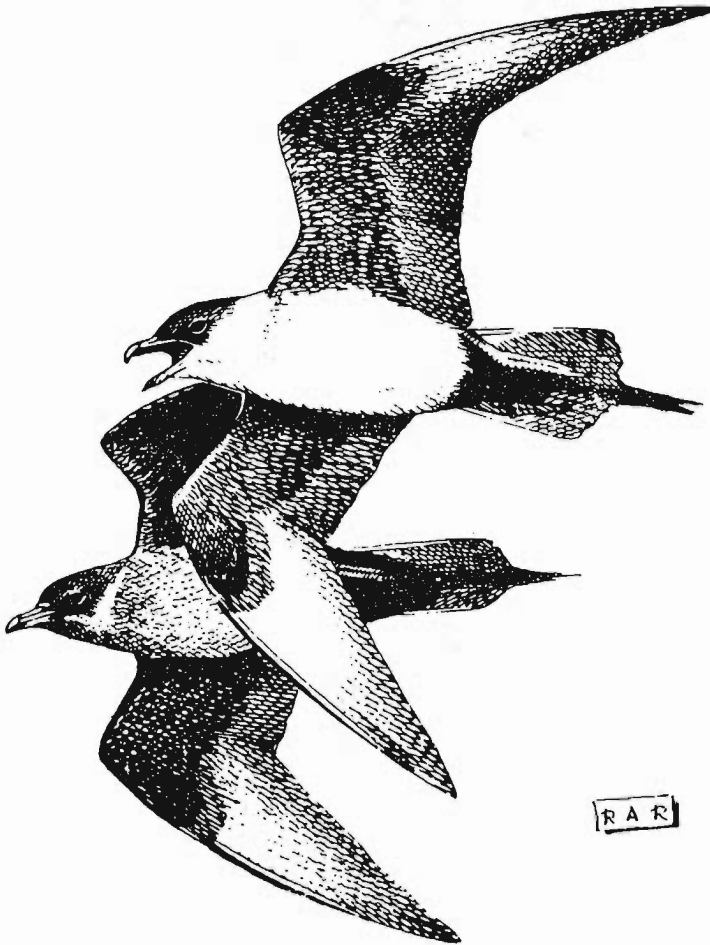


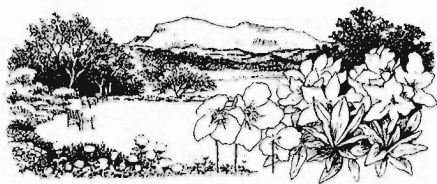
FAIR ISLE BIRD OBSERVATORY

Report for 1989



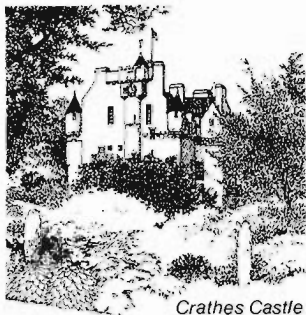
Come and join us!

If you have a special place in your heart for Scotland you can help in it's preservation, personally, by joining the National Trust for Scotland. With 200,000 members, the National Trust for Scotland relies for it's work on people; members provide so much support for the Trust's work as well as making the Trust the largest conservation body in Scotland. Without it's members the Trust would not be able to function.



Inverewe Garden

Safeguarding over 100 properties in it's care – 100,000 acres of mountains and sea lochs, gardens and castles, wild flowers, wildlife and battlefields – the Trust works in partnership and with others for the whole community.



*Crathes Castle
and Garden*

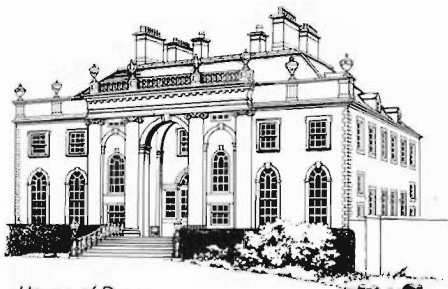
In addition to supporting the Trust's conservation work, membership brings with it free entry, not only to all properties of the National Trust for Scotland, but also to those of the National Trust in England, Wales and Northern Ireland. Members also receive, free, the National Trust for Scotland's quarterly magazine *Heritage Scotland*, the annual *Guide to Over 100 Properties* and the Annual Report.

Why not join today?

Send now for full details and membership application form to:-

Membership Services,
National Trust for Scotland,
5 Charlotte Square,
EDINBURGH,
EH2 4DU.

Telephone: 031 226 5922



House of Dun



National Trust for Scotland

Fair Isle Bird Observatory

Report No. 42

1989

Edited by Paul Harvey & Valerie Thom

CONTENTS

		Page
Chairman's Report	<i>David MacLehose</i>	1
Warden's Report	<i>Paul Harvey</i>	3
A sad loss for Fair Isle	<i>Valerie Thom</i>	5
The NTS in 1989	<i>Alexander Bennett</i>	6
Fair Islander for a Week	<i>Neil Arnold</i>	7
The Nursing Service on Fair Isle	<i>Betty Best</i>	9
Ornithology	<i>Paul Harvey</i>	11
Systematic List		15
Up-date on BBRC Decisions		35
Ringing Details		36
The Breeding Success and Diet of	<i>P.V. Harvey, M.P. Harris,</i>	47
Fair Isle's Seabirds in 1978-89	<i>K. Osborn, N. Riddiford &</i>	
	<i>A. Silcocks</i>	
<i>Butterflies on Fair Isle 1978-89</i>	<i>Paul Harvey</i>	55
Cetacean Records in 1989	<i>Paul Harvey</i>	57
Publications		57
Review: 'Fair Isle — An Island Saga'	<i>James W. Stout</i>	58
The Weather on Fair Isle in 1989	<i>Dave Wheeler</i>	59
The John Harrison Memorial Fund	<i>Alastair Peirse-Duncombe</i>	61
Financial Report & Accounts		62
The Development at the Lodge	<i>David MacLehose</i>	65
and Observatory		

Published by the Fair Isle Bird Observatory Trust
21 Regent Terrace, Edinburgh EH7 5BT
for 'Friends of Fair Isle'

Printed by Ritchie of Edinburgh.

Fair Isle Bird Observatory Trust

A company limited by guarantee

21 Regent Terrace, Edinburgh EH7 5BT
Telephone 031 556 6042

Board of Directors (1989) : David MacLehose *Chairman*
Pat Sellar *Vice-chairman*
Valerie Thom *Hon. Secretary*
Roger Broad
Anthony Bryant
Alastair Cunningham
Roy Dennis
Magnus Flaws
Dave Okill
Peter Slater

Warden: Paul Harvey,
Bird Observatory, Fair Isle, Shetland
Tel. 035 12 258

Solicitors: J & F Anderson WS,
48 Castle Street,
Edinburgh EH2 3LX

Accountants & Auditors: Coopers & Lybrand CA,
George House, 126 George Street,
Edinburgh EH2 4JZ

Bankers: Bank of Scotland,
64 George Street,
Edinburgh EH2 2YS

**Research & Education
Committee:** Peter Slater *Chairman*
Roger Broad
Roy Dennis
Jeremy Greenwood
Mike Harris
Dave Okill
Mike Richardson

**John Harrison Memorial
Fund Sec:** Alastair Peirse-Duncombe

ANNUAL SUBSCRIPTION - 'FRIENDS OF FAIR ISLE' £5

Chairman's Report

A review of FIBOT activities over the past five years portrays a scene of constant planning, restructuring of management and buildings, and the inevitable staff changes. All the plans were aimed at ensuring that FIBOT would enter the 1990s ready to exploit the opportunities that will present themselves. Now that 1990 is here it is fair to assess the results of the aspirations and the planning. On most counts we can record achievements perhaps even beyond the levels we had expected. One goal in particular has, however, eluded us, namely to have carried out and funded all the development works and set aside a capital sum to safeguard against the possibility of financial operational deficiencies in the future. We were compelled to carry out more extensive re-development works than originally anticipated, which has resulted in a heavy overdraft situation. While we have plans to redress the balance by reopening aspects of the appeal, this is not the position that we had hoped to be in at the start of 1990. However every cloud has a silver lining; in our case the extra works should reduce maintenance costs on the building in the immediate future. A full report on the appeal and the re-development is recorded elsewhere in this Report.

The bank statement must be kept in perspective in relation to the undoubted achievements on other fronts. The building works were effectively completed for the start of what proved to be the most successful season in the 41 years of FIBOT operations, as measured in terms of visitor weeks. The total of over 500 visitor weeks sets a formidable target for future years, especially when compared to the 350 level we dropped to in 1984. This excellent record reflects the revitalised promotional programme, the enthusiastic staff, who ensured that all visitors enjoyed their stay, and the benefits derived from providing the type of accommodation expected by the visitors we welcome to the Lodge. The income generated this year, as the accounts illustrate, made the Lodge and Observatory self-sufficient. An examination of the accounts presented later in this Report shows that the balance sheet should be reassuringly sound once the development deficit is eradicated. But it remains a sobering thought that FIBOT can never be complacent about visitor numbers nor income, for - as with every aspect of life on Fair Isle - the weather so often has the last say. All we can do is plan and operate as effectively as possible.

The extension of the research facilities coupled with the installation of the computer are already being welcomed, and bookings are encouraging for 1990. A good start was made to the second three-year contract with the Nature Conservancy Council on the Seabird Monitoring Programme, details of which are available from Paul Harvey.

All these achievements have only been possible with the support, advice, and encouragement of many friends and organisations, to whom the Directors and staff are continuously grateful. The Directors thank all the staff, both on Fair Isle and at 21 Regent Terrace, for their support throughout the season. This was particularly appreciated for the constructive approach to the difficult working conditions in the early part of the season. Thanks are also due to the staff at Coopers and Lybrand, who have been very helpful in designing and successfully implementing a new financial and management system.

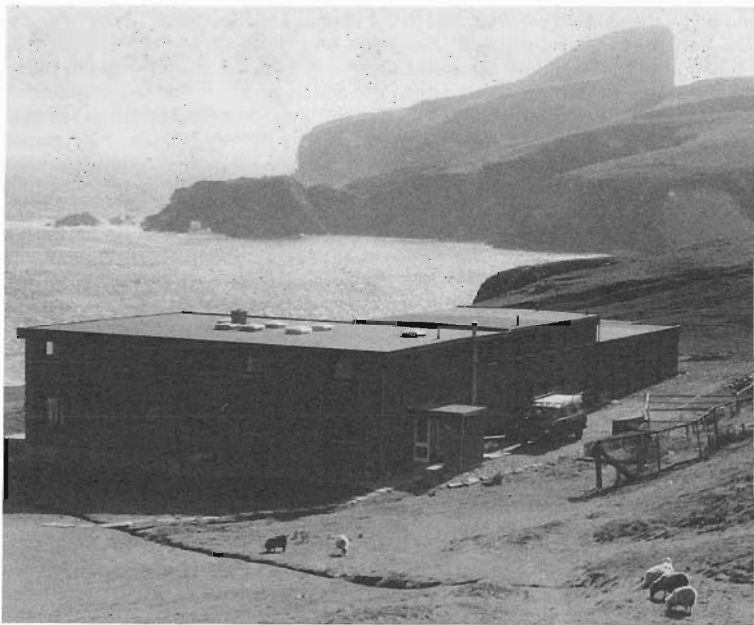
Friends of FIBOT may be aware of discussions over the future of 21 Regent Terrace, including the possibility of a sale. As we go to press no firm decisions have been made by the Trustees of the SOC's Endowment Fund, which owns the building. FIBOT has a long-standing interest in the building and we are continuing discussions with the Trustees in the hope of furthering our close links to the mutual benefit of both ourselves and the SOC.

However well things are going there is always advantage, as well as necessity, in making changes at Director level and the constitution requires that Directors retire

in rotation. Maurice Mullay, the Director of Shetland Tourist Organisation, will be proposed for election at the AGM in February 1990. Maurice was co-opted onto the Board last year and has since given valuable support and advice regarding FIBOT's promotional activities. Roger Broad, who was Warden in the 1970s and later Trustee and Director, leaves the Board in 1990. Over the years Roger, together with his wife Judy, have served the Trust very generously, for which we remain very grateful. We look forward to his return to the Board in the not too distant future. After five years as Chairman I am not standing for re-election to office, but will remain on the Board with particular responsibility for raising the funds to remedy the development deficit. Pat Sellar, who has been associated with the Trust as a Trustee and Director for many years, is taking over as Chairman. He has plans to promote the role of the Observatory into a broader scene, which I am sure will bring benefits to FIBOT. After all the recent developments it is very encouraging to know that the essential direction of FIBO as a leading observatory in Europe is to be enhanced.

The four years that FIBOT has been operating as a limited company have been exhilarating and eventful. That so much has been achieved reflects the regard in which the Trust is held by many people. FIBOT would not be in this happy position without the support of Directors, Wardens, staff, benefactors, visitors, suppliers and most especially our many friends on Fair Isle.

David MacLehose



Now snugly encased in harled blockwork, the Lodge should be good for at least the next 40 years.

Photo: Dave Wheeler

Warden's Report

I arrived on the Isle on 14th March to take up the post of Warden, and my wife Elizabeth and our daughter Holly joined me a few days later. Peter Howlett had been ensconced on the Isle since 15th February and was already making good progress with the re-organisation, following the inevitable chaos caused by the building work. Indeed, for the next month we were to do little else but attempt to get the building and its surroundings in a state fit to welcome our first visitors. We were assisted in this task by Elizabeth McKay who arrived in late March as our general assistant for the spring. As April progressed, building work neared completion and we were able to switch our attention to much needed 'bird-trap' repairs.

As I report now, the final touches are being applied to the building, and thanks must be expressed to all those involved with its conception, financing and construction. It is pleasing to know that FIBOT now has a new, secure, comfortable and more efficient building, which will enable people to come and enjoy the Island for many years to come.

Our staff for the year were Joan Macdonald in the newly created position of Cook-caterer, Lorna Macleod (assistant cook), Paul Donald (general assistant), Peter Howlett (migration assistant) and Andy Silcocks (seabird assistant). When Elizabeth took maternity leave, Paul Donald stepped in most ably as accounts/bookings secretary and Sarah Norman took over from him. Jenny Forester and Sonia Spathis also helped in the kitchen during the busy period and over the holiday period. The friendly atmosphere at the Lodge, so valued by many of our visitors, was largely due to the staff and their efforts at work were second to none. We thank them all. Running the Lodge is very much a team effort and we will count ourselves fortunate if future staff can maintain the very high standards set this year.

1989 saw the Observatory cater for a record number of people, with a final total of 501 people-weeks. This figure comprised 478 visitor weeks and 23 builder/visiting trustee weeks. The record number of visitors to the Lodge was due to a variety of factors. The increased capacity of the building, a sustained advertising campaign and more regular and frequent Loganair flights from Orkney and Shetland. We can only hope that this air service will continue next year.

Once again we played host to a variety of overseas visitors. Those from the Nearctic figured most prominently, but in all 15 countries were represented with travellers from as far afield as Australia, Japan and South Africa. Visiting groups included 3 from The Y.O.C., a school party from Denstone College and a group from the National Trust for Scotland. John and Monica Abbots, who operate a wildlife tours company based in West Germany, also came to see what the Island and the Lodge had to offer, and we hope to see them lead at least one party here next year. The cruise ship *Polaris* made 4 trips to the Isle during the summer and we were able to offer passengers a guided walk to nearby seabird cliffs, and a look around the Observatory. In May, we received a visit from a group of high ranking H.I.D.B. officials who were suitably impressed with the refurbished lodge, and in August, Peter and Miranda Harris who run the A Rocha Christian Bird Observatory in the Portuguese Algarve came to see how the Lodge is run.

Two more changes to FIBOT operations during 1989 were the formation of a marketing sub-committee, and the introduction of a new accountancy system under the direction of Coopers and Lybrand. As well as targeting advertising more efficiently, the marketing sub-committee have already set up two new courses for 1990, one giving participants the opportunity to become more acquainted with Fair Isle's seabirds, and the other to give some insight into the way of life on the island. The new accounts system means more of the bookwork can be carried out from the Lodge, thus making operations here more efficient, and relieving some of the pressure on 21 Regent Terrace.

For many, the highlight of the year was the official opening of the refurbished Lodge on 26th August. Previous wardens present were Roy and Marina Dennis, Nick and Elizabeth Riddiford and Esther Williamson (widow of the late Ken Williamson - the Observatory's first warden). Directors present were Antony Bryant, Magnus Flaws, David MacLehose, Maurice Mullay, Dave Okill and Valerie Thom. Formalities over, all present settled down to a splendid buffet and a great evening's entertainment.



Esther Williamson cuts the celebratory cake, watched by Nick and Elizabeth Riddiford, Elizabeth and Paul Harvey, Marina and Roy Dennis and David MacLehose.

Photo: Dave Wheeler

Minor teething problems apart, maintenance requirements were low this season, as should be the case with a 'new' building. It is now of the utmost importance that a rigid maintenance schedule is adopted and adhered to, so that minor malfunctions are not allowed time to turn into major problems. Surprisingly perhaps, the mini-bus required little attention during the season.

On the ornithological front, the seabird monitoring scheme occupied myself and my assistants for most of the summer. It was particularly pleasing that the N.C.C. confirmed a commitment to support the present level of monitoring for a further three years, especially at a time when the Government are forcing them to cut back heavily. We again achieved a good catch of Storm Petrels (over 1000 were ringed), as part of the North Atlantic Storm Petrel study co-ordinated by Tony Martin of the Sea Mammals Research Institute. Fiona Hunter returned for her second field season on her doctoral study of the breeding antics of Fulmars, while during the summer Frithjof Praetsch from St Andrews University carried out a study of Tystie diet.

At last Professor Peter Slater's persistence paid dividends with a computer arriving on the Isle in June, a most welcome addition to Observatory facilities. We thank the Carnegie Trust for a grant enabling its purchase and installation. Three students from St Andrews University each spent a month on the Isle inputting data,

and Nick Riddiford is progressing well with data analysis under contract to FIBOT, having two scientific papers in press at the time of writing.

Now the time has come to offer thanks to the many people who have helped, in this our first season. We would like to thank all the islanders for making us so welcome. Special thanks are due to our maintenance man Kenneth Stout who appeared so quickly to sort out the occasional functional problem that arose, Rob Cooke and Stewart Thomson for nursing the mini-bus so well, Barry Sinclair for his assistance in matters electrical, Brian Wilson for spending many evenings finishing outstanding building work at the Lodge, Jimmy and Florrie Stout for stepping in so quickly to transport visitors when the mini-bus did experience an occasional hiccup, and Nick and Elizabeth Riddiford for always being on hand to answer the odd query that cropped up. Off the Island, David MacLehose and Valerie Thom assisted in many ways, Dave Okill and Magnus Flaws often put materials to the *Good Shepherd* and Malcolm Adamson watched over the generators, we are grateful to them all. Finally FIBOT would like to thank Nigel and Cathy Hallett, who are soon to leave the island, for tending the Skadan sheep flock for several years.

As I indicated earlier our seabird work is now a huge commitment and I should like to thank all the visitors who have contributed in some way. Those that deserve special thanks, are Thierry Boulinnier, Keith Bowey, Benoit Fontaine, Fiona Hunter, Frithjof Praetsch, John Strawger and Steve Westerberg.

To end on a sad note, Alec Stout passed away in November, we will always remember his cheerful smile when popping into Barkland, to escape the cold or wet, for a cup of coffee.

Paul Harvey

A sad loss for Fair Isle

Alec Stout of Barkland's gallant struggle against deteriorating health finally came to an end on Saturday 11th November 1989. All who knew him mourn his loss - and there can have been few visitors to Fair Isle over the Observatory's 41 years who did not meet Alec either aboard the *Good Shepherd* or as an ever-welcoming host in his home. He was a man of many parts - former skipper of the mailboat, a fine musician, and master of a wide variety of traditional crofting and fishing skills, to name but a few. His knowledge of the isle and its history was extensive, and he willingly shared it with all who showed interest. When illness forced him to withdraw from the activities that had been central to his life he accepted his restricted lifestyle without complaint, turning to and mastering the skill of making detailed models of yoles - a craft which could be carried out from his wheelchair. But it is for his warm, cheerful and caring personality that Alec will be most remembered. His concern for others remained to the end, when he asked that rather than send floral tributes his friends should be invited to donate towards a fund for mobile heart treatment equipment, to which contributions will still be welcomed (The Shetland Immediate Care Scheme (Sumburgh), c/o John Jameson, Bank of Scotland, Lerwick). Alec will be sorely missed by both islanders and visitors, but most of all by his family, to whom we extend our sincerest sympathy.

Valerie M. Thom

The National Trust for Scotland in 1989

It is always nice to have good memories of a favourite place, and one of my lasting memories of Fair Isle will be the warmth of the welcome which Alec Stout always extended to me during my visits. He will be remembered by all those who have visited the isle for the enthusiasm he showed for any subject he tackled. I always enjoyed listening to his experiences of life on the *Good Shepherd* and, latterly, I was particularly enthralled by his work in building model Fair Isle yoles. I am sure that his memory will survive.

The year just past has seen the popularity of Fair Isle grow yet again. It is always gratifying to see familiar faces returning year after year to the island, never losing any of their enthusiasm and dedication for the isle.

1989 saw a great deal of activity in various fields and I am pleased to report that the Council of Europe have now agreed to award a second European Diploma for a further period of 5 years from 1992. In delivering their recommendations, the Council of Europe ministers praised all concerned for the very positive approach to the future management of Fair Isle.

Restoration finally got under way on the Auld Haa and, at the time of writing, I am anticipating that the work will be completed by the end of March. The restoration scheme has tried to show some sympathy with the original form of the building, and hopefully the finished article will come up to our expectations. Unfortunately, the proposed tenants for the house, Nigel and Cathy Hallett, have decided to leave Fair Isle and settle in Shetland, and the Trust will now be seeking a family to come and live in the Auld Haa, where they will undertake knitting and the provision of accommodation as their occupation. As a result of the Halletts moving from Fair Isle, Schoolton croft became vacant and the opportunity was taken to divide it into its original units, Schoolton and Kennaby; these have now been let to Nick and Elizabeth Riddiford, formerly of FIBOT, and Ian Best of Utra. The Trust wish them all well and hope that they will have a long and prosperous stay on the isle. The Trust would also like to extend a welcome to Paul, Elizabeth, Holly and Bryony, now resident at the Observatory, and hope they will be able to build on the success of their first year on the island.

