives during the nesting season, and, like the Blackcock, leaves them to hatch off their broods without showing much further interest in them.

The Capercailzie's usual nesting month is May, but in the higher forests the eggs are sometimes not laid till June. The favourite nesting site is at the foot of an old pine tree, and the hollow destined to receive the eggs is scraped between two of the roots of the tree. Very often a pine growing at a slant is chosen, probably because the overhanging trunk protects the sitting hen from the rain. The eggs are usually laid on the pine needles which cover the ground in the forests, and no attempt at a nest is made. When the hen
NEST AND EGGS OF THE CAPERCAILZIE
is laying, she covers the eggs carefully with pine needles on leaving the nest, but I have never known her do this after incubation has commenced. The eggs number from eight to ten, but the usual clutch is from six to eight. They are very pretty, being thickly spotted with reddish-brown, the ground colour being of a lighter tinge, and are somewhat similar to those of the grey hen, only larger. The period of incubation is nearly a month, and the chicks on issuing from the shell are quite able
to take care of themselves. The hen is a fairly close sitter, but rarely allows the ornithologist to approach near enough to "snap" her. I only once secured a photograph of a hen bird on her nest, and this was at a distance of over twelve feet. One nest that I found was situated in a very favourable position for photographing the sitting bird, so I visited this nest several times until I got within about six feet of my sitter, and was just about to release the shutter when the bird, who had stood the ordeal bravely up to now, suddenly rose from the nest with a great flapping of wings, and my chance was lost. For several days afterwards I attempted to regain her confidence, but all in vain. Evidently her nerves were completely unstrung, and she never afterwards allowed any near approach.

It is often the case that when these heavy birds rise hurriedly from the nest they carry some of the eggs with them for several feet; and, as they never seem to have sufficient sense to replace these in the nest, no matter how close they may be, the eggs are rendered useless. Especially is this the case with the Ring Dove; five times out of ten, when this bird rises from her nest one of her eggs is carried out of the nest with her, and usually caught on the branches of the tree.

The Capercaillies roost on the branches of the firs, and often at night, when one is passing through the forest, their heavy flapping is heard as they leave their roosting sites. When a nest is discovered from which the young ones have been hatched, it is noticeable that the egg-shells are almost invariably broken in the centre, and one half placed within the other. This I think can-
not happen by chance, but is probably the work of the parent bird. I once flushed a Capercaillie from her nest, in which the chicks were just hatching, and although some of the young birds had left the

shell only a few minutes previously, they would not keep still for a moment. This was most annoying, as, owing to the lateness of the hour—it was past nine o'clock at night—I had to give an exposure of several seconds, during which the birds had, of course, hopelessly moved. Further
south it would probably have been impossible to have exposed a plate at all at this late hour; but in Aberdeenshire, at the longest day, the sun is still above the horizon at nine o'clock p.m., and it is possible to read a newspaper outside at midnight.

Although such a large bird, the Capercailzie seems singularly unable to protect her eggs, and these suffer greatly from the attacks of the Hoodie Crow and four-footed marauders, such as the stoat and weazel. Often I have seen a deserted nest with the sucked eggs lying all around—a very pathetic sight. At other times I have discovered a Capercailzie's nest with a full clutch of eggs, and on revisiting it have each time found one or two missing, until at last the poor mother bird had none left to care for. The haunt of these birds may often be discovered by the droppings beneath their favourite trees, and, as a general rule, they prefer ancient pine forests to those of more recent date.

Black Game and Capercailzie frequently interbreed, and some very fine "crosses" have been obtained in Aberdeenshire recently; sometimes, too, a single nest will be found containing eggs of both these birds, but this is a much rarer occurrence than in the case of the Partridge and Pheasant. The young Capercailzies are a considerable time before reaching maturity, and the male birds are not full grown till very late in the season. They keep with the parent bird until August and are very carefully looked after. Often, however, a chick falls a victim to a hungry Sparrow Hawk, or a plundering stoat thins the brood. The young birds, while fairly good eating,
are not much sought after for the table. A hen bird with her brood is very courageous, and often will fearlessly attack the intruder, rushing at him with beak agape and tail widespread, in the hope of scaring him from her chicks. (From "The Illustrated Sporting and Dramatic News.")

THE PTARMIGAN

No bird, perhaps, so appeals to the ornithologist as the beautiful, confiding Ptarmigan. Far beyond all traces of civilisation, on the lone mountain tops and plateaux, the Ptarmigan has his home, and his weird, croaking call as he rises at your feet is a charming sound to the bird lover.

In summer, when at last the huge snowfields have disappeared from the mountain slopes, the Ptarmigan have for their companions the mournful Golden Plover, the Common Gull, the Wheatear, Meadow Pipit, and Twite. The Snow Bunting, too, remains to breed on a few of the highest Scottish mountains, and his clear musical notes are heard at their best on the precipitous rock-strewn hillside, where his mate is sitting. But when winter storms descend and the powdery snow blows into drifts, perhaps 100 feet deep, then all other bird life seeks more sheltered quarters, and the Ptarmigan have the hillside once more to themselves. Even when the ground above 3,000 feet is snow-covered and the lower hills quite bare, they disdain to seek more sheltered grounds, and seem to revel in the snow. Only when a severe snowstorm comes on, unaccompanied by wind, are the Ptarmigan put to sore straits, as the
wind blows the ridges bare of snow, thus allowing the birds clear feeding ground.

The Ptarmigan are, I believe, the only birds that have four moults in the year—in spring,

summer, autumn, and winter. From November till well on in April their plumage is of a spotless white, while during the summer they seem of a lichen-grey until taking wing, when their white wings give them a charming appearance. I noticed last April, while ascending Ben Muich Dhui (the
PTARMIGAN ON NEST, WITH SNOWFIELD AT TOP LEFT-HAND CORNER OF THE PICTURE.
hill of the black sow), 4,297 feet above sea-level, that the Ptarmigan which were met with at about the 3,000-foot line were changing plumage, while those nearer the summit were still, for the most part, spotlessly white, and it was also remarked that a cock and hen were rarely at the same period of their moult.

It has been stated that, while abundant on their slopes, Ptarmigan are rarely met with on the

summits of the highest Scottish mountains—that is, those above 4,000 feet; but I have by no means found this to be the case, as only recently, while ascending Brae Riach (4,200 feet), I did not see or hear a single Ptarmigan until I had reached the summit plateau.

Last year the Ptarmigan were most unlucky in their nesting affairs. On May 16th an unprecedented storm for that season of the year swept over the Highlands, and quite 2 feet of snow fell on the Ptarmigans' nesting grounds, while drifts 20 to 30 feet deep were common. In one
THE POOLS OF DEE—THE PTARMIGAN'S HOME.
way the Ptarmigan of the lower hills were more unfortunate than their brethren of the higher ranges, as the former had begun to lay, and even perhaps to sit, while those on the higher mountains had not yet reached this stage. On visiting a mountain under 3,000 feet high at the beginning of June,

most of the Ptarmigan were going in pairs, and once I saw three together, showing what havoc the storm had played among their nests. In fact, twice I found an egg laid on the hillside, showing that the hen bird had been unable to find her nest in the snow, and so had been obliged to drop her egg anywhere. The Golden Plover had suffered as badly, and I saw a flock of as many as twenty. It is a fact worth recording that in such cases the
Plover still call as though they had nests, and then all take wing together; so, evidently, the parental instinct remains strong within them.

The average time for the Ptarmigan to begin to lay is about May 20th, and they commence to brood perhaps seven days later. Last year, on the higher ground where they had got off comparatively lightly, they did not commence to sit until June 4th, on which day I found three nests. Even then, when the eggs were perfectly fresh, the birds were sitting hard, so on returning a week later I was enabled to secure an excellent photograph of one of them on the nest.

Along with my friend—a famous bird photographer—I set out for the hill at midnight, so as to escape the heat of the sun during the long climb that lay before us. Even at that hour the heat was oppressive, and the birches were giving off their delicious perfume. As we commenced the climb, a Redstart suddenly uttered his song at 1.45 a.m., while the dawn was still grey. The moon was rising behind the mountain to the south of us and shining through the pines with beautiful effect. By two o'clock it was broad daylight, and the snow-clad Cairngorm Mountains stood out to our west. About 3.30 the sun appeared above the horizon, turning the snow to a reddish tinge and lighting up the hills with a weird, unearthly effect. The Grouse were now waking, and their calls resounded on all sides. Crossing the first snowfield we found it was quite hard, although the atmosphere felt very far from frost. No one who has never been on the mountains at this early hour can have any idea of the deathly stillness that prevails—everything looks unreal, and one
has a feeling of loneliness and a desire for companionship.

At last we reached the sitting Ptarmigan, but she was only found after a careful search, as she harmonised in an astonishing manner with her surroundings. The dew had fallen on her back, and each time she breathed it glistened in the rising sun. She was sitting in close proximity to a snow-field, which is shown on the top left-hand side of the photograph. We reached civilisation once more, thirteen hours later, and from eight o'clock the night before till five the next day, one or two sandwiches were all we had by way of refreshments.

Latterly I think the Ptarmigan have suffered more than usual at the hands of the Common Gull. This bird nests on the high mountain tarns, and seems greatly to like an egg diet. I have seen these Gulls hawking up and down the plateaux, and few nests can escape their keen eyesight. Last year I knew of at least four sucked nests, and probably half the birds in the neighbourhood had their eggs destroyed. Amongst them I am sorry to say was the hen whose photograph forms one of the illustrations. One pair had evidently profited by past experience, and had made their nest under a large stone, which is a most unusual situation.

The eggs of the Ptarmigan number from seven to nine. They are very similar to those of the Grouse—in fact, very often it is impossible to distinguish them; but sometimes they are redder in colour, with their spots and blotches closer together. The nest, unlike that of its near relative, is usually in the most exposed situation, sometimes on a hill-top, where the sitting bird catches every breath
THE HAUNT OF THE PTARMIGAN—MID WINTER.
of wind—in fact, I have seen an egg containing a fully developed chick blown clean out of the nest. Although this is merely a hollow scraped amongst the blaeberries or grass—the Ptarmigan nesting above the heather line—the nest is easily recognised after many years. The blaeberry, it may be remarked, is found flourishing at a height of 4,000 feet.

The period of incubation is several days longer than in the case of the Grouse, probably owing to the greater cold of these heights, and a day or so before the young are hatched the hen bird is so confiding that one may sometimes take an egg from underneath her without causing her to leave the nest. When the hen is put off the eggs, the cock bird immediately joins her from the point of vantage where he has been keeping guard, and together they half run, half fly a short distance. It is interesting to watch the cock working his head up and down at his mate as if reproaching her for her want of courage.

The best way to find a nest is to watch the cock bird’s behaviour when flushed; he usually flies round in a large circle, and lighting on some rock, watches you anxiously. Then it is fairly certain that he has a sitting mate within a radius of 300 yards, and an hour or two’s searching is generally crowned with success. In this way the cock Ptarmigan is a far more loving husband than the Grouse, and he and the hen show great signs of distress when the nest has been discovered. The cock bird on rising utters his cry, “Croak; croak, croak, croak,” the last note being more prolonged; and on alighting runs along with tail spread out after the manner of a strutting pigeon, while the hen runs quietly along beside him.
The favourite nesting site is on the south slopes of a hill well over 3,000 feet high, which is well sheltered, and has a good growth of the blueberries and grass which form the bird's chief food—in fact, I have never found a nest on the north side of a hill, although a few birds probably breed in this situation at times. Even after the young are hatched, the troubles of the parent bird have by no means ended. Towards the end of July I came upon a newly-hatched chick—the mother's first clutch must in some way have been destroyed—whose head had been bitten right off by some stoat or Hoo'de Crow. The body was quite warm, and blood was still dropping from the wound. Scattered round were the pieces of down and tiny feathers, so that probably more than one bird had fallen a victim to the poacher. The mother bird was running round anxiously, and I felt sorry indeed for her.

The young birds are able to fly very shortly after they are hatched and while still quite small. The old bird watches over them with great care, and resorts to all kinds of tricks to lead the intruder away from her children. Once I was photographing a small young one, when suddenly it and its brothers and sisters rose cheeping and fluttered down the hillside. Immediately the old bird flew right up to my feet and looked up at me appealingly; but unfortunately my supply of plates had run out, so I lost a splendid opportunity of obtaining a unique photograph. I have seen a Ptarmigan's young in great danger from a herd of frightened deer, and the old bird half running, half flying along in front of the herd.

By August the chicks are full grown, when
young and old form into coveys; but I have seen pairs in every month of the year. The photograph of the hen Ptarmigan outlined against the snow-field was obtained in June. The pair had evidently had their eggs sucked, and while the cock flew right off, the hen lighted on a stone about twenty yards away. Little dreaming of success, I feverishly put up my camera and began to stalk her foot by foot. Strange to say, she did not seem at all disturbed, and I was enabled to get two or three shots at her. It will be seen that her bill is open, as she was greatly distressed with the heat. As late as the end of June, after a month of fine summer weather, winter again descended on the mountains, which were covered with several inches of fresh snow, and I fear this must have killed some of the young birds on the highest nesting grounds. In
winter the birds sleep in coveys on the leeward side of a hill, scraping hollows in the snow.

I think that a fine June day amongst the Ptarmigan must ever live in the memory of a true lover of nature, as, quite apart from the ornithological point of view, the grand scenery and the delicious scent of countless blackberry plants, clad in the softest green, broken here and there by a lingering wreath of the winter's snow, all tend to form an exquisite picture which, once seen, will ever live in the memory. (From "The Illustrated Sporting and Dramatic News").

THE WOODCOCK

Although for the most part only a winter visitor to England, the Woodcock remains throughout the season in the sister country to the north, but their numbers are in all probability considerably augmented during the winter by birds from Scandinavia and the Far North, which have come south to escape the severe cold.

One of the earliest of our nesters, the Woodcock lays her eggs even as soon as the latter half of March, and by April almost all the birds are brooding. A favourite nesting ground is amongst the withered and fallen bracken in a wood where the trees are not too close together, and plantations of birch and oak seem much sought after, especially if they are near a river or loch where the birds can obtain food without much trouble.

No nest worth the name is constructed, but a slight hollow is scraped amongst the bracken or fallen leaves, and here the eggs are deposited. These
WOODCOCK'S NEST WITH ELONGATED EGG.
number from three to four, but unlike most other birds of this family, which invariably lay four, the Woodcocks' nests I have seen have as often as not contained three eggs only, which harmonise to such an astonishing extent with the surrounding objects that it takes a very sharp eye to discover them. In shape they are not so pyriform as those of the Curlew or Lapwing, and have an olive ground colour with numerous spots of a darker brown; sometimes the ground colour is more of a greenish tinge.

The mother bird is usually an exceedingly close sitter, and as she crouches low on the ground the only thing that betrays that she is not a stick or piece of bark is her large bright eye, which, it is said, she will half close in her attempt to avoid detection. A year or two ago I discovered a Woodcock sitting very hard near the borders of a fir wood; and, as it was late in the afternoon, I carefully marked the spot and returned with my camera in the morning. When the bird saw me she sat absolutely motionless, and I carefully stalked her with my camera foot by foot. Each moment I expected her to fly off; but, no—even when I was not more than four feet from her she still kept her ground, and, having exhausted my stock of plates, I left without flushing her from her eggs. A day or two later, on revisiting the spot, I found these hatched off and the young gone, so that the mother's bravery had been rewarded.

