

SCOTTISH BIRDS



THE JOURNAL OF THE
SCOTTISH ORNITHOLOGISTS' CLUB

Volume 8 No. 2

SUMMER 1974

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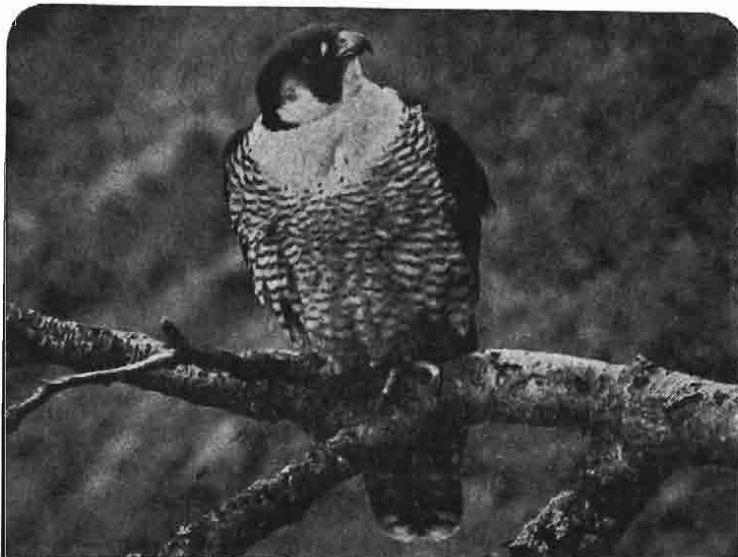
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SCOTTISH BIRDS

THE JOURNAL OF THE SCOTTISH ORNITHOLOGISTS' CLUB



Volume 8 No. 2

Summer 1974

Edited by Squadron Leader Harry Greig

Editorial

It is with regret that we have to announce our resignation from the post of Editor and Bookshop Manager after such a short term of office. The pressures of city life with its attendant problems of house purchase, daily commuting and parking have forced on us the decision to seek what we hope will be a more tranquil existence in more rural surroundings.

Your new Editor will be David Bates who has been a librarian with Liverpool Central Library for the past eight years. During this time he has assisted in editing the Cheshire Bird Report. Most of his holidays in recent years have been spent birdwatching in Scotland, and he has acted as a voluntary RSPB warden at Loch Garten on a number of occasions, so is no stranger to Scottish ornithology.

The requirement for a full-time assistant for editorial and Bookshop work has necessitated further changes in the Club staff at 21 Regent Terrace. Mrs Winkworth has left and her place has been taken by Mrs Christine Dunsire. Both Christine and her husband have been members of the SOC for a number of years and take an active interest in the Edinburgh Branch meetings.

Honour for Club President All SOC members will be delighted to know that Dundee University have recently conferred an honorary doctorate on our Club President, Mr George Waterston for his work in conservation. George and Irene are at present on a luxury Lindblad expedition to the Arctic for which George is acting as the leading naturalist, and they delayed their departure to join the expedition so that George could be present to receive his doctorate on 12th July. We know that all readers of the journal will join with us in offering our congratulations to him on this well deserved honour.

Highland Ringing Group Towards the end of last year the Highland Ringing Group was formed, its main aims being to coordinate ringing in the area and to work on group projects involving selected species. The present list of projects includes Barn Owl, Buzzard, Shelduck, Goosander, Greylag Goose, Pied Wagtail and Storm Petrel, and there are plans for wader ringing.

They are keeping a Recoveries Book and hope to gather as much data for the area as possible, from the beginning of the ringing scheme to the present day. The Group would like to hear from anyone who has details of birds ringed or recovered in the area, and would like ringers visiting the area in the future to get in touch with them. The Chairman of the Group is Roy Dennis and the Secretary is Mr A. T. Mainwood, 4 Skiach Gardens, Dingwall, Ross-shire.

Shetland symposium The Nature Conservancy Council held a symposium in Edinburgh on 29th and 30th January 1974 to gather all available information on the natural environment of Shetland, so that the problems for environmental conservation being posed by current and proposed major developments in the Shetland area could be studied in detail. The results of the symposium should enable the Nature Conservancy Council to provide information and advice concerning the natural environment to Zetland County Council during the preparation of its new structure plan.

Papers were presented on every aspect of the Shetland environmental scene and those of particular interest to ornithologists included *The Seabirds of Shetland* by W. R. P. Bourne and T. J. Dixon, *Geographical Variation in Shetland Birds* by W. R. P. Bourne and *The Importance of Shetland Land Birds in a United Kingdom Context* by F. D. Hamilton.

The proceedings of the symposium have now been published, with a preface by Dr J. Morton Boyd and edited by R. Goodier, and copies can be obtained from the Nature Conservancy Council, 12 Hope Terrace, Edinburgh, EH9 2AS, price £1.50.

Change of address All local recorders, and observers sending in reports for the Inverness-shire area are asked to note that Roy Dennis has recently moved, and his new address is Landberg, North Kessock, Inverness, IV1 1XD.

Current literature Recent material of Scottish interest includes :

Breeding numbers and reproductive rate of Eiders at the sands of Forvie National Nature Reserve, Scotland. H. Milne (with an appendix by M. I. Gorman), 1974. *Ibis* 116: 135-154.

The migration of the Gannet: a reassessment of British and Irish ringing data. Sir A. Landsborough Thomson, 1974. *British Birds* 67: 89-103.

The lek of the Black Grouse. Ingemar Hjorth, 1974. *British Birds* 67: 116-120.

Breeding birds in the deciduous woodlands of mid-Argyll, Scotland. K. Williamson, 1974. *Bird Study* 21: 29-44.

Isle of May Bird Observatory and Field Station Report for 1973

Prepared for the Observatory Committee by

NANCY J. GORDON, *Honorary Secretary*

The Observatory was manned for a total of 221 days, covering most of the period between 24th March and 2nd November 1973 and also 22nd-29th December.

Spring migration was late because of a prolonged cold spell, and the main passage was at the end of April and early May, with no spectacular falls. Autumn migration was much more evenly spread than usual, with the biggest fall of migrants in early October (notable for thrushes, Robins, shrikes and Goldcrests). Wader passage was best in August, sea passage most marked in September.

No new species were recorded in 1973, but there were two new additions to the ringing list—Cormorant and Snipe. Unusual records included a Red-footed Falcon in May (second record), and a Red-headed Bunting in June. Other noteworthy activities and events were: a second large cull of gulls in May, large-scale ringing of Puffins, the nesting of the first pair of terns since 1957, and a second successful wader-ringing week over Christmas that produced more Purple Sandpiper retraps and the capture of the first foreign-ringed Purple Sandpiper.

Spring migration

Observers were on the island from 24th March onwards, except for the five days 8th and 22nd-24th April and 1st June.

March-April Light west winds built up to gale force by the end of March, and there was only one settled spell with east winds (on the 26th) which coincided with some passage of migrants—Meadow Pipits, Linnets, a few Greenfinches and Chaffinches and small numbers of thrushes. Dates of the first sightings of the early migrants were:

- 24th March—first Wheatear
- 15th April—first Sandwich Tern
- 25th April—first House Martin
- 25th April—first Ring Ouzel
- 26th April—first Redstart, Black Redstart, Garden Warbler and Chiffchaff
- 29th April—first Swallow
- 30th April—first Whinchat and Blackcap

In contrast to 1972 there was little sign of summer migrants until the last week of April, presumably because of the prolonged northerly winds between 6th and 21st April and the gales at the beginning of the month. Some Redwings and Blackbirds arrived during a short foggy spell on 4th April, and there was some coastal movement of waders, Meadow Pipits (up to 100), Linnets (up to 40) and other finches on the 10th, 13th and 14th, augmented by Wheatears on the 14th and an influx of thrushes and a few Robins on the 15th, when 5 Sandwich Terns were seen. An early Arctic Skua was recorded on the 20th.

With the easing of the weather towards the end of the month migrants began to appear in fair numbers. Despite the lack of observer-cover, residents on the island noted the arrival of dozens of Robins late on 21st April and a dozen or more each of Fieldfares, Redwings, Bramblings and Ring Ouzels on 24/25th. There was further passage of these and other species on the 26th in light east winds and drizzle, when numbers reached a peak (100 Robins, 150 Blackbirds, 40 Fieldfares, 40 Ring Ouzels, 20 Goldcrests). The other birds included 2 White Wagtails, a Heron and a Hoopoe, as well as the four first sightings listed above. The Robins and thrushes gradually moved on, and few new birds arrived before the end of April.

May The best spell for migrants was the short period of east winds at the beginning of the month; this was followed by ten days (5-16th May) of clear weather with west winds, often strong. For the rest of the month east winds blew continuously, at first bringing daily trickles of migrants (17th-21st May), but very little after that because of thick fog. First dates of migrants in May were:

- 1st May—first Willow Warbler
- 2nd May—first Whimbrel
- 4th May—first Cuckoo, Grasshopper Warbler and Pied Flycatcher
- 5th May—first Wryneck, Whitethroat and Spotted Flycatcher
- 6th May—first Sedge Warbler, Lesser Whitethroat and Swift
- 13th May—first "comic" tern

This list reflects the activity of the first week of the month. The first big fall of migrants came on 4th May, when in worsening weather the following were recorded: 1 Whimbrel, 1 Short-eared Owl, 20 Fieldfares, 10 Redwings, 14 Song Thrushes, 4 Ring Ouzels, 13 Wheatears, 6 Whinchats, 1 Redstart, 1 Grasshopper Warbler, 3 Blackcaps, 8 Willow Warblers, 1 Chiffchaff, 2 Pied Flycatchers, 30 Tree Pipits, 1 Siskin, 1 Lesser Redpoll, 3 Bramblings, 1 Reed Bunting and a Cuckoo. Most of these migrants had moved on by next morning, but they were replaced by a further invasion of similar species, and others—1 Mistle Thrush, 1 Wryneck, 1 Black Redstart, 4 Robins, 1

Spotted Flycatcher, 5 Mealy Redpolls, 2 Whitethroats, a Yellow Wagtail and an Ortolan Bunting—all in a somewhat exhausted state.

Despite a change to west winds on 6th May, the island was still well stocked with migrants; the unusually heavy passage of Tree Pipits continued, with the day's total reaching 80, and new species for this spell of passage were a Shore Lark, a Common Sandpiper, 4 Sandwich Terns, a Turtle Dove, a Swift, 5 Sedge Warblers and a Lesser Whitethroat. Even during the following week there were only a few arrivals each day, the more interesting being 2 Yellow Wagtails on the 7th, single Whimbrels on the 10th and 11th, and a Cuckoo on the 12th.

East wind increased the flow slightly on the 13th (warblers, Wheatears, two Redpolls and a Spotted Flycatcher) and again between 17th and 21st, when warblers predominated among the migrants. The best days were 19th May (with a Turtle Dove, a few Wheatears, Whinchats and Spotted Flycatchers, 2 Redstarts, a Black Redstart, a Grasshopper Warbler, 2 Blackcaps, 3 Whitethroats, 3 Lesser Whitethroats, a *flava* Wagtail, a Goldfinch, 2 Reed Buntings, 7 Tree Sparrows and last but not least a Red-footed Falcon) and 20th May (with a Chiffchaff, a Bluethroat, a Mealy Redpoll and a Red-backed Shrike). During the foggy weather at the end of the month, the only notable passage was of Swallows and House Martins (up to 50 of each daily), a few Spotted Flycatchers and various warblers, a Bluethroat and 8 Tree Pipits (on the 24th).

· **June** As usual a few late migrants turned up in the early days of the month (winds westerly throughout), the most notable being a Reed Warbler and 3 Lesser Redpolls on the 2nd, 47 Tree Sparrows on the 3rd and a Black Redstart on the 4th. June was the month for escapes: a Red-headed Bunting on the 3rd and a suspected Western Tanager on the 16th.

Autumn migration

Except for a gap of one night (19/20th October) the observatory was manned continuously until it was closed on 2nd November. As a prelude to the autumn migration season there were several noteworthy birds at the end of July: a Whimbrel on 19th July, a Sparrowhawk during 22nd-24th, a Whimbrel and a Wheatear on the 28th, a Cuckoo on the 29th, a Collared Dove on the 30th and a passage of terns (500 "comic" on 31st). Purple Sandpipers (20) returned on 15th July, Turnstones on the 22nd.

August Winds during the first 11 days were mainly southwest, with one or two spells of fog and rather few birds; from 11th to 28th August the winds were almost continuously

easterly and accompanied by fairly steady passage of small birds, waders and seabirds. The earliest dates for some species were as follows:

- 3rd August—first Willow Warbler
- 4th August—first Arctic and Great Skuas
- 12th August—first Whinchat, Garden Warbler and Pied Flycatcher
- 16th August—first Redstart
- 23rd August—first Fieldfare
- 27th August—first Sedge Warbler and Whitethroat
- 31st August—first Spotted Flycatcher

During the first 11 days of August there was a slight passage of Willow Warblers and Wheatears, a few Swifts passing, some Whimbrels (14 on 4th) and 1 or 2 Manx Shearwaters. There was a steady passage of "comic" terns throughout the month (highest daily count being 220 on the 8th) and a few Sandwich Terns daily. Puffins began leaving the island around 7th August. As soon as the east winds began the migrants increased in number and variety—a Garden Warbler, Pied Flycatcher and Goldcrest appeared on the 12th, a Greenshank and a Whinchat on the 13th, a Green Sandpiper, a Barred Warbler and 15 Pied Flycatchers on the 15th, 50 Pied Flycatchers and 25 Whinchats on the 16th, and there was similar passage over the next few days. A Sanderling (the first since 1956) was seen on the 19th, and Meadow Pipit passage reached a peak (30 on the 20th). Swallows were on the move between 14th and 19th August, the highest daily count being 150 on the 29th. Willow Warbler numbers reached a peak of 60 on the 24th.

