

SCOTTISH BIRDS



THE JOURNAL OF THE
SCOTTISH ORNITHOLOGISTS' CLUB

Volume 5 No. 7

AUTUMN 1969

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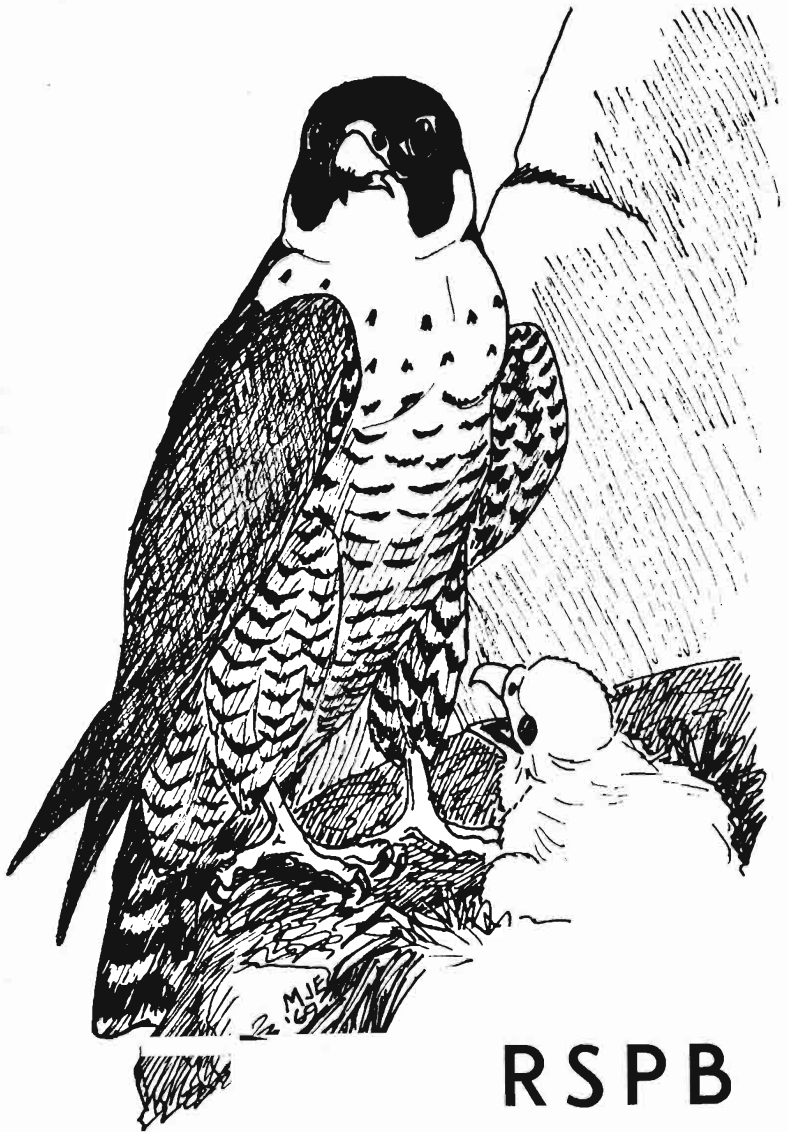
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Vol. 5 No. 7

Autumn 1969

Edited by A. T. Macmillan, assisted by D. G. Andrew and M. J. Everett

Editorial

New Fair Isle Bird Observatory. Through the generous support of the Highlands and Islands Development Board, the National Trust for Scotland's Wildlife Fund, the Carnegie UK Trust, the Dulverton Trust, the Pilgrim Trust and many private donors it has been possible to go ahead this year with the new bird observatory and hostel building on Fair Isle, in spite of the usual rising costs, which have increased the total needed for building and furnishing to £51,000.

Building from the ground is usually quicker than altering an existing building; even so, progress, considering the remoteness of the site, has been impressive. By the time this appears in print the new observatory, providing for up to 24 visitors in single and double rooms and dormitories, and for the warden and his family and staff to live on the premises, and with bird-ringing room, laboratory, darkroom and library included, should be virtually complete.

The objects of the observatory—scientific studies of birds and their migrations, coupled with training of ornithologists in the techniques of trapping, ringing, laboratory examination and general field observation, and the provision of a comfortable base for naturalists and island-lovers—are now assured for the future. The new buildings, opening 21 years after the observatory was founded in 1948, rank as a major Scottish contribution to European Conservation Year 1970. They also represent a substantial vote of confidence in the future of Fair Isle itself, for it cannot be said too often that the viability of the island community and the viability of the bird observatory are very much bound together; neither would find it easy to exist on its own.

In case anyone who has not yet contributed thinks it is too late to help, it may be said that a lot of money is still needed to meet the annual interest charges and to pay off the loan from the Highlands and Islands Development Board. Donations will be gratefully received at 21 Regent Terrace, Edinburgh, EH7 5BT, or for a guinea you can be a Friend of Fair Isle and have copies of the annual reports. It is aston-

ishing how many people are not yet Friends of Fair Isle, and your support really is needed. The most important bird observatory in Britain is Scottish and it is up to us to justify the faith of those who have financed the new buildings by seeing that it is soundly financed for the future. A steady annual income from Friends of Fair Isle (preferably covenanted) is the most reassuring form of support, for it shows that people not only believe in the project but are prepared to pay for it.

RSPB Appeal. We seem so often to be commending appeals for money that it is pleasant to report success, even when coupled with the rider that more is still needed. The RSPB Reserves Appeal reached its target of £100,000 in the spring. Vane Farm on Loch Leven is being developed as an educational centre. A Welsh stronghold of the Kite (now open to visitors) has been bought, and also part of the Ouse Washes where the Black-tailed Godwit (34 pairs in 1968) has bred since 1952 and the Ruff (4-5 nests in 1968) since 1966; two pairs of Black Terns also bred in the area in 1966. Anyone who rejoices in seeing such rare breeding birds in Britain, or who believes that they and their fast vanishing habitats ought to be looked after, has a duty to support this work. If you are not already a member of the RSPB, the largest popular voice for natural history in Britain with approaching 50,000 members, it may be time you asked yourself why. As Dr I. D. Pennie once told us, someone has to pay if we want to keep our birds in the face of competition from other land-users. Positive action in the creation and management of suitable habitat can achieve results, as the RSPB has shown: mere negative opposition to 'development' by other interests is unlikely to do so. Write to 17 Regent Terrace, Edinburgh, EH7 5BN, for more information.

Sound recording competition. Congratulations to Magnus Sinclair of Unst on winning the class for recordings of individual species of birds in the British Wildlife Sound Recording Competition sponsored by the makers of Scotch magnetic tape and the Wildlife Sound Recording Society. His winning entry was an early morning recording of a family of Curlews (*Brit. Birds* 62: 163).

Current literature. Recent material of Scottish interest includes:

Fair Isle Bird Observatory Report for 1968. R. H. Dennis, 1969. 68 pp. Better than ever.

Effects of reafforestation on the birds of Rhum, Scotland.

L. A. Batten & D. E. Pomeroy, 1969. *Bird Study* 16: 13-16.

The food of Cormorants and Shags in Scottish estuaries and

- coastal waters. *Marine Research* 1969, No. 1. B. B. Rae, 1969. See also D. H. Mills in *Scot. Birds* 5: 264-276.
- The census of heronries, 1962-63. J. Stafford, 1969. *Bird Study* 16: 83-88. Scottish data meagre.
- Differences in the downy young of Red and Willow Grouse and Ptarmigan. A. Watson, R. Parr & H. G. Lumsden, 1969. *Brit. Birds* 62: 150-153, pl. 27. With Scottish criteria.
- Nesting activities and brood movements of Black Grouse in Scotland. R. J. Robel, 1969. *Ibis* 111: 395-399. Studied by radio in Kincardineshire.
- The winter feeding ecology of the Redshank. J. D. Goss-Custard, 1969. *Ibis* 111: 338-356. Aberdeenshire study.
- Spring migration of the Common Gull in Britain and Ireland. J. D. R. Vernon, 1969. *Bird Study* 16: 101-107.
- Scarce migrants in Britain and Ireland during 1958-67. Part 1. Introduction, Hoopoe, Golden Oriole and Tawny Pipit. J. T. R. Sharrock, 1969. *Brit. Birds* 62: 169-189. Excellent analysis including Scotland.
- Roosts and roosting habits of the Dipper. R. Hewson, 1969. *Bird Study* 16: 89-100. From Banff.
- Some vital statistics of British Mistle Thrushes. D. W. Snow, 1969. *Bird Study* 16: 34-44. Scottish birds are particularly migratory.
- Grey Wagtail passage and population fluctuations in 1956-67. J. T. R. Sharrock, 1969. *Bird Study* 16: 17-34. With Scottish ringing data.
- Cretzschmar's Bunting on Fair Isle: new to Britain and Ireland. R. H. Dennis, 1969. *Brit. Birds* 62: 144-148, pl. 26. Present 10th-20th June 1967.

Scottish Cormorant colonies

R. W. J. SMITH

The distribution of Cormorant colonies throughout Scotland has not previously been considered in detail. Baxter & Rintoul (1953) give an account of the published Scottish records with up-to-date comment on some colonies. Many of the breeding records they quote are old ones and they say, of Cormorant and Shag, "it is surprisingly difficult to get exact information as to their distribution." Numbers and breeding sites in Shetland have been detailed by Venables & Venables (1955); the colonies and population of Orkney Cormorants are discussed in a recent paper by Balfour, Anderson & Dunnet (1967); and Mills (1965) has listed some of the Scottish breeding colonies.



FIG. 1. Distribution and size of Cormorant colonies in Scotland. Symbols : circle 1-20 nests, square 21-50 nests, triangle 51-125 nests, star 200-450 nests ; crosses mark colonies used since 1920 but now sporadic or extinct.

Distribution

Some 3000 pairs of Cormorants nest in Scotland. Fig. 1 maps the distribution of breeding sites and emphasises the dependence of the species on sheltered waters. The Scottish population may, for convenience, be divided into seven regional areas. Of the three island groups: Orkney has 600 pairs; Shetland with less shelter holds 400 pairs; and in the more exposed Outer Hebrides the number is only 150 pairs. In the four Scottish mainland regions: 800 pairs are concentrated within 60 miles to the north of the Sutors of Cromarty; the recently established Forth colony has 240 pairs (and is increasing every year); there are 600 pairs scattered along 50 miles of the Solway coast; and in the northwest a scattering of small colonies, perhaps totalling 100-150 pairs, is based on the more sheltered inlets.

Size of colonies

The term 'colony' is one which has various concepts (see *e.g.* Coulson 1963). As considered here it means any group, or groups, of birds which breed within a restricted area. This may be one island or an island group, one cliff-face or a several-mile stretch of cliff. In some instances the division into 'colonies' is an arbitrary one.

The Ord of Caithness, with 450 pairs, is the biggest colony in Scotland—and in the British Isles. This figure does not include some 20 nests at Berriedale, about 1½ miles north of the two-mile stretch of the Ord breeding cliff, which may well be an integral part of the larger breeding group. Most Scottish Cormorants nest in big colonies, the seven largest holding over 1900 pairs, about two-thirds of the total. These colonies, all of 200 or more pairs, are, taking the largest first, Ord of Caithness, Mochrum, Sutors of Cromarty, Muckle Roe, Lamb, Holm of Boray and Taing Skerry, and Calf of Eday. Solitary nests are rather uncommon and few pairs breed regularly in this way.

Table 1. Size (number of nests) and site of colonies

	1-20	21-50	51-125	200-450	Total
Mainland cliff	8	1	1½	3½	14
Small island	9	12	2½	3½	27
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	17	13	4	7	41

Note 'Mainland cliff' includes cliffs on large islands, and 'small island' includes steel erections.

Site

The Cormorant is catholic in the choice of a breeding site. Two important factors are the proximity of water, and

relative freedom from disturbance. There is possibly a preference for small islands in sheltered bays but, in the absence of these, Cormorants will nest on high mainland cliffs, on freshwater islets, or on trees. There are several old records of tree-nesting colonies in Scotland, though these have all been shot out (Baxter & Rintoul 1953). Of the several recorded freshwater nesting colonies only a small one in North Uist and a large one at Mochrum survive. In the Solway, two steel erections standing in shallow water have been colonised.

The height above water level at which Cormorants will nest varies from practically zero to 450 ft. The latter (at Berriedale Ness) is exceptional and most sites are below 150 ft. At Mochrum some of the nests are at the water's edge, with the eggs only some six inches above water level. This is only possible on a freshwater loch, but, even so, some of the nests must be swamped in rough weather.

In an established and undisturbed colony birds nest, if possible, in close-packed groups. At the Ord of Caithness in 1967 there were about 15 such tight groupings over a 2-mile stretch of coast. These compact groups have a generally white-washed appearance that makes them as obvious from a distance as a Kittiwake or Gannet colony. In the most dense part of the colony at Mochrum in 1967 the nests were spaced at about 3 ft centres. On a cliff site the birds usually nest on an open area, such as a rock spine or broad ledge, which makes them easily visible to the human observer. Nests are very seldom if ever under an overhang, a site much favoured by Shags. When both these species are breeding on the same cliff the Cormorants usually nest at a higher level than the Shags.

Cormorant colonies may move between two or more regular sites, as in the Summer Isles (Darling 1940) or in Orkney (Balfour, Anderson & Dunnet 1967). The latter paper also mentions local shifts of at least part of the colony. Such movements of a few yards are not spectacular but are probably more usual than a movement of several miles. The concentration of nests on the Lamb obviously changes from year to year, and this is even more noticeable at the Ord of Caithness, where different parts of the cliff are used in successive years.

Status

Any comment on status must necessarily be generalised. There are too few past counts available for comparison with recent ones.

On the Lamb there has been a spectacular rise in numbers

since the first breeding in 1957. There was an earlier increase in the Farnes population and it is probable that the Forth birds are derived from there. After the initial striking rises, which must have represented fresh arrivals, the rate of increase has settled in recent years at about 10% per annum.

There has almost certainly been an increase in the north-east region since Harvie-Brown's day. The "considerable numbers" on Dunnet Head have gone but more than 500 pairs now breed between there and the long-established North and South Sutors colony. At the North Sutor, where shooting has stopped along with the bounty, there was a sharp increase in numbers between 1966 and 1967. The situation at the South Sutor in 1966 is not known, however, and some of this increase may merely represent a shift from there.

Some of the colonies in the Solway have long been persecuted by fishing interests. Despite this, breeding numbers are high, although it is impossible to know whether they are anywhere near the optimum level. There is little evidence to indicate whether there has been any significant change in the total breeding population over the past 100 years. At Mochrum, where odd counts have been made over 60 years, Stuart (1948) gives the yearly average of breeding birds as 200-220 pairs. Recently there have been 300 or more pairs, an increase of some 50% in this colony.

The northwest region is the only one where there has been a definite decrease in breeding numbers. There is active antagonism from some of the salmon fishing interests, but this may not be the only factor involved in the decline. The Summer Isles colony of about 100 pairs has apparently practically disappeared in the last 20 years. The birds at Treshnish Point have gone—although they may yet be found in Ardnamurchan. In the Badcalls there has been a big decrease since Harvie-Brown saw about 160 pairs there in 1903. This area is the one most difficult to cover, so it is possible that there may be uncharted colonies to redress the balance.

