



FIG. 11.

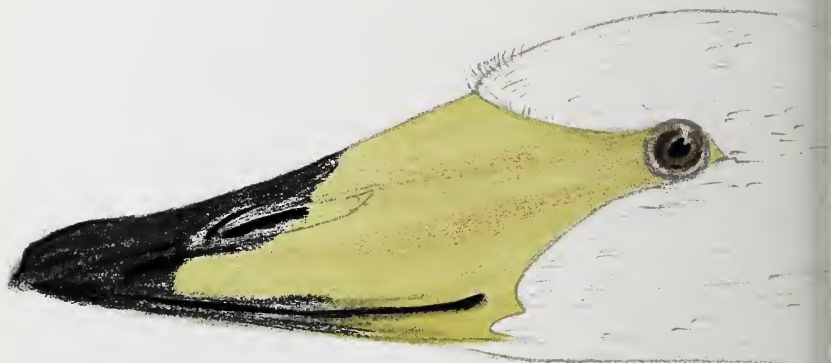


FIG. 10.

Proceedings
of the
Somersetshire Archæological and
Natural History Society,
1883, *Part II.*

PAPERS, ETC.

On the Distinctions between various nearly-allied, or similar forms of Birds, with special reference to those known to have occurred in this County.

BY CECIL SMITH.

I AM always glad to be called upon to read an ornithological paper to this Society, as it appears to me that the Archæological subjects, perhaps the most generally interesting, rather rob the Natural History subjects of the attention due to them, not only at these Conversazione Meetings, but at the general Annual Meetings. Although the papers dealing with the subject are few, attention to it is not quite overlooked, as there is a moderately good collection of birds in our Museum, and if those deposited by Dr. Woodforde were added, the collection would be perhaps up to the average of local museums, but even with this addition there would be many large gaps. The interest of the collection would be much increased if the breast bone or *sternum* of each bird were preserved and shown. A collection of young birds in the down, special care being taken

to label correctly where they were taken, would be of very great interest, as showing what birds actually breed in the county.

In my birdy experience I have known so many mistakes made, and so many birds, that one would scarcely suppose it possible to confound, labelled with wrong names, that I have found it rather difficult to know where to draw the line in pointing out the distinctions, so as to bring what I have to say within the limits of a paper in these *Proceedings*. However, by limiting myself to birds between which mistakes may easily be made, and one or other or both of which have been found in this county, I think I may succeed in doing so. I shall take them in the order in which they come in the new edition of *Yarrell*, as far as it at present goes, and use the scientific names as given in the *List of British Birds*, lately drawn up by the Ibis Committee, and published under the auspices of the British Ornithologists' Union. Not that I am prepared to agree to every Latin name given in that list, but that I hope it may be taken for the future as an authority, and so obviate the confusion caused by the utter want of uniformity which previously existed in spite of the rules of nomenclature laid down by the British Association.

Following this arrangement then, the first birds to which I shall have to call attention are the Golden Eagle, *Aquila chrysaëtus*, and the White-tailed, or as it is sometimes called, Sea Eagle, *Haliaëtus albicilla*. One would think these birds sufficiently distinct for any person to be certain at a glance which he had before him, and in the fully adult plumage no doubt this is so, as no one could possibly mistake the adult *Haliaëtus albicilla*, with its white head and white tail feathers, for a Golden Eagle. The young birds, however, before they have attained their fully adult plumage are more alike, and are not unfrequently mistaken for each other, and it is often difficult to make the owner of a young White-tailed Eagle believe he has that bird, and not the Golden Eagle; no talk of infallible

tests or distinctions will probably change his opinion, especially if the bird has already been recorded in a local paper as a young Golden Eagle. At all events I know one such case, where a Somerset White-tailed Eagle has, I believe, more than once been recorded as a Golden Eagle. Without troubling ourselves, however, to go very deeply into relative length of primary quills and that sort of thing, there is one simple distinction which holds good at all ages, in both sexes, and all states of plumage, that is, that the lower part of the leg or tarsus in the Golden Eagle is feathered to the junction of the toes, whilst in the White-tailed Eagle it is bare of feathers. This distinction is easily seen, is always reliable, and is worth remembering, as in spite of records to the contrary, I do not believe the Golden Eagle has ever been found in a perfectly wild state, either in this county, or in any of the four western counties, or the Channel Islands.

Amongst the true Falcons it does not seem necessary to point out the distinguishing characters, as (except in the case of the three White Northern Falcons, which are something alike, but none of which have yet been obtained in this county) the birds are sufficiently distinct, both in size and plumage, to guard against mistakes even by the most unobservant persons. Of course I am only speaking of such Falcons as occur in the British Isles, and not of absolute foreigners.

We may, therefore, pass from the true Falcons to the Buzzards. Amongst these, as between the Common Buzzard, *Buteo vulgaris*, and the Rough-legged Buzzard, *Archibuteo lagopus*, both the English name 'rough-legged,' and the scientific name *lagopus* (λαγως and πους) of the latter, seem to point sufficiently to the distinctions, which are much the same as in the Golden and White-tailed Eagles, namely, the bare tarsus of the common Buzzard (fig. 1), and the feathered tarsus of the Rough-legged Buzzard (fig. 2). Both vary considerably in plumage, but besides the distinction above referred to, the Rough-legged Buzzard has a dark band across the breast, a

distinction which in light-coloured specimens is very conspicuous, and may serve to distinguish them when at a distance and high up on the wing. This band, though not so conspicuous, is present even in the darkest melanistic forms.

Amongst the Harriers, the Marsh Harrier, *Circus æruginosus*, seems so distinct from the other two British Harriers that I may pass it. Between the Hen Harrier, *Circus cyaneus*, and Montagu's Harrier, *Circus cineraceus*, though the adult birds may easily be distinguished, there may be, as in many other cases, some difficulty about the young ones. Mr. Howard Saunders has pointed out in his *Oiseaux du midi de l'Espagne* that any difficulty which arises as to the identification of the two birds, may be solved by observing the shapes of the first five primaries, as in the Hen Harrier the outer web of the fifth primary is notched (fig. 3), whereas in Montagu's Harrier it is plain (fig 4), or in other words, the Hen Harrier has the outer webs of the primaries, up to and including the fifth, notched; in Montagu's Harrier this is only the case as far as the fourth, the fifth being plain. Besides this, there is a distinction in plumage, the Hen Harrier having a distinct white band on the rump, which is wanting in Montagu's Harrier; and the long feathers on the thighs of the adult Montagu's Harrier are streaked with orange, which is not the case with the Hen Harrier; this, however, is not so good a distinction in young birds, or even in adult females.

About the Owls I do not think I need say much, as not being much alike, they are not easily confounded with each other, except in the case of Tengmalm's Owl, *Nyctala tengmalmi*, and the Little Owl, *Athene noctua*, both of which have been added to the avifauna of this county since I published the *Birds of Somerset*. They both appear to have occurred near the Mendip Hills. These two little Owls are certainly at the first glance a good deal alike, but with a little care they may be distinguished, as Tengmalm's Owl has a distinct and nearly complete facial disk, whilst in the Little Owl there are only

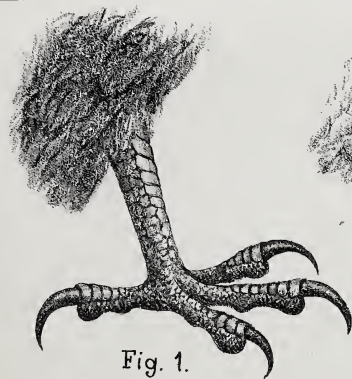


Fig. 1.

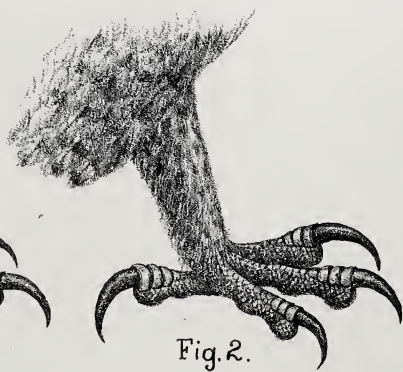


Fig. 2.



Fig. 5.



Fig. 6.

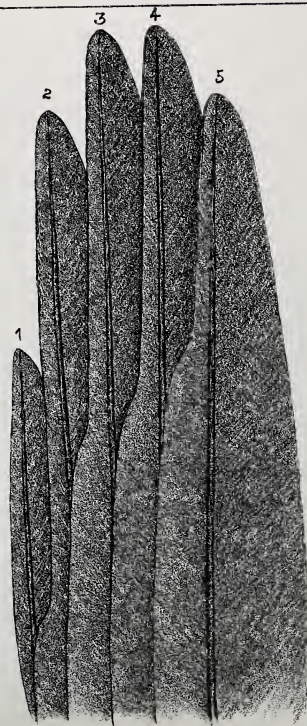


Fig. 3.

