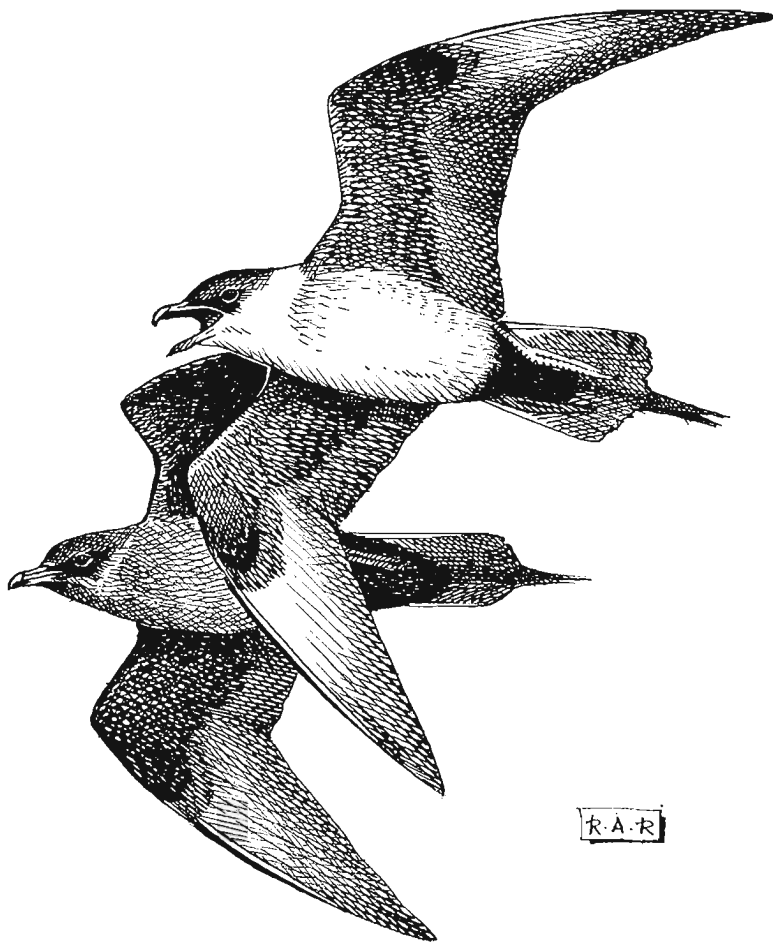


Fair Isle Bird Observatory

REPORT FOR 1970



PUBLISHED BY THE FAIR ISLE BIRD OBSERVATORY TRUST
21 REGENT TERRACE, EDINBURGH, EH7 5BT
for "Friends of Fair Isle"

Fair Isle Bird Observatory

REPORT No. 23

1970

Edited by the Warden, ROY H. DENNIS

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THE FAIR ISLE BIRD OBSERVATORY ENDOWMENT FUND

With the generous help of the Pilgrim Trust, the Observatory Trustees have established an Endowment Fund for Ornithology and Bird Preservation in Scotland. The objects are: To establish the Fair Isle Bird Observatory on a permanent financial basis; to extend Fair Isle research methods to other stations in Scotland; and finally to develop Bird Sanctuaries and Bird Protection in general.

Capital subscribed to the Fund will be held as a permanent Endowment by the Trustees and cannot be spent. Income from the Fund will be carefully used by the Bird Observatory Executive Committee in keeping with the above objects.

Please write to the Hon. Secretary for particulars.

GEORGE WATERSTON,
Hon. Secretary.

21 Regent Terrace, Edinburgh EH7 5BT.

FOREWORD

A PERUSAL of Roy Dennis' last report shows that 1970 was from the ornithological side a year full of interest and incident. In this foreword however I will restrict myself to human happenings which were likewise many and varied.

Sadly two of our original Trustees died. Jimmy Campbell was a naturalist of the old school with a wide interest and knowledge of many aspects of nature and a deep sympathy with the countryside and its inhabitants. He belonged essentially to that minority of us who prefer to walk about by ourselves rather than take part in group activity; and in recent years was an even less regular, but always most welcome, visitor to the many meetings that are such a characteristic of today. James Fisher on the other hand was a modern naturalist in every way, at home with, and eager to use, all the paraphernalia and ironmongery of modern technology, glorying in the cut and thrust of a bustling society, and the meeting and talking with all with similar interests. It is surely by no chance that the series of books with which he is most associated should be titled "The New Naturalist". We remember both these colleagues with affection and thankfulness.

On the island we have sadly lost Roy and Marina Dennis after seven splendid years of work and achievement in charge of our interests. In our 21 years we have had three wardens and each of them and their wives and their families have contributed magnificently and in quite different ways to the success of the enterprise. I would like to thank the Dennis's for their splendid work on the island. I'm sure they enjoyed their time on Fair Isle and we certainly enjoyed their being there and wish them all success in their new job in Speyside.

We have, I feel, been most fortunate in the appointment of Roger and Judy Broad and look forward to another successful and happy wardenship under their aegis.

Finally I would like to thank one of our most interested helpers, R. A. Richardson, who has once again given us the series of charming vignettes that illustrate this report. When writing of R.A.R. it may not be out of place to mention the John Harrison Memorial Fund which he raised, and from which money is available to help young people to visit Fair Isle.

Each year is different. Next year the events which I mention in this foreword will I hope be happier ones—certainly I am confident that, with your help, we may be able to chronicle further progress on the isle and by the Trust.

ARTHUR B. DUNCAN, *Chairman.*

Fair Isle Bird Observatory Trust

Treasurer's Report

for year ended 31st October, 1970

As I told you last year, following the building of the New Hostel, the launching of the Appeal Fund, and the receipt of grants and loans from the Highlands and Islands Development Board, we had to re-cast the form of our accounts. This year we have further simplified them by combining the Hostel and Revenue Accounts into one Revenue Account and by restricting where possible the number of individual headings. I hope that the accounts, as now presented, are in their final form and that in 1971 we shall be able to return to our previous practice of giving you comparative figures under each heading for the year preceding.

Meanwhile, for the year to October 31st 1970, I will try to give you an idea of the general picture.

I. *Revenue account* which, as I have said, now includes the hostel. There was a deficit for the year of £367, which is disappointing but not serious when you consider that £275 of that sum was depreciation on moveables and that it was our first season with the new hostel. No depreciation was charged on the hostel. It seems clear though that our charges for guest accommodation were too low. They have now been increased and it is our opinion that such increase will not materially affect the number of visitors. It must be remembered that apart from a substantial increase in income from the Endowment fund, or from membership, the Hostel has to carry the interest payment on the loan of £9,500 from H.I.D.B., (£145.00 for this year) and that quite apart from the interest, we have to repay that loan by yearly instalments of £475 over a further 19 years.

So that if any kind benefactor would like to help us to get rid of this liability he has only to subscribe to the Appeal fund, in the knowledge that once the outstanding liability to the H.I.D.B. has been paid off and all the final payments on the Hostel and Histel site completed any balance could be handed over to the Trustees of the Endowment fund as a permanent source of future income.

II. *The Appeal Fund* This account is for information and shows the position as at October 1970. Further expenditure on the Hostel, furnishings and site, have still to be met.

III. *Capital Account* This account started with a credit balance of £4,998. We took the precaution of revaluing certain assets,

and of writing off a total of £509, which we considered prudent. This sum with the deficit on revenue and a transfer of £90 to the appeal fund where it should properly have been shown, left a balance of £4,217 to be carried to the Balance Sheet.

IV. *Balance Sheet* This shows the complete new picture with the Hostel, furnishings, etc. at cost and, on the other side, the sources from which the money to pay for them were derived.

Basically the situation is that we still owed £9,025 to the H.I.D.B. as at October 31st 1970; that our Investment and our current assets together totalled £6,897; and there was still further expenditure to be met on the Hostel and site.

It is not therefore difficult to see why we are still really anxious for further support for the Appeal Fund.

Please do anything you can to help or encourage others to help.

V. *The Endowment Fund* This fund remains much the same as last year.

I would again emphasize that looking to the years ahead a substantial growth in the Endowment Fund by Donation or Legacies is the only sure method of conserving our future. The capital of this fund cannot be spent but the income will be our life-line.

Accounts are shown on pp. 68-72

WARDEN'S REPORT FOR 1970

ROY H. DENNIS

1970 saw us back on the island earlier than ever before. Marina and I with our children flew north to Orkney on 19th January and there we were joined by my assistants Dr Brian Marshall and Iain Robertson. We were soon airborne in the Loganair Islander aircraft and by lunchtime arrived at the Bird Observatory which was then open until 15th December. On that date we left the island after seven very happy years working at the Bird Observatory, and we wish to express our thanks and appreciation to "Friends of Fair Isle", F.I.B.O. Trustees and visitors for their support and kind friendship over the years. To our island friends we are most grateful for making our stay so enjoyable and for their help and advice over the years; the inscribed clock which they presented to us in December will be a cherished memento.

Between Easter and mid-November, 340 visitors stayed at the Observatory for a total of 416 visitor-weeks. May, June and August were very busy months and as in past years we had a good number of visitors from overseas. Trustees visiting the

Observatory during the year were George and Irene Waterston, Pat Sellar and Dr Peter Slater, while Dr Joe Eggeling and Dr Ian Pennie paid brief visits.

Dr Brian Marshall and Iain Robertson were our assistant wardens throughout the year, Brian from 19th January to 14th November and Iain from 19th January to 14th December. Brian is now roving locum G.P. in Shetland while Iain has returned to Fair Isle as assistant to Roger Broad. Miss Christine Nicholls was our cook from 24th March to 8th November (Christine is also returning in 1971) and she was assisted by Miss Jackie Gorman between 22nd May and 11th September. Additional domestic help was given by several island ladies as well as Miss Rona Pennie. Marina and I would like to thank them all very much for their tremendous support in 1970—a very busy and hectic season. Torquil Johnson-Ferguson and John Holloway assisted us from 26th January to the end of March.

We returned early in 1970 so that we could clear up the mess after the building of the new Observatory and have the surroundings tidy before the visitors arrived in the spring. It was a big task—we drained the ground around the new buildings and laid field drains, and we built a road to the back of the new building as well as various paths and other improvements at Maver's Cup. Surplus earth (of which there was plenty!) was used for landscaping and covering the concrete foundations of an old building on the Landberg side of the road. We removed the old Common Room buildings and during the year the Warden's hut was also demolished. "Built a new road" doesn't sound much on paper but I must thank Brian, Iain, Torquil and John for the cheerful and hard-working way they tackled those two months of hard labour often in the most extreme weather conditions. In a few years when these improvements have had time to bed down, the Bird Observatory in Maver's Cup will be a pleasing sight.

The new Bird Observatory was a great success with the visitors while we found it so much better than the old buildings that in fact there was no comparison. As a functional building it was very successful, the main improvement necessary for future years being wall-to-wall carpeting in the bedrooms to cut down cleaning time and also to help deaden noise. The charter flights and the beer licence were both innovations which were much appreciated, and highly successful.

ISLAND EVENTS

Seventy-three persons were resident on the island in the autumn, and of this total thirty-one were light-house keepers, bird observatory staff, school-teacher, nurse and their depen-

dants. There are now no children at school in Lerwick and from Christmas 1970 only two children (Michael and Kenneth Stout) attending school full-time at Fair Isle. Fortunately there are a good number of young children and the school will be busy again in a few years' time.

Sad events during the year were the accidental death of Miss Maggie Stout at Taft in September and the death, after a long illness, of Jerome Stout (Utra Jerry) at Lerwick in December. Additions to the population were three boys all born in the last week of August, Ian Stout (Skerryholm), Hamish Wood (Haa) and our son Roddy. Various changes occurred on the island during 1970. David and Pamela Gulland, the school-teacher/missionary and nurse, and their three children left in July, David taking up a post with Caithness Glass in Wick as a glass engraver and designer. Mr and Mrs Dennis Shepherd transferred from Papa Stour to Fair Isle to take over the jobs of school-teacher and missionary while in November Mrs MacKinley was appointed island nurse and she and her husband occupied the vacant nurse's cottage. In October Tommy and Katie Russell were transferred from the North Lighthouse to the Point of Ayre Lighthouse, Isle of Man—during their six years at Fair Isle they have been great friends of the Bird Observatory. Their place was taken by Kenny Clark, and his mother. At the South Light, Mr Sutherland and his family left in the spring and were replaced by Mr Hunter and his family, while at the end of the year Mr Tytler and his family were transferred to Arran; we would like to thank Ina Tytler for her loyal help at the new Observatory.

The International Voluntary Service students returned to the island in the summer and they worked mainly on the renovation of the Field crofthouse, Brian Wilson being in charge of this project which progressed well. Lobster fishing was patchy and the two boats which worked it had intermittent success; the stocks are certainly low. A party of Sea Scouts stayed on the island and did some voluntary work on the airstrip. The main work on the island during the year was the tarring and surfacing of the road by a squad of Zetland County Council workmen. This was a big task and involved several ships visiting the island with heavy machinery and materials. By the autumn the road from North Haven pier to the South Harbour and the link road round by the church were completely surfaced—what a difference, thank goodness!

During the summer the Spanish Armada Marine Archaeological Expedition was on the island and actively worked on the wreck of the El Gran Grifon which they located in Stroma Heilor. The three resident divers were Colin and Simon Martin

and Chris Oldfield. Their finds and exploits during the summer were of great interest to us and we are grateful to them for the kind way they explained their work and showed their finds to our visitors; personally I must thank them for teaching me to aqua-lung dive and taking me down to the wreck site. For a couple of weeks in the summer they were joined by a strong team of divers from the Royal Naval Air Command Sub-Aqua Club who camped at Skadan.

The Regina Maris visited the island in May with a large party on the National Trust for Scotland's Island Cruise—passengers included Ken and Esther Williamson on a return visit to Fair Isle. The Observatory was open for the day for the islanders to sell their goods and tea was served for the visitors by the island ladies. The Good Shepherd made two trips to Foula and also completed one of its longest trips when the Gullands' furniture was shipped to Wick harbour. Numerous day visitors came in by plane from both Shetland and Orkney, and helicopters from the Royal Navy and the B.B.C. Bird's Eye View programme visited the isle.

ACKNOWLEDGMENTS

As ever, the islanders helped us with our work on the island and for this we are most grateful. We are particularly grateful to Gordon Barnes, Tommy and Katie Russell for help with our ringing programme and to Captain Alan Whitfield of Loganair for many kindnesses during the year. The Royal Scottish Museum continued to loan us a very useful collection of bird skins. The Observatory received many kind gifts in 1970 and we would like to thank all the donors very much. Our library continues to improve and many useful books have been gifted this year; if you have any bird books or journals you do not want or would like to present a new book to the F.I.B.O. library, please contact the Warden or the Hon. Secretary. Several persons sent us old garments for the collection of traditional Fair Isle knitwear at the Observatory; to them we are most grateful. We continue to be interested in examples of Fair Isle knitting and will be pleased to receive old garments at the Observatory. Finally to everyone who has helped us in any way during the year or given anything to the new Observatory we extend our sincere thanks. We hope our successors, Roger and Judy Broad, will receive such good support and we wish them a very happy time at Fair Isle.

ORNITHOLOGY

193 species were recorded on the island during the year, three of them being new for the island; they were Great Bustard, Little Crake and Upland Plover, while Black-headed Wag-

tail was a new subspecies. The number of species recorded continued at a high level and unlike the last two years we found 3 new species for the island list; for comparison the totals for the past two years are shown below:

Year	1965	1966	1967	1868	1969	1970
No. of species	190	187	190	190	196	193
New species	4	3	4	0	1	3

The monthly totals of species recorded on the island were:

	J	F	M	A	M	J	J	A	S	O	N	D
No. of species	68	58	67	90	131	105	80	103	120	110	82	53+

1970 was a good year for rarities and the more exciting species were Purple Heron (2nd year in succession), Honey Buzzard, 3 Ospreys, Hobby, Spotted Crake, Little Crake, Great Bustard, 2 Dotterels, Upland Plover, 2 Snowy Owls, Bee-eater, 2 Short-toed Larks, Golden Oriole, Rock Thrush, Desert Wheat-eat, 2 Nightingales, 4 Thrush Nightingales, Great Reed Warbler, Greenish Warbler, 6 Arctic Warblers, 2 Tawny Pipits, Citrine Wagtail and 2 Little Buntings.

LATE WINTER

When we arrived on the island the weather was changeable and cold, the days still very short with the sun low in the sky. The usual wintering birds were present; Fulmars on the cliffs and a scattering of passerines on the land. There was a resident Coot and a wintering flock of 8 Jackdaws, which passed the Observatory each evening on their way to roost in the caves at Furse. But our first stop after leaving the plane on arrival was at Setter to see the Great Bustard which arrived on the island on 11th January.

Soon we were enveloped in storms which lasted several days; there were 5 Curlews and an increase of Fieldfares to 80 on 20th, a European Whitefront and the first two Lapwings arrived on 21st, another Coot on 23rd and a drake Pintail on 24th. The month went out quietly and on 26th the Guillemots were back on the cliffs, our first Oystercatcher arrived and 2 Whoopers passed over the island. Next day there was a Shelduck and a Mistle Thrush while on 28th a Waxwing, 70 Twites and 4 Oystercatchers were recorded. A Dunnock was seen on 31st as the wind gradually increased to gale force south-east. With the storm, 2000+ Herring Gulls and 400 Great Black-backed Gulls were sheltering on the island on 1st February. This cold, snowy weather continued for a week, then on 7th we saw the Shags carrying nesting materials, also a Jack Snipe and 35 Skylarks.

Kittiwakes were ashore next day but with increasing winds 300 Great Black-backs, 500 northern Herring Gulls and 7 Glaucous Gulls came ashore.

There was a Waxwing on 10th and 11th, a Woodcock on 12th and the Whitefront was last seen on 13th. On 14th in snow showers and north-west winds a flock of 10 Barnacle Geese circled the island, landed on Sheep Rock and spent the day there grazing grass. On 19th a Scandinavian Lesser Black-backed Gull was found in Furse and it stayed there for a week. Razorbills were inshore on 20th and next day they were ashore on the breeding grounds for the first time. There were 14 Curlews on the isle, and on 22nd another drake Pintail was seen; next day 35 Skylarks were counted while on 24th there were 34 Twites. With light north-west winds on 25th, a Red-necked Grebe arrived in North Haven which we caught and ringed by dazzling it from a boat at night; unfortunately it was found dead on 27th. There was also a Redpoll that day while Oystercatchers increased to 15 on the last day of the month.

SPRING MIGRATION

The month of March started off promisingly with a Black-tailed Godwit and 6 Redpolls but heavy snow and hail showers reminded us that winter was certainly not over and in fact the spring migration was slow to get under way. The winds were strong and northerly until 9th and the only newcomers were 23 Ravens on 4th and 15 on 5th; they were probably birds on their way to Shetland. When the wind veered to south-east on 9th we found 17 Fieldfares and an Iceland Gull, but nothing else came in until 12th when 40 Lapwings and 100 Skylarks arrived. On 14th there were 2 Teal, Tufted Duck, Dunlin and 2 Rooks but by this time the wind had veered to north-west. During the next 13 days the wind stayed in the west, rather cold with snow at times, and reached storm force on 27th. Migrants were few but included 15 Black-headed Gulls on 20th, 300 Skylarks, 4 Chaffinches and a Short-eared Owl on 21st, 60 Lapwings on 24th, 2 Wood Pigeons on 25th, a Stonechat and the first Meadow Pipit on 26th and a Kestrel on 27th. Next day Snow Buntings peaked at 60+, while another group of 19 Ravens arrived on 29th; there was also a Stonechat. Thrushes were very scarce during the month, with a maxima of only 18 Redwings and 25 Blackbirds on 30th. Like last year, March was a disappointing month for migrants.

Unfortunately the cold northerly airstream persisted throughout the first two weeks of April and we recorded little interesting migration. There were 20 Woodcocks on 1st, 25 Redwings on 3rd, Puffins were also ashore for the first time on this date,

the first Bonxie arrived on 4th, Dunlin and Greenfinch on 9th and the first 6 Wheatears on 10th. These appeared after the wind had briefly veered to south-east overnight but it quickly returned to the north. 30 Common Gulls, Great Grey Shrike and Yellowhammer were found on 11th and next day there were two Wigeon and a Short-eared Owl.

With light north-east winds on 13th there was a big influx of Meadow Pipits, also 2 new Great Grey Shrikes and 3 Whoopers, but the best bird of the day was a summer-plumaged Slavonian Grebe in South Harbour. The first Collared Dove turned up on 14th and on 15th April, with light southerly winds, we saw our first day of real migration in 1970; migrants included 2 Greylags, 3 Merlins, Bar-tailed Godwit, 20 Wheatears, Stonechat and the first Chiffchaff. Next day there were 12 Bonxies, 25 Fieldfares and a Black Redstart. The first Arctic Skua arrived on 17th and on 18th we recorded 15 Curlews, a Greenshank, 12 Arctic Skuas, the first Ring Ouzel and a Shorelark.

The wind then remained doggedly in the north and west, very cold and windy, with a severe storm on 24th and snow/sleet showers to 29th. The few interesting migrants in this period included 35+ Curlews on 22nd, 5 Greylags on 24th, 14 Bramblings on 25th, 22 Whoopers, 4 Lapland Buntings and a male Snowy Owl on 26th and 15 Whoopers on 27th. The last day of the month gave us a promise of summer and we saw 2 Whimbrels, Long-eared Owl, Willow Warbler and Swallow.