As a result of such early nesting, the Woodcock have often to sit through snowstorms, and very pathetic they look as they brood with snow lying all around them, and a biting northerly gale blowing through the trees. If the storm should
last they will probably be obliged to leave the nests, and then the eggs will very likely be sucked by a hungry stoat or Hoodie. These rascals will sometimes carry off the eggs while the rightful owner is away looking for food. If the marauder has not time to purloin all the eggs before the mother bird returns, he will probably come back every day until he has stolen the whole clutch.

A very interesting point about the Woodcock is that during the nesting season, from March till
mid-July, their flight is quite different from what it is during the autumn and winter months. During this latter period one rarely sees them on the wing unless flushed, and then their flight is a zigzag one, much the same as the Snipe's. In the spring and early summer, however, they appear as dusk is coming on, and for several hours fly backwards and forwards over large stretches of country, though they seem to prefer to fly a little distance above the forests where they nest. Their wings are moved very rapidly, and their flight is absolutely different from that during the winter. Every hundred yards or so they utter a sharp "Chisik," which is heard a long way off, and gives warning of the bird's approach.

I think this particular note is the male bird's love-song, and it is extremely interesting to observe his special note and flight at this season of the year. Sometimes I have seen one bird chasing another, and then their cry is louder and shriller than is usually the case. If a Woodcock is flushed from the ground during the spring months, its flight is exactly the same as in winter, and it seems to be only during the evening hours that this special flight is made use of.

During May and June one can count on seeing the birds any evening, but before darkness has set in they have disappeared, having probably gone off to their feeding ground, where they spend most of the night.

By the month of May most of the young Woodcock have been hatched, and, like all the birds of their family, are able to run almost immediately after breaking the shell. When they are small and little able to look after themselves, the parent
birds I sometimes carry them from danger. If one suddenly comes upon a Woodcock and her brood, she will probably snatch up the chick nearest to her and bear it off to a place of safety, and

I have known them carry a chick across a wide river. The drawback to this latter plan of campaign by the mother Woodcock is that although she has one chick safe, her other children have not benefited much; and when danger is past she has either to carry her child back to its brothers.
and sisters or else leave her chick on the other side to shift for itself.

I think one of the most charming sounds of an early summer evening, when the air is heavy with the aroma of the birches just bursting into leaf and the murmur of the swift-flowing river in the distance strikes pleasantly on the ears, is to hear the note of the silent-flying Woodcock as he flits like a giant bat in the gathering dusk. His cry is first heard faintly in the far distance, and gradually comes nearer and nearer, and one strains to catch a glimpse of the bird as he flies quickly here and there over the tree-tops.

Although such an early nester, the eggs of the Woodcock are not unfrequently found as late as the beginning of August, and I think these are undoubtedly the result of a second hatching, though most likely only a few birds rear a second brood. During the winter months the Woodcock goes into retirement, and is only occasionally seen unless the thick woods are visited, when he will rise at one's feet and flit off like an arrow through the trees.

Sometimes, when the birds have arrived on our coasts after a long sea journey against contrary winds, they are in such a state of extreme exhaustion that one can take them with the hand, so utterly worn out are they by their battle against the storm. Numbers, too, are killed by flying against the glass of lighthouses, dazzled by the brilliant light.

The Woodcock's food consists chiefly of worms, for which the bird probes with its long bill amongst the bogs, and the proximity of which it is to a certain extent able to tell by thrusting its sensitive bill deep into the ground and waiting until it
receives "impressions" of the nearness of food. It has been stated that neither a Curlew, Woodcock, or Snipe has ever been found starved to death. A few winters ago, however, I noticed during severe weather a Woodcock flying about a plantation, although there was no marshy land near, and a day or two later found it lying dead amongst some leaves, and so thin that starvation was evidently the cause of death.

There is no doubt that within recent years these birds have greatly increased with us as a nesting species, and probably before long will be commonly met with during the summer months throughout Great Britain.

THE GOOSANDER

Until 1879 this handsome duck was not known to nest in the British Isles, but is now met with fairly abundantly on many Scottish rivers, where it remains throughout the year, although I think its numbers increase during the nesting season. The birds mate in early spring, but the eggs are not laid before the beginning of June, or even later. They number from nine to twelve, and are similar to those of the Mallard, only considerably larger, and perhaps of a darker tinge.

While nearly every keeper I have come across has told me he knows the bird well, yet not one has ever seen the nest, although they have often met with the young ones. The reason for this is that the nest is placed in the most unlooked-for situations, usually well down an old rabbit burrow. I had for years looked unsuccessfully for a nest, until one
NEST AND EGGS OF THE GOOSANDER
day I came upon a rabbit burrow, at the mouth of which lay a Goosander's egg, newly laid, and surrounded by several broken shells of a considerable age. Looking inside I was delighted to see a Goosander sitting closely—so closely, indeed, that although I felt the eggs under her, she would not leave the nest, but pecked vigorously at my hand.

Here were altogether nine eggs, but the mother bird was only sitting upon seven, as one was lying at the entrance to the burrow and another was outside the nest further down the hole.

When the eggs are first laid, the nest is only a slight depression scraped in the burrow; but as incubation advances the parent bird adds quantities of down, with which she covers the eggs when she is off feeding, which may be for hours at a time. Although not exactly nesting in colonies, the Goosander has favourite nesting sites, and several pairs
may be met with breeding in close proximity to each other. I have noticed that the hen Goosander is not particular where she deposits her eggs, and I have seen a fresh and a last-year’s egg in the nest at the same time. It also seems to be the case that the bird often uses the same burrow more than one year in succession. When disturbed the hen birds fly rapidly up and down the river, quacking softly all the while, and are sometimes joined by their mates.

This summer I was shown a nest of the species under some thick fallen branches on an island. The hen sat closely, and by dint of careful stalking I was able to get within about ten feet of her, and obtained a photograph of the bird on her nest. For
NESTING SITE OF THE GOOSANDER.
nearly a week I visited the nest daily, but the bird, if anything, became shyer every time, so the first photograph turned out the best. There were eleven eggs in the nest and a goodly supply of down, but, sad to say, the young ones were never hatched.

One day a friend of mine observed someone crossing to the island, and soon after heard the report of a gun. On wading over shortly afterwards I found the nest all torn and every egg taken, and have no doubt but that the parent bird was shot on leaving the nest.

The young are hatched off about the end of June, and very pretty it is to see a brood and their mother feeding by the river banks. The young are very energetic, and even when only a day or
so old can half swim, half fly along the surface of the water with astonishing rapidity. Young birds have been seen as late as October, but these were probably a second clutch.

I have often been puzzled by the behaviour of the hen birds during the nesting season. When the nesting haunt is approached several Goosanders—of both sexes, but chiefly females—seem to appear from nowhere and fly backwards and forwards, quacking excitedly all the while. This fact seems rather strange, because in the nests I have examined the hen always sits very hard, whereas the birds one sees flying backwards and forwards must have left their nest (if they had one) while the intruder was yet a long way off. The young grow quickly and are well on the wing by August, when a keeper told me he killed five at one shot!

Very often the Oyster Catcher and Goosander nest in the same locality, and once I saw what was very nearly a collision between a Goosander and an Oyster Catcher; the latter, in its anxiety for its young, making straight for the Goosander which only avoided a bad accident by a desperate effort.

Most fishers would probably be pleased if protection ceased to be afforded to this duck, as it must cause a considerable amount of damage among the small salmon fry in the rivers, and has been known to "do for" a couple of trout, both quite ½ lb. in weight, in a very short space of time. One evening I was lying by the river side when a Goosander came unsuspectingly close up and began diving for trout, making a charming picture. After a time another bird of the same species flew rapidly up the river, and, catching sight
of me, uttered a warning "quack," upon which the first duck made off as fast as possible. Possibly the Goosander has always nested with us, as in former times less notice was paid to birds than at the present day; but keepers seem to be of the opinion that it has increased considerably within recent years, and I hope it will hold its own for many a day to come.

THE GOLDEN PLOVER

One of the most charming of the birds of the mountain is undoubtedly the Golden Plover (Charadrius pluvialis), and on vast tracts of desolate moorland its plaintive long-drawn cry is heard at its best. No bird has, I think, such a note of exquisite sadness as the "rain bird," as it is sometimes called, on account of its supposed ability to forecast changes in the weather.

When the soft breezes of spring have melted the winter's snow on the heath-clad hillsides, the Golden Plover appear on the uplands in large flocks. Two years ago the month of March was exceptionally fine and open, and I noted the first flock of Golden Plover on March 19th. They had evidently just arrived from the coast, and were busily engaged in searching for food on some sheep pasture in a wild glen. Among them, strange to say, was also a small flock of Starlings.

Should a large flock of Golden Plover be disturbed, it is a wonderful sight to see how they wheel and manoeuvre. They seem to be making straight for a certain point, when suddenly the leader turns almost at right angles, and the whole flock follows
him without the least hesitation. This often goes on for some time, and the flock usually returns to the same place from which it rose. It is, I think, quite certain that the leader must communicate with the flock before a sudden movement is executed, although the note is so low as to be inaudible to the observer, otherwise it would be almost impossible for them to turn so abruptly without warning.

The fine weather of March proved very deceptive, however, as on April 4th—by which date the Golden Plover, Curlew, Redshank, and Black-headed Gull had all arrived on the moors—a severe snowstorm commenced, and lasted for fully a week. No ordinary spring snowstorm was this, but a regular mid-winter blizzard, covering the ground with an average depth of 6 inches of snow, and piling up wreaths behind the dykes fully 6 feet in depth.

I have good reason to remember this storm, as I started out on the wildest day for a remote glen some twenty miles distant. On the low grounds the snow was of little depth, but gradually immense wreaths were encountered, and the snow was drifted along the ground in blinding clouds. Soon an intense frost set in, which froze the cycle tyres to the mud-guards, and thus rendered progress almost impossible. However, after a five-hours' ride—or, rather, walk—my destination was reached.

What sufferings did the Golden Plover undergo during this storm! All the landscape was shrouded in spotless white, and immense flocks of Curlew, Lapwing, and Golden Plover could be seen vainly searching for food. After a few days they were so weak from want of nourishment that they were scarcely able to utter their call notes. Just before
the snow came, a Dipper had completed her nest on a rock beside a tiny waterfall. On visiting this during the storm I found no traces of the nest, which was completely covered by a snow-wreath several feet deep.

For some days after arriving on the moors, the Golden Plover remain in flocks, but most of them have paired by the beginning of April. However, I have more than once seen flocks during the latter half of May, and this fact is difficult to account for. On the low grounds, if the season be an early one, the eggs are sometimes laid in April, but the principal nesting month is undoubtedly May.

The Golden Plover has a very wide range during the nesting season, some pairs nesting almost at sea-level, while the majority seem to prefer some grassy hillside for a nesting haunt. On one mountain of 3,000 feet, the Golden Plover, Ptarmigan, Curlew, and Lapwing—not to mention the Wheatear and Meadow Pipit—all nest in perfect unity within a stone’s-throw of each other. In many respects the Golden Plover differs widely from its near relative, the Lapwing. Unlike the latter bird it never—as far as I know—attacks Crows or other birds which are on the look-out for its eggs or young; while the Lapwing will attack anything that ventures near its nesting site—from a Golden Eagle down to a Starling.

Again, the Lapwing keeps almost continuously on the wing when uttering its alarm note, but the Golden Plover usually calls while on the ground and will never swoop and rush through the air as does the Green Plover. The nest is far more difficult to discover than that of the Lapwing, as the birds harmonise with their surroundings, and slip
GOLDEN PLOVER'S NEST—NEARLY 3,000 FEET ABOVE SEA LEVEL.
off their eggs at the least sign of danger, but rarely fly away.

The Golden Plover make use of three distinct notes. The one most frequently heard is its long-drawn "Tu-ee," sometimes varied by "Twee." These seem to be used principally as alarm notes. Another note used is one of exceptional sadness; it is sometimes uttered on the wing, and is not, I think, an alarm note. It sounds something like "Whew-whewoo." When in flocks, and also during the nesting season, the Golden Plover uses a sort of purring note, something resembling that of the Dotterel, and sounding like "Trueoo, trueoo, trueoo."

The male Golden Plover usually stands on some prominent rock or knoll, commanding a wide outlook, and when he catches sight of the intruder, utters his melancholy whistle "Tuuuu, tuuuu." Then he runs along in front as fast as he can, and after a little while takes wing. On hearing his alarm note, the hen slips off the eggs and joins her mate at some distance from the nest. Sometimes, however, she disregards her mate's cry, hoping to escape detection by her protective colouring.

Towards the end of May I was near the summit of a mountain 3,000 feet high. There was a thick mist near the top, but I thought I would attempt to reach the cairn. All at once I came upon a Golden Plover covering her eggs. She was exceptionally confiding, and sat quite still, while I was watching her not five feet off. The gold feathers on her back made her a fairly prominent object against the dark surroundings. What a chance it would have been if only I had had my camera with me! But unluckily all I had was a field glass, so I built
a cairn near by to mark the spot, and, this done, returned to the nest. I found, however, that the bird had slipped off while my back was turned. This, I think, shows that she fancied she was undetected, and so sat closely, but left the nest directly she had a chance of getting away without being observed.

Next day, I returned to the spot with my camera, but the hen left the eggs while I was yet a long distance off. However, I succeeded in getting some good photographs of the nest, one of which illustrates this article.

It is a fact worthy of note that during a mist all birds—specially the Ptarmigan—sit very much closer than on a clear day, probably because they are aware that owing to the mist, danger is upon them before they are aware of its presence.

Before the hen Golden Plover has commenced to sit, and when there are only one or two eggs in the nest, the cock bird stands on guard about 50 yards off, the hen usually taking up her position a few yards from the nest. When disturbed, she flies right away, and does not run along the ground as is the case when she is brooding.

The eggs invariably number four, one being laid each day. They are slightly larger than those of the Lapwing, and are of very great beauty, being of a greenish-brown ground colour and spotted and blotched with dark red. The nest is placed among heather or bent, sometimes among boggy ground, and the eggs are exceedingly difficult to detect, although you may be not a foot from them. Should the nest be discovered, the birds do not call loudly, but watch intently to see if their home will be spoiled. Sometimes if the nest is reached without
any warning to the sitting hen, she rises and flutters along in front, so as to try to decoy you from the vicinity of her eggs.

The Golden Plover seem to be much more shy when they nest on hills which serve as sheep pas-

tures, as where there are sheep, shepherds are continually walking to and fro on the hills and must give the nesting birds great anxiety. When, however, they nest on desolate hillsides they are much more confiding; but the responsibility rests almost entirely with the cock bird, and if he is absent from the nest, the hen will sit until you are almost upon her.
BIRDS OF LOCH AND MOUNTAIN

The period of incubation is about three weeks, but varies somewhat according to the dryness of the weather. The young are almost all hatched out by the first week in June; the earliest date on which I ever saw them was May 10th, when they were probably quite a week old, and this although April had been a very stormy month, with frost and snow almost daily.