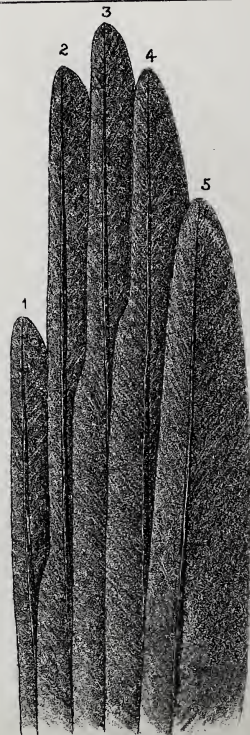


Fig. 4.

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very slight indications of it; perhaps a better test is to be found in the toes, which in Tengmalm's Owl (fig. 5) are fully feathered right down to the claws, and in the Little Owl (fig. 6) are nearly bare, being only sparingly covered with a few hair-like feathers, in this respect much resembling the same parts of our common Yellow or Barn Owl.

White's Thrush, *Turdus varius*, *Turdus whitei* of the old editions of *Yarrell*, which has now been taken twice in this county, is so unlike any other British Thrush that I need hardly point out the distinctions. As, however, mistakes have occasionally been made between this bird and our Common Missel or Mistletoe Thrush, *Turdus viscivorus*, in its first plumage, I may just point out that the spots on the feathers of the breast of the Mistletoe Thrush are round, whilst the markings on the breast of White's Thrush are semi-lunar; White's Thrush, moreover, has fourteen tail feathers, whilst the Mistletoe Thrush has only twelve. There is another Thrush, the skin of which is frequently sold by dealers for that of White's Thrush. I mean the Australian *Turdus lunulatus*, a bird which has never reached the British Isles alive; and of its own free will neither has White's Thrush yet been known to have occurred in Australia. The skin of the Australian bird may easily be distinguished from that of White's Thrush, as, like our Mistletoe Thrush, it only possesses twelve tail feathers.

Amongst the large group which contains all the warblers, generally known as the *Sylviidæ* or woodland birds, there will be several I shall have to refer to. The males of the two Redstarts, *Ruticilla phœnicurus* and *Ruticilla titys*, are perfectly distinct; the females, however, are not quite so distinguishable. The female of our Common Redstart always appears to me of a paler, more rufous brown, than the female of the Black or Tithy's Redstart; the latter being of a sooty brown, looking more as the hen of the Common Redstart would look, if she had fallen down a chimney.

The next two birds so much alike as to be liable to be mistaken for each other are the Reed Warbler, *Acrocephalus streperus*, and the Marsh Warbler, *Acrocephalus palustris*. The latter has recently been added to the birds of Somerset, and, indeed, almost to the British list, from two pairs taken near Taunton, and formerly in Dr. Woodforde's collection: one pair being now in my own collection, and the other pair, with the nest and eggs, also taken near Taunton, in our Museum, where they were deposited by Dr. Woodforde. The two species are certainly very much alike; so much so, that Professor Newton declines to distinguish between them, at all events from British-killed specimens, and consequently he has not added the Marsh Warbler to his *Yarrell*: they are, however, perfectly distinct and separable species, and as such, are both included in the new *Ibis List of British Birds*, where the Marsh Warbler is said to be a rare summer visitor to the southern counties of England. These Marsh Warblers from Dr. Woodforde's collection, and one other which I also found in our Museum, are recorded in the *Zoologist* for 1875, where I stated the distinctions, as they appeared to me at that time to be, as follows: "The whole of the upper surface of the Marsh Warbler has a decided tinge of yellowish-green, most easily to be distinguished on the rump. This tinge pervades even the quills and the tail, being most discernible in those parts on the margins of the feathers; therefore, birds killed just before the autumn moult, when the margins of the feathers are much worn, seem to be the most difficult to separate. The under parts, except just in the centre, where they are white, are of a pale sulphur or primrose-yellow; the legs are pale brown. The upper surface of the Reed Warbler is brown, with a decided warm reddish tinge, and, as in the Marsh Warbler, brightest and most distinguishable on the rump; the same tone of colour pervades both the wings and the tail, being most discernible on the margins of the feathers; the under parts, except just in the centre, where they are white,

are of a buff or fawn colour, the same sort of warm reddish tinge prevailing on these parts as well as on the upper parts ; the legs are of a darkish lead colour, though in some dried up specimens the colour of the legs does not differ so very much ; but it will always be found that the birds with the greenish tinge have the legs pale, while those with the reddish hue have the legs dark." Since writing the above in the *Zoologist*, I have examined a large number of specimens, shot at various places and at different times of the year, and have always found the above distinctions hold good. There is another distinction of plumage pointed out by Mr. Harting, in Professor Newton's edition of *Yarrell*, but I confess that after examining a long series of both birds I do not consider it a good one : it is that, in the Marsh Warbler the eye streak is more clearly defined than in the Reed Warbler. Besides these distinctions of plumage, the Marsh Warbler certainly has a shorter, rather broader, and thicker bill. There is another distinction pointed out by Mr. Dresser, in the relative length of the primary quills ; in the Marsh Warbler the second or first long quill—the first in both species being very short—is longer than the fourth ; in the Reed Warbler it is equal to, or rather shorter than the fourth. Of course this is a good distinction, but like all distinctions in the comparative length of quills, it cannot be relied upon at all times. Shortly after the moult, for instance, before the quills are fully grown, it may not be true ; or if one quill had been shed and replaced by another not fully grown, it might also turn out not to be true ; so that, though a good test at times, it would be hardly true to say that every example found with the second primary longer than the fourth is a Marsh Warbler ; or, *vice versâ*, that every example found with the second primary shorter than the fourth is a Reed Warbler.

Amongst this family of aquatic Warblers there are two more very similar species, the common Sedge Warbler, *Acrocephalus phragmitis*, and the Aquatic Warbler, *Acrocephalus*

aquaticus, which has not yet been found in this county, and very seldom, indeed, in England. It is, however, so like the Sedge Warbler, that it may easily have been overlooked, and taken for the more common species; the chief distinction between the two being that the Aquatic Warbler has a decided pale, nearly white, streak from the base of the bill, through the middle of the head, dividing the dark parts almost equally: this will always serve to distinguish between the two species, as, though something of the same sort may be seen in a young Sedge Warbler, it is never so distinct or so clearly defined.

I now come to two of our very common and earliest spring migrants, the Chiffchaff, *Phylloscopus rufus* (*P. collybita* of Newton's *Yarrell*), and the Willow Warbler, *Phylloscopus trochilus*: these two birds, though perfectly distinct, are very difficult to distinguish from each other. Puzzling as the distinctions may be, it was at one time very necessary for a Justice of the Peace to be well acquainted with them, as the Chiffchaff was protected by the old Bird Act, 35 and 36 Vict. c. 78; consequently a person was liable to a fine for killing it during the close time, whilst the Willow Wren was not so protected. Now, however, since the passing of the present Bird Act, 43 and 44 Vic. c. 35, which repeals 35 and 36 Vict. c. 78, this bit of ornithological knowledge is not so necessary, as by the present Act all wild birds are protected. Perhaps the most obvious distinction between these birds, like that between the Marsh Warbler and the Reed Warbler, is one of colour, the Willow Wren always being rather a yellower and lighter coloured bird than the Chiffchaff. This is especially the case with young birds. The legs of the Willow Wren are also rather paler than those of the Chiffchaff, which are nearly black. There is also a distinction in the comparative length of the primary quills, the Willow Wren having the second primary longer than the sixth, but not quite so long as the fifth, which is shorter than the fourth; while the Chiffchaff has the second primary about equal to the seventh, but shorter than any of the intermediate feathers; the

third, fourth, and fifth are nearly equal. Another distinction is pointed out by Professor Newton, in his *Yarrell*, though with some doubt. It seems to me, however, after examining a small series, to be as good a test as the comparative length of the quills. It is as follows: "In the Willow Wren, the third, fourth, and fifth primaries have their outer web suddenly narrowed towards the tip, while in the Chiffchaff the sixth has also the same shape, but not always the third."

The pretty little Golden-crested Wren, *Regulus cristatus*, is by no means uncommon in this neighbourhood, though I do not know that its near relation, the Fire-crested Wren, *Regulus ignicapillus*, has ever occurred in this county; it may have done so and been overlooked, as I have a specimen from the neighbouring county of Devon, and two others from Guernsey, where it occasionally occurs, especially on migration. The name Fire-crest applied here is no doubt a misnomer, and has led many people to mistake the bird through expecting to find a difference of colour in the crest. The French name for it, *Roitelet à triple bandeau*, is much more descriptive, as under the golden part of the crest there is a streak of black, and under that a streak of white over the eye, and a third streak of black through the eye; the Gold-crest, on the other hand, has only the streak of black immediately under the gold crest, below that the whole side of the face and the space surrounding the eye is a uniform dull olive-green.