Dave Wheeler of Field has taken over the duties of Airfield Manager from Stewart Thomson, who retired last year. In his first year Dave has seen a large increase in Loganair activity to and from the isle, and it is good to note that Loganair are so committed to the Fair Isle service.

On 1 October 1989 Stewart Thomson took over the Post Office as Sub-postmaster; now, after 30 years of devotion to duty, Stewart and Annie have decided that enough is enough and they should retire. Until the post is filled permanently, Anne Thomson and Florrie Stout will undertake a small Post Office in the shop, on a temporary basis. The Trust wish Stewart and Annie a long and happy retirement.

This year will see the further development of the electricity system on the island and it is hoped to install new diesel generators in February/March 1990. This, along with a new cabling system, will have an increased capacity, which should enable the island to develop new housing and businesses without the restriction of a lack of power.

The other big development in 1990 will be the construction of a new house on Kennaby croft for Ian Best. With his newly acquired furniture-making skills to add to his boat-building abilities he should have the basis of a secure future.

Other work will include the continuing house repair and upgrading programme and a start on the restoration of the clickmill system at Finniequoy. Bradford University again visited Fair Isle to carry out an investigation of the clickmills, prior to their restoration, and this was coupled with initial investigatory work on some

of the island's archaeological remains. If adequate funds can be made available, there is a good chance that Bradford's involvement with Fair Isle could continue for a number of years to come.

I have purposely left others to describe the developments at the Observatory, but I would particularly like to make mention of the Trust's continued support for FIBOT's work on the island. I shall continue to serve on the FIBOT Board as Trust representative, and I was pleased to be a member of the subcommittee responsible for devising the Island Insights programme for 1990. It is gratifying to know that these holidays are selling reasonably well; hopefully they will go from strength to strength.

Alexander M. Bennett

Fair Islander for a Week

The confessions of a Y.O.C. leader

I imagine the crossing from the Mainland on *Good Shepherd IV* was routine until we neared the harbour and one of the crew, Barry Sinclair, informed me that the timing of our arrival was fortuitous, for that night there was to be a party. Once ashore the talk was of transporting baggage, observatory routine and a Red-necked Phalarope on Buness. Needless to say we soon regained our land legs, had our lunch and marched off in pursuit of the phalarope.

Before the trip I had read a number of reports on Fair Isle birds and I thought I had built up a fairly accurate picture of its possibilities. Within an hour I was marvelling at the waders. Needless to say I had seen waders at roost before but I was totally unprepared for our first walk to Buness. There were waders everywhere, not the Wash or Morecambe Bay, "waders everywhere", but small groups of scuttling birds feeding on the springy, spray washed turf: Knot, Oystercatcher, Redshank, Dunlin, Ringed Plover and Sanderling. I racked my brain, had I ever seen a Sanderling on a grassy slope before? I concluded that I had not. We only glimpsed the phalarope, but no matter, we were to enjoy its company in the days to come.

It was not until we returned to the Observatory that its splendour began to soak in. What a place! Not only were we enjoying the heights of comfort but we had been cheerfully welcomed and already fed like kings.

That evening we were invited to the party to re-open the newly refurbished observatory. I have stayed in many field centres in Britain where a visiting Y.O.C. group would have been ushered into a quiet room somewhere with instructions to amuse themselves. On Fair Isle not only were we invited but we were publicly welcomed by the Chairman of the Observatory Trust.

At the party I was privileged to meet many of the islanders, most of the trustees and a host of eminent birdwatchers who, up to that time, had to me only been names next to birds in the rarities report of 'British Birds'.

The speeches completed, the food consumed, the toast made, it was time to be entertained. First we were to enjoy the wit and flair of Nigel Hallet, whose stories, songs and mastery of the guitar focused our minds on the delights of simple, homespun pleasures. Every island has one, on Fair Isle it is Neil Thomson, impressionist, singer, player and ringmaster; who, I thought, could follow his act. Wonder, though, was to follow wonder. Anne Sinclair and the rest of Burrian then beguiled us with Shetland airs and the lilting strains of fiddle, flute and accordion.

I was fortunate for I had a guide, Jimmy (J.W.) Stout, who commented on the mysteries to which I was so abruptly introduced. Normally insight is prolonged but not tonight, my head spun with families and folk, histories and legend. I was like

a drowning man, plunged into an alien culture, but surfacing a richer, wiser man. That night I became a disciple.

Suddenly the floor was cleared, for there was to be dancing, the Lancers. No, not the steps beloved of Old Time Dancing but country dancing, muscle tearing, lung bursting revolutions which would have brought cries of 'Heretic' from ex-patriot purists who practice such arts in far off England. I'm told that the Fair Isle brand would not even have been recognised on the Mainland, Shetland that is! As I recovered at the end of the lethal Lancers I felt it a privilege to have been allowed to indulge in this major form of masochism.

The next morning, or more accurately, later that morning, novelty prized us out of bed, for the island had to be explored. From then on the week was a round of wonderful birdwatching, diving Bonxies, passing Sooty Shearwaters, an adult male Scarlet Rosefinch, a Yellow-breasted Bunting, and a lot more.

It is perhaps sacrilege to record such a statement in the pages of these annals but much as I enjoyed the birds I enjoyed the people and the wild landscape even more. Everywhere we went we were greeted by smiles and a chat, by a feeling of warmth and friendliness. As I became more closely acquainted with Fair Isle and its people I grew to admire the skill, determination and tenacity it required to be an islander. Most of all I admired the width and depth of intellect displayed by its smiling inhabitants. Where else in Britain could I go to a party and be ably entertained by one quarter of the adult population, and who knows what the others had to offer?

One afternoon I was able to pay a brief visit to the school and talk to the children and to Griselle MacGregor, the Headteacher. It was a delightful experience. After I'd shown a few slides of wildlife in Dorset I waited by the adult library shelves until the end of the school day. As I browsed I glanced at the notice on the wall. Amongst the books listed as being urgently needed was "The essentials of yarn design for handspinners". Where else in the world could I be but on Fair Isle?

Neil Arnold



Island youngsters admire the 41st birthday cake.

Photo: Dave Wheeler

The Nursing Service in Fair Isle

Sitting in our livingroom, the site of the old post office, I can almost hear the telegraph tapped out in Morse code by Utra Jarm, relaying an urgent message from the island's nurse to the Lighthouse doctor in Orkney. The extension of the telegraph line in 1892, with Fair Isle getting a loop off the Shetland cable, was a significant advance in communications with the outside world and coincidentally established community contact through the Lighthouse Board with their doctor in Orkney. In 1896 he visited the isle and noted that there was "a good deal of sickness". The following year an article in the *Scotsman*, entitled 'Fair Isle', stated that "a medicine chest is kept in the island but there is no doctor and the midwifery cases are often mismanaged. It would be a great boon if a Jubilee nurse could be got for the island".

Monies were raised and a local Association was formed to enable a Queen's Nurse to be sent from Edinburgh. Most of the early nurses were only here for about a year and although they were fully qualified their midwifery training was probably minimal until after 1915, when all practising midwives in Scotland were required to notify their local Supervising Authority of their qualifications and intention to practise. A register of cases had to be maintained by the midwife, the first on Fair Isle being recorded by Nurse Littlejohn in 1920.

The provision of a trained nurse must have been a relief both to the islanders and to the inaccessible doctors. Nearly every winter there were outbreaks of 'flu, interspersed with measles, whooping cough, diarrhoea, colds and German measles, which took their toll of life and strength. The nurse's remedies were few, although from about 1901 Mr James Coats of Paisley had generously stocked the medicine chest, so little expenditure was required of patients. Reliance on passing ships for uplifting sick and injured people via flitboat was relatively common - and precarious - and sometimes a doctor on board would be signalled ashore. One such incident occurred when an islander injured a vertebra in a fall from the end of a rope at Hoini Geo while trying to salvage herring barrels. The doctor waylaid to see him advised an end to his cliff exploits but the patient said he would have a longer rope next time.

In 1912 Nurse Mackenzie lamented that parents were all signing forms for exemption from vaccination against smallpox, which seems strange to us today when uptake for relevant vaccines is nearly 100%. Probably someone had a severe reaction and people became cautious; fear of infections was understandably great. From the inadequate and incomplete records we have, it seems that much of the nursing was associated with infectious illness, maternity cases, rheumatics - and fish hooks in hands. Purges, strong enough to loosen the very bowels of the earth, were administered, with little apparent discrimination, for diarrhoea, constipation and fevers.

The nurse often added a social dimension to her more technical skills; Nurse Skene introduced new Christmas carols to the community repertoire and her sister taught Scottish dancing. Romance occasionally blossomed, twice resulting in marriage, and one attractive young nurse during the first world war caused jealousy among the island lads. She was frequently visited at the Auld Haa by a Naval Officer stationed on submarine watch at Malcolm's Head. Two of his men used to peep through the window at them so one night the local boys got there first and coated the windowsill with treacle.

From 1920 the County Medical Officer visited the school on a slightly more regular basis, and Nurse Littlejohn weighed the children and began health education. Nurse Munro continued this through the 1920s and 30s with such subjects as "Circulation of the Blood" and "Cleanliness". An asthmatic, she was very familiar with another of her topics, "Air and Correct Breathing". Even now she is remembered for her wheezing, for dispensing Fry's penny cream bars, for Ella being named after

her, and for her nickname "Old Foula" - she had worked there before coming to Fair Isle.

Quarterly visits by the Dunrossness doctor were proposed in 1923 but the *Good Shepherd* fee for the charter was deemed exorbitant, and subsequently unnecessary in view of its regular mail service. It was to be nearly half a century before anything like regular G.P. surgeries were held, and then only because of Loganair flights.

In 1946 Nurse Cairns came to the isle and was to stay until 1960, seeing many changes during this time: the establishment of the Bird Observatory, the change of landlord to the National Trust, the modernising of homes, among them the nurse's house at Shirva, and the introduction of the National Health Service. She was the first nurse to get wheels - a scooter, which John Henderson taught her to ride. The antibiotic era had arrived and telephone and other communications were much improved. However, she still had a few problems! In April 1948 Robert Wilson urgently required medicines following measles, a stroke and a heart attack. The Kirkwall chemist wax-sealed the drug bottles and the tin in which they were placed, then taped round the tin and attached a similarly sealed torch to it. After testing for leaks in a sink of water the apparatus was rushed to the Captain of the *St Magnus*, who jettisoned it in the darkness off Fair Isle, where it was picked up, in the teeth of a gale, by one of the isle's yachts.

When a patient needed hospital care the nurse acted as escort on the *Good Shepherd* and Nurse Cairns, on one of several such trips, had the misfortune to accompany a claustrophobic lady with maternity complications who would only travel on deck. I don't think my own dedication to duty would have risen above the prevailing nausea. And what would I have done with the patient who landed at Grutness to discover there was no awaiting ambulance? The answer showed the initiative of nurse and crew; a butcher's van was commandeered and the patient set off for Lerwick among the joints of meat.

There have been dramas in more recent years too and, although they do not seem to have been wildly enthusiastic birdwatchers, the nurses have looked to the skies on many occasions. The lights of Loganair's Islander aircraft coming in on an ambulance flight have spelled reassurance such as former nurses never knew. The plane has helped revolutionise emergency care and aided provision of a more efficient service, comparable to that received elsewhere in Britain - but there is still a touch of the pioneering spirit, even if Morse is now obsolete:

"Hallo, Sumburgh. Ambulance Golf-Bravo Echo Delta Zulu landing Fair Isle".

"Hallo, Ambulance Delta Zulu. Surface wind at Sumburgh is 300° at 45 knots.

Report when airborne again. Make it a good landing!"

"Ambulance Delta Zulu here. I'll have a go. Cheers!"

Betty M.Best SRN SCM HV

Ornithology

A series of anticyclones situated in the Western approaches from late May onwards brought what seemed an almost uninterrupted westerly airflow at Fair Isle. As a result, notable falls of migrants were few and far between and several regular species, among them Pintail, Hen Harrier, Stock Dove and Golden Oriole, failed to appear. However, in typical fashion the Isle still managed to produce a string of rarities. Of the 195 species recorded during the year, just one, Pied Wheatear, was new for the Isle, bringing the Fair Isle list to 348.

On a sadder note, our seabirds again had mixed fortunes. Surface feeding species, namely Kittiwake, Arctic and Common Terns fared badly for the second successive season and this summer breeding failure extended to Arctic Skuas.

On the plus side though Fair Isle Puffins experienced another successful breeding season, in complete contrast to the situation on the rest of Shetland.

Spring Migration

Late February saw an unprecedented spring passage of Snow Buntings, peaking at 300 on 24th, while in early March a strong Skylark passage reached a record spring count of 850 on 6th. With winds in the western quarter for the rest of the month there was little excitement, although marked arrivals included 200 Oystercatcher on 20th, 65 Meadow Pipit on 28th and 45 Goldcrest on 31st.

Easterly winds for the first 11 days of April finally got the adrenalin flowing, culminating on the 11th with Britain's sixth and Fair Isle's third Song Sparrow. This, the first British record for 10 years, nearly led to Fair Isle's biggest ever 'twitch', with the *Orcadia* chartered to bring some 150 people up from the Mainland. The bird did not oblige though, leaving the day before the boat's intended departure. Other highlights of this period were a creditable spring count of 80 Goldcrests on 1st, a Hawfinch and big 'northern' Bullfinch on 8th, and 30 each of Robin and Dunnock on 11th. Early arrivals were also the norm, with Sand Martin on 2nd, Willow Warbler on 3rd, Ruff on 9th, Yellow Wagtail on 14th and Cuckoo on 18th all earliest ever records.

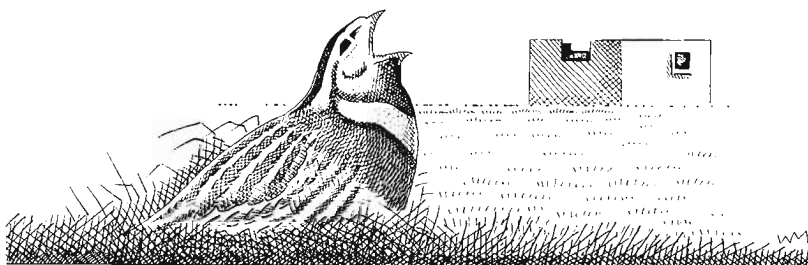
Light northerly winds between 15th and 26th resulted in few large arrivals, but there were some interesting observations. The first of at least 3 April Great Grey Shrikes occurred on 15th and Fair Isle's seventh Garganey appeared next day. Good numbers of Ring Ouzels were present, peaking at 50 on 22nd, and 2 Long-eared Owls were trapped. At last the first large arrival of Wheatears occurred with 125 on 28th.

May opened with the first of an unprecedented series of influxes of Carrion Crows with 19 counted. This increased to 36 next day when 450 Wheatear were also present and the 'smartest' bird of the spring was found at Pund. A superb Firecrest, only the Isle's second record. A Rough-legged Buzzard flew north on 4th and a Crossbill was trapped in the Plantation on 6th. Next day a male Subalpine Warbler was at Shirva and the 8th saw a marked arrival of Meadow Pipits with 350 counted. At last the wind switched to the east on the 11th, coincident with the arrival of 5 Barnacle Geese, and the following day saw the most exciting fall of the spring. Migrants continued to arrive all day, with final tallies of 360 Wheatear, 125 Willow Warbler, 80 Redstart, 60 Whinchat, 30 Pied Flycatcher, 25 each of Whitethroat, Robin and Song Thrush and 20 Ring Ouzel. Quality was provided by 3 Wryneck, and an Osprey patrolling the West cliffs. Some species continued to arrive next day, with increases to 520 Wheatear, 320 Meadow Pipit, 130 Willow Warbler and 40 Whitethroat while the sought after rarity was finally found in the

form of a Short-toed Lark at Skerryholm. The 14th saw reduced numbers of migrants but a Little Bunting and a Common Buzzard were good finds.

A return to westerly winds for the next week saw few arrivals although a Quail and another male Subalpine Warbler appeared on 19th. A period of light south-east winds commenced on 20th, bringing a good selection of Fair Isle's 'spring specials' next day. Two Sprossers led a supporting cast that included 12 Bluethroats, 10 Red-backed Shrikes, an Icterine Warbler and a Red-breasted Flycatcher. Commoner migrants present in good numbers were, 200 Swallow, 50 House Martin and 12 Lesser Whitethroat. The 22nd brought more excitement in the guise of 4 Icterine Warblers, a Rosefinch, Rustic Bunting, Nightingale and Little Stint, with Spotted Flycatchers increasing to 25 and Red-backed Shrikes to 12. The 23rd was a quieter day although this gave observers time to relocate the male Black-headed Bunting seen by one person in the morning. House Martins increased to 170 on 24th and 4 Black Redstarts a Quail, a new Rosefinch and the spring's third Sprosser were also found. There was yet another new Sprosser next day, but neither this nor the 2 Icterine Warblers could compete for attention with a superb immature male Snowy Owl that sat in the shelter of a plantigrub in Homisdale.

The last 'action' of the month occurred on 26th when an adult Long-tailed Skua and another Rosefinch were seen. June started as May had ended with an incessant westerly airflow, and although there were light south-east winds from 8th-14th, the month was generally disappointing. The few highlights comprised 10 Marsh Warblers scattered through the month, single Quail on 5th, 12th and 21st, 2 Hobby and an Icterine Warbler on 14th, a male Red-headed Bunting on 18th and a male Rose-coloured Starling on 19th.



Autumn Migration

July too, was quiet, although a Marsh Warbler on 4th and Honey Buzzard on 6th were unusual. 32 Golden Plover on 21st and 110 Common Gulls on 25th were the first major signs of returning migrants and a Rosefinch with a brood patch on 31st was intriguing.

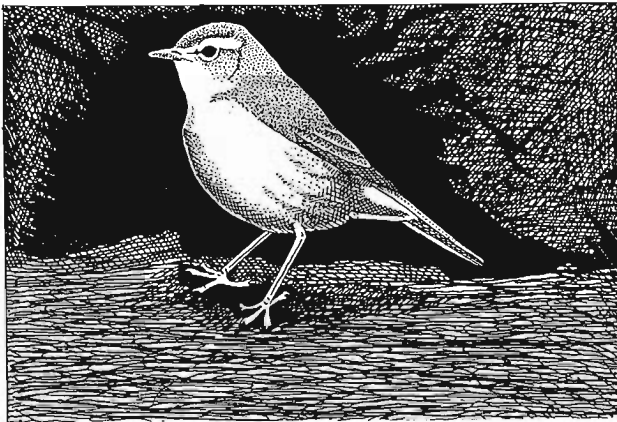
In August, we had to wait until the 29th before the wind blew from the south-east. As a consequence the month was fairly quiet. Early August saw a strong passage of Common Gulls peaking at 700 on 11th. A Leach's Petrel was seen on the crossing of 8th, and stronger winds in mid-month brought some good seawatching (by Fair Isle standards) with up to 9 Manx and 25 Sooty Shearwaters almost daily 11th-18th. 220 Lesser Black-backed Gulls on 16th was a record Island count. Single Icterine Warblers on 13th and 15th brought some 'land-based' excitement and the first of 4 August Barred Warblers was found on 22nd. An

incredibly tame juvenile Red-necked Phalarope entertained observers on Bunness for a few days from the 25th, and Ex-warden Roy Dennis found a Citrine Wagtail at Golden Water on 27th. Unfortunately the Wagtail could not be relocated but observers' disappointment was soon forgotten on 29th when a long awaited switch to south-east winds produced 2 Rosefinch, one a red male, a Corncrake and a super Yellow-breasted Bunting.

The usual promise of September was soon forgotten amongst a seemingly unabating westerly airflow. There was little to report for the first week of the month save for a passage of Icelandic species. Meadow Pipits peaked at 900 on 1st and *alba* Wagtails at 45 on 2nd. Light easterly winds from 9th-13th brought a welcome respite with a Corncrake and a new Yellow-breasted Bunting found on 9th. The 10th dawned a day of real excitement, with common migrants including 50 Willow Warbler, 25 Garden Warbler, 15 Pied Flycatcher, 11 Lesser Whitethroat and 8 Lapland Bunting. Quality was provided by 5 Rosefinch, Fair Isle's third ever autumn Nightingale and 3 Little Buntings. The autumn's third Yellow-breasted Bunting was located at Pund next day and a late Aquatic Warbler was trapped in the Gully on 13th. Despite a return to westerlies a Spotted Crake and an Ortolan appeared on 14th and against all odds a Lanceolated Warbler was found in the Boinni Mire on 16th. It remained there for 2 more days to provide some inspiration in the face of westerly gales.

On 17th, 235 Skylarks and 10 Jack Snipe were noted and a new Little Bunting was found on 18th. The westerly gales increased to storm force on 19th-20th forcing at least 3 Grey Phalaropes to seek shelter around the Isle, the first records of this species since 1979.

A brief spell of light and variable winds on 22nd brought a good variety of birds, leaving observers to ponder on just what could have arrived if there had been an east wind. The Isle's first Booted Warbler since 1977 was the star, ably supported by 500 Meadow Pipits, 300 Skylark, 50 Blackcap, 25 Goldcrest, 19 Whooper Swan, 13 Lapland Bunting and the fifth Little Bunting of the autumn. Next day, Wheatears increased to 700 and on the 24th, 5 Rosefinch were present. The 25th saw 22 Whooper Swans, 90 Redshank and 400 Skylarks arrive and Shetland residents were elated at the sight of a Coal Tit along the Finniquoy cliffs on 26th, only Fair Isle's third record!



Continuing the trend of recent years, October proved to be the most exciting month of the autumn. The 3rd saw counts of 86 Greylag Goose, 12 Jack Snipe, 380 Skylark, 550 Meadow Pipit and 7 Lapland Bunting. The wind backed south-south-east in the evening and the next day observers buzzed with excitement. By lunchtime 5000 Redwing, 500 Skylark, 150 Song Thrush, 10 Jack Snipe and 8 Lapland Buntings had been counted and a huge Arctic Redpoll of the Greenland race and a Short-toed Lark had been located. The major prize, though, was to fall at Leogh in the afternoon, where a Pechora Pipit was found. The bird led observers a merry dance before finally settling down in a ditch from whence it would approach observers to within 10 yards. It remained until 24th.