Rather little was seen on 1st May but next day, with continued southerly winds, Arctic Skuas and Wheatears were more in evidence and new arrivals included Common Sandpiper, Turtle Dove, Goldcrest and Yellow Wagtail. A few birds were found on 3rd, they were Black Redstart, Whitethroat, Grasshopper Warbler and 3 Yellow Wagtails, also more Wheatears. On 4th we recorded several more Grasshopper Warblers, 9 Tree Sparrows, Whinchat and several Sand Martins. Next day rather little was seen even though the wind was south-east, as it was strong. Two very fine Dotterels were found on 6th and the south-east winds had brought in a good fall of birds including 15 Willow Warblers, 4 Whitethroats, 6 Lesser White-throats, 5 Grasshopper Warblers, 18 Reed Buntings, 14 Whimbrels and a Cuckoo.

The 7th May saw the start of three wonderful days of bird-watching at Fair Isle; 107 species were recorded on the island in this short period and this migration certainly rivals the great fall of 3rd May 1969 as one of the best bird falls at Fair Isle.

On the first day the wind was south-east, force 5 just after dawn, decreasing quickly and becoming a fine sunny day. A few

captures on the early trap round suggested a further increase of migrants overnight and on our morning search of the croft-land we found a good selection of newly arrived birds, but most of the day's excitements occurred after lunch. The best bird was a superb male Black-headed Wagtail at Easter Lothar Water and the totals for other migrants included 4 Red-breasted Mergansers, Sparrowhawk, Quail, Woodcock, 12 Wrynecks, 14 Swallows, 24 Fieldfares, a big increase of Wheatears, 33 Whinchats, 30 Redstarts, 8 Black Redstarts (a record day's total), 2 Bluethroats, 11 Robins, 10 Grasshopper Warblers, 5 Sedge Warblers, 3 Blackcaps, 19 Lesser Whitethroats, 100 Willow Warblers, 9 Chiffchaffs, Wood Warbler, 15 Goldcrests, 11 Pied Flycatchers, 100 Tree Pipits, 3 Blue-headed and 2 Grey-headed Wagtails, 10 Siskins, 22 Bramblings, 2 Ortolans and 14 Tree Sparrows; 37 birds were ringed.

Next day the wind backed from south-east to east force 2, there were a few showers before breakfast and increasing clouds and a shower at dusk, otherwise it was a fine sunny day. The numbers of migrants had increased considerably, especially Willow Warblers, Whinchats and Redstarts while, unlike last May, Tree Pipits were less plentiful and Ring Ouzels were scarce. The rarest bird of the day was a Thrush Nightingale trapped at Setter in the morning; the Black-headed Wagtail was still present. With the wind fresh most of the day, large numbers of birds were sheltering in the north and west cliffs. Brian and I walked from Gunnawark to the North Light in the afternoon and the numbers of birds we saw were staggering; Lerness was alive with small passerines and the slopes appeared to be moving. The bird roll-call in the evening was very complicated and prolonged, the final totals being Tufted Duck, Coot, 8 Common Sandpipers, Greenshank, 7 Dunlins, 2 Cuckoos, Short-eared Owl, 15 Wrynecks, 2 Shorelarks, 4 House Martins, 10 Sand Martins, 7 Carrion Crows, 34 Fieldfares, 49 Song Thrushes, 15 Ring Ouzels, lots of Wheatears, 350 Whinchats, 300 Redstarts, 9 Bluethroats, 66 Robins, 8 Blackcaps, 13 White-throats, 1000 Willow Warblers, 50 Chiffchaffs, 35 Pied Flycatchers, 10 Dunnocks, 350 Tree Pipits, 5 Red-backed Shrikes, 5 Siskins, 3 Linnets, 2 Ortolans and 140 Reed Buntings. 130 birds were ringed, 6 of the species being new for the year and a Dutch ringed Redstart was caught in the afternoon.

The wind backed further to north-east on 9th May and the day was bright and sunny. The island was still alive with passerines and some species had increased further overnight, especially Redstarts. A new Thrush Nightingale was discovered at Hesti Geo at midday and trapped a little later. The island was again covered very well by observers and we found that

most species were either in the same strength or their numbers had increased. Redstart numbers jumped from 300 to 700, there were even more Wheatears, Wrynecks had increased to 35 and there were 31 Bluethroats—the most recorded in a day since 1936. Other totals were 100+ Robins, 45 Whitethroats, 120 Pied Flycatchers, 500 Tree Pipits, 14 Red-backed Shrikes, 35 Bramblings, 8 Ortolans and 21 Tree Sparrows. A wonderful mixture of flava wagtails included 3 Blue-heads, 4 Grey-heads and a Yellow as well as the Black-head, which had moved to Byerwell. 199 birds of 25 species were ringed during the day; high totals included 54 Redstarts, 31 Willow Warblers, 27 Robins, 14 Whitethroats, 5 Wrynecks and 5 Bluethroats.

Anticyclonic weather, hazy with light north-east winds, then prevailed for the next week. Many migrants departed overnight on 9th and we found most species noticeably down in numbers although there was no change in Wrynecks and Bluethroats, while Reed Buntings peaked at 250. A Short-toed Lark was the rarest bird of the day. There was a further decrease in grounded passerines on 11th but it was a most exciting day. A very elusive small crake in the Gilsetter burn was finally caught by hand and proved to be the first Little Crake recorded on Fair Isle. By an amazing coincidence, a Spotted Crake was found in Gilsetter marsh a little later; this bird was also trapped and ringed. This spurred us all on and by dusk we had searched every ditch on the isle—we found Moorhen, Coot and Corncrake but no more small crakes! In the afternoon another Thrush Nightingale (our 3rd) was found at Busta and next day we saw another Short-toed Lark and an Osprey. Misty conditions made bird-watching difficult on 13th although both Short-toed Larks were at Setter and House Martins increased to 25. During the next couple of days little new arrived on the island and each day there was a general drop in the numbers of grounded migrants.

The wind veered to south-west on 17th May when new migrants included a pair of Gadwall, 12 Carrion Crows and a Nightingale and there was also a slight increase of Wrynecks. Next day the crows had increased to 17 and the dry weather at last broke; variable weather, winds between south and west with rain and showers on most days saw out the rest of the month. It was not a particularly interesting period for bird migrants; interesting ones included female Snowy Owl on 21st, 3 Collared Doves and a Tawny Pipit on 25th, 3 Bluethroats and 15 Lesser Whitethroats (more plentiful than usual) on 26th, another Osprey, 4 Wrynecks and 45 House Martins on 27th, a Quail on 29th and a Hobby flew past the Observatory dining room windows on 30th.

As in past years the late spring migrants of June, although

occurring in small numbers, were some of the most exciting of the year. The month came in with light westerly winds and bright sun. Tree Sparrows numbered 24 and the flock increased to 30 on 3rd and 34 on 4th. A Purple Heron and 2 Black-tailed Godwits arrived on the last date. Next day we recorded Pintail, 2 Knots, 8 Swifts and a Marsh Warbler. The wind had backed to north-east by this time and on 6th there were 7 Red-backed Shrikes, 8 Lesser Whitethroats and a Cuckoo, while a Black Redstart was found on 7th. Another Tawny Pipit was found on 8th as well as Short-eared Owl and Yellowhammer. Garden Warblers were scarce in 1970 and 10 on 9th was the highest total for the spring; there was also a Reed Warbler.

Other interesting migrants in June included Great Reed Warbler and Marsh Warbler on 12th, another Marsh Warbler on 16th, a female Golden Oriole on 18th, 28 Swifts on 20th, a second Nightingale on 21st, a Honey Buzzard on 24th—later found dead, and last, but certainly not least, a superb male Rock Thrush on 30th.

SUMMER

The fine sunny weather deteriorated in the second half of May and thereafter it was rather an unsettled summer. Fog in mid-month and heavy rain in the last week spoilt June, and July was very unsettled with a north-west gale on 2nd and a southerly gale at the end of the month; the skies were frequently overcast and the seas choppy. In fact it was another poor summer on the sea and the ever present swell prevented us from working on the west cliffs with the boat. Even our visit to the Sheep Rock was delayed and we didn't ring as many young gulls as we had hoped.

On the land it was more interesting and three unexpected species nested, one for the first time ever and the other two after a long absence. A pair of Common Terns successfully reared two young on North Haven stack. They were a very aggressive pair of birds, attacking people as they walked on the North Gavel and once we were even attacked in the middle of the night as we walked to the Sloger to mist-net Storm Petrels. This species has not previously nested on the isle although Arctic Terns were supposed to have bred in the last century. A pair of Golden Plovers nested on Ward Hill (they last nested in 1926), young were reared but one of the adults was killed by skuas. Lastly, a pair of Blackbirds nested at Busta and reared at least two young; this species last bred in 1959.

Quail were heard calling, especially as Kennaby, but there was no evidence of successful breeding and no Corncrakes nested or even stayed on the island. Most passerine species

were in good numbers; Starlings had recovered after last year's low but Wrens remain at a very low and precarious level, almost certainly due to the recent run of severe winters. Two pairs of Peregrines were again present; we thought the pair at Vaasetter had a nest on the mainland cliff but we didn't find it and no newly fledged young were seen. Three pairs of Ravens bred but only one pair brought off flying young.

Guillemots, Kittiwakes and Arctic Skuas continued to be very successful while the other seabird species continued as in previous years. It is difficult to be sure whether there is a decrease in Puffin and Razorbill numbers but it is possible to state categorically that they are not increasing like the Guillemots and Kittiwakes. It is difficult to understand why this should be so but I have noted that the two increasing species take a larger sized Sand Eel than the Puffin and Razorbill and it is possible that the big explosion in Sand Eels, available to the birds in this area, might be restricted to the larger specimens. No Storm Petrels' nests were located and despite catching a good number of petrels we saw no Leach's Petrels.

Mid-summer migrants were rather scarce; there was an Iceland Gull on 6th July, Spotted Flycatcher and Red-headed Bunting on 7th, Tree Pipit on 8th, 2 Greylags on 10th and a Red-necked Phalarope on 15th. 15 Purple Sandpipers were also found that day, the forerunners of the flock which moult on the rocks off the South Light. A Little Stint was seen on 21st and a handsome male Scarlet Grosbeak was caught by Iain in the Gully trap on 27th July.

AUTUMN MIGRATION

August started off well, the wind veering to south-east on the first day, and there was a nice fall of waders and gulls including 29 Knots, 27 Purple Sandpipers, 5 Dunlins and 500 Common Gulls. Pride of place went to a Grey Phalarope in South Haven; an unusual bird, an adult in transitional plumage. Thereafter the weather in the first half of August was variable, mainly light winds from a south or west direction with some rain showers and there were no falls of autumn migrants. Birds recorded included 2 Swallows, Icterine Warbler and Barred Warbler on 4th, Bee-eater and Sedge Warbler on 6th, Sand Martin on 10th, 2 Cuckoos on 11th and another Barred Warbler on 14th.

Common Gulls poured in on 15th and by the end of the day 1500 were on the island, also 2 Barred Warblers, Corncrake and Velvet Scoter. Next day the wind was north-east and increased to storm force; 100 Sooty Shearwaters were counted off the south end, 3 Green Sandpipers, 2 Ruffs and a Red-backed Shrike were found on the isle. On 17th, the wind was still north-

east, but well down, and the first fall of typical autumn migrants occurred. There were 25 Ringed Plovers, 25 Golden Plovers, 60 Turnstones, 20 Snipe, 8 Common Sandpipers, 7 Ruffs, 5 Cuckoos, 3 Whinchats, 7 Barred Warblers, 10 Willow Warblers and 2 Red-backed Shrikes. The Sooty Shearwater passage continued and 200 were seen off the south end. The wind backed into the north on 18th, there were fewer shearwaters and new arrivals included 25 White Wagtails, Wryneck and Fieldfare. Next day there was a Brambling, while on 20th White Wagtails had increased to 40.

The following day the wind veered back to the east, with thick fog and rain later, and we found a good selection of fresh migrants such as 25 Snipe, 120 Common Gulls, Sandwich Tern, Wryneck, Redstart, 7 Whinchats, Greenish Warbler (about same time as last year), 10 Tree Pipits and 2 Scarlet Grosbeaks. On 22nd, the weather had improved and in sunny conditions we found 2 Little Stints, 3 Wrynecks, 15 Whinchats, Reed Warbler, 7 Barred Warblers, 60 Garden Warblers, 50 Willow Warblers and 15 Pied Flycatchers. Some of these may have arrived earlier in the rain but had not been observed in the bad conditions on 21st.

Thereafter the month was disappointing; the wind was north-east until 25th, then backed to south-west to south and stayed in that quarter until the end of the month. There were no further falls of importance; migrants observed included 50 Ringed Plovers on 23rd, 5 Wigeon, Woodcock, 4 Wrynecks and a Grosbeak on 25th, 3 Wood Warblers on 27th, 8 Cormorants going south on 28th, 3 Barred Warblers and 70 White Wagtails on 29th, 400 Common Gulls, 35 Redshanks and a Bar-tailed Godwit on 30th, and 3 Bar-tailed Godwits and a Grosbeak on the last day of the month.

The poor conditions for migration at Fair Isle continued throughout the first week of September. There were 54 Golden Plovers on 1st, a Shoveler and 9 Swifts on 2nd, 25 Cormorants on 4th, 3 Snow Buntings on 5th and 18 on 6th were the forerunners of a very large influx. A Corncrake and 300 Common Gulls occurred on 7th, when the wind veered to south-east, gale force with heavy rain. Next day we found 16 Lapwings, 3 Fieldfares, 12 Whinchats and 5 Barred Warblers, and when another south-east gale had blown itself out on 9th we recorded 15 Teal, Pintail, 3 Velvet Scoters, 2 Whimbrels, 6 Little Stints, Curlew Sandpiper, 5 Redstarts, 15 Willow Warblers and a Red-backed Shrike. The strong south-east wind continued next day but Snow Buntings had increased to 200, and on 11th in westerly winds their numbers rose to 600. 42 Cormorants flew over

on 12th, 4 Barred Warblers and a Sparrowhawk were new arrivals.

The easterly winds overnight produced a small fall of interesting continentals on 13th even though the wind quickly backed to north-west. Arrivals included Redwing, Icterine Warbler, 10 Blackcaps, 4 new Barred Warblers, 25 Garden Warblers, 15 Willow Warblers, Arctic Warbler, 8 Pied Flycatchers, Grey Wagtail and Little Bunting. Next day there were two Turtle Doves, and Snow Buntings had increased slightly to 700. Another Arctic Warbler arrived on 15th and yet another next day when we also saw Osprey, 4 Kestrels, 4 more Barred Warblers, 9 Pied Flycatchers and a very nice Citrine Wagtail. With the winds mainly between south and west, Snow Buntings had increased to 1000 on 17th and to at least 2000 on 18th, a very large influx and the most since the early fifties; the influx was also rather early for this species and nearly all the birds were males, in fact there was not one female among 70 trapped and ringed on 19th. Our fifth Arctic Warbler of the autumn was seen on 20th, when there were also 2 Grey Plovers, 16 Bar-tailed Godwits, 34 Redshanks, a Siskin and 4 Grosbeaks, all arriving in the afternoon when the wind backed to north-east.

A fine sunny day on 21st; 60 Shetland bred Cormorants migrated south, there was an Ortolan and 7 mergansers on the island. Next day 4 Pinkfeet were recorded as well as 7 Herons and 250 Common Gulls. Overnight south-east winds produced a small fall of migrants on 23rd, there were 400 Redwings, 3 Greylags, 5 Jack Snipe, Short-eared Owl, 10 Redstarts, 15 Pied Flycatchers, 3 Richard's Pipits and 12 Siskins. Next day there were 4 Richard's Pipits and a Yellow-browed Warbler, and on 25th, 3 Yellow-browed Warblers. 3 Merlins, 3 Turtle Doves and a Great Grey Shrike occurred on 26th. After three days of south-easterlies there was a reasonable fall of continentals on 27th when we counted 200 Fieldfares, 20 Song Thrushes, 400 Redwings, Ring Ouzel, Bluethroat, 25 Blackcaps and an Ortolan; 2 Yellow-browed Warblers were present and Richard's Pipits were up to 6. Thereafter the month petered out with Great Northern Diver and Collared Dove on 28th, 80 Siskins on 29th, 30 Greylags and 3 Barnacles on 30th.

Alas, I have finished my time at Fair Isle without seeing a Lanceolated Warbler; I certainly walked all the ditches this October but it was a disappointing month for rarities and I will have to wait until another autumn to get this lifer. The wind was only in the east during parts of six days in the month and there were eight days of full gales from the west. The main movements of the month were thrushes, although Blackbirds

and Song Thrushes were comparatively scarce; the daily totals for these four species are presented below:

October	1	2	3	4	5	6	7	8	9	10	
Fieldfare	20	10	20	2	12	8	60	100	80	50	
Song Thrush	10	6	4	0	0	2	4	1	4	2	
Redwing	50	100	200	100	50	50	1500	500	250	150	
Blackbird	3	3	1	2	2	3	2	1	3	3	
October	11	12	13	14	15	16	17	18	19	20	
Fieldfare	50	200	400	700	300	100	1500	100	60	60	
Song Thrush	1	200	300	100	30	20	20	0	12	6	
Redwing	150	3500	5000	7000	2500	1000	1000	500	200	150	
Blackbird	2	100	300	500	150	150	150	100	50	50	
October	21	22	23	24	25	26	27	28	29	30	31
Fieldfare	20	50	200	100	50	20	20	40	40	200	150
Song Thrush	4	2	0	1	2	0	0	0	0	0	0
Redwing	75	75	800	500	200	50	30	50	40	300	150
Blackbird	50	40	40	80	80	40	30	35	35	150	80

Other migrants included 25 Cormorants on 1st and Siskins had built up to 100; next day 6 Whoopers passed over. Another 39 Cormorants on 3rd, when there were also Slavonian Grebe, Long-tailed Duck, the last Swallow and a Little Bunting. An Upland Plover, a Nearctic wader and a new species for Fair Isle, arrived on 5th, a day of heavy showers and fresh westerly winds; it did not stay long, being last seen heading away south at midday. Water Rail, Bluethroat and 3 Lapland Buntings were also new, and next day there was a Spotted Redshank. On 7th the wind backed briefly to south-east and a Yellow-browed Warbler and 21 Greylags arrived, while next day there were 72 Greylags, 25 Blackcaps and a Yellow-browed Warbler. A Coloured Dove was new on 9th, a Grosbeak on 10th and a Scaup on 11th; Snow Buntings peaked again at 500 on that date.

South-easterlies on 12th October gave us our last fall of small continental migrants which included 20 Redstarts, the last Barred Warbler, our 6th Arctic Warbler of the autumn!, 40 Goldcrests, 4 Richard's Pipits, Great Grey Shrike, 15 Bramblings and 55 Chaffinches. Next day there were over 100 Robins, 8 Dunnocks, 3 Great Grey Shrikes and 10 Reed Buntings and on 14th (the wind had veered to south) we saw 46 Lapwings, 30 Snipe, 6 Jack Snipe, 7 Woodcocks, 8 Ring Ouzels, 6 Chiffchaffs, 5 shrikes and 110 Chaffinches. During the next few days the winds were light south or south-west; on 15th, there were 2 Long-eared Owls, 3 Short-eared Owls and a Grosbeak, and next day 2 late Common Sandpipers and 15 Goldcrests. 30

Barnacles and 5 Garden Warblers were new on 17th and 25 Black-headed Gulls on 18th.

Six Long-tailed Ducks arrived on 19th in storm force north-west winds; next day there were 41, followed by a record total of 56 on 21st. There were also 110 Greylags and at least 5 Glaucous Gulls on 20th, a Great Crested Grebe arrived on 21st and next day, 140 Greylags, 21 Barnacles, a Black Redstart and 16 Waxwings were new arrivals. The latter heralded a strong invasion of this species, there were 11 on 23rd as well as a Dabchick, 20 Mallard and a Collared Dove. The rest of the month was quiet with a small peak of 250 Snow Buntings on 26th, 8 Waxwings on 28th and 33 Woodcock on 29th; this species was rather scarce in 1970.

Following a night of rain and south-east winds, November came in well with a good fall of migrants, 4000 Fieldfares, 3000 Redwings and 1000 Blackbirds on 1st as well as male Hen Harrier, 30 Woodcock and 19 Waxwings. Gulls were sheltering ashore and included 4000 Herring Gulls and 15 Glaucous Gulls. The harrier was still present next day but most of the thrushes had gone; Waxwings were down to 3 but 3 Bullfinches were new. After another night of south-east winds the last real movement of the autumn occurred on 3rd November when we saw a Goosander, 3 Sparrowhawks, 20 Blackcaps, 2 Chiffchaffs, 4 Goldcrests, 3 Grey Wagtails, 15 Waxwings, 4 Bullfinches and 17 Chaffinches. A Bar-tailed Godwit arrived on 4th; next day there were 300 Snow Buntings, 3 Great Grey Shrikes, a Corn Bunting and a Richard's Pipit. The next week was rather quiet, 4 Whoopers on 8th, 10 Glaucous Gulls on 9th and a late Green Sandpiper on 12th. Gales in mid-month again brought in large numbers of gulls; there were 25 Glaucous Gulls on 14th, 1500 Great Black-backs and 8000 Herring Gulls on 15th, and no less than 10,000 Herring Gulls, 2000 Great Black-backs and 50 Glaucous Gulls on 16th.

The rarest bird of the month occurred on 20th when a Desert Wheatear was found on the north cliffs, a beautiful male bird. For coincidence, the last Fair Isle record was one obtained on 18th November 1940, thirty years before and only 2 days earlier! A female Hen Harrier arrived on 22nd when there were also 3000 Great Black-backs, 8000 Herring Gulls and 30+ Glaucous Gulls. The month ran out with a Bullfinch on 26th, Black Redstart on 27th, a few Pinkfeet and an Iceland Gull on 30th. Early December was very quiet and as we were busy packing for our departure we had little time for bird-watching; we did note 2 Short-eared Owls on 2nd and 40 Glaucous Gulls on 5th as well as the commoner birds.