These two birds finish the Warblers, and after these there is not much difficulty till we get to the Wagtails. The Tits seem to me fairly distinct, unless we try to separate the Continental forms of the Cole Tit and the Long-tailed Tit from the British, which seems to me at present unnecessary. I may mention that the Continental form of the Long-tailed Tit, *Acredula caudata*, has been recorded from this county; it differs from the common British form, *Acredula rosea*, in having a white head. The White Wagtail, *Motacilla alba*, and the Pied Wagtail, *Motacilla lugubris*, present the next difficulty, both species

occurring in the county, the Pied Wagtail being the most common and the best known. The old birds, especially the males, do not when in breeding plumage present any difficulty, the Pied Wagtail having the back and most of the upper parts black, whilst in the White Wagtail the same parts are pearl-grey. After the autumn moult, however, the distinction is not so right, as it is obvious the grey margins of the feathers on the back of the Pied Wagtail partially conceal the colour beneath, but if the feathers be lifted they will be found black under the grey margins. The young birds of the year are hardly distinguishable; the young Pied Wagtail, however, always appears to me, especially if the feathers be raised, rather blacker on the back than the young White Wagtail, though I confess the difference is not very obvious. The Grey Wagtail, *Motacilla melanope*, with its uniform grey head and back, is easily identified; but the other two yellow Wagtails, namely, our common summer visitant, *Motacilla raii*, and the Grey-headed Wagtail, the real *Motacilla flava* of Linnæus, are not so easily distinguished. The name *flava* was given to our Common Yellow Wagtail by various authors, till Gould pointed out the difference between the two, and showed that the bird described by Linnæus as *Motacilla flava*, was quite distinct from our Yellow Wagtail, which has since been called by Bonaparte's name, *raii*. Between the adult birds the distinction seems clear enough, and one wonders that a mistake should ever occur, the grey head and white eye streak of the grey-headed immediately distinguishing it from the yellow, with its yellowish-green head and bright yellow eye streak. The young birds, however, are not so easy to distinguish, in fact, except the eye streak, which is always yellower in the Yellow Wagtail than in the Grey-headed, there is not much to distinguish them.

The Pipits, next in order, present perhaps more difficulties of identification than any family of birds in the British list; but I hope, as far as this county is concerned, to make these difficulties tolerably clear. The first two, the Meadow Pipit, *Anthus*

pratensis, and the Tree Pipit, *Anthus trivialis*, are both pretty numerous in all parts of Somerset; the Meadow Pipit being resident throughout the year, and the Tree Pipit being a summer migrant. They are very similar in size and general appearance, and may be always identified by the hind claw, which in the Meadow Pipit is long, quite as long as the hind toe, and tolerably straight; in the Tree Pipit it is only of moderate length, considerably curved, and not so long as the hind toe. This is a good distinction between these two birds at all ages and in all states of plumage. The Rock Pipit, *Anthus obscurus*, which is also common in our county, being resident and breeding on the coast, is rather a larger bird, and duller in plumage than either the Tree or Meadow Pipit; but the tertials are shorter in proportion to the primaries than in either of them, and the hind claw is long, if anything slightly longer, but stouter and more curved than that of the Meadow Pipit. The Rock Pipit has frequently been mistaken for another Pipit, which has occurred occasionally in the British Isles, though, as far as I know, not yet in this county, viz., the Water Pipit, *Anthus spipoletta*. In consequence of there being a Scandinavian form of the Rock Pipit with a reddish tinge on the breast, also occasionally met with in these islands, this mistake has been confirmed, as the Water Pipit has a decidedly rufous tinge on the breast, especially in the breeding season; but the two may always be distinguished, as the pale portion of the outer tail feather on each side of the Rock Pipit is a pale brown with no absolute white, whilst in the Water Pipit it is absolutely white; the second pair of tail feathers of the Water Pipit have a spot of white at the tip on the inner web, which is not the case with the Rock Pipit. Besides this, the Water Pipit also has a decided and rather broad white streak over the eye, which is quite or almost wanting in the Rock Pipit. The Tawny Pipit, *Anthus campestris*, which has occasionally straggled to the British Isles, is of a paler, more sandy colour than either the Rock or the Water Pipit; it may

also be distinguished from both of those birds by the greater quantity of white on the two outer pair of tail feathers, especially the second pair, there being a considerable portion of white on the inner web, and the outer web being white for nearly its entire length. The Rock Pipit has no white on the same feathers, though they are paler than the more central tail feathers, and the Water Pipit has only a small spot of white as before mentioned at the tip of the inner web, and none at all on the outer web. Richards' Pipit, with its longer, taller legs, seems hardly to need distinction, especially as it has not yet been recognised as occurring in this county, but there is no reason why it should not do so, as it has been procured several times in the neighbouring county of Devon. Nor need we trouble ourselves with the two remaining Pipits, which have been added on very doubtful grounds to the British list, viz., the Red-throated Pipit, *Anthus cervinus*, and the American Pipit, *Anthus ludovicianus*; neither of them have ever occurred in this county, and probably not in the British Isles, though they may perhaps have slightly added to the complications caused by the rufous-breasted form of the Rock Pipit, from which bird however they are easily distinguished.

The Sky Lark, *Alauda arvensis*, and the Crested Lark, *Alauda cristata*, which has not yet made its appearance in the county, appear sufficiently distinct, the long crest of the latter immediately distinguishing it; but the Wood Lark, *Alauda arborea*, is perhaps more easily confounded with the Sky Lark; it has, however, a light patch behind each eye and on the nape, which are wanting in the Sky Lark. The tail also is longer in the Sky Lark than the Wood Lark, and differently marked; the outer pair of tail feathers in the Sky Lark being white, with only a little brown on the inner web towards the base, the second pair having the outer web white for about two thirds of their length, the third and fourth pairs having no white; whilst the outer pair of tail feathers of the Wood Lark show a considerable portion of pale brown towards the tip, but by no means so nearly

approaching white as in the Sky Lark; the second pair has only a small portion of white, or nearly white, at the tip, the white not extending up the outer web, and the third and fourth pairs have each a small white tip.

Amongst the Finches I may perhaps just point out that our common and well-known House Sparrow, *Passer domesticus*, may be distinguished from his scarcer, but somewhat similarly, the Tree Sparrow, *Passer montanus*, by the colour of the head, which in the Tree Sparrow is a uniform bright chesnut, extending to the nape. The Serin Finch, *Serinus hortulanus*, which has once occurred in this county, at Taunton, may be distinguished from the commoner Siskin, *Chrysomitris spinus*, in the males by the black head of the Siskin, which is very different from that of the male Serin Finch with its patch of bright yellow on the forehead, the rest being dull olive-green. In size, too, the Siskin, both male and female, is always the larger bird. The females are a little more alike, though the size is nearly a sufficient distinction; the bill, however, of the Serin being rounder, and broader, and rather stouter, in fact more resembling that of the Canary than does the bill of the Siskin, which is longer and sharper, more like that of the Goldfinch.

I now pass on to the Nightjar, *Caprimulgus europæus*, which is a common summer visitant to many parts of the county; but the Red-necked Nightjar, *Caprimulgus ruficollis*, has also been included in the British list, having been once taken in these islands.¹ It so much resembles our Common Nightjar that it might easily be overlooked, and perhaps has been so; its name, however, *ruficollis* (red-necked), points out one of its chief distinctions, which is the rufous collar at the back of the neck; besides this, both male and female have the white spots on the quills and on the outer tail feathers, which only the male has in our Common Nightjar. Its geographical range is rather too far south for it to occur frequently in the British Isles,

(1). Since reading this paper, a third Nightjar, new to the British list, has occurred in England, namely, the Egyptian Nightjar. *Caprimulgus isabellinus*. (*Zoologist* for 1883, p. 374).

but as it has done so once, and may have done so in other instances and have been overlooked, I have thought it well to point out the distinctions, as it would be more likely to make its appearance in our county than so far north as it is said to have occurred, namely, near Newcastle.

As the Alpine or White-bellied Swift, *Cypselus melba*, has occurred in this county, namely, near Axbridge, where it was shown in the temporary local museum at two of the meetings of this Society, it may be as well to point out that it may be distinguished from our Common Swift, *Cypselus apus*, by its larger size, and by the white throat, breast, and belly, there being only a band of brown across the breast.

There cannot be very much difficulty in distinguishing the Pigeons; but as the Stock Dove, *Columba ænas*, though much smaller, and by no means such good eating, may frequently be seen hanging in the markets, and in the poulterers' shops, amongst the Wood Pigeons, *Columba palumbus*, and is no doubt sold to the unwary as a Wood Pigeon, indeed, in some parts of England that is its usual name, the Wood Pigeon being called the Ring Dove, I may point out that it may always be distinguished from the Wood Pigeon by having no white whatever about it, either on the neck or the wing; the white on the wing being conspicuous on the Wood Pigeon, even in the young birds, before they leave the nest, and that on the neck very soon afterwards. The Stock Dove may be distinguished from the Rock Dove or Blue Rock, *Columba livia*, by wanting the two dark bars on the wing, which are only represented by two dark blotches; the rump in the Stock Dove is bluish-grey, whilst in the Rock Dove it is white. This is a very conspicuous distinction, and serves to identify the birds when on the wing, even at a considerable distance. Far to the eastward, in Asia, there is an intermediate variety of Pigeon which has two dark bars on the wing, as the Rock Dove, but the rump is grey, like the Stock Dove, though rather paler.