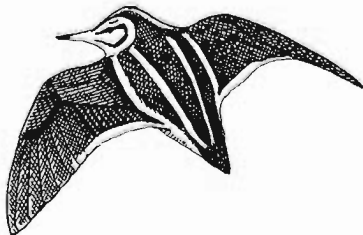
On 5th, Jack Snipe increased to 20 and a Spotted Crake and Richard's Pipit were found. A new Short-toed Lark and a new Little Bunting appeared next day, and 13 Whooper Swans and 100 Snow Buntings were the stars of a quiet 7th. The wind was now back firmly in the west but almost unbelievably a Pied Wheatear was trapped in the Single Dyke on 10th. Although this provided observers with by now much needed inspiration to search the Isle, nothing further was found.

The 11th dawned with little wind and a new Arctic Redpoll was found alongside the first one, it too a stunning *hornemanni*. For most visitors the event of their holiday unfolded in the Leogh ditch later that afternoon when a Lanceolated Warbler, totally unperturbed by delighted observers, walked between legs and over feet until dusk.

By dawn next day winds were again strong and from the west and a quiet period followed. A dead Quail was picked up on 13th and a second Richard's Pipit was found on 15th. A Goldfinch, still an Island rarity, was seen outside the Obs. on 17th and 134 Greylag Geese flew south on 19th. The autumn's third Short-toed Lark was found on 20th but on this day and over the next few observers attention turned to an 'odd' Snipe. Whether the mystery will be solved remains to be seen, but it was clearly neither Common or Great, and all those who saw it suspect it to have been a Swinhoe's.

A small arrival of 1000 Redwing occurred on 23rd and the autumn's seventh Little Bunting appeared. A Waxwing flying over on 26th was the high spot of a quiet spell but a switch to south-east winds on 29th brought a spectacular fall. Thrushes were everywhere, 10000 Redwing, 5500 Fieldfare, 350 Blackbird and 90 Song Thrush being counted. Other arrivals included 85 Goldcrest, 70 Woodcock, 30 Blackcap, 4 Black Redstart and a Little Grebe. The stars of the 30th were 2 Richard's Pipits and a Great Grey Shrike.

November was generally quiet, the highlights being an Influx of Long-eared Owls peaking at 12 on 1st, a couple of Iceland Gulls, late Bluethroats on 3rd and 4th-5th, Richard's Pipits on 4th and 7th-10th, late Storm Petrel and Lesser Whitethroat on 7th and 12 Barnacle Goose on 19th. The only fall of note was on 16th when 120 Woodcock, 3 Short-eared Owl, 100 Blackbird and 100 Redwing were counted.



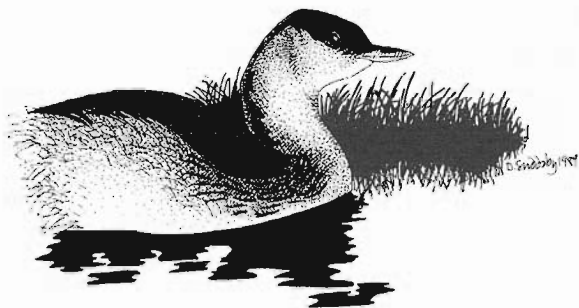
Systematic List

** Details of all birds preceded by an asterisk are still being considered by the British Birds Rarities Committee.*

RED THROATED DIVER *Gavia stellata*. A typical sprinkling of records, with 1-2 recorded on 16 dates between 8th June and 17th October, and 5 on 25th Sep.

GREAT NORTHERN DIVER *Gavia immer*. Records comprised singles on 20th September & 8th October, 4 on 18th October and 2 next day.

LITTLE GREBE *Tachybaptus ruficollis*. One at Easter Lothar on 29th October was the first record since 1986.



FULMAR *Fulmarus glacialis*. Present all year, with 'Blue' Fulmars seen most months. Breeding productivity at monitored plots was 0.48 chicks fledged / Apparently Occupied Site.

SOOTY SHEARWATER *Puffinus griseus*. The first 2 seen on the crossing of 10th August, were followed by almost daily sightings until the end of the month, with a max. of 25 passing east on 17th. In September, 1-4 reported on 11 dates, then in October 2 on the crossing of 3rd and a single from the Isle on 17th.

MANX SHEARWATER *Puffinus puffinus*. Singles reported on 5 crossings 15th June-22nd July, then 39 seen flying east from the Isle between 11th-19th August. Finally, singles on the crossings of 22nd August & 2nd September, and from the Isle on 31st August & 17th September.

STORM PETREL *Hydrobates pelagicus*. Recorded frequently on crossings between 1st June and 18th September with a late single on 7th November. Sightings from the Isle comprised 2 east on 11th August and a single on 2nd October. A juvenile found at field on the 18th October was later released at the North Haven.

LEACH'S PETREL *Oceanodroma leucorhoa*. A single seen from the *Good Shepherd* on the crossing of 8th August was the sole record.

GANNET *Sula bassana*. Present from at least February. The breeding population continues to increase with 676 nests counted, representing a 38.5% increase on the 1988 figure. Breeding productivity at monitored plots was 0.78 chicks fledged/nest.

CORMORANT *Phalacrocorax carbo*. A first year bird present from at least mid-February until July, was joined by other singles on several dates. In autumn, 1-4 on 35 dates, 17th August-24th October, with marked passage on 7th-10th September, max. 18 on 8th, and on 3rd-4th October, max. 11 on 3rd. Late singles on 13th November and 16th December.

SHAG *Phalacrocorax aristotelis*. Present all year. Breeding productivity at monitored plots was 1.28 chicks fledged/nest.

GREY HERON *Ardea cinerea*. Scarce in spring with singles on 21st April, 24th May, 7th-11th, 14th & 21st June. In autumn recorded regularly 27th July-30th October, with max. of 7 on 25th August, 10th September and 5th October. Finally, a late record on 29th November.

WHOOPEE SWAN *Cygnus cygnus*. In spring, 17 on 30th March and 1 on 22nd-23rd April. Autumn passage spanned 22nd September-15th November, with high counts of 19 on 22nd, and 22 on 25th September, and 13 on 7th, and 12 on 23rd October.

PINK-FOOTED GOOSE *Anser brachyrhynchus*. Two from 18th-22nd May, the only spring record. Poor autumn passage with 1-12 recorded most days 20th September-14th October, and 32 on 21st September.

GREYLAG GOOSE *Anser anser*. The wintering flock of 12 increased to 33 on 16th February, with 27 of these remaining until 4th April, 8 until 26th April and 2 until 2nd May. In autumn, 7 on 28th September preceded almost daily records 1st October-7th November with heaviest passage 86 on 3rd, 78 on 11th and 134 on 19th October. Three remained until at least 9th December.

BARNACLE GOOSE *Branta leucopsis*. In spring 5 on 11th May. Autumn records all in October, with 1 on 3rd, 19 on 8th, 7 on 9th and 3 on 11th. Twelve arrived on 18th November, with 9 remaining well into December.

BRENT GOOSE *Branta bernicla*. A flock of 4 flew east off the South Light on 28th May.

SHELDUCK *Tadorna tadorna*. Records comprised 1 on 13th-15th May, 2 on 22nd May and 1 on 29th October.

WIGEON *Anas penelope*. In spring up to 4 on 6 dates, 9th May-1st June. In mid-summer two males and 2 females on 22nd July. In autumn 1 on 16th August preceded almost daily records 12th September-1st November, with high counts of 31 on 13th September and 20 on 10th October. Later records, 3 on 15th and 5 on 16th November.

TEAL *Anas crecca*. Spring records comprised 3 on 18th March, 2 on 2 dates in April and up to 5 on 9 dates, 7th May-2nd June. In autumn regular from 5th August-19th October, with max. of 7 on 13th September and 2nd October. Later singles on 30th October and 16th November.

MALLARD *Anas platyrhynchos*. Up to 4 on 19 dates, 4th March-30th July. More frequent in August-September with up to 4 on 19 dates. Marked passage in October with almost daily records, max. 17 on 4th. In November, recorded on 10 dates, max. 10 on 16th, with at least 2 remaining into December.

GARGANEY *Anas querquedula*. A female frequenting the south of the Isle from 16th-21st April was the 7th record, and the first since 1975.

SHOVELER *Anas clypeata*. In spring there were 3 on 14th April, 2 remaining until 16th, and in autumn 3 on 18th October.

TUFTED DUCK *Aythya fuligula*. Records comprised 2 on 24th-25th May, a female on 21st June, a male on 30th June-2nd July and 1 on 8th October.

IDER *Somateria mollissima*. Present all year, with a max. of 1000 on 5th November.

***KING IDER** *Somateria spectabilis*. The male first seen in 1988 was present again, from 18th February until 10th May, and then from 17th September to 30th October.

LONG-TAILED DUCK *Clangula hyemalis*. At least 20 were present all winter, with almost daily records until 17th June, max. 34 on 1st May. There were later singles on 5 dates until 24th July. First autumn record on 7th October, with marked passage 11th-23rd October, max. 17 on 12th. Only occasional singles in November-December.

COMMON SCOTER *Melanitta nigra*. Records comprised 2 on 21st February, 1 on 26th February, a female on 9th March-11th April, with 2 on 20th March; a male on 6th-8th May, a female on 5 dates, 15th-27th May, 1 on the crossing of 26th August, 2 on 22nd and singles on 24th & 28th September, and 2 on 18th October.

VELVET SCOTER *Melanitta fusca*. One seen on the crossing of the 26th August was the first record since 1986.

GOLDENEYE *Bucephala clangula*. Up to 3 most days 7th February-8th April, 1 on 17th-19th April and 2 on 27th April. In autumn 1-3 on 6 dates, 3rd-24th October, and 8 on the crossing of 7th November.

RED-BREASTED MERGANSER *Mergus serrator*. Recorded in most months. In February, a single on 19th; in March, singles on 6 dates; in April, 1-2 on 6 dates and 5 on 17th; in May, 4 on 8th, and singles on 17th & 25th-28th; in June, singles on 13th & 17th; in July, 1 on 7th; in September 1-2 on 9 dates and 7 on 27th; in October seen most days max. 9 on 2nd, and in November 1-3 on 3 dates.

HONEY BUZZARD *Pernis apivorus*. One flew north on 6th July.

SPARROWHAWK *Accipiter nisus*. In spring, singles on 12 dates, 3rd April-16th May and 2 on 12th May. Scarcer than usual in autumn, with singles on just 11 dates, 12th September-3rd November and 2 on 13th September. Finally a late single on 23rd November.

BUZZARD *Buteo buteo*. One on 14th May was the first since 1985.

ROUGH-LEGGED BUZZARD *Buteo lagopus*. One flying over Ward Hill on 4th May was the only record.

OSPREY *Pandion haliaetus*. A single spent most of the 12th May cruising up and down the west cliffs.

KESTREL *Falco tinnunculus*. In spring, singles on 2 dates in February, 9 dates in March, 15 dates in April, and in May, singles on 6 dates with 2 on 13th. In June, 1-2 daily 11th-14th. A single on 28th July preceded 1-2 on 9 dates in August and then almost daily records of 1-2 in September-October. There were later singles on 15th & 30th November.

MERLIN *Falco columbarius*. Scarce in spring with singles on 16th February, 4th March, 16th-18th & 31st May, and 2 on 13th May. In autumn up to 3 almost daily 29th August-19th November, with 5 on 9th October. Finally, 1 on 12th-14th December.

HOBBY *Falco subbuteo*. Two, both probable first-summers, hunted over the Isle on 14th June, one remaining until 23rd.

PEREGRINE *Falco peregrinus*. A poor year, with singles on 20th March, 27th-28th July, 12th-14th September, 10 dates 3rd-23rd October, and 9th, 16th & 24th November.

QUAIL *Coturnix coturnix*. The best showing since 1983 with singles seen on 19th-20th & 24th May, 5th & 12th June; and a singing male 21st-23rd June. In autumn an adult female killed itself against the South Light on 13th October.

WATER RAIL *Rallus aquaticus*. Up to 3 were thought to have wintered. Spring records comprised singles on 24th & 25th April, and 1st, 17th & 22nd May. In autumn there were 1-2 regularly 16th August to at least mid-December.

SPOTTED CRAKE *Porzana porzana*. Singles in Boini Mire on 14th September and Da Water on 5th October.

CORNCRAKE *Crex crex*. Singles seen on 29th August & 9th-11th September and 1 found dead on 21st October.

MOORHEN *Gallinula chloropus*. All spring records were in April with singles on 9th, 12th-14th & 20th-22nd. In autumn, singles on 6 dates, 17th-28th September with 2 on 23rd, 1 on 29th October-7th November joined by a second on 5th, and singles on 16th November & 5th-13th December.

OYSTERCATCHER *Haematopus ostralegus*. First arrivals occurred in mid-February. Numbers built up in March to a peak of 200 on 20th. Non breeders or failed breeders arrived in mid-May, peaking at 90 on 28th. The breeding population was estimated at 80 pairs. Autumn passage was light with daily records until the 7th October, and a late single on 16th December.

RINGED PLOVER *Charadrius hiaticula*. The first individual arrived on 16th February and by 7th March 40 were present. The spring peak was 45 on 23rd April. The breeding population was censused at 16 pairs. In autumn, recorded daily until 13th October, max. 55 on 13th September, with a late single on 22nd.

GOLDEN PLOVER *Pluvialis apricaria*. One-2 recorded on 12 dates, 18th February-30th March. Almost daily records April to mid-June, with April max. of

10 on 25th and May max. of 25 on 2nd. A pair held territory during the summer and were suspected of breeding. Thirty-two on 21st July were either non, or failed breeders, and preceded almost daily records August to mid-October. August max. 33 on 18th, September max. 70 on 24th, and October max. 70 on 8th. Recorded on 7 dates 1st-29th November, max. 9 on 7th.

GREY PLOVER *Pluvialis squatarola*. Singles on 9th April & 27th May, were only the 10th-11th spring records. In autumn singles on 20th September & 24th September-6th October.

LAPWING *Vanellus vanellus*. A single on 10th February preceded almost daily records from 17th, with February max. of 42 on 24th. Spring passage was heaviest in March with a max. of 102 on 7th. After 40 on 2nd April daily counts were below 20 for the rest of the spring. Four pairs were thought to have bred, continuing the decline of recent years. Post breeding dispersal commenced with a flock of 26 flying south on 26th July. Although recorded almost daily until 7th November, autumn passage was light with daily counts fewer than 25 except for 52 on 20th October. The last record, 4 on 16th December.

KNOT *Calidris canutus*. Three from 22nd-30th March were very early. Other spring records were singles on 17th & 22nd April, and in May, singles on 5 dates and 3 on 15th-18th. An adult on 28th July preceded main autumn passage, with almost daily records from 9th August-1st September, Max. 17 on 11th and again from 16th September-12th October, max. 5 on 25th. A late single remained until 13th November.

SANDERLING *Calidris alba*. In spring, 1 on 21st and 4 on 31st May. Autumn passage from 14th July, with almost daily records until 24th September, max. of 12 on 31st August. Two on 3rd October, the only later record.

LITTLE STINT *Calidris minuta*. One on 22nd May, was only the 7th spring individual. A poor autumn, with singles on 15th-18th & 21st, 2 on 20th and 3 on 22nd August.

PURPLE SANDPIPER *Calidris maritima*. Recorded in all months with largest numbers in April-May, max. 80 on 1st May.

DUNLIN *Calidris alpina*. A single on 25th April, preceded almost daily records 1st May-3rd June, max. 15 on 22nd. Then occasional reports of up to 3, until 12 on 21st July, after which seen daily until 1st August, max. 20 on 31st July. There were then no records until 11th August, after which seen daily until 13th October, max. 15 on 13th August. Occasional late singles until 3rd November with 6 on 30th October.

RUFF *Philomachus pugnax*. The sole spring record on 8th April, was the earliest ever. In autumn singles on 23rd-26th & 27th-28th July, preceded main passage 10th-17th August, max. 6 on 10th, followed by 1-2 on 6 dates until 12th September. A late single on 7th October.

JACK SNipe *Lymnocyptes minimus*. Spring records comprised singles on 16th February, 5th April and 8th May, with 2 on 19th March. A good autumn passage with almost daily records 13th September-1st November. Heaviest passage on 17th-18th September, max. 11 on 18th, and on 3rd-6th October, max. 20 on 5th. Later records, 1-2 on 4 dates in November and 1 on 8th December.

SNIFE *Gallinago gallinago*. Present all year. Spring max. of 40 on 24th March. Autumn passage peaked at 100 on 28th September. There were at least 80 present during cold weather on 16th December.

WOODCOCK *Scolopax rusticola*. A poor year. In spring a single on 26th Feb, followed by 1-5 on 10 dates, 1st April-2nd May, with late singles on 26th & 29th May. In autumn, singles on 5th & 6th September, preceded almost daily passage 5th October-30th November, with marked arrivals of 150 on 29th October and 120 on 16th November. A late record on 14th December.

BLACK-TAILED GODWIT *Limosa limosa*. One on 31st August the only record.

BAR-TAILED GODWIT *Limosa lapponica*. None in spring. In autumn, 2 on 9th August followed by singles on 7 dates, 15th-28th August. A late single flew south on 30th October.

CURLEW *Numenius arquata*. Two over-wintered. Light spring passage peaked at 20 on 31st March. Seven pairs attempted to breed and there were non-breeding flocks of up to 15 in June. Autumn passage was strongest in July, with 41 on 10th and 67 on 22nd. Thereafter max. of 27 on 3rd October. In December 1-2 on 3 dates and 14 during cold weather on 16th.

WHIMBREL *Numenius phaeopus*. Almost daily spring passage 21st April-8th June, max. 15 on 8th May. Returning migrants from 6th July regularly to end of August, max. 12 on 13th August, followed by singles on 11 dates, 13th September-4th October, with 4 on 15th.

SPOTTED REDSHANK *Tringa erythropus*. A juvenile from 16th-18th August the only record.

REDSHANK *Tringa totanus*. Recorded in all months. Counts of up to 65 regular in February-March, numbers declining thereafter, with May peak of 15 on 3rd. One-3 on 10 dates in June followed by almost daily records from July with heaviest passage in mid-August, max. 60 on 17th, and mid-September to mid-October max. of 90 on 25th September. At least 20 remained to mid-December.

GREENSHANK *Tringa nebularia*. In spring, 1-2 on 15 dates, 9th April-10th May, and later singles on 5th & 12th June. Autumn records; in August, 3 on 7th and singles on 8th, 16th & 20th; and in September, singles on 5 dates, 16th-21st and 2 on 22nd.

GREEN SANDPIPER *Tringa ochropus*. A poor year. Spring records comprised 2 on 21st April, and in May singles on 4 dates and 3 on 13th. July singles on 4th & 26th preceded main autumn passage 5th-27th August, when 1-3 on 11 dates.

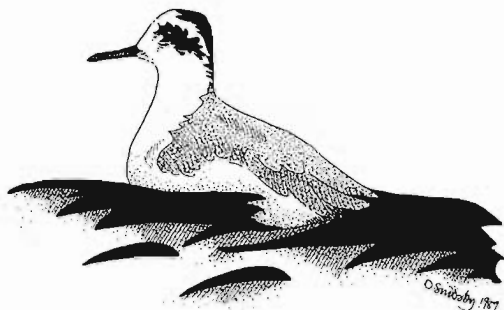
WOOD SANDPIPER *Tringa glareola*. The poorest showing since at least 1978 with 1 on 12th-13th May the sole record.

COMMON SANDPIPER *Actitis hypoleucos*. In spring, an early individual on 9th April was followed by main passage in May, when 1-5 recorded most days, with last single 1st June. Extremely poor autumn passage comprised 1-3 on 6 dates, 12th-21st August.

TURNSTONE *Arenaria interpres*. Recorded almost daily throughout the year, with monthly max. of 250 on 27th February, 250 on 1st March, 150 on 1st April, 100 on 4th May, 24 on 13th June, 36 on 24th July, 215 on 31st August, 260 on 25th September, 280 on 27th October 300 on 1st November and 160 on 5th December.

RED-NECKED PHALAROPE *Phalaropus lobatus*. A juvenile on Bunes from 25th-28th August was the 15th Island record, and the first since 1986.

GREY PHALAROPE *Phalaropus fulicarius*. Strong September gales caused individuals to seek shelter around the Isle, with 1 on 19th, 3 on 20th, and 2 remaining next day. The first since 1979, there being only 12 previous records.



POMARINE SKUA *Stercorarius pomarinus*. One found freshly dead on 26th January, and 5 juveniles flying past South Light on the 14th October the only records.

ARCTIC SKUA *Stercorarius parasiticus*. The first 2 arrived on 16th April, with numbers building up to 50 by 29th. The breeding population was estimated at 114 A.O.T's. Chicks and fledglings suffered heavy losses through predation by Great Skuas, with 20 predated corpses found. A max. of 0.33 fledglings/A.O.T. were thought to have left the colony. The autumn exodus was quick with just 15 left on 22nd August. There were later reports of 1-2 until 30th September. There was evidence of passage on 11th August when 45 flew east past South Light.

LONG-TAILED SKUA *Stercorarius longicauda*. An adult over Setter and Tarryfield on 26th May was the only record.

GREAT SKUA *Stercorarius skua*. First on 29th March, with main arrival mid-April. A total of 72 A.O.T's were found, with breeding success estimated at 0.79 chicks fledged/A.O.T. There were daily records until 24th October, then 3 on 29th October and a late single on 14th November.

BLACK-HEADED GULL *Larus ridibundus*. Recorded regularly 16th February-16th June, max. 29 on 24th May. Fewer reports 16th June-19th July after which seen almost daily until 11th October, max 45 on 15th August. Sporadic records after 11th October with occasional singles in November.

COMMON GULL *Larus canus*. One on 10th February, preceded almost daily records until 5th November. Main spring passage April-May, max. 75 on 16th May. Ten pairs successfully raised 11 young to fledging. Some large arrivals in late July, max. 110 on 25th, preceded heavy passage 7th-24th August, max. 700 on 11th. Fewer in September, with max. of 70 on 16th, and in October, max. of 45 on 23rd. In November-December, 1-4 on several dates.