In Shetland Venables & Venables (1955) say that "this species is now considerably less common [than] in the 1880s and 1890s." Cormorants were apparently much more widely distributed in those days, but there is little numerical data for comparison with present numbers. The contraction in the breeding range from the more exposed islands may have involved a drastic fall in breeding numbers but, alternatively, it is possible that there has been a corresponding increase at colonies on the Mainland of Shetland, and in the last decade there may have been a slight increase (R. J. Tulloch).

Numbers in Orkney have fluctuated fairly closely around

600 pairs in recent years (Balfour, Anderson & Dunnet 1967) but very little is known of the situation existing in the past.

In the Outer Hebrides the available figures suggest that numbers are increasing. However this increase is due entirely to one rapidly expanding colony. Few data are available for the remainder of the region.

Disturbance

It is difficult to assess the effects of human persecution and disturbance. These were very severe on the east coast of Britain, where all species of seabirds suffered from egg collecting and from sportsmen (Coulson 1953). Cormorant breeding numbers became very low in the Forth/Farnes sector, and the easing of repression has permitted a spectacular and continuing recovery there. Persecution was probably never so bad in the other Scottish regions, whether because colonies were not so accessible or because the human population in the area was more sparse. There has certainly been an overall increase in the Scottish breeding population in recent years, but it has been most noticeable on the east mainland coast. Whether the decrease on the west coast is due to human activities or otherwise is unknown.

Disturbance may lead to the colonisation of new sites. When one approaches the Lamb most of the adult Cormorants fly off, and any exposed eggs are heavily predated by Herring Gulls. In 1966 no young at all were reared, probably because of such untimely disturbance, and in mid July a number of adults nested on neighbouring Craigleith. It is most likely that these were failed breeders from the Lamb. On the Farnes the fishermen often land to collect Herring Gulls' eggs, and many Cormorant eggs are lost to the gulls in the process. It is possible that failed breeding there due to this and other causes could have led to the initial colonisation of the Lamb.

Counting

On the Lamb some Cormorants start laying at the beginning of May, while others (presumably young birds) do not lay until after mid June. Our experience suggests that the period 10th-15th June gives the most satisfactory count on this island. After this date many of the young birds are big enough to leave the nest and 'run' in groups, confusing the issue. Earlier visits leave too many eggs at risk to the gulls. Counts include not only nests with eggs and young but also all empty nests, as these are probably failed or late breeders. Partly built nests are noted but not included in the totals. The margin of error involved is unknown. A later visit tends to produce a lower count. At the Ord of Caithness

in 1967 D. M. Stark found 451 nests in June, while we had only 415 on 13th July, a decrease of some 8%. This factor may be taken into account when considering the total breeding population in Scotland, though it is probably unsafe to attach too much weight to differences between counts made by different observers. The most recent counts of existing colonies are summarised in table 2. There may well be several small colonies (up to about 20 nests) which have not been recorded, but it is unlikely that many larger ones have been missed.

Table 2. Counts of nests at Scottish Cormorant colonies

Scottish mainland and Hebrides	
Counted in June (1966, 1967, 1968)	1306
Counted in July (1966, 1967, 1968)	471
Counted before 1966	105
Orkney	600
Shetland	400
	<hr/>
	2882

Note No estimate included for Bulgach Island (50 pairs in 1948)

List of colonies

The main purpose of this paper is to give an up-to-date account of Scottish Cormorant colonies. In some of the old records there has been confusion between Cormorant and Shag, and only those colonies that have been occupied during the past 50 years are considered here. Records of other old colonies will be found in Baxter & Rintoul (1953).

Between 1964 and 1967 my wife and I counted many of the mainland colonies. We did not search indiscriminately for sites but were guided by the published records and the unpublished knowledge of others. Some reported sites we surveyed with negative results. These included the area near the Mull of Kintyre lighthouse, Fura dh Mor east of Rudh Re, and the islands in Loch Laxford. Dr I. D. Pennie suspected that birds might breed occasionally on Glas Leacan and Garbh Eilean east of Cape Wrath but this has never been proved and we found none in July 1966. This area is now used regularly as a naval shelling target.

The colonies are listed in geographical order. The most recent count or estimate of nests is given immediately after the name of each colony. These figures are the ones used in compiling the map and tables.

KIRKCUDBRIGHTSHIRE

'Dookers Bing', Port o' Warren (13). Reported breeding here in 1902 "after being deserted during the breeding season for over a quarter of a century"; this was on the "mass of rock that lies against the shore"

(Baxter & Rintoul 1953). On 23rd May 1964 we found a single bird on this main mass of red sandstone but no sign of breeding. Further west there were 2 nests on a broad ledge of a steep 40 ft cliff. This colony was reported locally as being shot regularly with the encouragement of, and cartridges supplied by, the local river board. On 24th June 1967 there were 13 or 14 nests, several with well grown young.

Balcary Point and Hestan Island (0). "The Rev. E. T. Vernon tells us that there is a very large Cormorant colony about Balcary Point" (Baxter & Rintoul 1953). By 3rd June 1956 Cormorants "had deserted the cliffs at Balcary...in favour of the conglomerate cliffs of Orroland" where some 200 birds were established on 15th April that year (Bleazard 1956). At Hestan Island, about a mile NE of Balcary Point, 4 pairs bred in 1962, the first and only breeding record (AAT). They were reported to have bred at Balcary Point that same year, but there was none in 1963 (WUF) and probably none in subsequent years. This colony was regularly disturbed.

Cliffs at Orroland (70). This is probably the place of retreat for the much persecuted Balcary Point colony. The first record appears to be that of Bleazard (1956), quoted above, who saw about 200 birds (presumably about 100 pairs) in April 1956. The 100 ft cliff turns inland and ends at this point and is a ragged steep, conglomerate rock with broad ledges and a lot of vegetation. We found 70 nests on 24th May 1964 and a similar number on 24th June 1967. The nests were 40 ft-90 ft above the water. There is apparently little disturbance here.

Meikle Ross (12). "Cormorants nested on Little Ross in 1833 and in 1920 Begg refers to the colonies of Cormorants there" (Baxter & Rintoul 1953). Mr Poland, who was the official boatman to the lighthouse, informs me that in his experience they never did breed on Little Ross Island but only on the Big Ross cliffs. They were not nesting on Little Ross in 1967 (JGY). On 24th May 1964 there were 18 adults, but only 7 nests, near the western end of the Meikle Ross cliffs, where the rocks are less steep. They were obviously much disturbed, with eggs seen in only one nest, and several large stones thrown into others. In 1967 entry to the area was being discouraged and there was a bull running in the fields. On 24th June we found 11 nests, 6 at the original site and 5 on small niches in the vertical face of the steep cliff. In 1968 there were 12 nests (RHM).

WIGTOWNSHIRE

Rigg Bay, near Garlieston (108). During the last war three experimental Mulberry Harbour erections were built in Rigg Bay. The two largest of these were later removed, leaving one, known locally as the 'hippo'. It is a steel structure with a solid top some 12 yds x 7 yds standing on girders about 30 ft above the water at low tide and perhaps $\frac{1}{2}$ mile out from the shore. It can be reached on foot at exceptionally low tides. Cormorants have bred here for a number of years: J. Lears counted 160 occupied nests in 1959 and there were 38 in 1965 (all per RHM). On 3rd June 1967 we found 61 nests, most of them round the edge, with the corners and outriggers holding the largest young, but with 2 empty nests on top of the centre winch. On 100 yds of the low cliffs opposite the hippo there were 47 nests in June 1967 (RHM). The cliffs are steep and very broken and guarded at the top by a dense jungle of nettles and scrub. The nests were on broad sloping ledges and outjutting rocks. This colony is an old one. The *Gallovidian* of 1901 tells of "the rugged rocks and precipitous cliffs which are the haunt of the Cormorant and sea-mew" (Simpson 1901 per RHM). It should be stressed that the Shag is a rare bird here and most unlikely to be the species referred to. There is very little disturbance of either group.

Burrow Head (10). In 1967 a local lad reported that Cormorants were

nesting here. On 15th June 8 nests were seen in a compact group with 2 single nests $\frac{1}{2}$ mile and 1 mile away (RHM). The previous history of this group is unknown.

Castle Loch, Mochrum (300). An ancient and celebrated site on small low rocky islets on a freshwater loch about 2 miles from the sea. This colony was in existence in 1790 and probably in 1663. Stuart (1948) suggests that the yearly average of breeding birds between 1909 and 1947 was 200-220 pairs. In 1963, 1964 and 1965 there were about 214, 215 and 214 nests respectively, all with eggs, on the big islet (RHM). On 3rd June 1967 we found some 300 nests (202, 16 and 75 nests on the three islets, including about 50 without eggs or young) and some 25 half-built or newly started nests. The biggest chicks on the third (eastern) islet were about a week older than the oldest on the big islet. On 30th June 1968 a minimum of 47 nests was seen on some islets at the other end of the loch where neither RHM nor we had seen them in previous years. No count was made of the main colony. The Cormorants on this loch have been afforded a considerable degree of protection for many years.

Piltanton Estuary (29). This is a similar site to the 'hippo' in Rigg Bay but without the solid top. Six nests were built in 1967 (RCD, JGY). On 9th July 1968 there were 29 nests (including 9 with unfledged young) and 59 fledged juveniles (RCD). This appears to be a very recent colonisation.

Scar Rocks (10). Probably an old site. In 1939 F. C. R. Jourdain found 87-90 pairs, including 71 nests with eggs or young. On 24th June 1943 A. B. Duncan got 50 pairs. Gannets first bred here in 1939 and there were 40-50 nests in 1943 (McWilliam 1945). This increase has continued and we found nearly 300 Gannet nests on 27th June 1964. The local boatman who took us out said that the Gannets were "pushing the Cormorants off the rock". We saw only 10 Cormorant nests on this visit. They were on a slope above the sheer south cliff and well below the Gannet colony, which was apparently spreading downwards from the topmost parts of the rock. Some photographs of the top of the rock taken in 1942 (McWilliam 1942) show Cormorant, Shag and Gannet all nesting near the top. The Gannets have taken over this area completely. There were 18 nests on 17th June 1967 and 10 on 9th June 1968 (RHM). There is very little human disturbance.

Mull of Galloway (13). This may be a new site, probably colonised during the period when Cormorant numbers were dropping on the Scars. ADW has supplied the following counts for the cliff about $\frac{1}{2}$ mile west of the lighthouse: 31st July 1955, several birds but nests not noted; 10th July 1959, 4 nests; 19th August 1961, 6-7 pairs; 16th July 1962, about 6 pairs; 31st May 1965, D. Ratcliffe went down cliff and counted 12 nests. On 28th June 1964 we found a compact colony of 18 nests; there were 14 on 25th June 1967 and 13 on 29th June 1968. They were mainly on a broad sloping ledge of the sheer 150 ft cliff and roughly 30 ft from the top. Difficulty of access will prevent much disturbance.

AYRSHIRE

Currarie Port, near Ballantrae (28). Apparently an old site. Some 30 pairs nest here and numbers fluctuate quite a bit (JAG). There were 20+ pairs in the second half of May 1960, at least 15 pairs on a stack-like rock and at least 5 pairs scattered to the north (CEP). On 21st April 1962, 8-10 nests (4 with eggs) were seen (SR). "The main group of nests is on two adjoining rocks half-a-mile south of Currarie Port. I found 22 nests... to the north is a steep cliff and on this there were 6 more nests" on 1st June 1964 (GAR). This appears to be a relatively stable group and little disturbed.

Ailsa Craig (1). The occasional pair may have bred in the past. One

pair nested on the Barestack in 1950 (Gibson 1951). Some 1-3 pairs still nest each year (JAG).

Loch Moan (0). An old site where several hundred pairs bred in the 1880s but which suffered severe persecution by fishing interests. A solitary pair still bred in 1929 (Baxter & Rintoul 1953). There is no recent record of nesting.

BUTE

Little Cumbrae (0). Several nests were seen on the cliffs at Long Bay on 2nd June 1951 (WUF). Birds are regularly seen in this area but there is no later record of nesting (WUF, GW).

ARGYLLSHIRE

Eilean Buidhe, Loch Fyne (0). "J. F. Borland and F. D. E. Walls saw Cormorants here in 1956 and found a nest which they presumed to be Cormorant... I myself have only seen Shags and their nests here which confuses the picture" (JAG). No other information available.

Islay (6). Six nests were reported "about 4 miles west of Rhuvaal Lighthouse" at the north end of Islay in 1968 (LA per GW).

Treshnish Point, Mull (0). "It breeds on the Treshnish Islands" (Baxter & Rintoul 1953). However, in 1964 Col. Niall Rankin (pers. comm.) said "the Cormorant has never bred on the islands, only on Treshnish Point on the mainland of Mull. The colony has sadly diminished over the years since the war". "In 1892 Harvie-Brown said that of recent years it had bred on one of the high cliffs" of Mull (Baxter & Rintoul 1953). This may be an earlier reference to the same colony. On 3rd July 1967 we searched Treshnish Point in vain for Cormorants. There was none as far north as Calgary Bay or further to the south 2 miles beyond Port Haunn. This colony must have gone. Local reports suggest that there has been no human interference with the birds. Evans & Flower (1967) thought that there might be a colony on Ardnamurchan but they have no definite proof of this (WUF). If there is a colony there it might be the new location of the Treshnish birds.

INVERNESS-SHIRE

Eilean an Snidhe, Sound of Arisaig (20). An old site. "This is the largest of a small group of islets in the Sound of Arisaig... Major J. Christie Smith found up to 20 pairs there on 17th June 1964" (GW). R. A. Macdonald, a local boatman, tells me that 'snidhe' means "slime caused by bird droppings" and that Cormorants have bred there for many years; they have bred every year since 1957, except in 1963 when none was present, but they were back in 1964. He does not know of any alternative site. Numbers are relatively stable and there is no disturbance.

WESTER ROSS

Rudh Re (16). "There is, or was, a Cormorant colony on the Rudha Reidh" (SG in 1963). On 15th July 1966 we found 19 nests on the largest of several stacks lying close to the cliffs less than a mile east of the lighthouse. The nests were mainly on the flat top, with one or two on a lower spur. There were 16 nests on 6th July 1967, many with big young. There is obviously little disturbance here.

Summer Isles (2). An old colony. "The colony at Priest Island... has increased since my last visit... Mr Dobbie estimated two other colonies... both on one island, to contain about fifty nests each" (Harvie-Brown & Macpherson 1904). Fraser Darling (1947) gives "a total of nearly a hundred pairs". There was an "annual or biennial change of nesting station among the islands, involving a move of perhaps two miles each time—one year on the north and south of Priest Island, next

at Carn an Iar, then on the north cliff of Tanera Beag, and back to Priest Island again". Elsewhere (Darling 1940) he says that in 1937 there was none on Priest Island but 63 nests were counted on the western cliffs of Carn an Iar; in 1938 comparatively few nested there, most being on the west cliffs of Eilean Dubh, while a few had returned to Priest Island; by 1939 most of the birds were back on Priest Island. On 22nd July 1964 there was one definite nest, with an estimated 5 pairs at the SE corner of Tanera Beag (PG). Cormorants in breeding plumage were in this same area in June 1966 (RM). On 14th July 1966 we went round this island by boat but saw none on the cliffs and only one adult (and odd immatures) in the whole area. On 4th July 1967 there were 2 nests on a ledge under an overhang on the west side of Tanera Beag (HEB). Three days later the boatman took us round Eilean Dubh and Carn Iar and landed us on Priest Island, where we scrambled right round the island. We saw no sign of Cormorants anywhere which we certainly should have done, despite the never ceasing rain, if there had been a colony of any size on any of the islands. There has apparently been a drastic reduction in the breeding numbers in the area. Fraser Darling mentions parties shooting at seabirds round the islands during the breeding season.