As I was passing a poulterer's shop in Taunton, on the 14th of December, 1882, I saw a quite recently-killed Red-legged Partridge, *Caccabis rufa*, and on making enquiries as to where it had been found, I was told it was one of a brace seen at Kingston, but that only this one had been shot, I think, that morning. As from all the enquiries I have made I cannot find that anyone, either at Kingston or in the neighbourhood, has imported any Redlegs, or had any eggs, I suppose we must consider these birds stragglers from some county in which they are more numerous. I was also informed that a small covey of four or five had been seen about the same time at Nynhead, but I do not know that any of them were shot. In the east of Somerset, on the Mendips, I have been informed that the Red-legged Partridge was introduced at Cheddar about sixty-six years since by Mr. Cobley, who was afterwards Vicar of the parish. The birds spread and drove the grey birds, and became so strong, that to preserve the old species it was determined to exterminate the foreigners. This was done, and the grey birds restored; but some of the Red-legs may have escaped. Mr. Charles Edwards shot some on the Cross side of the hill, these probably coming from some other source, as those who had shot over the ground for the last forty years had seen no Red-legs there before. Had it not been for these occurrences, I should not have thought it worth while to say anything about the distinctions between the Red-legged Partridges; but as they are now included in the list of British birds and have straggled into this county, it may be as well just to point out their differences. The only other Red-legged Partridge which has been included in the British list, and that without much reason, is the Barbary Partridge, *Caccabis petrosa*; the Ibis list includes it as a rare straggler to England, but it is, I should say, tolerably certain that it never has straggled to England, except as an introduced bird, and even as such, has not held its own like the Common Red-leg. It may easily be distinguished from the Common Red-leg by the different markings on the

head and neck, especially on the latter, on the side of which there is a large patch of brightish chesnut, each feather being tipped with white; this chesnut patch is quite wanting in the Red-leg, which has the throat white, surrounded by a broad band of black, beneath which the feathers are grey with broadish spots of black, giving the upper portion of the breast and sides of the neck a rather spotted and streaked appearance. In the Alpine Red-leg, *Caccabis saxatilis*, these black spots and streaks are entirely wanting. There is another Red-legged Partridge, *Caccabis chukar*, which is much like *Caccabis saxatilis*, but as neither of them have occurred in the British Isles, it is enough to say they may be distinguished from each other, and from the Common Red-leg, by the distribution of black at the base of the bill.

I may pass on now to the large group generally known as the wading birds, and of these the Plovers may first attract attention. Most of them are sufficiently distinct, but some of them require a few words to point out their distinguishing characteristics. Amongst the larger varieties, the Golden Plover, *Charadrius pluvialis*, and the Grey Plover, *Squatarola helvetica*, are occasionally mistaken for each other. In full adult plumage, either in summer or winter, the Golden Plover is sufficiently distinguished by the bright yellow markings on the back and wing coverts, but is not quite so easily distinguished before attaining fully adult plumage, as the young Grey Plover in its first autumn has sufficient yellow markings in the plumage of the upper surface to cause it to be mistaken; and in this state of plumage it may occasionally be seen hanging in the poulterers' shops, doing duty for a Golden Plover, to which as a bird for the table it is very inferior, generally being rather fishy and muddy. It may always be easily distinguished, however, by the axillary plume, or long feathers under the wing, which in the Golden Plover are white, and in the Grey Plover black; this is a good distinction at all ages after the down and in all states of plumage. Another equally good distinction is

that the Grey Plover has a hind toe, small and not very fully developed, but still a perfectly distinct hind toe, which is altogether wanting in the Golden Plover. The Ibis list above referred to has added another to the British list, the Eastern Golden Plover, *Charadrius fulvus*, one having been found in Leadenhall Market, said to have been received from Norfolk. Though rather smaller, this bird is very like our own Golden Plover, but may be distinguished, should it occur in this county, by the axillary plume, which is a smoky-grey with a small white tip to each feather. There is an American variety of Golden Plover, called *Charadrius virginianus*, which also has a smoky grey axillary plume, but without the white spots at the tips of the feathers, thus hardly to be distinguished, if indeed it is distinct, from *Charadrius fulvus*. Amongst the smaller Plovers that appear in England, the Ring Dotterel, *Ægialitis hiaticula*, is by far the most common, and perhaps the only one met with on our Somerset coast. The Lesser Ring Dotterel, *Ægialitis curonica*, though smaller, is something like it; but as both birds vary a little in size it is not always easy to distinguish them by this test alone. They may always be distinguished, however, by the primary quills, as in the Little Ring Dotterel the shaft of the first primary alone is white, whilst the Ring Dotterel has the shafts of all the primaries white. There is a difference also in the markings of the tail feathers, especially on the outer tail feather on each side, which is entirely white in the Ring Dotterel, but in the Lesser Ring Dotterel has a patch of light brown on the inner web. The Kentish Plover, though intermediate in size and something like the others, may, when alive, be easily distinguished even at some distance by its black legs. The band of black across the breast also is broken, not being a complete band, but only two large dark blotches on each side, with a considerable space between them; the top and back of the head are also different, being brightish chesnut in the adult Kentish Plover, but this is not so clearly a distinguishing mark in the young birds.

Neither the Kentish Plover nor the Little Ring Dotterel has, as far as I know, ever been recorded as occurring in this county.

The Ardeidæ or Herons being sufficiently distinct, and not likely to be mistaken for each other, but little need be said of this group. The only two which I shall notice are the Bittern, *Botaurus stellaris*, and the American Bittern, *Botaurus lentiginosus*, which are occasionally mistaken for each other, but the primary quills will again serve to distinguish them, as in the American Bittern these are of a uniform dark chocolate-brown, and in the Common Bittern they are much marked and varied with dark chocolate-brown and pale yellowish-brown; this test may be relied on at all ages (fig. 7). The Bittern still occurs not unfrequently, especially as a winter visitant, in this county, though drainage of the swamps, in which it delights, the greediness of salmon fishers for its feathers for making artificial flies, and the general desire with a good many people to shoot anything at all unusual which occurs, are yearly rendering it much less common than it used to be. The American Bittern has not yet occurred in this county, though it has been met with in Dorset, in Pembrokeshire, and in Guernsey.

Amongst the large family generally known as the *Scolopacidæ*, which includes the Sandpipers, Godwits, Curlews, Snipes, and others, many little difficulties occur, partly in consequence of the various changes of plumage which take place in so many of the birds, in consequence of age, sex, or time of year. For instance, though no one would mistake an adult Ruff (the male), in his full breeding plumage, with his ruff fully grown; a Reeve (the female), or a young bird of the year, shot in its first autumn plumage, has often been mistaken, and even recorded, for a Buff-breasted Sandpiper, or a Bartram's Sandpiper. The Ruff, *Machetes pugnax*, however, may easily be distinguished from either of these birds, even in the plumage, in which to the superficial observer it shows the greatest similarity. From

Bartram's Sandpiper, *Actiturus longicauda*, it may be distinguished by its shorter and squarer tail, the outer tail feathers being much more equal to the central ones, not so graduated as in Bartram's Sandpiper, which has rather a wedge-shaped tail; the upper tail coverts and feathers on the rump are rather broadly edged with pale-brown, whereas in Bartram's Sandpiper they are a uniform dark-brown, nearly black, reflecting purple in some lights; the primary quills are of a uniform darkish-brown, without bars, whilst in Bartram's Sandpiper they are very distinctly barred with black and white on the inner web; the axillary plume in the Ruff is white, in Bartram's Sandpiper distinctly barred black and white. The neck and breast of the young Ruff are a nearly uniform buff, the under parts of the feathers only being of a more dusky colour, whilst the feathers on the neck of Bartram's Sandpiper have a central streak of dark-brown, and each feather on the breast has an inverted V-shaped mark on it; the bill of the Ruff is rather longer, especially in proportion, but not so broad. From the Buff-breasted Sandpiper, *Tryngites rufescens*, the Ruff,—I mean the young Ruff, in its first autumn, for the old birds are sufficiently distinct,—may be distinguished by its larger size and its longer bill, but perhaps the most easily seen distinction is in the under-wing coverts and in the primary quills; in the Ruff the larger under-wing coverts are white, in the Buff-breasted Sandpiper they have the larger portion at the base of the feather marbled black and white, with a black band on each feather near the tip, the tip itself being white; the inner webs of the primary quills, which in the Ruff are a uniform pale-grey, in the Buff-breasted Sandpiper are very prettily marked and marbled with black and white; the legs also are a clay-yellow. Bartram's Sandpiper and the Buff-breasted Sandpiper may be distinguished by the much larger size of the first named, the uniform dark feathers of the rump and upper tail coverts, the long tail, and the barred axillary plume which in the Buff-breasted is white; the markings on the breast are

also perfectly distinct, the Buff-breasted having the breast pale-buff, each feather being slightly tipped with white. I have been rather particular in mentioning the distinctions between these three birds, as they are not unfrequently confounded with each other. The Ruff occurs not uncommonly in Somerset in autumn, and there is in Dr. Woodforde's collection, now deposited in our Museum, a Bartram's Sandpiper said to have been obtained in the county, and a Buff-breasted Sandpiper, not actually killed in it, but as near to it as Lundy Island, and afterwards given by Mr. Heaven, in whose collection it was for a long time, to Dr. Woodforde. Had these two birds been set up flying, or with their wings raised in the position Sandpipers assume when first touching the ground, many of the distinctions above-mentioned would have been visible. Bird-stuffers seem to have a natural liking for setting up birds in a way to conceal rather than show their distinctive characteristics.