A slight change in the weather pattern on 22nd August resulted in some new arrivals at around 1600 hrs—an Icterine Warbler, a Greenshank, 4 Pied Flycatchers, 8 Willow Warblers, a Whinchat and a *flava* Wagtail. Next day (23rd) the first Fieldfare arrived, with 2 Tree Pipits and 35 Willow Warblers. On the 24th there was another marked arrival of migrants throughout the morning and early afternoon, comprising mainly warblers, Tree Pipits (10), Fieldfares (14) and Wheatears (6). A Barred Warbler appeared overnight, and next morning a Grasshopper Warbler and 20 Pied Flycatchers. Until the end of the month passage was lighter: a Treecreeper on the 26th, a few Goldcrests, warblers and Whinchats (27th and 28th); a Grey Wagtail on the 30th and a Spotted Flycatcher on the 31st, after the change to west winds. Very few shearwaters were seen during the month. Waders were regularly seen on passage, and numbers built up on the island—highest counts in a day were Purple Sandpipers (210), Turnstones (300), Curlews (50), Redshanks (75), Knots (8) and Dunlin (9).

September For the first nine days of the month the winds were mainly westerly, then easterly until the 20th. Nevertheless a steady passage of migrants was recorded throughout the whole period, and there was good sea passage. For the rest of the month winds were extremely variable, swinging from east to west and back again almost daily and bringing quite a few falls of migrants. The month started well with 4 Sanderlings (the second record of the year) and 15 Knots among the general passage of Swallows, Wheatears, Meadow Pipits and Common and Sandwich Terns. Throughout the first half of the month sea-watching brought good rewards—a Red-throated Diver and a Red-necked Grebe on the 3rd, Manx Shearwaters almost daily (as many as 120 on the 10th), Sooty Shearwaters on several days (8 on the 10th), up to 8 Arctic Skuas daily, one or two Great Skuas, continuous tern passage (over 200 "comics" on the 3rd, 2 Roseate Terns on the 2nd, and up to 14 Sandwich Terns daily). The first Black Guillemot of the autumn was seen on the 2nd, and there was a Corncrake on the 10th. It was a good period for waders too—2 Golden Plovers, 2 Whimbrels, a Common Sandpiper and a Greenshank on the 2nd, and some passage of Dunlin, Oystercatchers, Curlews and Redshanks on that day too. Swallow passage continued unabated, lighter than the previous month, but with up to 35 daily. House Martins were recorded between the 3rd and the 14th (16 on the 3rd) and a few Sand Martins on the 3rd, 4th and 7th. There was also steady passage of Wheatears (highest counts 45 on the 3rd and 40 on the 16th) and of Meadow Pipits (up to 50 daily, and 100 on the 19th).

Warbler passage was light all month, except for the daily movement of Willow Warblers, which reached peaks of 45 on the 4th, 22 on the 6th and 25 on the 8th. Only 2 Sedge Warblers were seen all month, a few Blackcaps, up to 3 Garden Warblers on 4th September and on nine other days in the month, and odd Whitethroats in the middle of the month. Goldcrest passage started on the 4th and continued through the month, with daily totals of 20 or more on the 4th, 12th, 19th and 20th. The 4th was the first good day of the month for small migrants—in addition to those mentioned above there were 6 Spotted Flycatchers, 3 Robins, a Redstart, a Whinchat and a Yellow Wagtail. There was another slight influx on the 6th, bringing a Pied Flycatcher, a Grey Wagtail and a Lapland Bunting. On the 11th the first Wren and the last Cuckoo of the autumn arrived, and on the 12th the first Fieldfare and a Stonechat. On the 13th there were the first 3 Redwings and 15 Whinchats. Over the next few days passage built up, being especially marked on the 14th and 16th; on the 14th there were a Short-eared Owl, a Lesser Whitethroat and a Red-breasted Flycatcher; on the 16th 6 Blackcaps, 3 Garden Warblers, a Chiff-

chaff, 6 Pied Flycatchers, 10 Whinchats, 12 Redstarts, 40 Wheatears and a Little Stint. The east winds and fog that had lasted over these dates also produced a Yellow-browed Warbler and a Lapland Bunting on the 17th.

The rest of the month was quite eventful, variable winds bringing varied migration. Sea passage was interesting, with up to 3 Red-throated Divers on the 20th, 24th and 25th, 15 Manx Shearwaters on the 19th and fewer on three other days, 30 Sooty Shearwaters on the 23rd and a few on five other days, 2 Long-tailed Ducks on the 26th, a few Great and Arctic Skuas on several days, the last Roseate Terns (5) on the 23rd, the last "comic" terns (10) on the 24th and the last Sandwich Tern on the 28th. On the 22nd a Buzzard, a Merlin, a Ringed Plover and a Golden Plover were recorded. Turnstone numbers reached an autumn peak of 500 on the 29th, Wren numbers built up to 12 by the 24th; the first Snow Bunting was seen on the 23rd; there were no fewer than 5 Yellow-browed Warblers on the 25th; the first 5 Chaffinches and 2 Redpolls arrived on the 26th; and 2 Siskins appeared on the 29th.

The last day of the month had a wintry flavour, with 50 Redwings, 6 Fieldfares, a Brambling, a Short-eared Owl and a Pink-footed Goose arriving after a day or two of gales.

October Thick fog with freshening east winds on the evening of 3rd October was the prelude to the best fall of birds of the year. Observers awoke on the 4th to find the island swarming with migrants that had arrived overnight, mainly Redwings, Robins and Goldcrests, but also 3 Kestrels, a Hen Harrier, 2 Red-backed and 3 Great Grey Shrikes, a Yellow-browed Warbler, 20 Redstarts, 5 Blackcaps, 3 Pied Flycatchers, 5 Siskins, 14 Chaffinches, 30 Bramblings and an Ortolan Bunting. There was continuous passage of thrushes, Robins and Goldcrests during the 4th, 5th and 6th, daily counts for each species reaching the highest totals of the year: 500 Song Thrushes, 1000 Redwings, 800 Robins, 800 Goldcrests and 100 Bramblings. Blackcap numbers reached a peak of 100 on the 7th, Starlings 164 on the 5th. Fieldfares and Blackbirds were numerous too. A Red-breasted Flycatcher was seen on the 5th, a Whimbrel, a Wryneck, 3 Black Redstarts and another Red-backed Shrike on the 6th, and 3 Garden Warblers on the 7th.

Despite a change to west winds late on the 7th, the passage continued, with more thrushes, a Red-necked Grebe, a Long-eared Owl, 3 Jack Snipe and 15 Wheatears on the 8th and a Hen Harrier on the 9th. There was marked passage of Meadow Pipits (100 on the 8th) and Skylarks (200 on the 6th) and some sea passage (17 Arctic Skuas and 2 Great Skuas on the 10th, one or two Manx Shearwaters on the 9th and 10th and no fewer than 52 Sooty Shearwaters on the 10th). A return to

east winds brought further small influxes on the 11th (a Woodcock, 2 Blackcaps, a Chiffchaff and a Red-breasted Flycatcher), on the 13th (50 Redwings, a Black Redstart, 20 Blackcaps and 6 Greenfinches) and on the 14th (50 Goldcrests, a Lapland Bunting and 2 Lesser Whitethroats). Passage was lighter than during the previous week because of the very clear weather.

Cold, northerly weather persisted for the next few days, with a slight passage of thrushes and Goldcrests, and there were one or two other records worth noting—a Merlin on the 15th and a Blue Tit on the 17th (a rarity on the May). Blackbirds and Fieldfares were moving across the island in poor easterly weather on the 20th, when several Woodcock and Bramblings were seen. Passage on the 22nd was similar, with the addition of 20 Redwings and a Snow Bunting, when west winds had resumed. Nine Long-tailed Tits arrived on the 24th, and a few Wrens and Goldcrests on the 26th. Thrushes continued to pass through in small numbers, increasing by the end of the month to 100 Blackbirds on the 28th and 170 Fieldfares and 300 Redwings on the 31st. More Long-tailed Tits (16) were seen on the 28th, and daily numbers of Skylarks reached 66 on the 31st. The season ended on 2nd November, but before leaving, the observers had the satisfaction of recording the last warblers and on 1st November, a Redstart, 2 Siskins, a few Woodcock and 29 Bramblings.

Last dates for some of the autumn migrants were:

- 4th October—last Swallow, Whinchat and Pied Flycatcher
- 5th October—last Spotted Flycatcher
- 6th October—last Whimbrel
- 7th October—last Garden Warbler
- 8th October—last Whitethroat
- 14th October—last House Martin
- 15th October—last Great Skua and Lesser Whitethroat
- 17th October—last Arctic Skua
- 22nd October—last Wheatear
- 27th October—last Willow Warbler
- 1st November—last Redstart and Blackcap
- 2nd November—last Chiffchaff

Winter In winter the May has a special assemblage of resident and migrant birds, and the second Christmas visit by members of the Tay Ringing Group helped to unravel further the mysteries of the island during this normally closed season. The wader populations were somewhat below their autumn levels, except for Snipe, of which as many as eight were seen on 23rd December. Other counts were 18 Oystercatchers, 150 Turnstones, 10 Curlews, 50 Redshanks, 130 Purple Sandpipers, 5 Dunlin and a Golden Plover. Eiders were plentiful (109 on 28th), and up to 20 Mallard were counted daily. Flocks of up to 35 Twites and up to 18 Skylarks were seen most days, also 5 Snow Buntings, a Greenfinch and a Short-eared Owl.

Unusual occurrences

- Great Crested Grebe** One, 19th September. Third record (last seen 1955).
Red-necked Grebe One, 3rd September. Earliest autumn date.
Slavonian Grebe One, 14th October. Sixth record.
Hen Harrier One, 4th October; one, 9th October.
Red-footed Falcon One, 19th May. Second record.
Arctic Skua One, 20th April. Earliest spring record.
Hoopoe One, 26th April. Ninth record.
Black Redstart One, 4th June. First June record.
Blackcap Ten, 5th May. 100, 7th October. Highest daily spring and autumn totals respectively.
Yellow-browed Warbler Five, 25th September. Most in a day.
Red-headed Bunting One, 3rd-8th and 16th June. Third record.
Tree Sparrow 47 on 3rd June. A high figure.

Breeding populations

For the first time for many years nearly all the breeding populations were counted in 1973, thanks to the efforts of one or two observers, especially Hector Galbraith. His counts in June of the cliff-nesting seabirds confirmed the suspected continuing increase in their numbers. The totals are as follows:

Fulmar—68 pairs.

Shag—1130 pairs (an albino bird seen in the colony in April; a few more Farnes-ringed birds were found among the breeding population).

Kittiwake—3450 pairs.

Razorbill—500 pairs.

Guillemot—3700 pairs.

The estimated numbers of breeding gulls in late May before the second major cull was 9000 pairs of Herring Gulls and 1000 pairs of Lesser Black-backed Gulls. One pair of Great Black-backed Gulls attempted to nest. About 100 pairs of Eiders nested, and fledging success was good, despite disturbance of incubating birds during the cull. One pair of Shelducks reared six chicks. At least 15 pairs of Oystercatchers nested, and breeding success was unusually high, (12 young birds were ringed). No estimate of Puffins was attempted but the colony was apparently still growing. For the first time since 1957 a pair of terns (Common) nested; eggs were laid, but there is no record of hatching. The smaller birds fared well: at least two broods each of Swallows, Song Thrushes and Meadow Pipits were reared; one pair of Blackbirds and one pair of Dunnocks nested; and at least two pairs of Linnets bred successfully for the first time since 1960.

Ringling and recoveries

The ringing total of 4000 birds was slightly lower than the previous year's; it comprised 71 species. The main components of the total were Puffins, Shags (476), Herring Gulls (355) and Robins. Record totals were ringed of Puffins (1033—three times the previous highest total), Eiders (11), Swallows (14), Tree Pipits (33), Whinchats (59—twice the previous highest),

Black Redstarts (5), Blackcaps (97); 14 Oystercatchers equals the previous highest total. Second highest totals were Turnstones (49), Purple Sandpipers (59), Kittiwakes (135). High totals were Robins (258), Grasshopper Warblers (8), Willow Warblers (312), Yellow-browed Warblers (4), Pied Flycatchers (79), Rock Pipits (111), Red-backed Shrikes (4), and Linnets (33—the highest total since 1959). No Redpolls were ringed and few Chaffinches or Bramblings. Cormorant and Snipe were new species for the ringing list, and unusual species ringed were Ortolan and Lapland Buntings.

There was a total of 125 recoveries (excluding gulls from the cull) of which 50 were Herring Gulls and 36 were Shags. The foreign recoveries and controls are listed below:

	Ringed	Recovered	
Shag	Pull 1.8.73	16.11.73	Oostuleteren, W. Flanders, Belgium
Lesser Black-backed Gull	Pull 25.6.67	10.11.73	Cap Cantin, Safi, Morocco
Kittiwake	Pull 7.7.72	20. 2.73	Foxtrap, Conception Bay, Newfoundland
Song Thrush	PJ 12.5.72	24. 2.73	Mirandela, Tras os Montes, Portugal
Blackbird	Ad♂ 10.4.71	0. 2.73	Vila Verde, Minho, Portugal
Robin	2nd Y 5.4.71	16.11.72	Almorchon, Cabeza de Buey, Spain
Robin	1st Y 5.10.73	11.10.73	Kroonspolders, N. Frisian Is., Netherlands
Robin	1st Y 5.10.73	20.12.73	Plogonrec, Finisterre, France

Puffin controls included four more birds ringed as pulli on the Farne Islands. There were four more Purple Sandpiper re-traps on the island and the first Turnstone re-trap. Other new entries in the recoveries book were for Cormorant (control of a 1966 Orkney-ringed bird) and a dead Black-headed Gull (ringed on Tentsmuir in 1965). A Purple Sandpiper ringed on 22nd August 1968 at Revtangen, Norway, was re-trapped on the May on 22nd December 1973.