When the young have left the nest the old birds are very anxious about them and show signs of the greatest distress when they are approached. The cock and hen will both run round and round all the while you are near, keeping at a safe distance, and every now and again taking short flights to try to decoy you from the vicinity. Occasionally they will circle round the intruder's head two or three times,
calling loudly all the while; but they will never, like the Lapwing, keep on the wing for a long period. Even after you have gone hundreds of yards from the young birds, the parents will still call shrilly, and once I was followed about half a mile by the old birds. This was on a flat moor, and when I had reached a depression at the end of it, one of the Golden Plover came straight towards me and circled round my head. Then, seeing that I was really leaving the vicinity, they both returned at once to the other end of the moor, where the young ones were crouching among the heather.

The young are full grown by July, and soon after they are able to fly both young and old depart for the sea coast, where they haunt the estuaries of rivers in large flocks, along with the Curlew, Redshank, and Lapwing.

The winter months must be an anxious time for them, for, besides the scarcity of food, fowlers are very often lying in wait for the luckless birds; and many a Plover which led its young in pride and joy down to the coast will return no more to its beloved nesting grounds, where it hatched off its brood in peace and happiness.

THE CURLEW

There is something very fascinating about the wail of the Curlew. When, after wintering on the sea coast, he returns to his nesting haunts, his wild sweet whistle on the lone mountain tracts fills every true bird lover with a great happiness, bringing back to him memories of former spring days passed on the hills, with the wailing of the
Curlew as the only sound to disturb the mountain solitudes.

During the winter months, when they keep for the most part in large flocks, haunting the estuaries of rivers in company with the Redshanks, Golden Plovers, and their other companions of the moorlands, the Curlews use a different note from that which adds such a charm to the moorlands—or, rather, they sometimes use this note during the nesting season, as well as several others, among which is the wild, vibrating cry which they begin to utter directly they arrive from the coast. This is the love-song of the male bird, and commences with a whistle uttered in a low key, the succeeding whistles being uttered rapidly, all the while in a rising key, until the top note is reached, when the whistle becomes more prolonged, until it dies away in a sort of long-drawn wail.

If there is any wind the Curlew hovers against it, something after the fashion of a Kestrel, all the while uttering its plaintive whistle, but the call note is used more frequently when the bird is descending.

The Curlew is very local in its distribution and may be found in great numbers on a hill on one side of the valley, while on the other side it is almost unknown. The ideal nesting haunt is a hillside with not too much heather, but a plentiful growth of long and coarse grass, and a good deal of boggy ground here and there, as the Curlews obtain most of their food from the marshes.

Towards the middle of March, if the weather be fine, the Curlews begin to appear on the moorlands, adding an immense charm to the mountain sides and lonely moors. They usually arrive in
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flocks, but almost immediately break up into pairs; until then, however, they rarely, if ever, utter their nesting cry. Sometimes they are misled by a spell of warm weather in March into thinking the winter must be over; but soon after they have reached the moorlands winter again sets in with all its severity, and they are put to terrible straits.

It seems very strange why the Curlews should not descend again to the sea coast on a return of winter, as with their powerful flight they could reach the sea, even from the most inland districts, in the space of an hour or two; but this, I believe, they never do. In fact, I have seen them starving in frost and snow when less than an hour's flight would have taken them down to the coast where food in plenty is ever to be found, and yet to do this apparently never entered their heads.

The spring of 1905 was especially severe, with fresh falls of snow daily, and the Curlews could be heard calling mournfully to each other when a new storm was commencing, as if they knew that fresh hardships were before them. One day in March of that year, there was a heavy storm overnight, followed by a day of cloudless skies and brilliant sun, which had a curious effect on the hills. On their southern slopes the snow had all disappeared ere dusk, and the mountain burns on these sun-exposed sides were in flood. On the other hand, the northern sides of the hills remained spotlessly white the whole day. Thus the sunny sides of the hills were crowded with bird life—Curlews, Redshanks, Lapwings, and Golden Plovers—all searching diligently for food, while the snow-clad lands were absolutely devoid of wild
life. During this storm I saw a Wheatear—one of the earliest of our summer visitors—gazing with evident astonishment at the snow-covered ground, probably seeing snow for the first time in its life.

After having been at their summer haunts for six weeks or so, the Curlews begin to think of nesting, and by the first week in May many of the birds have eggs. The Curlews are extremely shy at all times, but especially during the nesting season. Then the male bird is usually on the watch, and at his whistle the hen immediately leaves her nest, when you are still perhaps half a mile away. The hen always flies right off the nest, and does not, like the Golden Plover and most ground-nesting birds, run for some distance first. As it is, the nest is extremely difficult to find, and if the Curlew were to run along the ground before taking flight, it would be almost hopeless to attempt to discover it.

The Curlew's nest is a cup-shaped hollow scraped in the ground, generally in marsh land and sometimes on a little knoll surrounded by water, as in the photograph illustrating this article. The nest has hardly any lining—sometimes a few straws or sprigs of heather.

The eggs invariably number four; they are pear-form in shape, and are very large for the size of the bird; they are always placed with their small ends lying in the centre of the nest. It is usually the case with ground-nesting birds that they lay very large eggs, as the young chicks must be strong and vigorous directly they emerge from the shell, so as to be able to hold their own with the number of enemies which are always abundant on the moorlands. Birds of the Hawk or
Crow family on the other hand lay comparatively small eggs, for their young have no need of any exceptional strength, as they remain in a safe nest for many weeks and all their food is brought to them by their parents. As an illustration of this, the egg of the Golden Eagle is only slightly larger than that of the Curlew, although the former is a very much larger bird.

The eggs of the Curlew vary greatly in colouring, even in the same nest. Sometimes the ground colour is buff, at other times green, and the spots and blotches vary greatly both in size and shape. The eggs are beautifully coloured, and harmonise completely with their surroundings, so that you might almost tread upon them and be none the wiser.

The Curlew which I was fortunate enough to photograph was an exceptionally confiding bird; and after a good deal of perseverance I succeeded in picturing her on the nest. The first time she saw me she rose when I was about 200 yards away, and I never dreamt of photographing her. I returned with my camera a day or two later, in order to photograph the nest. This time the bird allowed me to approach within 100 yards or so, but even then I had not hopes of "taking" her.

About a week afterwards I again visited the nest, and to my astonishment was able to photograph the sitting bird at a distance of some 50 feet. Every day or so I managed to get a little nearer, until at last I fixed up the camera within about 8 feet of the nest, and obtained a good photograph. Had I been a second later in releasing the shutter, all my trouble would have been useless, as immediately the photograph was taken she flew off.
the nest and lighted in the heather quite near, calling loudly, and was soon joined by her mate. But, strangely enough, she had never previously uttered her alarm note, but had flown off the nest in complete silence.

Three of the eggs were hatched off safely, but for some reason she left the fourth, even although the shell was already chipped, and the young bird in a few more hours would have gained its liberty; as it was, it died miserably in the shell. However, I think the remaining three youngsters were reared in safety.

The young Curlews are hatched by the middle of June, those forming the subject of the illustration,
however, were photographed on July 5th, as late as nine o'clock in the evening. I had searched long and fruitlessly for some young Curlews to photograph, and at length, in an upper Donside glen, came upon a Curlew which evidently had young ones, although I failed at first to discover them.

The young birds were in a grass field bordering the road, and as long as the intruder kept walking or cycling along the road, the mother bird took no notice of him; so I cycled past as if I did not know there was such a thing as a Curlew, all the while keeping the tail of my eye on the bird and her young. When I had reached the point nearest to them I suddenly dismounted and immediately the Curlew rose with a wild cry, and all the young ones crouched flat in the grass. But I had carefully marked the exact spot, and had no difficulty in finding the downy chicks. Meanwhile the Curlew
was swooping at me, uttering the most frantic cries and shrieks; so immediately after the photograph was taken I made off as quickly as possible and left her to return to her family. I often saw the

mother and her chicks while passing along the road and on July 19th—the last time I saw them—they had grown considerably.

By the beginning of August most of the young Curlews are strong on the wing, and by the middle of the month both young and old commence to return
to the sea coast. By the early part of September the last of the Curlews have reached the coast, and until spring comes again the wild ringing cry of the soaring Curlew will no more be heard at its beloved nesting-grounds.

THE SANDPIPER

The Sandpiper is one of the most endearing of our summer visitors and adds an immense charm to the rivers and streams where it has its summer home and rears its young. When spring has returned once more and the rivers are swollen by the melting of the upland snows, the Sandpiper makes its appearance on its beloved river sides, and it is always with a feeling of gladness that one hears its clear, sweet whistle for the first time.

The usual date of its arrival is about the middle of April. Last spring I heard its whistle for the first time on April 17th. I was wandering along the banks of a rushing mountain stream amongst the glens of the Highlands, when suddenly this little summer visitor flew whistling by, adding a new joy to all the burn side.

Soon after their arrival the Sandpipers pair, but usually are comparatively late in nesting. The eggs are laid towards the end of May or the beginning of June. They invariably number four and are pyriform in shape, being always placed with their small ends at the centre. Should the experiment be made of turning the eggs so as to lie with their small ends pointing outwards, the mother bird on her return always restores them to their former position, as she would scarcely be
able to cover them were the small ends not towards the centre. They are very beautiful, the ground colour varying from a buffish to a greenish tinge, and the eggs are thickly speckled and blotched with crimson or brownish red.

The nest is always in the vicinity of water, usually on the river banks amongst the lupines or thick grasses. It is scarcely a nest in the proper sense of the word, being merely a hollow scraped in the ground and scantily lined with dried grass, stems, and leaves. Sometimes it is devoid of any lining. Although the Sandpiper seems to prefer a river for its summer haunt, yet it is often met with nesting on the shores of a highland loch, and very beautiful do the birds look as they skim whistling over the loch’s mirrored surface.

Altitude seems to count for nothing with them, and I have seen two or more pairs nesting on the banks of a mountain tarn almost 3,000 feet above sea-level. However, they seem to be in no hurry to arrive on the high ground, and they are usually seen at the mouth of a river a day or so before their advent is recorded on its upper reaches.

When brooding, the Sandpiper is sometimes a very close sitter, and will almost allow herself to be taken with the hand. When at last she sees that further deception is useless she flutters off, hissing loudly, and trailing her wings along the ground in the attempt to draw the intruder from her nest. But once she knows that her secret has been discovered, she no longer sits closely, but slips off the eggs long before you are near.

Whether the Sandpiper is a close sitter or not depends a great deal on her surroundings. Should
the nest be well concealed under a bush or tuft of grass, then the mother bird will sit until you have almost trampled on her; but, on the other hand, when the nest is placed in an open situation, the bird is a very light sitter and will leave the eggs at the slightest hint of danger, even though the young are just hatching.

Although the Sandpiper does not nest in colonies, it has its favourite breeding haunts, where a nest may be discovered every twenty or thirty yards. So long as you are in the vicinity of their nests the Sandpipers whistle plaintively, every now and
YOUNG SANDPIPER CROUCHING.
again taking short flights across the river and returning immediately.

When on the wing they always skim the surface of the water, often being so close to it that their wings actually touch the surface.

No bird, I think, calls so much as the Sandpiper. They are continually whistling to each other all through the day, and even during night their beautiful cry, often accompanied by the Oystercatcher's whistle, may be heard down by the rushing river, and are the only sounds to break the midnight stillness.

The young Sandpipers are hatched out in June. Very soon after they are born they are able to leave the nest and are led by their parents along the river banks. The young Sandpipers are almost impossible to discover. Harmonising perfectly with their surroundings, they crouch motionless at the first warning cry of their parents and remain so until all danger is past.

Were it not for the parent birds, one would never guess that young Sandpipers were in the vicinity; but both the old birds show signs of the greatest anxiety when their young are approached, trying in every way to draw the intruder off. They will allow you to approach within a yard or two of them, when they rise and alight a little farther on; all the while they bob their tails up and down incessantly and show signs of the greatest distress. During the daytime they rarely remain very near their young ones, probably because if they should suddenly be disturbed, the young have a better chance of escape when they are scattered about.

The usual note uttered by the Sandpiper when
its young are in danger is a long drawn "Twee-twee." Then it goes off into several short notes repeated rapidly, sounding like "Tu tu twee tu, tu tu twee tu," although it is, of course, almost impossible to reproduce in writing the note of any bird.

The young birds take a little more than a month to become fully fledged, and immediately they are ready, both young and old leave their moorland homes for the estuaries of rivers, and, after a short halt, set out for their winter homes across the sea. About the third week of July the Sandpipers are still to be met with everywhere, and you cannot find yourself by the river side without hearing their musical cry. The next week you may wander along the same river banks and be conscious of something lacking. Suddenly you realise that the Sandpipers have left for sunnier climes, taking their young with them, and that they will be seen no more till the snow and storms of another winter have gone and spring has come to us once again.

THE REDSHANK.

On the lone marsh lands, far up amongst the silent hills, the ringing whistle of this plaintive bird, as he soars and hovers above his nesting site, falls pleasantly on the ears. In many counties the Redshank nests almost entirely along the coast line, but in Aberdeenshire, although this is to a certain extent the case, nearly every moorland bog has its pair of Red-legged Sandpipers, to quote the local name.

After wintering at the sea the Redshanks,
on the return of spring, leave for their well-loved
nesting-grounds and are usually paired on their
arrival, which is usually a little later than that
of the Curlew or Golden Plover. After being on
the moorlands for a month or so, the birds bethink
themselves of nesting and scrape a slight hollow
on a dry spot in a bog, very often on a little knoll
with water all around.

There is no nest in the true sense of the word,
but sometimes the hollow is lined with a few blades
of grass, and here the hen, in the early part of May,
lays her four eggs. They are pyriform in shape,
and, as is the case with all the "waders," are
placed with their small ends in the centre. In
colour and shape they might be mistaken for those
of the Golden Plover, were it not for their smaller
size and the presence of the parent birds.

The nest is very difficult to discover, as the
hen usually is a very light sitter, especially if she
knows that her nest has been previously found, and
she often leaves the eggs before the ornithologist
has any idea of a nest being in the vicinity. Some-
times, however, I have known the hen to sit closely
even when the eggs were only freshly laid, and her
cry is almost human in its distress as she leaves
her treasures.

There is one nesting spot that I know well,
where a highland road passes through a bog and
divides it into two parts, and on each side of
the road a pair of Redshanks every year rear their
brood, and usually at almost the same spot. On
one occasion, after finding the nest on the one side of
the road, I spent several hours searching for Snipes'
nests on the other, some 500 yards distant, expect-
ing that the Redshank would return to her eggs.
BIRDS OF LOCH AND MOUNTAIN  

But, no; as long as I remained in the vicinity she did not come back, and on feeling the eggs on my departure I found them to be quite cold. But notwithstanding the long absence of the parent bird, the young were in due course hatched out none the worse.