SUTHERLAND

Badcall Islands (34). An old colony. In May 1903 "upon one of the inner islands... I counted over one hundred pairs flying off... and at the old spot about sixty" (Harvie-Brown & Macpherson 1904). Still breeding in 1959, 5-6 nests on Meall Earca in 1960, and 55 nests there and 4 on Meall Mor in 1961 (IDP). Breeding Meall Mearca 1964 (GW). In 1967 we saw about 20 nests there from the NE mainland in very bad visibility. In July 1968 there were 34 nests on one island out of four landed on (PC). This observer had reports of up to 200 pairs of Cormorants altogether on the islands, but there is no evidence to support this. The colony suffers from occasional persecution (IDP).

Bulgach Island (Am Balg) (?). An old site and very difficult to land on. Harvie-Brown saw "a small one on Bulgach of some eight nests which were within view" (Harvie-Brown & Macpherson 1904). Fisher & Piercy (1950) summarise the other known records. Birds were seen in breeding plumage in June 1914 but were not recorded on 7th July 1927. A colony along the top of the west-facing cliff was estimated to contain at least 50 nests on 6th July 1948. Shags had apparently occupied this site in 1927 but had been displaced by the Cormorants. The present position is unknown, although when we overlooked the island in 1966 (from some distance off) we saw no Cormorants flying about. Human disturbance is most unlikely here.

Whiten Head (0). "A very fine colony indeed close to Whiten Head on The Maiden's Rocks and on the bold cone of the headland itself, at a height of about 350 feet" (Harvie-Brown & Buckley 1887). In July 1959 there were a few on the cliffs but breeding was not proved (IRD). Odd birds, but no nests, were seen in 1960 (IDP). It is possible that some of the birds disturbed from Island Roan may breed here occasionally.

Meall Halm, Island Roan (35). No old records. On 26th June 1949 "a shooting party had been the previous day and destroyed practically all the young birds and many adults"; they were breeding in August 1958 (IDP). There were 32 nests in 1959 and 40-50 in 1962 (Downhill 1963). On 10th July 1967 we overlooked Meall Halm from Midfield nearly due west on the mainland. Although 3 miles off, the colony was clearly seen as a white splash on the top of the island and it seemed, with the telescope, that 30-35 pairs were breeding. We had local reports that boat parties occasionally went out to Island Roan, killing off the Shags "because of their predation on salmon fry", but they did not usually land on Meall Halm.

CAITHNESS

Dunnet Head (0). In 1885 "a considerable number are to be found breeding on the high ledges of the Dunnet promontory" (Harvie-Brown & Buckley 1887). There were reports of a few Cormorants here in 1965, but no proof of breeding (DMS). In July 1966 we walked the west coast to the lighthouse, seeing 3 birds (1 adult) but no evidence of nesting. A single nest was seen $\frac{1}{2}$ mile east of the light later in 1966 (DMS). In 1967 we explored this second area without success. There is probably no regular colony here.

Clyth Stacks (50). In 1964 a colony estimated at 30 pairs was found here (DMS). There is apparently no previous published record, but the local farmers say they have bred for many years and used to nest at times on the Stack of Mid-Clyth to the north. On 12th July 1967 we saw 50 nests, mostly on the small outer stack and adjacent outer side of the big Stack, but with a few on the two inner stacks. These stacks are roughly 50 ft high. The locals say they are seldom disturbed now, although eggs (of all the seabirds) were regularly collected in the old days.

Ord Of Caithness (450 and 22). On the cliffs at the Ord there was a large colony estimated at 100-200 pairs in 1960 and 1962. Still present in 1963 although "the main part of the colony suddenly shifted from a dense, compact colony to scattered sites further north" (IDP). In 1965 this same observer counted 450 nests, the colony extending north and south of the Caithness/Sutherland border. These seem to be the first references to what is obviously a well established colony. In June 1967 there were at least 451 nests (DMS). We did a repeat count on 13th July and got 415 nests. The colony was scattered over 2 miles of steep and broken cliff and, even on our two visits in 1966-67, there were many obvious changes of pitch. The individual groups in 1967 numbered mostly 20 or less (with two of 32 and one each of 72 and 73). These groups were on a variety of sites including rocky outcrops, ridges and stacks, mostly below the 100 ft level. Two miles further north there is a small group on the cliffs of **Berriedale Ness** which may be an extension of the main colony. The nests are between 300 and 450 ft up this sheer 500 ft cliff, mainly on the few broad sloping ledges. There were 8 nests in 1961 (IDP), 25 nests on 6th July 1966 and 22-23 on 13th July 1967. They are not persecuted in this area at all (IDP).

EASTER ROSS

North and South Sutors of Cromarty and Nigg (283) These colonies were mentioned by Harvie-Brown and birds "were still in numbers in 1946" on both cliffs (Baxter & Rintoul 1953). We counted about 25 nests on the cliffs SE of Castle Craig farm on the North Sutor on the evening of 4th July 1966. There were also some 200 birds (both adult and immature) roosting there. A visit on 14th July 1967 produced 82 nests on the same $\frac{1}{2}$ mile stretch of cliff. A local fisherman told us that Cormorants had been shot for the bounty until it was stopped in 1964 but that the birds were not now molested. On the South Sutor there was a compact colony breeding on a $\frac{1}{2}$ mile stretch of cliff below Gallow Hill on 15th July 1967. We counted a minimum of 201 nests. Both groups are on very steep grassy or rocky cliff, often on outcropping rocky spurs. They are probably best treated as one colony.

MORAYSHIRE

Cliffs at Covesea (0). One pair was reported nesting on the cliffs in 1962. A search in 1963 was fruitless although some non-breeding birds were present (RR).

BANFFSHIRE

Troup Head (0). A scattering of nest sites on the cliffs—say 5-20 pairs (RR in 1963). We could not locate this colony in 1966 although we walked the whole length of Troup Head. In 1967 both Troup Head and Pennan Head to the east were covered but no nesting birds were seen (ADKR).

EAST LoTHIAN

The Lamb and Craigleith (240). First bred in 1957 when there were 5 nests (Waterston 1957). Since then there has been an increase to 240 in 1968. Until 1966 all the nests were on the sloping top of the 70 ft Lamb, although birds were seen resting on Craigleith above the 150 ft sheer east face. The 1966 breeding season on the Lamb was disastrous, with most of the eggs taken by gulls. At the end of July J. W. Gibb found about 50 nests with eggs on Craigleith (per MJE) and on 6th August we saw 30 nests with eggs and 2 newly hatched chicks there.

Table 3 gives the breeding numbers on the Farnes (mainly North Wamses and Megstone) from 1885, and the corresponding numbers on the Lamb since breeding began in 1957.

Table 3. Cormorant nests on the Farnes and the Lamb

	1885	1895	1910	1934	1946	1947	1949/50	1951	1952	1953	1955	1956
Farnes	40-50	80-100	157	200	250	300	200-300	200	356	307	140	190
	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Farnes	300	194	?	?	190	129	167	193	204	200	220	?
Lamb	5	8	44	65	108	109	111	?	177	193	220	240

The Farnes figures (extracted from Watt (1951) and *Trans. Nat. Hist. Soc. Northumberland, Durham and Newcastle-upon-Tyne*) are incomplete because in some years there were heavy losses due to nest robbing or to storms which washed away part or all of the colony. Prior to 1959 the most meaningful counts are the pre-1940 ones and those of 1946, 1947, 1952, 1953 and 1957. These suggest that numbers built up over a long period till some 300-350 pairs were trying to breed annually. The lack of information for the crucial years 1959 and 1960 is followed by reasonably complete and accurate counts from 1961 onwards. These show a drop in breeding numbers at the Farnes while those at the Lamb were building up. The partial recovery at the Farnes to 220 pairs in 1967 brought the total Farnes/Lamb population to 440 pairs. 1968 figures from the Farnes are not available but one may perhaps expect the increase in the combined totals to continue. An interesting problem is to say whether the two colonies are entirely separate entities or whether there is any significant interchange of birds between them.

BERWICKSHIRE

Cockburnspath (0). There are odd records of single nests on the cliffs at St Abbs and to the north of Burnmouth (Baxter & Rintoul 1953), but no recent record of breeding. In 1967 there was a bird sitting on eggs on the cliffs south of Cockburnspath (DRP).

OUTER HEBRIDES

Loch an Tomain, North Uist (4). An inland colony on fresh water, some $\frac{1}{2}$ mile from the sea, which has been in existence for at least 20 years, during which period the numbers have declined (JWC). On 30th May 1967 there were 11 birds present and 4 nests with eggs (GPS).

Stockay, Monach or Heisker Islands (20). Possibly an old colony but

few definite records. "A few breed on Stockay" (Allan 1955). On 29th May 1962 there were 20-25 nests on this eastermost island of the Monachs. Some were empty and others contained from eggs to almost fully fledged young (SR). There is probably little disturbance.

Causamul, North Uist (70). An islet off Aird an Runair, Balranald Reserve. "There were about 70 nests on 15th June 1967-60 on a 'main area' at the east end, and a further 10 around the summit cairn. The nests contained a mixture of eggs and young. From all accounts it appears that this colony has been quite sharply expanding for a number of years—probably at the expense of Puffin, Fulmar, Eider, etc. which also breed there" (GPS). No Cormorants were recorded here in July 1939 (Freeman 1940).

Spir Rock (between Pabbay and Boreray) (10). They have nested here since the second world war and were still breeding in the early fifties (JWC). "I have found nests...but these were obscured by Shags...in the early sixties—this rock is very easily swamped in rough seas" (MR).

Bearasay, Loch Roag, Lewis (26). Robson & Wills (1963) "counted 26 nests in such condition as to suggest recent use" in the first week of August 1962. The nesting area was "along the edge of the eastern cliff".

ORKNEY

Little Pentland Skerry (15). A low bare rocky skerry NE of Caithness. There are no old records of breeding. Twenty pairs were estimated in 1962; 15 pairs bred in 1968 (per DMS).

Horse of Copinsay (25). A 50 ft stack. In 1962, 20-30 pairs were estimated nesting on the flat top. There are no old records of breeding.

Holm of Boray and Taing Skerry (200). The former is a low, small, narrow, elongated island, and the latter a small stone-shingle islet. They are $\frac{3}{4}$ mile apart and constitute a single colony. There were no Cormorants here in the 1890s and the period when colonisation took place is unknown. The first record of breeding is of 180 pairs at the Holm in 1959. Since then between 200 and 220 pairs have bred at the two sites. From 1960 to 1962 the main group was at Taing Skerry. In 1963 the bulk of the colony moved to the Holm and this was still the stronghold in 1966.

The Brough of Stronsay (20). A 100 ft stack off the cliffs of Burgh Head, Stronsay. This colony has been in existence for many years although not apparently in the 1880s. Some 20 pairs were estimated for the years 1959-63.

Muckle Green Holm (82). This colony was known in 1935. On 20th July 1961 82 nests were counted, of which 41 had eggs, 2 had small chicks and 39 had large young, the majority of which could fly. The nests are on the 40 ft cliffs of this 100 acre island.

Calf of Eday (200). An old colony which was in existence in the 1880s. Some 200 pairs breed on the 100 ft cliffs of this 400 acre island. It was first counted in 1956 when there were 220 pairs.

Seal Skerry (50). An old colony on a low, bare, rocky skerry off North Ronaldsay. There were 50 nests with eggs in July 1892. Numbers were estimated at around 40 pairs in 1963-64, and 50 nests were counted in 1965.

SHETLAND

The Muckle Holm, off St Ninians Isle (22). Venables & Venables (1955) mention a small colony here. They say (pers. comm.) that there were 30+ nests in 1953, 18 nests in 1958 and 22+ nests in 1959.

Gaada Stacks off Vaila (10). Venables & Venables (1955) mention a

small colony here. In late August 1966 it had obviously been used that year and the boatman said there were "aye big Skarfs on it in summer" (RJT).

Bard Head, Bressay (7). Occupied in Raeburn's time (1880s-1890s) with 20-30 pairs in 1951 (Venables & Venables 1955). There was a colony of 7 nests near the Giant's Head on 3rd July 1964; similar numbers were seen in July 1966 on the clifftop about 250 ft above the sea (RJT).

Clett Stack, near Silwick (40). On 7th July 1964 there were an estimated 40 nests on this stack—possibly 100 ft high (RJT).

West Coast of Muckle Roe (250). "Raeburn found about 120 pairs in 1895, all in the vicinity of Grusterwick, whereas... in 1952... the colony now extends from Grusterwick to the Erne Stack and has increased to about 237 pairs" (Venables & Venables 1955). A colony recorded by Raeburn on the Lang Head of Mangester, 2 miles to the north, was not occupied in 1952 (Venables & Venables 1955), nor in 1964 (RJT). On 26th June 1964 there were about 250 nests from Grusterwick to Erne Stack (62 on Grusterwick, 77 on Swabie Stack 'shore station', about 60 on the 120 ft Swabie Stack and about 50 on Erne Stack) (RJT).

Cliffs near Braewick (35). "The St Magnus Bay colony on and around the Heads of Grocken and Braewick was... 'occupied from time immemorial'... but we are told that only a few pairs breed there now" (Venables & Venables 1955). In 1958 or 1959 there were at least 56 nests—28 on the big stack (the Runk) and 28 on the nearby razor-back peninsula on the mainland (WK). There were probably at least 35 nests on 18th July 1964—about 60 young on the 'Runk' and about 25 young on the stack to the north; a number of spent .22 shells on the razor-back suggest there may have been some disturbance of this colony (RJT).

East cliffs of Fethaland (0). A small colony recorded by Venables & Venables (1955) but no birds seen in 1964 (RJT).

Ramna Stacks (35). "Occupied in Raeburn's time". "In 1952 we estimated (from the sea) slightly under 100 pairs, mostly on Fladda" (Venables & Venables 1955). In 1961 there were probably under 50 pairs (DW). A rough estimate of 30-40 nests was made on 8th July 1964, and similar numbers were seen on two stacks about 100 ft high on 21st June 1966 (RJT).

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Summary

Some 3000 pairs of Cormorants breed in Scotland, about two-thirds of them in the seven largest colonies. The main concentrations are in the southwest and from Easter Ross to Shetland, with one expanding colony in the Forth and smaller ones in the northwest and Outer Hebrides. Details are given of the history, physical characteristics and disturbance of the colonies.

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Short Notes

Fulmars collide in mid-air

In the middle of January 1969, the Fulmars having returned to their colony near my home in Skye, I observed a head-on collision between two of them. Both birds apparently received knock-out blows, and they fell to the surface of the sea 100 feet beneath. No lasting injury apparently resulted, for both birds recovered and flew away.

SETON GORDON.

A raptorial mystery

On 27th May 1968 J. G. Young and I found a dead adult ♀ Hen Harrier on a moorland hill; it was a bird which I had ringed as a nestling in this same area on 22nd June 1965. It was lying face downwards with wings outspread and had been dead only a few days; a wound on the breast was the only obvious injury. Close by the body we found a large pellet and also the upper part of the plucked wing and breast-bone of a Snipe, and about 20 yards away we came upon the despoiled nest of a Red Grouse, with ten well incubated eggs, mostly bitten through and the contents eaten, and a trail of feathers leading to the bitten-off wing of a female grouse. We were at first uncertain whether all these finds were linked, but concluded, from the bitten-off wing especially, that the raid on the grouse nest had been the work of a fox—a view later shared by Ernest Blezard.