Management and research

Gull control and research The 1972 Annual Report contains an account of the first stage of the gull-control programme, which is aimed at reducing the Herring and Lesser Black-backed Gull populations to a manageable level. In 1972 some 16000 of a total of 34000 breeding gulls were killed, of which 10% were Lesser Black-backs. The second major cull was carried out during 21st-31st May 1973, using the same techniques and procedures as in 1972, but with the addition of quinalbarbitone sodium (Seconal) to the alphachloralose in the bread baits, in order to achieve quicker immobilization of

the gulls, and reduce the risk of dispersal of narcotised birds onto the sea. Just before the cull in mid May the total of breeding gulls was estimated to be 19000 of which 15000 were on the areas scheduled for treatment, the rest on study or control areas (Tarbet, Colm's Hole, Maidens and cliff areas). It is estimated that 10500 breeding gulls were killed (9000 corpses were recovered on the island, 600 recovered from the coast of Fife, washed ashore during the long spell of east winds).

As in 1972 the Durham University gull research project was associated closely with the cull, taking particular account of nesting behaviour in culled and unculted areas, and making studies of recruitment to cleared areas. In this research George Chabrzyk continued to make full use of the culled birds of known age (ringed by Jasper Parsons 1966-1969) and collected valuable data from the 600 ringed birds killed during the cull (half as many again as in the 1972 cull).

Puffins Dr Mike Harris (Institute of Terrestrial Ecology) continued his research into the status and breeding biology of Puffins on the Isle of May and undertook a large-scale colour-ringing programme in 1973 (828 adults and 205 pulli). To date he has seen or trapped a total of 35 Puffins ringed as pulli on the Farne Islands.

House mouse St Andrews University have taken over responsibility for the "mouse house" on the island and are continuing the research programme started by Dr Berry, concentrating especially on survival and behavioural studies.

Vegetation Monitoring of vegetation associated with the gull colonies was continued by the Nature Conservancy, but observations comparable to 1972 were difficult to make because of the effects of prolonged drought in 1973. Douglas Sobey of Aberdeen University finished his vegetation studies by mapping the present extent of sea thrift and sea campion, both species much reduced in extent because of the effects of the dense gull colony. A manuscript report has been received from Mr Sobey, and one from Dr E. V. Watson summarising his observations on the decline of bryophyte species following the expansion of the gull colony.

General observations

Dr Eggeling has produced a revised assessment of the birds of the Isle of May, which is published as a Special Supplement to *Scottish Birds*.

The drought of late summer and autumn 1972 continued unabated through 1973, and thanks are once again due to the boatmen who kept the observatory supplied with drinking water from the mainland.

The top trap was rebuilt by the Conservation Corps in July, and various other repairs were carried out on traps and in the Low Light by observers, to whom the Committee is most grateful. The Committee would also like to record thanks for an anonymous donation of £50 towards repairs of the Low Light (and hope that the donor is a member of the SOC to receive the thanks expressed here).

The observatory was pleased to receive a visit from the grandson of McLeod of Dunvegan, the lighthouse-keeper who occupied the Low Light at the beginning of the century and whose name lives on among the island's place names.

Special thanks are due to the Principal Keeper, George Robertson, and his staff for their assistance during the gull cull, and for their help and co-operation at other times.

Spitsbergen 1972 - ornithological work of the Aberdeen University expedition

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Introduction

Spitsbergen has long been a focus of arctic exploration. The reasons for its popularity are not hard to find; lying roughly between 77° and 80° north it embraces many of the interesting geographical and biological features of a high-arctic region, while the influence of the Gulf Stream on the west coast provides a tolerable (if somewhat damp) summer climate in which to work. For the Aberdeen University 1972 expedition we chose Kongsfjord (fig. 1) at 70° N in West Spitsbergen as our main biological study area; among the most beautiful of the fjords it is also ornithologically rich.

The party included geographers, zoologists and a botanist: Dr C. M. Clapperton, lecturer in geography, led the expedition and made a study of landforms at the margins of surging glaciers. The remainder of the work on geomorphology was carried out by R. Crofts, P. Knape and R. Swann, each of whom did individual studies of raised beaches. Swann also contributed much to the ornithology and wrote the section on Terns and Snow Buntings in this paper. Dr T. Keating studied the arctic vegetation and paid special attention to bird-cliff vegetation. A. Anderson, assisted by D. Stone, carried out seabird census work in Kongsfjord, collected specimens for preservation and toxic-chemical analysis and studied the diurnal activity of a breeding colony of Kittiwakes and the effect of the colony on vegetation. L. Campbell, assisted by W. Murray,

censused the large population of breeding Eiders in Kongsfjord and studied the behaviour of incubating females and the survival of chicks. L. Almkvist made collections of marine benthic invertebrates within the fjord, assisted by Miss B. Guldberg, a final-year medical student who also acted as our medical officer. This account is a summary of some of the ornithological work of the expedition.

The steamer journey north from Bergen in mid June presented the opportunity for all the expedition members to get acquainted and discuss plans. During the crossing from North Cape to Bear Island several members carried out a continuous six-hour sea-watch from 73° N, across the interesting Bear Island current, with its great flocks of seabirds, until fog around the island itself ended observation. Through the swirling mist the bird-whitened southern cliffs stacked with Brunnich's and common Guillemots made an impressive sight. Many bridled common Guillemots were among the throngs of birds on the water. Only one pale Fulmar (Fisher's code L) and a few very dark ones (DD) were seen; most corresponded with Fisher's D birds, head, neck and belly being a uniform grey.

Our disembarkation, complete with one ton of gear (one-third of it food), was at Ny Alesund in Kongsfjord. We rented sleeping accommodation in one of the many huts in a former mining community now largely dependent on the nearby ESRO satellite-tracking station. The first week in the field was spent largely in exploring the district for the best study areas.

Table 1. Seabird count on Stuphallet Cliff, July 7th 1972

Cliff section	Fulmar	Puffin	Black Guillemot	Little Auk	Glaucous Gull
I-II	9	5	4	10	—
II-III	58	15	6	1	2
III-IV	88	38	—	—	—
IV-V	90	29	2	—	2
V-VI	29	24	1	2	—
VI-VII	5	11	—	—	—
	279	122	13	13	4

The Roman numerals refer to cliff sections shown in Fig. 1.

The figures for Fulmar refer to occupied sites.

Seabird colonies

The largest concentration of seabirds in Kongsfjord is on the mountain Ossian Sarsfjellet, between the Kongsvegen and Kongsbreen glaciers, but our three attempts to reach it by boat were forestalled by weather and ice. The Stuphallet escarpment is next in importance, occupied mainly by Fulmars and Puffins (table 1), whose breeding places are scattered along

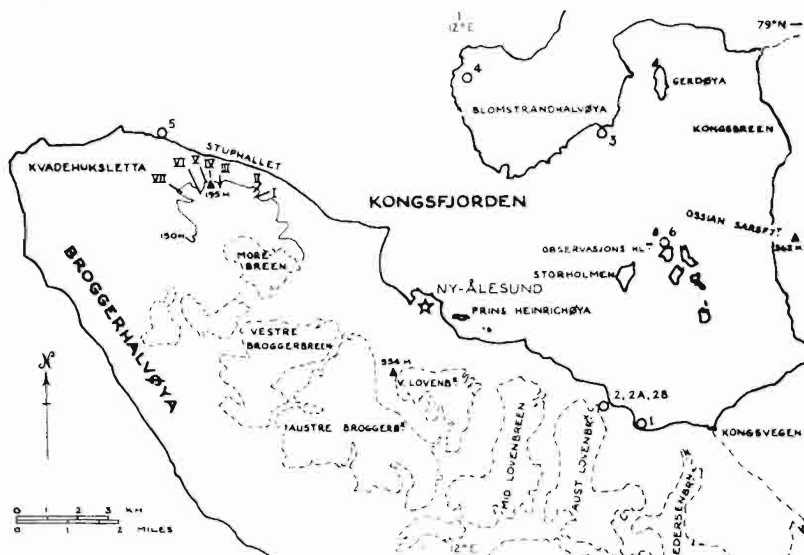


FIG. 1. The expedition study area showing places named in the text.

the crumbling, inaccessible north-facing cliff, with immense, unstable talus slopes preventing close approach from below. Counting the Fulmars was hampered by the inconspicuousness of these grey birds (Fisher's D to DD) against the rock background. On the cliff Little Auks were mainly at the top, where there were also small numbers of Brunnich's Guillemots. Black Guillemots were at the foot, and Fulmars and Puffins at all

Table 2. Kittiwake nest counts in Kongsfjord, 1972

Colony	Date	Location	No. of nests
1	26 June	2 km W of Kongsvegen	100
2	2 July	3 km W of Kongsvegen	550
2A	2 July	60 m NW of colony 2	24
2B	17 July	400 m NW of colony 2	83
3	29 June	E Blomstrandhalvøya	24
4	6 July	W Blomstrandhalvøya	20
5	7 July	E of Kongsfjordneset	16
6	28 June	Observasjonsholmen	c70

levels. This distribution pattern may be influenced not only by the availability of suitable sites as they become free from snow, but also by their accessibility to arctic foxes—factors that do not affect our Scottish colonies. Dohnt, Ramsay and Belterman (1969) reported "some 500 pairs" of Fulmars breeding on these cliffs in 1965—almost twice the number we found. A further small colony of Fulmars (26 occupied sites) exists on the cliffs of West Blomstrandhalvøya.

Kittiwake

Most of the existing Kittiwake colonies were visited, and four were additional to the list given by Lovenskiold (1964). Since little attention seems to have been paid to the size of these colonies, counts are given in table 2, and colony positions in fig. 1.

The Kittiwakes tended to nest on overhung cliffs, as Lovenskiold noted elsewhere in Spitsbergen, thus few observations of nest-contents could be made. We noted the first signs of hatching on 2nd July, and it was progressing well in colony 2 on 9th July, when 62 of the nests contained the following:

1 egg	2 eggs	1 chick	2 chicks	1 egg + 1 chick	empty
22	21	2	9	6	2

The peak of hatching was probably between then and 12th July, on which day we found the talus below the colony strewn with empty egg-shells and recently hatched chicks, two still alive. These hatching dates are in accord with Lovenskiold's (1964) "fourth week of June until about the middle of July" for the whole of Svalbard, which includes Bear Island. Such a small sample cannot readily be compared with British hatching dates, but it is interesting to note that Coulson and White (1956) show peaks in percentage of nests with chicks ranging from early to late July in seven British colonies. We estimated that the first of our Spitsbergen birds would fledge on about 8th August, compared with 20th July for St Kilda in 1968.

Diurnal rhythms at a Kittiwake colony

Our original intention was to compare the diurnal rhythms of activity of the Spitsbergen Fulmar (*F. g. glacialis*), under the influence of extended daylength, with those of the boreal race (*F. g. auduboni*) on St Kilda and to consider census methods in relation to these rhythms. The Stuphallet Fulmar colony proved unsuitable for these observations because of its inaccessibility and the dispersed distribution of birds. We therefore decided to apply the plan, as far as possible, to Kittiwake colony 2B near the east Lovenbreen glacier and to compare the results with similar (unpublished) observations made on St Kilda from dawn to dusk on 19th and 20th July 1968 by A. Anderson, H. E. M. Dott, M. Marquiss and G. W. V. Birnie. Continuous 24-hour watches were made at colony 2B on 1st-2nd, 12-13th, 17-18th and 30th-31st July; a discontinuous 24-hour series of observations was made from 23rd-25th. It became apparent that this small colony with its 83 nests had two distinct components: a central group of closely-packed nests (so close that several touched), very much overhung by rock, and a peripheral group more widely dispersed and less

overhung. By 17th July it was clear that only 47 (57%) of the 83 nests contained eggs or chicks, the rest being used presumably by failed or pre-breeders. In St Kilda at a similar time (20th July 1968) a Kittiwake colony with 59 nests had 44 (75%) containing eggs or chicks.

The breeding birds in colony 2B were concentrated in the centre, and their behaviour was markedly different from that of the peripheral nest occupants throughout the month. During incubation and while chicks were very small, breeding birds were singularly inactive, much of their time being spent asleep. The "peripherals", as they came to be known, could not be distinguished by plumage from breeding adults (Coulson 1959) but when not brooding on empty nests were responsible for most of the activity and noise at the colony; pairing display sequences were frequent, some culminating in copulation on the nest, and small groups fought for possession of nests to such an extent that, on one occasion at least, a large nest was dislodged and fell. By 17th July they were at their most active and attacked and drove off Glaucous Gulls and violently mobbed breeding Kittiwakes at change-over on the nest. The first signs of moult among the peripherals appeared at this time, and all seemed to be in wing and tail moult by 24th, when their activity was more subdued and they were absent from the colony for longer periods. The breeding adults were never seen to be in moult.

The 1968 St Kilda observations showed that there was remarkably little diurnal variation in activity and in numbers of Kittiwakes present at the breeding colony on 19th and 20th July. It is not surprising, therefore, to find that the Spitsbergen birds, with 24 hours of daylight, showed little variation also. There was, however, a detectable lull in activity there between about 2 a.m. and 4 a.m., at the end of which period preening and other activities began. Birds on eggs or chicks brooded very closely throughout the month. Variations in the total numbers of Kittiwakes present at the colony were closely correlated with the movements of birds not on nests.

Arctic Tern

When we arrived in Spitsbergen on 25th June, the first of the terns were laying; laying continued up to 7th July, 60% of the birds having laid by the end of June. Clutch sizes were: one egg (8%) and two eggs (92%).

On the north side of the Brogger Peninsula there were 220 pairs of Arctic Terns; of these 20 pairs were at Kvadehuksletta and 195 were in Ny Alesund itself, mainly in the two marshy areas to the east and west of the settlement, where there were

125 pairs. On the surrounding drier tundra 58 pairs were found, and 12 pairs were on a coal tip. These counts were made on 8th July.

The terns were very aggressive towards intruders—particularly humans, skuas and Glaucous Gulls, which were dived at by many birds and were regularly struck by the birds' feet.