SYSTEMATIC LIST FOR 1970

GREAT NORTHERN DIVER *Gavia immer*. Singles on 28th September, 17th and (new bird) 18th October and 17th-24th November.

RED-THROATED DIVER *Gavia stellata*. Singles on 17 days between 11th May and 31st July, 2 on 8th June.

GREAT CRESTED GREBE *Podiceps cristatus*. One in South Harbour on 21st October; probably 5th record for Fair Isle.

RED-NECKED GREBE *Podiceps grisegena*. One in North Haven on 25th February, trapped and ringed that night, but found dead on 27th. First since 1967.

SLAVONIAN GREBE *Podiceps auritus*. One summer plumage bird in South Harbour 13th-16th April and one off Rippack on 3rd October.

LITTLE GREBE *Podiceps ruficollis*. One trapped and ringed at Golden Water on 23rd-24th October.

STORM PETREL *Hydrobates pelagicus*. Observed on crossing between 22nd May and 29th September; first noted ashore at night on 3rd June and last on 23rd August. Small numbers of birds trapped at Yessa Ness and South Gavel, as well as usual sites.

MANX SHEARWATER *Procellaria puffinus*. Seen on crossing on 7th and 15th May, 31st July and 23rd September; one offshore on 31st July and 2 on 29th September.

SOOTY SHEARWATER *Procellaria grisea*. Record numbers seen from the island; sightings between 31st July and 27th September, mainly 9th August (11) to 9th September (12) with high numbers in third week of August. 100 flew past south end of isle in $\frac{1}{2}$ hour on 16th (mainly heading west), 200 likewise on 17th and 15 on 18th. Observed on crossing between 31st July and 29th September; peaks of 10 on 14th August and 30 on 15th September; late birds, 2 on 22nd and 1 on 27th October.

FULMAR *Fulmarus glacialis*. Good numbers ashore in first few months with bad-weather absences on 1st-9th, 17th-18th and 21st-25th January, 1st-6th February and 1st-4th March; higher numbers from early March. Pre-egg laying dispersal from 6th to 21st May. First egg seen on 16th May and first chicks on 1st July. Average breeding season. Decrease noted from 5th September, absences from 19th October. Sightings of blue phase birds on 14th September and 1st October.

GANNET *Sula bassana*. Monthly maxima of January 15, February 15, March 7, April 4, May 24, June 15, July 40, August 60, September 500, October 200, November none and December one.

CORMORANT *Phalacrocorax carbo*. Small numbers, temporary-residents, between 28th January and 28th May. Spring migration reflected by 7 on 26th February, 6 on 6th March, 5 on 2nd April and 17th May. Autumn migration from 29th August (8), with peaks of 25 on 4th September, 42 on 12th, 30 on 19th and 60 on 21st, 25 on 22nd September, 25 on 1st, 39 on 2nd and 16 on 27th October; stragglers to end of year.

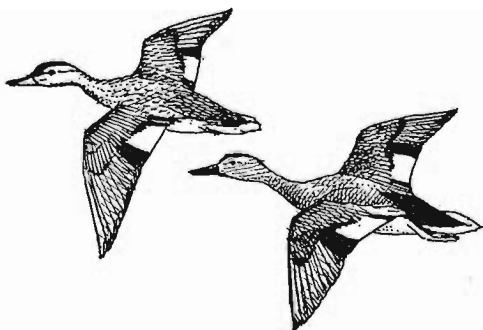
SHAG *Phalacrocorax aristotelis*. Nest material carrying from 27th January, first eggs (c/2) on 7th April but by 19th April only one out of 15 pairs at Wester Lothar had eggs. Average breeding season.

HERON *Ardea cinerea*. Singles on 14 days 28th January-21st March; 1-2 on 10 days in first half of March; singles on 13th and 26th May and 3rd June; 3 on 15th May. Autumn passage from 29th July to 8th November, mainly August and September with maxima of 3 on 4 days in August, 4 on 9th and 10th, and 7 on 22nd September.

PURPLE HERON *Ardea purpurea*. A second-year bird seen flying into the Gully on 4th June, present until 11th mainly at south end of isle. Third Fair Isle record; others in June 1965 and May 1969.

MALLARD *Anas platyrhynchos*. A few wintered. 2 on 6 dates in April and singles twice in May, 2 on 6th June and singles on 6 days in July, 2 on 3rd August. Autumn passage from 21st August, with peaks of 8 on 23rd September, 20 on 23rd October and 8 on 17th November.

TEAL *Anas crecca*. Two on 14th March; small spring passage from 25th April to 8th June, mainly early May when 7 on 7th. Autumn passage from 9th August to 12th November, with peaks of 7 on 28th-29th August, 15 on 9th, 20 on 10th and 8 on 25th September.



GADWALL *Anas strepera*. A pair flew south past Observatory on 17th May.

- WIGEON *Anas penelope*. 3 on 28th January, 2 on 1st and 7th February, 2 on 12th-13th and one on 24th April, and 4 on 22nd May. Autumn passage from 14th August to end of year, mainly 24th August to 20th October with peaks of 12 on 10th and 14 on 25th September, 14 on 12th and 12 on 14th October.
- PINTAIL *Anas acuta*. Single drakes on 24th January, 22nd February, 5th-17th and 28th June, and 9th September.
- SHOVELER *Spatula clypeata*. One on 2nd September.
- SCAUP *Aythya marila*. A ♀ on 7th August and a ♂ on 11th October.
- TUFTED DUCK *Aythya fuligula*. One 14th-15th March, one 8th, 2 on 9th and one 16th-21st May, 3 on 16th June, one until 20th June, one 20th, 2 on 21st-22nd, 3 23rd-24th and one on 28th July, one 29th-30th August and one 17th October.
- GOLDENEYE *Bucephala clangula*. Small numbers, up to 3 in January and up to 5 until 16th April. Autumn arrivals from 21st October (4); small numbers up to 4 until 1st December.
- LONG-TAILED DUCK *Clangula hyemalis*. 1-2 seen on 3 days in January, 6 days in February (but 3 on 23rd), 15 days in March, 10 days in April and 1st-11th May. Autumn passage from 3rd October; a record autumn with peaks of 41 on 20th, 56 on 21st (highest ever seven days' total), 30 on 22nd and 12 on 23rd October; thereafter small numbers, maximum 6.
- VELVET SCOTER *Melanitta fusca*. One on 15th August and 3 on 9th September.
- EIDER *Somateria mollissima*. Normal numbers resident and average breeding season; first ashore on 16th May; first eggs on 27th May (c/4 on Svey); first broods (both b/4) on sea on 16th June. Autumn maxima of 510 on 25th August and 550 on 6th October; this is higher than usual.
- RED-BREASTED MERGANSER *Mergus serrator*. Scattered records between 21st January and 7th May; peaks of 5 on 22nd February and 4 on 7th May. 1-2 seen on 6 days between 15th June and 17th July. Small numbers in autumn from 18th September, maxima 7 on 21st September, 4 on 21st October, only one record November.
- GOOSANDER *Mergus merganser*. A ♂ 3rd-12th November, trapped and ringed in Vaadal.
- SHELDUCK *Tadorna tadorna*. One on 27th January and 2 on 1st May.
- GREY-LAG GOOSE *Anser anser*. 2 on 15th, one on 23rd, 5 on 24th, 3 on 25th and one 26th April, one 6th-9th, another 11th May. 2 on 10th July, only 3rd record for this month. Autumn pas-

sage from 23rd September, with peaks of 30 on 30th September, 21 on 7th, 72 on 8th, 30 on 19th, 110 on 20th, 100 on 21st, 140 on 22nd, 30 on 31st October, 32 on 14th November; stragglers to 3rd December.

WHITE-FRONTED GOOSE *Anser albifrons*. An adult of the European race from 21st January to 13th February.

PINK-FOOTED GOOSE *Anser brachyrhynchus*. One on 10th January. 4 on 22nd September, 1-4 until end of month, six different birds between 30th November and 9th December.

BARNACLE GOOSE *Branta leucopsis*. 10 arrived on 14th February and spent the day grazing on Sheep Rock. 3 on 30th September, 30 on 17th and 18th, 13 on 20th and 21 on 22nd October, stragglers to 31st, 2 on 9th November.

WHOOPEE SWAN *Cygnus cygnus*. 2 on 26th January, singles on 4 days in February, 3 on 13th April, 22 on 26th, 15 on 27th and 9 on 28th-29th April. Scarce in autumn, only 37 birds seen on 10 days, maxima 6 on 2nd and 8 on 21st October.

MUTE SWAN *Cygnus olor*. The adult which arrived on 28th December 1969 died on 1st January.

SPARROWHAWK *Accipiter nisus*. One 19th-20th April; 3-4 individuals on 5 days between 1st and 17th May. Singles on 12th and 17th September, 5th, 12 and 31st October and 1st November; 3 on 3rd, 2 on 4th and singles on 15th, 16th and 23rd November.

HONEY BUZZARD *Pernis apivorus*. One arrived on 24th June, found dead on 29th June, emaciated and covered with Fulmar oil.

HEN HARRIER *Circus cyaneus*. A ♂ on 1st and 2nd November and a ♀ on 22nd and 23rd November.

OSPREY *Pandion haliaetus*. Singles on 12th and 26th May, and 16th September.

HOBBY *Falco subbuteo*. One flew past Observatory on 30th May; seen later in day at Shirva.

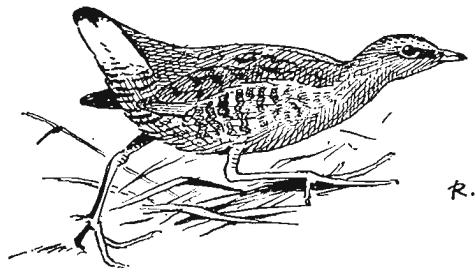
PEREGRINE *Falco peregrinus*. Seen throughout year; 3 together on 30th March. One pair apparently nested at Vaasetter but the nest was not found and no young appeared to have fledged. Two others resident on west cliffs but did not breed. A young bird in early September but was probably a migrant. Up to 3 seen together at end of year.

MERLIN *Falco columbarius*. 1-2 in January, one throughout February, small numbers, maximum 3, in March and April, 2 on 3rd and one 17th-18th May. Autumn birds from 22nd August but scarce, maximum being 3 and only on 3 days in late September and October; singles on 4 days in November to 18th.

KESTREL *Falco tinnunculus*. One on 5 days in January, singles on 27th-29th March, 16th and 23rd April; small passage between 2nd May and 8th June. Sporadic records from 29th July, autumn passage in two periods, late August when maximum of 3 on 22nd and 26th, and second half of September when maxima 5 on 23rd-24th and 6 on 27th; stragglers to 19th October; one 26th November to 2nd December.

QUAIL *Coturnix coturnix*. Singles on 7th and 29th May, 5th, 8th, 15th-21st and 27th June; one found long dead on 28th June; one 16th-19th July and one singing at another site (Kennaby) 22nd July to 11th August, but 3 in song on 1st and 2 on 4th August.

WATER RAIL *Rallus aquaticus*. Singles on 2nd January and on 9 days between 5th October and 27th November.



SPOTTED CRAKE *Porzana porzana*. One in Gilsetter on 11th May, trapped in Plantation trap and ringed. Third record for Fair Isle.

LITTLE CRAKE *Porzana parva*. One adult ♂ in Vaadal burn 11th May, caught by hand and ringed. Remains of a Little Crane were found in Gilsetter next day; the bird had been killed and eaten by a cat overnight. First record for Fair Isle.

CORNCRAKE *Crex crex*. 2 on 9th, 2+ on 10th, 3 on 17th and singles on 4 other days in May, one calling 2nd June; none remained to breed. Singles on 15th August and 7th September.

MOORHEN *Gallinula chloropus*. Singles on 4th and 11th May. One dead on 21st August; singles on 4th-5th October and 1st-4th December.

COOT *Fulica atra*. One 9th to 23rd January (found dead); one ringed 23rd-24th January; one 8th-14th May.

GREAT BUSTARD *Otis tarda*. A female arrived on 11th January, first seen in fields by the Reeve then moved further north where it was trapped at night on 16th; it was very emaciated and was fed on cabbages and occasional dead mice in a shed at Setter. It gained weight in captivity and was released on

24th February. Unfortunately it did not thrive in the wild and so was recaptured at night on 5th March and returned to Gordon Barnes's care. It was fed in captivity until 6th April when it was sent to southern England where an attempt to reintroduce the species is being made.

OYSTERCATCHER *Haematopus ostralegus*. One flew north on 26th and 4 on 28th January; one resident early February, 6 on 15th, numbers increased to 11 on 21st and 15 on 28th February, 25 on 1st, 30 on 6th, 50 on 12th and 70 on 13th March. Breeding population lower than last year, about 25% to 33% decrease. First eggs (c/2) at early nest at Furse on 21st April. Decrease noticeable from 9th August; numbers down to 11 on 18th and 7 on 30th September; up to 9 in October and 4 on 6th November. One weak bird resident, joined by another on 28th and numbers up to 5 by 3rd December.

LAPWING *Vanellus vanellus*. A few in late January but 12 on 26th; one 1st and 26th, and 2 on 28th February; numbers to 6 on 11th, 40 on 12th, further peaks of 42 on 21st and 60 on 24th March; 35 on 10th-11th April and up to 17 in early May. None nested but numbers present or passing throughout summer, maxima 14 on 8th and 24 on 21st June and 12 on 12th July. Autumn passage from 27th July, rather sporadic; peaks of 13 on 22nd August and 27 on 13th September, smaller numbers October and November, except 46 on 14th and 30 on 15th October. About 6 wintered.

RINGED PLOVER *Charadrius hiaticula*. One wintered Buness, joined by another on 8th March, more (maximum 7) from 14th March but 9 on 3rd May. Three pairs nested Buness, first eggs c/4 on 21st May, and one pair at Meoness. Autumn passage through August and September to 8th October; peaks of 21 on 4th, 25 on 17th, 50 on 23rd and 49 on 28th August, 37 on 1st and 40 on 6th September. 2 resident on Buness to 28th November and one thereafter.

GREY PLOVER *Charadrius squatarola*. One on 19th, 2 on 20th and one on 23rd September.

GOLDEN PLOVER *Charadrius apricarius*. One on 10th and 2 on 11th January; very small numbers March and April; passage in first half of May, maxima 15 on 5th and 14 on 12th May. A pair nested on Wirvie Brecks, on 4th July 2 chicks had just hatched and 2 eggs were chipping; all four hatched but one adult was killed by Great Skuas, the other reared the young but it is not known how many survived. The first breeding record since 1926. One or two other adults during the summer. Autumn passage from 8th August with peaks of 25 on 17th, 31 on 28th and 50 to 63 on 29th August to 1st Septem-



ber; 29 on 12th, 39 on 20th and 38 on 29th September; up to 15 in October, scarce after 16th and only one in November and December.

DOTTEREL *Charadrius morinellus*. A pair in full summer plumage on the Rippack on 6th May.

TURNSTONE *Arenaria interpres*. Wintering flock up to 25 in January, 26 in February and 16 in March. Spring passage 9th April to 26th May, peaks of 17 on 17th April and 3rd May, 12 on 20th May. Two on 1st, one to 3rd June and one on 13th July. Autumn passage from 30th July (10), numbers increasing to 20 on 1st, 24 on 9th and 60 on 17th August; later numbers rather low with monthly maxima of 30 on 8th September, 40 on 19th and 31st October, 1st and 3rd November, and 10 in December.

UPLAND PLOVER *Batramia longicauda*. One on 5th October, first seen near Kirk, then at Stackhoul and later on Houll. Very good views before it disappeared near shop; at midday it was seen briefly at Hesti Geo before flying off high to the south. New bird for Fair Isle and second Scottish record.

SNIFE *Capella gallinago*. Winter maxima 7 on 3rd January, 10 on 7th February, 3 on 11th March and 7 on 30th April. Regularly seen in May, maximum 7 on 7th. About two pairs nested. Rather few seen in July and early August. Passage from 16th August with peaks of 20 on 17th and 25 on 21st August, 20 on 25th September, 30 on 14th October, 20 on 9th and 40 on 28th November.

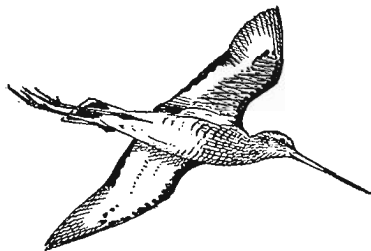
JACK SNIFE *Lymnocyrtus minimus*. One on 7th February. Sporadic passage between 3rd September and 1st November, mainly late September and October with peaks of 5 on 23rd September, 6 on 14th and 7 on 15th October. One on 28th November.

WOODCOCK *Scolopax rusticola*. Singles on 6th and 13th January, 12th and 15th February, 8th, 19th and 30th March. Spring passage 1st-19th April, peaks of 20 on 1st, 8 on 2nd and 5 on 10th. 4 singles in May and twice in June. One on 25th

August. Autumn passage between 12th October and 12th December, rather scarce, peaks of 33+ on 29th October, 30+ on 1st and 20 on 3rd November.

CURLEW *Numenius arquata*. Wintering flock of up to 15. Passage in April and May with peaks of 15 on 18th and 35+ on 23rd April, and 15 on 3rd May. A few summered but none nested. Autumn passage from late June, peaks of 20 on 4th and 30+ on 13th July, 12 in August, 10 in September and 7 in October. Up to 3 wintered.

WHIMBREL *Numenius phaeopus*. Spring passage from 30th April (2), peaks of 9 on 5th, 14 on 6th and 15 on 9th May. Small numbers through June and fewer in July, maxima 6 on 5th and 3 on 21st June. Small autumn passage through August to 10th September, maximum 6 on 15th August. Stragglers on 21st and 29th September.



BLACK-TAILED GODWIT *Limosa limosa*. One on 1st March and two on 4th June.

BAR-TAILED GODWIT *Limosa lapponica*. One on 15th April. One on 30th, 3 on 31st August, one on 1st and 13th, 16 on 20th, 2 on 21st and 25th, and one on 26th September, one 4th-15th November.

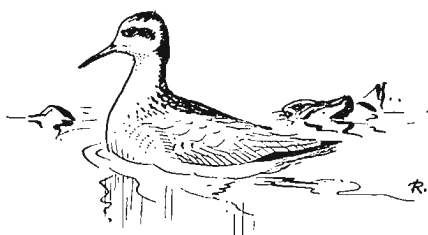
GREEN SANDPIPER *Tringa ochropus*. Singles on 4th-9th May except 2 on 5th. Small numbers, 1-2, on 24 days between 29th July and 31st August, and 3 on 16th, 22nd and 23rd August. One on 12th November, latest autumn record.

WOOD SANDPIPER *Tringa glareola*. One on 29th July.

COMMON SANDPIPER *Tringa hypoleucos*. Spring passage from 2nd to 30th May, mainly 1 to 3 but 8 on 8th, 10 on 9th, 4 on 10th, 7 on 11th and 4 on 17th. Autumn passage from 28th July to 9th September, mainly second half of August when 8 on 17th, 7 on 18th and 12 on 21st. 2 late ones on 16th October.

REDSHANK *Tringa totanus*. Wintering flock maxima of 10 in January, 8 in February, 12 in March and 12 in April, up to 6 in May and 3 in June. Return passage through July with peaks of 12 on 19th and 13 on 25th. Numbers rather low (up

- to 12) in August and September but 35 on 30th August and 34 on 20th September. Numbers low in last 3 months, peaks of 20 on 19th October, 15 on 28th November and 6th December.
- SPOTTED REDSHANK *Tringa erythropus*. One on 6th October.
- GREENSHANK *Tringa nebularia*. Singles on 18th-20th April, 3rd, 8th and 27th May, and 3rd June. 1-2 on 19 days between 2nd August and 24th September, nearly all in last week of August.
- KNOT *Calidris canutus*. Two on 5th-9th June. Autumn passage from 31st July (6) to 8th October, peaks of 29 on 1st and 27 on 2nd August; scarce rest of month, maximum 6. 16 on 6th and 11 on 30th September, 11 on 1st October. A late one on 14th-15th November.
- PURPLE SANDPIPER *Calidris maritima*. Winter flock maxima of 8 in January, 15 in February and 11 in March. Fewer in April and May, but peaks of 14 on 24th April and 13 on 21st May. First return migrants, 15 on 15th July, 27 on 1st August and 22 on 2nd, further peaks of 20 on 28th, 26 on 9th and 34 on 26th September, up to 17 in October, 28 in November and 14 in December.
- LITTLE STINT *Calidris minuta*. One on 21st-22nd July. Small numbers, 1-3, on 23 days between 22nd August and 30th September, but 6 on 9th and 5 on 10th and 11th September.
- DUNLIN *Calidris alpina*. Singles on 14th March and 9th April. Spring passage 3rd May to 26th June, sporadic records but peaks of 7 on 8th, 11 on 19th and 21st May. Autumn passage from 10th July (3), with peaks of 13 on 30th July, 16 on 1st and 21 on 18th September, fewer in October and one on 22nd-24th November.
- CURLEW SANDPIPER *Calidris testacea*. One on 9th to 11th September.
- SANDERLING *Crocethia alba*. One on 31st May, 2 on 1st and one on 2nd June. Autumn passage from 31st July (3) to 29th September, small numbers, maxima 6 on 26th August and 9th September.
- RUFF *Philomachus pugnax*. Small numbers between 16th August and 14th September, peaks of 7 on 17th, 6 on 18th and 4 on 25th August. Late singles on 21st and 29th September.
- GREY PHALAROPE *Phalaropus fulicarius*. An adult, moulting from summer plumage, in South Haven on 1st August.
- RED-NECKED PHALAROPE *Phalaropus lobatus*. An adult, probably ♀ moulting from summer plumage, in South Harbour on 15th July.