I sent the strangely assorted remains to EB, who wrote that the pellet was very similar to those of Golden Eagles he had worked on. The size (95 x 35 mm) tallied and prey remains in the pellet included blue hare fur and rib fragments, and feathers and assorted bones from Red Grouse. He also confirmed identification of the Snipe remains, adding that a predator had been responsible for biting away the keel of the sternum.

From the beginning I had wondered whether the harrier could have been struck down by an eagle, as I had watched a pair of harriers diving closely at a pair of eagles over the same hill a week before, and have often seen similar behaviour when an eagle was passing near a harrier's nest. I sent the harrier remains to Dr Ian Prestt, who commented that there was no sign of any obvious disease or accidental injury and that no parasites were present. He also remarked that

the wound superficially resembled a bullet hole, but that there was no exit hole and that, while it was difficult to be certain, it was reasonable to assume that this wound could have been caused by a talon.

The evidence certainly suggests that a Golden Eagle struck down the harrier while sparring with it, perhaps while the harrier was carrying a Snipe, a fairly frequent prey species. The plundered grouse nest was doubtless no more than a red herring!

A. DONALD WATSON.

Goshawk in East Lothian

On 31st March 1969 at Aberlady Bay a sudden excited flushing of waders on the tide line drew my attention to a large raptor, which I identified as a Goshawk, evidently an immature female.

It was flying in tight circles about 100 feet up, with alternate periods of gliding and a few fast wingbeats. It was very large—much larger than Carrion Crows in the air at the same time—with a silhouette intermediate between Buzzard and Sparrowhawk, with which I am quite familiar, but easily recognisable as a hawk rather than a buzzard or harrier. The wings were very broad, rounded and fingered, longer and broader than a Sparrowhawk's; the tail, shorter in proportion than a Sparrowhawk's, was long and thin, except when fanned during soaring, when it appeared very broad. The bird was dark brown above, and pale buff, heavily streaked with darker markings, below; the vent area was paler but not conspicuously white; one broad terminal band and two or three narrower ones could be seen under the tail; no head pattern was visible against the sky. The bird flew west over the bay, gaining height and wheeling occasionally till lost from sight.

M. A. MACDONALD.

(This is the first record for East Lothian. We are publishing it in full, not so much on account of the rarity of the species but as an illustration of the minimum sort of supporting detail required to confirm records of the Goshawk. We find it difficult to get absolutely convincing accounts of Goshawks, and feel obliged to reject a higher proportion of reports than of any other species for lack of certainty that the birds are not just large female Sparrowhawks, which can be most deceptive in open country. It is almost essential to have some direct comparison of size with another large bird, such as the Carrion Crows mentioned here.—Ed.)

Kites in West Sutherland and Kinross-shire

At 9.20 a.m. on 19th March 1969 I saw two Hooded Crows mobbing a Kite above the village of Scourie in West Sutherland. It was in silhouette, but during two minutes' observation its sharply angled wings and deeply forked tail were clearly seen. The identification was amply confirmed half an hour later when the Kite, again pursued by a Crow, left a rock by the road $\frac{1}{2}$ mile east of the village and flew low round me about 100 yards away. With x10 binoculars details were obvious: the distinctive white patches under the wings, the bright chestnut tail, and the whitish head. I watched it for about 10 minutes, flapping about in the high winds, before it disappeared into hilly ground behind the village. This observation was made at the end of a week of uninterrupted easterly gales. I know the species quite well from birdwatching abroad.

BAXTER COOPER.

Whilst carrying out a Common Bird Census on Vane Farm Reserve, Kinross-shire, at 0820 hrs GMT on 26th April 1969 I was distracted by the mobbing call of Jackdaws, two of which were chasing a large bird of prey near the ridge of Benarty Hills. Without the aid of binoculars it appeared to be a harrier. However, on sighting it with my binoculars I saw that the long tail was deeply forked, and immediately identified it as a Kite. The wings were now seen to be broader than a Hen Harrier's, and angled, with the primaries fingered, as shown on a sketch supplied to the editor. No colours were discernible as I was low down the hillside looking at the bird against a bright cloudy sky. It was in view for about a minute.

J. H. SWAN.

(Though once a common breeding bird the Kite has been satisfactorily recorded in Scotland only twice in the last 50 years (since 1920)—one captured North Kincardineshire 18th April 1929 (*Scot. Nat.* 1929: 180) and one seen Aberdeenshire 13th February 1958 (*Scot. Birds* 1: 11). In recent years there have been odd scattered reports of raptors that were thought to be Kites, but it has not been possible to establish any of them with certainty.—Ed.)

Dotterel notes from the Cairngorms

It is readily understandable why the Dotterel is one of the lesser studied of British breeding birds. Its nesting grounds lie in terrain that is difficult to search thoroughly, in Britain being confined mainly to flattish mountain tops and gently sloping ridges in the Scottish Highlands at alti-

tudes above about 2500 ft. The long distances involved, frequent bad weather at the breeding grounds, the cryptic plumage of the species, and the habit of incubating birds of sitting very tightly on eggs—these add up to a combination of factors heavily weighted against an observer. In addition the species is rather rare in Britain. Desmond Nethersole-Thompson, who is the British authority on Dotterel and at present writing a monograph on the species, considers that the British breeding population now numbers only about 60 to 80 pairs in normal years. Consequently new information on the species is rarely obtained, so that the following notes on one unusual nest may be of interest.

On 15th June 1968 I visited an extensive high plateau of the Cairngorms on which in earlier years I had found several Dotterel nests. After some searching I located a pair of the birds and watched them for about two hours while they fed, preened, or stood about apparently doing nothing, although in fact they were watching me closely as I sat on a rock some 80 yards from them. They then moved one at a time, in a furtive scuttling way and stopping frequently to see if I was following, up across a gentle slope, passing about 50 yards from me, and disappeared from sight over a slight rise in the plateau. This behaviour strongly suggested that they were returning to a nest, so I hurried to the higher ground to keep them in view. I failed to spot the cock but was surprised to observe three hens fighting, buffeting one another quite fiercely with outspread wings. On seeing me the hens stopped fighting and tried to lead me away from the spot, scattering and uttering distraction calls as they ran off. I did not follow, but remained motionless watching their movements. Eventually, after some running to and fro among the low hummocks, tussocks and boulders, all three took up stationary but quite separate watchful stances some 100 yards from me and made no further move while I stood there. Suspecting that I must be fairly near the nest and that the birds would not venture towards it while I remained in sight, I left the immediate vicinity and commenced a systematic search of the plateau.

The nest was eventually found at a height of about 3950 ft. It was in a fairly typical site for the Cairngorms, close beside a stone in the middle of a patch of withered sedge and rush, and contained only one egg. Withdrawing about 50 yards I sat down, and within a few minutes a male Dotterel appeared and ran up to the nest, closely escorted by a hen. As the cock bird settled on the egg a second hen approached quite near but was quickly chased away by the first hen, which appeared to be the mate of the sitting cock. I then saw the third hen about 60 yards away. The second hen

joined it and the two fed for a short time; but then the second hen stopped feeding and made repeated approaches towards the nest, coming to less than 20 yards from it. Each time the owning hen chased the intruder away while the third stood watching from 50 yards off.

After photographing the single egg I left the hill. At that date I thought that the intruder hen was anxious to mate with the cock bird, for on both this hill and on another much vaster plateau which I had searched a week earlier cock Dotterel were definitely scarce; but subsequent events showed I was probably mistaken. On 29th June I returned to the nest and was astonished to find the cock sitting on four eggs. There is only one previous British record of a Dotterel nest with four eggs, and DN-T, who has corresponded with the author of that record, tells me privately that all four eggs were similar and appeared to have been laid by the same hen; the record therefore is almost certainly of a true clutch of four. The *Handbook* gives the usual clutch in Britain as three, occasionally two, with four rarely recorded in Europe, while the latest (1968) edition of the *Popular Handbook* still repeats the *Handbook* figures without qualification.

I measured the eggs, made a written description, and photographed them (plate 27). Even to the unaided eye one egg was obviously different from the other three. It was smaller, measuring 38 x 26 mm (smaller than the minimum quoted in the *Handbook*), but a typical Dotterel egg, being of a dull olive-green ground-colour spotted with small brown spots and blotches. The other three measured 42 x 27 mm, 41½ x 28 mm, and 43 x 27 mm, were pale blue in ground-colour and were more heavily spotted and blotched with brown and black. They had obviously been laid by the same hen, and there could be no doubt but that here was a standard-sized clutch of three with a fourth egg laid in the same nest by a different hen. Examination of photographs taken on the different dates later showed that the first egg had been one of the standard-sized clutch. I also realised that the strange behaviour of the intruder hen could be interpreted by assuming that she was the layer of the odd egg and that she was anxious to lay it while I was watching.

The ground-colour of the three similar eggs was also extremely unusual. They were a very pale, washed-out blue, rather paler than normal eggs of the Wheatear, and of a type I had never seen before. DN-T has visited well over 100 nests of the Dotterel and has several times seen single blue eggs in nests containing the normal types, but never a complete clutch. One of his correspondents however found a

complete clutch of pale blue ground-coloured eggs in 1967, while Dr Bryan Nelson told me some years ago that in the mid 1950s he found a clutch with blue ground-colour. Clutches of this colour type would therefore seem to be very rare.

More was to be forthcoming from this intriguing nest. I had notified Dr Adam Watson, of the Nature Conservancy Mountain and Moorland Ecology Station, of this site and of events at it; and that I thought the eggs would hatch about 12th or 13th July. Dr Watson visited the nest on 11th July and found that the young had hatched and were already many yards away from the nest; the incubation period therefore had been 24 days or less. Very few records exist of such short incubation periods for this species, 25-27½ days being normal. A very uncommon feature was that all four eggshells were left in the nest depression, instead of several or all being removed as is customary. In addition Dr Watson found the broad end of one shell tucked tightly into the broad end of another, as happens frequently with the eggshells of farmyard hens. I have never seen this with Dotterel eggs.

Finally, I must acknowledge my thanks to DN-T for reading a draft of these notes, for saving me from making several errors, and for providing me with additional information, some of which I have incorporated.

ALEX TEWNION.

Common Sandpiper devoured by Common Gull

On 16th July 1968 among the Common Gulls clamouring for scraps by a loch in the Spey valley, Inverness-shire, we noticed one carrying a large object in its beak, from which grass trailed. It landed in a field 200 yards away before returning, dropping onto the water of the loch, no distance from our tent.

We were surprised to see that the object was in fact a small wader, which the gull proceeded to smack vigorously into the water, in much the same manner that Song Thrushes smash snails against stones. The wader, a Common Sandpiper, was struggling, stretching out one wing and thrashing its legs. However, the Common Gull was relentless in its attack and did not release the grip of its bill. The beating sessions were interrupted with periods of attempted drowning, when the sandpiper was forced under the water for many seconds. Eventually the bedraggled bird succumbed. The gull then began a crushing process, opening and forcefully closing its mandibles, at the same jerking the body so that every part of the corpse received this treatment.



PLATE 24. Matt Forrester (see page 401).

Photograph by Tom Weir



PLATES 25-26. Some unusual nests.

*Photographs by Alan Jamieson (Starlings)
and William S. Paton*

Black-headed Gull about to incubate two eggs and a tennis ball, Horse Island, Ayrshire.

Young Starlings on 48 lb. nest, 7 ft x 4 ft x 4 ft high, in a four-year-old canteen attic at Back, Lewis, 1968; access was by a 2½ inch hole at the apex of the gable.





Two hen Blackbirds which had lost previous clutches in separate nests incubating six uniform-coloured eggs in a shared nest; both hens (one a very aggressive bird) and the single cock were later seen feeding small young in the nest, Kilmarnock, Ayrshire, June 1965.

Common Gull at tree nest 20 ft from road and 15 ft from water, Loch Lomond, June 1965; the site, used at least since 1962, is near a favourite stopping place for motorists where gulls hang about looking for titbits.

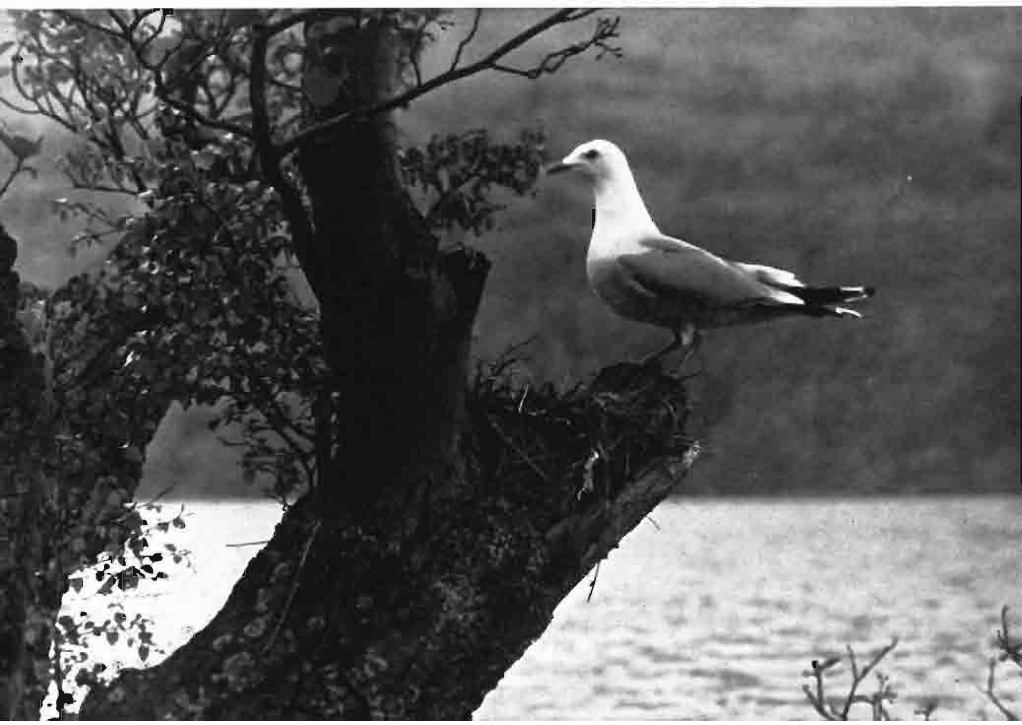




PLATE 27. Dotterel at nest in Grampians, June 1967. *Photograph by N. Picozzi*

Dotterel nest with four eggs; the top left was the odd one described in the text (see page 381) and the bottom left was the first laid.

Photograph by Alex Tewnton



The ensuing swallowing action was quite remarkable; with some considerable difficulty the sandpiper and some entangled grass slipped down the gull's gullet. When swallowing proved impossible it would be ejected and the 'chewing' action renewed. At last only a few feathers, a leg and some grass were visible, but at this point other Common Gulls began mobbing the gull. It was chased to distant fields and there forced to disgorge its prey, letting the body drop into the hay. In the *mélée* that followed we were unable to see what resulted; but one gull flew back to the water's edge with grass hanging from its beak. Here it drank, removed the grass, then returned to the colony on the far side of the loch.

Although we did not actually witness the capture there seemed little doubt that the Common Sandpiper (possibly an immature) was snatched up in the nearby meadows, which would explain the attached grass. Certainly the vigorous attempts to break free were not the actions of an ailing bird; although this does not preclude the possibility that it had been previously injured.