LESSER BLACK-BACKED GULL *Larus fuscus*. First spring record on 30th March, but no large arrival until 12 on 11th April. Peak spring counts 75 on 16th May and 90 on 6th June. In autumn, marked influx 18th-19th August, with 220 on 18th the highest ever count. One-4 most days in September, with last single on 18th October.

HERRING GULL *Larus argentatus*. Present all year, with largest counts of birds ashore, 2000 on 29th October and 2nd November.

ICELAND GULL *Larus glaucoideus*. In spring there were four different first-winters, on 6th February-26th March, 2nd, 11th-21st, & 18th-21st April. Late in the year, a second-winter on 2nd and first-winter on 11th November.

GLAUCOUS GULL *Larus hyperboreus*. One-3 daily 15th-26th February. Then singles on 2 dates in March, 3 dates in April and 4 dates in May. Late in year, first-winters on 1st August, 27th-29th September and on 8 dates in October.

GREAT BLACK-BACKED GULL *Larus marinus*. Present all year, with highest count of birds ashore 1000 on 20th October, 2nd & 16th-17th November.

KITTIWAKE *Rissa tridactyla*. Present on cliffs from February with almost daily records until 30th October. Another poor breeding season with breeding success at monitored plots of 0.34 chicks fledged/A.O.N. There was evidence of sea passage during September-October with max. 175 east on 22nd October. Occasional records November-December.

SANDWICH TERN *Sterna sandvicensis*. Two off South Light on 16th May was the only record, the poorest showing for many years.

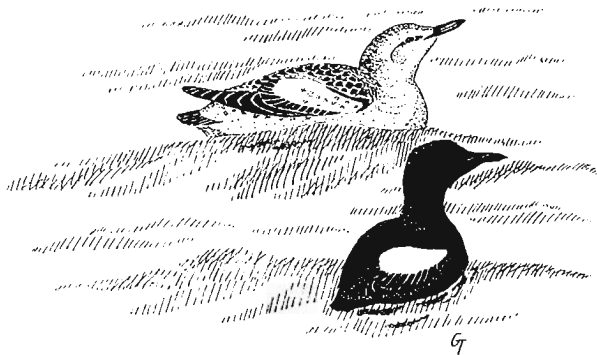
COMMON TERN *Sterna hirundo*. A single on 4th May, followed by 8 on 6th May with 30 present by 10th. A poor breeding season with an estimated 25 pairs raising just one chick to fledging. Local birds had departed by the end of July, with later records of 6 on 16th, 3 on 17th and 1 on 25th September.

ARCTIC TERN *Sterna paradisaea*. An early single on 1st May, preceded main arrival from 8th May. An estimated 283 pairs attempted to breed, raising 36 chicks to fledging. Although most local birds had departed by early August, 2 remained until 2nd September. Late migrants were seen on 10th & 24th September.

GUILLEMOT *Uria aalge*. Present on fine days from January. The whole island census revealed 32321 individuals, representing a 3.8% drop from the 1986 count. This corresponds with an observed decrease of 15% over the same time period at monitored sites. Another successful breeding season with 0.79 chicks fledged/incubating adult at monitored sites. Most breeders had departed by August, with just a scatter of records in that month. From September seen most days, max. 30 on 25th September.

RAZORBILL *Alca torda*. Present from February. Visits to colonies during the summer indicated a successful breeding season. Few records after end of July, with scattered records of 1-3 until 19th October and 6 on 16th and 8 on 20th October.

BLACK GUILLEMOT *Cephus grylle*. Present all year. A whole island census revealed 345 adults in breeding plumage, a 6% drop on the corresponding 1986 figure. Breeding productivity at 43 monitored nests averaged 1.07 chicks fledged/nest, a big improvement on the previous two years.



LITTLE AUK *Alle alle*. Records from the Isle comprised 1 on 18th February, 1-7 on 4 dates 14th-27th October and 1 on 29th November. A few seen on most crossings from early November.

PUFFIN *Fratercula arctica*. The first single appeared offshore on 27th March and ashore on 31st March. Results of the whole island census indicate that the breeding population could be as much as 70000 individuals. The species experienced another successful breeding season, fledging 0.76 chicks/monitored burrow. A late single was seen on the crossing of 7th November.

ROCK DOVE *Columba livia*. Present throughout the year. The highest spring count was 51 on 31st May, the highest autumn count, 63 on 19th October.

WOOD PIGEON *Columba palumbus*. A poor year. In spring, 1 on 12th-13th March preceded almost daily passage 19th March-2nd June, max. 12 on 3rd May. In June 1-2 on 6 dates, 9th-21st, and in July, 1 on 10th. In autumn, singles on 23rd & 27th September, 3 on 3rd October and 1-2 on 10 dates, 30th October-13th November.

COLLARED DOVE *Streptopelia decaocto*. In spring, 1 on 18th April and 1-6 almost daily 2nd May-25th June, with 9 on 18th-19th May. Mid-summer records of 1-3 on 8 dates, 3rd-19th July, then in autumn, 1-2 daily 13th-17th August and 1-2 almost daily 16th September-3rd October.

TURTLE DOVE *Streptopelia turtur*. A very poor year with spring records confined to 2 on 21st May and 1-2 daily 12th-16th June, and autumn singles on 3rd September & 18th October.

CUCKOO *Cuculus canorus*. One on 18th April was the earliest ever record. Thereafter singles on 8 dates, 12th May-7th June with 2 on 17th and 4 on 18th May. There were no autumn records.

***SNOWY OWL** *Nyctea scandiaca*. What was considered to be an immature male graced the Isle on 25th May. The first since 1986.

LONG-EARED OWL *Asio otus*. Spring records comprised singles on 15th, 17th, & 20th, and 2 on 18th April. A good autumn, with 1-2 on 13 dates, 4th-23rd October preceding marked influx 29th October-6th November, max. 12 on 1st. Then 1-2 on 13 dates, until last on 14th December.



SHORT-EARED OWL *Asio flammeus*. In April singles on 5 dates, 4th-23rd and 2 on 28th. In May, 1-3 on 14 dates from 8th, and in June 1-2 on 6 dates until 15th. In autumn, singles on 22nd August & 29th September and 2 on 23rd September preceded almost daily records 4th October-5th November, max. 4 on last date. The only later record was of 3 on 16th November.

SWIFT *Apus apus*. One on 13th May preceded almost daily sightings of 1-5 on 19th-29th May. In June, recorded on 7 dates, 11th-19th, max. 12 on 14th. Records on 5 dates in July, max. 25 on 6th and then 1-5 almost daily 1st-24th August. One on 15th September was the only later record.

WRYNECK *Jynx torquilla*. A poor year. In spring, 1-3 daily 12th-16th May, with a further single on 18th. In autumn, singles on 27th August & 13th September and 5 on 10th September.

***SHORT-TOED LARK** *Calandrella brachydactyla*. Four records. In spring one at Skerryholm on 13th May. Autumn records all in October, with singles from 4th-8th, 6th-14th and 20th-27th. All frequented the Quoy/Busta/Springfield area.

SKYLARK *Alauda arvensis*. One on 1st January. The next, on 5th February, preceded main arrival from 10th. Heaviest passage from 6th March-11th April, with peaks

of 850 on 6th March and 580 on 17th March, the former being the highest ever spring count. The breeding population was estimated at 100 pairs. In autumn strongest passage 17th September-11th October, max. 550 on 28th September. Up to 12 seen daily until at least mid-December.

SAND MARTIN *Riparia riparia*. One on 2nd April was the earliest ever. Singles followed on 30th April & 2nd May, with 4 on 3rd May. Then daily records 11th-24th May, max. 7 on 23rd, and 1-4 on 7 dates, 30th May-14th June. In July 1 on 2nd and 2 on 6th. Autumn passage from 16th August-5th September, with 1-2 on 5 dates.

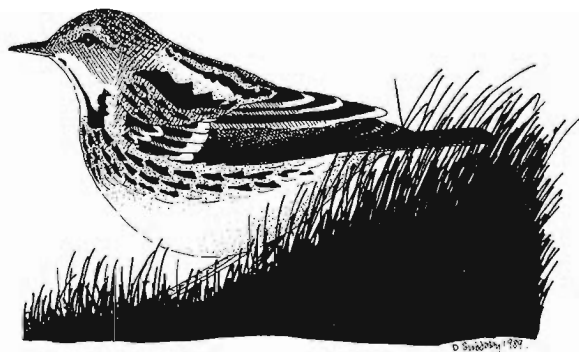
SWALLOW *Hirundo rustica*. One-2 on 4 dates, 12th-17th April, preceded almost daily records 29th April-30 July. Heaviest passage 11th-24th May, max. 200 on 21st. In June a maximum of 20 on 4 dates, with all July reports of 1-3. Much lighter autumn passage comprised 1-4 on 22 dates, 9th August-4th October.

HOUSE MARTIN *Delichon urbica*. In spring almost daily records 14th May-23rd June, with heaviest passage 21st-24th May, max. 170 on 24th. Singles on 3 dates in July. Poor autumn passage comprised singles on 7th & 12th-14th August.

RICHARD'S PIPIT *Anthus novaeseelandiae*. Probably 6 individuals in all. In October, individuals from 5th-15th & 15th-23rd with 2 on 29th-30th, and in November singles on 4th & 7th-9th.

TREE PIPIT *Anthus trivialis*. In spring, 1-4 most dates 22nd April-2nd May, preceded daily records 10th May-2nd June, with heaviest passage 12th-15th, max. 23 on 14th. One on 5th June was the only later record. The poorest autumn passage this decade comprised singles on 15th & 18th August, 1-2 on 6 dates, 10th-16th September and 1 on 24th September.

***PECHORA PIPIT** *Anthus gustavi*. One frequented the Leogh area from 4th-24th October. After a 6 year absence this species has now appeared in 4 of the last 5 years.



MEADOW PIPIT *Anthus pratensis*. First 4 on 16th February, then 1-4 several dates until daily records from 6th March. Main movements; 30th March-2nd April, max. 160 on 2nd, and 1st-13th May, max. 300 on 1st-2nd. The breeding population was estimated at 45 pairs. Autumn passage commenced at the end of August and was heaviest in early September, max. 900 on 1st. Other notable arrivals were 500 on 22nd September, and 550 on 3rd October. Records of fewer than 20 after 23rd October, with 2 until 17th November, occasional singles until at least 14th December, and 2 on 16th December.

ROCK PIPIT *Anthus petrosus*. Present all year, with no obvious passage. A bird showing the characters of the Scandinavian subspecies *littoralis* was present in the South Harbour area from mid-April to early June.

YELLOW WAGTAIL *Motacilla flava*. One on 14th April was the earliest ever. Then, 1 on 3rd May, 1-3 daily 11th-18th May, 2 on 22nd May and 1-2 on 4 dates, 2nd-14th June. Those subspecifically identified comprised *M.f.flavissima*, 1 on 12th-16th May, and 2 on 14th. *M.f.flava*, singles on 22nd May & 2nd June. *M.f.thunbergi*, singles 11th-14th & 22nd May, and 2 on 9th June. Autumn records comprised 3 on 18th and 1 on 22nd September.

***CITRINE WAGTAIL** *Motacilla citreola*. The earliest ever, spent a few minutes at Golden Water on 27th August. After a 5 year absence, the species has now been recorded for five years in succession.

GREY WAGTAIL *Motacilla cinerea*. Singles recorded on 12th April & 14th-15th May. A pair took up residence in the Gully in late May and eventually bred, successfully raising 4 young. The presence of breeders confused the picture in autumn, but there was at least 1 migrant on 21st-25th September. Last seen 13th October.

PIED WAGTAIL *Motacilla alba*. Three on 7th March were followed by 1-5 most days until the end of the month. There were daily records from 1st April until the last on 17th October. Main spring passage 11th April-22nd May, when more than 10 most days, and max. 17 on 17th April. Three pairs attempted to breed, 2 were Pied x White and the other Pied x Pied. Autumn passage from mid-August, heaviest late August-early September, max. 80 on 1st.

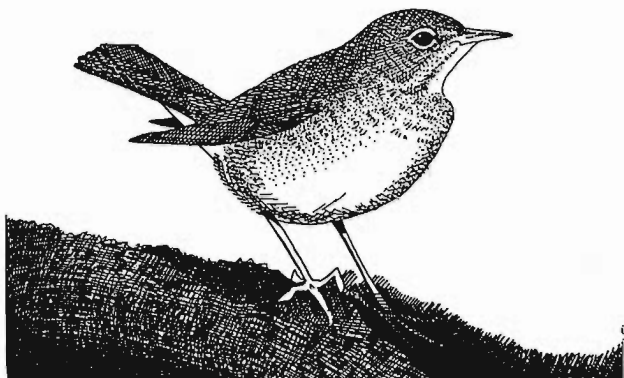
WAXWING *Bombicilla garrulus*. Singles flew over on 26th October and 30th November.

WREN *Troglodytes troglodytes*. Present all year. Census work revealed 31 singing males.

DUNNOCK *Prunella modularis*. One on 26th February and 1-2 on 5 dates, 13th-30th March preceded almost daily records 2nd April-3rd June. Main passage 10th-18th April, max. 30 on 11th, otherwise 6 or less daily. A poor autumn passage comprised 1-2 on 9 dates, 11th-30th September and singles on 17th October & 7th November.

ROBIN *Erithacus rubecula*. Two on 9th February preceded almost daily records 15th February-26th May. Two main arrivals occurred, one on 3rd-13th April, max. 30 on 12th-13th and the other on 12th-14th May, max. 45 on 14th. Later singles on 9 dates to 15th June. Poor autumn passage comprised 1-3 on 14 dates, 10th-27th September, singles on 9th-10th & 14th October and daily records from 28th October, max. 25 on 29th. At least 3 remained until mid-December.

***THRUSH NIGHTINGALE** *Luscinia luscinia*. Four singles, all in May, equals the best ever showing. Individuals were present at Skerryholme/Kennaby on 21st- 23rd, at Setter on 21st, Ward Hill then Shirva on 24th-26th and Vaasetter on 25th. All were trapped.



NIGHTINGALE *Luscinia megarhynchos*. A spring single trapped at Lower Station on 22nd May. One at Schoolton on 10th September is only the third autumn record.

BLUETHROAT *Luscinia svecica*. In spring, males on 12th & 14th May preceded main arrival 20th-24th May, max. 12 on 21st. Further singles recorded on 26th May, 5th-6th & 8th June. In autumn, 1-2 daily 9th-18th September, and singles on 3rd & 11th-12th October, and 3rd & 4th-5th November.

BLACK REDSTART *Phoenicurus ochruros*. An early individual on 9th February. In spring, 6 on 2nd April decreased to 4 next day then 1-2 almost daily until 18th. In May, singles on 3rd & 22nd, 3 on 23rd and 4 on 24th. June records of 2 on 6th and 1 on 17th. In autumn, singles on 12 widely scattered dates 12th August-18th November with 4 on 29th October.

REDSTART *Phoenicurus phoenicurus*. Spring passage commenced with a good arrival of 80 on 12th May. There were 40 next day and then further decreases until the end of the month. In June, singles on 6th & 17th. A poor autumn passage saw up to 6 most days 10th September-5th October, with later singles on 10th & 20th October.

WHINCHAT *Saxicola rubetra*. In spring, 6 on 11th May preceded a good arrival of 50 next day. Thereafter numbers decreased with daily counts in single figures from 16th. In June there were singles on 4th & 12th. In autumn, 1-3 on 12 dates, 19th August-4th September preceded daily records 10th September-12th October, max. 15 on 21st.

STONECHAT *Saxicola torquata*. A good spring showing with March records of 2 on 8th, single females on 11th & 16th-17th, and a male on 12th; and in April a male on 3rd, 2 females on 8th, one remaining next day, and another male on 21st-22nd. Finally another male on 3rd May.

WHEATEAR *Oenanthe oenanthe*. First on 1st April and then daily records from the 8th, with large arrivals, 185 on 30th April, 450 on 2nd May and 520 on 13th May. An estimated 80 pairs attempted to breed, but the low number of juveniles present in late summer indicated poor breeding success. In autumn, daily records until 27th October, with main arrivals 200 on 13th August, 110 on 15th September and 700 on 23rd September.

***PIED WHEATEAR** *Oenanthe pleschanka*. A first-winter male trapped in the Single Dyke trap on 10th October is the first record for Fair Isle and indeed Shetland. After its release the bird frequented the Landberg-Mavers Geo cliffs for a short while.

RING OUZEL *Turdus torquatus*. In spring, 1-3 on 6 dates, 4th-11th April were the precursors of a strong passage on 17th-26th April, peaking at 50 on 22nd. There followed 1-2 on several dates before a further good arrival on 12th-14th May, max. 20 on 12th. Numbers then decreased with occasional singles to 2nd June. In contrast, autumn passage was poor with 10 on 4th, 1 on 5th and 3 on 27th October the only records.

BLACKBIRD *Turdus merula*. Probably wintered. In spring recorded daily to 6th May, with main passage in early April, max. 120 on 8th. After 6th May, 1-5 on 12 dates to end of month, and in June singles on 4 dates to 25th. In autumn, 1-2 on 7 dates, 7th August-25th September preceded more regular records from 3rd October. The only significant passage was in late October-November, with main arrivals 350 on 29th and 500 on 31st October, and 100 on 16th November. At least 6 present well into December.

FIELDFARE *Turdus pilaris*. May have wintered. In spring, almost daily from mid-February to 24th May, with 200 on 1st May the only significant arrival. A late single on 13th June. In autumn, 1-3 almost daily 15th-25th August, 1-10 almost daily 9th-23rd September and daily records October-November. Heaviest passage 28th October-4th November, peaking at 5500 on 29th. December max. 25 on 5th, with 1 remaining until at least 16th.

SONG THRUSH *Turdus philomelos*. Regular spring records from 17th February-16th May, with main arrivals 40 on 17th April and 30 on 12th May. Singles on 3 dates in June, and 1 on 27th-28th July. In autumn an early single on 13th August was followed by almost daily records 11th September-28th November, with main arrivals 70 on 15th & 21st September, 150 on 4th and 90 on 29th October. In December, 1 from 13th to at least 16th.

REDWING *Turdus iliacus*. Spring records almost daily mid-February to 5th June. There were no large arrivals, with a max. of 21 on 21st April. One midsummer record on 26th July. Regular in autumn from 10th September, with heaviest passage in October. Large arrivals were 5000 on 4th and 10000 on 29th. At least 3 present until mid-December.

MISTLE THRUSH *Turdus viscivorus*. All records in spring, with singles on 18th-27th February, 5th & 9th March, 4th April, 14th-15th May, and 2 on 3rd, 3 on 5th and 5 on 9th April.

***LANCEOLATED WARBLER** *Locustella lanceolata*. One in the Boini Mire on 16th-18th September and one in the Leogh ditch on 11th October. This species has now been recorded in each of the last 5 years.

GRASSHOPPER WARBLER *Locustella naevia*. In spring, singles on 1st & 9th May preceded daily records of 1-4 from 12th-18th May. One on 19th-21st September was the sole autumn record.

AQUATIC WARBLER *Acrocephalus paludicola*. One trapped in the Gully on 13th September was the first since 1986.

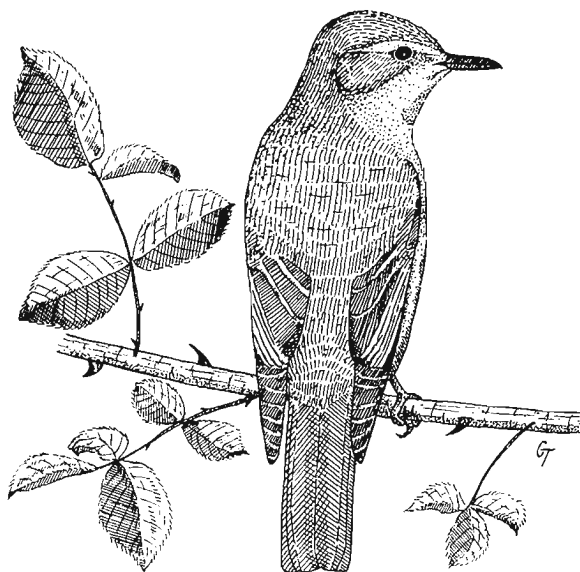
SEDGE WARBLER *Acrocephalus schoenobaenus*. In spring, 1 on 13th May, daily records 15th-28th, max. 9 on 24th, and 1 on 14th-15th June. Autumn records comprised 1 on 20th August and singles on 10 dates 13th-27th September.

MARSH WARBLER *Acrocephalus palustris*. Records comprised 1-3 on 10 dates, 4th- 20th June and one on 4th July. A minimum of 9 individuals were involved.

REED WARBLER *Acrocephalus scirpaceus*. One on 24th-25th May was the sole spring record. Autumn records comprised 2 on 20th August, singles on 9 dates 27th August-14th September and 1 on 18th October.

***BOOTED WARBLER** *Hippolais caligata*. A first-winter on 22nd-27th September was the first record since 1977.

ICTERINE WARBLER *Hippolais icterina*. Spring records comprised 1 on 21st, 4 on 22nd, 1 on 23rd & 24th and 2 on 25th May. In autumn singles on 13th & 15th August.



***SUBALPINE WARBLER** *Sylvia cantillans*. Single males at Shirva on 8th-9th May and in the Gully on 19th May. The latter showed characters of the eastern subspecies *S.c.albistriata*. Recorded for the seventh year in succession.

BARRED WARBLER *Sylvia nisoria*. One on 22nd August preceded almost daily records of 1-3 from 27th August-12th September with further singles on 15th & 19th September and 3rd & 29th October, the latter the latest ever.

LESSER WHITETHROAT *Sylvia curruca*. In spring, 1 on 1st-2nd May preceded daily records 11th May-2nd June, max. 12 on 21st & 25th, and further singles on 4 dates to 18th June. In autumn, 1 on 27th August preceded almost daily records 6th-28th September, max. 11 on 10th. October records comprised 1-4 on 7 dates, 3rd-11th and 1-2 on 19th-21st. Late singles occurred on 6th & 7th November. One trapped on 21st October showed characters of the eastern race *S.c.blythii*. However it is probable that many of the late autumn records refer to this subspecies.