For years in succession I have looked in vain for the nests of two pairs of Redshanks on the margin of a highland lochan, where they nest every spring; but, although I have found the broken eggs after the young have been hatched out, I have never been able to discover the nest.

It is interesting to notice that the Woodcock and, usually, the Curlew leave the broken
egg-shells in the nest, while the Redshank carries each shell some distance away when the young bird has emerged. It is difficult to understand the reason for this, seeing that the young leave the nest almost immediately after they are hatched, so that the proximity of broken shells could hardly betray the young bird's presence.

When the birds have eggs they are comparatively silent after they have left the nest. When the young have emerged from the shell, however, the parent birds, both male and female, betray the greatest anxiety on behalf of their chicks, circling round the intruder's head and unceasingly uttering their alarm note.

Towards the end of May the young birds put in an appearance, but are extremely difficult to discover, as at the alarm note of the old birds the chicks immediately crouch on the ground and remain perfectly motionless until the danger has passed.

During the spring months the Redshank uses several different notes. The male bird is very fond of soaring up against the wind, something after the manner of a Skylark, and, after remaining for a few seconds poised, descends rapidly to earth, all the time uttering his song, which, during his upward flight, sounds something like 'Clu, clu, clu,' and during the downward "Clueu, clueu, clueu." The alarm note is sharp and short, and the birds also use a cry which seems to be principally a call note, sounding like "Tuc a tuc tu," and by imitating this it is possible to make the birds immediately respond to the human whistle.

There is one colony where I should think hundreds of birds nest together, and in the month of
June, when they have young, the noise which the birds make on the approach of danger is simply deafening.

The Redshanks feed principally during the night, and may be heard calling as they pass swiftly overhead. When standing on a wall or fence they have a very Sandpiper-like way of jerking their tail up and down, and it is probably due to this that they are called locally the "Red-legged Sandpiper." Their range is not so high as that of the Sandpiper, and I have not met with them nesting much higher than 1,500 feet above the sea.

Like most of the waders, which feed during the night and yet seem quite lively during the day, it is difficult to see when the Redshanks obtain
any rest, but undoubtedly it is the case that they can do with a very little, snatched at odd intervals.

They leave the moorlands comparatively early, and hardly one is seen later than the first half of July. When they are at the sea, they usually keep in large flocks, and it is wonderful to watch them wheeling and turning as one, following the leading bird with marvellous dexterity.

They feed at the seaside chiefly on the molluscs and worms left by the falling tide, and it is very interesting to watch them follow a receding wave, picking up choice morsels before another incoming one forces them to retire. During the sojourn on the coast many a Redshank falls a victim to the gunner, but still, on an average, I think there is no decrease in their numbers from year to year, but, if anything, a slight increase.

THE OYSTER CATCHER

Were it not for this handsome bird the rivers of Scotland would indeed seem forsaken to the bird-lover during the months of spring and summer. After wintering on the sea coast, haunting the estuaries of rivers and mud banks, where even during the severest frost they obtain food in plenty, the Oyster Catchers, about the first days of March, begin to think of their nesting haunts and to ascend the rivers and burns where they love to nest.

Last year I watched the inland migration of these birds on March 4th. After a long spell of severe frost and snow, the weather on that day suddenly changed to almost summer-like mildness,
and all bird life at once responded to the welcome change. On the river Dee, some three or four miles from its mouth, it was most interesting to watch the Oyster Catchers migrating in pairs up-stream. They seemed to take the journey very leisurely and halted every now and again. In fact, three days afterwards there were none to be seen at a distance of thirty miles from the mouth, although one flock had been heard passing up the river at night.

The birds seem to pair before they ascend the rivers and keep together from the very first. Often, a storm of snow visits their nesting haunts not long after their arrival, and then many of them are found dead on the river banks. It is difficult to understand why they will not return to the coast, however bad the weather may be. But their motto evidently is, once having come, to remain at all costs; and after a severe frost it is pathetic to see a pair of Oyster Catchers disconsolately standing at the water's edge, seemingly waiting for the sun's rays to put life into them.

Six weeks or so after taking up their summer quarters, the birds begin their family cares, and towards the end of April or the beginning of May the first eggs are laid. The hen bird usually scratches the scanty hollow destined to receive the eggs on a shingle stretch by the river; sometimes, however, the nest is situated quite away from water. It is lined with small pebbles, and sometimes with a few pieces of coarse grass.

The birds have favourite nesting haunts, and very often several pairs may be met with nesting near each other. A very favourite nesting site is a large island in midstream, covered with stunted
heather and grass, where the birds nest in security from most of their enemies.

They are very light sitters, and leave their nests while you are yet a long distance off. The eggs usually number three; sometimes only two are found, and occasionally, I believe, as many as four, though I have never yet seen the latter number. They are rather larger than those of the common hen, and are beautifully speckled and streaked with dark brown. The ground colour is usually of a buffish tinge, and the eggs are in complete harmony with their surroundings, being very difficult to discover.

The period of incubation is about a month, and towards the beginning of June, the young birds are hatched out. They are of a uniform greyish brown, with their under-parts tinged with white,
and harmonise in an astonishing manner with the grass and heather in which they hide.

Last summer I was very anxious to obtain photographs of the young birds at home, but this was easier said than done. On a fair-sized island, a pair of Oyster Catchers had their nest rather late in the season, having deserted their first clutch for some reason or other. I was photographing a Goosander sitting on her nest at the time and came upon the Oyster Catcher’s eggs by accident. When I first saw them, the young birds were just chipping the shell and could be heard whistling faintly inside. I returned next day,
thinking the young ones would be hatched, but found the shells were only somewhat more chipped. Even on the following day the young birds had not freed themselves, and so on revisiting the spot that evening I thought I was fairly certain of finding the youngsters near the nest. To my great disappointment, however, the nest was empty, and although I looked long and carefully they were nowhere to be found. Even the egg-shells had been carried away from the vicinity of the nest by the watchful parent birds, who all the time I was on the island kept up a continual whistling and showed signs of the greatest distress.

It is a noteworthy fact that the Oyster Catcher, while it has eggs, cannot be called a very demonstrative bird when its nesting site is disturbed by the intruder; but when the young have left the shell all this changes, and both the parent birds show signs of the greatest anxiety for their children, uttering their shrill "Kabeek, kobeek" repeatedly, and hovering round the disturber of their peace until he is well clear of their nesting ground.

Knowing that the young Oyster Catchers above-mentioned must be somewhere on the island, I left my camera there all night and waded across next day. For some reason the parent birds were less watchful than usual on this occasion, and I had almost reached the island before the mother bird caught sight of me. Immediately she called loudly to her young, which thereupon squatted flat on the ground, and though I looked carefully where I knew them to be hiding, it was some time before I could discover them. To all appearances they were pieces of wood lying under a large pine
tree, and to make the deception more realistic, their heads were buried in the grass.

When the parent Oyster Catchers saw their young had been discovered, they evidently knew that further demonstration was useless and became quite silent, watching to see what turn events would take. Having exposed two or three plates on the chicks, I made all haste to leave the island and allow the parent birds to return to their children.

Although the nest is usually made in a very
exposed situation, I found one in the middle of a larch wood on a river island, and the Oyster Catcher looked strangely out of place as she got off her eggs and ran rapidly through the wood.

When the sitting hen sees the intruder from afar, she never flies off the nest, but runs rapidly along the shingle, and although you see her and give chase, she will not rise, but will run along as fast as she can until she has put a considerable distance between herself and the eggs.

Last May the Scottish rivers came down in high spate consequent upon three days of continuous rain, and many eggs of the Oyster Catcher must have been swept away. At that time I noticed pairs of Goosanders flying disconsolately about, so that probably their eggs shared the same fate.

By the latter half of July the young Oyster Catchers are strong on the wing, and then they assemble into flocks and leave the rivers for the coast. Many of the birds, however, remain inland throughout August and even during part of September; the latest date I have seen one inland being September 20th. Very often the Lapwing and Oyster Catcher nest together, and although the former is a very pugnacious bird, they usually seem to get on quite well together.

This is not always the case, however, as on one occasion I watched for some time a Lapwing making repeated attacks on an Oyster Catcher which was standing on the ground. Soaring to a good height, the Lapwing would swoop down on the Sea Ptit—to give it its local name—which received the attack with head down and tail in the air, but did not attempt to retaliate. At last the Lapwing
seemed to tire of this one-sided encounter and left its adversary in peace.

Although the Oyster Catchers seem to prefer a fairly large river to nest near, I have con-

stantly met with them on the banks of mountain streams. Two years ago I noticed, on the banks of a burn, a bird which at first I took for a Common Gull, but on its taking wing, I was surprised to see it was an almost pure white
Oyster Catcher. Except for the tips of its wings and a part of its head, the bird was as white as snow, and appeared to be looked at askance by the other members of the bird world, as I saw a Lapwing chasing it a few moments afterwards. Its call note also seemed more husky than the usual clear ringing whistle uttered by these birds. Last May I was pleased to see that it had escaped the gunner and returned to its summer haunts, but whether it was a cock or a hen bird I could not determine, most probably the former.

At one of their favourite nesting sites the Oyster Catcher and Goosander nest together, and when their haunt is disturbed, both fly backwards and forwards in a great state of alarm. One day a Goosander was flying fast and low along the river when an Oyster Catcher, not looking where it was going, almost dashed into it before it had time to swerve off, missing the Goosander by inches only.

An interesting point in connection with the Oyster Catcher is that when it is using a certain call note its wing-beats are much slower than at any other time. The note "Ko-beek" is uttered half during the upward stroke of the wing and half during the downward. The Oyster Catcher flies very rapidly, much like the Common Wild Duck, but when this particular note is uttered the wings beat at about the same speed as those of the Black-headed Gull. This seems almost invariably to be the case when the particular note is being used; so that with practice you can tell how the bird is flying by listening to its call note. If the bird has been using this note and changes to the more usual whistle, directly
the change takes place the wing-beats are also changed. The only other bird in which I have noticed this peculiarity is the Golden Plover.

Another note used by the Oyster Catcher is one which seems to be indulged in only when three or four birds are together, and very often in the calm of a summer evening. The notes are uttered slowly to begin with, but soon follow each other in rapid succession, and all the time the company of birds run backwards and forwards with their heads down and bills almost touching the ground, seemingly indulging in a kind of "follow my leader" game.

It is an interesting fact that the Oyster Catchers can do without practically any sleep during the twenty-four hours. They are to be heard at all hours of the day and during the summer nights as well, when, along with the Sandpipers, they may be heard at midnight down by the swiftly rushing river.

I once saw what appeared to be an attempt by a pair of Oyster Catchers to evict from a small island the pair that were already in possession. First one bird appeared on the scene, and with repeated swoops attempted to drive the sitting hen from the eggs, which he easily succeeded in doing. Then he and the pair in possession rushed backwards and forwards across the islet, whistling loudly and looking very comical with their heads almost touching the ground. Whenever the hen attempted to go back to her nest, the intruder went for her immediately and swooped repeatedly at her, she receiving the onslaught with tail in air, which seems to be the recognised mode of defence among ground-nesting birds. After an hour or so of this
the invader, now joined by his mate, seemed still in no mood to give in. A few days after, the island appeared deserted, and so far as I could make out, the rightful owners had been driven off, but the other pair had not taken possession. Truly, birdland is a strange world, little understood by us even in these days of civilisation.

THE COMMON TERN

Of all our summer visitors the Terns are among the last to trust themselves to our fickle climate and are rarely seen before spring has really set in. Pretty birds, they add an immense charm to the sand _dunes_ and river banks where they have their summer home.

Often have I noted the arrival of the Common Terns on a grassy islet on a lone mountain loch, and about May 7th is the usual date for the first Tern to make its appearance. For a day or so one or two birds only are to be seen, but by the middle of the month the island is occupied by a dozen pairs or so, which almost immediately commence nesting operations.

On this island the birds can hatch off their eggs and rear their young in safety; but the same cannot be said of the majority of their nesting haunts. Many of these one can scarcely visit without noticing footmarks all over the sand. Following the tracks, one sees that they go from nest to nest, or what were nests a very short while ago, but are now mere depressions scratched in the sand. Notwithstanding this incessant robbing of their eggs, the birds pluckily lay again and again,
perhaps at last succeeding in hatching off a clutch.

I have visited a colony of many hundreds of these birds during the nesting season, and have found scarcely a single nest which has escaped the eyes of the plunderers. Notwithstanding this, the birds still hover over their nesting haunt, and it is pathetic indeed to hear them uttering their wild note, and to see them endeavouring to drive off the intruder, although they have been deprived of their treasures.

The Common and Arctic Terns are practically indistinguishable while on the wing, and there is so very little difference between them that they can scarcely, I venture to assert, be quite a distinctive species. The Arctic Tern is supposed to be the more common in Scotland, and the Common Tern further south. In Aberdeenshire, however, the Arctic Tern is rarely met with—never, I believe, as the breeding species—while the Common Tern nests in great abundance.

The Sea Swallow—the local name for the Common Tern—is a charmingly graceful bird in every sense of the word, and it is a very pretty sight to watch them hovering above the surface of the water in quest of small fish. With quickly beating wings they keep perfectly motionless, poised in mid air, and then dashing suddenly into the water reappear with a fish in their bills, which is at once carried off to the brooding mate or young ones.

Unlike the Little Tern, which, I believe, invariably nests on the sea-coast, the Common Tern rears its young ones on the banks of the majority of our Scottish rivers, wherever there is a shingly beach suitable for a nesting site.
In connection with the river-nesting birds, it is, as far as my observations go, a curious fact that neither the Tern nor the Oyster Catcher will ever fly under a bridge if they possibly can help it. Many a time I have watched these birds flying up the river Dee at a point where it is crossed by a suspension bridge, but never have I seen either an Oyster Catcher or Tern fly under it. Although the Oyster Catcher and the Tern come up the river flying only a foot or so above the water, directly they reach the bridge, instead of continuing their flight on the surface of the river, they rise fully 50 feet and fly well over the bridge, whereas by continuing their original course they could save themselves a deal of trouble.

The Tern, although not a rapid flier, is able to keep on the wing for a long time on end, and will go great distances up and down the river in search of small fry for its young ones. Usually it works the ground once only in search of fish, but should it come upon a good pool, it will fly backwards and forwards repeatedly, every now and then hovering motionless about a dozen feet above the river's surface.

The Tern must see a great many fish it is unable to capture, judging from the number of times it hovers without dropping down into the water. But the explanation may be that the bird does not always see a fish when it stops suddenly in its flight, but hovers so that it may the better search the surrounding shallows for prey. It is a pretty sight to see a Tern beating up the river in the teeth of a strong summer breeze, carrying a large worm or fish in its bill for its sitting
mate or young ones on the shingle bed a little further up stream.

With slow-measured wing-beats, which have a tremendous amount of power behind them, it makes its way rapidly up the river in a zigzag course—whence its name of Sea Swallow—every now and again uttering its harsh "Kik, kik, kirree" as it eagerly returns to its family.

Although principally catching its fish on the wing, I have sometimes seen one standing motionless on a stone among the shallows for a considerable time. Possibly it was catching its prey after the manner of the sedate old Heron, although no one could, by any stretch of imagination, picture that bird capturing its dinner in the fashion of the energetic Tern.