On the 15-16th July a depression passed over Spitsbergen, bringing strong winds, very heavy rain, sleet and snow, and temperatures dropped to 1° C. This storm did much damage to the breeding birds, and during that week 66% of the terns' clutches hatched; of these 58% lost both young, and many more lost single chicks.

In the following two weeks the weather improved, but losses were still high. By the first week of August, when the first young were starting to fledge, 38% of the nests that had survived the storm were lost. By this time 75% of the total number of pairs had failed to rear any young, 7% were still on eggs (many of which would probably have little chance of hatching), and only 18% had reared young to a fairly advanced state. In one study plot, of 90 young that could have been reared only 16 were successful.

The terns did not appear well adapted to these apparently freak conditions. They continued to attack intruders, even at some distance from the nest. The attacks were fiercer, presumably to encourage the intruder to move away faster. During these numerous disturbances, eggs, hatching and newly hatched young were exposed to the cold and died. Had the parents sat tighter more young might have survived.

The failed breeders remained around the colonies, and many resumed courtship activity, though no repeat clutches were found.

Eider

Kongsfjord is one of the major Eider breeding areas in Spitsbergen and so presented the opportunity of studying breeding behaviour in an Arctic situation and comparison with work already carried out in Scotland at Sands of Forvie, Aberdeenshire.

The general distribution of breeding Eiders seems strange to observers accustomed to Scottish sites. Owing to the presence of arctic foxes, breeding is almost entirely restricted to the islands in the fjord, and the only nests on the mainland are within the area of human settlement. Similarly, the timing of breeding and the number of birds nesting on an island are correlated with the breaking-up of fjord ice. Thus the islands in the outer part of the fjord have both the earliest breeders

and the largest numbers. The inner islands have fewer nests and are more vulnerable to fox predation, because of ice connections to the mainland.

However the most striking feature is the high density of breeding birds on the main islands: Eskjer, the outermost island, although only the size of a tennis court, has more than 1200 nesting birds, and even on the poorest islands the density is equal to that in the best areas in Scotland. The general effect is even more marked, since the lack of cover renders the nests conspicuous.

The first part of our work was a census on the islands. Eleven islands were visited, nests were counted and data collected on clutch sizes. Over 2200 nests were counted, over half of which were on Eskjer. Unfortunately the season was unusually advanced, and many nests were already hatching. This unusual season, up to 14 days earlier than normal, can be attributed to the fact that the fjord did not freeze over in the winter.

A major problem while we were censusing was predation by Glaucous Gulls. All the islands had at least two gulls present, and egg loss owing to disturbance was, in some cases, unavoidable. In the dense nesting areas, incubating females were remarkably tame, remaining on the nest until approached closely then leaving slowly having covered the eggs. Their return to the nest was generally rapid, and so gull predation was not too severe. On the less densely populated islands, however, females left much more readily, did not cover the eggs and returned only reluctantly. In such cases, predation was much heavier.

The second and major part of the study was the observation of incubating females and assessment of factors such as gull predation in the undisturbed situation. Prins Heinrichoya, an island near Ny Alesund, was selected since it could be watched easily from the shore. Eighty nests were marked and mapped, and a series of continuous watches, up to 48 hours long, were carried out.

In general, it was evident that gull predation was a major source of mortality in the undisturbed situation. Despite the strong anti-predator defence by the females, both eggs and young were taken from the nest with little difficulty. Once the ducklings reached the water, however, losses seemed to be negligible. In contrast to the situation at many Scottish sites, creches do not occur near the breeding grounds; instead mother and chicks rapidly head out of the fjord to feeding grounds elsewhere.

Toxic chemicals in seabirds

Of the six seabirds collected for toxic-chemical analysis, two adult Spitsbergen Puffins have so far been examined by Dr J. Bogan; they reveal PCB levels similar to those found in auks around Scottish coasts and in other regions of the North Atlantic (Bogan and Bourne 1972 a and b). DDE, a derivative of the more familiar DDT, was also present but in smaller quantities than in other North Atlantic auks. Bogan and Bourne show that pelagic plankton feeders such as Kittiwake and Fulmar carry even greater loads of organochlorines and consider that eastern North America may be a possible source of these materials, which may find their way to the high arctic by means of the North Atlantic Drift.

Snow Bunting

Snow Buntings were found throughout the peninsula where there was rocky scree. However the main concentration was in Ny Alesund where there were about 30 pairs.

All but two birds had finished laying before our arrival; 80% of the laying having taken place between 10th and 16th June. Incubation took between ten and eleven days. Clutches ranged from five to seven eggs (65% were of six), and the average was 5.8 eggs, somewhat higher than the average Scottish clutch of 5.0 (Nethersole-Thompson 1966). Hatching took place between 26th June and 8th July, and an average of 5.0 young per nest hatched—a hatching success rate of 86%, compared with 73% in Scotland. Fledging took 12 to 15 days, and birds left the nest between 9th and 21st July. On average 4.6 young per nest fledged successfully. This gave a total breeding success of 66%, compared with 54.5% in Scotland. It should be remembered, however, that many of the Scottish birds are double-brooded and therefore, overall, probably rear as many young as the Spitsbergen birds. The young were fed by the adults for seven to 12 days after fledging.

The nests were of dried grass and sedge and were always lined with white feathers. A wide variety of sites was used: under boulders and pieces of wood; in boxes on the ground; on rafters and ledges; behind broken ventilator shafts in buildings; and in old pipes. The birds appeared to be territorial during incubation, but after the young had hatched adults seemed to gather at the best feeding sites, and up to three males could be seen foraging together. On one occasion when a young bird was being handled for ringing, its cries brought seven males to the scene.

Despite the 24 hours of daylight, the Snow Buntings still roosted. During incubation the males roosted together in small communal roosts. Roosting started at about 3 p.m. and lasted

until about 1 a.m., at which time there was a 'dawn' chorus. After the young had fledged they and the females joined these communal roosts. Males still predominated there, with 60% males, 13% females and 27% juveniles. Eight roosts were found : in a disused quarry; on ledges in a disused hut; on window ledges; and under pieces of wood.

Other species

Two pairs of Red-throated Divers were found on the Broggerhalvoya and one on Blomstrandhalvoya. All laid two eggs, two had hatched by 25th July, but the third was still on eggs in August. Two Great Northern Divers were seen at Kvadehuksletta. This species is extending its range north as well as south but has not yet been proved to breed in Spitsbergen.

Six species of ducks were recorded, Eider being the commonest. Pink-footed Geese were occasionally seen flying over the area, and three nests were found, all with four eggs. No young were recorded. Two pairs of Long-tailed Ducks attempted to nest in Ny Alesund but failed owing to disturbance. At the end of July a flock of moulting males gathered in the fjord off Ny Alesund. Although no King Eiders were found nesting, eight drakes and two ducks were present by Ny Alesund in late June, and a flock of 30 at Kvadehuksletta. By early July only a few moulting males were left. A pair of Teal were occasionally seen around Ny Alesund, and a Tufted Duck was a rare visitor.

Ptarmigan were common along the coastal plain and lower parts of the hills. Eight wader species were observed, of which four bred. Commonest was Purple Sandpiper; they were found mainly on the tundra, where they nested among stone circles. They had laid by the end of June and sat very tight on their four eggs, relying on their excellent camouflage to conceal them. They would flush only if almost stood on and would then give a distraction display that made them look like a small mammal bumping along. The young hatched in mid July.

Turnstones are spreading in Spitsbergen. We had five pairs in Ny Alesund, and two pairs at Kvadehuksletta. The Ny Alesund birds reared a total of ten young to flying stage. The eggs were laid in June, and we had one nest with three eggs and one with four. The young hatched during the first week in July and were therefore fairly advanced when the storm came and so less at risk. The adults were very noisy, flying long distances to meet intruders and calling loudly.

Five pairs of Ringed Plovers nested at Ny Alesund, and a pair of Dunlin was seen displaying. Grey Phalaropes were common in the marshy areas around Ny Alesund, where about

20 birds nested. When we arrived, the females were courting the males with their chasing and dancing display. At times up to seven females were seen courting a male. Laying started at the end of June. The nest located in the centre of a tuft of grass usually had four eggs, though we found one with three. Hatching took place in the second week of July. Many young were killed by the storm, and only nine reached flying stage. By August most of the adults had gone and only a few moulting males were left.

In mid July a Knot appeared on passage at Kvadehuksletta. Sanderlings were also seen, two at Ny Alesund at the end of June and five at Kvadehuksletta in mid July. A Red-necked Phalarope was present in Ny Alesund from 20th July.

Arctic Skuas were found all along the north of the Brogger Peninsula. There were 17 pairs between Kvadehuksletta and Kongsvegen, all of which were light-phase; one dark-phase bird was also seen. Of four nests found, three had two eggs and one had a single egg. The birds were sitting in June, and hatching took place in mid July. The adults were regularly seen chasing Kittiwakes.

Glaucous Gulls were common around the Eider colonies and Ny Alesund rubbish dump, and a few pairs bred locally. An unusual visitor was an immature Greater Black-backed Gull at Ny Alesund on 19th July.

Apart from the Snow Buntings the only passerine seen was a Starling, which was present at Ny Alesund from 18th to 22nd July. In all, 30 species were seen on the Broggerhalvoya of which 20 bred.

Acknowledgments

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Evening assembly of Starlings at a winter roost

J. BRODIE

The Starlings' habit of gathering into large flocks before flying to communal roosting sites is well known (Low 1924, Wynne-Edwards 1929, Brown 1946). Jumber (1956) divided roosting assembly into four stages, occurring (1) at feeding grounds; (2) along definite established routes leading towards the roost; (3) in the vicinity of the roost on trees, buildings, power-lines, television antennae, or other high structures overlooking the roost; and (4) at the roost proper. Flocking activity near the roosting site (stage 3) he termed 'pre-roosting'. He also referred to a variation of this behaviour that occurs when Starlings gather in numerous areas more distant from the roost, only to regroup again at a single pre-roosting area near the roost.

During the winter of 1970/71 a large Starling roost (about 150000 birds) was established on Dundas Hill nearly two kilometres south-southwest of the Forth Road Bridge, West Lothian, in mixed woodland surrounded by rich arable land (fig. 1). A network of minor roads allowed ready access to many vantage points, and pre-roosting areas were located by observing the Starlings' movements. A pre-roost is defined as an area, some distance from the roosting site, where Starlings gather into a large feeding flock before flying directly to roost or to join other large flocks in the vicinity of the roost, shortly before roosting time. This definition places emphasis on pre-roost gathering at a distance from the roost, and regards further gathering in the vicinity of the roosting site as a deviation from the normal direct flight to roost.

Roost formation throughout the winter

Towards the end of September 1970, when observation of roost formation began, the start of final assembly at the roosting site was marked by the appearance of a small group of Starlings which circled persistently above the roosting area. These were joined at intervals by individuals and flocks that arrived at varying altitudes from different directions until, weather permitting, a cloud of about 30000 birds swarmed above the roost before dropping into the trees. This type of assembly resulted from the irregular departure of small flocks

from large pre-roosting flocks distributed around the roosting site (fig. 1), and although each pre-roosting flock became more cohesive in its departure to roost as winter advanced, this pattern of assembly remained unchanged until 10th January 1971.

From this date until the beginning of February an intermediate gathering took place between distant pre-roosting and final roosting assembly. The early arrivals from pre-roosts gathered in a pre-assembly area in the vicinity of the roost site before assembling with the later arrivals above the roost. This intermediate gathering involved less than one third of the total number of Starlings and was of short duration each evening.

At the beginning of February the number increased greatly and flocks of many thousands arrived at the roost without first gathering nearby. Observation at this stage revealed that, after leaving their pre-roosts, many flocks flew to a region approximately three kilometres south-southeast of the roost, where they formed into great swarms that milled about the countryside. Amid a great deal of excited jumping and chatter some flocks settled to continue feeding, while others flew back and forth across the fields in spectacular 'rolling cloud' formation or joined up with large flocks which circled the area high in the air. Departure from this area was made as it grew dark, with flocks following one another in close succession to the roost, where they joined other large flocks which arrived from a smaller gathering area a short distance northwest.

On 8th February the Starlings moved to a roost almost 1.5 kilometres farther south, in rhododendron bushes, and until 23rd February when the roost started to break up, the whole population gathered each evening approximately one kilometre from this new site. Flight to the roost was usually made in one move, with the Starlings flying slowly across fields in one vast silent cloud.

From this description of the final stages of evening assembly it is evident that although the pattern changed (possibly due to an increase in Starling numbers and/or a reduction of suitable pre-roost fields by ploughing), the 'distant gathering area' stage remained constant throughout the winter, and so it may be more accurate to regard this stage as true pre-roosting.

On this basis, at least for a rural winter roost, five stages of assembly can be involved, namely: (1) gathering at feeding grounds; (2) flocking along flight-lines; (3) pre-roosting at a distance from the roost; (4) pre-assembly in the vicinity of the roost; (5) final assembly at the roost.



PLATE 5 (a) Lesser Whitethroat, Isle of May, October 1973. (b) Great Grey Shrike, Isle of May, October 1973. This bird decapitated a juvenile Red-backed Shrike as well as many Robins and a Dunnock.

Photographs by B. Zonfrillo





PLATE 6 (a) Goldcrest, Isle of May, October 1973.

Photograph by B. Zonfrillo

(b) Stuphallet escarpment, Kongsfjord (see page 54).