G. M. S. EASY, M. T. BARNES.

Probable Scandinavian Herring Gull at Aberdeen

On 19th January 1969 I spent about an hour watching a yellow-legged Herring Gull in a mixed flock of about 50 gulls at Bridge of Don, Aberdeen.

The bird was identical to nearby Herring Gulls in size, build and general behaviour, but showed several differences in plumage. Its pure white, unstreaked head made it easy to find with the naked eye, although some of the other Herring Gulls present had only sparsely streaked heads. The bill appeared slightly brighter yellow with a more noticeable red spot. Its back and wings were slightly darker than those of a Common Gull, and noticeably darker than those of the other Herring Gulls, and this too made for quick recognition. The legs and feet were dull yellow, not as bright as those of a Lesser Black-backed Gull, but distinctly yellow and not merely pale flesh or ivory as in many Herring Gulls.

I considered that this bird showed the characteristics of a Scandinavian Herring Gull *L. a. omissus*.

M. A. MACDONALD.

(This note has been shown to Prof. M. F. M. Meiklejohn, who comments, "It answers very well to *omissus* in my opinion. The Siberian forms would be noticeably larger than *argentatus*. I think the brighter yellow of the beak may be significant. Looking at Mediterranean Herring Gulls *L. a.*

michahellis in April 1969 I thought their beaks yellower than in our race: the beaks also seemed bigger, but this may have been caused by the brighter colour."—Ed.)

Caspian Tern on Loch Lomond—a new Scottish bird

On the evening of 7th August 1968, at the mouth of the Endrick, Miss C. Allan and I found a Caspian Tern sitting on a sandbank. We watched it for about 20 minutes, and then it flew 200 yards along the sandbank before flying out over the water. It was seen in both Stirlingshire and Dunbartonshire.

At rest, it was a long bird, larger than nearby Black-headed and Common Gulls, with a noticeable black cap and white forehead and a long, thick red bill. The legs were black, and it stood higher than other terns. The back was pale grey, with the long grey wings appearing to show black primaries; however, when the bird flew I saw that only the undersides of the primaries were black. In flight the forked tail was visible.

Once it dipped down to the water, as if drinking, and later we saw it plunge in rather clumsily. At one point it was seen almost alongside an Osprey. It finally returned to the sandbank, and was still there when we left.

M. FORRESTER.

Little Owl in Lanarkshire

On the evening of 14th July 1967, near Elsrickle, I spent about 45 minutes watching a Little Owl taking food in a field adjacent to the road. It flew frequently into a group of trees on the other side of the road and moved through them, calling occasionally. The behaviour was much like that I have seen near nests, but the date makes breeding unlikely (the Little Owl has been a May breeder where I have known it).

H. DICKINSON.

(This note amplifies the brief details already given (*Scot. Birds* 5: 356) of the first Little Owl in Lanarkshire.—Ed.)

Alpine Swift in Argyllshire

On 6th July 1968 I saw an Alpine Swift on the sea cliffs between Kilchoan and Ardnamurchan Point. I was attracted to this bird by its large size and the speed of its flight, and as it flew past me several times I was able to see the plumage

features quite clearly, especially the grey-brown upperparts and white belly.

F. C. BEST.

(This is the first record of this species in the Argyll faunal area.—Ed.)

Roller on Islay

On 29th September 1968 my eldest son and I saw a Roller at Cladville Farm, Portnahaven, where the bird had been seen earlier by Mr and Mrs Glover and J. Bain. We were able to get to within 20 yards of the bird as it sat on a fence post, but unfortunately it was then frightened away by the arrival of the farmer's dog. It was not seen in the area again.

It resembled a small crow, especially about the head, and we noted a black bill, a brown line running through the eye, a light brown back and yellow legs. On being disturbed it flew rather like a pigeon before gliding into the next field. The brilliant blue underparts and wings, the latter with dark tips, were not obvious until the bird was seen in flight.

A. M. TAIT.

(This is the first record for the Inner Hebrides.—Ed.)

Shetland Wren in Aberdeenshire

On 13th January 1968 I found a Shetland Wren *Troglodytes t. zetlandicus* dead beside the road near Newburgh. I preserved the specimen in formalin and compared it with skins in the British Museum before removing the head for a study of skulls. The bird was larger and darker than the mainland Wren and had very large feet. I made the total length 106½ mm, wing 48 mm, tail 34 mm, bill 12½ mm, and tarsus 20 mm.

HILARY KING.

(We sent the body to K. Williamson, who has studied island forms of the Wren, and after comparison with skins he reported that it was undoubtedly the dark Shetland form and that white spots on the coverts suggested a bird of the year. Though Shetland Wrens are rare even at Fair Isle (*Fair Isle Bird Obs. Bull.* 1(9): 37)—the local birds being distinct—post-juvenile dispersal to Aberdeenshire (with or without assisted passage) is quite possible. Wrens apparently of the Norwegian population have occurred in a number of autumns at Fair Isle, and there is no reason to think that the Aberdeenshire bird was not a genuine migrant.—Ed.)

Dusky Thrushes in Shetland

On 24th September 1968, while I was driving towards the north end of Whalsay, I saw what I at first took to be a Redwing running through the grass at the roadside. I stopped and looked at it from about 70 yards through 12 x 50 binoculars, and as the bird stood still could just see its head, neck and upper back. I immediately realised it was not a Redwing when I saw that the prominent markings above and below the eye were white rather than buff. Within seconds the bird moved into full view, caught a slug, broke it up and ate the pieces, and at that point I noticed chestnut on the closed wing. As it flew along the road, settling again 50 yards further on, I saw chestnut on the wings and brownish-chestnut on the rump.

I then drove slowly along until I was about 50 yards from the bird, when it again began running and then stopped to break up and eat another slug. This time I had an excellent view and was able to make a rough sketch and note the main plumage features, which included a dark breast-band, whitish chin and throat, and brown streaks on the flanks and lower belly. I thought that it appeared slimmer than a Redwing. I then flushed the bird and noted that it showed a buffish chestnut underwing, more like that of a Song Thrush than a Redwing. After consulting the *Field Guide* I was now sure that this bird was a Dusky Thrush.

My detailed description is as follows:

Forehead, crown, nape and hind neck dark brown, feathers of hind neck edged ash-grey; very prominent white eyestripe from lores over eye to back of head; lores and ear coverts black-brown, very dark in contrast to eyestripe and cheeks; cheeks, sides of throat and sides of neck creamy white, with a few dark spots on sides of throat and neck; mantle and scapulars dark brown, edged ash-grey, scapulars with shade of chestnut: back and rump brownish, much chestnut on rump noticeable when flying away; upper tail-coverts and tail brown; lesser coverts brownish, edged ash-grey; median and greater coverts chestnut, edged ash-grey; primary coverts brownish-chestnut; secondaries chestnut fading to brownish on inner feathers; primaries brown; under wing-coverts and axillaries buffish-chestnut; rest of underwing light brownish, chin and throat creamy white; centre breast and belly whitish; breast spotted black-brown forming noticeable breast-band from shoulder to shoulder, dense at sides and very faint in centre; sides and flanks spotted rusty/black; bill black-brown; legs and feet brown.

I later telephoned R. J. Tulloch, and he and Dennis Coutts arrived on Whalsay the following day. In spite of an extensive search the bird was not seen again.

JOHN H. SIMPSON.

(This is the second Scottish and fourth British record of this Asian thrush. The first Scottish bird was a first-winter

female, trapped on Fair Isle in October 1961 (*Fair Isle Bird Obs. Bull.* 4: 209). This bird has not been described fully, and R. H. Dennis has kindly supplied the following notes from the observatory records.—Ed.)

A Dusky Thrush was discovered near the Haa on Fair Isle on the morning of 18th October 1961. It was briefly seen in the same area that afternoon but next day had moved to the northern part of the island where it was finally caught at dusk in the Vaadal trap. It was taken to the Bird Observatory to be ringed, and as it was already dark was roosted overnight in the bird-room. It was released next morning and spent the day near the Observatory; it was last seen on 21st near the Vatstrass Burn.

Peter Davis wrote in the log for 18th October that "in the field it was a handsome, if sober-coloured bird, reminiscent at first glance of a large, pale-looking Redwing, with a similar but more conspicuously marked head pattern. The upperparts were of a drabber olive-brown than a Redwing's, slightly more rufous on the rump and upper tail-coverts, the tail dark brown, the underwing rufous, and there was a long rufous-buff wing-patch made by the edgings of the greater coverts and secondaries. The breast had a double gorget of close streaking with finer streaks between and the throat was clear creamy-buff between two clear blackish chin-stripes (under the moustaches). The flanks also were well streaked with blackish colour and washed greyish-brown, the belly creamy white and the under tail-coverts prominently white at the sides."

A full laboratory description is filed at the Observatory and is as follows:

Entire upperparts, forehead to upper tail-coverts, greyish-olive brown, with very slightly paler edges to each feather giving a mottled appearance; feathers of crown and forehead with dark brown centres also; rump slightly warmer colour than rest with red-chestnut centres hidden by tips and fringes; supercilium long, rather broad, whitish washed grey-brown; lores, ear coverts and cheeks uniform grey-brown; moustachial streak broad, whiter than supercilium, speckled brown; malar stripe below formed by blackish-brown tips to white feathers, curving round to sides of neck and merging into sides of spotted gorget; centre of chin and small area at centre of throat (between chin stripes) creamy white; below this an extensive dark rusty-brown pectoral band obscured by long whitish fringes of feathers, most of which had small dark notches at tip; some greyish-buff suffusion of white fringes on lower part of gorget; belly pure white; under tail-coverts rusty-brown with very broad white tips and edges to feathers, more white than rusty; flanks showing mainly white, blotched rusty and black with grey-brown wash, especially towards rear; flight feathers and greater coverts all dark brown with paler outer fringes, whitish on primaries, rusty-buff on secondaries and tertials; corresponding greater coverts similar, those of secondaries with fairly clear whitish tips; tertials also tipped whitish; median and lesser coverts

greyish-olive brown with rather paler fringes, lessers very much as mantle; underwing warm chestnut wash, paler than Redwing; tail dark brown, all feathers with rusty edging near base only, narrow whitish edging on rest; bill dark horn, turning yellowish at base of lower mandible; legs dark red-brown; eye dark brown. Aged and sexed as 1st-year female. Weight, 84.2 gms. Measurements: wing 128 mm; bill 22.5 mm; tarsus 34 mm; tail 90 mm. 3rd primary longest, 2nd 4 mm, 4th 2 mm, 5th 8 mm, 6th 19 mm, 7th 26 mm and 8th 30 mm shorter; 3rd, 4th and 5th emarginated on outer webs; 1st primary minute, 9 mm shorter than primary coverts.

ROY H. DENNIS.

Subalpine Warblers in Shetland and Orkney

On 22nd April 1968 John Bruce telephoned to describe a warbler he had seen in his garden at Skaw, Whalsay. I was on the scene within half an hour and eventually found the bird feeding in a disused cabbage patch overrun with reeds and dockens and surrounded by a drystone wall.

I watched it for some time through 12 x 50 binoculars at about 25 yards range and identified it as a Subalpine Warbler, apparently a male. I saw all the characteristic plumage features and took full field notes.

I could not find the bird during the next few days, but saw it—or a similar bird—about two miles from the first locality on 30th April and daily until 5th May; on one occasion it was watched at close range from an open window and several other people saw it. The bird was very active and kept flitting from bush to bush, sometimes down amongst the grass and rhubarb, and sometimes climbing along a drystone wall and feeding amongst the lichen on the stones. It frequently cocked its tail like a Wren, especially when feeding on the stones.

On 5th May I saw another Subalpine Warbler in a different part of the island. This was probably a female, being a duller bird with only a faint moustachial stripe.

JOHN H. SIMPSON.

(Full field notes have been supplied. There are several previous spring records of this species from Shetland and Fair Isle.—Ed.)

I watched a Subalpine Warbler for about ten minutes, at ranges down to five yards, on Auskerry on 29th May 1968. Its most striking feature was the pinkish chin, throat, breast and belly, reminiscent of a Dartford Warbler. In size and shape it was much like a Whitethroat, though the tail was often cocked in Dartford Warbler fashion.

Apart from the pinkish underparts mentioned above, plumage details were: blue-grey head and nape, less blue

on the back and rump; clearly defined white chin-stripe; brown wings with no chestnut visible; longish brown, slightly notched tail, with outer feathers showing white; the pink or vinous on the underparts noticeably paler on belly; pale flesh-coloured legs; pink eyes.

E. J. WILLIAMS.

Pallas's Warbler in Aberdeenshire

On the afternoon of 22nd October 1968 I found a small phylloscopine warbler in a clump of willows in Collieston churchyard, Aberdeenshire. Its prominent supercilium attracted my attention, and at first I thought it was a Yellow-browed Warbler, but then I glimpsed a crown stripe and, a little later, a yellow rump, and tentatively identified it as a Pallas's Warbler. After making some notes I glanced quickly at the *Field Guide* and my suspicions were confirmed, so I telephoned W. Murray at Culterty Field Station, Newburgh.

When I returned, the bird had moved to a taller clump of trees 50 yards away, and when WM and A. Anderson arrived shortly afterwards we had excellent views of it in bright sunshine. WM and AA left soon afterwards, but I continued to watch the bird until it moved to another clump of trees. Later that afternoon WM and I found the bird again in the original willows, and after some time caught it in a mistnet. It was then taken to Culterty where it was measured, ringed, photographed and examined in detail. WM released it at Collieston next morning. During this time the bird was also seen again by AA, and by Mr and Mrs A. Robb and family, D. Lloyd and M. Gorman. A. D. K. Ramsay and A. W. Diamond saw it later on the morning of 23rd, and J. A. Love, W. M. Morrison and I had excellent views of it during the afternoon. It was last seen by WM on 24th.

The bird was extremely active throughout all periods of observation, frequently hovering with rapidly moving wings while picking insects from the undersides of leaves, and occasionally sallying forth like a flycatcher. It preferred the tops and edges of trees, 10 to 15 feet above ground, but often came much lower. It readily left what little undergrowth was available, and while feeding incessantly in several clumps of trees flew freely across 30 yards or so from one clump to the next. On 23rd it perched on a telegraph wire before disappearing over the roof of a house, and when we found it again in a garden 100 yards away it was seen briefly on the ground.

A Goldcrest was present for some of the time, affording a good comparison, and the warbler appeared very slightly

larger. The abundance of yellow stripes and bars was very striking, and the yellow rump was very clear when the bird flew or was hovering. It was only heard calling once, shortly after discovery—a short, soft *hweep*, disyllabic but slurred.

The bird's lively behaviour and the weather situation suggested that it had been present for a few days, although AR and family did not see it in the area on 20th. Strong westerlies prevailed over northern Europe prior to 22nd, but on 18th there was a belt of high pressure from Norway to Austria, producing calm clear conditions with an occlusion moving slowly northeast into the North Sea preceded by light southeast winds. The bird may well have arrived at this time.