WHITETHROAT *Sylvia communis*. In spring, singles on 15th & 19th May preceded 1-5 daily 21st-26th May, with further singles on 1st-2nd & 15th June. In autumn, 1 on 20th August was followed by 1-7 most days 14th-23rd September and a further single on 5th October.

GARDEN WARBLER *Sylvia borin*. In spring recorded regularly 15th May-20th June, max. 5 on 24th May & 9th June, with a late single on 26th June. Autumn records spanned 9th August-11th October, with main passage in mid-September. Monthly max. were 4 on 30th August, 25 on 10th-11th September and 3 on 11th October.

BLACKCAP *Sylvia atricapilla*. Spring females on 12th-14th April & 4th May, and a male on 28th April preceded daily records 11th-25th May, max. 6 on 22nd. In June, singles on 7 dates to 20th and 2 on 18th. In autumn seen daily from 6th September-8th November, with main arrivals of 50 on 22nd September and 30 on 29th October. Last record on 20th November.

YELLOW-BROWED WARBLER *Phylloscopus inornatus*. The poorest showing since 1983 comprised singles on 3rd & 11th and 2 on 8th October.

WOOD WARBLER *Phylloscopus sibilatrix*. One on 19th May was the only spring record. Autumn records comprised singles on 28th & 29th August, 2 on 10th and 1 on 11th September.

CHIFFCHAFF *Phylloscopus collybita*. Seen almost daily from 1st April-30th June. Heaviest passage, on 3rd-17th April, max. 14 on 12th, and on 21st-27th May, max. 12 on 25th. Two birds summered. Poor autumn passage, with 1-5 most days 5th August-8th October and again 29th October-18th November. Only higher counts 6 on 15th September & 4th October and 7 on 29th October. In December singles on 8th, 11th, 14th and 16th.

WILLOW WARBLER *Phylloscopus trochilus*. Two on 3rd April were the equal earliest ever. There were 3 next day then 2 on 11th and 1-6 daily 15th-19th April. Almost daily records in May, with strong passage 12th-16th, max. 130 on 13th. Last spring sighting on 18th June. Autumn passage from 12th August-9th October, with two main influxes; 27th-30th August, max. 20 on 27th; and 9th- 14th September, max. 50 on 10th.

GOLDCREST *Regulus regulus*. One on 13th-15th March preceded almost daily records 26th March-22nd May. Strongest passage 27th March-9th April, with 80 on 1st April the second highest spring total ever. One on 12th-13th June the last in spring. Autumn passage spanned 29th August-19th November with two periods of heavy passage; on 18th-22nd September, max. 25 on 22nd; and on 29th-30th October, max. 85 on 29th.

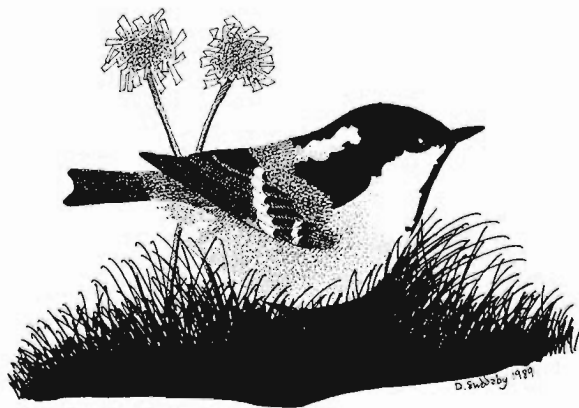
FIRECREST *Regulus ignicapillus*. One at Pund on 2nd May was the second record for the Isle, the first having occurred in 1981.

SPOTTED FLYCATCHER *Muscicapa striata*. One on May 12th preceded almost daily passage 20th May-20th June, max. 25 on 24th, with 1 on 26th June the only later record. Poor autumn passage comprised 1-3 daily 10th-15th September and singles on 22nd & 24th September.

RED-BREASTED FLYCATCHER *Ficedula parva*. In spring, 1 on 21st May. A good series of autumn records comprised, in September, 2 on 14th (inc. an adult male), 1 on 22nd & 2 on 26th; and in October, 1 on 2nd & 2 on 3rd (inc. an adult male). The arrival of 2 'red' males is unprecedented.

PIED FLYCATCHER *Ficedula hypoleuca*. In spring, daily records from 12th-24th May, max. 30 on 12th, with later singles on 2nd & 17th June. Autumn passage comprised singles on 5 dates, 14th August-3rd September, almost daily records 9th-26th September, max. 15 on 10th; and in October, 3 on 3rd and singles on 8th & 11th.

COAL TIT *Parus ater*. One present from 26th September to 28th November, was the third record for Fair Isle. Previous records were in 1936 and 1965.



BLUE TIT *Parus caeruleus*. One on 1st January was presumably a remnant of the large influx into the Northern Isles in autumn 1988.

RED-BACKED SHRIKE *Lanius collurio*. In spring, singles on 12th & 13th and 3 on 14th May preceded main passage 20th-25th, with max. of 12 on 22nd. Thereafter 1-2 on 12 dates to 21st June. Singles on 23rd September & 4th October were the only autumn records.

GREAT GREY SHRIKE *Lanius excubitor*. A good series of spring records comprised 1 on 15th, and 1-3 daily 17th-26th April. One on 30th October was the only autumn record.

JACKDAW *Corvus monedula*. In spring, 1-3 daily 2nd-13th March, singles on 2nd, 16th, & 30th April, and 1st, 18th-24th & 29th May. Autumn records comprised 1 on 30th October, 2 on 3rd and 1 on 5th November.

ROOK *Corvus frugilegus*. A good spring. Three on 17th-27th February preceded regular spring records from 2nd March-26th May, with main influxes on 4th-13th March, max. 24 on 4th, and 10 on 18th April. In contrast, a poor autumn saw just 1 on 1st-6th November.

CARRION CROW *Corvus corone*. Hooded Crows *C.c.cornix*. were noted regularly throughout the year, with a max. of 8 on 22nd-23rd March. Two Carrion Crows *C.c.corone* were present throughout the year, and in May there was an unprecedented series of influxes of this subspecies, with high counts of 36 on 2nd, 18 on 11th, 25 on 18th and 14 on 23rd.

RAVEN *Corvus corax*. Present all year. There was evidence of movement on 22nd March when 15 flew south, on 27th April when 4 flew north and on 28th August when 9 migrants were noted. Four pairs attempted to breed, but just one pair raised chicks to fledging.

STARLING *Sturnus vulgaris*. Present all year. Evidence of spring passage on 3rd-5th March when 700 each day; and autumn passage, on 4th-5th October, max. 1100 on 5th, and on 29th October, when 1000 counted.

***ROSE-COLOURED STARLING** *Sturnus roseus*. An adult male settled between North Light and Wester Lothar on 19th June. The first record since 1985.

HOUSE SPARROW *Passer domesticus*. Little data, but present all year.

TREE SPARROW *Passer montanus*. One at Setter on 19th-20th May was the only record.

CHAFFINCH *Fringilla coelebs*. A poor year. In spring, 1-2 on 11 dates, 2nd March-3rd April preceded daily records 8th-15th April, max. 25 on 12th. Thereafter, occasional records of 1-3 until last 2 on 9th June. In autumn, 1-2 daily 23rd-27th September, 1-8 daily 11th-15th October, and 1-2 on 9 dates to 2nd November. Late singles on 20th & 28th November and 12th December.

BRAMBLING *Fringilla montifringilla*. A poor year. In spring, regular between 1st April and 20th May, max. 18 on 1st May, and then singles on 3 dates to 8th June. In autumn, 1-2 on 7 dates, 10th-20th September, followed by regular records 4th October-9th November. There were two main periods of passage, on 4th-5th October, max. 15 on 4th, and on 28th October-3rd November, max. 35 on 31st. Late singles on 13th & 19th November.

GREENFINCH *Carduelis chloris*. A typical year saw 1-6 almost daily 10th-30th April, followed by singles on 7 dates, 2nd-19th May. Autumn records comprised 1-3 on 10 dates, 24th October-7th November, with a late single on 25th November remaining until at least 14th December.

GOLDFINCH *Carduelis carduelis*. One outside the Observatory on 17th October maintains the run of annual records since 1986.

SISKIN *Carduelis spinus*. One found dead on 18th April preceded regular records of 1-4 from 1st-27th May and late singles on 2nd June & 8th July. A poor autumn passage comprised 2 on 4th and 1 on 8th October, and 13 on 1st and 3 on 11th November.

LINNET *Carduelis cannabina*. In spring, 1-6 daily 8th-15th April, 2 on 20th-26th April, 1-4 daily 1st-8th May and 1-3 most dates, 18th-28th May. In autumn, there were 1-2 most dates, 15th-31st October.

TWITE *Carduelis flavirostris*. First 7 on 26th February. Numbers remained low until late April, with a spring maximum of 110 on 30th. In autumn, main arrivals September-mid October, peaking at 300 on several dates. Lower numbers in November, max 90 on 1st, with at least 12 remaining into December and a flock of 20 on 13th.

REDPOLL *Carduelis flammea*. Spring records comprised 1-2 daily 10th-13th, 2 on 16th and 2-3 on 23rd-25th May. In autumn, singles on 4 dates, 2nd-9th September preceded almost daily records 14th September-29th October, max. 11 on 22nd & 24th September. Most subspecifically identified belonged to the nominate subspecies. However a single of the Greenland subspecies *C.f.rostrata* was recorded on 15th-23rd September, with 2 on the 24th, and at least one of the Icelandic subspecies *C.f.islandic* was recorded on 14th-17th October.

***ARCTIC REDPOLL** *Carduelis hornemanni*. There were 2 records, both of the Greenland subspecies *C.h.hornemanni*. One present from 4th-18th October was joined briefly by the second on the 18th, before it fell foul of one of the local cats.

CROSSBILL *Loxia curvirostra*. A female on 6th May is the earliest ever record.

SCARLET ROSEFINCH *Carpodacus erythrinus*. A poor spring comprised singles on 22nd, 24th & 26th May. An adult female on 31st July preceded regular autumn records from 29th August-8th October, involving at least 20 individuals, with a max. of 6 on 12th September.

BULLFINCH *Pyrrhula pyrrhula*. A female on 2nd March and males on 7th-12th & 13th-14th April, were presumably returning birds after last autumn's excellent influx.

HAWFINCH *Coccothraustes coccothraustes*. Recorded for the sixth year in succession, with a female at Shirva from 8th-10th April.

***SONG SPARROW** *Zonotrichia melodia*. A male trapped in the Gully on 11th April, remained at the North Haven until 26th April. The sixth record for Britain and third for Fair Isle. The last British record was also on Fair Isle in 1979.

LAPLAND BUNTING *Calcarius lapponicus*. Spring singles on 12th & 22nd April and 25th May. In autumn, almost daily records 1st September-23rd October, max. 13 on 22nd September, were followed by 3 on 28th October and 1 on 3rd-5th November.

SNOW BUNTING *Plectrophenax nivalis*. Spring passage spanned 8th February-19th May. Strongest passage 24th February-5th March, with a record spring count of 300 on 24th. There were fewer in April with monthly max. of 25 on 1st. May records were of 1-2, with last of spring on 19th. In autumn, singles on 7th, 9th & 11th September preceded daily records 14th September to at least mid-December. Strongest passage on 7th-8th October, with 100 each day, and in early November, max. 175 on 3rd.

YELLOWHAMMER *Emberiza citrinella*. In spring, singles on 27th & 31st March, 3rd & 5th April, 1-3 daily 8th-12th April, then further singles on 21st April & 1st-2nd May. Autumn records comprised 1 on 27th October, 2-3 daily 29th October-2nd November, 1 on 6th-8th, and 2 on 19th November.

ORTOLAN BUNTING *Emberiza hortulana*. The decline in records of this species continues, with 1 on 14th September the only record.

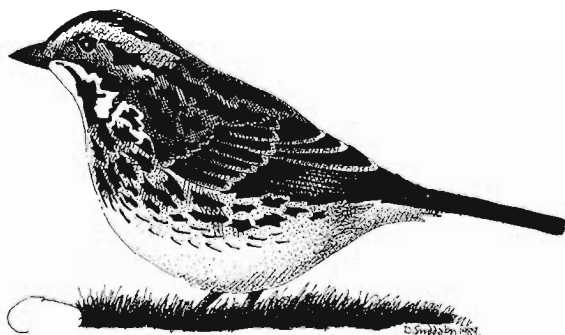
***RUSTIC BUNTING** *Emberiza rustica*. A female seen at Easter Lothar on 22nd May by one lucky observer was the sole record.

***LITTLE BUNTING** *Emberiza pusilla*. Another bumper crop following the trend of recent years. In spring, 1 on 14th May and in autumn eight individuals. The first 3 on 10th September, 2 remaining to 14th, were followed by singles on 18th-19th & 22nd-30th September, 6th-12th & 23rd-26th October and 6th November.

***YELLOW-BREASTED BUNTING** *Emberiza aureola*. Three records; 29th August-6th September, 9th & 11th-17th September.

REED BUNTING *Emberiza schoeniclus*. In spring, 1 on 8th-10th March, 1-2 on 10 dates, 1st April-8th May, daily records 12th-25th May, max. 21 on 13th, followed by singles on 6 dates to 15th June. A poor autumn, with 1-2 on 11 dates, 15th October-4th November and 5 on 29th. There was a late single on 11th-14th December.

***BLACK-HEADED BUNTING** *Emberiza melanocephala*. A male found at Setter on 23rd May eventually settled at Quoy, where it remained until 31st May.



Records of Species in Category 'D'

RED-HEADED BUNTING *Emberiza bruniceps*. A male at Wirvie on 18th June. The first since 1985.

Up Date on British Birds Rarities Committee Decisions, 1985-1988

All records submitted to the BBRC in 1988 have been accepted, except:

BLYTH'S PIPIT *Anthus godlewskii*, 13th-22nd October, Decision awaited.

OLIVE BACKED PIPIT *Anthus hodgsoni*, Only two individuals accepted. The bird of 14th October was considered to be probably the same as that of 11th-22nd.

BLACKBURNIAN WARBLER *Dendroica fusca*, 7th October, Accepted by BBRC, now awaiting decision by BOU records committee.

1987

ARCTIC WARBLER *Phylloscopus borealis*, 26th-27th August, NOT accepted.

TWO BARRED CROSSBILL *Loxia leucoptera*, 3 juveniles 15th August, 2 remaining next day, accepted. Female 28th August, NOT accepted.

LITTLE BUNTING *Emberiza pusilla*, 20th-21st October, not yet submitted.

1986

GYRFALCON *Falco rusticolus*, 20th February, NOT accepted.

RUSTIC BUNTING *Emberiza rustica*, 15th May, NOT accepted.

1985

ARCTIC REDPOLL *Carduelis hornemanni*, 25th-26th May, accepted.

Ringling Details 1989

5048 birds of 104 species were ringed in 1988. The monthly ringing totals were

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-	5	12	164	294	940	1795	938	385	423	91	1

Two species were new for the ringing list, Pied Wheatear and Coal Tit, while other rarely ringed species included Goldeneye, Aquatic Warbler, Booted Warbler, Subalpine Warbler, Arctic Redpoll, Song Sparrow and Lapland Bunting. Record ringing totals were achieved for Common Gull, Arctic Tern, Grey Wagtail and Thrush Nightingale and the Wood Pigeon total equals the previous highest. A good autumn influx of Long-eared Owls contributed to the second highest ringing total ever for that species.

With the continuation of the North Atlantic Storm Petrel Study for a further 2 years extra efforts were again made to catch a good sample of Storm Petrels, and it is no surprise that the 1044 ringed was the highest total for any species in 1989. Others in the top ten were, Shag 451, Starling 383, Puffin 319, Kittiwake 299, Redwing 231, Guillemot 229, Fulmar and Razorbill 198, and Blackbird 152.

The traps required a lot of attention in 1989 and this accounts for the low March-April totals. The Gully and Axell traps were completely rebuilt. The Single Dyke trap had many of its uprights replaced and was completely rewired. The entrance sections to both ends of the Double Dyke trap were rewired. The Observatory trap was rewired and so was the catching end of the Plantation. Other traps required some patching. New catching boxes were made for the south Double Dyke, the Gully, the Roadside trap and the North Grind. Another full season's work in 1990 should see all of the traps in relatively good condition.

Once again we gratefully acknowledge the BTO, NCC and SOTEAG for financial assistance with aspects of the ringing and seabird work.

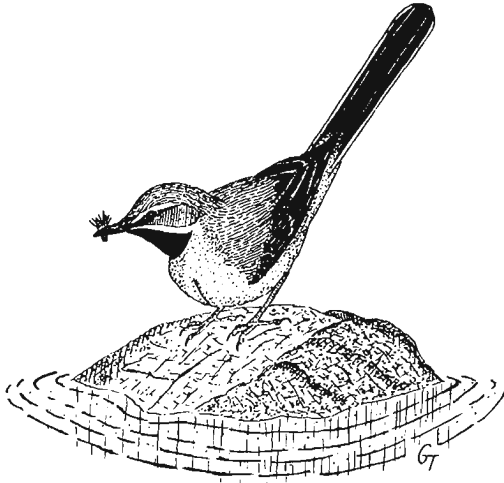


Table of Ringing Totals & Recoveries

(a) Species ringed in 1989

	Ringed as		Totals		Recovered	
	Juv/Adult	Pullus	1989	1948-89	1989	1948-89
Fulmar	60	138	198	14044	4	117
Storm Petrel	1044	-	1044	11854	18	313
Gannet	3	13	16	143	-	2
Shag	16	435	451	17267	9	428
Eider	2	-	2	126	-	5
Goldeneye	1	-	1	15	-	1
Sparrowhawk	7	-	7	211	-	18
Kestrel	2	-	2	43	-	8
Merlin	1	-	1	170	-	13
Water Rail	4	-	4	249	-	3
Oystercatcher	2	19	21	1207	1	67
Ringed Plover	-	5	5	485	-	6
Lapwing	-	4	4	263	-	4
Jack Snipe	3	-	3	116	-	3
Snipe	4	-	4	331	-	4
Woodcock	7	-	7	307	-	17
Curlew	-	1	1	94	-	3
Redshank	3	-	3	228	-	2
Green Sandpiper	2	-	2	39	-	1
Common Sandpiper	1	-	1	56	-	-
Red-necked Phalarope	1	-	1	5	-	-
Arctic Skua	-	88	88	3028	-	58
Great Skua	-	66	66	964	2	17
Black-headed Gull	1	-	1	34	-	3
Common Gull	25	10	35	152	-	6
Lesser Black-back Gull	7	22	29	1273	-	32
Herring Gull	30	36	66	3831	1	89
Great Black-back Gull	4	1	5	1912	4	86
Kittiwake	47	252	299	5137	1	23
Common Tern	-	4	4	442	-	3
Arctic Tern	-	82	82	169	-	-
Guillemot	22	207	229	18354	14	636
Razorbill	87	111	198	4722	4	161
Black Guillemot	4	44	48	1340	-	18
Puffin	202	117	319	10228	3	27
Rock Dove	-	3	3	22	-	2
Wood Pigeon	3	-	3	44	-	2
Collared Dove	9	-	9	188	-	1
Cuckoo	3	-	3	88	-	1
Long-eared Owl	17	-	17	179	-	9
Short-eared Owl	1	-	1	17	-	-
Wryneck	2	-	2	187	-	-
Skylark	-	4	4	755	-	3
Swallow	1	-	1	229	-	8
Tree Pipit	5	-	5	568	-	-
Meadow Pipit	116	-	116	8231	-	45

	Ringed as		Totals		Recovered	
	Juv/Adult	Pullus	1989	1948-89	1989	1948-89
Rock Pipit	95	-	95	8030	-	25
Grey Wagtail	6	-	6	24	-	-
Pied Wagtail	7	-	7	521	-	4
Wren	10	-	10	638	-	-
Dunnock	24	-	24	1951	-	6
Robin	80	-	80	6631	-	33
Thrush Nightingale	4	-	4	22	-	-
Nightingale	1	-	1	22	-	-
Bluethroat	4	-	4	218	-	2
Black Redstart	5	-	5	119	-	-
Redstart	18	-	18	1508	-	1
Whinchat	2	-	2	544	-	2
Wheatear	111	-	111	14473	1	68
Pied Wheatear	1	-	1	1	-	-
Ring Ouzel	8	-	8	440	-	8
Blackbird	152	-	152	18700	4	304
Fieldfare	5	-	5	598	-	-
Song Thrush	28	-	28	2215	-	29
Redwing	231	-	231	7045	1	70
Grasshopper Warbler	1	-	1	89	-	-
Aquatic Warbler	1	-	1	22	-	-
Sedge Warbler	2	-	2	365	-	2
Marsh Warbler	5	-	5	78	-	-
Reed Warbler	2	-	2	152	-	1
Booted Warbler	1	-	1	6	-	-
Icterine Warbler	3	-	3	73	-	-
Subalpine Warbler	1	-	1	21	-	-
Barred Warbler	4	-	4	327	-	1
Lesser Whitethroat	16	-	16	517	-	-
Whitethroat	13	-	13	767	-	-
Garden Warbler	23	-	23	2723	-	3
Blackcap	85	-	85	3849	-	13
Yellow-browed Warbler	1	-	1	86	-	-
Chiffchaff	37	-	37	770	-	-
Willow Warbler	23	-	23	2869	-	3
Goldcrest	23	-	23	1182	-	2
Spotted Flycatcher	9	-	9	530	-	3
Red-breasted Flycatcher	-	-	1	47	-	-
Pied Flycatcher	10	-	10	786	-	4
Coal Tit	1	-	1	1	-	-
Red-backed Shrike	8	-	8	160	-	-
Great Grey Shrike	2	-	2	106	-	1
Starling	233	150	383	20544	2	170
House Sparrow	18	-	18	1281	-	3
Chaffinch	16	-	16	2227	-	11
Brambling	8	-	8	2567	1	13
Greenfinch	8	-	8	153	-	-
Siskin	3	-	3	277	-	1
Twite	115	-	115	4477	-	3
Redpoll	10	-	10	558	-	1
Arctic Redpoll	1	-	1	17	-	-