The Green Sandpiper, *Helodromas ochropus*, and the Wood Sandpiper, *Totanus glareola*, occasionally get mixed up, and like those just referred to, if they are readily to be distinguished as set up birds in a case, they should have their wings raised, one of the chief distinctions being in the axillary plume. In the Green Sandpiper this plume is black, with small regular white bars across each feather, from the shaft to the outside edge of the feather; in the Wood Sandpiper it is white, irregularly marked here and there with black; the markings on the tail of the Green Sandpiper are bolder and more distinct than those on the tail of the Wood Sandpiper; the Green Sandpiper also has more white on the rump; this is very conspicuous in flight, especially when the bird first rises. There is an American bird, the Solitary Sandpiper, *Totanus solitarius*, which has been recorded as having, once at least, visited the British Isles; it is something like, and may easily be mistaken for, the Wood Sandpiper, but may always be distinguished by its having the rump and upper tail coverts dark, without any white as in the Wood and Green Sandpipers.



Fig. 7.



Fig. 8.



Fig. 9.



Fig. 12.



Fig. 13.

The Redshank, *Totanus calidris*, and the Spotted Redshank, *Totanus fuscus*, are in the winter and autumn something alike, but in the summer, when the Spotted Redshank gets a sooty-black plumage, there can be no mistake. The Spotted Redshank has a longer and more slender bill, as well as longer legs. The Redshank has most of the secondary quills white, whilst those of the Spotted Redshank are distinctly barred; the seventh, eighth, and ninth, primaries of the Redshank are nearly white, being only slightly marked with irregular pale dusky marks, whilst the same feathers of the Spotted Redshank are nearly of the same colour as the first primaries, some of the inner ones being, however, barred on the outer web. Both of these birds occasionally occur in this county, though the Spotted Redshank is by far the rarer of the two.

Between the two Godwits, the Bar-tailed Godwit, *Limosa lapponica*, and the Black-tailed Godwit, *Limosa ægocephala*, both of which occasionally occur in this county, especially in autumn, the English names seem sufficiently to point out the distinctions; besides this, the Black-tailed is rather the larger bird, having both the bill and legs longer.

The genus, *Scolopax*, which in our early days we used to consider applicable to all Snipes, is now restricted to the Woodcocks, and *Gallinago* taken as the generic name for the Snipes. The old specific name, *Gallinago*, of Linnæus, had to give place to *Cælestis*, of Frenzel (1801). *Cælestis* seems to have been applied to the Snipe by some of the older authors, who considered the drumming to be like the voice of a goat, and therefore they called the bird *Capella cælestis*,¹—I suppose, as meaning a sort of heavenly or ærial goat. Amongst the true Snipes, it may be of interest to point out how nearly our Common Snipe, *Gallinago cælestis*, resembles its American cousin, *Gallinago wilsoni*, which is said to have occurred once in the British Isles. The resemblance is very close, but the Common Snipe has fourteen feathers in the tail, whilst *Gallinago*

(1). See *Ibis List of British Birds*, p. 166.

wilsoni has sixteen, like the Great or Solitary Snipe, *Gallinago major*; the number, however, probably varies in all three as the Great Snipe has been known to have as many as eighteen. The only other difference I can see is in the axillary plumes, the feathers of that part in *Gallinago wilsoni* being clearly, distinctly, and very regularly barred with black and white across both webs, nearly in equal proportion (fig. 8); the same feathers in our Snipe being white with very small black bars, showing much more white than black (fig. 9). Sabine's Snipe we need not trouble about, it being now regarded as only a melanistic form of the Common Snipe, and I suppose every one knows the Jack Snipe, *Limnocryptes*¹ *gallinula* from the Common Snipe.

The Purre or Dunlin, *Tringa alpina*, of which we see such immense flocks during the autumn and winter on the mud flats throughout the whole length of our coast, a few remaining all the summer, has a representative in America which occasionally visits these islands. I do not know that it has been obtained actually in this county, though two I have in my collection were shot near Barnstaple: I mean Bonaparte's Sandpiper, *Tringa fuscicollis*, which, except for the white rump, retained in all plumages, might easily be mistaken for the Purre. It never has the black breast in summer, as the Purre has, and consequently never shows any traces of it in the autumn plumage, as the Purre does up to the time of assuming the full winter plumage. This would be a good test from the spring, when the black breast first shows itself in the Purre, till the late autumn, when it finally disappears. Bonaparte's Sandpiper must not, on account of its white rump, be confounded with the Curlew Sandpiper, or, as it is sometimes called, the Pigmy Curlew, *Tringa subarquata*, which occasion-

(1). This generic name, though given by the authors of the Ibis list on account of certain differences of formation, especially as to the *sternum* or breast bone, has not been adopted by Mr. Howard Saunders in the fourth edition of *Yarrell*, who does not separate this from the other Snipes, and consequently continues the name *Gallinago* as the generic name.

ally visits our coast in the autumn. The Pigmy Curlew is a larger bird, rather larger than a Purre, from which it may be distinguished by the white rump, and is considerably higher on the legs than either the Purre or Bonaparte's Sandpiper, and has a more curved bill, like a Curlew's, from which it takes both its English and Latin names; *subarquata* being translated in the Ibis list, a little like a Curlew *Arquata*. These differences would at all times distinguish it from either the Purre or Bonaparte's Sandpiper, as the white rump would distinguish it from the Pectoral Sandpiper, *Tringa maculata*, another American visitant to our shores, more frequent than Bonaparte's Sandpiper. The Pectoral Sandpiper may be distinguished from the Purre by its larger size, by its never having the black breast in summer, and by its not assuming the greyish plumage of the Purre in winter; and at all times the rump and upper tail coverts are darker than the Purre's,—being a black, with purple reflections, and never edged with rufous, as are those of the Purre in summer. The Purre or Dunlin is so very unlike either the Common Snipe or the Jack Snipe, that I do not think it the least necessary to point out any distinctions. I should not have mentioned them together, except that I have known Purres sold to the unwary as Snipes: in fact, I was once led by a relation, with whom I was staying at Teignmouth, to expect snipes for dinner, and was much disgusted to find nothing but a few Purres, which my relative and her cook had taken for Snipes,—or, at least, Jack Snipes,—because of the long bill. I have also known a bird, still less like a Snipe, the Purple Sandpiper, *Tringa striata*, cooked for a Snipe, as I once gave some that I shot at Exmouth to a friend who was shooting with me; and when I asked him, the next day, if he had succeeded in making good skins of them, he replied, "No. I have eaten part of them for breakfast; as my sister, seeing them in the larder—where I had put them, out of the way of the cat,—had them cooked—supposing every thing with a long bill to be a Snipe."

Those two pretty little Sandpipers—the Little Stint, *Tringa minuta*, and the Temminck's Stint, *Tringa Temmincki*, both of which have occurred in this county, may easily be mistaken for each other, but may at all times be distinguished by the outer tail feathers,—the light parts of these being white in Temminck's Stint, and pale-brown in the Little Stint; also, the shafts of the primary quills in the Little Stint are white, except a very small portion at the base and the tip; but in Temminck's Stint the shaft of the first primary only is white, those of all the others being brown,—that of the second, however, being very pale, approaching white just in the centre. The Little Stint also has the legs darker than in Temminck's Stint. There is another, rather a smaller bird than either our Little Stint or Temminck's, the American Stint, *Tringa minutilla*, which has not yet been recorded as occurring in this county, though it is a rare occasional straggler to the British Isles, and has once certainly been taken in the neighbouring county of Devon. It differs from Temminck's Stint, in having the outer tail feathers pale-brown, and not white; in this respect resembling the Little Stint, but differing from that bird in having the shaft of the outer primary only white, that of the second being nearly uniform brown throughout its length, and not so pale in the centre, as in Temminck's Stint. The legs also are paler than those either of Temminck's or the Little Stint. Other slight differences in the plumage of these three birds have been pointed out by Mr. Dresser, but as all of them appear more or less variable at different times of the year, and in the different stages of plumage, I have not thought it necessary to recapitulate them: the distinctions above mentioned are constant, and appear sufficient to distinguish the three birds at any time. I need not say more about the Sandpipers, except to point out that the Sanderling, *Calidris arenaria*, which visits our coast occasionally from autumn to spring, though it is not so common as on both the coasts of Devon, may be distinguished from the Grey Phalarope, *Phalaropus fulicaria*, for which, in winter

plumage, I have known it mistaken, by its having no lobes to the feet; and from all the other small Sandpipers by wanting a hind toe, in which it resembles many of the Plovers, and was on this account at one time classed amongst those birds.