GREAT SKUA *Catharacta skua*. First bird arrived on 4th April, 2 on 7th, 5 on 12th and 12 on 16th. First nest c/1 on Vatnagard on 28th May, about 8 pairs nested. Decrease noticeable from late August but good numbers through August and still 15 to 17th October, down to 3 on 19th and last two seen on 22nd October.

ARCTIC SKUA *Stercorarius parasiticus*. First bird arrived on 17th April, 12 on 18th, then rather few and sporadic until 10 on 30th April, 20+ on 1st May (first day of much calling and display) and 50+ on 2nd, rising rapidly to full numbers. First nest c/2 at Vaadal on 21st May; population still appears to be increasing. Decrease through August, nearly all departed by 6th September, although stragglers to 16th, one on 19th and 2 on 27th September. Passing birds on 7th and 11th October.

POMARINE SKUA *Stercorarius pomarinus*. One adult around the Good Shepherd on crossing 22nd May.

GREAT BLACK-BACKED GULL *Larus marinus*. Winter flock peaks of 500+ on 8th January, 400 on 1st and 400+ on 10th February; other smaller influxes. Usual numbers bred, first eggs seen c/3 on 30th May. Winter flocks resting on isle during day in stormy weather peaked at 1500 on 15th, 2000 on 16th, 1500 on 17th and 3000 on 22nd November. Except in the very vilest weather all these birds go back to sea at night to feed with the night fishing trawlers.

LESSER BLACK-BACKED GULL *Larus fuscus*. One Scandinavian adult 19th-26th February. First arrived on 30th March, more from 15th April with peaks of 15 on 22nd and 28 on 24th April. About 20 pairs bred, not very successfully. Decrease in early September, stragglers to end of month, last 2 on 29th.

HERRING GULL *Larus argentatus*. Winter flock peaks of 750+ on 8th January, 2000+ on 1st, 500+ on 8th-9th and 750 on 10th February; northern birds strongly represented. Local birds increased from early March. First eggs from end first week of May. Usual numbers bred. Winter flock peaks of 4000 on 1st November, 8000 on 15th, 10000 on 16th, 8000 on 17th and

22nd November, mostly northern birds; this is a further increase on last winter's record numbers.

COMMON GULL *Larus canus*. Small numbers in first 3 months, maxima 11 in January, 12 in February and 8 in March. Spring passage from early April with peaks of 30 on 11th and 22 on 15th April, 42 on 12th, 80 on 17th and 55 on 20th May. Small numbers in summer, maximum 17 on 16th June. First juvenile migrant on 11th July and autumn peaks of 30 on 14th July, 500 on 1st August, 250 on 4th, 1500 on 15th, 500 on 16th, 250 on 22nd and 400 on 30th August, 300 on 7th, 9th and 10th, and 250 on 22nd September, 50 on 5th October and 20 on 2nd November. Stragglers to end of year.

GLAUCOUS GULL *Larus hyperboreus*. 9 on 5th January, 50+ on 8th and singles on 3 other days in January. Regular sightings in February and March, peaks of 7 on 8th and 10 on 15th February, 8 on 2nd and 5 on 5th March. 2 on 1st April, singles on 9 days in April and 3 days in May. One on 25th June and 4th July. Autumn immigrants from 1st October, more from 20th (5+) but mainly in November when peaks of 15 on 1st, 25 on 14th, 50 on 16th, 40 on 17th and 30+ on 22nd, 40 on 5th December.

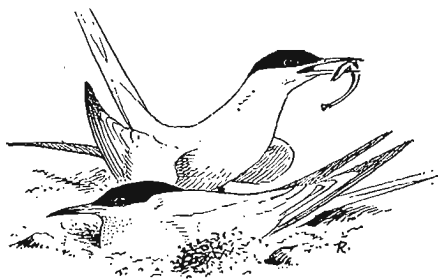
ICELAND GULL *Larus glaucoides*. Singles on 5th January, 9th March, 17th April, 3rd-5th June, 6th-7th July, 30th November and 10th December.

BLACK-HEADED GULL *Larus ridibundus*. Singles on 7 days in January and 6 on 21st. Few in February and March except 15 flying north on 20th March. Spring passage in April and May, peaks of 14 on 16th April, 25 on 3rd and 20 on 7th May. Small numbers in summer, first juvenile migrants on 4th July. Autumn peaks of 30 on 14th July, 25 on 22nd August and 10 on 4th September; rather few from 22nd September but 25 on 18th and 20 on 19th October.

KITTIWAKE *Rissa tridactyla*. Sporadically ashore from 8th February, regularly from 5th March and continuously from 28th March. Continued increase in population, nest material collecting from 2nd May; this year for the first time birds were collecting mud from the Gully nearly up to the waterfall. Most with eggs in last week of May and some young newly hatched on 15th June. Decrease noticeable from mid August and some still ashore through September to 30th. Regularly offshore in October and November, and ashore on 1st November.

COMMON TERN *Sterna hirundo*. First two on 16th May, small numbers in May and June. A pair nested on North Haven Stack, c/2 found on 7th July, two chicks ringed on 10th and 14th August; the family of 4 left the isle on 3rd September.

First breeding record for Fair Isle. Several other pairs 'resident' in August, maximum 10, some until 10th September and last 3 on 17th September.



ARCTIC TERN *Sterna macrura*. First two on 15th May probably this species. Numbers small through summer, maximum 8 on 28th July; some passage in August, maximum 11 on 31st. Last Common/Arctic Terns 2 on 24th September.

SANDWICH TERN *Sterna sandvicensis*. One on 21st and 22nd August.

RAZORBILL *Alca torda*. A few oiled birds washed up on 2nd-11th February. Lots on the sea on 20th February and first ashore on 21st, also ashore 25th-28th, regularly ashore from 5th March and continuously from 29th March. First egg seen on 3rd May; normal breeding season. First young to sea in first days of July; decrease noticeable by mid-July and very few left ashore by 1st August, last one seen on 12th. A few offshore between 9th and 27th September.

LITTLE AUK *Plautus alle*. One 26th-27th January. Small numbers between 4th and 17th February, including 4 dead. Singles close inshore 8th-15th, 20th-22nd, 28th and 31st March, 3rd, 4th and 7th April; some of these were seen flying through the Havens, a most unusual habit for this species. Seen on crossing from 3rd November. Singles found dead on 8th and 10th December.

GUILLEMOT *Uria aalge*. Sporadically ashore from 9th January, regularly from 8th February and continuously from 29th March. Numbers further increased; more new colonies established and some of the recently established colonies were successful for the first time; a good breeding season. Decrease noticeable from mid-July and very few left ashore by end of month; last ashore on 7th August. Singles offshore on 17th and 24th August, a few more in September. Seen on crossing on 23rd October and ashore on breeding ledges on 27th October, 10th and 14th November. Oiled birds on 18th and 19th November and 3 in December.

BLACK GUILLEMOT *Cepphus grylle*. Breeding numbers a little low, especially at peripheral sites such as Easter Lothar and Bergaroo. Numbers of chicks reared at main colonies about average.

PUFFIN *Fratercula arctica*. Singles washed up dead on 21st January and 21st February. Lots on crossing on 2nd April and ashore in good numbers on 3rd-5th April; more on crossing on 8th and continuously ashore at Fair Isle from 9th. Regular evening counts were made at Furse and the numbers of birds standing outside burrows in the same areas each evening between 27th April and 7th May inclusive were: 136, 0, 10, 272, 302, 204, 191, 49, 20, 8 and 90. Note large daily fluctuations. Nest material collecting from 18th April and first eggs found in last days of April; first adult carrying fish seen on 11th June. Decrease very noticeable from 10th August, numbers very low by 19th and last ashore on 26th August, although juvenile seen ashore on 29th. 4 offshore on 9th September.

ROCK DOVE *Columba livia*. Monthly maxima of January 6, February 17, March 14, April 20 and May 20. No nests found. Autumn flock maxima of 22 on 25th August, 23 on 11th September, 40 on 16th October and 1st November.

WOOD PIGEON *Columba palumbus*. Spring passage from 25th March to 25th May, with peaks of 4 on 7th April, 7 on 12th and 15th April, 8-9 from 5th to 20th May but 11 on 17th; singles on 17th-29th May, 7 days in June and 8th-9th July. Scarce in autumn, only singles on 8 days 14th October to 13th November.

TURTLE DOVE *Streptopelia turtur*. Spring passage from 2nd May, with peaks of 3 on 10th May and 22nd June; 2 on 2nd July and one until 16th July. Singles on 11th, 13th and 29th August; 1-3 between 11th and 30th September; one until 10th October.

COLLARED DOVE *Streptopelia decaocto*. One 14th-19th April. Spring arrivals from 3rd May, with peaks of 3 on 17th, 9 on 25th and 29th May, 5 on 3rd and 6+ on 11th June; 2 summered but no proof of breeding. 3 on 7th August, 2 on 13th-18th August and singles on 28th September, 9th and 23rd October.

CUCKOO *Cuculus canorus*. One on 6th, 2 on 8th, 3 on 9th, 2 on 16th and one on 28th May, singles on 2nd and 6th-8th June. Autumn migrants between 28th July and 31st August, singles on 15 days, 2 on 11th, 5 on 17th and 2 on 21st August.

SNOWY OWL *Nyctea scandiaca*. A ♂ at Kennaby and Rippack on 26th April and a ♀ arrived south end on 21st May, seen very well on hill in evening. Compare 1969 when two birds also

visited the island in the spring, suggesting return passage to Shetland.

LONG-EARED OWL *Asio otus*. Singles on 30th April and 9th May. Two on 15th October and 18th November, singles on 14 days between 16th October and 3rd November.

SHORT-EARED OWL *Asio flammeus*. Singles 21st March, 12th, 13th and 17th April, 8th, 11th, (2 on 16th), 19th, 27th and 28th May, and 8th-13th June. Autumn passage between 19th September and 2nd December; sightings on 25 days, mostly singles but 2 on 7 days and 3 on 15th October and 4th November.

SWIFT *Apus apus*. 2 on 16th May, up to 8 between 2nd and 9th June, 28 on 20th, and 20 on 21st June. Small numbers (maximum 5) on 15 days between 27th June and 6th August. Small numbers 23rd August-6th September, maximum 9 on 2nd September, one on 13th and 1-4 on 19th-23rd September.

BEE-EATER *Merops apiaster*. A ♂ at Pund on 6th August, present until 17th August, mainly at south end. 5th record for island.

WRYNECK *Jynx torquilla*. Another big influx like last year; 12 on 7th May, 15 on 8th and 35 on 9th and 10th. Unlike usual arrivals these birds were in good condition (even song and display) and only a few were found dead. Most left overnight on 10th, numbers down to 10 on 11th and 3 on 12th. Small numbers up to 6 until 17th, some were new arrivals; 1-2 on 6 days to 26th May, 4 on 27th and singles on 30th May, 2nd and 10th June. One 18th August, one on 21st, 3 on 22nd, up to 4 by 25th, 1-2 until 31st. 2 on 2nd September, one on 6th-7th, 3 on 8th, 2 on 9th and one on 13th.

GREAT-SPOTTED WOODPECKER *Dendrocopus major*. One on 7th May, a new one on 8th, one 9th and 10th, 2 on 16th and 17th May. 4 individuals in spring is unusual especially as none were recorded last autumn.

SHORT-TOED LARK *Calandrella cinerea*. One at Setter on 10th and 11th May, another at Leogh on 12th and both together at Setter on 13th and 14th May; song on last day.

SKYLARK *Alauda arvensis*. Small numbers, maximum 6, through January. First arrivals 35 on 7th February, movements on 23rd and 24th February, main increase from 8th March with spring peaks of 100 on 12th, 300 on 21st and 200 on 25th March. Normal breeding season; young seen in nest between 30th May and 13th July. Autumn passage from 12th September, main movements 23rd-25th September, 13th-14th October and 20th November. Numbers down to 40 on 28th November.



SHORELARK *Eromophila alpestris*. One on 18th April, 2 on 8th and one 9th May. One 1st-5th November, 2 on 6th and 7th and one to 9th November. One trapped at Setter only 2nd ringed at Fair Isle.

SWALLOW *Hirundo rustica*. Spring passage from 30th April (1) with peaks of 6 on 4th, 14 on 7th and 20 on 24th-25th May, and 35 on 5th-8th June. Stragglers after 11th June, maximum 8 on 20th June, last one on 10th July. Two on 4th and 11th, and 3 on 31st August, 2 on 6th, 1-2 on 21st-30th September, and one on 1st-3rd October.

HOUSE MARTIN *Delichon urbica*. Spring passage from 4th May (2) to 14th June (2), peaks of 25 on 13th, 32 on 25th and 45 on 27th May, and 35 on 6th June. Stragglers on 3 later days in June and 5th, 8th, 11th and 13th-20th July. Scarce in autumn, singles on 22nd, 29th and 30th September and 1st-2nd October.

SAND MARTIN *Riparia riparia*. First one on 1st May. Spring passage from 4th (10) to 31st May, peaks of 10 on 8th, 11 on 9th and 9 on 17th. Singles on 2nd, 3rd, 7th and 8th June and 2 on 5th June. One on 10th August and 2 on 27th and 31st August.

GOLDEN ORIOLE *Oriolus oriolus*. A ♀ on 18th-20th June, first seen Stackhoul and later trapped in Vaadal.

RAVEN *Corvus corax*. Winter maximum of 8. An influx in early March when 23+ on 4th and 15+ on 5th and 6th, also 19 on 29th March. The pair at Gunnawark reared at least 2 young, but the other two pairs were unsuccessful.

CARRION and HOODED CROW *Corvus corone*. Occasional Carrion Crows between 9th April and 27th May, but 7 on 8th May, 12 on 17th, 17 on 18th-19th and 14 on 20th May. Singles on 19th July and 17th September. A dark hybrid resident throughout year. No change in Hooded Crow position.

ROOK *Corvus frugilegus*. One on 5th-19th January, 2 on 14th March. singles on 1st April and on 9 days between 17th April and 15th May, but 2 on 20th and 3 on 21st April. One on 15th and 16th July.

JACKDAW *Corvus monedula*. 8 overwintered, passing the Observatory each morning and evening on their way from and to

their roost in sea caves at Furse. 7 from 1st March and 6 from 30th but 9 birds on 5th April; thereafter only 4, only 2 between 18th April and 10th May, 4 from 11th to 15th May and a pair until 25th May. Display and copulation observed and one pair built a nest in the cliffs at the Reeves but then left.

WREN *Troglodytes troglodytes*. Population still very low, about 25 pairs. Song from 25th February, rather few young seen.

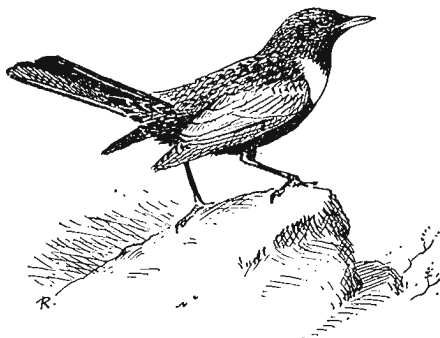
MISTLE THRUSH *Turdus viscivorus*. Singles on 27th-31st January, 28th-30th March, 3rd-4th and 14th April, 2 on 10th April and 9th May, one 11th, 12th and 15th May.

FIELDFARE *Turdus pilaris*. Small numbers in early January but 70+ on 11th-14th and further peaks of 80 on 20th and 60 on 29th, up to 40 in first week of February, up to 12 in rest of month and March. Scarce on spring passage, maxima 25 on 16th April, 34 on 8th and 35 on 14th May, stragglers to 26th May. One 18th-22nd August, 3 on 8th September, similar numbers until 12 on 25th, 20 on 26th and 200 on 27th. Further peaks of 100 on 8th October, 400+ on 13th, 700 on 14th, 300 on 15th, 100 on 16th, 1500 on 17th, 100+ on 18th, then lower numbers except 200 on 23rd and 30th October; 4000 (best day of the autumn) on 1st November, 500 on 2nd and 3rd, 150 on 4th and 100 on 5th-7th, thereafter low numbers (12-30).

SONG THRUSH *Turdus philomelos*. Small numbers up to 3 in January, up to 6 in February and March. Scarce in April, only 1-2 seen on 8 days. Passage in May mainly 7th to 18th with peaks of 49 on 8th, 30 on 9th and 25 on 14th, stragglers to 31st. One on 18th-19th, 2 on 26th and one 27th June. Autumn passage from 1st September to 8th December but nearly all between 22nd and 30th September (maximum 20 on 27th) and 12th to 17th October when 200 on 12th, 300+ on 13th, 100 on 14th and 30 on 15th.

REDWING *Turdus iliacus*. Winter resident, maxima of 12 in January, 6 in February and March but spring passage from 29th March (12) to 3rd May (4) with peaks of only 25 on 3rd and 16th April; stragglers to 25th May. Autumn passage from 13th September, mainly from 23rd September with very good numbers. Peaks of 400 on 23rd and 27th September, 200 on 3rd, 1500 on 7th, 500 on 8th, 150 (mainly Icelandic) on 10th, 3500 on 12th, 5000+ on 13th (including a leucistic bird), 7000 on 14th, 2500 on 15th, 1000 on 16th-17th, 500+ on 18th, down to 75 on 22nd, 800 on 23rd, 500 on 24th, down to 30 on 27th, 300 on 30th October, 3000 on 1st November, 400 on 2nd, 300 on 3rd, numbers low (20-60) through month, but 100 on 20th. Up to 40 in December.

RING OUZEL *Turdus torquatus*. Spring passage from 18th April (2) to 28th May, mainly 8th to 18th May when 15 on 8th, 16 on 12th and 14 on 17th. Singles on 7 days in June to 18th.



Scarce in autumn; one on 27th September, 3 on 12th, one on 13th, 8 on 14th, 4 on 15th and one on 21st October.

BLACKBIRD *Turdus merula*. Small numbers (10-30) in January but 50+ on 13th and 75+ on 14th; up to 20 in February and March. Spring passage from 30th March (25), numbers very low with peaks of only 50 on 5th and 30 on 12th April. A small influx in early May when 16 on 10th; stragglers to end of month. One pair stayed and nested at Busta (first breeding since 1959), nest not found but 2 juveniles flying on 29th July; these birds seen through summer. A few migrants in early October but no noticeable arrivals until 100 on 12th, a rather poor autumn with further peaks of 300+ on 13th, 500 on 14th, down to 150 on 17th and 100 on 18th, down to about 40 rest of month except 80 on 24th-25th and 150 on 30th. 1000 on 1st November, 100 on 2nd, 150 on 3rd, thereafter low numbers (15-45).

ROCK THRUSH *Monticola saxatilis*. A male self-caught in the Single Dyke trap on 30th June, ringed and released at Observatory, flew off over Hoilee but not seen again. 3rd record for Fair Isle, previous ones being seen on 8th November 1931 and 16th October 1936.

WHEATEAR *Oenanthe oenanthe*. Arrivals rather late; first (6) on 10th April, increased to 8 on 12th, 20 on 15th but big numbers not evident until after 28th April. Large falls on 3rd, 7th, 8th and 9th May. Greenland birds between 24th April and 7th May. Breeding cycle rather late, first eggs found on 2nd June and first flying young on 2nd July. Movements noted from 17th August with increases on 20th-22nd and 29th August. Greenland birds between 3rd and 21st September and 3rd to 11th October. Numbers down to 15 on 6th Oc-

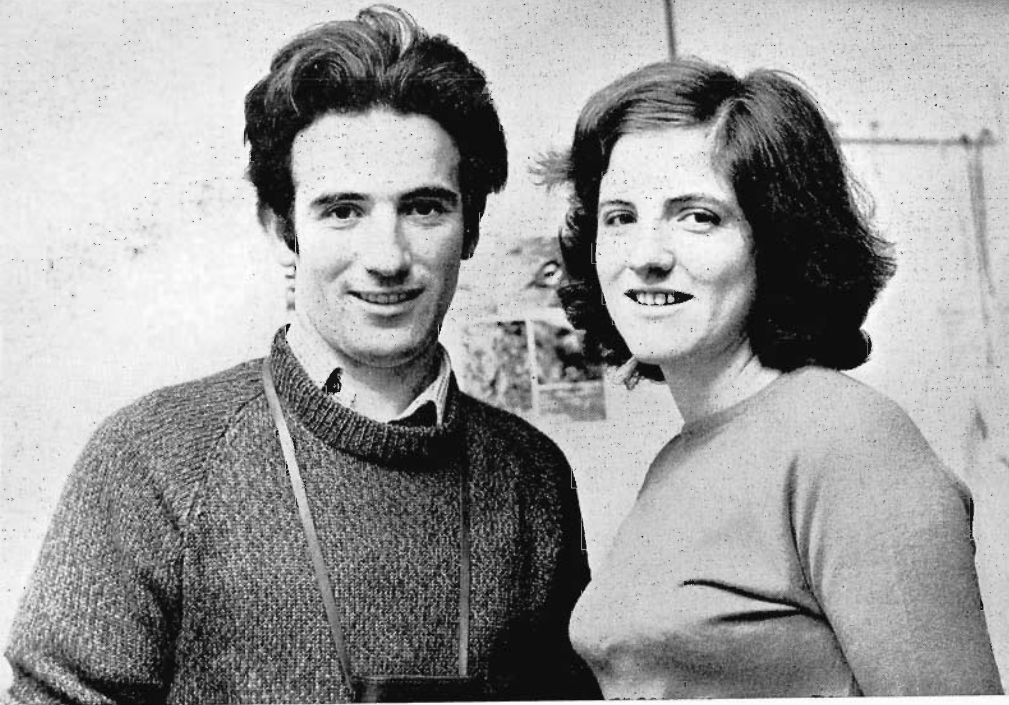


PLATE 1. Roy and Marina Dennis who relinquished their duties at the Bird Observatory in December 1970 after seven years service.