On the island mentioned above, the colony of Terns have not the sole possession of the nesting site, but share it with a pair or two of Oyster Catchers and Sandpipers, and, strangely enough, several pairs of Common Gulls. Now every keeper will tell you that the Common Gull is an incorrigible thief and will not hesitate to steal the eggs of any bird when it has the chance. If this be the case—and to a certain extent I admit it—how can all these birds nest in harmony together on a small island not 100 yards from end to end?

All the same, the island is quite an arcadia for all kinds of water birds, and on it I have, in one season, found the nests of the Oyster Catcher, Common Tern, Common Gull, Sandpiper, Tufted Duck, Moorhen, and Coot, while sometimes the single tree the island boasts of is used as a nesting site by a pair of Hoodie Crows. If the birds
which use the island as a nesting ground were to combine against the Common Gulls or the Grey Crows, they could drive them away with the greatest of ease; on the contrary, however, they all seem to get on excellently together, and to rear their broods in complete harmony. The only time I ever saw the slightest sign of disagreement was when a Gull happened to alight, before going to her nest, rather near a Tern's eggs. The Tern resented this by swooping at the Gull several times, but beyond ducking each time the Gull completely ignored its adversary; and, as it made no attempt on the eggs of the Tern, the latter soon ceased its attack and harmony was once again restored in the community.

Can it be that the Gulls of the island have pledged themselves to abstain from all egg-stealing and other sins, and in return are allowed to rear their broods in peace? It seems like it. It is, of course, true that the Gulls and Hoodies are always more ready to purloin the eggs of such birds as the Pheasant, Partridge, or Duck, which are unspotted, rather than the eggs of the Grouse; but whether because the former are more easy to find or not it is difficult to say.

The Common Tern commences nesting operations almost immediately it reaches its nesting haunts after its long flight across the seas, and by the third week in May the majority are brooding on eggs. When the nesting site is on the seashore, the Terns form large colonies, consisting of many scores of birds; but on the river banks it is rare for more than one pair to nest on the same stretch of pebbles, although there may be ample room. Probably the reason is that, if several
pairs were to nest together, there would not be a sufficient food supply for them, as the river offers a much narrower scope for fishing operations than the sea.

The Tern is an extremely shy bird, and leaves the eggs while the intruder is yet a long way off. On very warm sunny days the Terns sometimes allow the sun's heat to hatch the eggs, and I have seen them leave their eggs quite unconcernedly to the sun's tender mercies and fly off for a holiday. It will be found that ground sloping towards the north is rarely used for nesting, as the rays of the sun have less power on north-lying ground.

A first visit to a large colony of these birds is an event which will not be readily forgotten by the
ornithologist. Rising in clouds in the air, they fly round the intruder, some of the bolder spirits swooping fearlessly at his head, all the while uttering their harsh, wild cry. It is only sometimes that the nest is a nest in the true sense of the word—more often than not it is merely a slight hollow scraped among the pebbles or sand. Once I found the eggs lying on the top of a sand dune without even a hollow to receive them and looking as if the least movement would send them rolling to the bottom. Sometimes, however, quite a respectable nest is made, composed chiefly of stems of bent stalks.

The eggs number two or three. They are of all shades and shapes, and occasionally there will be found in the same nest one egg of a nearly black ground colour with very dark blotches, another of a bluish ground colour with dark brown spots, and a third with buff for a ground colour and spotted and blotched all over with reddish brown. As a rule, and especially when laid amongst pebbles, the eggs harmonise perfectly with their surroundings, and it is an extremely difficult matter to discover them. Sometimes, however, the birds lay eggs which are almost black on the pure sand, rendering them conspicuous at a great distance.

On one occasion I was visiting a Tern colony late in June when the eggs were hatching. Suddenly I heard a most frightful commotion—all the Terns screaming in fury. Looking up, I saw a poor Rook which had strayed on the sacred ground and was being pursued by the enraged Terns. The Rook seemed to be completely stupefied by the fierceness of the attack, and instead of flying off, almost fell to the ground and then hid amongst the bent.
As long as it remained on the ground the Terns paid little attention to it, but directly it recovered from the shock and attempted to make off, the whole colony was after it instantaneously, so that it again sank to earth in a dazed condition, and that was the last I saw of it. Let us hope it escaped what must have been a terrible ordeal.

Finding a Linnet's nest amongst the Terns, I placed my handkerchief over it and returned for my camera a short distance away. Scarcely had I left my
handkerchief when the whole colony of Terns flew screaming towards it and swooped and dived at it, all the while making the most tremendous uproar. Whether they thought it was some egg-stealing animal or whether the unlucky Crow had turned their heads will ever remain a mystery.

By the beginning of July the majority of the young Terns have left the eggs and are carefully watched by both the parent birds. Within an hour or two of being hatched they are able to move about quite strongly. Care, however, must be taken not to keep the old birds long away if the weather is sunless and cold, as the spark of life burns very weakly in newly-hatched chicks, and too long an exposure to the cold winds has very often a fatal termination.

A good way of finding the nest is to follow up the footmarks of the birds in the sand, when it will be found that they usually lead to a nest.

Especially is this the case with the Lesser Tern, whose eggs are even more difficult to discover than those of the common species, as they harmonise perfectly with the shingle on which they are placed, and a nest is never constructed. This bird is the most charming of the species, and as regards flight and call is not unlike the Swallow. Unfortunately, they are now met with in only a few favoured localities. Like many summer visitors arriving in the late spring, the Terns are among the first to depart. Their usual time of leaving the River Dee is the first week in August, when they may be seen in small flocks to the number of half a dozen or so making ready for their departure and playing with each other in the air.
I hope that all bird lovers will do what they can for the better protection of these charming visitors, as I fear that unless the eggs are protected, the Lesser Tern will in a few years have ceased to exist as a Scottish breeding species, and we shall have lost one of the most fascinating of our birds.

**THE COMMON GULL**

While in most districts these handsome members of the Gull family nest on the coast, in Aberdeenshire, strange to say, they choose as nesting sites the highest mountain tarns, and rear their young with the Golden Eagle and Ptarmigan as their near neighbours.

There is one lonely mountain loch that I know well, lying at a height of nearly 3,000 feet above the sea, which is a favourite nesting haunt of the species. At this great altitude the spring is very backward and the surface of the loch is usually frozen hard until well on in April. Once, on the 16th of that month, while on my way to the loch, I noticed a flock of Gulls flying at a great height, and evidently coming from their nesting site. They were calling loudly to each other in a querulous tone, and on reaching the loch I at once saw the reason for their disappointment, as the tarn was completely ice bound and deep snowdrifts lay everywhere around.

In all probability the company of Gulls was an advance guard sent on by the main colony to report as to the state of the loch, and was returning with the unwelcome intelligence that it would be quite impossible for them to take up their quarters there for some time at least.
The Gaelic name of the loch is Lochan-an-Eoin, which means the "Loch of the Birds." As the old language has practically died out in the neighbourhood, the name shows that the Gulls have made the loch their home for generations.

The winter is spent on the sea coast, and the Gulls migrate inland early in March if the spring is favourable; until May, however, they frequent the valleys. It is a most interesting sight to see them coming down to rest after their long flight from the coast line. Arriving at a great height, they reconnoitre carefully ere descending in a body at some favourite locality which affords a wide outlook.

Their nesting season is late, and few of the Gulls commence to brood till the last days of May—in fact, if anything, they are later nesters than the Ptarmigan. The usual nesting site is on a little knoll at the edge of a loch, and if there are any prominent boulders the Gulls generally place their nests on these. A very favourite site is on a large stone, some little distance out in the water, where they are comparatively secure from the attacks of foxes, stoats, and other enemies, and hatch their brood in safety.

The eggs number two; sometimes three are found, and occasionally only one. They are large for the size of the bird and are beautifully coloured, being of an olive green colour and spotted and blotched with dark brown; but the ground colour and markings vary considerably. A very scanty nest is constructed, usually a few pieces of dry grass, while sometimes a hollow merely is scraped by the hen, and the eggs deposited without any attempt at nest-making.
NEST OF COMMON GULL
ON THE CLIFF OF A LOCH NEARLY 3,000 FEET ABOVE THE SEA.
During the period of incubation the male bird is constantly on the look-out and often may be seen soaring about in the vicinity of the nest. Once, from the top of a precipice, I was watching a pair of Gulls on a tiny loch below, the hen sitting on her nest on an islet and the cock flying about and calling loudly in a most dissatisfied manner. I was anxious to find out the cause of his discontent, so lay perfectly quiet. Soon a herd of deer, which had been grazing out of sight, came trotting contentedly down to the edge of the loch, eager for the cool water, for the day was very warm. Although it was the month of June, large snow-fields were still lying around the loch, and on these many deer, both stags and hinds, were lying half asleep. As the herd of deer entered the water, which at no point was more than a few feet deep, the hen Gull rose from the nest, and through my binoculars I could clearly make out the two eggs although the nest was fully half a mile away. Then both birds sailed angrily around the deer, calling loudly, "Kick, kieu, kieu, kieu," and evidently causing the latter no little anxiety, as they very soon left the water. One solitary individual, however, persisted in browsing at the edge of the loch after his fellows had moved away. The male Gull stood it for some time, but at length, losing all patience, made an angry swoop at the startled animal, which did not stop to argue, but fled in a dazed way—whereupon the Gull settled on a rock and visibly swelled with importance, receiving the congratulations of his mate.

An added charm is afforded the ornithologist who studies these interesting birds in their summer haunts at these great heights; his only com-
companions besides the Gulls being the beautiful Ptarmigan and the lordly Golden Eagle, with an occasional absurdly confiding Dotterel. The view from these mountains is unsurpassed, and on a clear day, from the "Loch of the Birds," the river Dee—here only a tiny stream—is seen dashing down Brae Riach's giant precipice, a distance of perhaps twenty miles away.

I think that the Common Gull and the Golden Eagle are on quite friendly terms with each other, and even if an Eagle should take it into his head to try to catch a Gull he would have a very difficult task, as the Gull's soaring powers are nearly—if not quite—as good as his own.

The male Gull is very pugnacious and will attack anything that ventures near his nesting site. At the hands of a colony of these birds a fox has a very bad time, and, on one occasion I watched, from a distance of over a mile, a Goosander swimming and diving in the vicinity of a stone on which a Gull was perched. I felt pretty sure that the latter would not stand this long, and sure enough, when the Goosander boldly swam close past the stone, the Gull swooped at him in a fury and effectually banished him from that part of the loch.

The young Gulls are hatched out by the latter part of June, but some do not leave the shell till July. They take to the water almost immediately they are hatched, and are very carefully looked after by the parent birds. While the intruder is yet a very long way off, one Gull is seen to leave the loch and make for him with strong wing-beats. Then another rises, and another, and the air is filled with wailing cries as the Gulls rise in a body.

One day last July I visited the loch to try to
obtain some photographs of the young birds at home. On a tiny loch, lying considerably higher than that on which the main body nested, a pair of Gulls had eggs earlier in the season; but there were no signs of life as I passed, so I concluded that the young birds had left. Just after quitting the lochan, however, I saw a Gull coming up towards me as fast as he could fly and calling loudly. He did not stop, but went straight up to the small loch, where probably he had left the young for a short time, and was now hastening back to see if any harm had befallen them.

On arriving at the main loch I found one pair of Gulls especially demonstrative, swooping at me repeatedly, and then I noticed two tiny youngsters, only an hour or so old, floating behind a large rock in the centre of the loch, where they had evidently been hatched. Although able to float perfectly, they found it impossible to swim against the waves and were gradually carried to the shore. As there was little cover for them to hide in, I thought I was fairly sure to get a successful photograph, but one hid so effectually that I could find no trace of it, and, on the wind dropping, the other made for the loch again. So, as the parent birds were in a great state of anxiety, I left them in peace. These were an exceptionally late brood, as often by the third week in July there is scarcely a Gull left on the loch; but on this occasion the spring had been very stormy. I noticed another young bird in the water, but several weeks old, and quite a strong swimmer.

Late in the nesting season, when the young have learned to take care of themselves to a certain extent, the adult Gulls sometimes leave the loch for hours on end, and may be heard in
the quiet of the evening flying noisily up to their nesting haunt.

The young birds when fully fledged are of a dark brown colour, even darker than a Curlew, and would certainly not be taken for Gulls by the novice. For some weeks they remain in the valleys, near where they were hatched; but by the end of August both young and old have left for the coast, where they will remain until the voice of spring calls them once more to the mountains.

THE BLACK-HEADED GULL

The Black-headed Gull (*Larus ridibundus*) is one of the most numerous of our sea-birds, and is met with abundantly in suitable localities throughout the British Isles. Its chief nesting haunt is Scoulton Mere, in Norfolk, where it congregates in thousands during the nesting season, and where at one time the surrounding farmers made a considerable sum by selling the eggs.

During the memorable winter of 1893, when Kingfishers were found frozen fast on rails, the Black-headed Gulls left their haunts by the sea-coast and were driven inland by the almost complete absence of food. On their way up the Thames they were received in London with open arms, many of the poorer inhabitants dividing their scanty meal with the confiding sea-birds; while men made small fortunes by selling sprats to enthusiastic bird-lovers on the Thames Embankment. Ever since then the Black-headed Gulls have visited London regularly every autumn, and it is a very pretty sight to see them catching on the wing the
fish thrown to them by the spectators. Besides the river Thames, another favourite resort is St. James’s Park, where they mix with the wildfowl; and once, when the pond there had been dried, I saw them busily engaged in catching small rainbow trout which had somehow escaped from a pond in Buckingham Palace grounds.

Some of the Gulls have their summer plumage by the beginning of February, but it is not until a month later that the majority don their summer dress. About the first week in March they leave the sea coast for the inland bogs and lochs, where they construct their nests, but stragglers may be seen by the sea throughout the summer. These, however, are probably unpaired birds. The nests are commenced about the second week of April, towards the end of which month the first eggs are deposited.

Should the first batch be harried, as is often the case in spite of the Wild Birds Protection Act, which is in force in most counties, the birds will lay a second and even a third time; and I have often found freshly laid eggs towards the end of June, by which time the earlier hatched-off birds were quite strong on the wing. The nest is sometimes rather a bulky structure, at others merely a slight depression lined with a few pieces of dead grass and heather, and is almost invariably situated in the vicinity of a swamp or loch.

The usual number of eggs is three. Four are said to be occasionally laid, but I have never seen a nest containing the latter number. They vary greatly in colour and markings, at times being of a very dark brown ground colour, with even darker spots and blotches of the same shade; at others
the ground colour is of a light yellow or green, and
the marks of a light brown. They also vary greatly
in size and shape, some being pear-shaped, re-
sembling those of the Green Plover, and others
almost as round as those of the tawny Owl.

It is noticeable that the old and experienced
birds choose for a nesting site those portions
of the swamp which are most difficult of access;
whereas the young and inexperienced Gulls often
construct their nests where they are harried as
soon as a single egg has been deposited in them,
and this is continued until the mother birds are
compelled by sad experience to make their homes
in a less accessible position.