Amongst the Rails there are only two entitled to a place in the British list, in any way really troublesome. They are the Little Crake, *Porzana parva*, and Baillon's Crake, *Porzana bailloni*, which are certainly something alike. Baillon's Crake, however, is always rather the smaller bird, and it may also be distinguished by the remarkable irregular white markings on its back and wing coverts, which are nearly wanting on the back of the Little Crake, and quite so on the wing coverts. The under tail coverts, thighs, flanks, and belly of the Baillon's Crake have the feathers more distinctly barred with white than those of the same parts of the Little Crake, where the white bars, especially in the adult, seem almost entirely confined to the under tail coverts. The long feathers of the axillary plume of Baillon's Crake are narrowly, but distinctly, barred with white; whilst those of the Little Crake are a uniform slate-colour. Mr. Dresser points out, also, that the outer web of the first primary of Baillon's Crake is marked with buffy-white; but this seems to me variable, as in one specimen I have, these buffy-white marks are scarcely visible, while in another nearly the whole outer web is buffy-white; in the Little Crake the outer web of the first primary is of the same colour as the rest of the feather. Of these little Crakes, Baillon's Crake has occurred several times in this county, and on more than one occasion in the neighbourhood of Taunton. The Spotted Crake, *Porzana maruetta*, is a much larger bird, and sufficiently distinct in plumage not to require any remarks; it is a much more common bird than either of the others.

We now come to the Swimmers. Amongst these the four Grey Wild Geese are no doubt something alike; in some cases the soft parts, the bill and the legs, presenting nearly the only distinction. The Grey Lag Goose, *Anser cinereus*, differs in

plumage, as well as in the colour of the soft parts, having the wing coverts on the shoulders pale bluish-grey ; the bill is flesh-colour, the nail white. The Orange-legged Bean Goose, *Anser segetum*, has none of the bluish-grey on the shoulder of the wing, that part being more like the back and rest of the wing coverts ; the bill differs considerably from that of the Grey Lag Goose, having the middle portion of the upper mandible orange, base and edges black, and nail black ; the legs and feet are orange, in accordance with its name. The Pink-footed Goose, *Anser brachyrhynchus*, has the upper mandible of the bill pink in the centre, base and edges black, nail black, legs and feet pink. This colour, however, does not appear to me to be constant, as some I have kept in a state of semi-domestication and bred from for some years, have, in some instances, had the light parts of the bill and the legs and feet orange, as bright and decided an orange as the orange-legged species ; in this state they are very like, and if shot, would no doubt be recorded for Orange-legged Bean Geese. They are slightly different in plumage, however, having the white markings on the tail broader, and the shoulder of the wing is more of a blue-grey, in this respect resembling the Grey Lag Goose, though the blue is darker than in that bird. The White-fronted Goose, *Anser albifrons*, which perhaps occurs more frequently than either of the others, differs considerably in plumage, having a great deal of irregular black marking on the breast ; it also has a conspicuous white band above the bill on the forehead, hence the name white-fronted ; the legs and the bill have an orange tinge, and the nail is white.

Between the two Wild Swans, the Wild Swan or Whooper, *Cygnus musicus*, and Bewick's Swan, *Cygnus bewickii*, there is a great difference in size, Bewick's Swan being a much smaller bird than the Whooper. Both are frequently found in Somerset as winter visitants. Besides their great difference in size, they may easily be distinguished, as in the Whooper the yellow at the base of the bill extends as far as the nostrils, reaching, at

the edge of the upper mandible, rather further (fig. 10); whereas in Bewick's Swan, the yellow occupies only a small space at the base of the bill, not extending to the nostril or to the edge of the upper mandible (fig. 11). The head of the Bewick's Swan, from which the figure was drawn, is that of a bird killed, it was said, by foxes, at Cothelstone pond, in January, 1870. The Mute Swan, *Cygnus olor*, which is the ordinary tame Swan of our ponds and rivers, has probably never occurred in the British Isles in a really wild state, being a bird of a rather more eastern range; it may easily be distinguished from the Whooper or Bewick's Swan, by having a knob on the forehead, that and the base of the bill being black, and the space between the black at the base and the nail at the tip of the bill orange-red; this being black in the other two, thus rather reversing the order of things. There is another Swan which is said to have occurred occasionally in England, especially on the east coast, but, as far as I know, never having yet wandered into this county. The Polish Swan, *Cygnus immutabilis*, is much like the tame Swan; the bill, however, is a redder orange, and the knob on the forehead much smaller; the cygnets, too, in their first feathers are white, like the adults, not grey as in the common tame Swan; hence its name, *immutabilis*—unchanging. The colour of the legs also is grey, instead of black.

Of the ducks there is not much to be said, they are too unlike to cause any serious difficulty, even when the males are disguised in that peculiar plumage which they put on immediately after the breeding season, and which they wear till after the autumn moult. I may, however, mention that the American Wigeon, *Mareca americana*, occasionally met with, one, at least as near this county as North Devon, has been accepted by the editors of the Ibis list as having a valid claim to be considered an accidental straggler to these Islands; as there is no known instance of its importation into Europe, this one could not have escaped from captivity. This bird differs from our Common Wigeon, *Mareca penelope*, about the head. In

the American Wigeon, this is pale-grey speckled with black in both male and female, with a broad patch of green round and behind the eye ; the head of the male of our Common Wigeon is red with a long white, or rather perhaps pale-buff, patch on the top of the head ; in the summer, after the breeding season, the head is red, much speckled with very dark-green and black, the white patch then disappearing ; the head of the female is at all times a dull darkish-brown, very unlike that of the American Wigeon. The only other ducks which I need mention are the Common Scoter, *Oidemia nigra*, and the Velvet Scoter, *Oidemia fusca*, both of which occur on our coast. The Common Scoter being the most frequent, but never so numerous as on the South Devon coast. These may be immediately distinguished by the white speculum on the wing of both male and female Velvet Scoter ; the male Common Scoter being entirely black, without any white, and the female dark sooty-brown, also without white. The Velvet Scoter, moreover, is rather the larger bird.

From the ducks, a jump may be made to the Gulls, Terns, and Skuas. Amongst these there is sometimes a considerable difficulty as to identity, especially in the young birds. Of the Terns, then, perhaps the two which get most easily mistaken, are the Common Tern, *Sterna fluviatilis*, and the Arctic Tern, *Sterna macrura* ; both occur not unfrequently in this county on migration in spring and autumn, sometimes in considerable numbers, never however remaining to breed. The Arctic Tern may always be distinguished from the Common Tern by the shortness of the tarsus ; this is a sure test at all ages. The young birds in their first autumn may also be distinguished by the first three primary quills, having less of dark-grey and more white on the inner web than those of the Common Tern ; the bill also, in both young and adult, has more red than that of the Common Tern, and in the adult bird, especially in full breeding plumage, the outer tail feathers on each side are longer in proportion to the wing than in the Common Tern, and the breast

darker-grey, more like the back. The Arctic Tern must not, however, on this account be confounded with the Whiskered Tern, *Hydrochelidon hybrida*, which has the breast very dark, even darker than the back, but always to be distinguished by having the webs between the toes very much cut back, as in the Black Tern, *Hydrochelidon nigra*. The Common Tern occasionally, especially in the breeding season, having a very roseate hue on the breast, has often on this account been mistaken for Roseate Tern, *Sterna dougalli*. The Roseate Tern has, however, a slenderer and more elegant figure, and a more deeply-forked tail, the two outer tail feathers being much longer than the others; these two long outer tail feathers are white on both the inner and the outer webs, whereas in the same feathers of the Common Tern, the outer web is dark-grey. The white on the inner web of the primary quills of the Roseate Tern extends to the tip, and completely round it, as in the larger Sandwich Tern, *Sterna cantiaca*; in the Common Tern it does not reach to the tip. The only other difficulty with the Terns which need be noticed is that between the Black Tern, *Hydrochelidon nigra*, and the Silver-winged Black Tern, *Hydrochelidon leucoptera*. The fully adult birds, either in summer or winter plumage, can hardly be mistaken, as not only the white on the shoulder of the wing, from which the latter takes both its English and Latin names, distinguishes it, but a much better and unmistakable distinction is its absolutely white tail and tail coverts. The young birds are not so easily to be distinguished. The young, however, of the Silver-winged Black Tern always have a band of white above the upper tail coverts, this part being grey in the young Black Tern. I have seen specimens of the young Black Tern in which this part is very pale, and I have one shot by myself near Instow, in North Devon, in which it is very pale indeed, but not absolutely white. The Black Tern occurs in various parts of this county, both inland along the rivers, and on the coast, in both spring and autumn, sometimes in considerable numbers; but I do not know that the

Silver-winged Black Tern has ever occurred. There is a rather doubtful specimen in the Museum at Exeter, which was killed on the Exe, probably correctly labelled as a Silver-winged Black Tern; but it is difficult to be sure of this, as the bird is so set up that the distinguishing white band above the tail coverts cannot be seen.