PLATE 2. Roger Broad, the new Warden, and his wife Judy.

Both photographs by Dennis Coult.

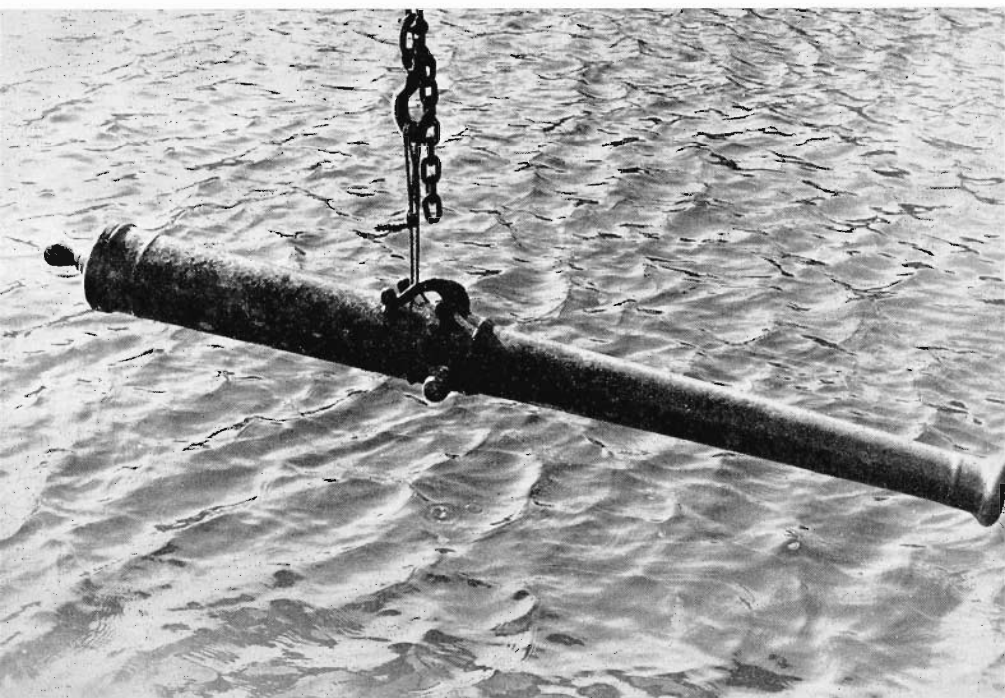




PLATE 3 (Above). The wreck site at Stroms Hellier. *El Gran Grifon* was wrecked between the cliff and the central rocks enabling her crew, as island tradition still relates, to scramble up the masts to safety on the small jutting-out ledge at the lowest part of the cliff top. The diving boat is directly above the remains of the ship's stern. See article on p. 61.

PLATE 4 (Top Right). The *Gran Grifon* salvage team at North Haven. Left to right: Chris Oldfield, Simon Martin (seated), Syd Wignall, and Colin Martin.

PLATE 5 (Bottom Right). A beautifully preserved bronze *media-sacre*—a long-range 4-pounder—raised last summer from Stroms Hellier. When found, it was still loaded with charge, ball, and wadding. It is one of the very few Armada guns still in existence. It is at present housed in Lerwick Museum.



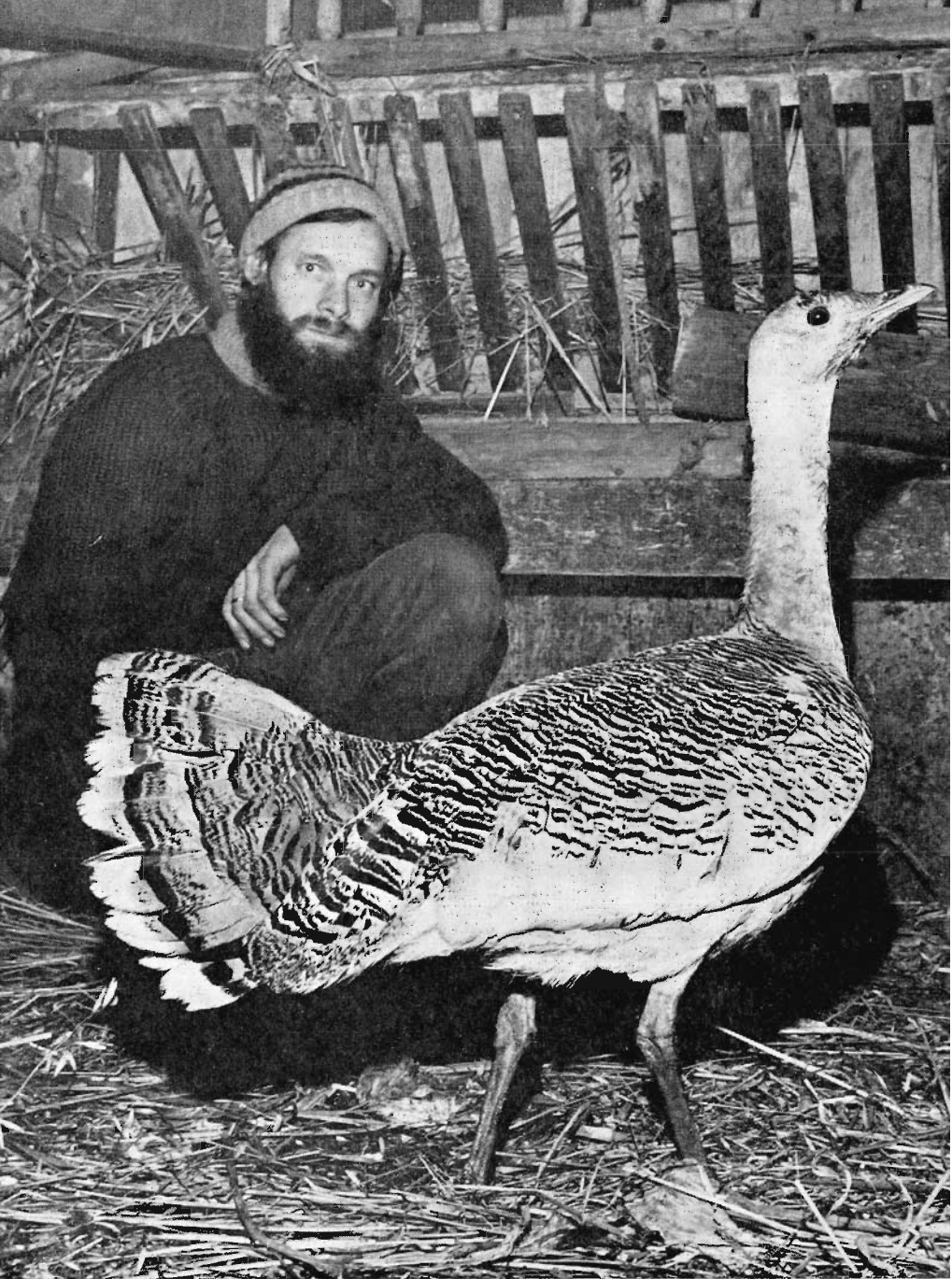


PLATE 6 (Above). The captive Great Bustard at Fair Isle (see p. 24) where it remained from January to March 1970, with Gordon Barnes of Setter who fed it on cabbages.

Photograph by Dennis Coultis.

(With acknowledgments to the Editor of *Scottish Birds*).

tober, 8 on 13th, 6 on 17th, 3 on 21st and last one on 24th October.

DESERT WHEATEAR *Oenanthe deserti*. A superb male on the grassy slopes between Millens Houllan and the North Light reservoir on 20th November; we watched it for several hours in the afternoon before it flew off south over the shoulder of Ward Hill. The 4th record for Fair Isle; the other three were all males and were obtained on 6.10.28, 26.10.28 and 18.11.40.

STONECHAT *Saxicola torquata*. A ♀ on 26th and a ♂ on 29th March, a ♂ on 15th and a pair on 16th April.

WHINCHAT *Saxicola rubetra*. Spring passage from 4th May (1) to 9th June; 7 on 5th May, 16 on 6th, 33 on 7th and a fantastic fall of 350 on 8th, still 350 on 9th, numbers dropped to 100 on 10th, 70+ on 11th, 88 on 12th, 50 on 13th, 40 on 14th, another peak of 60 on 15th and 70 on 16th-17th, thereafter about 25 to 28th, 12 to end of month. Lower numbers in June, one on 23rd. Autumn passage from 17th August to 15th October, numbers low with maxima of 15 on 22nd August and 12 on 8th September.

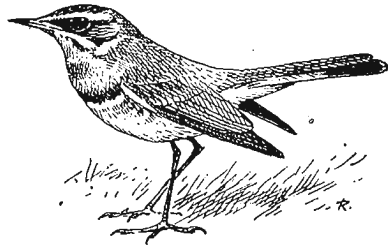
REDSTART *Phoenicurus phoenicurus*. Spring passage from 5th May (1) to 19th June (3); 6 on 6th, 30 on 7th, fantastic falls of 300 on 8th and 700 on 9th May, numbers dropped to 250 on 10th, 150 on 11th-17th, good numbers lingered on, 50 on 27th May and 15 in early June. Stragglers to 19th, singles on 22nd June, 8th and 10th July. 1-2 on 5 days between 21st and 28th August. Passage 9th September to 16th October; numbers low, peaks of 10 on 23rd September, 20 on 12th and 10+ on 13th October. A late one on 1st and 2nd November.

BLACK REDSTART *Phoenicurus ochrurus*. Singles on 16th, 20th and 21st April. Spring passage from 3rd to 28th May; mainly 1-2 but 4 on 6th, 8 on 7th and 3 on 3 dates. A ♀ 7th to 19th and a ♂ 10th June. Autumn singles on 22nd and 25th October, and 27th November-1st December.

NIGHTINGALE *Luscinia megarhynchos*. Singles on 17th-18th May and 21st-26th June, both trapped and ringed.

THRUSH NIGHTINGALE *Luscinia luscinia*. An amazing spring fall; one trapped and ringed at Setter on 8th May, another trapped and ringed at Hesti Geo on 9th, a third trapped and ringed at Busta on 11th, seen at Setter on 12th, and a fourth found dead in a shed at Setter on 14th May. 6th to 9th records for Fair Isle.

BLUETHROAT *Cyanosylvia svecica*. 2 on 7th May, 9 on 8th, 31 on 9th, 31 again on 10th (but some were different individuals), 17 on 11th, 16 on 12th, (probably at least 50 individuals involved in this fall). Numbers then lower but another peak,



14 on 16th, 1-3 after 18th to end of May, one on 1st June, a new ♂ (with sprained wing) at Furse from 3rd to 21st June, a ♀ on 6th June. Rare in autumn, singles on 27th September and 5th-7th October.

ROBIN *Erithacus rubecula*. Singles on 11th and 20th-24th January. Spring passage from 3rd April; scarce in April and first days of May but 11 on 7th May, 66 on 8th, 70 on 9th, 100+ on 10th, numbers stayed high, but a peak of 50 on 16th-17th; down to 4 by 31st. A few resident through June although 6 on 1st and 5 on 12th, 2 present in July to 13th and one summered, retrapped on 31st August and probably seen on 24th September. 2 on 27th September, small numbers from 7th October, autumn peaks of 30 on 12th, 100+ on 13th, 50 on 14th October.

GRASSHOPPER WARBLER *Locustella naevia*. Spring passage from 3rd to 22nd May, peaks of 5 on 4th, 6 on 6th, 10 on 7th-8th, 8 on 9th, 5 on 11th and 4 on 15th; one 26th-27th May.

GREAT REED WARBLER *Acrocephalus arundinaceus*. One at Quoy on 12th June, trapped there in afternoon, also present on 13th and 14th. 3rd Fair Isle record.

REED WARBLER *Acrocephalus scirpaceus*. Singles on 9th, 10th and 11th June (at least 2 birds) and 22nd August.

MARSH WARBLER *Acrocephalus palustris*. Singles on 5th, 12th, 16th and 17th June.

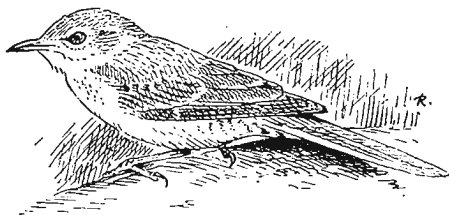
SEDGE WARBLER *Acrocephalus schoenobaenus*. Spring passage from 4th to 30th May; numbers small but 7 on 8th, 12 on 9th and 6 on 10th and 15th, singles on 4th and 7th, and 2 on 9th June. Autumn singles on 6th-11th August, 3rd, 11th-13th and 17th September.

ICTERINE WARBLER *Hippolais icterina*. Scarce; singles on 4th August and 13th September.

BLACKCAP *Sylvia atricapilla*. Spring records between 5th May and 18th June; small numbers, peaks of 8 on 8th-9th, 11 on 10th May and 4 on 9th June. Late singles on 27th, 29th and 30th June, and 6th July. One on 19th, 2 on 21st and one 26th

August. Passage from 10th September to 28th November, peaks of 10 on 13th, 25 on 27th and 15 on 28th September, 20 on 7th, 25 on 8th and 20 on 12th October, and 20 on 3rd November.

BARRED WARBLER *Sylvia nisoria*. First singles on 4th, 7th and 14th August, 2 on 15th, 7 on 17th, 2 on 19th and 21st, 7 on 22nd, 2 on 24th, one 26th, 3 on 29th and 30th. Daily records to 16th September, peaks of 5 on 8th, 4 on 12th, 13th and 16th, singles to 30th, 2 on 1st October, singles 5th-7th and 12th October. At least 50 individuals this autumn.



GARDEN WARBLER *Sylvia borin*. Scarce in spring and not associated with big spring fall; singles on 4th, 7th and 30th May. Small numbers 2nd-22nd June, peaks of 4 on 7th, 10 on 9th and 5 on 10th. One on 27th June. Autumn passage from 13th August to 17th October (5), mainly from 19th August (12) to 20th September (20), other peaks 60 on 22nd and 20 on 23rd August, and 25 on 13th September.

WHITETHROAT *Sylvia communis*. Spring passage from 3rd May to 13th June, mainly from 8th (13) to 24th May (9), other peaks of 45 on 9th, 35 on 10th, 17 on 11th and 22 on 16th, stragglers on 14th, 21st and 28th June. Scattered autumn records between 18th August and 23rd September, maxima 5 on 22nd, 4 on 26th August and 3 on 22nd September.

LESSER WHITETHROAT *Sylvia curruca*. Good spring passage from 4th May to 12th June; 6 on 6th May, 19 on 7th-8th, 20 on 9th, 18 on 10th, 9 on 11th, further peaks of 12 on 17th and 24th, 15 on 26th May and 8 on 6th June. Autumn singles on 14th-15th, 22nd and 29th August; 1-2 on 13 days between 16th September and 2nd October.

WILLOW WARBLER *Phylloscopus trochilus*. First singles on 30th April and 2nd May; 9 on 4th, 6 on 5th, 15 on 6th, 100 on 7th and fantastic fall of 1000 on 8th-9th May; numbers dropped to 400 on 10th, 300 on 13th, 200 on 16th, 70 on 18th, 30 on 22nd and 8 by end of month. Similar numbers to 9th June, 2 on 10th and one by 13th, stragglers on 17th, 18th and 28th June. A very brown and white northern bird on 8th-12th June. First singles of autumn on 4th and 7th August. Passage

from 13th (3) to 7th October (3); peaks of 50 on 22nd August and 18 on 16th September; a late one on 11th October.

CHIFFCHAFF *Phylloscopus collybita*. Singles on 15th and 19th May. Spring passage in early May; 3 on 4th, 4 on 5th, 2 on 6th, 9 on 7th, 50 on 8th (record spring total), numbers down to 2-4 from 10th to end of month. Singles on 7 days in early June but 2 on 21st, 3 on 22nd-23rd, 2 until 30th. One bird summered as last year. 2 on 6th-7th August, a few scattered records between 13th September and 3rd November; 1-2 on 12 days, except for influx between 12th and 17th October, when 6 on 13th and 5 on 14th.

GREENISH WARBLER *Phylloscopus trochiloides*. One at Busta on 21st August, present also on 22nd and 24th.

WOOD WARBLER *Phylloscopus sibilatrix*. One on 7th, 3 on 9th and one 10th May. Singles on 19th, 22nd and 23rd August, 2 on 26th, 3 on 27th and 2 on 29th August.

ARCTIC WARBLER *Phylloscopus borealis*. Singles at Quoy on 7th August, Vaadal 13th-14th September, Taing 15th-19th, Res-tingeo 16th, Upper Stoneybreck 20th September (unringed) and Busta 12th October. Six individuals, five of them ringed.

YELLOW-BROWED WARBLER *Phylloscopus inornatus*. One on 24th September, 3 on 25th, 2 on 26th-27th and one 28th September; one on 7th-8th October.

GOLDCREST *Regulus regulus*. 1-3 on 16 days between 2nd and 28th May but 4 on 6th, 15 on 7th and 6 on 8th May. Scattered records from 1st September to 5th November, peaks of 5 on 27th September, 6 on 7th and 3 on 8th October; an influx of 8 on 11th, 40 on 12th, 20+ on 13th, 12 on 14th, 7 on 15th, 15 on 16th and 6 on 17th October.

SPOTTED FLYCATCHER *Muscicapa striata*. Spring passage from 9th May to 25th June; small numbers, peaks of 6 on 12th May, 6 on 6th and 15 on 9th June. One on 7th July. 4 on 23rd August, 3 on 24th-25th, one 26th and 4 on 27th August; one on 27th September.

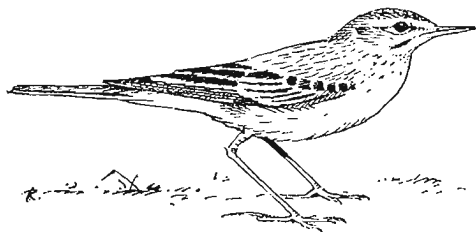
PIED FLYCATCHER *Muscicapa hypoleuca*. Strong spring passage. Numbers from first one on 6th May to 11 on 7th, 35 on 8th, 120 on 9th, 90 on 10th. Numbers dropped to 30 on 11th, 14 on 21st, but 18 on 22nd, then 2-5 daily until 6th June. Stragglers on 7 days to 27th June. Autumn passage between 15th and 27th August (maximum 15 on 22nd) and 9th to 25th September (maximum 9 on 16th and 15 on 23rd); late singles on 7th and 14th October.

DUNNOCK *Prunella modularis*. One on 31st January. Scattered records from 31st March to 30th April (maximum 3 on 15th April); arrivals of 4 on 7th May, 10 on 8th, 15 on 9th and 8

on 10th; numbers up to 11 until 17th, then dropped to 2 by 28th and last one on 2nd June. Small autumn passage between 7th October and 7th November, maximum 8 on 13th October.

MEADOW PIPIT *Anthus pratensis*. One on 20th January. Spring arrivals from 26th March, numbers increased to 6 on 2nd April, 10 on 11th, 200 on 13th; further movements noticeable on 22nd, 24th and 26th April, and 8th May. Breeding season late; first eggs found on 11th April; first flying young on 9th June but most at end of month. Autumn movements noted on 29th-31st August, 3rd and 12th September. Numbers down to 10 by 26th October, small numbers in November except 10 on 13th, singles 1st and 10th December.

RICHARD'S PIPIT *Anthus novaeseelandiae*. 3 arrived on 23rd September, 4 on 24th and 25th, 2 on 26th, increase to 6 on 27th, 4 on 28th, 2 on 29th, and one on 30th September; one 1st-4th, 2 on 5th, one 6th-7th, 2 on 8th-9th, 4 on 12th, one on 13th and 2 on 14th October; one on 5th November. About 12 individuals.



TAWNY PIPIT *Anthus campestris*. An adult at Wirvie on 25th-26th May and an immature (trapped and ringed) at Double Dyke on 8th-10th June. First seen 1963; 5th and 6th records for Fair Isle.

TREE PIPIT *Anthus trivialis*. Spring passage from 6th May (2) to 9th June. Large fall in early May; 100 on 7th, 350 on 8th, 500 on 9th and 400 on 10th; numbers dropped to 150 on 11th-12th, 80 on 13th. Secondary peak 250 on 14th, 200 on 15th, 175 on 16th, numbers dropped to 35 on 20th and 15 on 22nd, another peak of 60 on 23rd May; down to 15 by 31st and 4 on 7th June. One on 8th July. Autumn passage from 21st to 30th August, maximum 10 on 21st; 1-2 on 7 days between 9th and 28th September.

ROCK PIPIT *Anthus spinoletta*. Numbers as usual. Nest material collecting from 6th May, first nest with eggs found on 29th (a little late) and many young flying last week June. Yellow head and shoulders bird still at Erne's Brae. Passage noted late August.

WHITE WAGTAIL *Motacilla alba alba*. Spring passage from 16th April to 30th May, maximum 9 on 7th and 9th May. Two on 7th, 3 on 12th and one 26th June. Three on 28th July. Autumn passage from 8th August to 27th September, mainly 16th August to 11th September, peaks of 40 on 20th and 70 on 29th August and 1st September; a late one on 1st-3rd October.

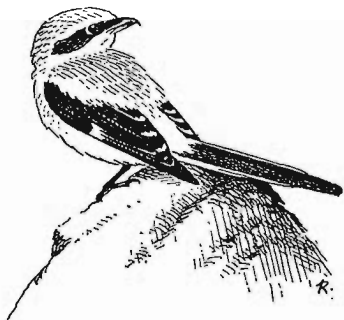
PIED WAGTAIL *Motacilla alba yarrelli*. One 'alba' on 9th April, one Pied on 14th, ♂ on 16th; 2 ♂♂ on 10th, single ♂♂ on 24th, 29th and 30th May. A ♀ on 1st and 2nd July.