	Ringed as		Totals		Recovered	
	Juv/Adult	Pullus	1989	1948-89	1989	1948-89
Crossbill	1	-	1	299	-	2
Scarlet Rosefinch	5	-	5	107	-	-
Bullfinch	1	-	1	37	-	-
Song Sparrow	1	-	1	3	-	-
Lapland Bunting	1	-	1	41	-	-
Snow Bunting	1	-	1	511	-	3
Little Bunting	1	-	1	25	-	-
TOTALS	3236	1812	5048	224620	70	3092
(all species ringed 1948-89)						

b) Species ringed/recovered 1948-88 but not ringed in 1989(totals 1948-1988)

Little Grebe	9/0	Great Crested Grebe	1/0
Red-necked Grebe	1/0	Slavonian Grebe	3/0
Leach's Petrel	20/0	Cormorant	7/0
Grey Heron	17/2	Whooper Swan	30/4
Bean Goose	1/0	Pink-footed Goose	9/3
White-fronted Goose	3/1	Greylag Goose	19/6
Barnacle Goose	3/0	Shelduck	4/0
Wigeon	14/0	Teal	38/2
Mallard	9/1	Pintail	1/1
Pochard	2/1	Ring-necked Duck	1/0
Tufted Duck	10/0	Scaup	4/0
Long-tailed Duck	14/1	Velvet Scoter	2/0
Red-breasted Merganser	3/0	Goosander	3/1
Hen Harrier	2/0	Goshawk	1/0
Red-footed Falcon	1/0	Peregrine	6/1
Quail	5/0	Spotted Crake	15/0
Little Crake	1/0	Corncrake	35/2
Moorhen	84/3	Coot	13/1
Great Bustard	1/0	Little Ringed Plover	1/0
Golden Plover	17/0	Dotterel	3/0
Knot	78/2	Sanderling	88/0
Western Sandpiper	1/0	Little Stint	69/0
Temminck's Stint	2/0	White Rumped Sandpiper	1/0
Pectoral Sandpiper	5/0	Curlew Sandpiper	5/0
Purple Sandpiper	147/1	Dunlin	438/7
Buff-breasted Sandp.	1/0	Ruff	32/1
Great Snipe	1/0	Black-tailed Godwit	1/0
Bar-tailed Godwit	9/2	Whimbrel	14/0
Spotted Redshank	3/0	Greenshank	8/0
Wood Sandpiper	16/0	Turnstone	65/0
Grey Phalarope	3/0	Pomarine Skua	1/0
Iceland Gull	1/0	Glaucous Gull	35/1
Little Auk	6/0	Turtle Dove	64/2
Snowy Owl	1/0	Nightjar	3/0
Swift	16/1	Hoopoe	3/0

b) Species ringed/recovered 1948-88 but not ringed in 1989(totals 1948-1988)

Great Sp. Woodpecker	20/0	Short-toed Lark	7/0
Woodlark	2/0	Shorelark	3/0
Sand Martin	8/0	House Martin	144/1
Richard's Pipit	9/0	Tawny Pipit	3/0
Olive Backed Pipit	6/0	Pechora Pipit	6/0
Red-throated Pipit	6/0	Yellow Wagtail	10/0
Citrine Wagtail	5/0	Waxwing	36/0
Dipper	12/0	Siberian Rubythroat	1/0
Red-flanked Bluetail	1/0	Stonechat	48/0
Black-eared Wheatear	3/0	Rock Thrush	1/0
Grey-cheeked Thrush	2/0	White's Thrush	1/0
Eye-browed Thrush	1/0	Dusky Thrush	1/0
Black-throated Thrush	1/0	Mistle Thrush	21/1
Pallas's Grasshopper W.	6/0	Lanceolated Warbler	22/0
River Warbler	5/0	Savi's Warbler	2/0
Paddyfield Warbler	4/0	Blyth's Reed Warbler	1/0
Great Reed Warbler	6/0	Thick-billed Warbler	1/0
Melodious Warbler	9/0	Sardinian Warbler	1/0
Greenish Warbler	14/0	Arctic Warbler	26/0
Pallas's Warbler	2/0	Radde's Warbler	1/0
Dusky Warbler	3/0	Bonelli's Warbler	1/0
Wood Warbler	83/0	Firecrest	1/0
Collared Flycatcher	1/0	Blue Tit	2/0
Great Tit	7/0	Treecreeper	1/0
Golden Oriole	6/1	Isabelline Shrike	1/0
Lesser Grey Shrike	6/0	Woodchat Shrike	11/0
Jackdaw	3/0	Rook	5/0
Hooded Crow	43/0	Raven	26/0
Daurian Starling	1/0	Rose-coloured Starling	2/0
Tree Sparrow	97/1	Goldfinch	5/0
Linnet	130/1	Two-barred Crossbill	1/0
Parrot Crossbill	36/0	Hawfinch	10/0
Tennessee Warbler	2/0	White-crowned Sparrow	1/0
White-throated Sparrow	2/0	Savannah Sparrow	1/0
Pine Bunting	2/0	Yellowhammer	52/0
Ortolan Bunting	18/0	Cretzschmar's Bunting	1/0
Yellow-browed Bunting	1/0	Rustic Bunting	12/1
Chestnut Bunting	1/0	Yellow-breasted Bunting	6/0
Reed Bunting	341/2	Pallas's Reed Bunting	2/0
Black-headed Bunting	3/0	Corn Bunting	3/0
Red-headed Bunting	5/0		

Recoveries in 1989

A total of 70 recoveries away from the Isle were reported during the year. Information on these is presented below. The international code of symbols denoting method of recovery and age is used.

Manner of recovery:

- v - caught or trapped by man and released with ring.
- vv - ring number read in the field / sight record of identifiable colour rings
- vB - breeding where recaptured
- + - shot or killed by man
- x - found dead or dying
- xF - found freshly dead or dying
- xL - found dead (not recent)
- () - caught or trapped alive and not released, or released without ring
- /?? - manner of recovery unknown

Age when ringed: this is given in the EURING code:

- 1 pullus/nestling
- 2 fully grown, year of hatching unknown
- 3 hatched during calendar year of ringing
- 4 hatched before calendar year, but exact year unknown
- 5 hatched during previous calendar year
- 6 hatched before previous calendar year, but exact year unknown
- J denotes bird still in juvenile plumage

Sex; m = male f = female

The co-ordinates of Fair Isle are 59°32'N 1.37'W

FULMAR

Four recoveries away from the Isle comprised 2 in Faroe, 1 in Denmark and 1 in West Germany.

STORM PETREL

Eighteen birds were controlled away from the Isle, these are tabulated below.

Lerwick, Shetland	1	Yell, Shetland	10
North Ronaldsay, Orkney	1	Auskerry, Orkney	1
Highland Region, Scotland	3	North Nolsoy, FAROES	2

The Auskerry bird was at least 21 years old when controlled.

Details of the 2 Faroese controls are presented below.

2304736	4	01.08.88	Fair Isle
	v	12.09.89	North Nolsoy, FAROES 62°2'N 6°38'W 389km NW
2299810	4	12.08.89	Fair Isle
	v	03.09.89	North Nolsoy, FAROES 62°2'N 6°40'W 390km NW

GANNET

An adult found dead entangled in fishing net had been ringed as a pullus at Hermaness in 1980.

SHAG

Seven recoveries in Orkney and 1 in Shetland are typical, but the juvenile that wandered to Norway is unusual, details provided below.

1226608	1	11.07.89	Fair Isle
	x	12.09.89	Espevaer, Nr Haugesund, Hogaland,
			NORWAY
			59°36'N 5°10'E 382km East.

OYSTERCATCHER

The only recovery away from the Isle was ringed as a pullus and recovered 19 years later in Cumbria.

GREAT SKUA

Two recoveries, one of a bird in its fourth spring found dead on the Atlantic coast of France, and one in its first autumn found dead in Cornwall.

HERRING GULL

The only recovery away from the Isle was of a second-winter bird in Orkney.

GREAT BLACK-BACKED GULL

Four recoveries away from the Isle comprised a first-summer and a 13 year old bird in Orkney, and birds ringed as adults recovered in the South Mainland of Shetland and on Unst.

KITTIWAKE

One recovery away from the Isle, a third-summer bird found dead at Fetlar, Shetland.

GUILLEMOT

Recoveries are tabulated below.

Ringed as nestlings

	Age at recovery									
1	1	2	3	4	5	6	7	8	9	21
Sweden	1								1	
Norway	1	1		2						1
Denmark	1			1						
England			1							
France 1						1				
Eire			1							
Faroe	1									

Nine were drowned in fishing nets, one was oiled, one shot, one found dead on the tideline and one found alive.

One adult was recovered in Norway.

RAZORBILL

There were 4 recoveries, all of adults. Two in Holland, 1 in Norway and 1 in Northumberland.

PUFFIN

EF85156	1	19.07.73	Fair Isle
	vB	01.07.89	Muckle Skerry, Pentland Skerries, Orkney, 58°41'N 2°55'W 120km SW
EJ86704	6	14.07.83	Fair Isle
	x	28.07.89	Hacksness, Sanday, Orkney. 59°12'N 2°44'W 70km SW

The first record of a Fair Isle born bird breeding at another colony. There was also an adult ringed in 1989 found dead later in the year at Loch Fleet, Highland.

WHEATEAR

A nestling ringed in 1987 was found dead on Foula on 20.07.88.

BLACKBIRD

RB97879	3f	20.10.88	Fair Isle
	x	27.03.89	Durup, Jylland, DENMARK, 56°45'N 8°58'E 693km ESE
XP28542	3m	21.10.88	Fair Isle
	x	13.11.88	Thornhill, Forres, Grampian Region 57°36'N 3°36'W 244km SSW
XJ61995	4f	25.10.88	Fair Isle
	v	19.01.89	Hrafnabjorg, Jokulsarhlid, Nordur Mula, ICELAND 65°28'N 14°38'W 937km NW
RB97631	5f	17.04.89	Fair Isle (retrapped 25.04.89)
	x	05.07.89	Veggli, Buskerud, NORWAY 60°2'N 9°11'E 606km E

The bird in Iceland had wandered way off course. The species does not breed there and this is the first recorded movement of the species between Fair Isle and Iceland.

REDWING

One recovery of a bird in its first-summer shot in France in May.

STARLING

A nestling was recovered 6 years later in Orkney and a juvenile was recovered 4 years later in Grampian.

BRAMBLING

E530733	3m	22.10.88	Fair Isle
	v	02.12.88	Gersbol, Jylland, DENMARK, 56°55'N 8°33'E 662km ESE

Although not unexpected, this is our first recovery in Denmark.

Controls

Details were received for 55 birds in 1989 which had been ringed elsewhere and found on Fair Isle.

STORM PETREL

Thirty-six birds were controlled on Fair Isle. These were ringed at:

Lerwick, Shetland	3	Yell, Shetland	8
Whalsay, Shetland	4	North Ronaldsay, Orkney	7
Auskerry, Orkney	1	Burray, Orkney	1
Highland Region	6	Northumberland	2
Tyne and Wear	2	North Rona, Western Isles	1
More og Romsdal, NORWAY	1		

One of the Tyne and Wear birds took just 4 days to cover the 508km to Fair Isle. Full details of our second from Norway are presented below.

Stavanger			
9976139	8f	29.08.86	Runde, Heroy, More og Romsdal, Norway.
			62°25'N 5°38'E
	4	18.07.88	Fair Isle 505km SW

The same ringing site as our first Norwegian ringed bird.

SHAG

A pullus ringed on Foula in 1980 was found dead in South Haven in June 1989.

MERLIN

A nestling ringed in Orkney on 1st July 1989 was controlled on 5th September.

OYSTERCATCHER

FA19850	5	07.10.86	Buckie, Grampian, Scotland.
			57°44'N 3°18'W
	x	01.06.89	Fair Isle 222km NNE

GREAT SKUA

HW84656	1	23.07.80	Bigga, Yell, Shetland. 60°31'N 1°12'W
	x	30.05.88	Fair Isle 112km S

A spate of recoveries of birds ringed as nestlings at other colonies suggests that Fair Isle breeders are recruited from a variety of sites.

BLACK-HEADED GULL

Stavanger			
6137590	1	12.06.87	Storora, Trondheim, Sor-Trondelag,
			NORWAY
			63°21'N 10°12'E
	x	24.07.87	Fair Isle 757km SW

A quick post fledging movement to Fair Isle.

COMMON GULL

Two controls, both of birds ringed as nestlings in Shetland. One at Tingwall, Central Mainland, this year, and one on Out Skerries in 1983.

ARCTIC TERN

An adult found dead in the Tarryfield breeding colony this July had been ringed as a nestling on Papa Stour in 1981. Another indication of the source of the Fair Isle colonists, or a failed breeder wandering in the Northern Isles?

PUFFIN

EJ78822	4	14.07.82	Isle of May, Fife Region, Scotland. 56°11'N 2°33'W
	8	17.07.89	Fair Isle 376km N

Presumably a non-breeder when visiting the May, eventually settling to breed on Fair Isle.

LONG-EARED OWL

One ringed on North Ronaldsay on 3rd November 1988 was controlled on Fair Isle on 23rd November.

SKYLARK

BR32776	2f	24.11.86	Wrangle Marsh, Boston, Lincs. 53°32'N 1°37'W
	vv	24.02.89	Fair Isle 734km N
BR32773	2m	24.11.86	Wrangle Marsh, Boston, Lincs. 53°32'n 1°37'W
	vv	24.02.89	Fair Isle 734km N

Possibly a pair returning north from their wintering grounds in Eastern England. The only recovery of a Fair Isle ringed Skylark was also near Boston Lincs.

BLACKBIRD

XN61339	3f	16.10.85	Spurn Point, Humberside. 53°35'N 0°6'E
	4f	15.10.88	Fair Isle 675km N
Helgoland 7668643		22.04.87	Helgoland, WEST GERMANY, 54°11'N 7°55'E
	v	05.06.87	Fair Isle 829km NW

One a migrant making landfall further north on its autumn migration in a subsequent year, the other presumably drifted north west on its return migration. Also a first-summer male ringed on North Ronaldsay in April 1989 controlled on Fair Isle later in the month.

BLACKCAP

Stavanger 9893966	3m	10.10.87	Blikshavn, Karmoy, Rogaland, NORWAY. 59°12'N 5°19'E
	3m	14.10.87	Fair Isle 394km W

Fair Isle's seventh foreign ringed Blackcap, but the first from Norway.

CHIFFCHAFF

Helgoland

AX0612	2	29.04.87	Helgoland, WEST GERMANY. 54°11'N 7°55'E
		16.06.87	Fair Isle 829km NW

Fair Isle's first foreign ringed Chiffchaff.

GOLDCREST

A female ringed on North Ronaldsay on 4th May, was controlled on Fair Isle 3 days later.

BRAMBLING

Stavanger

8357484	3m	01.10.85	Store Faerder, Tjome, Vestfold, NORWAY. 59°41'N 10°32'E
	5m	22.04.86	Fair Isle 691km W

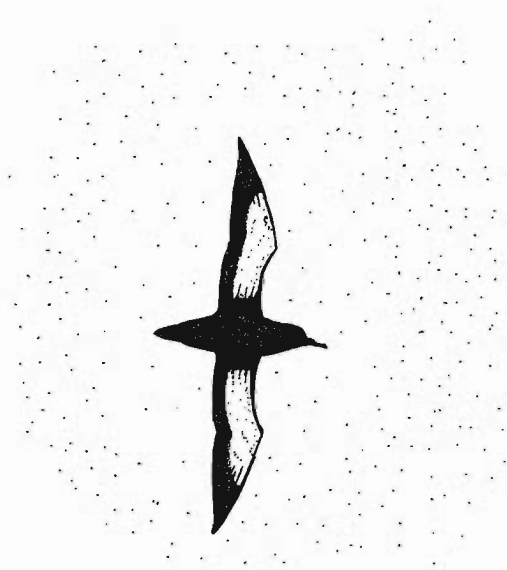
Our second Norwegian ringed bird, one ringed on Fair Isle has also been recovered there. This individual is from farther east than either.

Retraps

A selection of the more interesting retraps in 1989 is given below.

LONGEVITY		Ringed	1989 Details	Age (years)
Fulmar	pullus	1961	retrap	27
Fulmar	pullus	1963	re-ring	25
Fulmar	pullus	1963	re-ring	25
Shag	pullus	1969	retrap	20
Eider	adult	1968	found dead	at least 22
Arctic Skua	adult	1973	found dead	at least 16
Razorbill	?		re-ring	20
Tystie	adult	1977	re-ring	at least 13
Puffin	pullus	1961	sight record	28

WEIGHT GAINS	Ringed	Retrap	Gain	Gain/day
Red-backed Shrike	21.05.89	29.05.89	2.8g	0.35g
Redpoll	27.09.89	06.10.89	4.5g	0.5g
Arctic Redpoll	05.10.89	14.10.89	1.6g	0.17g



The Breeding Success and Diet of Fair Isle's Seabirds in 1986-1989.

Introduction

Since 1986, Fair Isle Bird Observatory has been carrying out a detailed seabird monitoring programme under contract to the Nature Conservancy Council. This scheme was implemented at a time when several species of seabird were experiencing reduced breeding success on neighbouring Shetland (Heubeck and Ellis 1986).

Data on the years 1986-1988 have already been analysed (Harris and Riddiford 1989) and this paper serves to update that information, using 1989 data, and to summarise the findings of the first four years work.

Methods

Three methods were used to assess breeding success.

a) (Fulmar, Gannet, Shag, Kittiwake and Guillemot). Sections of cliff were photographed and apparently occupied nests/sites marked on the photographs. Regular visits, from egg-laying to fledging, were then made to a vantage point from which the progress of the marked nests could be followed without disturbance to the birds.

b) (Black Guillemot and Puffin). Nest sites were checked after laying and those with eggs were marked and rechecked twice during the late stage of chick-rearing.

c) (Arctic Skua, Great Skua, Arctic Tern and Common Tern). Apparently occupied territories/sites were located early in the breeding season. Regular visits to all A.O.T's. commenced at peak fledging and were continued until all remaining chicks were thought to have fledged. The distribution and number of fledged individuals was recorded on each visit.

Information on chick diet was collected in three ways.

- a) (Fulmar, Gannet, Shag, skuas, Kittiwake and terns). The collection of regurgitates from chicks and adults handled during ringing operations.
- b) (Guillemot, Razorbill, Black Guillemot and Puffin). The interception of adults carrying food back to the colony.
- c) (Guillemot and Black Guillemot). Identifying fish taken to chicks during watches from an observation hide.

Results

Data on breeding success and chick diet are presented in Tables 1-1V.

Species Accounts

Fulmar

In three years of the study breeding success can be described as moderate, but in 1988 it was markedly lower.

Offal, small fish and other items probably associated with trawler discards comprised the bulk of chick diet in all years. With the exception of 1987, sandeels formed an insignificant part of chick diet.

Gannet

Breeding success was good in 1986, 1988 and 1989, although markedly fewer chicks were fledged in 1987.

Diet was sampled for the first time in 1989 and the samples collected comprised Herring and Mackerel.

Table 1 Breeding Success of Seabirds on Fair Isle in 1986-1989.

	1986		1987		1988		1989	
	N	P	N	P	N	P	N	P
Fulmar	548	0.47	494	0.53	453	0.38	468	0.48
Gannet	124	0.68	107	0.48	126	0.78	147	0.78
Shag	68	1.47	64	1.20	64	1.30	60	1.28
Arctic Skua							114	0.33
Great Skua							72	0.79
Kittiwake	1034	1.02	1497	1.00	1415	0.08	1481	0.34
Arctic Tern			211	0.00	345	0.003	283	0.13
Common Tern			37	0.50	59	0.03	25	0.04
Guillemot					107	0.79	117	0.79
Black Guillemot			25	0.48	14	0.57	43	1.07
Puffin			93	0.70	71	0.75	101	0.76

N = Apparently occupied site (Fulmar, Arctic Tern and Common Tern)

= Apparently occupied nest (Gannet, Shag and Kittiwake)

= Apparently occupied territory (Arctic Skua and Great Skua)

= Apparently incubating adult (Guillemot)

= Nest with egg (Black Guillemot and Puffin)

P = Number of chicks fledged/N

Shag

Figures of 1.20-1.47 chicks fledged/nest during the period indicate normal breeding success.

Chick diet has comprised almost entirely sandeel, with only one of 64 samples collected containing another species of fish. There is evidence to suggest that chicks have been regurgitating less freely when handled in recent years. The frequency of regurgitation was 0.13/chick ringed in 1987 (n = 260), 0.03/chick ringed in 1988 (n = 376) and 0.01/chick ringed in 1989 (n = 435).

Arctic Skua

Breeding success was determined for the first time in 1989 and 0.33 chicks fledged/A.O.T, well below the 1.4 chicks fledged/A.O.T over the years 1948-1979 (O' Donald 1983).

Eight food samples were collected in 1988-1989 of which 6 comprised sandeel, one another small fish and one the stomach of a bird.

Table 11 Diet (% by number) of Young Seabirds on Fair Isle in 1986-1989

	Sampling Dates	No. of Samples	Total No. of Fish	% of samples which contained				
				Sandeel	Sprat	Gadidae	Fishing Offal/Waste	Other
Fulmar								
1986	24/7-11/8	24		4	0	0	96	0
1987	10/7-22/7	14		29	0	0	65	6
1988	01/7-10/8	37		3	0	0	94	3
1989	n/r	23		4	0	17	83	0
Shag								
1986	25/6-08/7	11	32	100	0	0	0	0
1987	20/6-27/7	35	394	100	0	0	0	0
1988	03/7-30/7	11	36	93	0	0	0	7
1989	05/6-11/7	7	n/c	100	0	0	0	0
Kittiwake								
1986	05/7-08/7	24	151	100	0	0	0	0
1987	27/6-05/7	34	211	100	0	0	0	0
1988	26/6-09/7	8	29	94	0	0	0	6
1989	28/6-09/7	40	n/c	78	0	0	27	0
Razorbill								
1986	24/6-16/7	26	26	100	0	0	0	0
1987	18/6-14/7	31	31	97	3	0	0	0
1988	03/7-30/7	4	4	75	25	0	0	0
1989	19/6-06/7	9	29	100	0	0	0	0
Guillemot								
1986	15/6-01/7	47	47	96	4	0	0	0
1987	20/6-03/7	30	30	100	0	0	0	0
1988	14/6-08/7	89	89	99	0	1	0	0
1989	10/6-30/6	137	137	99	0	1	0	1

n/r = not recorded n/c = not counted

note, 1 Fulmar and 2 Kittiwake samples comprised more than one food type.