When the nesting site is approached, the Gulls
rise in a crowd while the intruder is yet a good dis-
tance away and circle round his head, uttering all the
while their harsh grating note, not so very unlike
the “Craw” of the Hoodie Crow. Sometimes a
parent bird more zealous than usual will swoop at
the intruder’s head; but generally he loses courage
before he has actually struck the object of his
anger. The Black-headed Gull rarely attacks if
you are facing him, and it is amusing to wheel
sharply round and note how suddenly he shoots
upward as you turn your face towards him.

It is a very regrettable fact that within recent
years gamekeepers have laboured under the de-
lusión that the Black-headed Gull steals the eggs
of the Grouse and other game-birds dear to the
preserver’s heart, and so, in open defiance of the Wild
Birds Protection Act, which renders it illegal to
kill this bird during the nesting season, they
destroy numbers both by shot and poison.
I know personally of several swamps, that
NEST AND EGGS OF THE BLACK-HEADED GULL.
a year or two ago were tenanted by prosperous colonies of Gulls, from which every bird has been driven. With pathetic love for their old homes they return each spring, in ever-decreasing numbers, only to be ruthlessly destroyed by the keeper’s gun and their corpses left floating among the peat and rushes.

Some years ago I was grieved to find on a moss, where the year before they had nested in peace and security, a solitary Gull rendered quite helpless by a broken wing, the result of a keeper’s misplaced zeal. I carried it home under the focussing cloth of my camera and a friend succeeded in keeping it for a considerable period, during which it became quite tame. One day, however, it escaped and was never seen or heard of since.

As far as I am aware there is not the slightest proof that the Black-headed Gull purloins the eggs of game-birds; and I believe the reason of the war waged against it by certain keepers is the result of confusing this species with that of the Common Gull, which certainly does at times carry off the eggs of the Ptarmigan.

In one instance that I know of, there were several "Gulleries" on a marshy tract of moorland within a few miles of each other. Owing to the constant persecution of several keepers, however, the Gulls were driven from all their haunts with the exception of one. This latter, always a favourite resort, was thereupon invaded by all the birds which had been driven from their erstwhile retreats, until thousands of Gulls were nesting in the swamp. The wrath of the keepers knew no bounds, but luckily the proprietor of the moor was an enthusiastic bird-lover and forbade the
keepers to shoot the Gulls on his property. They then asked and obtained leave to "scare" the birds away, but after their visit I discovered at least half a dozen Gulls lying dead at different points in the moss.

At times the Black-headed Gull chooses for a nesting site a bog in close proximity to a public highway, and I have often clearly discerned the birds brooding while cycling along the road. On calm days they may be seen skimming the surface
of some mountain loch in search of insects. At one loch they almost continuously haunt the locality where the burn flows from the loch, and I think the explanation is that they are fishing for the shoals of minnows which are often to
be seen around this spot. They are very pugnacious, and I have seen several of them mobbing a sedate old Heron which had unwarily wandered over their nesting grounds and which flew from its small adversaries in evident alarm.

During the nesting season the male birds go long distances from their usual haunts, to return at sunset, and very beautiful they look as they wend their way westwards, with the setting sun tinging their breasts and wings with pink. The majority of the young birds are strong on the wing by the latter part of June, at which time the journey to the sea coast is begun. On their way down, the birds remain in the neighbourhood of villages for considerable periods, and a splendid chance is afforded the ornithologist of making photographic studies of them if the trouble is taken to throw out food; as almost instantaneously hundreds of gulls congregate and devour whole platefuls of fat, bread, etc., in a remarkably short space of time.

The Gulls at this time have begun to lose their breeding plumage, and patches of white may be noticed on their black heads; indeed, it is hard to believe that the birds of this year are of the same species as their parents, as the former have very little white on them and their feathers are almost all of a dirty brown colour. All through July the Gulls gradually dwindle in numbers, until by the end of the month hardly any except young birds are to be met with at a distance from the sea coast, although they may be seen haunting the estuaries of rivers.

I would appeal for the better protection of this beautiful little Sea-Gull, as, taken all over, it does a great deal more good than harm. Its chief food in spring is the grub so injurious
to the tender shoots of the corn; and dozens of birds may be seen ranging a field for the grubs, every now and again dropping suddenly down upon one of these insects. Last June, when many fields of oats were badly damaged by grub, I remember congratulating a farmer whose land was in the vicinity of a large "Gullery" on the excellence of his oat crop. His reply was: "O, aye; but ye see them white beasts eats up a' the grubs." At first I could not imagine what he meant, but discovered that "them white beasts" was his name for the Black-headed Gulls.

THE GREY CROW

Few birds are more persecuted than the Grey or Hoodie Crow. This persecution is abundantly justified when there is the least game preserving, as the Hoodie is perhaps the worst culprit so far as the stealing of Pheasants' and Partridges' eggs is concerned.

I have noticed, however, that they are much less ready to purloin coloured eggs—such as those of the Grouse and Lapwing—than eggs which are of a uniform brown colour, as those of the Mallard or Pheasant.

This spring I discovered a Teal Duck's nest amongst some coarse grass, and, when the hen left the nest, was much surprised to see the drake rise from close beside her, when they both flew off together. The nest contained only four eggs, and there were several sucked eggs in the vicinity, so that probably a Hoodie was the culprit, and the drake was stationed on guard to beat off the intruder.
When driven from their haunts, the Hoodies often make their home in the vicinity of a large town where, of course, there is no game preserving, and here they sometimes nest in numbers in the tall trees in the parks. The nests are often harried, but the Crows seem to prefer losing their eggs to being themselves shot.

This spring a pair of Grey Crows built a nest on the top of a high spruce tree within the grounds of a suburban residence where the sitting hen had a commanding view on all sides. I first saw her carrying up nesting materials on March 23rd. Then for some time nothing was done to the nest, and I had begun to think they had forsaken it, when they went at the work with renewed energy and soon had the nest finished. The eggs were laid about the middle of April, but never hatched out.

The hen was very shy, and if you looked at the nest through your field glasses at some distance off, she immediately flew away. She used to fly to a neighbouring tree and perch on the topmost branch, where she remained for hours. Gradually, when she saw that no one came near the nest, she grew bolder and would sit quite close; but by this time the eggs had been rendered unfertile owing to her prolonged absences, and after sitting for about a month she deserted in disgust. For over a month afterwards the birds were still frequenting the grounds, so that possibly they had thoughts of nesting a second time, though this, I believe, is very unusual with the Crow family.

The nest was a large structure, and the eggs numbered six. The strange thing was that
although the nest was within 30 yards of a main road, along which electric cars were passing every few minutes, the sitting bird was quite indifferent to them. Whenever I mentioned to keepers that there was a Grey Crow's nest in the grounds, they almost invariably said: "Of course you've poisoned them?" and were very indignant when I replied in the negative.

Some ornithologists state that the Grey and Carrion Crow are not two distinct species. In Aberdeenshire, at all events, they not infrequently interbreed, and in the above-mentioned instance the hen bird was a Grey Crow, while the cock was a Carrion.

In the large deer forests of the Highlands, the Grey Crows still live in comparative security, as they prove very useful in eating up the entrails of the deer which are shot. Keepers have told me that immediately a rifle is fired in the forest the Grey Crows approach on every side, so as to be in time for the impending feast. Should a wounded deer die on the hills, the carcase is soon eaten by the Hoodies.

The Grey Crow is a fearless bird, and although always making off when pursued by a bird with young, he will not hesitate to attack any bird when, in turn, his own nest is in danger; and I have seen one hotly pursuing a Golden Eagle, which was making off as fast as possible.

The Golden Eagle seems to dislike attacking the Hoodie, and I have know Golden Eagles in captivity refuse to eat young Grey Crows. During winter the Grey Crow feeds principally on refuse round the coast, but in the spring he is a deadly enemy to a feeble sheep or new-born lamb. If he
is fortunate enough to come upon one of these, his chief aim is to pick out their eyes, which are specially palatable to his taste.

Should a Hoodie find a Grouse or Pheasant sitting on her nest, he waits patiently in the vicinity till the unsuspecting victim leaves her eggs in search of food, when the Crow immediately flies to the spot and steals as many eggs as he has time.

Sometimes the Grouse surprises him in the act and manages to drive him away, but this is seldom the case.

However, it is but rarely that he manages to steal the eggs of the Lapwing, as one or other of these birds is always on guard; and whenever the Hoodie—or any species of the Crow family, for that matter—makes his appearance, he is immediately driven off by the angry rushes and swoops of the enraged Lapwings. These latter will attack almost any bird straying near their eggs or young; and I have seen a large number of them swooping furiously at an old cock Pheasant, which ducked and rushed about as if he had quite lost his head.

Some time ago I was visiting a very large colony of the Common and Lesser Tern, when suddenly I became aware of a tremendous uproar and saw that a Crow had wandered over the nesting grounds. Hundreds of infuriated Terns were swooping and pecking at him, and he was flying from the danger zone as fast as ever he could.

On the whole, I think that as regards the Grey Crow there is very little decrease in Scotland, as it nests in safety all along the coast and also in most of the deer forests, although banished from almost every estate where game preserving is practised.
THE WATER OUSEL OR DIPPER

Every river and nearly every highland stream is haunted by this charming little bird; and as he rises at your feet and skims along the surface of the water uttering his cheery note, "Tzeet, tzeet," he presents a very pretty picture. No moorland is too wild, no height too great for the Dipper: he will be found haunting streams almost at sea-level, while at a height of 3,000 feet, where the mountain silence is broken only by the occasional croak of the Ptarmigan, the Water Ousel suddenly rises from the source of some moorland burn and flies rapidly off.

Although the Dipper's call note is to be heard any day, his song is comparatively rarely used, but is of extraordinary sweetness, resembling to a certain extent that of the Wren, but being much purer and more liquid than that of the latter bird. What gives it an added charm is the fact that it is uttered all through the winter months, when other birds are silent. Sometimes the Ousel sings on the wing as he wends his way rapidly above the stream, but his favourite spot when singing is a large stone standing out into the stream. His song appears sometimes to be used for the purpose of calling his mate to his side.

During the winter, when the weather is severe and the moorland burns are to a great extent snow-bound, the Ousels may often be seen on the rivers near their estuaries, where I have noted quite a number "working" the river together—a state of affairs which would not be tolerated during the nesting season, when each pair of birds has a
certain portion of the stream as their beat and trespassing Dippers are very soon driven off by the rightful owners.

The Water Ousel is perhaps as early a nester as any bird of the highlands, and early last spring I watched for some time a pair constructing their

![NEST OF WATER OUSEL.](image)

marvellous dome-shaped nest on the foundation-stone of an old disused bridge, about a foot above the burn. Both birds were busy carrying materials for the nest, and it was a charming sight when they arrived together, the cock singing a few snatches of song to his mate to cheer her on her labours. The morning was very fine, but towards noon heavy snow-clouds came down from the west, and soon a dense snowfall commenced, the flakes being of exceptional size. I wondered what the
NESTING SITE OF THE WATER OUSEL.
Dippers thought of the storm and whether they imagined they had made a premature start in house-building.

Three weeks later the nest was finished and one egg laid, but when the young birds should have been nearly ready to leave the nest, a tremendous storm of snow and rain swept down from the north, and the burn rose rapidly until it lifted the nest from its foundations and bore it seawards in its current. The last I saw of the nest was just before it was washed away, but there were no signs of the old birds; so perhaps they had succeeded in getting their brood to a place of safety. Let us hope so, at all events.

The Dipper usually lays five eggs of a pure white colour, but when fresh, the yolk shining through gives them a pink tinge. They are rather elongated, and are very similar in shape and colour to those of the Swift, although, of course, the nesting site is totally different. The mother bird sits very close, and often the first intimation you have of the nest being occupied is when your hand touches the brooding hen inside.

The Dippers seem to take longer to rear their family than most birds of their own size, and six weeks after the eggs are laid the young may still be in the nest. Sometimes, when you have inserted your hand to feel how the young inside are progressing, the young birds pop out one after another directly it is withdrawn, and jump into the stream below, chirping loudly and swimming off in all directions. Then the parent birds immediately make their appearance and with loud cries of alarm endeavour to collect their scattered family.
HOME OF THE WATER OUSEL.
A very favourite nesting site is in the niches of a rock behind a small waterfall, the bird entering at the side, where the rush of water is almost absent; sometimes, however, the parent bird has to fly right through the fall. Often, the nest is constructed under the arch of a bridge where a stone has fallen out, and sometimes on a stone in mid-stream. In one of Mr. Kearton's charming books is a photograph of a nest in a tree about 10 feet above the level of the stream.

The nest is a large domed structure, with a small entrance hole near the bottom, and this hole is usually so small that it is almost impossible to feel the eggs inside without enlarging it somewhat.

The usual nesting materials are moss and leaves, and these are put together with such marvellous skill that, although the water is often dripping continuously on the nest, the inside is always perfectly dry.

The Dipper has often been accused—wrongly so, I think—of feeding on the spawn of trout and salmon in the bed of the stream. Although it is true the Water Ousel spends most of his time in feeding below the surface of the water, still I think his food consists chiefly of the insects which have their home in the bed of the stream. It is also said that fish bones are found round the nest, but that has never been the case in my experience.

When the frost is intense and the stream on each side is frozen over, the centre only remaining open, it is very interesting to watch the Dipper feeding. Standing on the ice's edge, he constantly dives into the stream, reappearing each time a yard or so further down, and when his hunger has been satisfied he preens his feathers contentedly in the frosty sun.
As a result of nesting so early, the Ousel sometimes has his nest destroyed by the snow, and in one case that came under my observation the unfortunate birds had their home covered with a snow wreath many feet deep, and when this had melted their nest had vanished. The birds will return to the same nesting place year after year, but this particular pair have not returned to the spot since the snow destroyed their nest.

I have seen a Dipper disappear into the ground when flushed from a stream, the explanation being that, a short distance further up, the stream went under ground and was lost to view, the bird likewise disappearing and following the course of the stream.

I have found the Water Ousel at the pools of Dee, between Brae Riach and Ben Muich Dhui, at the boundaries of the counties of Inverness and Aberdeen, where even the Grouse were left below and his only companions were the lordly Golden Eagle and the snow-white Ptarmigan.

Once I found in the month of May a Dipper's nest with half-grown young. On returning to the place some time later, I was very much astonished to find that a Spotted Flycatcher had built her nest on the top of the Dipper's, probably after the latter's brood had left, and had reared her young in this unique situation.

THE RING OUSEL

The Ring Ousel, or Mountain Blackbird, is one of the sweetest songsters of the mountains, and his song, though to a certain extent resembling that of his near relative the Blackbird, has a far
NEST OF WATER OUSEL, WITH SPOTTED FLYCATCHER'S NEST AND EGG ON THE TOP
greater wildness in its long-drawn, plaintive notes, as the bird pours it forth from the higher branches of some hardy larch or mountain ash far up on the lonely hillside. Does it not seem strange that, although our Blackbirds remain with us the whole year through, and never—or at least rarely—venture on the drear moorland wastes where the Ring Ousels nest, the latter, while scorning civilisation so long as they are with us, are unable to face the winter and migrate to summer climes?