Photograph by A. Anderson



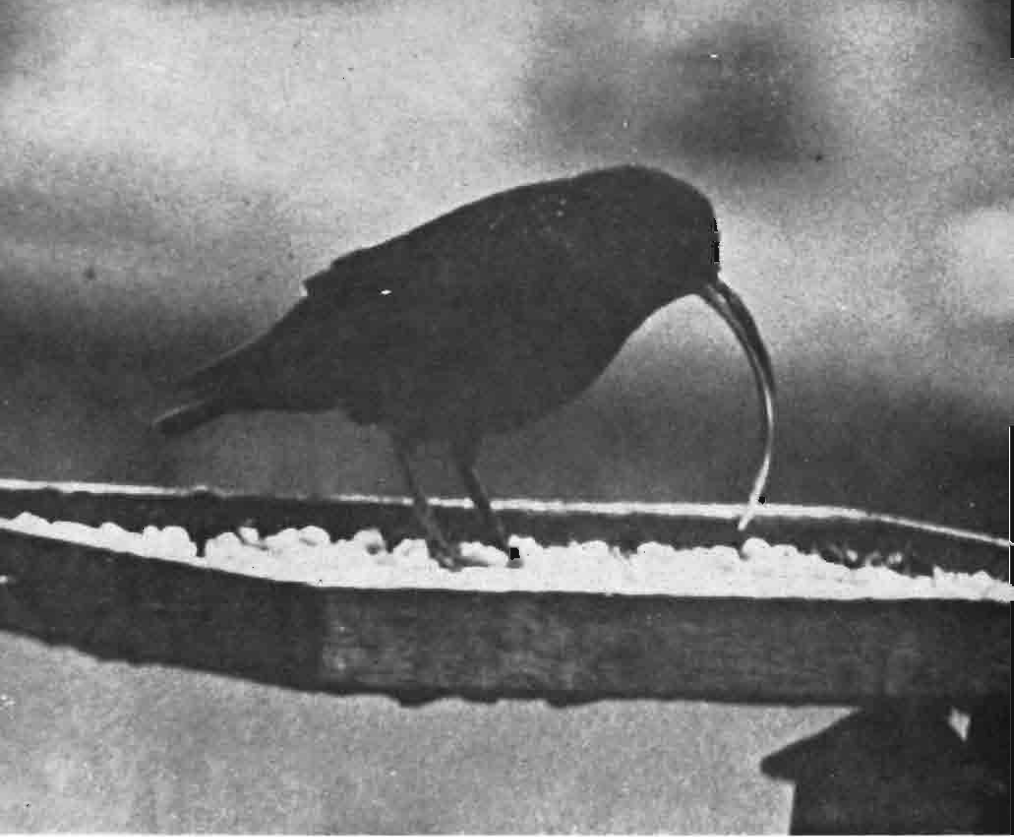


PLATE 7. Starling with deformed bill. This photograph was taken by Mr A. Jaconelli when the Starling visited a bird table in his garden at Bearsden, Glasgow on 10th March 1974.

The bird was active and lively, and fed by bending its head sideways. Its plumage was healthy looking and as bright as that of other Starlings. The bird only appeared on one occasion, and as it came to the bird table alone and only for a few minutes there was no opportunity to see how other Starlings behaved towards it.

Photograph by A. Jaconelli



PLATE 3. Matthew Fontaine Maury Melklejohn (see Obituary page 82)

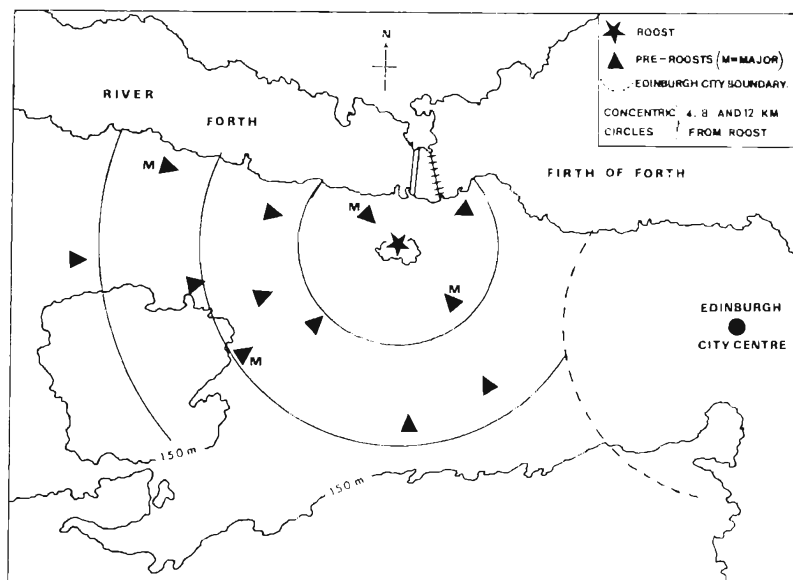


FIG. 1 Distribution of pre-roosts

Pre-roosting

Fig. 1 shows the pre-roost distribution of the great majority of Starlings using the woodland roost. Four major pre-roosts of many thousands and eight minor pre-roosts of a few thousand birds were found, the most distant being 13 kilometres from the roost. The number of birds using any particular site was variable, but each pre-roost consistently maintained the same major or minor classification. The general location of each pre-roost did not change, though the exact site varied and so could not be found with certainty from day to day. Thick mist, which was quite common, caused the Starlings to pre-roost at sites much closer to the roost.

The distribution of pre-roosts on the more fertile farmland reflects the availability of feeding grounds, and shows the limiting effect of the less fertile high ground to the south and the city of Edinburgh to the east. A marked preference was shown for grain stubble (usually undersown with grass), but pasture and newly ploughed fields were also used. Towards the end of January, when few fields were left unploughed, Starlings were observed pre-roosting beside sheep on turnip breaks, amongst rape stalks and on a large rubbish dump.

During September and October, when days were relatively long, flocks continued to feed on arrival at a pre-roost, but as

evening wore on other activities such as preening, idling or bathing were commonly observed. Departure to roost was unhurried, with Starlings leaving the pre-roost in irregular detached flocks; but as days shortened, particularly during hard weather (in agreement with Spencer 1966), feeding activity became more intense and usually occupied the birds right up to their departure, in one large flock.

Changes in roosting population

The number of Starlings increased to a maximum of approximately 150000 shortly before the roost began to break up on

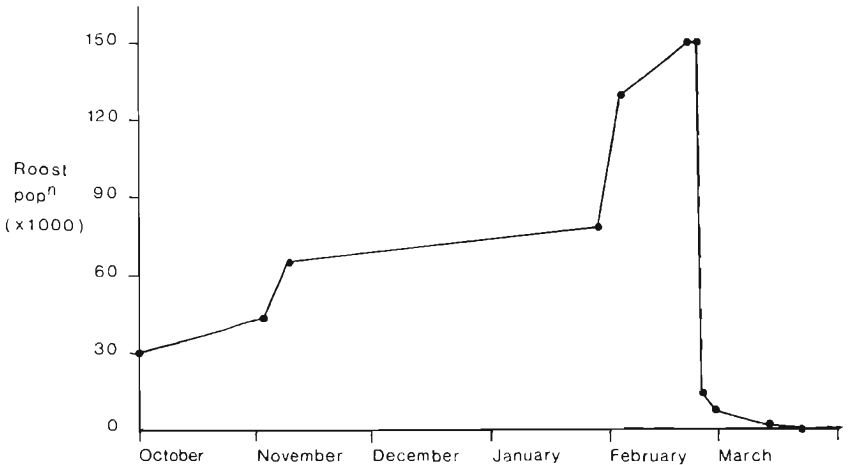


FIG. 2 Changes in roosting population during winter

23rd February (fig. 2). First noticeable leaf-fall was on 2nd October, and this, together with frequent days of strong winds, may have caused Starlings to abandon other poorly protected roosting sites during October. Large influxes observed at the beginning of November and February were associated with periods of exceptionally strong winds, but the final increase during February, which cannot be accounted for in this way, may have been a spontaneous pre-migration build-up.

On 23rd February mass departure followed pre-assembly in an area a short distance from the roost, but instead of flying to roost as usual, the flocks rapidly circled the woodland and quickly disappeared northwards at a low level. It was impossible to ascertain the number remaining, but next evening the number was approximately 15000, and by 27th February it had fallen to about 8000. Several minor changes in location of roosting site accompanied this decrease and birds continued to

arrive in small flocks from widely scattered pre-roosts. On 14th March about 900 circled the roost, but by 19th March only 200 flew into the woodland each evening.

Acknowledgments

I wish to thank Dr I. Newton, Nature Conservancy, for his assistance with the preparation of this paper.

Summary

An account is given of the evening assembly of Starlings at a woodland roost during the winter of 1970/71. Three different methods of flock build-up between feeding grounds and roosting site were observed. The distribution of pre-roosts around this site is recorded, with a brief description of the Starlings' behaviour there.

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Short Notes

Cormorants in the Firth of Forth

During the winter months from November to February there are not many Cormorants to be seen on the south side of the Firth of Forth between the Forth Bridge and North Berwick. It is unusual to see more than 30 at a time on any one stretch of water, but Rintoul and Baxter in *A Vertebrate Fauna of the Forth* (p. 198) record that they occasionally go up the Forth in considerable numbers as far as Culross.

On 28th February 1974 I noted a large raft of birds on the water close to the north side of Inchgarvie and was not sure whether they were Cormorants or Shags but estimated their number to be about 500. There was considerable activity and even when I went down to the shore I found it very difficult to identify them, as some were fluttering their feathers as if washing and others were diving. One or two left the main raft and swam off south then, after flapping their wings and stretching up out of the water, took off into the wind, which was blowing from the south, and wheeling round eastwards flew past me down river and out to sea. All the remaining birds

eventually took off in this fashion, and the whole scene was reminiscent of a war-time airfield with bombers taxiing out, revving up and taking off in single file. I was thus able to count them very easily and accurately. About one-third or more had the adult white thigh patches and a few had white bellies. The entire flock took off between 2.20 and 3.15 p.m. and I counted 1700 birds in all.

On 12th March 1974 I visited the area again at 12.30 p.m. and saw small parties of Cormorants numbering four to ten at a time flying west up the deep-water channel of the river towards the Forth Bridge. On going further up river I again noted a large flock on the water off the northeast point of Inchgarvie. Between 1.30 and 2.15 p.m. I watched 650 take off and fly eastwards as on the previous occasion, and there were still about 100 birds left on the water, making a total of 750 Cormorants on this occasion.

I was in the area again on 25th March 1974 at about 1.30 p.m., and in 15 minutes counted 300 flying down river leaving another 200-250 on the water near Inchgarvie. Finally, on 12th April I saw about 100 in the same area.

G. L. SANDEMAN.

Pectoral Sandpipers in Caithness and Shetland

On 8th June 1973, along the margin of a peaty stream near Altnabreac, RWB noticed a Pectoral Sandpiper. He called to CJM-G and both observers watched the bird for about 45 minutes as it fed with Dunlin on the soft peat. It was quite tame, coming within ten yards when feeding, and it made several short flights past us.

Description Slimmer and taller than Dunlin, with longish neck and small, round head, with flattish forehead; forehead and crown dark brown and streaked, contrasting with the clear, pale superciliary; eye-stripe dark; nape, sides of head, breast and upper flanks all pale brown, closely mottled with short dark brown streaks forming a sharply defined bib; rest of underparts white; upperparts dark brown with streaking as in Snipe and a broad V across the scapulars formed by a line of black feathers with white margins. In flight it looked much larger than Dunlin, with long, almost uniform brown wings, which were pale, particularly at the base of the primaries; tail wedge-shaped, black in centre with brown sides and oval white patches at the base; bill slender and almost straight with orange base and dark tip; eye dark; legs dull yellowish; call a soft, rasping *kreet*.

Both observers were familiar with the species, and the bird seemed a typical adult. It bore little resemblance to Sharp-tailed Sandpiper except in the mantle, wing plumage and shape. The presence of a Nearctic wader in midsummer in the midst of breeding Dunlin and other waders seems to suggest that it

had crossed the Atlantic in a previous autumn and adopted the Palaearctic waders it encountered, a phenomenon long suspected from the frequent late-summer occurrences of adult American waders in Britain.

R. W. BYRNE, C. J. MACKENZIE-GRIEVE.

On 9th September 1973 at Whalsay a party of Golden Plover flew past me, and I noticed a small wader among them. The wader left the other birds and settled on the edge of a small loch nearby, and I was able to watch it at distances down to 15 yards for the entire afternoon. It was slightly larger than Dunlin and when alert, with neck stretched, it looked more like a small Reeve. The streaking on the upper breast ended abruptly against a white lower breast and belly, and the buffish-cinnamon stripes down its back were similar to Snipe. I had no doubt that it was a Pectoral Sandpiper, and it was seen by several other observers who confirmed the identification.

J. H. SIMPSON.

Gulls breeding inland in Aberdeenshire

Lesser Black-backed Gulls are commonly seen following ships at sea off the northeast coast of Aberdeenshire in summer. Although they have been known to breed in the area since 1950 (V. C. Wynne-Edwards, *Scot. Nat.* 63: 198-199), during the comprehensive breeding census organised by the Seabird Group in 1969 only two or three pairs were found breeding among the vast colonies of Herring Gulls and Kittiwakes along the rockier parts of this coast, including one near Colliestone (M. Gorman), one near Slains Castle (D. E. B. Lloyd) and possibly one at Aberdour Bay (D. A. Ogilvie). Further west some birds were reported breeding inland around the Moray Firth, but we failed to trace any colonies in Aberdeenshire until in November 1970 it was reported that gulls had been breeding for some years on St Fergus Moss, and we decided to investigate the situation in the spring.

On 2nd May 1971 some 200 Lesser Black-backed Gulls were found circling over the southern part of the moss, with rather larger numbers of Herring and some Common Gulls there and over the rest of the moss at intervals for some two miles to the northwest. Although some patches of guano-stained ground suggested the presence of old or future nest-sites, no eggs were found on this occasion. All three species were seen again on brief visits to the moss during the spring, but we were unable to survey it properly until 18th July, by which time most of the young birds were fledging, and chicks of all three species were examined.

When WRPB returned to the site again on 7th May 1972 he found that the Herring and Common Gulls were laying, about

half of them having complete clutches. He estimated that there were about 250 pairs of large gulls in each of the two main colonies, Lesser Black-backed Gulls forming about two-thirds of the southeastern one located on an area of peat covered with heather of varying length, while Herring Gulls formed about three-quarters of the northwestern colony situated on similar terrain planted with young pine trees already several feet high. The Common Gulls were breeding on the barest ground between the colonies and around the southern one. It seemed possible that there were about 500 pairs of gulls in all, 250 pairs of Herring Gulls, 200 pairs of Lesser Black-backs and 50 pairs of Common Gulls, though they were very difficult to count on this terrain.