Great Skua

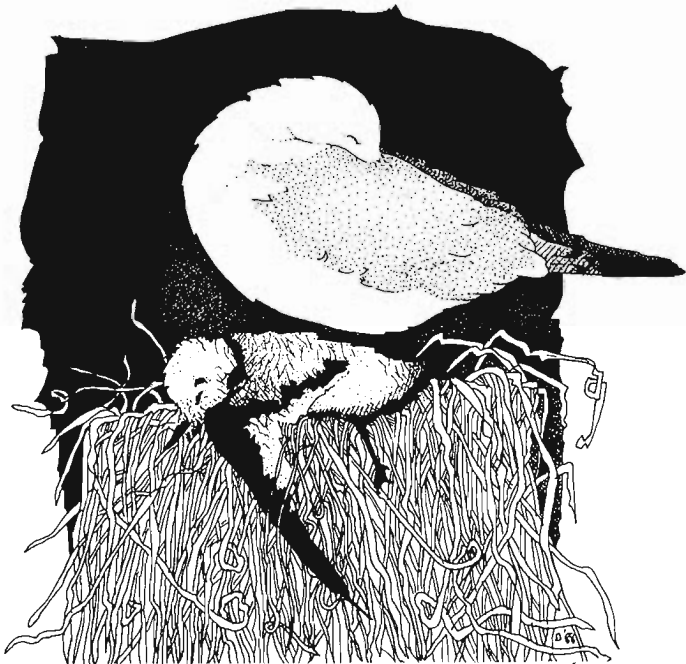
Breeding success was determined for the first time in 1989, with an estimated 0.79 chicks fledged/A.O.T. In the mid fifties 1.28 chicks fledged/A.O.T. (Williamson 1957).

Of the 16 samples collected from chicks and fledglings in 1988 and 1989, 50% comprised seabird or mammal and 50% comprised fish (the majority from trawler discards, although one may be a Gannet regurgitate). Of 156 pellets collected from nest sites in 1989, 70% comprised seabird, 23% fish and 7% seabird & fish. Although pellets comprising fish break down more quickly than those of seabird, and some pellets collected may have come from breeding adults, it is evident that seabird is now figuring prominently in chick diet.

Kittiwake

Kittiwakes experienced high breeding success in 1986 and 1987, but suffered almost complete failure in 1988. Although the 1989 breeding season was more successful than the previous year, breeding output was still very low. The onset of breeding failure occurred very suddenly in 1989 with breeding appearing to progress well until the end of the first week of July, perhaps suggesting a sudden reduction in food availability. Further evidence for this is that prior to 9th July chicks regurgitated freely during handling, (c25% of 225 chicks handled regurgitated), but after this date none of 64 chicks handled regurgitated.

From 1986-1988 chick diet comprised almost exclusively sandeel, but in 1989 whitefish discards from trawlers were found in 27% of food samples collected.



Arctic Tern

The Arctic Tern first bred in 1980 and the population remained at less than 10 pairs until 1986. In 1987, 211 pairs raised no chicks and in 1988 just one chick fledged from 345 pairs. There was a slight improvement in 1989 with 36 chicks fledging from 283 apparently occupied nests, although this figure still represents negligible breeding success.

In 1988 the 3 food samples collected were sandeels in the size range 9-11cm, and in 1989 the 3 samples collected were all 'O' group sandeels.

Common Tern

Breeding success was moderate in 1987, but poor in 1988 and 1989. In 1975, 1.57 chicks fledged/pair and in 1976, 2.3 chicks fledged/pair (FIBO Reports 1975-76).

No data were collected on diet.

Guillemot

Breeding success has been measured in 1988 and 1989 and in both years 0.79 chicks fledged/apparently incubating adult. This level of breeding success compares favourably with any other British study.

Chicks have been fed almost exclusively on sandeel (99% of food samples collected in 3 years and 96% of samples collected in 1986). In 1989, sandeels fed to chicks were larger than in previous years. The mean length + SE (and sample sizes) are given below. 1986, 12.9 + 0.5 (45); 1987, 13.7 + 0.1 (30); 1988, 11.1 + 1.4 (8); 1989 14.4 + 0.9 (11).

Razorbill

Data on breeding success have not been collected, but in 1989 visits to breeding colonies and chick biometrics suggested that the species was experiencing a good breeding season.

Of 70 food samples collected in the 4 years, only 2 have comprised fish other than sandeel, both either Sprat or Herring.

Black Guillemot

Breeding success was poor in 1987 and 1988, but showed a marked improvement in 1989. During his study of Fair Isle Tysties in 1974-77, Broad found breeding success low, only 28% of eggs laid fledged young (Broad and Ewins 1984) and it may be that poor breeding seasons are the norm on Fair Isle, possibly due to the Isle's isolation and exposure, or the presence of introduced predators (Ewins 1989). Although Butterfish have always been the most important item in Tystie chick diet on Fair Isle, the proportion of sandeels in the diet was far lower in 1988-89 than in previous years (Table 111).

Table 111 Diet (% by number) of Black Guillemot at Fair Isle, 1970 and 1987-89

Year	No.		% Total Fish				
	Fish	Sandeel	Butterfish	Flatfish sp.	Gadoid Sp.	Cottid Sp.	Other
1970	544	17	47	7	18	8	2
1987	51	37	61	2	0	0	0
1988	40	0	48	8	15	25*	5
1989	130	2	43	22	8	4	22

* This figure includes fish rejected by chicks and is therefore an over-estimate.

Data for 1970 from Slater and Slater (1972)

Data for 1989 collected by F. Praetsch.

Puffin

Puffins have experienced good breeding success on Fair Isle since monitoring began in 1987.

In 1986 and 1987 chick diet consisted almost entirely of sandeel. However in 1988, although mean load weight was similar to previous years, young Whiting comprised 51% of chick diet. Although Whiting are of lower calorific value than sandeel, breeding success did not appear to be affected. In 1989 sandeel again formed the major part of chick diet, although young Whiting still comprised 17%. Mean load weights in 1989 were higher than recorded in any previous study on the Isle. (Harris and Riddiford 1989).

Table 1V Weight and composition of loads of fish taken from Puffins on Fair Isle in 1986-89

Year	Sampling Dates	Mean Weight + SE (n)	Total No Fish	% Total Fish				
				Sandeel >10cm	Sandeel <10cm	Whiting	Sprat	Rockling
1986	27/6-23/7	7.0 + 0.8(20)	44	26	70	2	0	2
1987	03/7-03/8	4.6 + 0.4(27)	32	22	78	0	0	0
1988	02/7-21/7	6.0 + 0.6(34)	159	5	37	51	5	1
1989	02/7-24/7	9.3 + 0.6(64)	428	4	77	16	2	1

Discussion

Some of Fair Isle's seabirds have experienced poor breeding success in recent years. Arctic Terns failed to rear any young in 1987, and in 1988 Arctic and Common Terns, and Kittiwakes experienced negligible breeding success. Although all three fared better in 1989 their breeding output could still be described as poor. In 1989 the breeding success of Arctic Skuas was monitored and found to be well below that recorded in previous studies on Fair Isle. In contrast other species, e.g. Fulmar, Gannet, Shag, Guillemot and Puffin have generally experienced moderate or good breeding seasons.

The importance of sandeels to seabirds during chick rearing is well known and has been demonstrated at various seabird colonies (e.g. Pearson 1968, Harris and Wanless 1986, Martin 1989, Monaghan et al 1989). There is some evidence to suggest that the availability of sandeels to some of Fair Isle's seabirds may have changed in recent years.

Since 1986, sandeels comprised just 3-4% of Fulmar chick diet in three years and 29% in 1987. Although there is no dietary information from Fair Isle in previous years, on Foula in 1978-1982 sandeel comprised 72% of chick diet (Furness and Todd 1984), and on Yell in 1984-1985 sandeel comprised 47% of chick diet (Fowler and Dye 1987). Great Skuas feed their chicks preferentially on sandeel (Furness 1987), yet these have not been found in any food samples collected from Great Skua chicks on Fair Isle in 1988-1989. Kittiwake chicks were fed almost entirely on sandeel in 1986-1988, but in 1989 trawler discards comprised 27% of chick diet. In 1988 and 1989 sandeel comprised 0% and 2% respectively of Black Guillemot chick diet, a much lower figure than in previous years. Puffins fed their chicks almost entirely on sandeel in 1986 and 1987, but in 1988 young gadoids (mainly Whiting) comprised 51% of food taken to chicks. Although sandeel was again the predominant prey species in 1989, young gadoids still comprised 16% of chick diet.

On Shetland, it has been demonstrated that a low availability of suitably sized sandeels has resulted in recent breeding failures of Arctic Terns (Monaghan et al 1989)

and Puffins (Martin 1989) and the observed differences in breeding success of seabird species on Fair Isle may also be explained by a reduction in the availability of 'O' group sandeels in the top few centimetres of the sea. This would have a serious effect on terns and Kittiwakes unless they could find adequate alternative food sources. Although in 1989 Kittiwakes did find an alternative, i.e. trawler discards, these are of lower calorific value than sandeel, and may have necessitated foraging further afield, thus increasing the energy costs of foraging.

Those species that can dive in pursuit of their prey are still able to find sandeels of a suitable size, i.e. Shag, Guillemot and Razorbill; while other species appear to be finding adequate alternative food i.e. Fulmar, Gannet, Great Skua and Black Guillemot.

Arctic Skuas also showed poor breeding success on Fair Isle in 1989. However it seems unlikely that with large, and currently successful, populations of Guillemot and Puffin present on Fair Isle, Arctic Skuas could not find enough food to provide for their chicks, and chick growth rates do not indicate any shortage of food. It appears that the reduction in their breeding success is due to loss of chicks and fledglings through predation by Great Skuas, itself possibly a result of the reduction in available sandeels.

On Shetland, seabirds experienced problems several years earlier than on Fair Isle. Arctic Terns have failed since 1984 and Kittiwakes first suffered reduced breeding output in 1985 (Heubeck and Ellis 1986, Heubeck 1988). Puffins have also had negligible breeding success since 1986 (Martin 1989, Richardson 1989). Furthermore, in 1989 the breeding output of Arctic Terns, Arctic Skuas and Kittiwakes on Shetland was lower than on Fair Isle.

It appears that at present food shortages are neither as acute, nor affecting as many species, on Fair Isle as around much of Shetland. In 1989, the sandeel fishery centred almost exclusively on the Fair Isle grounds (pers obs, Richardson 1989) suggesting this is where sandeels were most abundant.

The biomass of spawning sandeels in Shetland waters increased in the late seventies and early eighties to a peak in 1984, since when it has declined (Kunzlik 1989). Further, the recruitment of 'O' group sandeels (those less than 1 year old) has been lower since 1984 than in any of the years 1975-1983 (Kunzlik 1989).

There is much controversy between fishery scientists and some conservation bodies as to whether the present reduced availability of sandeels in Shetland waters is the result of natural factors or the mismanagement of the sandeel fishery. Either way, if sandeel availability around Fair Isle approaches levels that appear to be around Shetland then some of Fair Isle's seabirds might come upon harder times yet.

Acknowledgements

We would like to thank the many staff and visitors who have helped with aspects of the seabird work during 1986-1989. Much of the work was funded by contracts under the commissioned research programme of the Nature Conservancy Council.

References

- Broad, R.A. and P.J. Ewins 1984. Fair Isle Tysties-a progress report. *Fair Isle Bird Observatory Rep.* 36: 19-22.
- Ewins, P.J. 1989. The breeding biology of Black Guillemots *Cephus grylle* in Shetland. *Ibis* 131: 507-520.
- Fowler, J.A. and A.P. Dye 1987. Sandeels *Ammodytes marinus* in the diet of the Fulmar *Fulmarus glacialis* in Shetland, Scotland. *Seabird* 10: 71-74.
- Fair Isle Bird Observatory Reps.* 1975 and 1976. Ed. R.A. Broad.
- Furness, R.W. 1987. The Skuas. T. & A.D. Poyser.
- Furness, R.W. and C.M. Todd 1984. Diets and feeding of Fulmars *Fulmarus glacialis* during the breeding season: a comparison between St Kilda and Shetland colonies. *Ibis* 126: 379-387.

- Harris.M.P. and N.Riddiford. 1989. The food of some young seabirds on Fair Isle in 1986-88. *Scottish Birds* 15: 119-125.
- Harris.M.P. and S.Wanless. 1986. The food of young Razorbills on the Isle of May and a comparison with that of young Guillemots and Puffins. *Ornis. Scand.* 17: 41-46.
- Heubeck. M. 1988. Shetland's seabirds in dire straits. *B.T.O. News* 158: 1-2.
- Heubeck.M. and P.M.Ellis. 1986. Shetland Seabirds 1985. *B.T.O. News* 143: 10.
- Kunzlik.P.A. 1989. Small fish around Shetland. In: M.Heubeck (Ed) Proc. Seminar on seabirds and sandeels, Lerwick, 15-16 October 1988. Shetland Bird Club.
- Martin.A.R. 1989. The diet of Atlantic Puffin *Fratercula arctica* and Northern Gannet *Sula bassana* chicks at a Shetland colony during a period of changing prey availability. *Bird Study* 36: 170-180.
- Monaghan.P. J.D.Uttley, M.D.Burns, C.Thain and J.Blackwood. 1989. The relationship between food supply, reproduction effort and breeding success in Arctic Terns *Sterna paradisaea* *J. Anim. Ecol.* 58: 261-274.
- O' Donald.P. 1983. The Arctic Skua. Cambridge University Press.
- Pearson.T.H. 1968. The feeding biology of seabird species breeding on the Farne Islands, Northumberland. *J. Anim. Ecol.* 37: 521-552.
- Richardson.M.G. 1989. The 1989 seabird breeding season. *Shetland Bird Club Newsletter* 79: 1-5.
- Slater.P.J.B. and E.P.Slater. 1972. Behaviour of the Tystie during feeding of the young. *Bird Study* 19: 105-113.
- Williamson.K. 1957. The Bonxies of Fair Isle. *Bird Notes News* 27: 164-169.

P.V.Harvey, M.P.Harris, K.Osborn, N.Riddiford and A.F.Silcocks.



Butterflies on Fair Isle 1978-1989

Although there are no butterflies permanently established on Fair Isle, or indeed in the rest of Shetland, immigrants do occur annually. During the years 1978-1989 sightings of butterflies on Fair Isle were recorded by successive Observatory wardens, (Iain Robertson 1978-1980 and Nick Riddiford 1981-1988).

In most years only a handful of butterflies are seen on the Island, but in some years large invasions have occurred, that in 1980 was particularly stunning. The number of sightings and number of species recorded in each of the years 1978-1989 is summarised below.

	YEAR											
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Number of sightings	c250	4	c500	5	20	4	3	20	3	4	17	15
Number of species	3	2	6	3	3	2	1	3	2	2	4	5

A total of ten species were recorded in the period. The status of each is outlined below.

CLOUDED YELLOW *Colias croceus*. One was seen in late July/early August 1980. This would appear to be the most northerly British record of the species.

LARGE WHITE *Pieris brassicae*. Recorded in 6 of the 12 years. There have been 20 sightings in all, with 8 in 1988 making that the best year. Extreme dates are 10th June and 23rd August but most have occurred in the period mid-June to mid-July.

SMALL WHITE *Pieris rapae*. There are 2 records in the period, 17th June 1978 and 7th August 1989.

COMMON BLUE *Polyommatus icarus*. A record of a blue sp. on 1st August 1980 seems almost certain to relate to this species, as it breeds in Orkney and has strayed to the South Mainland of Shetland.

RED ADMIRAL *Vanessa atalanta*. Recorded in 8 of the 12 years with over 10 sightings in 1980, 1982 and 1989. Records have occurred between 20th May and 17th October.

PAINTED LADY *Cynthia cardui*. The commonest and most regular visitor to Fair Isle. It was recorded in all but 2 years, with sightings between 12th June and 10th October. In 5 years there were only 1-2 records, but large influxes occurred in early September 1978, max. 70 on 10th, early June 1980, max. 20 on 10th, and early August 1980, max. 300 on 1st. At the time of the August 1980 influx a large anticyclone was centred over Scandinavia, giving a strong easterly airflow across the North Sea, and as the influx was also noted on the east coast of Britain (Heath et al 1984) it seems likely to have originated from Fenno-Scandia. The influx was also noted in Finland (Maitland Emmet and Heath 1989) and may have originated from further east still.

SMALL TORTOISESHELL *Aglais urticae*. Sightings have occurred in 7 of the 12 years. Records span 20th May to 3rd October, but it appears most frequently in late July-August. In 6 of the 7 years there were only 1-2 sightings, but in 1980 there was a marked influx, associated with an influx of Painted Ladies, and a maximum of 35 occurred on 1st August.

PEACOCK *Inachis io*. There are 2 records, both in August 1983. One on 14th and one on 28th.

MEADOW BROWN *Maniola jurtina*. There are 2 records, both in June 1980. One on 10th and one on 20th. This is the furthest north the species has been recorded in the British Isles.

SMALL HEATH *Coenonympha pamphilus*. One was seen on 14th June 1980, the most northerly occurrence in the British Isles.

Of the 10 species recorded in the period, 7 can be classed as 'mobile', Clouded Yellow, Large White, Small White, Red Admiral, Painted Lady, Small Tortoiseshell and Peacock; and 3 are generally accepted as being sedentary, Common Blue, Meadow Brown and Small Heath, (Heath et al 1984).

Of the highly mobile species it is no surprise that 4 of these, Large White, Red Admiral, Painted Lady and Small Tortoiseshell, have occurred frequently on Fair Isle. Although Red Admiral and Painted Lady are not permanently established in the British Isles, every year large numbers arrive in Britain from the continent. These immigrants, or their offspring, regularly reach Shetland and in fact both species have occurred in Faroe and Iceland (Maitland Emmet and Heath 1989). Both the Large White and Small Tortoiseshell are widespread throughout Britain and Orkney, and have occurred in Shetland regularly, indeed the Large White may be established there.

That the three other 'mobile' species have occurred less frequently on Fair Isle, is to be expected. The Small White and Peacock are both scarce in Northern Scotland. There appears to be only one record of Peacock in Orkney (Lorimer 1983), and Berry and Johnstone (1980) do not list the species as having occurred in Shetland, although Kinnear (1976) details an influx. Small White has occurred only once this century in Orkney (Lorimer 1983), but there are several Shetland records.

As indicated earlier, the record of Clouded Yellow appears to be the furthest north in Britain. Although the species occurs regularly in Southern Britain, even in years when it is common it rarely reaches Scotland and there are only two definite Orkney records this century (Lorimer 1983, Maitland Emmet and Heath 1989). As this individual occurred with the large invasion of Painted Ladies in August 1980, it may well have arrived from across the North Sea, rather than have moved north through the British Isles. A few reach Denmark, Sweden and Finland almost to 62 degrees north, although there are only 3 Norwegian records (Maitland Emmet and Heath 1989).

That 3 sedentary species should have occurred on Fair Isle is far more surprising. However Common Blue and Meadow Brown have been recorded at Lightships in the North Sea, and Small Heath has been seen coming in off the sea, (Ford 1945) so all three are capable of sea-crossings. Furthermore, if any sedentary species can make it to the Island, then Common Blue and Meadow Brown must be among the best candidates. Both are common in Orkney, although they do not occur on the most northerly islands, and Common Blue has strayed as far as the South Mainland of Shetland. Perhaps the most surprising occurrence, is that of the Small Heath. This species does not occur in Orkney, although it is widespread on the Scottish mainland.

What other species could reach the Isle? Two additional species have occurred on Shetland, Monarch in 1941 and Camberwell Beauty in 1976 (Berry and Johnstone 1980), and the latter has also occurred in Orkney on two occasions (Lorimer 1983). Both are highly migratory and are capable of long sea crossings. Another possibility is Green Veined White. This species is recognised as being mobile and is common and well established on Orkney.

Two other species, the Dark Green Fritillary and Large Heath are established on Orkney, but both are very sedentary and very unlikely to occur on Fair Isle.

Acknowledgements

This summary would not have been possible if Iain Robertson and Nick Riddiford had not collected records. I would also like to thank Dr. Tim Melling, Chris Corregan and Nick Riddiford for supplying references.

References

- Berry, R.J. and J.L. Johnstone 1980. The Natural History of Shetland. Collins.
Ford, E.B. 1945. Butterflies. Collins.
Heath, J. E. Pollard and J. Thomas. 1984. Atlas of Butterflies in Britain and Ireland. Viking.
Kinnear, P.K. 1976. Unusual numbers of Peacocks, *Inachis io* in Shetland. *Entomologist's Gazette* 27: 137
Lorimer, R.I. 1983. The Lepidoptera of the Orkney Islands.
Maitland Emmet, A. and J. Heath. 1989. Eds. The Moths and Butterflies of Great Britain and Ireland. Vol. 7 Part 1. Harley.

Cetacean Records in 1989

MINKE WHALE *Balaenoptera acutorostrata*. A medium sized whale, almost certainly a Minke, was seen breaching off South Light one day in early July.

KILLER WHALE *Orcinus orca*. A bull south of Fitful Head on 15th September, 2 on the crossing of 23rd September, and 1-2 on the crossing of 5th December.

WHITE BEAKED DOLPHIN *Lagenarhynchus albirostris*. Seen frequently on crossings. Records as follows. May, 3 on 18th. June, 2 on 24th. August, 2 on 5th, 3 on 12th, 5+ on 15th and 10 on 29th. September, 3 on 2nd, 3 on 5th, 3 on 7th and 6 on 8th. Also 2 off South Light on 16th August.

ATLANTIC WHITE SIDED DOLPHIN *L. acutus*. One on the crossing of 24th June.

RISSO'S DOLPHIN *Grampus griseus*. One off Bunness on 25th September.

HARBOUR PORPOISE *Phocoena phocoena*. Records from the Isle comprised in August, 2 on 7th, 9th, 11th and 18th, 3 on 27th and 20 on 28th; and in October, 1 on 7th, 3 on 18th and 2 on 19th. There was also one on the crossing of the 18th September.