The following plumage description is based on our detailed notes:

Crown dark green; yellow crown stripe, bill to nape; prominent bright yellow supercilium, bill to nape; eyestripe and lores greenish-black, broader near nape, stripes not meeting at nape; nape, mantle and back green with slight olive wash; square-shaped yellow rump patch; upper tail-coverts green; tail square ended, feathers with pointed tips, grey suffused green, outer webs bright green; primaries and secondaries as tail feathers, with pointed tips, less so in first four primaries; greater coverts dark grey, outer webs fringed green, tips broadly edged pale yellow forming prominent wing bar; primary coverts as greater, but no yellow tips; median coverts grey, tipped pale yellow, forming less prominent wing bar; lesser coverts grey tipped green; bastard wing yellow; tips of outer webs of tertials pale yellow, forming small V when seen from above, apex towards tail; axillaries and under wing-coverts pale yellow; chin, throat and belly white suffused very pale yellow; breast white with pale grey wash—lack of yellow noticeable in field; flanks and under tail-coverts very pale yellow; bill dark brown, pale horn at base of lower mandible; legs and claws brown, 'ankles' and soles of feet yellow-brown; eye black; lower part of orbital ring bright yellow. Wing 47 mm; bill 10 mm; tarsus 16 mm; tail 36 mm; 4th and 5th primaries longest and equal; 2nd and 8th 7 mm, 3rd 1 mm, 6th 2 mm, 7th 4.5 mm and 9th 8 mm shorter; 10th not measured; 3rd to 6th emarginated, 6th only slightly.

N. ELKINS.

(This is the second Scottish record of this warbler, which breeds in coniferous and mixed forests in central Asia. The first was seen on Fair Isle on 11th October 1966 (*Scot. Birds* 4: 454). At that time it was mentioned that this species was becoming more frequent in late autumn in England. No fewer than 18 Pallas's Warblers were recorded in the British Isles in the last fortnight of October 1968, an unprecedented invasion in view of the total of only 21 previous records (*Brit. Birds* 61: 577). An interesting paper, "Reversed migration as the cause of westward vagrancy in four *Phylloscopus* warblers," by J. Rabøl (*Brit. Birds* 62: 89-92) includes discussion of this species.—ED.)

Radde's Warbler on Isle of May

On 22nd October 1968 John Stewart found a large warbler with a conspicuous eyestripe at Ruff Green on the Isle of May. Later, G. R. Ekins and I found the bird again among nettles in this area, and saw that it appeared brownish with a long cream eyestripe bordered with dark brown. We erected a mistnet and caught the bird shortly afterwards.

Along with JS, Paul Harland and E. C. Harker we examined the bird in the hand. It was plump and lively, but we released it as soon as possible after photography and detailed examination. In general appearance it was a large phylloscopine, olive-green above with a brown crown, a long cream supercilium and a dark line through the eye, and white below with yellow streaks and buff flanks, orange-buff under tail-coverts and very pale legs.

The following detailed description was made:

Crown to nape brownish-olive, browner above supercilium; supercilium cream with orange tinge, extending to nape, slightly reflexed to rear in some attitudes; dark stripe through eye to nape; ear coverts dark brown, slightly speckled paler; whole upperparts olive green, tail and wing feathers with greenish fringes; if rump was lighter, only to very slight degree; chin, throat and belly white with faint lemon streaking; flanks yellow-buff with some faint orange streaks; under tail-coverts bright orange-buff; under wing-coverts very pale buff with orange-buff fringe distally from carpal joint. Upper mandible horn, lower mandible flesh colour; palate pale yellow; floor of mouth orange-yellow; four dark rectal bristles, proximal third lighter; large dark eye, lower eyelid pale cream; pale sandy legs and feet, yellow on sole of feet. Calls: in the hand, a sharp *tic*; in the field, a whiplash *quip*, *quip*—like small Quail but nasal in tone. Wing 65 mm; tail 50 mm; tarsus 25 mm; bill 15 mm from skull, 8 mm from feathers; 1st primary 11 mm longer than primary coverts; 4th primary longest, 5th almost as long; 2nd and 9th 9 mm, 3rd and 6th 1 mm, 7th 3 mm, 8th 5.5 mm, 10th 10 mm shorter; scallop-shaped notch on inner web of 2nd primary at about tip of 1st; 3rd to 6th emarginated.

The weather had been westerly since an easterly gale on 19th October, and we thought that the bird could well have been on the island for three days.

IAN F. STEWART.

(There is one previous record of this Asiatic species, also from the Isle of May (*Scot. Birds* 2: 367). All seven British records to the end of 1967 (1968 data not known) were in October (*Brit. Birds* 60: 327).—Ed.)

Firecrests on Isle of May and in Shetland

At 1900 hours GMT on 11th June 1968 I drove the Low Trap on the Isle of May with P. Hayward and to our great surprise we found we had captured a Firecrest. It showed clearly the characteristics of the species, including uniform reddish-

orange centre of crown, white superciliary and black eyestripe; and the golden tinge at the sides of the neck was striking. Southeast winds during the night, with thick mist before dawn, may have been responsible for the bird's presence. It was last seen on 13th June.

IAIN TAYLOR.

On 11th October 1968 on the southern side of Seafield, near Lerwick, Shetland, I had close views of a Firecrest. In size and appearance it was similar to a Goldcrest, but the upperparts, particularly the back and rump, were a brighter green, and it had a bright white eyestripe. It did not call. I have seen many Firecrests in the south of England and in Spain, and I am also familiar with the species in the hand.

PETER K. KINNEAR.

(This is the same area of Shetland where a Firecrest was present between 11th June and 27th September 1965. These are the sixth and seventh Scottish records. Single birds have also been recorded on the Isle of May on 30th September-3rd October 1959, 22nd September 1960 and 7th October 1966, and in Orkney on 13th September 1967 (*Scot. Birds* 1: 153, 357; 4: 99, 356; 5: 224). This pattern corresponds with the establishment of a small population in Hampshire from 1961 (breeding first proved 1962) (*Brit. Birds* 59: 240).—Ed.)

Pied Wagtails feeding on floating hay bales

On 13th September 1968 I was amused by the activities of a party of seven or eight Pied Wagtails beside the Tweed at Kelso. The river was in heavy spate, and there was a constant passage of bales of hay floating downstream.

As soon as a bale appeared upstream, the birds flew towards it and fought for possession, the successful bird driving off intruders. On several occasions three bales, each with a wagtail aboard, were visible. The birds floated perhaps $\frac{1}{4}$ mile downstream on the bales, feeding on insects, which must have been numerous on the dry upper surfaces, before flying back to the starting point to await the next bale.

R. S. BAILLIE.

Rose-coloured Starling on Iona

On 11th July 1968, while on a brief visit to Iona, my wife and I had excellent views of a Rose-coloured Starling which was feeding with six Starlings. Mrs D. E. Walters of the St

Columba Hotel, Iona, first saw this bird on 9th or 10th July, and it was last seen on 2nd August.

R. A. L. SUTTON.

(A full description has been submitted. We have also had details from Miss J. McFarlane, who saw the bird on 9th July.—Ed.)

Serin in Shetland

On 17th November 1968, at Scalloway, I was watching some Chaffinches in a willow about 30 yards away when I noticed a small bird with a yellow rump fly up from some long grass.

It perched briefly on a fence about 20 yards away, and then flew to the top of a 25 ft willow where it remained in view for a few seconds before flying on to settle on a flowering currant bush. I managed to walk to within 30-35 yards of it, and watched it for about five minutes through 10 x 50 binoculars in good light. It was a stubby bird, about the size of a Willow Warbler, with a brownish-yellow head and a very short bill. The chest was streaked brown and yellow, while the rump was bright yellow and the tail black. I saw no barring on the wings, and did not see the legs and feet.

When I referred to the *Field Guide* later I identified it as a Serin, although the bird I saw looked darker on the back than that shown in the illustration.

ROBERT DUTHIE.

(This is the first Shetland record of a species which is expanding its range in northwest Europe and is appearing more and more frequently in the British Isles.—Ed.)

Black-headed Bunting in Inner Hebrides

On 11th June 1968 near Loch Ardnave, Islay, we came upon a strikingly yellow-breasted bird, and watched it through our binoculars as it sat on telephone wires and on a wall. From its black head and neck, brilliant canary-yellow throat and breast and chestnut-brown nape we had no doubt that it was a male Black-headed Bunting.

R. H. BERRY, SETON GORDON.

(Though the identification is not in doubt there must be suspicion that birds of this species, like the Red-headed Bunting, are escapes.—Ed.)

Recent News

ANDREW T. MACMILLAN

This section is not an easy one to write. The vast bulk of material digested in the Scottish Bird Report 1968 in the summer issue of *Scottish Birds* shows the problem clearly. As we have said before, it is unsatisfactory to pack Recent News with details of rarities, thereby detracting from the interest of the fuller notes which come later, but equally it is difficult to produce worthwhile comment on other topics without a great deal of effort editorially and locally. Such duplication of the year-end effort (which already stretches our available resources to the limit) does not seem justified, and does not exactly fill us with enthusiasm, so it seems inevitable that Recent News will continue to be fragmentary and insubstantial.

Of last year's irruption species, **Great Spotted Woodpeckers** were still in Caithness in January and in Orkney in April, and likewise **Bullfinches** in Shetland in February and March had probably wintered there. After being seen at sea at the end of February, very much as in 1968, the **Black-browed Albatross** returned to the Bass Rock for a third summer.

Rare breeding birds continue their merry way. **Wrynecks** have been calling in new areas and we are hopeful that they may soon be added to the Scottish breeding list. **Snowy Owls** have nested again on Fetlar (6 eggs, 5 hatched) and with the 1968 birds remaining in the islands the Shetland population has been estimated at 15. **Redwing** nests are still being found in new districts, and what seems to be another breeding **Fieldfare** is under investigation. Three pairs of **Ospreys** each had two young in July (a fourth failed to hatch its eggs), and the RSPB reported at least another 20 Ospreys in Scotland at the time.

We are sometimes told that we should give more space to ringing, but apart from isolated recoveries of special significance the material is better dealt with by analysis of all records for one species rather than for one ringer. Statistics of birds ringed, as opposed to those recovered (which are the important ones), are of personal rather than public interest. Nonetheless, progress of the **North Solway Ringing Group** deserves to be more widely known. By Scottish standards this is a most active group. In the first six years (to the end of 1968) 24,326 birds of 109 species were ringed, including notable totals of Grey Lag Goose (166), Sparrowhawk (67), Kestrel (95), Lapwing (923), Black-headed Gull (1269), Barn Owl (49), Swallow (1511), Wren (293), Blackbird (1522), Willow

Warbler (2144) and Crossbill (18). The group operates two ringing sites. At one near Lockerbie 516 Rooks were caught in a single trap in February and March 1969—during February 16% of the birds were first-winter, but in March, when far fewer were caught, the proportion was 72%, indicating presumably a change in the behaviour of the breeding adults.

Obituary

MATT FORRESTER

(Plate 24)

The two old ladies at Woodend Lodge on the way down to Endrick Bank called Matt Forrester the Old Faithful because he had been coming about the place so long. His record of the Caspian Tern there appears in this issue; and last year, it will be remembered, he proved the Little Ringed Plover to breed in the Clyde area—another first for Scotland—following up the investigations of his friend Donald Stalker.

Matt was 58 when he died of a tumor on 24th March 1969 after seven weeks in Glasgow Royal Infirmary. His last bit of bird news, delivered to me with excitement a few days earlier, was of three Lesser Blackbacks at his window there. He left a bundle of diaries and notebooks spanning an interest in birds going back to his boyhood in Dennistoun, when horses and sheep grazed on the green banks of the Molindinar and he combined nest-finding with fishing for 'baggies'.

I remember how he told me with glee that he could get all the volumes of Thorburn's *British Birds* out on one library ticket. I recall too his amazing zeal for early rising, whether to comb the tops of the Cairngorms for Dotterel or to see what was doing on some Hebridean island. A natural loner, he paid the SOC a big compliment by joining it, for he hated organisations of any kind; yet he was persuaded to lead club outings to Hamilton and the Endrick, whence came so many of his published records. He was also a frequent visitor to Aberlady Bay.

Matt was a butcher in Lenzie. He liked his work, even though it gave him only Sunday and a Wednesday half-day for getting out. He took a bit of knowing, but those who did get to know him found a kindly, humorous and well informed character, enthusiastic on any matter relating to the countryside. Even in the declining health of the last two years he never lost his zeal. My last trips with him were to Flanders Moss and Loch Tay, just before he went into hospital.

This is not the place to talk of him as a mountaineer, which was his passion until the war. We explored the High-

lands together, in summer and winter, always combining climbing with birding. The drive that he put into hard routes was transferred to ornithology when he was demobbed, and future trips we did were usually focussed on birds.

Craggy-faced and ginger-haired, he served in the Scots Guards during the war, fighting and getting wounded in Tunisia—with the compensation of birds on migration over the desert and on the shores. Then came Anzio and capture by the Germans when only a few of the Battalion were left defending a position they had taken and waiting for relief which never came.

But the Army did him a good turn: on his release from Germany it posted him to the Solway, where he devoted himself to intensive birding. It was the mainstay of his life ever afterwards. He was a bachelor, and come Sundays and holidays he was away to his favourite haunts. It was the countryside as much as the birds he loved. He hated being indoors even for a day.

TOM WEIR.

Reviews

Ecological Adaptations for Breeding in Birds. By David Lack. London, Methuen, 1968. Pp. xii + 409; 21 line drawings by Robert Gillmor and 24 text diagrams. 24½ x 17 cm. 84/-.

For many years now ornithologists have been amassing information about the breeding habits of birds—clutch size, egg size, egg colouration, whether a species is monogamous or polygamous, colonial or solitary, how long the hatching and fledging periods are, and the age of first breeding, to name some.

The author, in what he rightly claims is primarily a work of interpretation, has linked these apparently unrelated facts into a fascinating and convincing story to show how, taken together, they are all adaptations which enable each species to raise the greatest possible number of young. Particular emphasis is placed on interpreting the facts by making comparisons between different groups of species. Natural selection is invoked as the agency by which the various adaptations have been brought about, a point which is perhaps open to dispute, especially amongst those who favour group selection or other theories which depart from the strictly Darwinian. Throughout the book, and notably in the chapter dealing with the growth rate of Procellariiformes, attention is drawn to unsolved problems and areas where knowledge is insufficient or lacking, but this in no way minimises the wealth of data on avian breeding biology encompassed within this broadly based survey. Indeed, the eighteen appendices on breeding biology would in themselves have made this book a valuable one for the professional or serious amateur ornithologist.

It unfortunately cannot be claimed that it is an easy book to read. Though not difficult to follow in content, there is a monotony of style and overmuch use of scientific nomenclature to make it enjoyable reading. This is not helped by the layout adopted, whereby each particular ecological group of birds is given separate treatment although the same principles are being applied in each case, inevitably giving rise to much repetition. However it is to be hoped that this will not deter people, for once the effort it made the book is rewarding. The line drawings by

Robert Gillmor, which illustrate various points made by the author, combine accuracy with charm and form a delightful addition to the text. The print is very clear too.

This book is perhaps a precursor of a new type of ornithological literature, with emphasis on the wider applications of knowledge already gained. Despite the reservations made about style it is one which most people with more than a superficial interest in ornithology would find useful to have on their bookshelves, both for the information it contains and for the pointers it gives to work still to be done.

D. R. GRANT.

The Problems of Birds as Pests. Institute of Biology Symposia No. 17. Edited by R. K. Murton & E. N. Wright. London and New York, Academic Press, 1968. Pp. xiv + 254; 12 plates and 45 text figs. 22½ x 15¼ cm. 70/- (\$9.50).

On 28th and 29th September 1967 a galaxy of professional biologists held a symposium in London. Summary papers on the problems were presented by leading workers, and each session ended in general discussion. The material has now been edited and published. Inevitably there is variation in the level of contributions and discussion from the general to the technical, and parts of the book (radar mathematics in particular) will be beyond the grasp of all but a few specialists, but most of it is well within the capacity of the amateur ornithologist.