From the free and easy way in which people talk about Sea Gulls, one might imagine there was only one species, instead of forty-nine, as noted by Mr. Howard Saunders in his paper on the *Larinæ* or Gulls, published in the *Proceedings of the Zoological Society*. There is here not much difficulty, especially with the larger ones occurring in this county, either as occasional stragglers, or more or less regular and numerous visitants. The two large Northern Gulls, the Glaucous Gull, *Larus Glaucus*, and the Iceland Gull, *Larus leucopterus*, may immediately be distinguished from the other large Gulls visiting this county,—such as the Greater Black-backed Gull, *Larus marinus*, the Lesser Black-backed Gull, *Larus fuscus*, and the Herring Gull, *Larus argentatus*, by their white primary quills; and from each other they may be distinguished by size alone, the larger of the first two, the Glaucous Gull, answering very much in size to the Greater Black-back; and the smaller, the Iceland Gull, being about the same size as the Lesser Black-back, or the Herring Gull. Of these five Gulls, the Glaucous and the Iceland can only be considered rare stragglers to this county, those that come being generally young birds in their first or second autumn. The Great Black-back Gull is also scarce on our coast, young birds being of more frequent occurrence than adults; but as a very few pairs breed at Lundy Island (it is said formerly to have bred at the Steep Holme), both young and adults may be seen occasionally at almost all times of the year, almost always singly, never in flocks like the other Gulls. The Lesser Black-backed Gull is considerably more common than either of the three just mentioned, occasionally making its appearance inland, when crossing from the English

to the Bristol Channel ; it does not, however, breed nearer than Lundy Island, where it is found breeding in considerable numbers. The Herring Gull is very common throughout the whole length of the coast, especially in autumn and winter, and immature birds may be seen at all times of the year, though as far as I can ascertain, it does not breed on any part of our coast. The adult Herring Gull may always be distinguished from the adult Lesser Black-backed Gull by the colour of the mantle, which is pale-grey in the Herring Gull, and dark slate-grey in the Lesser Black-back ; but the young birds are extremely difficult to distinguish.

In the *Birds of Guernsey*, I have pointed out the following distinctions, which seem to me pretty reliable. As far as the primary quills go, I do not see much difference ; the shafts, perhaps, of the quills of the Lesser Black-back are darker than those of the Herring Gull. The difference, if anything, is very slight ; but the head and neck, and the centres of the feathers of the back of the Lesser Black-back are darker, more of a smoky-brown, than those of the Herring Gull. This difference of colour is even more apparent on the under surface. The shoulders of the wing and the under wing coverts of the Lesser Black-back are much darker—nearly dull sooty-black, and much less margined and marked with pale whity-brown, than those of the Herring Gull. The dark bands on the end of the tail feathers of the Lesser Black-back are broader and darker than in the Herring Gull ; this seems especially apparent in the two outer tail feathers. Of course, as soon as the darker feathers of the mantle begin to make their appearance, there can be no longer any possibility of doubt. A cross-bred Gull, between the Herring Gull and the Lesser Black-back, which was bred on my pond, has the mantle very pale—intermediate between the pale-grey of the Herring Gull and the dark slate-grey of the lesser Black-back. It was able to fly, and went backward and forward to the sea ; but, unfortunately, in one of its trips some one shot it, a direct

infringement of the bird Act, and one day last May it came into my pond wounded, and shortly afterwards died there. I was very sorry for this; being most anxious to see what colour the legs and feet would have been: at first they were apparently flesh-colour, like those of the Herring Gull, but as the bird grew older they were becoming more yellow, and like those of the Lesser Black-back. Had the shot been fatal, and the successful party then have taken the bird to a stuffer, we should probably have seen a notice in some paper of the occurrence of the more eastern *Larus affinis* of Reinhardt; which is something like a cross-bred between the Herring and the Lesser Black-back. The Common Gull, *Larus canus*, which is very common on our coast throughout the autumn and winter, may be distinguished from the Herring Gull by its smaller size; by the colour of the legs—which are never flesh-colour, as in the Herring Gull, but always have a bluish-grey tinge, and are certainly never lemon-yellow, as in the plate in the *Birds of Europe*; and by the pattern of the primary quills, especially in the adult and nearly adult birds. Though so numerous on our coast in autumn and winter, the Common Gull does not breed there, nor on the coast of Devon and Cornwall, as stated by Mr. Dresser in his *Birds of Europe*, on the authority of Mr. A. G. More, who quotes Mr. Rodd as an authority for Cornwall; the Rev. M. A. Matthew for Devon; and Mr. W. D. Crotch for Somerset. But Mr. Rodd makes no such statement in his *Birds of Cornwall*. Mr. Matthew's statement, I believe, was founded on the mistaken identity of an egg, and I have never been able to find the slightest foundation for the statement said to have been made by Mr. Crotch as to this county. I believe I am perfectly safe in stating that the Common Gull does not breed in either of the counties above mentioned, or in the Channel Islands. Like the Common Gull the Kittiwake, *Rissa tridactyla*, is very numerous on our coast in winter, not, however, remaining to breed there; it is about the size of the Common Gull,



Fig. 14.



Fig. 15.



Fig. 16.



Fig. 17.

a little smaller perhaps, but may easily be distinguished from that bird by the colour of the legs and feet, and by the pattern of the primaries, fig. 12 being the first three primaries of the Common Gull, and fig. 13 the first three of the Kittiwake. It may also be known by its having no hind toe, which has partly caused it to be generically separated from the other Gulls; the genus *Rissa* having been originated to include the Kittiwake and one other Gull, *Rissa brevirostris*, an inhabitant of the North Pacific, which either has no hind toe, or a very rudimentary one. There are other reasons for separating these two birds generically from the other Gulls, as mentioned in Mr. Howard Saunders's paper on *Larinæ*, in the *Proceedings of the Zoological Society* for 1878. There is another small Gull, the Ivory Gull, *Pagophila eburnea*, an occasional straggler as far south as Somerset; a very good adult specimen obtained in the county, being in Dr. Woodforde's collection. In adult plumage it may always be distinguished from other Gulls by being pure white. The young bird has some dusky spots on the body, and the quills and tail feathers are tipped with the same. This Gull is the sole representative of the genus *Pagophila*, being generically separated from the other Gulls on account of its short stout bill, coarse rough feet, and other peculiarities about the feet, as described in Mr. Howard Saunders's paper above quoted. The small Dark-headed Gulls, of which there are several species scattered over the world, may generally be distinguished by the pattern of their primaries; the colour of the hood, too, is different in some of them, but on the whole a good many of the species are very much alike, and may easily be mistaken for each other. The only one that occurs in this county is the *Larus ridibundus*; it rejoices in several English names, as the Peewit Gull, the Red-legged Gull, and the Black-headed Gull, the latter having been adopted by the editors of the Ibis list; but to avoid confusion, I always prefer to speak of it by its Latin name, *Larus ridibundus*. It is very common in our county from autumn to spring, but does not remain to breed

here; and I have not very often seen a Somerset specimen with a full dark hood. It may, without much difficulty, be mistaken for the Adriatic Gull, *Larus melanocephalus*, which has once been met with in England, amongst a flock of the common *Larus ridibundus*. As it occurs on the coasts of Spain and Portugal, and on the French coast as far as Bordeaux, it is by no means improbable that it may occur in our own county some day. It may be easily overlooked, and passed as a common *Larus ridibundus*; but it may be known from that bird at all times by its thicker and comparatively shorter bill; and in summer by the hood, which is then black in *Larus melanocephalus*, dark-brown only in *Larus ridibundus*. The pattern of the primary quills is also different, the adult *Larus ridibundus* having the three first primaries white, with a border of black, not quite perfect on the outer web (fig. 14); whilst the fully adult *Larus melanocephalus* has only a small streak of black on the outer web, the rest of that feather and the two next feathers being white (fig. 15). The immature *Larus melanocephalus* has the first primary black, the two next having only a small portion of white on the inner web. A figure of the primaries of the young of *Larus melanocephalus* will be found in Mr. Howard Saunders's paper on the *Larinæ*, in the *Proceedings of the Zoological Society* for 1878. Another dark-hooded Gull, the Laughing Gull, *Larus atricilla*, has occurred certainly once, if not oftener, in the British Isles, and was recorded in the *Taunton and Somerset Gazette*, in the *Archæological and Natural History Notes and Queries*, for February, 1882, as having occurred at Curry Rivel. But this record must certainly be set down as a case of mistaken identity, as on further inquiry it turned out not to be *Larus atricilla*. What it really was I have not discovered, as the bird, or rather birds,—for two were mentioned,—appear to have been sold, and I have not been able to trace them; in all probability they were both *Larus ridibundus*, at different ages. To prevent such mistakes in future, I may point out that *Larus*

atricilla has black primaries (fig. 16), which immediately distinguish it from the other Gulls in this group; it has also a darker mantle. It is an American Gull, ranging on both coasts of America, from about lat. 45° north to the Amazons. Another American hooded Gull which has occasionally straggled to the British Islands, is Bonaparte's Gull, *Larus philadelphia*; though I do not know that it has ever been recorded as having occurred in this county. It is rather a smaller bird than either of the others above mentioned, and may be distinguished from them by the pattern of the primary quills; it perhaps most resembles *Larus ridibundus*, but differs from that bird in the distribution of the black and white on the first three primaries, having the outer web black; the black on the inner web of each being next to the shaft (fig. 17),—not on the outside, as in *Larus ridibundus*; the shaft, also, is dark, except where the white on the inner web runs up to, and touches, it. Another, the Great Black-headed Gull, or Caspian Gull, as it is sometimes called, *Larus ichthyaëtus*, has occurred once in the neighbouring county of Devon. As it is as big, or nearly as big, as a Herring Gull, it would hardly be mistaken for either of the other Hooded Gulls above mentioned, should it ever extend its wanderings as far as this county. The Little Gull, *Larus minutus*, which also has a dark hood in the breeding plumage, has occurred several times here, generally in the immature plumage, in which it resembles the Tarroch or young Kittiwake: it may always be distinguished from the other Hooded Gulls by its small size—being considerably smaller than *Larus philadelphia*, the smallest of those mentioned above. The young bird in the Tarroch plumage also differs from the *Larus philadelphia*, in having a slightly forked tail,—this it loses in its adult plumage, the tail then being square,—and in having the black next the shaft in the first three primaries continuous the whole way up, the white nowhere running up to the shaft, as in a *Larus philadelphia* of about the same age, as shown in fig. 17. In the adult Little