Publications

The following were published in 1989 by, or with the assistance of, FIBO staff and facilities.

Ornithological

- Harris, M.P. & Riddiford, N.J. The food of some young seabirds on Fair Isle in 1986-1988. *Scottish Birds* 15:119-125.
Riddiford, N.J. Ageing of Woodcocks. *Ringers Bulletin* 7(5):62.
Riddiford, N.J. Ageing and sexing of Daurian Starling. *Brit. Birds* 82:621-622.
Riddiford, N.J., Harvey, P.V. & Shepherd, K.B. Daurian Starling: new to the Western Palearctic. *Brit. Birds* 82:603-612.

General

- Stout, C. & Best, B. Fair Isle (Guidebook). National Trust for Scotland.
Thom, V.M. Fair Isle - an island saga. John Donald, Edinburgh.

Miscellany

I would like to thank Bill Morton, Dave Suddaby and Guy Thompson for their vignettes used in this report. Some of the originals are on sale for £10. Contact Paul Harvey for more information.

Review: Fair Isle - An Island Saga

Very different, I believe, are the impressions of a book such as this on the reader, depending upon whether that person has never visited the place, has visited occasionally, or, as in my case, has lived there for most of his or her life. It is so easy for me and those in the same situation to nit-pick in the small print and overlook the value of the overall text.

Although firstly informative, this book is also extremely readable, having links from chapter to chapter, subject to subject, past to present. It is at times repetitive but perhaps this is seen more by a 'local' and would not be a point of criticism for the average reader.

All aspects are dealt with: land, sea and the changing dependence on each over the past decades. As much of the information was collected by George Waterston, his involvement with the Isle gets good coverage, even in relation to projects with which I did not know he had any association. The setting up of the Bird Observatory and its present day importance, together with the increasing need for tourism in the economy of the Isle, also contribute towards a comprehensive picture of island life.

Throughout the past - as in the present and doubtless also in the future - it has been the spirit of the people and their love of the island which has kept it alive and vibrant. When people in places such as Fair Isle become complacent and lackadaisical and lose respect for each other and their homeland - be it hereditary or adoptive - then the future is bleak! The writer is well aware of this throughout the book; I quote from one passage: "To be happy on a small island makes more demands on the individual than does life elsewhere. In addition to being very much more dependent on his or her own resources than those living in or near a larger community, the island dweller is also much more dependent upon his neighbours. Tolerance, adaptability, and a willingness to co-operate are consequently among the most important qualities needed in island residents."

Valerie has included many photographs, mostly black and white and ranging from about 70 years ago to the present, together with just enough colour pictures to whet the appetite. "There is far more to the Fair Isle story than can possibly be encompassed in one small book" says the author. No comparable book has previously been written about Fair Isle. May I commend it to you, and may I recommend that having bought and read it, if you have not already been to Fair Isle, you come and see for yourselves. Getting here can still be a 'saga' but hopefully well worth while.

J.W.Stout

The weather on Fair Isle in 1989

January	Warmest Jan. on record - mean temp. 3°C above average. During night of 15th the temp. rose to 10.7°C, another Jan. record. Winds, often strong, were frequently from a westerly direction. The <i>only</i> day with easterlies was 20th as a depression crossed Northern Scotland.
February	Mild, wet & windy with strong westerly winds, gusting to 100kts on 13th. The 15th began mild with a temperature of 10°C, falling to 1.8°C by evening. A water spout was observed on 21st.
March	A mild beginning & end, but cold mid-month with snow cover on 4 days. Winds often between south-west and west. Auroral activity well above average with some brilliant displays during the month.
April	Dry & sunny with above average temperatures. Winds more variable in direction, with cold north-westerlies bringing an unwelcome wintery spell late in the month with 2cms lying snow on 23rd.
May	Mild & sunny with the persistent high pressure to the south maintaining mostly south-west to west winds over Fair Isle. Warmest May on record, although the absolute max. of 12.3°C was rather low.
June	Warm & sunny. The 4th was the sunniest day of the year with 16.2 hours. Fair Isle was the sunniest place in UK on 4th, 28th and 30th but recorded the lowest daytime temperature on 12 days. With a maximum temperature of 18.0°C, the 19th was the warmest day of the year and the warmest day since August 1982.
July	A foggy but sunny month, with near average temperature & rainfall.
August	Mild & sunny, average temperatures & rainfall just above normal.
September	Dry, sunny & mild. From 8th-12th, during a spell of north-east winds, Fair Isle consecutively recorded the lowest daytime maximum temperatures in UK. With 43 hours sunshine during these 5 days (Fair Isle the sunniest place on 2 of them) the weather was quite pleasant. With 15.1mm of rain falling in one hour, 24th was the wettest day of the year, and Fair Isle the wettest place in UK - as it was again on 19th - but this time with a mere 1.3mm. Impressive displays of aurora were observed on 18th and 26th.
October	Mild & wet with frequent south-west winds. The aurora was observed on 10 nights - well above the average of 2.3.
November	With only 46% of the normal rainfall and a mean temperature 1.0°C above normal this was the mildest and driest November on Fair Isle since records began. With sunshine 177% of normal the month was almost the sunniest ever.
December	A mild, dry sunny month, but a cold spell from 11th-19th gave 4 days of snow cover (with 6cms on 15th). The 14th was the coldest day of the year with the temperature falling to -1.9°C. On 15th the temperature over the snow surface fell at night to -9.2°C, the lowest grass minimum for the year. The 22nd was the windiest day of the year with a mean daily wind speed of 37.6kts.
Year	1989 was the warmest (+0.7°C) and sunniest (127%) year since records began in 1974. Rainfall was very close to average. Westerly winds were more frequent, with a corresponding decrease in easterlies. Aurora, observed on 62 nights, was almost three times more frequent than normal - the highest since 1978. The incidence of fog was the lowest on record.

Meteorological data for Fair Isle 1989

Temperature (° Celsius)	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
Mean	6.9	5.0	5.3	5.7	8.2	10.0	11.6	11.8	11.0	8.9	7.6	5.7	8.1
Maximum	10.7	10.3	9.6	9.7	12.3	18.0	17.5	15.1	15.1	13.0	11.2	10.5	(7.4)
Minimum	1.5	-1.2	-1.5	-1.4	3.6	3.1	7.8	7.7	5.3	4.4	1.6	-1.9	
Rainfall (millimetres)													
Monthly	108.9	139.1	86.0	40.9	50.8	33.7	56.1	74.1	66.3	124.7	55.7	60.9	897.2
Maximum Daily fall	12.4	17.5	8.8	10.5	8.8	5.5	24.6	20.4	10.2	20.3	10.3	12.2	(898.5)
Sunshine (hours)													
Total	32.1	68.1	131.2	173.0	237.4	231.6	152.0	190.5	147.0	76.1	60.1	19.8	1518.9
Maximum Daily	4.8	6.6	8.0	11.7	15.6	16.2	14.1	12.3	11.7	7.5	5.6	3.8	(1199.8)
Wind speed (knots)													
Mean	21.1	22.7	18.6	11.8	13.7	10.7	10.2	13.1	15.0	15.3	14.9	15.6	15.2
Maximum Gust	79	100	59	47	47	46	39	43	54	57	48	72	(16.4)
Number of days													
Hail	12	17	14	8	6	2	0	0	1	7	11	13	91
Snow/sleet	5	16	11	7	2	1	0	0	0	0	2	9	53
Rain, .1mm	28	27	24	13	21	8	13	22	23	23	19	25	246
Wet, .9mm	22	23	20	9	14	6	8	17	16	19	12	15	181
Ground frost	1	3	5	10	0	2	0	0	2	1	6	7	37
Wind (direction at 09hr)													
North	0	1	1	7	2	6	1	2	1	2	4	6	33
North East	1	0	1	2	2	1	3	0	2	0	1	1	14
East	0	2	1	3	1	2	2	1	1	3	1	1	18
South East	0	1	4	6	3	6	5	3	2	2	5	4	41
South	7	7	4	5	4	5	2	8	8	4	6	4	64
South West	9	7	12	1	6	3	5	7	5	7	4	5	71
West	12	9	6	2	11	3	7	6	9	8	4	3	80
North West	2	1	2	4	1	4	6	4	2	4	5	4	39

(Figures in brackets are the average for the period 1974-1988)

The John Harrison Memorial Fund

This fund gives financial assistance to young birdwatchers aged between 15 and 21, to help defray the costs of a visit to Fair Isle. The fund is administered by a small committee which, in consultation with the Warden, considers all applications in mid-December and makes awards for the following year. **Applications must be submitted by 31st October**; those eligible should write to the Hon. Sec., JHM Fund, 21 Regent Terrace, Edinburgh EH7 5BT.

The John Harrison Memorial Fund

Accounts for the year to 31st October 1989

	1989 £	1988 £
Revenue account		
Opening balance	368	26
Interest received	829	774
Tax refund (1987)	-	106
	<u>1197</u>	<u>906</u>
Grants paid	270	490
Transfer to capital	779	-
Management expenses	30	48
Closing balance	118	368
	<u>1197</u>	<u>906</u>
Balance sheet at 31st October		
Investments @ cost		
£6400 9% Treasury Loan 1994	5362	5362
£ 900 13 1/4% Treasury Stock 1997	870	870
£1400 9 1/2% Treasury Stock 1999	1435	559
	<u>7667</u>	<u>6791</u>
Cash	118	458
	<u>7785</u>	<u>7249</u>
represented by:		
Capital account		
Balance per last account	6881	6763
Received from R.A.Richardson's Exy.	7	113
Donations	-	5
Transfer from Revenue	779	-
	<u>7667</u>	<u>6881</u>
Revenue account balance	118	368
	<u>7785</u>	<u>7249</u>

Fair Isle Bird Observatory Trust

(A company limited by guarantee)

Financial Report & Accounts

The Trust's accounts for the year to 31st October 1989, summarised below, are based on the full statutory accounts, which have been examined and reported on by our auditors, Coopers & Lybrand Deloitte. Copies of the full statutory accounts, together with the audit report, may be obtained by writing to the Trust at 21 Regent Terrace, Edinburgh.

The directors are pleased to report that the increasing number of visitors to the Lodge has continued so increasing hostel turnover, up by 31% to £54,305.

While there is an increased surplus before depreciation, the accounts show a substantially higher charge for this, which reflects the significant expenditure on redevelopment of the Trust's assets on the island.

Income & Expenditure Account for the year ended 31st October 1989

	1989		1988	
	£	£	£	£
HOSTEL CHARGES		54,305		41,476
Less:				
HOSTEL SUPPLIES				
Opening stock	3,229		4,483	
Purchases	<u>20,385</u>		<u>9,952</u>	
	23,614		14,435	
Closing stock	<u>3,952</u>		<u>3,229</u>	
	19,662		11,206	
DIRECT EXPENSES				
Staff costs	<u>15,231</u>		<u>13,261</u>	
		<u>34,893</u>		<u>24,467</u>
GROSS PROFIT		<u>19,412</u>		<u>17,009</u>
Less:				
OVERHEAD EXPENSES				
Transport and Freight	4,593		3,558	
Establishment	13,919		14,492	
Promotion	2,509		839	
Financial and legal	<u>3,342</u>		<u>3,488</u>	
		<u>24,363</u>		<u>22,377</u>
OPERATING DEFICIT		(4,951)		(5,368)

	1989		1988	
	£	£	£	£
OTHER INCOME				
H.I.D.B. grant receivable	588		—	
N.C.C. grants received	2,000		1,500	
N.T.S. grants received	1,000		1,058	
Subscriptions and donations	5,699		3,473	
Royalties	—		74	
Investment interest	1,942		2,260	
Deferred grant income release	4,108		4,111	
Anniversary income	—		188	
		15,337		12,664
SURPLUS BEFORE DEPRECIATION		10,386		7,296
Depreciation charge		(13,730)		(5,991)
NET (DEFICIT)/SURPLUS FOR YEAR		(3,344)		1,305
Add: Release from Appeal Reserve		8,590		—
		<u>£5,246</u>		<u>£1,305</u>

Balance Sheet as at 31st October 1989

	1989		1988	
	£	£	£	£
FIXED ASSETS				
Tangible assets		223,067		169,516
Investments		10,548		10,548
CURRENT ASSETS				
Stocks		3,952		3,228
Debtors		39,997		12,495
Cash at bank and in hand		8,939		9,812
		52,888		25,535
CREDITORS – amounts falling due within one year		107,130		14,686
NET CURRENT (LIABILITIES)/ASSETS		(54,242)		10,849
Total assets less current liabilities		179,373		190,913
Less: Non current liabilities				
CREDITORS – amounts falling due after more than one year		16,116		19,028
		<u>£163,257</u>		<u>£171,885</u>
Representing: –				
ACCUMULATED SURPLUS		95,349		90,103
Reserve funds		67,908		81,782
		<u>£163,257</u>		<u>£171,885</u>

Fair Isle Endowment Fund

Accounts for the year to 31st October, 1989

	1989	1988
	£	£
Income and Expenditure Account		
Investment income received (net)	491	483
Tax Refund	<u>97</u>	<u>102</u>
	588	585
 Management Fees	 50	 45
Balance remitted to Fair Isle Bird Observatory Trust	 <u>538</u>	 <u>540</u>
	588	585
 Balance sheet at 31st October		
Investments @ cost		
8¼ % Treasury Loan 1986/90 £2400 Loan	2114	2114
10% Treasury Stock 1992 £2750 Stock	2500	2500
Henderson Administration		
960 High Income Units	<u>638</u>	<u>638</u>
	5252	5252
Cash Balance	1	1
Total Assets	<u>5253</u>	<u>5253</u>
 represented by:		
Balance brought forward	<u>5253</u>	<u>5253</u>
Balance carried forward 31.10.89	<u><u>5253</u></u>	<u><u>5253</u></u>

The Development at the Lodge and Observatory

The development, as all visitors to the Lodge last year were able to appreciate, was completed over the 1988/89 winter in time for the 1989 season. It was a substantial construction programme by any standards and particularly in the remote location of Fair Isle.

The main part of the contract progressed as planned but there were major areas of unexpected overspend that were unavoidable. The ground under the new link building proved less stable than tests had predicted. The result was an increase in the specification for the new foundations.

It also transpired that the original building had subsided enough since 1969 to dislocate most of the drains under the building. They all had to be re-set if not replaced. As if that was not enough, corrosion was attacking the existing heating and service pipes internally. If not replaced during the contract works they would have undoubtedly required replacement during the next year or two. The disturbance to the building then would have been colossal. It was decided to replace all the pipes together with a limited number of radiators and the boiler. This work resulted in the consequential replacement of plaster-board and redecoration, and some carpeting. In addition some further works were considered prudent for the successful operation of the Lodge and were added to the contract. As a result of the extra works the original development budget was exceeded by £62,000.

These costs did however include, in addition to the building costs, studies into the catering, marketing and financial management of the Trust in order to ensure the efficient management of FIBOT. While the DTI/HIDB assisted the studies FIBOT had to meet its fair share.

We were also able to cover the costs of purchasing a computer which is now kept at the Observatory. The acquisition costs and initial training and input of data are being funded by the Carnegie (UK) Trust. The computer is currently being used exclusively for ornithological purposes but it is hoped that certain administrative tasks will be computerised in due course.

The funding for the building works, the studies and the computer were in part met by the successful appeal launched in February 1988. The deficit must be removed and to do so the appeal has been re-opened. The aim is to seek the support of charitable Trusts and companies. Undoubtedly a few friends of FIBOT anonymously were instrumental in persuading some Trusts and companies to contribute to FIBOT's original appeal. I hope that this might happen again. The removal of the deficit is essential to stem the drain on revenue. Perhaps more important is to be able to provide funds out of trading income resources to enable FIBOT to undertake a regular maintenance programme. By doing so perhaps we can delay, though not remove, the necessity of a future major re-development.

The Directors are extremely grateful to the very many individuals, Friends of FIBOT, visitors and well-wishers who supported the appeal by contributing directly, or persuading Trustees and companies to give generously in kind or cash. The detailed analysis of the income is shown below.

The level of grant from the government agencies was boosted by the £100,000 from the European Development Fund. However the input by the Highlands and Islands Development Board and the Countryside Commission for Scotland was a catalyst in ensuring that the works could proceed. The costs of the contract were such that without grant at the level offered by these agencies we could not have raised the money. The operations at FIBOT are now as efficient as possible without invalidating the primary objectives of the Trust and disrupting the normal island life. The Directors are very appreciative of the support offered by these agencies over the years but especially for these essential works.

Apart from the obvious need to ensure that the physical structure of the building is secure and complies with the ever increasing number of regulations imposed when paying visitors are invited to stay, it is very healthy periodically to re-assess the primary objectives of the Trust and the relative importance of the separate activities at the Observatory. I am confident that a complete appraisal of the objectives and activities of FIBOT was carried out on this occasion. The result is a building that will meet the foreseeable demands made on it for many years to come and an operating management structure that is flexible enough to meet the challenges and opportunities that undoubtedly will present themselves. The only 'blip' in the system, to use a Treasury metaphor, is the deficit on the Trust's account at the Bank. Perhaps you can help to remedy the situation?

In addition to those contributions mentioned in last year's report the HIBD gave £35,000, the CCS £20,00, the ERDF £99,250, the Carnegie (UK) Trust £10,000 and the Leslie Mary Carter Charitable Trust a further contribution of £3000.

Loganair provided free passage for the design team to visit the site and assisted with promoting visits to the island. Tullis Russell, George Waterston & Sons Ltd, and Hislop & Day Ltd provided the paper, printing and processing facilities respectively for the appeal brochures.

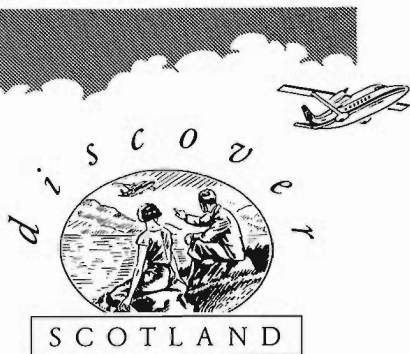
For each and every form of assistance from the 50p stamp to the £99,250 cheque the Directors say a big 'thank you'.

Schedule of income derived from the Appeal

	£
Individuals	16,189
Anonymous	1,651
Companies	2,900
Charitable trusts	85,048
Interest free loan income	7,029
Gross covenant tax reclaims	<u>3,763</u>
	116,580
 Grants	 <u>154,250</u>
	270,830

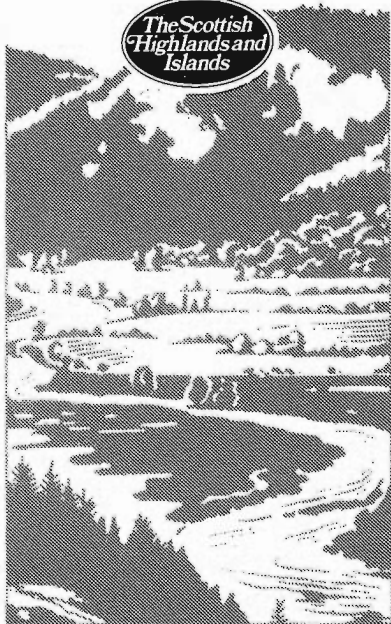
Summary of financial position

Total anticipated gross expenditure	333,167
Total anticipated gross income	<u>270,830</u>
Deficit:	62,337



NOWHERE ELSE WILL YOU
FIND *scenery* TO MATCH IT:
SMOKE-GREY *mountains*;
WILD *moorland* CARPETED
IN MULBERRY-RED *beather*;
MOSSY *glens* SHADED BY
ROWANS AND BIRCHES AND
GNARLED OAKS:

The Scottish
Highlands and
Islands



Your Scottish Adventure with Loganair

IN THE BUSY DAILY SCHEDULE THAT LIFE SETS OUT FOR YOU, WHERE DO YOU FIND TIME FOR YOURSELF?

WHERE BETTER THAN SCOTLAND? AND WHO BETTER TO HELP YOU MAKE THE MOST OF IT THAN SCOTLAND'S AIRLINE, LOGANAIR?

WE OFFER A RANGE OF MINI-BREAKS THAT CATER FOR EVERY TASTE.

VIBRANT, ENTERTAINMENT-PACKED BREAKS IN THE FESTIVAL CITY OF EDINBURGH AND THE 1990 EUROPEAN CITY OF CULTURE, GLASGOW.

MORE RESTFUL, REFLECTIVE 'RETREATS' IN THE MULL OF KINTYRE... ISLAY... THE HEBRIDES AND ORKNEYS... FAIR ISLE... CAITHNESS... SHETLAND... UNHURRIED, UNSPOILT PLACES WHERE YOU CAN FIND TIME - AND SPACE - FOR YOURSELF... AND WHERE OTHERS WILL ALWAYS FIND TIME FOR YOU.

OUR 'DISCOVER SCOTLAND' BROCHURE IS THE ONLY THING YOU NEED RUSH FOR.

FOR YOUR *free* COPY, PHONE *Scotsell* ON 041-762 0781 - OR CALL *Loganair* DIRECT ON 041-889 3181. (WHEN YOU CAN FIND A MOMENT.)



LOGANAIR

YOUR FRIENDS IN HIGH PLACES

LOGANAIR HOLIDAYS, C/O SCOTSELL LTD.
SUITE 2D, CHURCHILL WAY, BISHOPBRIGGS
GLASGOW G64 2RH

TEL: 041-762 0781. TELEX: 777205 INSCOT.
FAX: 041-762 0297

A BIRD'S-EYE VIEW OF FAIR ISLE



On tiny Fair Isle, three miles long and a mile wide there's the best birdwatching in Britain and some of the friendliest people. Miles of spectacular cliff walking, and a museum to visit on wet days. You can watch spinning, weaving and the famous Fair Isle knitwear in the making.

You'll always find a welcome on Fair Isle.

Fair Isle

THE ISLAND THAT LOVES VISITORS

For full information pack, including travel and accommodation on Shetland and Fair Isle, contact:

Shetland Tourist Organisation, Information Centre, Market Cross, Lerwick, Shetland ZE1 0LU

Tel: (0595) 3434 (24-hour service) Telex: 75119 Fax: (0595) 5807