The first day was devoted to "Birds and Aircraft." The problems centre on preventing high-speed collisions, for a 4 lb bird strikes a 600 mph aircraft like a ton weight dropped 22 ft onto an area the size of the bird. Contributions covered the identification of bird hazards (and individual birds) by radar, warning systems, bird-scaring techniques such as the broadcasting of distress calls, and modification of habitat to make airfields less attractive to birds (one should not site things so that gulls flying to and from the local rubbish tip have to cross the path of aircraft). Apart from impact damage there is a great risk to an aircraft near the ground (landing or taking-off) if one or more of its jet engines is suddenly cut out by ingesting a flock of birds. The surprise is that more people have not been killed. The dangers are greater for low-flying military aircraft than for high-cruising commercial ones. A curious muddle in the captions to photographs on pages 5-6 suggests that navigators are regularly sacrificed in the development of bird-proof windscreens.

The second day was on "Birds and Agriculture," problems more familiar to the amateur: the Rook and agriculture (a Scottish contribution from Culterty Field Station), Woodpigeons, Oystercatchers and cockles, the fouling and infestation of buildings by Starlings, House Sparrows and feral pigeons, Bullfinches and fruit buds, and the Quelea in Africa. Methods of control (including the use of stupefying bait to catch the birds), the attitude of the general public, and predator-prey relationships were discussed. There is a certain amount of repetition and cross-reference in these papers but an almost universal agreement that simply killing the pest species is usually ineffective, since only a doomed surplus is taken from the population. Man is unable to maintain sufficient killing pressure on the Woodpigeon (or, for that matter, the Red Grouse) to depress its numbers more than temporarily and he must look for more subtle ways of controlling such problem species.

A neat example of the use of biological knowledge is provided by the Bullfinch. Dr Ian Newton has shown that after winters with a good crop of ash seeds (usually every second year) damage to fruit buds is slight, since the Bullfinches do not take many until March; but when the ash crops fails, seeds of any kind suitable for the Bullfinches are ex-

hausted much earlier and the birds feed mainly on fruit buds from January to May. The solution, which works, is to concentrate on killing Bullfinches in the autumn (not the spring, when they do the damage) in the years when there is a failure of the ash crop. Thus the limited supply of seeds lasts longer and the fruit buds will be spared. No permanent change is induced in the Bullfinch population, but the damage is greatly reduced by control at the right time.

It should not be thought that this symposium was in any sense anti-bird; in fact the most heated discussion evidently arose from the suggestion for an experimental kill of cockle-eating Oystercatchers. Birdwatchers do not normally think of their subjects as pests, but pests they can certainly be at times. As an interesting summary of current thinking on some of the points of conflict between man and birds this book is well worth reading, though the price suggests a scholarly rather than a popular market for it.

ANDREW T. MACMILLAN.

The Red Book: Wildlife in Danger. By James Fisher, Noel Simon, Jack Vincent and others. Collins, London, 1969. Pp. 368; 32 colour plates, 113 monochrome drawings, endpaper maps. 25¼ x 19 cm. 70/-.

Public opinion in developed countries, where life can be more than a basic struggle for food and survival, is coming to accept that total extermination of any creature is a bad thing. Most endangered species, however, have been brought to the verge of extinction more by accident than intention, because man has not foreseen the consequences of what he is doing. It is to remedy this ignorance and to provide a basis for intelligent conservation policies that the Survival Service Commission of the International Union for Conservation of Nature publishes the sheets of its Red Data Book, on which the present volume is based. Some 300 pages are divided equally between mammals and birds, while less than 40 cover reptiles, amphibians, fishes and plants, the only other groups considered at all. Such is the present state of knowledge.

This is no dry catalogue. Fascinating asides and background information may be found in the best of the species essays, and tactful encouragement of governments too. It may come as a surprise to learn that extinction is not a problem in Europe north of the Mediterranean; of 208 mammals and birds shown on the maps, only the European bison is marked in our area. With birds especially, extinction is very much a problem of oceanic islands, where the local fauna is particularly vulnerable to introduced species, especially domestic cats, rats and goats. Habitat destruction and disturbance, and hunting for food or sport or collection or vermin control, with improved weapons and transport, are among the factors mentioned time and again. Some relict species must disappear through evolution but the evidence is that man is responsible for the loss of three species for every one that disappears from natural causes.

At times he is unbelievably pig-headed, at times quite enlightened. One may contrast the absolutely disgraceful way in which whales have been brought close to extinction with the sensible cooperation over the polar bear. The well known success stories and current worries are here: orang utan, giant panda, Arabian oryx, Néné, Californian Condor, Monkey-eating Eagle, Manchurian and Whooping Cranes, Takahé, Ivory-billed Woodpecker. Some quite common species such as the Prairie Hen have crept in, and frequent preoccupation with scarce races of species that are in no danger also weakens the impact; one cannot get very worked-up over the threat to two out of 30 races of the white-tailed deer or one of 23 races of *Microtus pennsylvanicus*, and the article on

the Wren is concerned mostly with explaining that the St Kilda and Fair Isle races are in no danger at all.

The book is attractively produced and a pleasure to own. Its illustrations are taken from such diverse sources as Audubon and Brooke Bond, but there is a complete absence of reference in either direction between them and the text. Some of the classic pictures, particularly Audubon's Whooping Crane, are not suitable for bleeding off the page, and parts of the bird have been lost in the process, to the detriment of the picture. In spite of an explanation on page 362 that the information is in the Red Data Book it is frustrating that there is no key to the numerous authorities cited in the text; after all, one buys this book instead of the Red Data Book. Another doubtful economy is in the use of very small type for the index, in contrast to the most readable fount of the main text.

In spite of these mild criticisms this is a book to be recommended. Many of the species discussed are doomed, for time is not on their side. There is no magic that will save them. But a better understanding of what is happening and greater interest on the part of the public can only do good. Here are facts, so far as we know them, and recommendations, and lessons to be learned; on a world basis. Now we may see ourselves in perspective and know why species breeding on the edge of their range in Scotland, but widespread elsewhere, are less important than the faunas of the Seychelles or the Galapagos.

ANDREW T. MACMILLAN.

The Psychology of Birds. An Interpretation of Bird Behaviour. By Harold E. Burt. Illustrated by Peter Parnall. London, Collier-Macmillan, 1968 (Copyright, New York, 1967). Pp. 242; 11 full-page line drawings. 20½ x 14 cm. 55/-.

In the first chapter the author expresses the hope that he may stimulate the interest of the more general reader in the fascinating behaviour of birds, and make him aware of what is going on around him. In his enthusiasm he has tried to cram too much information about all aspects of bird behaviour into the book, and tends to give too many examples in abbreviated form. The material is presented like a series of expanded lecture notes, and I found it difficult to maintain interest. The author hops from one piece of information to another, and the text does not maintain the necessary stimulus which might encourage one to read on. The style, with numerous side headings and short sections, would have been more suited to a reference book. There is also too much repetition. On the other hand the text is cross-referenced to the bibliography, where the 'confirmed' ornithologist may find many works to interest him.

Dr Burt is a retired professor of human psychology and, taking his cue from this, in his last chapter he discusses individual differences in behaviour in a single species, a subject which, apart from aggressiveness, has received relatively little study compared with differences between species. It is a pity that he has not taken steps to study such variation himself experimentally. Indeed, in this complicated subject, he has drawn upon the work of many others but there is no reference to his own work in the bibliography. Applying knowledge of human psychology to bird studies could throw light upon bird behavioural mechanisms, but it is also fraught with dangers if not done with caution. Unfortunately the author has not always applied this caution and many of his interpretations of behavioural responses are questionable and unduly anthropomorphic.

N. C. MORGAN.

A Regional Guide to the Birds of Scotland. By W. Kenneth Richmond. London, Constable, 1968. Pp. 252; 55 photographs, 15 maps. 17 x 11½ cm. 25/-.

The avowed aim of this book is to help the amateur birdwatcher to spend his time in Scotland more usefully and enjoyably than he might otherwise do. The author goes on to say that the professional ornithologist does not need this assistance, but this is being unduly modest. There can be few ornithologists, amateur or professional, who know the whole of Scotland so intimately that they can afford to scorn the assistance which this handy little book has to offer.

It commences with a list and brief description of the reserves, field study centres and ornithological societies in Scotland, with a useful select bibliography. For the main part of the book, the author divides Scotland into twelve regions, corresponding roughly with the familiar faunal areas. For each region he provides a description of the main habitats and comments on the status of the more interesting birds in each habitat. There is a great deal of useful information as to the most productive birdwatching localities and the best ways of working them and this is often supplemented by well drawn diagrams. These chapters vary considerably in quality. Those dealing with southern and central Scotland are excellent, and it is only occasionally that one is inspired to query some point of detail. For instance, is it really the case that the Wood Warbler is a typical bird of the highland pinewoods, and surely it is an overstatement to say that all four skuas are regularly recorded at Grangemouth, and that Temminck's Stint can be "expected" in the same area?

As he moves further afield, the author is obviously able to draw less on his personal experience and the results are less happy. One may guess that the author is least familiar with the Outer Hebrides, for this chapter contains a number of misstatements. The implication that Long-tailed Tit, Blackcap and Chiffchaff breed in Stornoway woods is not supported by any evidence known to this reviewer, though Chiffchaff may well be proved to do so before long. The large non-breeding Mute Swan population on Loch Bee is referred to as though it was a breeding colony, and the machair country of South Uist is too intensively farmed to be "thronged" with geese in winter, nor does it hold "impressive" herds of Whooper Swans as the author would have us believe.

The photographs illustrate 52 species, most of which can claim to be typically Scottish though one or two exotics, such as Cream-coloured Courser, have strayed in. Many of these photographs are not of the first quality, but they do nevertheless represent an impressive achievement as the work of one spare-time photographer. The maps have been imaginatively selected, although one must regret in a work of this kind that both the maps showing Scotland as a whole are cut short in the middle of Orkney. This is all the more galling because one of these maps shows the whole of England. Any right-minded birdwatcher would willingly sacrifice the whole of England for the sake of seeing Shetland in its proper perspective! But it is only on points of detail that one would try to fault this book. In general it can be thoroughly recommended, and to anyone visiting Scotland for the first time it can be fairly described as indispensable.

DOUGAL G. ANDREW.

Catalogus Faunae Graeciae. Edited by A. Kanellis. **Part 2. Aves.** By W. Bauer, O. v. Helversen, M. Hodge & J. Martens. German with English introduction, summary and index. Thessaloniki (Salonica, Greece), 1969. Pp. 203 + errata leaf; 2 maps. 24½ x 17¼ cm. Paperback, DM 17.50 from Willy Bauer, 6 Frankfurt am Main, Schneckenhofstrasse, Federal Republic of Germany.

As a step towards a comprehensive work on the birds of Greece this checklist deals with 228 breeding species, 21 more which have bred or may do so, and 131 migrants and winter visitors. Though the text is in German the species are named in English and Latin as well, and translations of the principal terms and place names used in the systematic list are inserted in the English version of the introduction. Unfortunately there is no separate alphabetical list of these terms, so one must either construct one's own or memorise them.

The main text consists of summaries of status and seasonal abundance for each species, within the limits of available information; some parts of Greece are ornithologically quite unexplored and others have been rarely visited. The authors divide the country into eleven mainland and island regions for these summaries and give references and a full bibliography.

Greece is one of the most exciting places in Europe for a British ornithologist, and some of the species found there penetrate no nearer to Britain. Even in the context of a scientific catalogue, however, the authors feel compelled to call attention to the terrifying impoverishment of the avifauna in the past 25 years, through deforestation and drainage of swampy lowlands and river deltas. One must hope that this publication will provide impetus towards conservation of some of these vanishing habitats.

ANDREW T. MACMILLAN.

Ducks, Geese and Swans. Instructions to Young Ornithologists series No. 7. By John Welman. London, Museum Press (Brompton Library), 1968. Pp. 124; 8 plates (16 photographs), 29 figures. 21¼ x 14 cm. 20/-.

This book "attempts an all-round approach" to the subject of wildfowl. Since the author includes in this remit all the world's swans, geese and ducks he sets himself a rather formidable task. Some 30 pages are devoted to general background topics, such as classification, structure and migration. Forty-six European wildfowl species are dealt with in a mere 40 pages and brief descriptions of a further 98 species (subspecies are ignored) are packed into the remaining 30 pages. Eight of the black-and-white plates illustrate British species (including the introduced Canada Goose and Mandarin Duck) and the text figures include line drawings of another 13.

In the general chapters a good deal of varied information is presented in an interesting and readable manner although certain topics, and especially habitats and feeding habits, receive scant attention. Despite a reference in chapter 1 to the amount of data on wildfowl ecology and distribution now available, little use has in fact been made of this material by the author. Particularly obvious indications of this neglect are the omission of *Wildfowl in Great Britain* from the bibliography on page 119, the absence of any mention of moult-migration in Shelduck, and the misleadingly inaccurate statements made about several of the European swans and geese.

Since this book is presumably intended for young ornithologists in this country, the inclusion of scrappy descriptions and distribution notes on non-European species seems pointless, particularly when this information (complete with coloured illustrations) is already available

in an inexpensive volume. The space occupied by these notes could have been used to much better advantage for expanding the descriptions of the British species; giving some account of recent wildfowl research; and providing more suggestions for lines of study which the young ornithologist might usefully pursue.

VALERIE M. THOM.

The Island. By Ronald [M.] Lockley. Illustrated by C. F. Tunncliffe. Deutsch, London, 1969. Pp. 192; 10 line drawings, endpaper maps. 20½ x 13¼ cm. 30/-.

R. M. Lockley has been writing about Skokholm for many years, and his books have been frequently reprinted, so that much of the material here is familiar, though now incorporating more recent notes from the island. But this is not intended as a deeply scientific book. It tells the pre-war tale of his life on this small Pembrokeshire island 30 to 40 years ago (yes, 40 years ago) and of his pioneer studies of Manx Shearwater, Puffin and other auks, Storm Petrel and rabbit.

The style is easy, and evocative of the charm of small islands at their best, and the writing is complemented by C. F. Tunncliffe's delightful vignettes of birds and mammals and the island scene. Altogether an enjoyable book to read in bed or on a wet afternoon.

ANDREW T. MACMILLAN.

E n q u i r i e s

BTO Ornithological Atlas 1968-72. Thanks to the enthusiasm and hard work of Regional Organisers during the past winter and early spring it is hoped that 1969 will have seen extensive coverage in all populated parts of Scotland. During the late summer a considerable number of very useful reports has been received from visitors to the remoter areas of the west and north Highlands. It would be much appreciated if any outstanding 1969 records are sent as soon as possible to local organisers or to Mr Headlam. There will again be an exhibit at the SOC Conference, showing, as far as possible, the additional coverage in 1969.

Some 1968 cards had still not been received by late summer 1969, when Dr Sharrock had already completed preliminary work on the available 1968 records. Since there is no further need to seek species already recorded breeding in any particular square, it is most important, to avoid unnecessary paperwork and duplication of fieldwork later, that records should be sent in as soon as possible after the end of each breeding season.

Sincere thanks are due to Regional Organisers and Recorders and to those helping them, especially those who have managed to make Atlas records in addition to the arduous task of censusing seabirds for Operation Seafarer 1969.