The moss, which is a northward extension of the Rora Site of Special Scientific Interest (and, one would have thought, equally worthy of preservation) is situated on top of rounded hills about 200 feet high and some four miles inland from the coast. Similar hills crowned with mosses extend around the north coast of Aberdeenshire, and there have been reports that gulls nest there as well, though so far we have failed to trace any except Common Gulls and three colonies of Black-headed Gulls. Judging by the present distribution of the breeding birds, it seems possible that the colony of larger gulls was founded by Herring Gulls at the northern site before the trees grew up, and that the original birds have kept to the same territories since then, although later arrivals including an increasing proportion of Lesser Black-backed Gulls have now started a new colony on the ground still remaining unplanted to the southeast. Since few Lesser Blackbacks are to be seen feeding in the area, it seems possible that many of them go out to sea to feed, and we found them the commonest large gull following ships off shore.

The relation between Herring and Lesser Black-backed Gulls has been discussed by R. G. B. Brown (*Ibis* 109: 310-317, 502-515), who observes that the Lesser Blackback tends to nest on flatter ground, often further inland, but to feed on fish at sea. In a recent comparative study of gull feeding behaviour on both sides of the North Atlantic (including Aberdeenshire) G. L. and M. W. Hunt (*Auk* 90: 827-839) also stress that, while there is much local variation, possibly associated with the amount of competition from allied species, the Herring Gull commonly appears to be a specialised coastal feeder, notably on mussels (though it is also feeding inland increasingly in areas such as Aberdeenshire) while the Lesser Blackbacks exploit a wider range of habitats both inland and especially out at sea.

The tendency for both species to move inland is also noticeable in some other areas such as the Orkneys and especially

around Morecambe Bay in Lancashire, where 17000 Herring Gulls and 17500 Lesser Blackbacks were nesting on south Walney Island and 3000 Herring Gulls and 12000 Lesser Blackbacks inland on the Bowland Fells in 1969. Lesser Blackbacks with a few Herring Gulls have also been nesting inland on Flanders Moss west of Stirling at least since the early 1950's (G. L. Sandeman and D. G. Andrew, *Scot Nat.* 63: 196), when a Herring Gull's nest was found as high as 1100 ft. up in the Perthshire hills (A. Cross, *Scot. Nat.* 65: 195), but this developing trend appears to have received little attention in Scotland since then.

A possible explanation of the apparently anomalous nest-site preferences of Herring and Lesser Black-backed Gulls may be provided by a consideration of the types of nest-site generally available throughout the range of the species concerned. Cliffs probably provide by far the safest nest-sites generally available throughout the vast range of the Herring Gull, while it must seldom encounter raised bogs inland, whereas these are particularly characteristic of the limited part of the northwestern European seaboard frequented by the Lesser Black-backed Gull. Indeed they may often be more readily available there than cliffs, as is the case in northeast Aberdeenshire, so that this species has developed a particular predilection for them. We can testify that they are equally discouraging to potential predators.

W. R. P. BOURNE, T. J. DIXON.

The Correen Hills lie about 30 miles inland in central Aberdeenshire between Alford and Rhynie; they cover an area of about 15 square miles and reach a height of about 1700 feet.

In June 1972 RLS and M. A. Macdonald visited the area and found a large assemblage of breeding gulls, mainly Common Gulls, with some Herring Gulls and Lesser Black-backed Gulls. In June 1973 RLS and A. D. K. Ramsay estimated that the Common Gull population comprised some 2000-3000 pairs; in addition there were 30 pairs of Lesser Black-backed Gulls, 20 pairs of Herring Gulls and, surprisingly, six pairs of Arctic Terns.

The Common Gulls were breeding on five of the hills in the north and west of the group, avoiding the more wooded hills to the southeast. There were three large colonies, the largest comprising some 800 pairs, and there were three smaller groups of 50-100 pairs each; between these were scattered numerous small groups, which also included the larger gulls.

The Common Gulls were nesting on the upper slopes and tops between 1300 and 1600 feet. The larger gulls were generally nesting in small groups on the lower slopes, just below

the Common Gulls. The terns were found on the top of one of the hills. In all, the colonies covered an area of roughly three square miles.

The hills are managed as a grouse moor and are little disturbed. The vegetation, which is primarily heather, is short (2-6 inches), and there are many burnt patches, which range from being completely bare to possessing a covering of sorrel or grass. Pines up to eight feet high are scattered throughout the area, and there are several small pools, which are important for drinking and bathing, and serve as gathering areas. The hills are surrounded by the rich agricultural land of the Bogie to the west, the Don to the south and the Clatt basin to the north, and the adult gulls appear to feed in the fields in these areas.

Two aspects of this colony are particularly interesting. First, the very large number of Common Gulls breeding there: although little information seems to have been published on this topic, most Scottish colonies of this species seem to contain fewer than 50 pairs, though at least two other colonies in northeast Scotland each have 500 or more pairs. Secondly, it is interesting that Arctic Terns should nest on moorland so far (three-quarters of a mile) from a river. This type of habitat is used by Arctic Terns in the northern isles, but only close to the sea; it does not seem to have been recorded for them so far inland on the mainland.

R. L. SWANN.

(It is not known whether the colonies at St Fergus Moss and Coreen Hills are of long standing or of recent origin, but their existence does not seem to have been previously recorded, and it may be that other such colonies remain undiscovered in the northeast and other areas. Little has been published on the present inland breeding distribution of gulls and terns in Scotland, and it would be useful if observers were to cover this in their annual notes submitted to local recorders.—ED.)

Bonaparte's Gull in Sutherland

On 7th June 1973 at Scourie CJM-G noticed a small gull with a dark bill sitting on the sandy beach at low tide. He drew RWB's attention to it and both observers independently decided that it was a Bonaparte's Gull. It stayed on the beach for 90 minutes and was also watched by D. Kinghorn and by Dr and Mrs I. D. Pennie.

The bird was feeding with a flock of some 30 Common Gulls and also spent some time preening and sleeping. It was approached to within 20 yards before flying off a short distance, and it was disturbed in this manner several times by dogs and holidaymakers. The immediate impression was of a small,

dumpy but markedly long-winged gull, and in flight the white flash on the upper primaries and the pure white undersides to the primaries left no doubt as to its identity. The irregular brown bar across the closed wing and the smudgy dark-grey head and grey nape indicated that it was a second-year bird.

Description Very much smaller than Common Gull, seeming to be intermediate in size between Black-headed and Little Gull; shape dumpy, with deep chest, rounded head and short neck; at rest wings protruded at least one inch beyond the tail; tail rather short; bill entirely black, thin and delicate and only half the length of the head; gape black or very dark; eye black with white eyelids; legs rather short and pale grey-pink; flight deep and buoyant.

C. J. MACKENZIE-GRIEVE, R. W. BYRNE.

A large movement of Kittiwakes in the Forth

On the morning of 16th November 1973 in brilliant sunny weather there was a strong bitterly cold northwest wind. From the end of West Granton pier I noted parties of 20, 40 and up to about 100 Kittiwakes flying purposefully west in a fairly compact formation, low over the sea. Probably some 400-500 flew past in half-an-hour. I then went to Silverknowes and noted that the Kittiwakes were passing Cramond Island. From the coast between South Queensferry and Hopetoun I saw 1000 or so Kittiwakes all fluttering over the estuary west of the Forth Road Bridge near North Queensferry. None seemed to be resting on the water and they did not appear to be feeding. Small parties of 30, 50 or more were leaving this assembly and flying steadily west up river. They were also passing west at Bo'ness. At Kincardine Bridge, however, looking down river in excellent light to Grangemouth Docks, I could see only one Kittiwake in this area. At the entrance lock of Grangemouth Docks I saw Kittiwake parties passing, but looking up river to Kincardine Bridge it was clear that no Kittiwakes were going in that direction, but that the birds were making towards the Skinflats area.

With my binoculars I followed a flock of about 200, which began to gain height as they came over Skinflats, flying steadily west. They continued to gain height until I lost them altogether. I followed another flock and the same thing happened. Between 3.00 and 3.45 p.m. some 500-600 Kittiwakes flew past as described. During the previous day or two there had been gales in the north and west of Scotland, and I assume that these Kittiwakes had been blown from the Atlantic into the North Sea and were now returning across land. The line they were taking would have brought them out south of Oban and, at the rate of say 500-600 birds an hour, if the movement had continued from early morning until dusk, some 3000-4000 birds would have been involved. Normally from mid Novem-

ber until the beginning of April Kittiwakes are seen only in small numbers in the Forth. Rintoul and Baxter in *A Vertebrate Fauna of Forth* (p. 301) describe multitudes of Kittiwakes frequenting the Forth estuary as far up as Alloa, there being "many thousands in the estuary at the time (December 1872); it was occasionally impossible to see the other side of the Forth through the main body".

G. L. SANDEMAN.

Barn Owl pellets from Wigtownshire

On 19th March 1974 I collected 13 Barn Owl pellets, some pellet fragments and debris from the bottom of a Corsican pine in a conifer plantation near Stranraer; their total dry weight was 529 grams. The habitat around this roost is mainly agricultural, consisting of pasture fields bounded by hawthorn hedges, a small marshy area and small plots of woodland (Area A). The pellets were analysed and found to contain the remains of 322 identified prey items.

On 2nd April 1974 at an old disused building on the edge of a loch 15 miles east-southeast of Area A I collected 69 pellets and pellet fragments totalling 540 grams dry weight. The average size of the 69 pellets was 42 mm long and 25 mm wide; the longest was 81 mm, and the greatest width was 32 mm. By comparison Glue (1967) gives an average of 45 mm long and 26 mm wide. The habitat contains a small area of mixed woodland around the loch but is predominantly rough grassland with some heather moor, scattered hawthorn bushes, boggy ground and a few rough pasture fields bounded by dry stone dykes (Area B). On analysis the pellets were found to contain the remains of 308 identified prey items.

Analysis was carried out with the aid of Southern *et al.* (1964), and I. H. J. Lyster of the Royal Scottish Museum kindly identified the bird remains. Table 1 gives the number and percentages of individuals of each species taken, expressed in prey units, following Southern (1954) and taking a 20-gram rodent as a standard unit.

In Area A three species, common shrew, short-tailed vole and wood mouse, form a high proportion (89.4%) of the total prey weight while in Area B only one species, short-tailed vole, forms a relatively high proportion (71.9%). It would therefore appear that the diet of Barn Owls in Wigtownshire varies with locality and the habitat hunted over.

R. C. DICKSON.

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Table 1. Contents of Barn Owl pellets from two localities in Wigtownshire

	Area A				Area B			
	Individuals		Prey units		Individuals		Prey units	
	Number	%	Number	%	Number	%	Number	%
Common shrew	132	41	66	27.6	69	22	34½	14.4
Short-tailed vole	80	24.9	80	33.4	172	55	172	71.9
Wood mouse	68	21.1	68	28.4	16	5.1	16	6.7
Pygmy shrew	25	7.8	5	2.1	45	14.4	9	3.8
Water shrew	2	0.6	1½	0.6	2	0.6	1½	0.6
Bank vole	2	0.6	2	0.8	3	0.9	3	1.3
House mouse	1	0.3	1	0.4	—	—	—	—
Brown rat	1	0.3	5	2.1	—	—	—	—
Blackbird	3)							
Song Thrush	3)							
Yellowhammer	2)							
Linnet	1)	3.4	11	4.6	—	—	—	—
Greenfinch	1)							
Bunting (prob Reed)	1)							
Yellowhammer	1)							
Unidentified birds	2)	—	—	—	3	1.0	3	1.3
Unidentified beetles	—	—	—	—	3	1.0	—	—
	<u>322</u>	<u>100</u>	<u>239½</u>	<u>100</u>	<u>313</u>	<u>100</u>	<u>239</u>	<u>100</u>

Black Redstarts breeding in Orkney

Until 1973 there had been little observation of spring passage on Copinsay, but with the establishment of the island as the James Fisher Memorial Reserve rather more records have been obtained, although only from casual visits or during the course of other work. It seems that the island does attract a fair number of migrants, and in 1973 some 34 passerine species were recorded in spring, apparently on passage. Among these was a number of Black Redstarts of both sexes, particularly on 8th, 15th and 16th May and between about 6th and 10th June. At no time was any singing heard, and between 15th and 17th June, when a working party including a number of bird-watchers spent a lot of time around the house and buildings, no Black Redstarts were recorded.

On 30th June my wife told me she had seen a Redstart flitting around in the stable giving alarm calls. A short while later a bird was seen sitting on a nest on a beam. It was not possible at that time to positively identify the bird on the nest, but later observations confirmed that it was a female Black Redstart, sitting on four eggs.

The bird sat until at least 15th July, but at no time was a male seen. During periods off the nest the bird was difficult to observe, feeding mainly among the rafters of adjoining buildings but it appeared to behave normally and not to be injured in any way. A short while later the island boatmen reported that the bird had deserted but they saw it about the steading on a number of subsequent occasions. What was possibly the same bird was last seen on 29th August when I took the nest and eggs, which showed no signs of any developing embryo.

The nest was built in a depression in a beam some four inches beneath the loft floor boards. The main body of the nest was composed of a variety of grasses, mosses and other plant material, some quite large, with grass stems up to seven inches long and a nettle stem three inches long. There was a lining consisting almost entirely of white feathers, probably Kittiwake's, with a thin inner lining of wool and fine grasses. The four eggs were smooth glossy white and slightly translucent, the contents imparting an orange tinge.

The bird could be seen from the loft ladder, and the stable and loft were much in use at this time. She became quite tame and could be watched easily without disturbance. On the occasion of the ceremony in which Copinsay was dedicated to the memory of James Fisher the bird was honoured by visits from

a number of "top people" including, appropriately, Richard Fitter author of a number of papers on the breeding history of the species.