When April, with its soft winds from the south-west, has at length dispelled the winter's snows from off the moorlands, and the birches of the upland glens have begun to put forth their leaves, diffusing a sweet aroma all round, then the Mountain Blackbirds commence to arrive at the nesting sites they love so well, and where probably they themselves first saw the light, while the moorlands seem all the more joyous for their presence.

Sometimes, however, they reach the uplands before winter is really over, and on one occasion were everywhere to be seen on the mountains on April 3rd, a day of summer warmth and sunshine; while two days afterwards all nature was covered by half-a-foot of snow. Although some of the less robust birds probably perish during storms such as these, still the majority somehow manage to hold out until spring once more asserts itself.

The Ring Ousels are the first of our summer visitors to begin nesting operations, the nest being commenced during the latter part of April; full clutches of eggs are generally found by the first week in May. The number of eggs is
usually four, but often three only are laid, and occasionally only two. They very often are indistinguishable from those of the Blackbird, but as a rule are less thickly marked, and with larger spots and blotches than those of the latter bird, while the eggs are often more circular in shape.

A favourite nesting site is on a hillside where juniper bushes grow in abundance; for the birds love to nest under the shelter, and the eggs are often so artfully concealed that it is impossible to see them until the bushes have been parted. The birds seem to prefer to be near a stream whenever possible. The nest is very similar to that of the Blackbird; only, as it is placed on the ground, it is rather less substantially built. Another favourite spot is a wild mountain ravine, and here the birds often construct their nests on the
ledges of the cliffs. They nest usually in small colonies, but are very local in their haunts, and one may walk for miles on some of the moorlands without seeing a single one of the species.

The hen bird at times is a very close sitter, at other times she leaves her nest while the intruder is still far off and in these cases her secret is difficult to find. She is very demonstrative, and shows the greatest anxiety while her nest is in danger, flying uneasily round the intruder and using her alarm note, an oft-repeated "Chack, chack, chack." The period of incubation is a fortnight, and the young birds are hatched out about the middle of May. They are fed most assiduously by both the parent birds, and by the end of another fortnight are able to leave the nest.

A second brood is rarely reared, but as late as June 22nd I have found a nest containing small young, these in all probability being a second clutch.

During the first week of last May I discovered a Ring Ousel's nest containing four eggs, well hidden under a thick juniper bush. The bird was sitting hard, and had evidently been brooding for a day or so at least. Ten days later a snowstorm of unparalleled severity for the time of year came on suddenly, and, being driven by a northerly gale, soon formed deep wreaths everywhere. A day or two later I visited the Ring Ousel's nesting site and was sorry to find a snow drift many feet deep covering the nest, which, of course, was completely buried. It was pathetic indeed to see the birds flitting disconsolately round their erstwhile home
and seemingly feeling their loss deeply. The nest remained thus covered for quite a week on end, but by that time the birds had probably forgotten their cares and were looking out for a new nesting site.

When their nesting season is over, the birds, young and old, form into small parties, and may often be seen frequenting the high grounds of the mountains.

The call notes of the cock and hen are very similar, but that of the male bird is louder and sharper and uttered more repeatedly when danger threatens.

The Ring Ousels seem very loth to leave their summer haunts, and it is not until the chill winds of October remind them of the near approach of winter that they leave for the South. On their journey they often alight in all varieties of strange places, but they may always be distinguished from the common Blackbirds by the snow-white crescent on their necks, as well as by their more subdued call notes.

As showing the harmlessness of the Kestrel where bird life is concerned, a very favourite nesting haunt of the Ring Ousels is a rocky ravine less than half a mile long, and here the Mountain Blackbirds nest within a stone's-throw of a Kestrel's nesting hollow. They seem to have no fear of the little Hawk, which on its part never molests them in the slightest, but confines its attentions to mice and field voles, with the down of which its nest is thickly covered.
THE BULLFINCH

The Bullfinch is one of the most confiding of our smaller birds and offers a splendid opportunity for the naturalist photographer. It seems to prefer the more uncultivated districts for a nesting site, and I have often seen it near a Golden Eagle's eyrie, where, strange to say, many of our song-birds—such as the Redstart, Chaffinch, and, more numerous than any, the cheery little Coal Tit—are met with in large numbers. The "King of Birds" apparently disdains such small quarry, and a keeper who lives near an eyrie tells me that they do incalculable damage to his fruit. The Bullfinch is very local in its habits, and seems to prefer a district rich in birch trees, the catkins of which form the chief food of the young birds.

The series of photographs which illustrate this chapter was obtained last summer under the most favourable conditions. The nest was built in a small spruce tree at a height of about four feet from the ground, and the hen began to sit on May 31st. About a week later I made my first attempt at photographing the bird, which, as incubation advanced, became exceptionally tame, even for so confiding a bird as the Bullfinch. At last she would allow me to stroke her on the nest and took not the slightest notice of the camera.

Once when, photographing her on the nest, the cock bird began to call gently for her. She listened intently and then, giving an answering cry, left the nest and joined him to be fed. The young ones were not hatched until June 16th, and I had
begun to fear that the eggs might prove unfertile. However, three of the five eggs hatched out, the other two having stuck together in some way. Both cock and hen came to the nest together, but the cock seemed to do most of the actual feeding, the hen looking on admiringly. I was able to secure a very good photograph of the cock feeding the young. He is alone at the nest, as he usually arrived a short time before his mate.

Three or four days after the hatching of the young I again rigged up my camera and waited patiently. This time the hen came alone all the afternoon, and for two or three days there was no sign of the cock, so I supposed he had been trapped.

One afternoon, however, after the hen had come to the nest several times alone as usual, a cock bird began to call from the top of a neighbouring birch tree, and continued for about ten minutes, at the end of which he was joined by the hen. I doubt, however, whether he was the original husband, as he never came near the nest and only accompanied the hen for food occasionally, altogether behaving quite differently from what he had previously done if he was the original mate.

One afternoon I timed the hen's visits to the nest. Her first visit during my watch was at 2.35, the second 2.55, the third 3.10, the fourth 3.25, the fifth 4 o'clock, and the sixth 4.25. The young always welcomed her with great signs of joy, and the strongest seemed to get most food, as the more feeble were practically swamped by the stronger. The young left the nest on July 3rd, having taken quite seventeen days to become fully fledged, which is, I think, somewhat longer than usual.
BULLFINCH BROODING
Towards the end, I used to feed the hen with hemp seed, and she was so confiding that she would actually take it from my lips and would perch on my hand without the least sign of fear. She was very clever at shelling the seeds, and after shelling about a dozen would feed her young with them: but she seemed to know that too much hemp seed was not good, as she would only take a certain quantity, and then fly off to look for birch catkins. When the mother bird was feeding from
my hand, the young did not mind my presence, but directly she left they showed signs of great alarm, especially when they had reached the age of nearly a fortnight.

I was very unlucky in my efforts to picture the hen Bullfinch at the nest. Nearly every afternoon I watched the nest for hours on end, but the sun had a nasty trick of shining brilliantly as long as the bird was away, and whenever she came back it would disappear behind a cloud, in the most exasperating manner.

In the vicinity a Meadow Pipit and a Willow Wren were busy feeding their young ones, and never seemed to understand the Bullfinch's confidence. Although their nests were some distance away, they kept hovering about in great anxiety, even when the Bullfinch was feeding fearlessly from
my hand. After feeding the young, the mother bird used to gaze at the nest for a few moments and then attend to its sanitary arrangements.

I hoped to see the young birds after they had

left the nest, but in this I was disappointed. The call of the hen was of exceptional sweetness, and was uttered in a higher key than that of the cock bird. The Bullfinch is a very late nester, and this particular pair reared a second brood, which did not leave the nest till late in August.
THE MEADOW PIPIT

The Meadow Pipit—or, as it is commonly named, the Heather Lintie—is one of the most abundantly distributed birds on the mountains, and on almost every moor its shrill note may be heard.

Although resident in this country throughout the year, they do not remain on the higher grounds through the winter months, but seek more sheltered quarters near the coast. At the earliest sign of spring, however, they return to the moorlands and there remain till late autumn. During the winter they are mostly in flocks, but very soon after their return to the high grounds they break up and form into pairs.

About the commencement of May the nest is constructed, and although the usual situation is amongst growing heather, all kinds of sites are made use of—under whin bushes, in banks, small rabbit scurries, and all kinds of unlikely spots. The nest is a very neat little structure made of heather and grass-shoots, and lined with thin, dry grass blades. There are or five eggs are laid, of a dark brown colour, and thickly blotched and speckled with light brown. They vary very much, however, and are sometimes more grey than brown.

The period of incubation is about a fortnight, or slightly under; and the hen, when the eggs are hard set, is a very close sitter, and when disturbed half flies, half runs, from the nest as though wounded. Often after a few yards she runs, or even walks, constantly looking back to see what is happening to her nest.

This bird is victimised more than any by the
Cuckoo, and probably the reason for this is that the latter bird is often very plentiful on the moors, and the Heather Lintie is the most common of the small moorland-nesting birds. It has been proved that the Cuckoo does not invariably lay her egg in the nest of her victim, as in one instance a Meadow Pipit's nest was found under a rock in such a position that a cuckoo could not possibly have got in to lay her egg, but must have deposited it outside and then placed it inside with her bill. Probably this is more often the case than is generally supposed, as Cuckoos have been
shot with eggs in their bills. An extraordinary thing, when the size of the bird is taken into consideration, is the smallness of the Cuckoo's egg. When laid in a Meadow Pipit's nest, it can scarcely be distinguished from those of the rightful owner, so alike are they in size and markings.

Last June I came upon a Heather Lintie's nest containing four lawful eggs and one Cuckoo's. I half thought of taking the one laid by the Cuckoo, but in the end left it to be hatched out. A fortnight later on I found the young Cuckoo, only a day or so old; but even by that time he had pitched out the rightful occupants of the nest, which were lying stark and stiff within an inch or two of their rightful dwelling, while the ugly black little villain was in sole possession. Even at that early period of his life he strongly resented my taking him up to look at him, opening his bill wide with rage.

As the Cuckoo is so very young when it throws out the other occupants of the nest, it is probably due to instinct, and not to premeditated wickedness, that it treats its fellow-nestlings so callously. But perhaps the strangest thing of all is the indifference of the parent birds to the fate of their offspring; for they will not make the slightest attempt to replace their young in the nest when they have been thrown out, but will devote their whole attention to the alien, while their own children slowly perish outside.

This at first sight seems to be a terrible state of affairs, but it is really only the wonderful provision of nature; for if the foster parents had their own brood to feed as well as the Cuckoo, the food they provided would not be sufficient for all, as it takes
them all their time to feed the Cuckoo alone when it is nearly ready for leaving the nest.

Why, then, it may be asked, do not the Cuckoos rear their broods themselves as their foreign relatives do, and as they themselves undoubtedly did at one time? To this question I fear there can be no satisfactory answer. Sometimes, however, the Cuckoo lays her egg in the wrong nest, and instances are on record of an egg being laid in a Carrion Crow's nest, and when the young birds
were hatched out of the Cuckoo being killed, either intentionally or not, and thrown out of the nest.

This particular young Cuckoo to which I have referred as throwing out his companions, pro-

spered exceedingly, and about three weeks later had grown to such an extent that the nest would not comfortably hold him, and he was huddled up in a very cramped position. When I took him out of the nest and placed him on the grass in order to take his photograph, he resented it very strongly.
and made hinges at my hand whenever I put it near him. He threw his wings apart and opened his beak wide in his attempt to overawe me. All the time the poor foster-parents kept calling near by in a great state of anxiety, holding in their beaks choice morsels for their foster-child.

In one case, a young Cuckoo was so fierce that it used to leave its nest and run after anyone venturing to disturb it, and when it thought it had scared the intruder off went calmly back to its nest.
The young Cuckoo heaves its companions out of the nest by getting underneath them and lifting them on to its shoulders, and then flings them out to perish miserably. When the Cuckoo is fully fledged and has left the nest, the foster-parents continue feeding it for some little time until it is fully able to take care of itself.

Occasionally, two Cuckoo's eggs are found in a Meadow Pipit's nest, but this is very rarely the case.

The Heather Lintie's call note is an oft-repeated "Zizick, zizick," or "Sphink, sphink." The male has a song very like his near relative the Tree Pipit. Flying up to a good height, he descends precipitately to the ground, meanwhile uttering his song, but the notes he uses on his ascent are different from those during the downward flight.

The first brood are able to look after themselves by the month of June, when the majority of the parent birds start housekeeping afresh, and I have seen newly-hatched young as late as the middle of July. The Linties are very anxious when any danger threatens their young, and fly restlessly around the intruder with their bills full of food, calling incessantly.

It is interesting to notice that the fact of their having food in their mouth in no way interferes with their call notes. They feed the young principally on insects, daddy-longlegs being a very favourite morsel, and the long legs may be seen sticking out of the captor's mouth.

Even as late as August an occasional Meadow Pipit will be seen collecting food for her brood, but by this month the majority of the birds have finished their nesting cares. Until late October, or
even November, however, they linger at the nesting haunts as if they would prefer to remain always on the uplands, if there were a sufficient supply of food.

THE WILLOW WARBLER

This beautiful little songster is almost everywhere to be found throughout the Highlands. In the dark pine forests, amongst the slender birches, and on the open moorlands, his pathetically sweet song is heard as he flits from branch to branch in quest of food; and when the cold winds of early autumn have driven him south, the woodlands and moors seem indeed deserted.

The first of the Willow Wrens arrives, should the spring be favourable, about the first week in April, but in some seasons I have not heard their song until the first of May. Some years ago we experienced a heavy fall of snow about May 7th, after a fine, mild April, and the Willow Warbler's notes seemed strangely out of place as he flitted about amongst the snow-covered birches.

The birds usually arrive in considerable numbers—that is to say, their song is heard in widely separate districts about the same time. When they first reach us their song is very soft and low; but after two or three days' rest they regain their true form, and on all sides their sweet undulating song is borne on the wind.

For a month or so after arriving they seem to take little thought of domestic duties, and it is not until well on in May that the earliest nesting birds begin to make their nests. Both cock and
hen help in the work, and very charming it is to watch them flitting to and fro, bringing nesting materials for their home.

By the first days of June the eggs are usually laid and incubation commenced. The eggs number from four to seven, occasionally more. They closely resemble those of the Common or Brown Wren, being of a white ground colour and spotted with a beautiful rich red. The spots usually are more numerous at the larger end, but sometimes are distributed equally all over. When freshly laid, the yolk, shining through the shell, gives the latter a delicate pink tinge.

The nest is marvellously constructed, being domed, with a side entrance, and lined with feathers, which form a warm and soft bed for the eggs to lie on. The outside of the nest is composed principally of dried grass with an occasional sprig of withered heather. The nest is so well hidden that even after marking the exact spot it is difficult to locate, and often the eggs are trampled on by unwary gardeners and keepers.

The hen bird sits very closely, and when flushed flits noiselessly away, but almost immediately returns, showing the greatest signs of anxiety as she hovers round the intruder, uttering her plaintive alarm note, "Whoo-ee, whoo-ee." This soon brings her mate to her side, and they both hover restlessly round.