C. G. HEADLAM, Scottish Coordinator
Foulis Mains, Evanton, Ross-shire.

The Scottish Ornithologists' Club

TWENTYSECOND ANNUAL CONFERENCE HOTEL DUNBLANE HYDRO, PERTHSHIRE

24th to 26th October 1969

Friday 24th October

- 5 to 7.30 p.m. Conference Office in the Hotel Dunblane Hydro opens and 8 to 9 p.m. for members and guests to register and collect name cards and Annual Dinner tickets.
- 6.15 p.m. Meeting of Council.
- 8.30 to 9.30 p.m. FILM AND SLIDE PROGRAMME in the Ballroom. At 9.30 p.m. details of excursions on Saturday afternoon will be given.
- 10 p.m. Meeting of Local Recorders.
- 9.30 p.m. to midnight Lounges open for informal discussions and refreshments (late licence).

Saturday 25th October

- 8.45 to 9.15 a.m. Conference Office opens for registration.
- 9.20 a.m. Official Opening of Conference in the Ballroom. ADDRESS OF WELCOME by Mrs S. H. Maclachlan, J.P., Lady Provost of Dunblane.
- 9.30 a.m. LECTURE, "Recent changes in the environment and some of their effects on British Birds" by Dr N. W. Moore, Ph.D., M.A. (Head of Toxic Chemicals and Wildlife Section, Monks Wood Experimental Station), followed by a discussion.
- 11 a.m. INTERVAL for coffee and biscuits.
- 11.30 a.m. LECTURE, "The Heron and pollution," by Ian Prestt (Toxic Chemicals and Wildlife Section, Monks Wood Experimental Station), followed by a discussion.
- 1 p.m. INTERVAL for lunch.
- 2 p.m. EXCURSIONS by private cars leaving the Conference Hotel car park. Details will be posted on the Conference notice board.
- 2.30 p.m. MEETING of members of the R.S.P.B. in the Ballroom, to which all members of the Club and their guests are invited.
- 6 p.m. 33rd ANNUAL GENERAL MEETING OF THE CLUB in the Ballroom.
- BUSINESS :
- (1) Apologies for absence.
 - (2) Approval of Minutes of 32nd Annual General Meeting of the Club held in Dunblane on 26th October 1968 (see *Scottish Birds* 5 : 238).
 - (3) Report of Council for Session 32.
 - (4) Approval of Accounts for Session 32.
 - (5) Appointment of Auditor.
 - (6) Election of new Office Bearers and Members of Council.

The Council recommends the following elections :

A. Donald Watson as President of the Club to succeed Dr W. J. Eggeling who is due to retire having completed his three year term of office.

George Waterston as Vice-President to succeed A. Donald Watson.

Dr I. T. Draper and J. MacGeoch as new Members of Council to replace H. A. Maxwell and R. T. Smith who are due to retire by rotation.

- (7) Consideration of the following proposed amendment to the Constitution recommended by Council :

That under 3. MEMBERSHIP (e) "... The Annual Subscription shall be 25s; or 7s 6d in the case of Members who are under 21 years of age, ... Married couples shall be eligible for joint Membership at an Annual Subscription of 40s, ...", the subscription rates be altered from "25s; or 7s 6d" and "40s" to "40s; or 10s" and "60s" (Life Membership rates remain unaltered).

- (8) Any other competent business.

7.30 for 8 p.m. ANNUAL DINNER in the Diningroom of the Hotel Dunblane Hydro (dress informal).

Sunday 26th October

- 9.30 a.m. LECTURE, "Birds of the world: the conservation outlook," by Sir Hugh Elliott Bt., O.B.E., M.A. (Secretary of the Ecology Commission, International Union for the Conservation of Nature).
- 10.45 a.m. INTERVAL for coffee and biscuits.
- 11.15 a.m. PROGRAMME OF FILMS.
- 1 p.m. INTERVAL for lunch.
- 2 p.m. EXCURSIONS (informal), leaving Conference Hotel car park.

Conference Office

Outwith registration hours the Conference Office will also be open at intervals during the weekend for members to see the exhibits. A wide selection of new books from the S.O.C. Bird Bookshop will be displayed for purchase or orders. R.S.P.B. literature, Christmas cards, garden bird equipment and gramophone records will be on sale, and also a selection of B.T.O. literature and Christmas cards. A display of paintings by wild-life artists will be on sale in the Exhibition Room.

Film and Slide Programme

The programme from 8.30 to 9.30 p.m. on Friday evening is intended to give members and guests an opportunity of showing 2" x 2" slides or 16 mm films. These must however be submitted beforehand to the Conference Film Committee, and should be sent, by 10th October at the latest, to the Club Secretary, 21 Regent Terrace, Edinburgh EH7 5BT. The slides should be titled and sent with brief notes on what will be said about them, to enable the Committee to make a selection and to form a good programme. It will not be possible to show material which has not been received by this date.

INFORMATION

- (1) **Hotel Reservations.** All reservations must be made direct. Owing to the shortage of single rooms, members are urged to make arrangements to share a room with a friend.
- (2) **Conference Post Card.** It is essential that members intending to be present should complete the enclosed printed post card and send it to the Club Secretary not later than 20th October. Because of limited seating accommodation, the Council regrets that members may invite only one guest each to the Annual Dinner.
- (3) **Registration.** Everyone attending the Conference must register on arrival (10s each) at the Conference Office (for opening times, see Programme). Members attending only the Annual General Meeting do not require to pay the registration fee, which covers morning coffees and incidental expenses.
- (4) **Annual Dinner.** Tickets for the Annual Dinner (price 30s inclusive of red or white wine or fruit cup, and of gratuities) should be purchased when registering. Members and guests staying in the Conference Hotel pay for the Annual Dinner in their inclusive hotel account, but must obtain a dinner ticket from the Conference Office as all tickets will be collected at the Annual Dinner. No payment should be made in advance to the office in Edinburgh.
- (5) **Other Meals.** Dinner on Friday evening is served in the Conference Hotel from 6.30 to 9 p.m. Non-residents will be able to obtain lunch on Saturday or Sunday (12s 6d) by prior arrangement with the Hotel Reception desk.
- (6) **Swimming Pool.** The indoor swimming pool in the Conference Hotel will be available during the weekend at no extra charge.
- (7) **Excursions.** Members are asked to provide cars if possible and to fill their passenger seats; to avoid congestion in the car park the minimum number of cars will be used. Members wishing to go out on their own are particularly asked not to go out in advance of the led excursions to avoid disturbing the birds.

Hotels in Dunblane

Hotel Dunblane Hydro (Tel. 2551). Special Conference charge £8.0.0d, inclusive of 10% service charge, bed and all meals (except tea on Saturday afternoon) from Friday dinner to Sunday lunch, after-meal coffee, and the Annual Dinner (with wine or soft drinks). For less than a full day, bed and breakfast is 42s, lunch 12s 6d and dinner 18s 6d, all with additional 10% service charge. Rooms with private bathroom have a supplementary charge of 10s per person per day.

Stirling Arms Hotel (Tel. 2156). Bed and breakfast from 28s 6d to 30s.

Schiehallion Hotel, Doune Road (Tel. 3141). B & B from 22s 6d to 27s 6d.

Neuk Private Hotel, Doune Road (Tel. 2150). B & B from 23s to 25s.

Ardleighton Hotel (near Hotel Dunblane Hydro gates) (Tel. 2273). B & B from 25s to 27s 6d.

Hotels in Bridge of Allan

Allan Water Hotel (Tel. 2293). B & B from 45s to 62s 6d.

Royal Hotel (Tel. 2284). B & B 47s 6d.

Prices except for the Conference Hotel are provisional and should be confirmed.

DUNDEE BRANCH WINTER EXCURSIONS

Sunday 5th October 1969 VANE FARM RESERVE.

Sunday 9th November LINRATHEN LOCH and BACKWATER DAM.

Sunday 7th December TENTSMUIR.

Sunday 11th January 1970 EASTHAVEN.

Sunday 8th February KILCONQUHAR LOCH and ELIE.

Sunday 22nd March STORMONT LOCH and the FIVE LOCHS.

Sunday 26th April RESCOBIE and BALGAVIES LOCHS.

All excursions leave City Square, Dundee, at 10 a.m. by private cars. Those requiring transport should contact the Branch Secretary, Miss Jenny Stirling, 21 Johnston Avenue, Dundee.

SUBSCRIPTIONS, COVENANTS AND BANKER'S ORDERS

Your subscription for the new session is now due and should be sent at once with the enclosed form to the Club Secretary or paid to the Branch Secretaries. The Winter number of the journal will only be sent to paid-up subscribers.

If you pay income tax at the full rate and have not already signed a seven-year Deed of Covenant, this is a way you can help the Club funds at no extra cost to yourself, as the tax we are allowed to reclaim on a subscription of 25s is nearly 18s. If only 50% of our members signed Covenants the Club would gain an annual income of about £775, which could be used to give increased services through the journal and other publications, Conferences and lectures, and in many other ways. May we invite you to use the enclosed form, which should be sent on completion to the Secretary, who will forward a Certificate of Deduction of Tax for signature each year.

A Banker's Order is enclosed for the use of members who find this a more convenient way of paying the annual subscription, and it will also help to lessen the administrative work in the Club office; this should be returned to the Secretary and not to the Bank.

EDINBURGH BRANCH MEETINGS

Members please note—ALL meetings of the Branch will start at 7.30 p.m.

THE SCOTTISH ORNITHOLOGISTS' CLUB

THE Scottish Ornithologists' Club was founded in 1936 and membership is open to all interested in Scottish ornithology. Meetings are held during the winter months in Aberdeen, Ayr, Dumfries, Dundee, Edinburgh, Glasgow, Inverness, St Andrews, Stirling and elsewhere at which lectures by prominent ornithologists are given and films exhibited. Exhibitions are organised in the summer to places of ornithological interest.

The aims and objects of the Club are to (a) encourage and direct the study of Scottish Ornithology in all its branches; (b) co-ordinate the efforts of Scottish Ornithologists and encourage co-operation between field and indoor worker; (c) encourage ornithological research in Scotland in co-operation with other organisations; (d) hold meetings at centres to be arranged at which Lectures are given, films exhibited, and discussions held; and (e) publish or arrange for the publication of statistics and information with regard to Scottish Ornithology.

There are no entry fees for Membership. The Annual subscription is 25/-; or 7/6 in the case of Members under twenty-one years of age or in the case of University undergraduates who satisfy the Council of their status as such at the time at which their subscriptions fall due in any year. The Life subscription is £50. Joint membership is available to married couples at an Annual subscription of 40/-, or a Life subscription of £75. "Scottish Birds" is issued free to members but Joint members will receive only one copy between them.

The affairs of the Club are controlled by a Council composed of the Hon. Presidents, the President, the Vice-President, the Hon. Treasurer, the Editor of "Scottish Birds," the Hon. Treasurer of the House Fabric Fund, one Representative of each Branch Committee appointed annually by the Branch, and ten other Members of the Club elected at an Annual General Meeting. Two of the last named retire annually by rotation and shall not be eligible for re-election for one year.

A Scottish Bird Records' Committee, appointed by the Council, produce an annual Report on "Ornithological Changes in Scotland."

An official tie in dark green, navy or maroon terylene, embroidered with small crested tits in white, can be obtained by Members only from the Club Secretary, at a cost of 17s 6d. A brooch in silver and blue is also available to Members, price 3s 6d, from the Club Secretary or from Hon. Branch Secretaries.

The Club-room and Library at 21 Regent Terrace, Edinburgh EH7 5BT, will be available to Members during office hours, and on Wednesday evenings from 7 to 10 p.m. during the winter months. Members may use the Reference Library, and there is a small duplicate section, consisting of standard reference books and important journals which can be lent to students and others wishing to read a particular subject. A lending section for junior Members, which is shared with the Young Ornithologists' Club, is also available.

Forms of application for Membership, copy of the Club Constitution, and other literature is obtainable from the Club Secretary, Major A. D. Peirse-Duncombe, Scottish Centre for Ornithology and Bird Protection, 21 Regent Terrace, Edinburgh EH7 5BT. (Tel. 031 556 - 6042).

NOTICE TO CONTRIBUTORS

1. General notes (not of sufficient importance to be published on their own as Short Notes) should be sent to the appropriate local recorders for inclusion in their summary for the annual Scottish Bird Report, not to the editor. A list of local recorders is published from time to time, but in cases of doubt the editor will be glad to forward notes to the right person. All other material should be sent to the editor, Andrew T. Macmillan, 12 Abinger Gardens, Edinburgh 12. Attention to the following points greatly simplifies the work of producing the journal and is much appreciated.

2. If not sent earlier, all general notes for January to October each year should be sent to the local recorders early in November, and any for November and December should be sent at the beginning of January. In addition, local recorders will be glad to have brief reports on matters of special current interest at the end of March, June, September and December for the journal. All other material should of course be sent as soon as it is ready.

3. All contributions should be on one side of the paper only. Papers, especially, should be typed if possible, with double spacing. Proofs will normally be sent to authors of papers, but not of shorter items. Such proofs should be returned without delay. If alterations are made at this stage it may be necessary to ask the author to bear the cost.

4. Authors of full-length papers who want copies for their own use MUST ASK FOR THESE when returning the proofs. If requested we will supply 25 free copies of the issue in which the paper is published. Reprints can be obtained but a charge will be made for these.

5. Particular care should be taken to avoid mistakes in lists of references and to lay them out in the following way, italics being indicated where appropriate by underlining.

DICK, G. & POTTER, J. 1960. Goshawk in East Stirling. *Scot. Birds* 1:329.
EGGELING, W. J. 1960. *The Isle of May*. Edinburgh and London.

6. English names should follow *The Handbook of British Birds* with the alterations detailed in *British Birds* in January 1953 (46:2-3) and January 1956 (49:5). Initial capitals are used for names of species (e.g. Blue Tit, Long-tailed Tit) but not for group names (e.g. diving ducks, tits). Scientific names should be used sparingly (see editorial *Scottish Birds* 2:1-3) and follow the 1952 B.O.U. *Check-List of the Birds of Great Britain and Ireland* with the changes recommended in 1956 by the Taxonomic Sub-Committee (*Ibis* 98:158-68), and the 1957 decisions of the International Commission on Zoological Nomenclature (*Ibis* 99:369). When used with the English names they should follow them, underlined to indicate italics, and with no surrounding brackets.

7. Dates should normally be in the form "1st January 1962", with no commas round the year. Old fashioned conventions should be avoided—e.g. use Arabic numerals rather than Roman, and avoid unnecessary full stops after abbreviations such as "Dr" and "St".

8. Tables must be designed to fit into the page, preferably not sideways, and be self-explanatory.

9. Headings and sub-headings should not be underlined as this may lead the printer to use the wrong type.

10. Illustrations of any kind are welcomed. Drawings and figures should be up to twice the size they will finally appear, and on separate sheets from the text. They should be in Indian ink on good quality paper, with neat lettering by a skilled draughtsman. Photographs should either have a Scottish interest or illustrate contributions. They should be sharp and clear, with good contrast, and preferably large glossy prints.

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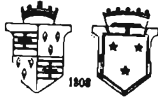
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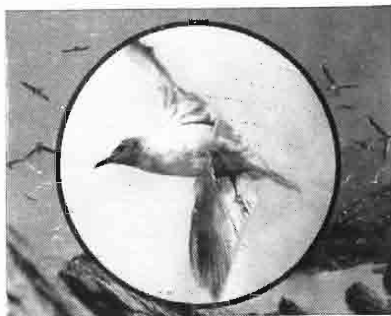
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