D. LEA.

Firecrests in Sutherland and Fife

On 18th February 1973 DM received a telephone message from Mrs J. A. Morrison informing him that she and her husband had recently become convinced that a number of tiny birds that were regularly haunting the vicinity of their garden at Loth, in southeast Sutherland, since 14th December 1972 were Firecrests.

We hastened to the locality and on arrival there were almost immediately rewarded by the sight of two Firecrests. A vast area of broom and whin covers the steep hillside at the rear of the garden, and at intervals a Firecrest would emerge from the thick undergrowth and perch on the top spray of a bush for a few seconds before flitting into cover again. The black eyestripe and white superciliary were clearly visible, and we were both of the opinion that the birds were brighter all over than Goldcrests. No call notes were heard. We were informed that originally there were probably about five birds present. DM returned to the site on 3rd March but failed to locate the birds and was informed that they had not been seen after 18th February.

D. MACDONALD, W. C. WRIGHT.

In the early afternoon of 24th April 1973 I was approaching a small copse near the shore at Kilrenny, and when still some 30 yards from the wood, my attention was attracted by a thin high-pitched *zeet, zeet, zeet* call. Having just seen five Goldcrests near the lighthouse at Fife Ness I thought this was another Goldcrest, and a small bird of Goldcrest size was seen flitting about at the far side of a hawthorn bush. A good view was obtained of the bird's back and tail; these were olive green and there were two broad white wing-bars.

The bird then flew about 30 yards to a small tree, settled momentarily and then flew to a large tree on the edge of a small quarry. It was watched through binoculars at a distance of about 30 yards, and a white stripe above the eye was noticed; a black line through the eye and another along the lower edge of the crest bordered the white stripe. The crest was not seen. From a comparison with the Goldcrests seen earlier that day and from previous experience of Goldcrests the bird appeared to be less active when searching for food than a Goldcrest and was less vocal. It was also shy and flew 30 yards or more at a time when disturbed.

T. HALLAM.

Obituaries

MATTHEW FONTAINE MAURY MEIKLEJOHN

(Plate 8)

For a man to become a legend in his own lifetime he must have exceptional qualities. Maury Meiklejohn, who died in Glasgow on 14th May, was such a man. He was most widely acclaimed for his wit and erudition, but his countless friends from all walks of life may remember him most of all for his genuine humanity. As a contributor to the enjoyment of ornithology, through writing and talk, he was unequalled. How fortunate we were in Scotland that he came to Glasgow in 1949, just when the SOC was gathering momentum after the war years. He joined the Club at once and was elected to the Council in 1950, becoming Vice-President in 1957 and President from 1960 to 1963. He was re-elected to the Council in 1967. The successful launching of *Scottish Birds* in 1958 was his responsibility as first editor, until 1961. His many contributions to the *Scottish Naturalist* and *Scottish Birds* added substantially to knowledge of birds in Scotland, notably his Reports for the Clyde Area, mostly with C. E. Palmar, and his June Notes on the Birds of Islay with the late J. K. Stanford (*Scot. Nat.* 1954: 129). He was a member of the Secretary of State's Advisory Committee on Protection of Birds in Scotland and served on the British Birds Rarities Committee (The Ten Rare Men).

Many will recall him presiding at Conferences, untypically blue-suited for the occasion and looking like an old-fashioned, rather Italianate doctor, his figure already a little Chestertonian. He guided the proceedings courteously and humorously, in a low-pitched mellifluous voice, as if at any moment he might break into verse, which he often did. But for most of us the unforgettable image is of Maury the perennial birdwatcher, clad always for outdoors in assorted pull-overs, scarf, corduroys and boots, always hatless and coatless, his large binoculars at the ready even in bars and cafes, lest a Hawfinch or a Waxwing (his favourite bird) might be seen from a window and added to his year's list, usually well over 200 species.

He was born at Harpenden, Hertfordshire on 24th June 1913. He was, however, proud of his Scottish blood, and when near Dunblane liked to point out the house where his grandmother had lived. From Harpenden, then a very rural place, the children went for long country walks with their father, a knowledgeable ornithologist, while their mother encouraged them to

identify plants. At Gresham's School, Holt he discovered the delights of bird-watching on the Norfolk coast, and made life-long friends. There at the age of fifteen he was shown his first Pied Flycatcher by T. A. Coward. At Gresham's he was one of a galaxy of gifted boys, including W. H. Auden, Benjamin Britten, Christopher Cockerell, Alan Hodgkin and David Lack.

He could spell 'hippopotamus' at the age of three and it was no surprise when at seventeen he won an Open Scholarship in Modern Languages to Oriel College, Oxford, graduating with first class Honours in French and Italian in 1934. In 1937 he moved to Merton College with a Harmsworth Scholarship. Like many young ornithologists of the time he acknowledged W. B. Alexander as a friend and mentor. From Oxford he visited the Camargue (publishing notes on the birds), Skye and Islay staying with Lionel and Mary Smith and the Hodgkins, and the Isle of May with Hugh Elliott and others. From these times I best remember the awe he inspired by his ability to quote from any book he had read, from Beatrix Potter to James Joyce.

In 1937 he went to Cape Town University as lecturer in Italian and Old French. While there he published papers in *Ostrich* on the migratory birds, including a detailed study of Palaearctic waders and Swallows in the Southwest Cape Province with his friend G. J. Broekhuysen. A slow train journey through Bechuanaland added to one of his favourite lists, "Birds seen from trains". (Possibly his proudest train record came years later, in Scotland, when he recognised the Hamilton Iceland Gull following a plough near Sanquhar.)

He enlisted in the South African army in 1941 and was, very sensibly, employed in Intelligence in East Africa (a year on Wavell's staff for the Abyssinian campaign), Egypt, Palestine and Italy. Afterwards he joked about "when I was a brave soldier" and claimed only to have fired one shot in anger, at a hyena which kept him awake. By 1946 when he was a British Council lecturer in Teheran for a year, he had added Afrikaans, Arabic, Persian, Portuguese and Roumanian to his linguistic repertoire. His Summer Notes on the Birds of Teheran and the Alborz mountains appeared in *Ibis* in 1948. He was fascinated to learn from an Assyrian friend that Eagle Owls were very good to eat (see *Wild Birds as Food*, *Proc. Nutrition Society*, 1962).

After 3 years as Head of the Italian Department at Leeds he was appointed Stevenson Professor of Italian at Glasgow University in 1949. He built his department into the largest of its kind in the United Kingdom, with over 100 students who regarded him with great affection. As a lecturer he is described

by Prof Griffith as "orderly, clear, anecdotal and amusing". He was an authority on Dante and the Sardinian language. His paper on the Birds of Dante glows with admiration for the great poet and sharply reprimands critics who failed to appreciate Dante's understanding of natural history. A favourite lecture to Natural History Societies was on the Emperor Frederick II, the 13th century poet, falconer and ornithologist.

For many years he visited Sardinia on spring vacations. Tantalising snippets survive on postcards: "I think you would be amused by this place—I am living in utter squalor", or "Some of the villagers at the wicked village of Orgosolo have given me a tape recording of themselves singing the Bombo-rimbo, like the bagpipes transposed for the human voice".

To ornithologists everywhere he was known as the creator of the "Hoodwink," *Dissimulatrix spuria*, the bird which is never identified. It "only perches beyond the range of strong binoculars" and "when mimicking one of two similar species will always choose the rarer". It was originally described in the Isle of May log on 20th September 1949, a much-altered version appearing in *Bird Notes* in 1950. Many inspired verses and parodies such as his famous skit on the *Pocket Guide to British Birds* were first written on lone vigils on the Isle of May. In *Are you a Bird-watcher?* (*Bird Notes* 1965), he teased the car-borne rarity-hunter:

"From end to end of Britain I drive without a rest;
Which means of course you'll realise I've never found a nest:
But once I saw a Robin and heard its tuneful call,
Though I've never seen a Blackbird or a Hedge Sparrow at
all".

At Conferences he was the most popular after dinner speaker, always versifying. When he lectured in reminiscent vein in 1968 he showed how to hold an audience's total attention without slides. A tape recording of this lecture is now held in the SOC library.

In 1951 he began to write occasional articles on birds for the *Glasgow Herald*, and soon started the long series of Saturday pieces (well over 1000) which, artfully illustrated by John B. Fleming, endeared him to a large public. They were witty and succinct, often hilarious, as when he tried to rescue a stout lady who had slipped on an icy Glasgow pavement and fell down beside her. "I was rather glad we were the only persons about as an observer might have imagined a romp was in progress". His articles were a calendar of the seasons and revealed the extraordinary diversity of his knowledge and interests. Many deserve to be collected into a book. He was caught on

the Shiant Islands by a rising sea, "crawling along a seaweed-covered spit of rock and tumbling like some over-ripe fruit into the dinghy". Almost every week-end he took train or bus, then walked. In earlier days he sometimes cycled but never drove a car, though he was grateful for lifts when he could watch birds "in the style of the rich people". As a front-seat passenger he was a little anxious and free with his advice to the driver. Lunchtime was for refreshment in a pub and gossip with local people. He hated modernised pubs, the right sort having a tiny public bar decorated with huge stuffed fish. Some of his regular companions were honoured with pseudonyms. Charles Johnston his erstwhile postman became the Sage, first of Drumchapel, latterly of Cumbernauld. Phil Reed the Harpenden master painter was the Learned Mr Swakker of instant repartee; when they passed a workman who disappeared into cloud at the top of a tall chimney Mr Swakker observed "He is drawing cloud money now". These and other faithful friends repaid his numerous kindnesses by practical help in the more boring chores of life, though in many ways he was self-sufficient and particularly proud of his culinary skill.

He was saddened by many aspects of the age of television and computers, nostalgic for a simpler world. He counted his friends equally among lairds and farm workers, poets and policemen, judges and janitors—there is no end to the variety. He was full of wonder at the skills of his friends, like Eddie Ramm the Norfolk carpenter who also painted fine landscapes "all in shades of brown". If there was some prejudice in his dislike of recent scientific ornithology, his criticisms were never without point; only discourtesy, cocksurenness, vandalism or slovenly work roused his ire. He said that he liked quiet people.

His memory will always be linked with his favourite haunts, Norfolk of the wide skies, Holy Island, the sparkling Firth of Forth, Chough-haunted cliffs in Islay, osiers by a Hertfordshire stream with, every year, his first Chiffchaff. He once kindly wrote that Galloway had the most beautiful landscape in Scotland, but like Robert Louis Stevenson, whose books he enjoyed so much, he reserved his greatest love for islands and flat deserted lands beside the sea. Wherever he went he has left friends who will keep his memory alive for as long as they live.

On 8th June 1974, by his request, his ashes were scattered on the Isle of May where, he once said, he knew almost every rock except, of course, "those that are precipitous".

A. DONALD WATSON.

HENRY BOASE

Throughout his long life Henry Boase of Invergowrie, who died on 23rd March 1974 at the age of 82, had dedicated the major part of his spare time to the study of ornithology. An interest in birds, evinced during early childhood, quickly developed into the systematic study of the occurrence and habits of the local avifauna which is recorded meticulously in his field notebooks. A lengthy period of ill-health in his late teens interrupted his formal education so that it was not until the age of 20 that he was able to take up employment in the jute industry. With his perceptive mind and inherent technical ability he quickly overcame this early handicap and rose to the position of works manager. In this respect and in his continued devotion to natural history pursuits his career mirrors in a remarkable fashion that of his distinguished forbear Henry S. Boase, F.R.S., F.G.S., a geologist who became a leading figure in the Dundee jute industry during the early part of the 19th century.

His ornithological interests were now pursued with great vigour, providing a pleasant contrast to the daily routine of the factory. Appropriately, much of his study was devoted to the waterfowl of the Tay estuary and culminated in a series of papers dating from 1917 to 1959 and dealing largely with the habits and courtship display of ducks. With his retirement in 1958 he was able to extend the range of his observations and to complete the writing-up of his life's work. The results of his studies, in unpublished typescript form, are as follows and have been reviewed in the volumes of *Scottish Birds* indicated in brackets :

- 1961 Birds of North and East Perthshire (Vol. 2: 266-268)
- 1962 Birds of Angus (Vol 2: 388)
- 1964 Birds of North Fife (Vol. 3: 379)
- 1970 Bird Records of the Tay Area (Vol. 6: 177)

Copies of these are held in the SOC Library, in the Edward Grey Institute of Field Ornithology at Oxford and in the Dundee Central Library. It gave him great pleasure when his lifetime's work was recognised by election as an Honorary Member of the SOC.

Tall, rather austere in appearance, and preferring always to work alone in the field, Henry Boase was to many SOC members a remote figure. Nevertheless to those who were privileged to enjoy his hospitality there was revealed a warmth of personality and ability to discuss authoritatively not only ornithology, but also many other aspects of natural history.

His innate mechanical flair showed in the almost boyish enthusiasm with which he described the succession of motor cycles on which he made his early ornithological excursions. In due course he transferred his affection to the motor car and was still driving himself at the age of 80 when a rapid deterioration in his eyesight forced him to give up. This in itself was a bitter blow, as it greatly restricted the range of his observations; unfortunately the deterioration continued to the point where even his binoculars were of little avail to him. It was characteristic of the man that his initial disappointment and frustration were quickly replaced by a philosophical acceptance of the situation. During the last two years he found solace in his fine garden while continuing to collate his bird notes.

The end came suddenly. On March 2nd he suffered a stroke and died three weeks later without recovering consciousness. This was how he would have wished it. To one who had been so active, incapacity would have been totally unacceptable. He is survived by a married daughter, and by his sister who looked after him so devotedly for the last 15 years following the death of his wife.

D. M. SHEPHERD.

Reviews

Owls of the World: their evolution, structure and ecology. Edited by John A. Burton. London, Peter Lowe, 1973. Pp. 216; 80 paintings; approx. 90 colour photographs; numerous maps and diagrams. 28 x 21½ cm. £5.95.