GREY WAGTAIL *Motacilla cinerea*. One on 13th September, and 3 on 3rd November.

CITRINE WAGTAIL *Motacilla citreola*. An immature on 16th September; first seen at Springfield, spent most of day around Stackhoull.

YELLOW WAGTAIL *Motacilla flava*. Blue-headed Wagtail *M.f. flava*: 1-3 on 11 days between 8th and 27th May; singles, all probably this race, on 7 days between 3rd and 18th September. Grey-headed Wagtail *M. f. thunbergi*: 2 ♂♂ on 8th May, 3 ♂♂ on 9th and 4 ♂♂ on 10th, some present to end of month, maximum 4 ♂♂ and 2 ♀♀ on 13th; singles on 5 days in June to 9th. Yellow Wagtail *M. f. flavissima*: First ♂ on 2nd May, 3 on 3rd and 6th, 5 on 7th and 7 on 8th, singles to 13th May. Black-headed Wagtail *M. f. feldegg*: a superb ♂ at Easter Lother Water on 7th and 8th May, and at Byerwell on 9th; a new subspecies for Fair Isle.

WAXWING *Bombycilla garrulus*. Singles on 28th January, 10th and 11th February. Autumn influx: 16 on 22nd October, 11 on 23rd, 2 on 24th, 3 on 27th, 8 on 28th, 2 on 30th October; 19 on 1st November, 3 on 2nd, 15 on 3rd, 4 on 4th, 3 on 5th, 6 on 7th and singles on 10th, 11th, 13th and 27th November.



GREAT GREY SHRIKE *Lanius excubitor*. One on 11th, 2 on 13th and one 15th and 16th April; four individuals. One 26th-29th

September. One 12th, 3 on 13th, 5 on 14th, one 15th, 3 on 16th-17th, singles to 25th October. One 1st, 2 on 3rd-4th, 3 on 5th, 2 on 6th and singles on 7th, 13th, 16th, 20th and 22nd-25th November; at least 15 individuals.

RED-BACKED SHRIKE *Lanius cristatus*. 5 on 8th, 14 (9 ♂♂) on 9th, 13 on 10th, 5 on 11th, singles on 12th and 13th, 2 new ones on 14th, one 15th, 2 on 16th and 17th and one 23rd and 24th May. Singles on 1st, 2nd and 5th, 7 on 6th and 7th, one 8th, 5 on 9th, singles 11th-15th, 16th-25th and another 23rd June. In autumn, one 16th, 2 on 17th and one 29th August, singles 9th and 16th-17th September.

STARLING *Sturnus vulgaris*. Increases from 9th March, peak of 200 on 14th. Nest building from 11th April, first young hatched 25th May, first young in flight 10th June. Noticeable autumn migration on 12th and 13th October, 1st and 23rd November.

GREENFINCH *Chloris chloris*. One 9th April, 2 on 9th May, one 13th, 2 on 14th and one present to 30th May. Only one autumn record; one 21st October.

SISKIN *Carduelis spinus*. 10 on 7th, 5 on 8th, 14 on 10th, 25 on 16th, 22 on 17th and singles on 22nd, 27th and 28th May. One 5th-8th June, 2 on 9th and 3 on 15th June. Autumn passage between 20th September and 15th October, peaks of 18 on 24th, 80 on 29th and 70 on 30th September, 100 on 1st, 30 on 2nd, 18 on 10th October, 2 on 3rd-5th and singles 24th, 26th, 28th and 29th November.

LINNET *Carduelis cannabina*. One 30th March. Scattered spring records between 9th April and 2nd June, maximum 3 on 8th May. 2 on 12th and singles 19th and 21st October. One 12th and 2 on 26th November.

TWITE *Carduelis flavirostris*. 8 on 13th, 2 on 26th, 3 on 27th but 70 on 28th January (passage to Shetland?), small numbers in February and March with peaks (passage birds) of 34 on 24th February and 50 on 21st March. Spring flock maxima of 40 on 11th and 55 on 28th April, 50 on 4th and 12th May. Usual numbers bred, first young on wing 2nd July. Highest autumn numbers 100 in flock in September, numbers down to 30 in November.

REDPOLL *Carduelis flammea*. Mealy Redpoll: one 27th February and 6 on 1st March, singles on 7 days between 5th and 27th May. Autumn passage from 20th September to 12th October (maximum 4 on 29th September) and 19th to 28th November (maximum 3 on 23rd). Greenland Redpoll: one young bird 30th July, singles on 8 days between 10th September and 23rd November.

BULLFINCH *Pyrrhula pyrrhula*. 3 on 2nd, 4 on 3rd, 2 on 4th, singles 6th-7th, 9th-10th and 26th November; about 6 individuals.

SCARLET GROSBEAK *Carpodacus erythrinus*. A ♂ trapped on 27th July; first record of red male at Fair Isle in observatory period. 2 on 21st and singles on 22nd, 25th and 31st August. Singles 4th, 5th and 9th, 2 on 10th-11th, one 12th-13th, 4 on 20th, and one 27th and 28th September. Singles on 10th-12th and 15th-16th October; about 14 individuals involved in autumn.

CHAFFINCH *Fringilla coelebs*. One 14th January. Spring passage from 21st March to 20th May, peaks of 5 on 22nd March, 12 on 13th and 10 on 16th April and 6 on 7th May. Stragglers to 12th June and one to 25th June. Small autumn passage between 27th September and 6th November, mainly 12th-19th October when 15+ on 13th and 20 on 16th. One on 28th November.

BRAMBLING *Fringilla montifringilla*. One 14th January. Spring passage between 12th April and 26th May, mainly 25th April (14) to 13th May (19) with other peaks of 20 on 27th April, 35 on 9th and 55 on 10th May. One on 19th August and 10th September. Small autumn passage from 22nd September to 30th November, mainly 12th-19th October when peaks of 55 on 12th, 110 on 14th and 120 on 15th.

YELLOWHAMMER *Emberiza citrinella*. Singles 11th-12th April and 8th-9th June; 2 on 3rd, 4th and 7th, and one 21st-29th November.

CORN BUNTING *Emberiza calandra*. Singles on 1st-6th January, 3rd May, 30th October and 5th November.

RED-HEADED BUNTING *Emberiza bruniceps*. Single ♂♂ on 25th May and 7th July.

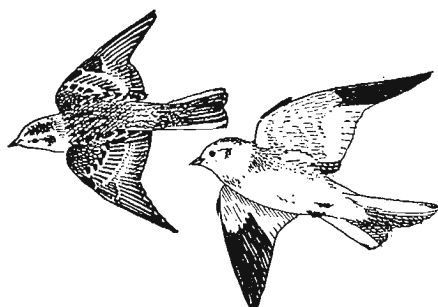
ORTOLAN BUNTING *Emberiza hortulana*. 2 on 7th-8th, 8 on 9th, 10 on 10th, 4 on 11th, 10 on 12th, 9 on 13th, 7 on 14th, 5 on 15th and one 16th-17th May. Autumn singles on 21st, 22nd and 27th September.

LITTLE BUNTING *Emberiza pusilla*. Singles at Haa on 13th September and Setter on 3rd to 10th October.

REED BUNTING *Emberiza schoeniclus*. One 24th and 27th March, 1-3 on 9 days between 10th and 26th April, 1-3 up to 5th May, then 18 on 6th, 79 on 7th, 140 on 8th and 9th, 250 on 10th, numbers above 100 until 15th with smaller peak of 160 on 14th down to 14 by 20th, 17 on 28th and 3 on 30th May. Late singles on 3rd-10th and 12th-20th June. One on 13th July and 28th August. Autumn passage between 21st September and 25th November, singles outside 27th September

and 21st October, when peaks of 4 on 27th September and 10 on 13th-16th October.

LAPLAND BUNTING *Calcarius lapponicus*. One 10th April, 4 on 26th-28th April; 1-3 on 10 days to 17th May. Autumn passage from 11th September to 16th October, peaks of 5 on 19th, 6 on 23rd and 9 on 27th September, and 4 on 7th October; a late one on 23rd October.



SNOW BUNTING *Plectrophenax nivalis*. Up to 100 in January, 41 in February and 60+ in March. Numbers throughout April, 65 on 13th dropped to about 10 in rest of month except 31 on 29th and 40 on 30th; 9 on 3rd May dropped to one by 7th; a straggler on 21st May. Outstanding autumn migration; numbers rising rapidly from 3 on 5th September to 18 on 6th, 15 on 9th, 200 on 10th, 600 on 11th, 700 on 14th-17th, 1000 on 17th, 2000 on 18th. This large influx was comprised nearly wholly of male birds; for instance 70 were trapped on 19th September and all were males, and 31 were adults. Numbers dropped to 1500 on 20th, 1000 on 21st, down to 300 on 25th, but 500 on 26th, down to 250 at end of month. Later peaks of 400 on 1st and 7th, 500 on 11th and 250 on 26th October, 300 on 5th and 200 on 10th November; under 100 in December.

HOUSE SPARROW *Passer domesticus*. Usual numbers or slightly increased. First wanderers from south end to Observatory on 30th March. A pair nested successfully in old fish store at North Haven.

TREE SPARROW *Passer montanus*. One resident. Spring arrivals from 4 on 3rd May to 11 on 4th, 14 on 7th, 21 on 9th, numbers then below 10 to 27th, 11 on 28th, 15 on 30th and 16 on 31st May; 24 on 1st, 30 on 3rd and 35 on 5th June, down to 7 between 7th and 18th June; 2-3 resident to end of year, but 6 on 19th October, 5 on 5th and 4 on 28th November.

RINGING

For the third winter in succession the bird traps were badly damaged by heavy snowfalls; this, added to the collapse of the Double Dyke trap in last autumn's gales, meant plenty of trap repairs. The Double Dyke trap was rebuilt and completely re-wired while all except the catching end of the Gully trap was rebuilt and rewired. Both traps are now in excellent working order. Minor repairs were made to other traps but we did not have time to remove the plantation trap and replace it with a much larger Heligoland; this will be done in 1971.

Wader traps were again in operation at Easter Lothar Water and caught some interesting birds; the future use of these traps is in doubt as Tommy and Katie Russell of the North Lighthouse were moved to the Point of Ayre Lighthouse, Isle of Man. We must thank them very much for looking after these traps (and the trappers!) in all weathers during their long stay at the North Light. Mist-nets, clap-nets and dazzle-netting were used and contributed to our catch. In the early summer we bought a new outboard engine and a Shetland boat; unfortunately the weather was bad during the short sea-bird ringing season and we didn't manage to do any ringing from the boat on the west cliffs.

In 1970, 6390 birds of 127 species were ringed with Fair Isle Bird Observatory rings; these totals include 1221 birds of 16 species ringed on Fetlar and Yell by Tony Mainwood (including 1189 Storm Petrels, 5 Manx Shearwaters and 2 Snowy Owls), 4 birds of 3 species ringed by Magnus Sinclair on Unst, 3 birds of 3 species ringed by Brian Marshall in Shetland and 13 birds of 5 species ringed by myself on North Ronaldsay.

The monthly totals of birds ringed at Fair Isle in 1970 were as follows:

	Jan/Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov/Dc
Number	100	166	814	631	957	819	458	778	426

The best day's ringing during the year was on 9th May when 199 birds were trapped and ringed; the catch included Redstart 54, Willow Warbler 31, Robin 27, Whitethroat 14, Dunnock 10, Brambling 9, Pied Flycatcher 8 and 18 other species including Long-eared Owl, Great Spotted Woodpecker, 5 Wrynecks, 5 Bluethroats and a Thrush Nightingale.

The totals of the ten leading species in 1970 were Storm Petrel 1313, Starling 791, Shag 504, Blackbird 436, Wheatear 320, Meadow Pipit 201, Fulmar 197, Willow Warbler 196, Rock Pipit 188 and Guillemot 179. Other interesting totals are Wry-

neck 13, Redstart 164, Bluethroat 12, Lesser Whitethroat 41, Great Grey Shrike 9, Red-backed Shrike 14, Waxwing 13 and Snow Bunting 99. Species ringed for the first time on the island were Red-necked Grebe, Great Bustard, Little Crane and Rock Thrush. Other unusual species ringed were Little Grebe, Goosander, Spotted Crane, Curlew Sandpiper (2), Shorelark, Golden Oriole, Nightingale (2), Thrush Nightingale (3), Great Reed Warbler, Arctic Warbler (5), Tawny Pipit, Scarlet Grosbeak (4) and Ortolan Bunting.

The annual and cumulative totals are brought up to date in Table 1 which gives the ringing totals for the individual species, together with the number of recoveries of each species away from Fair Isle, or in a few cases from other ringing localities.

TABLE 1

	Numbers ringed			Numbers recovered		
	1948-69	1970	Total	1948-69	1970	Total
Great Crested Grebe	1		1			
Red-necked Grebe		1	1			
Slavonian Grebe	1		1			
Little Grebe	2	1	3			
Storm Petrel	3543	1313	4856	15	3	18
Leach's Petrel	3		3			
Manx Shearwater	8	5	13			
Fulmar	3948	197	4145	19	4	23
Gannet	236		236	4		4
Cormorant	5	1	6			
Shag	7176	504	7680	156	13	169
Heron	9		9			
Mallard	8		8	2		2
Teal	23	1	24	2		2
Wigeon	7		7			
Scaup	2		2			
Tufted Duck	5	1	6			
Goldeneye	4	1	5			
Long-tailed Duck	5		5			
Velvet Scoter	2		2			
Eider	49	3	52			
Goosander	2	1	3			
Red-breasted Merganser	1		1			
Greylag Goose	4		4	1		1
White-front	1		1			
Pink-foot	1		1			
Barnacle Goose	1		1			
Whooper Swan	9		9	1		1
Sparrowhawk	65	3	68	10	1	11

	Numbers ringed			Numbers recovered		
	1948-69	1970	Total	1948-69	1970	Total
Peregrine	6		6			
Merlin	129		129	13		13
Kestrel	23		23	4		4
Red-footed Falcon	1		1			
Quail	2		2			
Great Bustard		1	1			
Water Rail	131		131	2		2
Spotted Crane	3	1	4			
Little Crane		1	1			
Corncrake	27	1	28	2		2
Moorhen	42	2	44	1		1
Coot	6	1	7			
Oystercatcher	584	8	592	30	1	31
Lapwing	216	3	219	3	1	4
Ringed Plover	230	10	240	3		3
Little Ringed Plover	1		1			
Golden Plover	14	1	15			
Dotterel	2		2			
Turnstone	45	3	48			
Snipe	112	7	119	6		6
Jack Snipe	22	1	23			
Curlew	25	4	29	1	1	2
Woodcock	119	9	128	6		6
Whimbrel	12	2	14			
Black-tailed Godwit	1		1			
Bar-tailed Godwit	8		8	2		2
Green Sandpiper	16	2	18	1		1
Wood Sandpiper	9		9			
Common Sandpiper	28	1	29			
Redshank	110	7	117	2		2
Spotted Redshank	3		3			
Greenshank	5		5			
Knot	44	4	48			
Purple Sandpiper	82	5	87			
Little Stint	14	11	25			
Western Sandpiper	1		1			
Pectoral Sandpiper	3		3			
Dunlin	222	29	251	3		3
Curlew Sandpiper	1	2	3			
Sanderling	64	2	66			
Ruff	16	1	17	1		1
Red-necked Phalarope	3		3			
Bonxie	589	12	601	8	1	9
Arctic Skua	1115	6	1121	28	1	29
Pomarine Skua	1		1			
Great Black-back	499	27	526	24	3	27

	Numbers ringed			Numbers recovered		
	1948-69	1970	Total	1948-69	1970	Total
Lesser Black-back	384	23	407	8	1	9
Herring Gull	799	110	909	24	1	25
Common Gull	90	4	94	1		1
Glaucous Gull	14	1	15	1		1
Iceland Gull	1		1			
Black-headed Gull	47	2	49	3		3
Kittiwake	894	53	947	3	1	4
Common Tern	16	2	18			
Arctic Tern	114	1	115	1		1
Razorbill	684	94	778	28	3	31
Little Auk	5	1	6			
Guillemot	1037	179	1216	32		32
Black Guillemot	568	50	618	7		7
Puffin	4117	22	4139	8		8
Wood Pigeon	25		25	2		2
Rock Dove	4		4			
Turtle Dove	15	3	18			
Collared Dove	11	2	13			
Cuckoo	45	1	46	1		1
Snowy Owl	10	2	12			
Long-eared Owl	46	3	49	2		2
Short-eared Owl	1		1			
Nightjar	3		3			
Swift	11		11	1		1
Great Spotted Woodpecker	13	1	14			
Wryneck	68	13	81			
Short-toed Lark	3		3			
Shorelark	1	1	2			
Woodlark	2		2			
Skylark	408	23	431	2		2
Swallow	138	10	148	2		2
House Martin	59	16	75			
Sand Martin	5	1	6			
Raven	3		3			
Hooded Crow	29	2	31			
Rook	4		4			
Jackdaw	1		1			
Golden Oriole	1	1	2			
Great Tit	4		4			
Blue Tit	2		2			
Treecreeper	1		1			
Wren	402	8	410			
Dipper	8		8			
Mistle Thrush	10		10	1		1
Fieldfare	422	9	431			

	Numbers ringed			Numbers recovered		
	1948-69	1970	Total	1948-69	1970	Total
Song Thrush	984	32	1016	16	1	17
Redwing	3327	170	3497	43	2	45
Dusky Thrush	1		1			
Black-throated Thrush	1		1			
Ring Ouzel	182	11	193	2	1	3
Blackbird	10434	436	10870	202	8	210
Rock Thrush		1	1			
Grey-cheeked Thrush	2		2			
Wheatear	9337	320	9657	48		48
Black-eared Wheatear	2		2			
Stonechat	17	1	18			
Whinchat	294	19	313	2		2
Redstart	795	164	959			
Black Redstart	43	5	48			
Nightingale	7	2	9			
Thrush Nightingale	4	3	7			
Bluethroat	101	12	113	1		1
Robin	2646	161	2807	17		17
Grasshopper Warbler	32	10	42			
Lanceolated Warbler	3		3			
Pallas's Grasshopper Warbler	1		1			
River Warbler	2		2			
Great Reed Warbler	2	1	3			
Reed Warbler	60		60	1		1
Marsh Warbler	25	2	27			
Paddyfield Warbler	1		1			
Thick-billed Warbler	1		1			
Sedge Warbler	175	7	182			
Aquatic Warbler	10		10			
Melodious Warbler	3		3			
Icterine Warbler	41		41			
Booted Warbler	3		3			
Blackcap	787	87	874	4		4
Barred Warbler	150	18	168			
Garden Warbler	1100	91	1191			
Whitethroat	490	43	533			
Lesser Whitethroat	199	41	240			
Sardinian Warbler	1		1			
Subalpine Warbler	7		7			
Willow Warbler	1257	196	1453	1		1
Greenish Warbler	6		6			
Chiffchaff	216	38	254			
Wood Warbler	28	1	29			
Bonelli's Warbler	1		1			
Arctic Warbler	13	5	18			

	Numbers ringed			Numbers recovered		
	1948-69	1970	Total	1948-69	1970	Total
Yellow-browed Warbler	34	2	36			
Dusky Warbler	1		1			
Goldcrest	489	9	498			
Spotted Flycatcher	242	11	253	1		1
Pied Flycatcher	403	32	435	3		3
Red-breasted Flycatcher	31		31			
Dunnock	616	38	654	4		4
Meadow Pipit	4700	201	4901	33		33
Tree Pipit	242	31	273			
Olive-backed Pipit	2		2			
Pechora Pipit	2		2			
Red-throated Pipit	3		3			
Rock Pipit	4100	188	4288	12		12
Richard's Pipit	7		7			
Tawny Pipit	1	1	2			
Pied/White Wagtail	313	20	333	3		3
Grey Wagtail	6		6			
Yellow Wagtail spp.	9		9			
Citrine Wagtail	3		3			
Waxwing	19	13	32			
Great Grey Shrike	41	9	50			
Lesser Grey Shrike	5		5			
Woodchat Shrike	7		7			
Red-backed Shrike	67	14	81			
Starling	6492	791	7283	62	5	67
Rose-coloured Starling	2		2			
Greenfinch	25	1	26			
Goldfinch	3		3			
Siskin	130	5	135			
Linnet	29	6	35	1		1
Twite	1954	52	2006	3		3
Redpoll	137	6	143			
Arctic Redpoll	3		3			
Bullfinch	16	1	17			
Scarlet Grosbeak	22	4	26			
Crossbill	264		264	2		2
Parrot Crossbill	35		35			
Chaffinch	596	24	620	1		1
Brambling	546	38	584	1	1	2
Yellowhammer	24	1	25			
Corn Bunting	2		2			
Red-headed Bunting	5		5			
Black-headed Bunting	1		1			
Yellow-breasted Bunting	4		4			
Ortolan	14	1	15			
Cretzschmar's Bunting	1		1			

	Numbers ringed			Numbers recovered		
	1948-69	1970	Total	1948-69	1970	Total
Rustic Bunting	4		4	1		1
Little Bunting	12		12			
Reed Bunting	123	31	154	1		1
Song Sparrow	1		1			
White-throated Sparrow	1		1			
Lapland Bunting	37		37			
Snow Bunting	186	99	285	2		2
House Sparrow	947	35	982			
Tree Sparrow	32	15	47			
GRAND TOTAL	86024	6391	92415	943	53	996

RECOVERIES 1970

53 recoveries of ringed birds were received in 1970 and full details of these are given below; the most exciting ones are displayed on the map. The international code of symbols for the method of recovery is employed:

v—caught or trapped and released with ring;

+—shot or killed by man;

x—found dead or dying;

xA—found long dead;

()—caught alive and not released, or released but with ring removed;

/?/—method of recovery unknown.