The period of incubation is about fourteen days, and the young, when first hatched, are very helpless little things, with eyes shut and bodies almost naked. A fortnight's careful feeding by the parent birds works wonders, however, and by the end of that time the young ones leave the nest and are
shown the ways of the bird-world by their father and mother.

When the young are safely hatched out, the parent birds have a very busy time,

and from three in the morning until nine at night are constantly feeding their offspring. Every two or three minutes either the father or mother enters the nest with caterpillars or green fly for the hungry youngsters, whose eager cries for more can plainly be heard.
One never sees a Willow Warbler idle; he is always on the move, flitting from bough to bough and eagerly examining the under part of each leaf for the succulent green fly of which he is very fond. In fact, I have repeatedly seen Willow Warblers engaged in eating the green fly from sickly rose trees and producing quite an appreciable effect on the plants.

The Willow Wrens rear only one brood during a season, and after the beginning of July gradually become silent for about a month during their moult. Early in August, however, their song is recommenced, and during last summer they continued in full song throughout August, although after the nesting season is over the song is usually uttered only occasionally. The notes are begun in a high key, and gradually descend lower and lower, but often rise again just before the close of the song. The bird does not need to be still while he sings, but pours forth his sweet music while busily hunting for food, without even pausing in his search.

Though the nest is usually placed on the ground, amidst the long grass or heather, it is occasionally found in a tree at a distance of 10 feet or even more above the ground, while the photograph of the nest here reproduced was situated in the mouth of a rabbit scraping. The nest, however, was unfortunately destroyed before the young were fledged. Occasionally the Cuckoo victimises the Willow Wren, but this is rarely the case compared with the Meadow Pipit.

To ascertain the hour of the morning at which the Willow Warbler commences his song, as compared with other birds, I noted the time when various
birds commenced their song on the morning of June 21st last summer. These were:—Blackbird, 1.50 a.m.; Thrush, 1.51; Robin, 2.7; Yellow Hammer, 2.10; Willow Warbler, 2.24; Wren, 2.48; Chaffinch, 3.1; and Hedge Sparrow and Greenfinch both at 3.17. It will thus be seen that the Willow Warbler, though not so early as the Thrush or Blackbird, easily beats the Chaffinch or Greenfinch. In the quiet June evenings the Willow Warbler is in song till shortly after nine, while the Thrush and Blackbird do not retire to roost till about an hour later.

The alarm cry of the Willow Wren has an extraordinary sadness and appeal, and he must be hard-hearted indeed who destroys the nest while the parent birds are pathetically begging him to spare their treasure.
Towards the end of September the cold winds telling of autumn warn these delicate little summer visitors that they must be moving South, and by the end of the month they all have departed for sunnier climes, till the voice of spring once more calls them North.

THE PEREGRINE FALCON

It is a most regrettable fact that the noble Peregrine is fast decreasing as a nesting species in this country. This is due to a great extent to the constant warfare waged against it by nearly all gamekeepers, many of them acting under orders from their masters, who are ready to sacrifice the Peregrine for the sake of a few additional Grouse on the Twelfth.

In one Scottish county, where the ground is eminently suited for them, I have heard of only two pairs attempting to nest during recent years—sad to say, with little success. In one instance a keeper boasted of killing a Peregrine on the wing with a rifle, though he had absolutely no excuse for this contravention of the Wild Birds Protection Act, as the birds were nesting in a deer forest, where they are of great use to the sportsman by keeping down the numbers of Grouse.

This year I visited, on April 24th, a rock some forty feet high on the summit of a mountain, where the birds usually attempt to nest. The rock stands nearly 2,000 feet above sea-level and commands a wide outlook, especially eastwards, where a splendid view is obtained of the North Sea some twenty miles distant. On the west side the rock is quite insignificant, and, in fact,
THE AUTHOR AT THE EYRIE OF THE PEREGRINE FALCON
is not much more than a grassy slope, but the east face is almost perpendicular; and, on rounding the rock, sure enough the Peregrine sailed out from a ledge some 20 feet up and circled round, calling repeatedly. Her note closely resembled that of the Sparrow Hawk, but was not quite so clear and ringing as the call of the latter bird.

I succeeded in gaining the nesting ledge after rather a risky climb up the face of the rock, and was rewarded by finding five eggs lying in a slight depression scraped in the earth. There was absolutely no attempt at nest-making, but a few bones of Grouse—captured during the preceding season—lay in the hollow and one or two feathers from the parent bird. The eggs were very similar to those of the Kestrel in colour, but were larger in size, and a clutch of five is, I believe, a very rare occurrence. On the way up the hill we were struck by the great number of Grouse which rose in front of us, and from this surmised that the Peregrine could not be nesting in the vicinity. Within fifteen yards of the Peregrine's rock a cock Grouse was flushed, and his alarm note sounded very weird as the echo was thrown back from the rock. A blue hare also was sheltering near, and it was quite evident that the Hawk was not dreaded by the birds and beasts in the vicinity.

Having no camera with me at the time, I returned nine days later to the eyrie with photographing apparatus. The previous afternoon had been very stormy with heavy snow on the hills, accompanied by a southerly gale—a rare occurrence for early May. Leaving not long after daybreak, the eyrie was reached before eight o'clock, and on cautiously peering round the rock we had a very fine view
BIRD'S-EYE VIEW OF THE Peregrine's Eyrie, SHOWING EGGS ON THE LEDGE.
of the hen as she stood ready for flight at the edge of the nesting ledge. Immediately on seeing us she flew off at top speed and did not return while we were at the nest. We were rather surprised at this, for at our last visit she sat closely and hovered round us the whole time, calling loudly, and once or twice half-swooped at me while I was at the nesting ledge. A freshly-discharged cartridge, however, lying at the foot of the rock told of an unsuccessful attempt on the part of some keeper to add the sitting Peregrine to the list of his victims, notwithstanding that the bird is strictly protected throughout the year. Fortunately, she had escaped, but her experience had doubtless made her more wary, and she had probably been warned of our approach by the Grouse which we flushed and which flew past her.

Each ascent to the nest made the rock more difficult to climb, as the grass which previously afforded somewhat of a foothold was rendered insecure by the strain put upon it. My companion, also, in his endeavours to climb, clutched somewhat wildly at any grass that was near, and succeeded in pulling a good deal of it out. Having gained the nest, the camera was hauling up by a rope, and, after a good deal of manœuvreing, I got it in position in a somewhat precarious point of vantage and exposed four plates, all of which fortunately turned out well. The eggs, as will be seen from the accompanying illustration, were placed in a curious crescent formation.

From the rock a grand view was obtained. Eastwards the sun was shining brilliantly on the North Sea, which was lit up with beautiful effect, and fishing boats could be clearly made
out. Westwards the giant hills, which during the ascent had been hidden by snow squalls, now stood out in spotless white, and through the field-glass one could almost see the drift blown before the wind. During the descent we flushed Grouse in such numbers as I have rarely seen during the nesting season, and this despite the statement by a keeper that the Peregrines were numerous on the hill—a statement which, of course, was absolutely without foundation. On the lower ground, too, we met with great numbers of Golden Plover and Curlew, most of them with young, although on our previous visit we had not seen a single Golden Plover.

I had hoped to obtain a series of photographs of the young Peregrines at different stages of their growth; and with this view on the morning of May 18th my companion and I set out before five o’clock. A more depressing morning could scarcely be imagined. A strong northerly wind brought with it heavy squalls of sleet, and on the hill we were caught in a blinding shower of snow, with thick mist, so that we could only guess where the rock was situated. Soon we saw it appearing in the distance in a ghostly shape, and, just as we reached the base, flushed a hen Grouse sitting on her nest, which contained seven eggs. As the wind was bitter and the ground powdered with snow, incubation under such circumstances could not be too pleasant a task. Climbing the rock from the west side, we crept cautiously to the summit, as the mist had lifted somewhat, and we expected every moment to see the Peregrine leave her nest. But, alas! for our hopes. The nest was seen to be deserted, and I at once
POSITION OF EGGS IN PEGRELINE FALCON'S EYRIE AFTER THE MIGRATION HAD BEEN SHOT.
concluded that the hen had been shot. Near by were the remains of a Lapwing, evidently one of the last birds taken by the luckless Peregrine, while a few skeletons of Grouse were also lying near. On climbing to the eyrie I found that two of the eggs had been moved along the ledge a distance of nearly two feet, and also found the mark of a pellet on the rock with a corresponding groove in the nest. It was plain that the keeper had crept up the rock from the west side and shot the bird while she was unsuspectingly brooding. On receiving the shot she had, in her agony, fluttered along the ledge for about two feet, carrying two of the eggs with her, and I could see the marks made by her claws as she writhed in her death agony. Numbers of her feathers were lying around, some of the under-feathers being of extraordinary beauty—tinged with greenish yellow.

To show how the eggs were found, I called for a rope to be thrown to me, by which to pull up the camera, and asked my companion to come up also. However, the rock proved too much for him, and after several desperate efforts he had to own himself beaten.

While at the nest I saw a Peregrine flying in the far distance—probably the cock—but he did not venture to come near to his former home. [From "The Illustrated Sporting and Dramatic News."]
MORVEN IN SNOW

A WINTER CLIMB

About six miles north-west of Dinnet, Morven, "the Great Hill" (2,863 feet above sea-level), lies midway between the valleys of the Dee and Don, and from the summit cairn a view of surpassing beauty is obtained in every direction.

At the time we make the ascent the new year is yet only a few days old, but a succession of warm south-westerly winds has caused most of the traces of the recent snowstorm to disappear. Motoring from Aboyne, we have, at the old mill of Dinnet, to take the car through a field, as an immense drift, which a day or two ago was estimated at 20 feet in depth, lies across the roadway. The route is by Ordie and Loch Davan, and two wreaths have to be cut through ere we reach Morven's base. The air is soft and mild and extraordinarily clear, but a gale blows from the south-west and it is not easy to make much progress against it.

The hill is wonderfully clear of snow, but one huge drift is noted in a low-lying corrie and the fence is completely hidden by the snow. The first white hare is seen just below the 2,000 feet level, and he runs off, looking for all the world like a small snow wreath, as he is spotlessly white with the exception of his ears. Just before reaching the mossy plateau lying about the 2,000 feet line, we put up several Ptarmigan. These mountain dwellers are rarely met with below 2,500 feet, but we have noticed them several times at this spot, even during the nesting season, which is rather interesting, seeing
that on Lochmagar, Ben Muich Dhui, and their other strongholds they do not descend much below 3,000 feet. All round the plateau pack after pack of Grouse get up, and, rising against the wind, gradually swerve off and fly down-wind at express speed. The birds are exceptionally wild and take wing while we are yet several hundred yards from them.

Although it is only two o’clock the sky to the south-east, from Mount Keen to Kerloch, is lit up a beautiful pink, as though the sun has already set. Morven’s southern slopes have many deep and soft wreaths on them, but we strike off to the right and gain the summit plateau at the eastern cairn, which is partly of natural formation. Ere reaching the summit, however, we have some snow climbing to do, as a drift some 200 yards long and exceedingly steep bars the way, and at one point we are almost blown from our scanty footing by the force of the gale. On the distant wreaths coveys of Grouse stand or run weirdly about, looking very comical on the snow, and a number of hares run quickly for safety from their natural enemy. Several roosting hollows of the Grouse are discovered, some containing fresh droppings, and it is suggested that a bed on the snow must prove rather chilly when there is so much bare ground all round.

As we emerge on the summit plateau the wind blows with hurricane force; but at length we gain the shelter of the cairn, about 400 yards distant, and gaze our full at the glorious view which it is given us to enjoy. During the ascent a thin grey mist has at times passed over the higher reaches of the hill, but has been borne onwards by the gale. We have climbed Morven many a time, but never has
the view been such as it is to-day. Due south, Mount Keen (3,077 feet) and the Braid Cairn, a few hundred feet lower, are comparatively free of snow. The summit of Cloch-na-Ben is clearly seen, as are also Kerloch and Cairn Mon Earn. Evidently there is less wind further down the valley, for the smoke of Banchory is lying above the village and the North Sea is hidden by the smoke of Aberdeen. It is the north and west, however, that supply the grandest view. Due north, Ben Rinnes is bathed a most glorious pink by the setting sun, and here the sky is of surpassing loveliness. North-west the blue is tinged with green; this gradually merges into dark blue, and still further east the sky is tinged with pink. The Brown Cow (3,000 feet), between Gairn and Don, carries an immense drift on its south side, locally known to the natives as the "Brown Cow’s White Calf." To the north-west, about eleven miles distant, the road from Cockbridge to Tomintoul is seen winding up the hill and filled with huge drifts. Ben Avon and Cairngorm are occasionally hidden by mist, and at times the giant stones on the former’s summit are the only part of the mountain left visible.

The setting sun shining on the westward slopes of the hills to the north-west has a marvellous effect, and we seem to be transported to a fairy world. Above Strathdon the road appears to carry a considerable depth of snow, but between Dinnet and Donside the road is comparatively free of drifts. Looking south-west, ice-bound Loch Muick is seen nestling amongst the mountains, and Lochmagar and the Cuidhe Crom make a beautiful picture with the setting sun behind them.

Suddenly a mist envelops the cairn behind which
we are sheltering, and we see for the first time the shadow of Morven thrown on the clouds. All the time the mist rests on the summit a horse-shoe-shaped rainbow or "glory" is outlined against the mist east-north-east of the hill, and for a few seconds a double "mock" rainbow appears. As the mist clears off the hill, we notice the great distance to which the shadow of Morven extends. Even east of Towie many miles down the Don all is in shade, and every moment the sun sinks lower and the shadow correspondingly increases. About 3.30 the sun disappears beneath an Atlantic storm-cloud coming up on the horizon, and the cloud's edges are for some minutes tinged with purest gold. Just as the sun is disappearing, a covey of eight snow-white Ptarmigan wheel across the hill near the summit, coming from the Donside direction, which is in shadow. As they reach the sunlight their snow-white plumage is suddenly lit up a rosy tinge with beautiful effect.

A curious phenomenon is now visible. From the eastern horizon three great rays gradually spread over the whole sky to the east. One points south-east, another north, and the third north-west, while a fourth is faintly defined shooting up to the westward. The sunset has a marvellous effect in the valley of the Don, lighting up wood, field, and heather with a fiery tinge and having a grand effect on the snowy hills. The Bin Hill of Cullen, many miles to the north-east, has also its full share, while Lochmargar against the sunset is a dark bluish black, and down by Cambus o' May the Dee runs full and fast.

But now the descent must be commenced; so, after lingering a while to look on this beautiful panorama,
we strike down the south side of the hill. We hoped to have been rewarded with some glissading; but, unfortunately, the snow is comparatively soft, and, after several unsuccessful attempts, we have to give it up.

For another hour at least the beautiful sunset continues, each minute receding further west, where for long the sky is lit up with a crimson hue impossible to describe in words. The Grouse rise startled at our feet, calling loudly in alarm, and darkness rapidly descends on the mountain; while the glow in the west becomes gradually fainter and fainter, until at last night reigns supreme.