An account of every species of owl in the world is a considerable undertaking as very little is known about so many of them. For a comprehensive account, each chapter of this book has therefore been written by a different authority. In the main part of the book, each chapter deals with a particular group of owls in which the species are described, not under separate headings, but as part of a continuous essay. This has worked fairly well and has given the authors greater freedom to compare and contrast species. There is a great deal of interesting information, but by far the most readable section is that by Heimo Mikkola in which he summarises much of his research on the northern boreal owls. Unfortunately there are no references anywhere in the book to the papers in which such information has been fully documented, although this approach was used successfully by L. Brown and D. Amadon in their *Eagles, Hawks and Falcons of the World*. I feel this is a serious omission and one which underlies the whole tone of the book: there is a general lack of coordination about it which probably results from an attempt to appeal to the widest possible readership. At one extreme is a double-page painting of the artist's impression of an extinct owl of the Eocene period gazing soulfully over an assortment of strange animals in a Disney-land setting. Incidentally, this owl bears a quite remarkable resemblance in both

plumage and posture to Ronald Austing's photograph of the Great Horned Owl on page 62 of the *All Colour Book of Birds*. At the other extreme is the clearest and best presented series of range maps I have ever seen, which deal with every known owl species (the map for the Barn Owl is particularly outstanding). The introductory chapter on Owls and Men by John Sparks contains some fascinating material which hints at the wealth of information to be found in his own book *Owls: their natural and unnatural history*. At the end of the book is a useful glossary of terms, although the definition of wing load, while technically accurate, is more clearly given in the text. There is also a short bibliography of books mainly concerned with owls, but surprisingly no mention is made of the Craigheads' major American work *Hawks, Owls and Wildlife*.

All the species are illustrated in colour. Most of the photographs are very good, though many were rather obviously taken in zoos. The remaining 80 species have been painted by John Rignall in a most appealing manner and are beautifully presented throughout the book. The excellent quality of the printing has done his work great justice. My overall impression is that many will buy this rather expensive book for the illustrations alone, and that while a great deal of painstaking care and research has been put into writing the text, it is unlikely to appeal to a general readership. The addition of key references should have been adopted in a work of this kind and would have greatly enhanced it.

N. PICOZZI.

Summer of a Million Wings: Arctic quest for the Sea Eagle. By Hugh Brandon-Cox. Newton Abbot, David & Charles, 1974. Pp 184; 16 black-and-white plates. 21½ x 15 cm. £3.50.

This book is somewhat reminiscent of Robert Atkinson's *Quest for the Griffon* and Stanley Cerey's *Gyr Falcon Adventure*—ornithological adventure stories of expeditions in pursuit of the larger, rarer raptors of western Europe. This particular quest was for the Sea Eagle in the Lofoten Islands, a story pleasantly told and easily read with possibly a little over-dramatisation of some episodes.

A hundred years ago the Sea Eagle was more numerous in the north-west Highlands of Scotland than was the Golden Eagle: fifty years later the Sea Eagle had gone. Brandon-Cox repeats the tale of decimation—but was the pressure of destruction heavier on one species than on the other or was there more to it than that? Hafthorn (*Norges Fugler*) indicates a possibility that in some parts of Norway the Golden Eagle may be supplanting the Sea Eagle. Could this have happened in Scotland? Certainly there are old accounts such as MacGillivray's *Rapacious Birds of Great Britain*, published in 1836, which describe the shooting of the Sea Eagle from eagle-pits, but the hardy northerners of Lofoten actually grappled by hand with the eagles from the concealment of the pit.

Brandon-Cox and his companion located two eyries. The first proved to be utterly inaccessible and the second was found only when the two young were on the point of leaving the nest. Nevertheless he obtained a few photographs of the eagles though these and many of his other illustrations have suffered somewhat in enlargement and reproduction.

Apart from the eagles there is a good deal of information on the natural history of outer Lofoten and an interesting account of human life and character in a remote and isolated island community where depopulation has followed improved communication and the need for better education.

At £3.50 not a book for buying for oneself perhaps, but a nice book to be given or to give as a present.

IAN D. PENNIE.

The Countryman Bird Book. Edited by Bruce and Margaret Campbell. Newton Abbot, David & Charles, 1974. Pp. 194; 16 black-and-white plates; numerous text illustrations. 22½ x 14 cm. £3.50.

Bruce and Margaret Campbell have gathered together in this volume the best of the stories about birds that have appeared in the very popular magazine from which the book gets its name. The original authors range from well-known writers and ornithologists to the complete amateur, and in addition to the excellent photographs there are many delightful drawings by Robert Gillmor, Donald Watson and other well-known artists.

The stories are arranged alphabetically by species, and although the material is essentially light bedside reading the book should not be lightly dismissed by the ornithologist, as many of the incidents described will be of interest to the student of bird behaviour; the method used by Moorhens to thaw their food in winter and the section on Robins are particularly interesting in this respect.

At £3.50 this book might be considered expensive even by present day standards, but for maximum enjoyment it should be kept within reach for reading, a few chapters at a time, in those moments of relaxation, and it will undoubtedly give many hours of pleasure to all who love birds and take an interest in their behaviour.

HARRY GREIG.

Animals of Europe. By Maurice Burton. London, Peter Lowe, 1973. Pp. 172; over 200 colour photographs. 28 x 21½ cm. £3.25.

Young Animals. By Bernard Stonehouse. London, Peter Lowe, 1973. Pp. 172; 190 colour photographs. 28 x 21½ cm. £2.95.

In the past there has sometimes been an unfortunate tendency among ornithologists—or at least among birdwatchers—to be decidedly single-minded persons with thought for little but birds. After the last war in particular, all over Britain they tended to break away from the old-established natural history societies and to form groups of their own in which general biological thinking was inclined to become impoverished. But the wheel may now be turning full circle so that we have, for example, bird protection societies coyly explaining that what they are really interested in is the conservation of entire habitats in their reserves—soils, plants, insects, snails—the lot—while in the last 20 years generalised naturalists' societies have sprung up like fairy rings.

One could cite various reasons for this subtle change in outlook, but only one of them concerns us here—the upsurge of semi-popular books on virtually all aspects of natural history. In them the ornithologist can see his birds alongside other animal groups against a background of geological time, climate and vegetation.

Dr Burton's book, dealing as it does with the ecology of European wildlife, is particularly alluring to the ornithologist for he will see here such birds as the White Stork, Osprey, Redstart, Fulmar, Black Grouse and Bee-eater alongside, for example, Ant-lions, Longicorn Beetles, Mincke Whales, Squat Lobsters, Midwife Toads, Water Spiders, Mouflon and Saiga. After an introduction which touches on such topics as continental drift, early man in Europe, the ice ages, the growth of population and industry and European geography Dr Burton goes on to explain the prime natural zones of the continent—the tundra, taiga, deciduous forest, steppe, Mediterranean, Alps and other mountains, freshwater lakes and rivers, the seas and finally, invaders and aliens to Europe.

Bernard Stonehouse's volume deals with the immature stages of invertebrates, fish, amphibians, reptiles, birds, mammals and man. Many but by no means all of the young of the higher forms of animal life have an

immediate emotional appeal; more important, the embryonic and immature stages of any organism may provide the biologist with important clues to the probable evolutionary history of the species. While the young of human beings are immediately recognisable as such, those of many other groups are utterly unlike their progenitors—witness the caterpillar and the butterfly or the larval stages of some of the marine invertebrates. The earlier naturalists not infrequently gave separate names to the larval and adult stages before the life histories became known.

Dr Stonehouse introduces the reader to the origins of life through geological time and to the origins of reproduction. The life-cycles and special problems of reproduction and of growing up in salt and fresh water and on dry land are discussed and illustrated, while special chapters are devoted to young reptiles and birds on the one hand, and to young mammals and man on the other.

Both books are written by authors who, although scholars, have the happy knack of non-technical, lucid exposition; both are marvellously enlightening to any birdwatcher who wishes to broaden his thinking about the other life-forms with which he inevitably comes into contact in the field.

C. E. PALMAR.

Wildlife Photography : a field guide. By Eric Hosking and John Gooders. London, Hutchinson, 1973. Pp. 172; 9 colour and 32 black-and-white plates, many line drawings. 20½ x 13½ cm. £2.95.

Nearly every naturalist and ornithologist at some time wants to capture some fleeting observation, some exciting moment or some piece of research on film. Both beginners and aspiring enthusiasts will benefit from this well balanced book, especially if they read it right through. But there is one snag. The authors write from a privileged position based on two things—years of experience and plenty of equipment, both built up over many years. Few of their readers will have either, for both are expensive commodities, and my one serious criticism of this book as a field guide is that it does not cater for the limitations imposed by a restricted budget and simple equipment.

On the practical side great emphasis is laid on planning, patience and plain hard work, and constant readiness to seize an opportunity. But such routine matters as keeping the camera scrupulously clean and thinking out what to carry and how to carry it are so often neglected. There are sensible warnings against the items that many amateurs waste their money on, such as zoom lenses for still photography and tele-converters and ultra powerful telephoto lenses that create more problems than they solve. There is also good advice on the snags inherent in such aids as mirror lenses for the stalking technique and the use of flash for any type of wildlife photography.

Some very useful tips are included, like the spare polythene or cloth bag to fill with sand as a cushion for a telephoto lens on safari; and there is an unashamed section on zoo and studio photography, and on the use of controlled conditions for work on such difficult subjects as small mammals and insects. The chapter on cinematography is too short to be anything other than an appetiser, or when one considers costs and the work involved, enough perhaps to dampen most people's enthusiasm.

To many perhaps the most interesting emphasis will be that laid on the responsibility to put the subject first, and the chapter on the ethics of the game; most is left to the reader but some rules are laid down for what is permissible. Full weight is given to the requirements of the Bird Protection Act, and there is a full list of Schedule One birds, which may not be disturbed at the nest without a licence. This is one of the few

books I have read on the subject where virtually all the practical recommendations and advice seem to agree exactly with my own conclusions based on experience.

C. K. MYLNE.

The Technique of Bird Photography. By J. Warham, London and New York, Focal Press, 1973. Pp. 218; 79 black-and-white photographs; many text figures. 22½ x 14½ cm. £3.00.

This is the third edition of the popular and comprehensive manual first published in 1956. It is now updated to include fuller coverage of the use of the modern single-lens-reflex camera, together with such advances as through-the-lens metering and high-speed electronic flash.

The contents include chapters on choice of equipment, photography at the nest (the author stresses repeatedly the need for the photographer to safeguard the welfare of his subject) and in the field, the use of flash and the application of photography in serious ornithology; the final section is a guide to photographing a variety of British species.

The text provides an ideal guide for the tyro bird-photographer, but it is unfortunate in a book on this subject that the plates have turned out so badly.

T.D.

Letter

Sir,

Feral Greylag Geese in southwest Scotland

I would like to add a note to John Young's fine paper on the status of the Greylag Geese breeding in southwest Scotland (*Scot. Birds* 7: 170-182). In 1970-72 I spent some time looking at the small population in and around Glentroot and in particular at the birds breeding at Loch Moan, a barren, moorland loch of about 65 acres, with no grazing and surrounded by young conifers. The geese seemed to resort to this loch only for the duration of nesting.

In 1972 (the only year I visited the islets used for nesting) there were five clutches, of which four were apparently successful, but at no time did I see a brood on the water. On 5th May the most forward clutch was hatching at 11.30 a.m., but on visiting the nest the following day I could find no family party on the loch. On 7th May, however, I found the brood at a place on the River Cree, more than a mile below Loch Moan. Later in the month I had a similar experience with the second brood, but the other two broods that hatched were not found. In all four cases both old and young birds seem to have left the loch directly after hatching, and by early June, the loch, which only a month before had held five nests, showed no sign of geese nor any indication of successful nests.

The promptness with which Greylags can depart from such nesting sites is a factor that should be borne in mind in surveying their extending breeding range.

GEOFF SHAW.

Request for Information

Northeast Greenland Expedition. The Wader Study Group and Dundee University Northeast Greenland Expedition 1974 will be colour ringing and dye-marking waders of the area so that the Greenland birds can be recognised when they occur in Britain. The colours to be used are not being disclosed at this stage, but the species most likely to be marked in this way are Ringed Plover, Dunlin and Sanderling.

Watchers are asked to keep a lookout for these birds in Britain during July, August and September and to report details of any sightings to A. J. Prater, British Trust for Ornithology, Beech Grove, Tring, Herts.

The Scottish Ornithologists' Club

ANNUAL CONFERENCE

The 27th Annual Conference and 38th Annual General Meeting will be held at Stirling University from 24th-26th January 1975. Full details will be sent to all members early in September.

BRANCH MEETINGS 1974/75

Will members please note that the dates of the first Meetings of Branches next winter will be as follows :

September	24th	Edinburgh and Inverness
	25th	Ayr, St Andrews and Thurso
	26th	Dundee and Stirling
October	30th	Aberdeen
	2nd	Dumfries
	7th	Glasgow

The venue for the following four Branches has been changed, but that for all other Branches remains unchanged and the starting time for all lectures will be the same as last year :

Ayr Branch will meet in the Senior Commonroom, West of Scotland Agricultural College, Auchincruive.

Dundee Branch will meet in Lecture Theatre T1, University of Dundee.

Edinburgh Branch will meet in the Education Centre, Royal Zoological Society of Scotland, Corstorphine Road, Edinburgh.

Inverness Branch will meet in the Craigmorie Hotel, Annfield Road, Inverness.

ENDOWMENT FUND

Members are reminded that the Club's Endowment Fund was established for the advancement of ornithology in Scotland. Any legacy or donation to this Fund will be gratefully received and should be sent to the Club Secretary.

The Fund is administered by the Council of the Club and applications for a grant from the Fund should be submitted to the Club Secretary by 31st December each year, so that they can be considered at the Council Meeting normally held in March. Applications received after 31st December will, however, not be debarred from consideration.

S.O.C.

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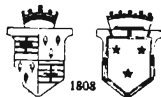
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