Where the exact date of recovery is unknown, the date of the finder's report is given in brackets. Ringing details of each bird (ringed at Fair Isle unless otherwise stated) are given on the first line and the recovery details on the second. The distance, given in miles, and the directions are approximate. The abbreviations indicating age as follows:

pull.—pullus, nestling or chick, not yet flying;

juv.—flying young;

1st Y.—first year;

pj.—post-juvenile;

fg.—full-grown, age uncertain;

ad.—adult.

The coordinates of Fair Isle are 59°32'N 1°37'W.

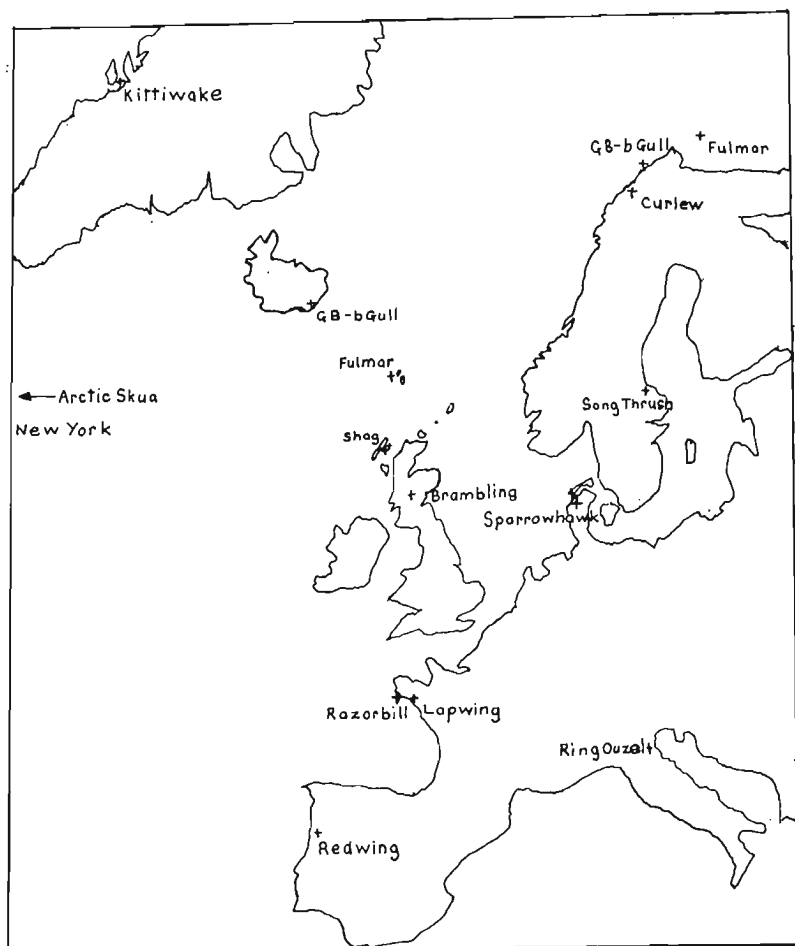
STORM PETREL

678570 pj. 3.8.68

v 2.7.70 Fetlar (Shetland), 80 miles NNE.

699415 pj. 25.7.69

v 28.7.70 Fetlar.



Map showing some ringing recoveries in 1970

2104103 31.7.70 Coppister, Yell (Shetland)
v 22.8.70 Fetlar.

FULMAR

SS 39145 pull. 11.8.65
+ 20.1.70 Lopra (Suderoy), Faeroes, 61°27'N 6°46'W.
SS50920 ad. 3.8.66
x (5.8.70) Easington (Durham), 330 miles S.
SS 84101 pull. 5.8.68
v 28.5.70 Barents Sea, 70°00'N 33°38'E.

SS 84864 pj. 3.9.69
 x 16.5.70 Seaham (Durham), 325 miles S.

SHAG

1942361 pull. 12.7.63
 x 21.1.70 Scalloway (Shetland), 45 miles NNE.
 1051655 ad. 11.5.66
 x 11.10.70 Whalsay (Shetland), 63 miles NNE.
 1052269 pull. 8.6.65
 x 1.3.70 Findhorn (Moray), 150 miles SSW.
 1068091 pull. 22.6.68
 x 4.2.70 St Combs (Aberdeen), 130 miles S.
 1068366 pull. 12.7.68
 x (27.4.70) Bigton (Shetland), 30 miles NNE.
 1068548 pull. 2.7.69
 xA 30.6.70 Gutcher, Yell (Shetland), 85 miles NNE.
 1068643 pull. 21.6.69
 v 15.2.70 Loch Erisort (Lewis), 200 miles WSW.
 1068808 pull. 3.7.69
 x 9.4.70 Burra Isle (Shetland), 45 miles NNE.
 1068851 pull. 5.7.69
 xA mid-12.69 Broad Bay (Lewis), 185 miles SW.
 1068886 pull. 9.7.69
 x 23.3.70 Bixter (Shetland), 55 miles N.
 1068940 pull. 9.7.69
 x (28.7.70) 14 miles N of Lerwick (Shetland), ca 60 miles NNE.
 1076393 pull. 27.6.70
 x (31.10.70) Cunningsburgh (Shetland), 44 miles NNE.
 1076619 pull. 4.7.70
 v 15.10.70 Setter, Yell (Shetland), 75 miles NNE.
 1068643 and 1068851 are the first Fair Isle bred Shags to be recovered in the Outer Hebrides; note they were both young birds.

SPARROWHAWK

ED 57700 1st Y. ♀ 19.4.70
 x (damaged wing) ca. 15.5.70 Ringkobing (Jylland), Denmark, 56°08'N 8°07'E.

OYSTERCATCHER

SS50568 pull. 29.6.66
 x 28.2.70 Whitehaven (Cumberland), 325 miles SSW.

LAPWING

P 14645 ad. 16.3.63
 + 11.1.70 Quimper (Finistere), France, 47°44'N 3°26'W.

CURLEW

SS 84321 pj. 16.3.69

xA 0.5.70 Vesteralen (Nordland), Norway, 68°41'N 14°25'E.

GREAT SKUA

HW 07484 pull. 31.7.66, Hermaness (Unst)

x 0.4.70 Mousa (Shetland), 62 miles SSW.

ARCTIC SKUA

ED 57499 pull. 7.7.69

v alive, unable to fly, on beach, 22.9.70 Fire Island Light-house, Long Island (New York), U.S.A., 40°36'N 73°13'W.

Our first recovery from North America.

GREAT BLACK-BACKED GULL

419967 ad. 6.11.66

+ 0.8.67 Faskrudsfjordur (S.-Mul.) Iceland, 64°56'N 14°01'W.

419979 ad. 6.11.66

/?/ (5.8.70) Tromso area, Norway, ca. 69°40'N 19°00'E.

HW 08205 ad. 15.11.69

+ 7.9.70 Lista (Vest Agder) Norway, 58°05'N 6°36'E.

Note widely separated recovery points of the two birds ringed the same night at a winter gull roost on Bunes; the Iceland recovery is our first for this species from that country.

LESSER BLACK-BACKED GULL

AJ 24906 pull. 11.7.60

Ring only found, ca. 15.2.70 Oyri (Eysturoy) Faeroes, 62°11'N 6°58'W.

Not much significance can be attached to this report because of the meagre recovery details; it is more likely that the bird died there in summer than was wintering there.

HERRING GULL

GM 79884 pull. 13.7.69

x (17.6.70) near Fraserburgh (Aberdeen), 125 miles S.

KITTIWAKE

ED 28865 pull. 10.7.68

+ 14.7.69 Pinguarsuk, Christianshaab, Greenland, 69°00'N 51°08'W.

RAZORBILL

FS 14037 pull. 1.7.70

+ 7.11.70 Langesund (Telemark) Norway, 58°54'N 9°25'E.

FS 14041 pull. 4.7.70

+ 10.10.70 Bomlafjorden (Hordaland) Norway, ca. 59°40'N 5°30'E.

SS 84462 pull. 2.7.69

x 5.2.70 St Nic (Finistere) France, 48°12'N 4°17'W.

SONG THRUSH

CR 51741 pj. 7.5.69

x 3.6.70 Hille (Gavleborg) Sweden, 60°44'N 17°13'E.

REDWING

CV 59583 1st Y. 6.10.66

+ 4.1.70 Redondo (Alto Alentejo) Portugal, 38°39'N 7°33'W.

CV 90659 1st Y. 31.10.66

x 19.4.68 Drangar (Snaef.) Iceland, 65°03'N 22°26'W.

RING OUZEL

CV 98148 ad. ♂ 23.4.68

+ 2.11.69 Verona, Italy 45°27'N 11°00'E. This is only our 3rd Ring Ouzel recovery; the other two were in France.

BLACKBIRD

8 Blackbirds ringed at Fair Isle were recovered as follows:

Ringed		Recovered
CP 65152 ♀	20.10.69	x (14.3.70) Coleraine (Co. Lond.) 355m. SSW.
CP 65243 ♂	23.10.69	x c.25.9.70 Norway 58°03'N 7°31'E.
CP 65292 ♀	13. 4.70	x (30.4.70) Norway 63°46'N 8°45'E.
CP 65617 ♀	23.10.69	+ 20.10.70 Norway 58°17'N 6°27'E.
CS 43393 ♂	17. 4.68	+ end-8.70 Norway 61°19'N 6°13'E.
CS 43780 ♀	29. 3.68	+ 19.4.70 Norway 60°22'N 5°20'E.
CV 98042 ♂	30. 3.68	v early-12.69 Norway 61°34'N 5°04'E.
CV 98081 ♀	29. 3.68	x 17.1.70 Liverpool, 425m. S.

all ringed as adults.

STARLING

CR 51829 1st Y. 12.9.69

x 10.1.70 Mauchline (Ayr), 295 miles SSW.

CV 59217 ad. 17.9.66 Tolob (Shetland)

v 28.9.70 Exnaboe (Shetland), local.

CV 98324 ad. ♂ 7.1.68 Mid-Yell (Shetland)

v (14.2.70) Herra, Mid-Yell, local.

CX 95289 1st Y. ♀ 7.11.65

x (1969) Stryn (Sogn og Fjordane) Norway, 61°55'N 6°47'E.

XX 46298 1st Y. ♂ 14.10.70

x 25.10.70 Peterhead (Aberdeen), 140 miles S.

BRAMBLING

HR 74950 1st Y. ♂ 20.10.68 North Ronaldsay (Orkney)

x 13.11.70 Carnwath (Lanarks.), 250 miles SSW.

RINGED STRANGERS IN 1970

STORM PETREL

- 666085 ad. 11.8.66 Foula (Shetland)
 v 16.7.70 Fetlar (Shetland), 50 miles NE.
 666372 pj. 27.7.68 Foula
 v 1.7.70 Fetlar.
 684271 pj. 17.8.68 Foula
 v 1.8.69 Fair Isle, 45 miles SSE.
 684382 fg. 24.7.69 Foula
 v 24.8.70 Fair Isle.
 684513 pj. 6.8.69 Foula
 v 16.7.70 Fetlar.
 684723 pj. 7.8.70 Foula
 v 24.8.70 Fair Isle.
 694197 pj. 7.7.68 Hirta, St Kilda
 v 4.8.70 Grunigeo, Fetlar, 330 miles NE. First Fetlar control
 of a St Kilda ringed Storm Petrel.
 Copenhagen 9300048 fg. 26.7.70 Mykinesholm, Faeroes,
 62°06'N 7°40'W.
 v 4.8.70 Fair Isle; 699532 added. Our second control from
 Faeroes; the other was also controlled just days after ring-
 ing.

SHAG

- 1066901 pull. 23.7.69 Foula
 x 22.2.70 Quendale Bay (Shetland), 35 miles SE.
 1074811 pull. 11.7.69 Hermaness (Unst)
 v exhausted, 26.3.70 Lerwick, 50 miles S.

GREY-LAG GOOSE

- 5020492 fg. ♂ 23.11.63 Coupar Angus (Perthshire).
 + 2.10.69 Fair Isle, 212 miles NNE.

GREAT SKUA

- HW 13892 pull. 29.7.67 Foula
 x 23.7.70 Fair Isle.
 HW 23770 pull. 7.8.69 Foula
 v (poor condition) 5.10.69 Fair Isle.

BLACKBIRD

- Stavanger 7.117.510 juv. 29.7.70 Tarva (Sor-Trondelag) Nor-
 way, 63°49'N 10°25'E
 x (2-3 days, cat) 20.11.70 Fair Isle, 760 km SW.

REDSTART

HS 31793 ad. ♂ 19.9.69 Spurn (Yorkshire)

x 22.5.70 Fair Isle, 415 miles NNW.

Arnhem S 225048 1st Y. ♀ 26.8.69 Schiermonnikoog (Netherlands) 53°29'N 6°12'E

v 8.5.70 Fair Isle; reringed HX 86962.

STARLING

CS 34481 ad. ♂ 10.2.69 Ackworth, Pontefract (Yorks)

xA in gull pellet, 12.7.70 Fair Isle, 405 miles N.

RECAPTURES IN 1970

A large number of birds ringed at Fair Isle were retrapped on the island during the year; most of these were short-duration controls but the more interesting retraps are detailed below.

STORM PETREL

Six retraps: 2 ringed at Malcolm's Head in 1966, retrapped at Gunnawark; 3 1968 birds (2 from Gunnawark and one from Malcolm's Head) all retrapped at Gunnawark in August and one 1969 Gunnawark bird retrapped there a year later.

FULMAR

Seven retraps; 4 were of adults retrapped on nests, ringed at same site in 1965 (2) and 1968 (2); adults ringed at Lericum and North Naaversgill in 1961 retrapped at same places in 1970 and a pullus ringed at Landberg on 13.7.62 was found nesting there on 14.6.70.

SHAG

The following were retrapped or found dead during year:

	Year of ringing								
Age at ringing	61	62	63	64	65	66	67	68	69
Adult	1			2	1	2		1	
Pullus		1	2		2	7	2	1	

5 breeding adults were retrapped where ringed while others had moved from South Mila Hesslands to Hesswalls and Easter Lother to Lericum; 6 young birds had returned to breed at their natal colony while a 1962 pullus (from South Ramnageo) was breeding at North Naaversgill and a 1967 pullus from Guidicum was also at Naaversgill.

EIDER

A brooding ♀ ringed on North Gavel 7.6.58 retrapped same place 61, 62, 63, 66, 67, 68, and 70. A ♀ North Haven Stack 11.6.66 again brooding 4 eggs same place on 3.6.70.

RINGED PLOVER

Ad. ♀ (wing 138, wt 63.2) ringed North Haven 25.9.68 retrapped same place 12.4.70 (wing 132, wt 71.2).

PURPLE SANDPIPER

Ringed 5.5.69 (wt 72.4) North Haven retrapped Bunes 21.2.70 (wt 70.1).

LESSER BLACK-BACKED GULL

Pullus ringed Goorn 11.7.66 found dead South Gavel 25.7.70.

HERRING GULL

Adult dazzled South Gavel 16.11.66 retrapped at night North Light 14.10.70.

KITTIWAKE

Three adults caught at nests at South Gunnawark on 26.6.70 had all been ringed there as adults on 17.7.67, two of them had also been retrapped on 21.6.69.

GUILLEMOT

The following were retrapped during the year:

Age at ringing	year ringed									
	60	61	62	63	64	65	66	67	68	69
adult	1	1		1	1	4	2	5	7	3
pullus		1		1			1			

Most birds were retrapped where ringed although there were a few movements between Lericum and the Guillemot cave, Wester Lothar.

RAZORBILL

9 birds ringed as adults were retrapped where ringed; year of ringing was 59, 60, 62, 63 (2), 64 (2), 65 and 66. A pullus ringed in 1963 was also caught at a colony.

BLACK GUILLEMOT

Birds ringed as adults at South Haven colony in 1964 and 1966 were caught at same site in 1970, and 2 retraps at Busta had been ringed at same site in 1963 (pullus) and 1968 (adult).

HOODED CROW

Adult ringed Axell trap 8.5.63 (wing 335, wt 570.3) retrapped Axell trap 22.5.70 (wing 340, wt 573.2). Ad, probably non-breeder, ringed Byerwell trap 26.6.65 (wing 287, wt 382.2) retrapped Axell trap 11.6.70 (wing 320, wt 468.4).

REDWING

One overwintered; ringed Setter 29.12.69 (wt 92.7) retrapped Vaadal 16.4.70 (wt 84.5 but tail only $\frac{1}{4}$ grown).

WHEATEAR

Four birds retrapped in summer 1970 had been ringed as first-year birds in 1968 and 1969 (3).

REDSTART

A large fall of this species occurred in early May and some birds lingered on the island; the intervals between ringing and retrap dates are given below:

		<i>length of stay in days</i>															
		1	2	3	4	5	6	7	8	9	10	11-13	14-16	17+			
Number	1								1	2	2	1	3	2	1	(30 days)	

ROBIN

One overwintered; ringed on 12.12.69 (wt 17.5) retrapped on 23.1.70 (wt 19.0). One ringed during spring fall 8.5.70 (wt 15.0) was retrapped on 8.7.70 (wt 10.2) and again on 3.9.70 (wt 16.7); two others lingered on island, one ringed 23.5 and retrapped on 8.6 and 4.7, and the other ringed on 21.6 and retrapped on 13.7.

CHIFFCHAFF

Like 1969 a Chiffchaff summered at Restensgeo bracken patch; this bird was ringed on 17th June and retrapped on 6th August, plumage very worn, with some body moult.

MEADOW PIPIT

One retrapped on 21.4.70 had been ringed as pj. on 28.8.66 and also retrapped on 29.4.68. Two 1969 birds were retrapped in 1970.

ROCK PIPIT

A juvenile ringed at Observatory on 29.6.64 and retrapped there in 1968 and 1969 was retrapped on various occasions in Axell trap between 26.3 and 2.11.70. Birds ringed as 1st Y. in 1967, 1968 (3) and 1969 were retrapped during the year.

STARLING

Retraps during 1970 as follows:

		<i>Year of ringing</i>						
<i>Age at ring.</i>		63	64	65	66	67	68	69
Juv/1st Y.	1			2	1	1	3	9
adult				1	1		5	

HOUSE SPARROW

Four birds retrapped during 1970 had been ringed in 1969, 3 as juveniles.

EL GRAN GRIFON

By COLIN MARTIN

(Archaeological Director, Spanish Armada Expedition)

The remains of *El Gran Grifon*, Fair Isle's Armada shipwreck, were bound to be discovered by the first person who dived to the bottom of Stroma's Hellier geo, near the south-east corner of the island. That is where local tradition for nearly four hundred years steadfastly maintained they would be, and that is where, last summer, we found them.

But we are not the first to have shown an interest in finding this wreck. In 1593—only five years after the event—a William Irvine signed a contract with the notorious Earl Patrick of Orkney to salvage the ship's guns. These operations—if indeed they were attempted at all—failed to produce any results. But in 1728 Thomas Gifford of Busta, writing to the Earl of Morton, stated that "the company of divers at Fair Isle have found the wreck . . . and have got two or three brass cannon, and talk of a great prospect they have there of no less than 40 or £50,000 sterling." Another reference to what is probably the same event tells us that a "Captain Roe, when fishing (i.e. grappling) the wreck was fortunate to raise two brass guns, of a large size, and some other articles of a less value, but having lost a man in the attempt, he desisted."

El Gran Grifon was the flagship of the Armada's squadron of supply-ships, the hulks, and she came from the Hanseatic port of Rostock in north Germany. She was a deep-bellied Baltic merchantman of 650 tons, and she carried an armament of 38 guns. Her commander was Juan Gomez de Medina, the squadron's admiral. During the battles in the English Channel the ship was badly mauled, and she was unable to keep up with the main body of the fleet during the terrible voyage back to Spain. She managed to round the north of Scotland, but after almost foundering in the Atlantic she turned back, hoping to reach Norway. Close to the Orkneys she was caught in a storm, and blown to the north-east. Fast sinking, she came upon Fair Isle where, on the morning of 28th September 1588, her crew ran her into Stroma's Hellier. Her tall masts leaned against the overhanging cliffs, enabling her people to climb to safety.

The survivors stayed on Fair Isle for more than six weeks, enduring many hardships. The islanders spared what food they could, but winter was approaching and reserves were low. Stories that some of the Spaniards were murdered for fear that they might take food by force do not stand up to a careful

appraisal of the evidence. The truth seems to be that the islanders helped the shipwrecked men to the fullest degree possible, and that the Spaniards—who could easily have seized by force of arms anything they wanted—behaved with corresponding discipline and humanity. In due course they were taken to Sumburgh, and eventually many of them, including Gomez de Medina, returned to their homes.

Though valuables and personal possessions were probably taken off by the Spaniards when they escaped, the ship with her armament and other contents quickly broke up and sank. The deep gullies of Stroms Hellier thus became a secret museum of 16th century ship's equipment, weaponry, and other relics. Most of this piled wreckage gradually became absorbed into the drifting shingle, hidden and preserved for posterity. Of the ship herself, nothing survived.

It was not in the hope of amassing valuables or curios, however, that our expedition was launched. The Spanish Armada Expedition is the brainchild of Sydney Wignall, a marine historian, who conceived the possibility of finding new evidence about the Spanish Armada from the remains of the wrecked ships themselves. In 1968 an expedition was launched to south-west Ireland where, after the largest underwater search ever attempted, the remains of *Santa Maria de la Rosa*, an Armada vice-flagship, were found. In two years of work on this wreck much important evidence was brought to light, especially evidence concerning the build of the ship for, unlike *El Gran Grifon*, part of the *Santa Maria's* wooden hull had survived. Many interesting artefacts were recovered too. But no trace was found of the ship's guns, and guns are of course an important feature in any study of the Armada campaign.