Gull the primary quills are French-grey throughout their length, except the tips, which are white. Sabine's Gull, *Xema sabini*, is a northern Gull, generally inhabiting Greenland, North America, and North-Eastern Asia, straggling to the south in autumn and winter. It has occurred more than once in this county, but always in immature plumage, and has, I know, been occasionally confounded with the Little Gull, a smaller bird. *Xema sabini* may, in any plumage, and at any age, be distinguished by its deeply-forked tail as well from any other British Gull, as from all other Gulls, except one; this one being *Xema furcatum*, a much larger bird, as yet found twice only—once in California, and once in the Galapagos Islands. For these two forked-tailed Gulls, the genus *Xema* has been established.

Amongst the Skuas occasionally visiting this county, I think there are only two that need distinguishing; the two larger, the so-called Common Skua, *Stercorarius cataractes*, and the Pomatorhine Skua, *Stercorarius pomatorhinus*, are too unlike the other British Skuas and each other to need any special identification. The larger one, the Common Skua, has indeed two near relatives much like it, but as the home of both of these is south of the Equator, I do not think I need say anything about them, at least not until they pay us a visit in this county of Somerset, when I shall be happy to identify them, and read a paper on the occurrence before this Society. The two smaller Skuas, however, Richardson's Skua, *Stercorarius crepidatus*, and the Arctic or Buffon's Skua, *Stercorarius parasiticus*, both occasionally found in this county, are rather less distinct. The adult birds indeed, are not so very much alike, as Richardson's Skua, slightly the larger of the two, may always be distinguished by the shorter tail—that is to say, the two long central tail feathers do not project nearly so far beyond the others as in Buffon's Skua; Richardson's Skua has also a band of pale-brown on the breast, which is wanting in Buffon's Skua. The young birds, however, as is so often the case, are rather

more difficult to distinguish, but the immature Buffon's Skua is always a sort of sooty-black, with white margins to the feathers; while Richardson's Skua of the same age is a dirt-brown, with pale yellow margins to the feathers. Another distinction, and perhaps a more certain one, as the colour in both birds varies slightly, is that in Richardson's Skua the shafts of all the primaries are white, while in Buffon's Skua the shafts of the first two only are white, those of the rest being black.

As I had to record the occurrence of the Manx Shearwater, *Puffinus anglorum*, at Milverton, quite inland in this county, in September, 1882, in the *Zoologist* for that year, p. 433, I may point out that the Dusky Shearwater, *Puffinus obscurus*, has certainly occurred in Norfolk once, and has probably occurred more frequently, and been overlooked or confounded with the Manx Shearwater. The Dusky Shearwater is rather a smaller bird than the Manx, as will appear from the following table of measurements taken from a paper by Mr. Stevenson in the *Transactions of the Norfolk and Norwich Naturalists' Society*. According to him, the measurements of the Dusky Shearwater, killed in Norfolk, now in the Norwich Museum, are as follows:—

The total length is from	...	12 in. to 11 $\frac{1}{16}$ in.
Beak	1 1
Carpal joint to end of primary		7 $\frac{3}{16}$ 7 $\frac{3}{16}$
Tarsus	1 $\frac{7}{16}$ 1 $\frac{7}{16}$
Middle toe and claw	...	1 $\frac{5}{8}$ 1 $\frac{5}{8}$

while the same measurements in the Manx Shearwater are :

Total length	15 $\frac{1}{2}$ in. to 14 $\frac{1}{2}$ in.
Beak	1 $\frac{1}{2}$ 1 $\frac{1}{2}$
Carpal joint to end of primary		9 $\frac{3}{8}$ 9 $\frac{3}{8}$
Tarsus	1 $\frac{7}{8}$ 1 $\frac{7}{8}$
Middle toe and claw	...	2 2

In plumage the Dusky Shearwater has the back and all the upper parts darker than the same parts in the Manx Shearwater; *Yarrell* describes them as "ink-black" in the Dusky, and brownish-black in the Manx; certainly no one could in

any state of plumage call the upper parts of the Manx Shearwater "ink-black," though fully adult birds with white breast and under parts, have the upper parts darker than young birds of the year, especially shortly after the moult.

The Fork-tailed or Leach's Petrel, *Procellaria leucorrhoa*, and the Storm Petrel, *Procellaria pelagica*, are the two last birds that I shall mention. They both occur occasionally in this county, the Storm Petrel, however, most frequently, as may be supposed from its breeding in numbers at the Scilly Islands, sparingly on Lundy Island, and at several stations in the Channel Islands. Here, however, it occurs only when storm-driven, and generally in the autumn. It may be distinguished from the Fork-tailed Petrel by its smaller size, and by the tail being square instead of forked; the wings, too, are longer than the tail, whereas in the Fork-tailed Petrel they are not so long as the long outer feathers of the tail, though longer than the short central ones. These distinctions would always be sufficient for anyone to identify these two birds, should either of them fall into his hands. The Fork-tailed Petrel, though rarer in this county than the Storm Petrel, has occurred at Weston-super-Mare, and in one instance at Combwich, on the Bridgwater river; it has also occurred when storm-driven inland, one being picked up some years ago by Mr. Esdaile, at Cothelstone, where it is still preserved.

I have not been able to mention the distinctions between all the nearly allied and somewhat similar birds which occasionally visit our county, and perhaps not between all the commoner residents, but I think I have mentioned most of those birds whose similarity of appearance has, as far as my experience goes, caused difficulties as to identity, and which consequently require study to prevent mistakes. It is impossible, perhaps, to guard against all mistakes in identity. For instance, a few years ago I had a small Australian Sulphur-crested Parakeet, *Nymphicus novæ hollandiæ*, of Wigler, brought to me as a Great Grey Shrike, *Lanius excubitor*, the then owner having shot it somewhere in

this parish, and brought it to me as a rare bird. I believe it is still somewhere in existence in our Museum. Even but a few days ago an escaped Pelican, *Pelecanus onocrotalus*, killed somewhere on Exmoor, was brought into Taunton as a Common Cormorant, *Phalacrocorax carbo*. These two mistakes, however, have not done much mischief, as of course I took care that the Parakeet was not recorded, and I have not yet seen any record of the escaped Pelican, either as a Pelican or a Cormorant. More mischief, however, has arisen from the somewhat careless record in *Science Gossip* for March, 1876, of the occurrence at Wincanton, of the Demoiselle Crane, *Grus virgo*. Some one who had never seen the bird, but only identified it from a description in *Cassell's Natural History*, without any hint as to the possibility of a mistake in the identity or in the description, sent his account to *Science Gossip*, from whence the record was copied into the *Zoologist*, into the *List of British Birds* by the Ibis Committee, and into the new edition of *Yarrell*; though, fortunately, in neither of these last mentioned publications is it placed in the list of positively authenticated British birds. It was only through some enquiries that I made at the request of the Editor of the new *Yarrell*, that the extremely unsatisfactory nature of the original record in *Science Gossip* was brought to light. As birdy people—especially members of the B. O. U.—are rightly very sceptical, though not always, perhaps, sufficiently so to guard against mistakes, it would be as well that more care on the subject of identity should be taken in the record of rare specimens. If there be any doubt, the person making the record should state his opportunity of identifying the bird, and whether from sight, or only from the description of some one who, perhaps, did not know the distinguishing points. It should be remembered, also, that such a requirement of verification does not imply a doubt as to the recorder's truthfulness, but only as to his chances of forming a judgment—occasionally by no means a very easy thing to do. It is in the hope

of making this more easy that I have prepared these two papers on distinctions. As I could not, in this written paper, show the skins of the various birds mentioned, and so point out the distinctions from the birds themselves, my daughter has drawn a few figures illustrative of them, which have been very faithfully reproduced. This, of course, could only be done in a very few cases, and not at all where colour alone was an essential point.