Research by Syd Wignall and myself over the winter of 1969/70 suggested that Armada guns might be found on the *Gran Grifon* site. Accordingly, we approached Zetland County Council (who hold a protective lease over the *Gran Grifon* and other historical wrecks throughout the Shetlands) for permission to work there. This permission was granted, and in early June of last year our small expedition arrived on Fair Isle.

On almost the first dive we landed on top of a magnificent eight-foot bronze gun sticking out of the shingle at the bottom of Stroms Hellier. Close by, there were two iron guns, almost buried. In a cleft we came upon another iron gun, and a cluster of lead ingots. Spanish figures were stamped on the ingots, and we knew that Armada ships carried lead pigs for casting musket bullets.

Soon we had set up a suction tube with which to clear away the shingle and reveal the buried objects. More guns came to

light, together with iron balls for them and thousands of pieces of lead shot for the soldiers' muskets. Ship's fittings—a bronze pulley wheel, hull bolts, a rudder pintle—were discovered. There were broken pieces of copper pots from the ship's galley, part of a pewter flagon, a button from a soldier's tunic, and a silver coin of Philip II—the King of Spain who had launched the ill-fated enterprise. There was even a lead seal from a bonded cask, bearing Philip's own coat-of-arms.

Much information has resulted from these discoveries. We now know a great deal about the ship's armament; it was a defensive armament, designed to keep the ship out of trouble at long range (for the hulks were not front-line fighting ships) rather than to give her a short-range destructive firepower. Some of the guns are old-fashioned—by 16th century standards, that is—which confirms our belief that many Armada ships carried makeshift equipment. An examination of the guns themselves shows that they were, in the main, poorly made in comparison with English guns of the same period. All this is new and important historical evidence, which could not have been obtained from any other source.

By arrangement with the Receiver of Wreck, all finds have been lodged in the Zetland County Museum for safe keeping and conservation treatment.

There are three full-time members of the *Gran Grifon* expedition; myself, as archaeologist, Chris Oldfield as engineer and chief diver, and my brother Simon as administrator and public relations man. Syd Wignall was present during the early stages of the expedition, and later took the underwater film which has been shown on BBC 2's 'Chronicle' programme. Alan Bax, of the Committee for Nautical Archaeology, helped with the surveying of the site, and for a two week period in July we were ably assisted by a 16-man team from the Naval Air Command Sub-Aqua Club. Roy Dennis, Warden of the Fair Isle Bird Observatory, twice dived on the wreck, thereby becoming the first ornithologist to stand (figuratively) on the deck of a Spanish galleon.

The 1970 operations ended in late August.

Any venture of this kind relies strongly on the support and encouragement of many people, not all of whom can be mentioned in a short article. But some of our debts must be acknowledged. Thanks are due to the National Trust for Scotland, the owners of Fair Isle, for allowing the expedition to go forward; to Mr Jerome Stout of Busta for allowing plant and equipment to be set up on his land; to Mr and Mrs Roy Dennis and the staff of the Fair Isle Bird Observatory Hostel, where members of the expedition stayed; to the Fair Isle Bird Observatory

Trust for allowing one of the huts at North Haven to be used as expedition headquarters; to Messrs Stewart Thomson senior and junior for their unfailing assistance throughout; to Mr Jerome Stout of Leogh and Mr James Stout of Midway who, together with the crew of the 'Good Shepherd' brought the expedition to Fair Isle and kept it going when it got there; to Captain Alan Whitfield of Loganair; and to Mr Tom Henderson of the County Museum for his boundless enthusiasm and hard work in support of the project.

The 1970 expedition was little more than a highly successful reconnaissance in force. We hope to return at a future date. We can only guess at what will be found. But we do know now where the main deposit of wreckage lies, and this part of the site was barely touched by the 1970 operations.

El Gran Grifon, so long a fascinating part of Fair Isle's tradition, is going to reveal many secrets.

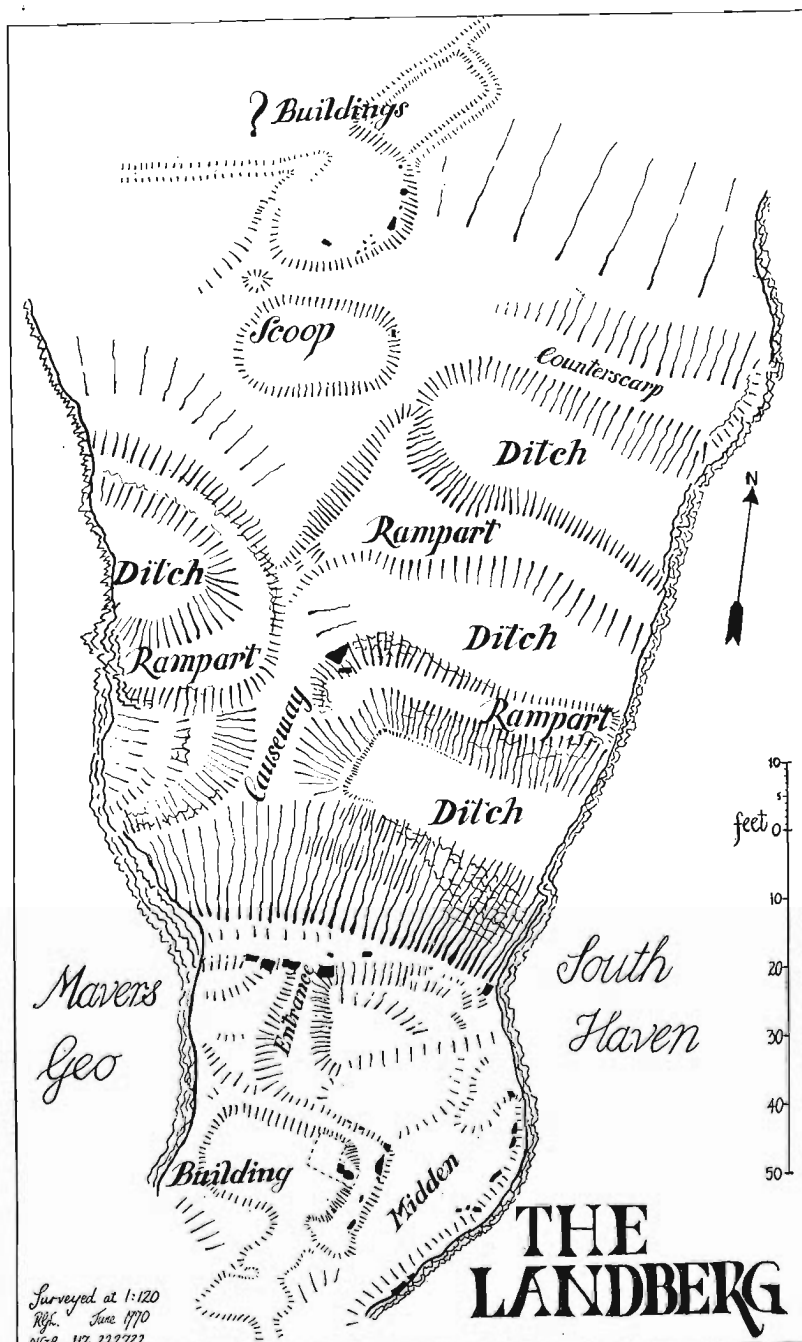
THE MULTIVALLATE PROMONTORY FORT ON THE LANDBERG

By R. G. LAMB

About a hundred yards in front of the new Bird Observatory, the headland known as the Landberg rises sheer from South Haven and Mavers Geo, to a height of about eighty feet. It is a narrow promontory well suited to defence, and has been fortified by the construction across its neck of a complex series of ramparts. The Landberg is thus one of the few multivallate promontory forts in the Northern Isles. These forts are of especial interest because their distribution, unlike that of the brochs, is not confined to the North, but extends virtually throughout the length of Britain.

The approach to the promontory is guarded by a series of banks made of the loose stony material derived from shallow intermediate ditches. On the east side there is first a "counterscarp" rampart made of a simple piling-up of material on the outer lip of the ditch; there is no ditch in front of it. Behind the counterscarp is a ditch, then a rampart, then another ditch and rampart. On the western side of the approach there is a horse-shoe-shaped bank which extends from the cliff edge to flank the entrance path (see the plan, Fig. 1). The ramparts at present stand up to four feet above the intervening ditches.

Immediately south of this complex, which forms the outer defence system, the promontory is cut across by a natural rift.



The bottom of this depression has been deepened artificially, leaving a causeway in line with the outer entrance gap. The artificial cutting is clearly visible on the east side, where there is at least a foot of silt in the bottom. From here is a very steep slope up on to the headland, and on the crest of this slope is the remains of a broad rampart which has had a strong stone revetment. This rampart overlooks and commands all the outer defences, and through it there is a stone-revetted entrance leading to the interior of the fort.

The scheme of defence (see the section, Fig. 2) thus has a series of banks overlooked by an innermost rampart which stands at a higher elevation. As they stand today, the outer

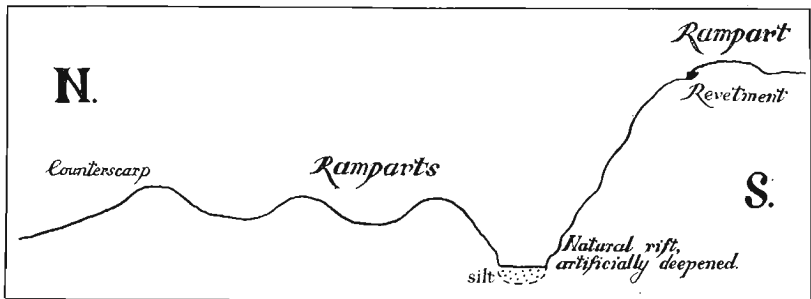


Fig. 2.

ramparts are not high enough to be manned like the walls of a castle, but it is impossible to estimate how much they have been reduced by erosion. There does not however seem to be much loose material in the intermediate ditches, so it is possible that the ramparts were never much higher and that the defenders' plan was to concentrate their strength on the innermost and highest rampart. The outer banks and ditches would force the attackers to expose themselves to the defenders' fire as they came clambering over, and the higher station of the defenders would enable their missiles to outrange those of the enemy. This is the classic situation of Iron Age warfare, in which the sling was the standard missile weapon, and assault tactics tended to rely on the simple rush attack which was intended to overwhelm the defenders by sheer weight of numbers. The Landberg defences would be excellent against such measures.

Both within and outside the defences are visible various indefinite foundations. Immediately outside the fort lies a roughly circular structure with large stones set around the edge, and there is another, rectangular, foundation beside it. The floors of both these enclosures are on a moderate slope, and it is diffi-

cult to imagine their purpose; they seem to be related to the long turf dykes which run up to them. From their position however these structures are likely to be later than the fort defences.

Immediately within the entrance into the upper fort, there lies the much more substantial foundation of a rectangular building. An L-shaped trench that has recently been dug into its N.E. corner (1), shows that the wall has facings of large blocks about a core of loose rubble. This building is so placed that it might appear as a guardroom associated with the entrance, but a rectangular structure is unlikely to be of the Iron Age date to which the defences presumably belong. It is furthermore founded at a higher level than is the rampart, and appears partly to overlie the midden which extends along the east side of the promontory; these circumstances suggest that it is a later addition. It could be of any date from Early Christian to late mediaeval. The doorway near its S.E. corner leads into a string of shallow depressions, and the ground in the vicinity of the building and rampart is very hummocky, suggesting that other structures may be concealed.

No definite date can be given to the Landberg, since it has not been excavated. The midden deposit has produced some pottery (2) (it comes up in the rabbit-scrapes) but this so far consists only of small indeterminate fragments which are difficult to date accurately. The pottery is, however, generally of Iron Age type. Forts with multivallate defences are in England assigned to a tradition which flourished most strongly in the first century B.C. and on to the Roman conquest. Promontory forts of this type are a feature of the Atlantic seaboard, being found from Brittany through Cornwall northward into the Irish Sea area and to Galloway; and this distribution must, it seems, be extended right round the west Scottish coast to Orkney and Shetland. There are forts of similar type at Hog Island Sound in Nesting (3), the Brough of Staal in Yell (4), and the Castle of Burwick in South Ronaldsay (5). These are hardly likely to be earlier than the English multivallate forts, but it is more difficult to date the end of the tradition where there is no Roman conquest to bring it to an abrupt halt. It must however be borne in mind that the first century A.D. was, in current opinion, the age of broch-building, and the fashion for brochs was extraordinarily comprehensive in its coverage of the Northern Isles. It is a debatable point whether the multivallate-fort tradition would survive for long alongside the brochs; in the present state of knowledge, it is reasonable to suppose that it might not have lasted long beyond the first half of the first century A.D.

The Landberg is a complex site, and the various structures on the promontory suggest that it had more than one period of occupation. Since there had been no excavation, it is possible only to guess that the most likely period for the defences is in the first century B.C. or A.D. It is an important site, and it is fortunate that it occupies an out-of-the-way position on National Trust property where it is unlikely to be threatened with destruction.

The author wishes to acknowledge the help of Mr and Mrs R. Dennis, on the occasion of his visit to Fair Isle; also of Mr P. S. Gelling.

- (1) The digging of holes in such places is to be discouraged since it destroys important archaeological evidence. The Landberg is in fact a scheduled site on which unauthorised digging is illegal.
- (2) Pottery mostly in the National Museum, Edinburgh.
- (3) At HU 508582; Ordnance Survey card index in Edinburgh (no published details).
- (4) R.C.A.H.M.S. Shetland no. 1717. Listed as the outworks of a destroyed broch, but the site is almost certainly a promontory fort which never held a broch tower.
- (5) R.C.A.H.M.S. Orkney no. 817.

ACCOUNTS

YEAR ENDED 31st OCTOBER 1970

REVENUE ACCOUNT

Provisions	...	...	...	...	...	...	...	£2056
Wages and National Insurance	...	...	...	...	...	...	...	1975
Insurances	...	...	...	...	...	...	...	310
Heat and Light	...	...	...	...	...	...	...	538
Repairs and Renewals	...	...	...	...	...	...	...	91
Telephone, Postages and Stationery	...	...	...	...	...	...	...	514
Printing Annual Report	...	...	...	...	...	...	...	200
Travelling Expenses	...	...	...	...	...	...	...	409
Motor Expenses	...	...	...	...	...	...	...	178
Freight Inward	...	...	...	...	...	...	...	99
Bird Rings and Nets	...	...	...	...	...	...	...	105
Administration Expenses	...	...	...	...	...	...	...	314
Audit and Legal Charges	...	...	...	...	...	...	...	67
Loan Interest	...	...	...	...	...	...	...	145
Depreciation :								
Furnishings and Equipment	...	...	...	...	...	...	...	£128
Generator	...	...	...	...	...	...	...	52
Land Rover and Boat	...	...	...	...	...	...	...	95
								275
								£7276

Board and Booking Fees	...	...	...	...	...	...	£5441
Annual Grant—National Trust for Scotland Wildlife Fund	...	...	...	...	...	...	250
Received from Fair Isle Endowment Trust to account of Income	...	...	...	...	...	...	225
Subscriptions and Donations	...	...	...	...	...	...	746
Tax recovered from Deeds of Covenant	...	...	...	...	...	...	165
Sale of Publications	...	...	...	...	...	...	52
Interest received on Government Stock	...	...	...	...	...	...	30
Deficit for year	...	...	...	...	...	...	367
							<u>£7276</u>

APPEAL FUND

Costs of Appeal	...	...	.....	...	...	...	£1054
Balance carried to Balance Sheet	...	...	...	...	...	...	19694
							<u>£20748</u>

Grants received	...	...	...	...	...	...	£17100
Donations received	...	...	...	...	...	...	2971
Interest from Temporary Deposits—Gross	...	...	...	...	...	...	406
Tax recovered from Covenants	...	...	...	...	...	...	271
							<u>£20748</u>

CAPITAL ACCOUNT

Transfer to Appeal Fund—Tax recovered in 1969	...	...	...	£90
Written off on revaluation of Fixed Assets—				
Sheds and Traps	...	...	...	£221
Furnishings and Equipment	...	...	...	150
Scientific and Photographic Equipment	...	...	...	78
Motor Car	...	...	...	60
				<hr/>
Deficit for year on Revenue Account	...	...	...	509
Balance carried to Balance Sheet	...	...	...	367
				<hr/>
				4217
				<hr/>
				£5183

Balance at credit at 31st October 1969	...	...	...	...	£4998
Premium on conversion of Savings Bonds	...	...	...	...	7
Refunds relating to previous year—					
S.E.T.	...	...	...	...	£139
Insurance	...	...	...	...	39
					<u>178</u>
					<u>£5183</u>

BALANCE SHEET

AS AT 31st OCTOBER 1970

CAPITAL ACCOUNT

Balance at credit	£4217
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APPEAL FUND

Balance at credit	19694
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GRANTS RECEIVED FROM HIGHLANDS & ISLANDS

DEVELOPMENT BOARD	25000	
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 £48911
SECURED LOAN

Highlands & Islands Board	£9500	
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Less repaid	475	
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 9025
SUNDRY CREDITORS

...	2764	
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 £60700
FIXED ASSETS

					Cost or Val.	Deprec.	
Hostel	£51548	£0	51548
Sheds and Traps	150	0	150
Furnishings and Equipment	...	...	...	...	1298	128	1170
Generator	...	...	...	...	592	52	540
Scientific and Photographic Equipment	...	...	...	...	160	0	160
Land Rover	223	73	150
Boat	107	22	85
					£54078	£275	£53803

£642 8½% Treasury Stock 1980-82 (M.V. £626)	...	619
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CURRENT ASSETS

Stocks	£320	
Sundry Debtors	686	
Tax Recoverable	144	
Temporary Deposits	5050	
Bank and Cash	...	...	...	...	...	78	
							6278

 £60700
NOTES :

1. No Depreciation has been provided on the Hostel.

2. Highlands & Islands Development Board

The loan secured over specified Trust Properties is repayable by 19 annual instalments of £475.

The Grants are only repayable under special circumstances, such as Sale, Disposal, or discontinuance of the Observatory within the next four years.

EDINBURGH, 8th February, 1971.

Examined and found correct.

(Signed) HALDANE BROWN & CO.

Chartered Accountants.

FAIR ISLE ENDOWMENT TRUST

CAPITAL as at 31st October 1970

	Nominal Holding	Book Value	Market Value
Grimsby Corporation 3½% Stock 1962-72	£4325	£3524	£4065
Whitbread & Co. Ltd. A. Ord. Stock 5/- ...	840	314	441
Heritable property, 21 Regent Terrace, Edinburgh		3050	3050
Cash Balance		148	148
		<u>£7036</u>	<u>£7704</u>

REVENUE

	Year to 31.10.69	Year to 31.10.70
Grimsby Corporation 3½% Stock 1962-72 ...	£88 18 2	£88 18 8
Whitbread & Co. Ltd. A Ord. Stock 5/- ...	13 11 5	13 11 5
Cash Balance	0 0 0	1 8 3
Income Tax Refund	59 8 7	64 12 5
	<u>£161 18 8</u>	<u>£168 10 9</u>
Trustees Fees	5 1 6	12 8 10
	<u>£156 17 2</u>	<u>£156 1 11</u>

THE JOHN HARRISON MEMORIAL FUND

A special fund in memory of John Harrison of Hunstanton, Norfolk, who died in September 1967 at the early age of 19, was instituted by R. A. Richardson to help adventurous teenagers of slender means with their Hostel expenses should they choose to visit Fair Isle where John spent happy holidays in three successive years.

The Trustees wish to warmly commend this scheme to all readers of the Annual Report, and ask that all donations for this most worthy object be sent to the Hon. Treasurer of FIBOT, 21 Regent Terrace, Edinburgh 7. Please continue to support and publicise the Fund to your friends.

Eligible applicants for financial assistance must be between the ages of 15 and 21, and should write to the Warden, enclosing letters of recommendation from two references such as a school-teacher and a senior naturalist of their acquaintance. Four lads will benefit from the Fund in 1971.

To Paid for Accommodation at Hostel (Taylor, Howard, Jarman, Firmin and Newton)	...	£35	0	0
Balance at 31st October 1970—				
Sum on Temporary Loan	...	£250	0	0
Due by Messrs J. & F. Anderson, W.S.	...	19	19	1
Held by Mrs M. Dennis	...	8	13	0
			278	12 1
			£313	12 1
By Donations	...	£306	6	0
Interest on Temporary Loan—Net	...	7	6	1
			£313	12 1



Photograph by Dennis Coulls.

If you would like to spend a birdwatching holiday on Fair Isle . . . write to the Warden, Bird Observatory, Fair Isle, Shetland, for a copy of our Prospectus.

Between May and September, the island mail-boat operates on Tuesdays and Fridays, leaving Fair Isle at 6 am, arriving at Grutness pier, Sumburgh, in the south of Shetland three hours later. It leaves Grutness on the return journey at midday. On Saturdays during the same period, the Bird Observatory operates a charter flight in and out of Fair Isle in a 7-seater 'Islander' aircraft operated by Loganair Ltd. All booking arrangements for these flights must be made through the F.I.B.O. Warden.

You can phone the Warden (Fair Isle 8) at the cheap rate after 6 pm or at weekends to discuss all booking arrangements.

MEMBERSHIP

We urgently require more 'Friends of Fair Isle'. Will you help please? A Membership Form is enclosed. Please persuade some of your friends to subscribe—preferably by Banker's Order and Deed of Covenant.

FAIR ISLE BIRD OBSERVATORY

