

**BIRDS ON THE  
TRESHNISH ISLES**

**1971-1995**

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A report summarising information derived from  
the work of ornithological expeditions to the  
Treshnish Isles, Argyllshire, over the period from  
1971 to 1995.

**Compiled in memory of the late B.D.Lawson.**

by

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Cover photograph by Jan Densham

## INTRODUCTION

This report summarises Seabird censusing and bird ringing expeditions to the Treshnish Isles from 1971 to 1995. The initial trip, and many subsequent ones until 1991, were organised by Barry Lawson, who died recently and to whom a large proportion of this work is attributable.

This is the first full account of bird studies on these islands and includes the results of sixteen field expeditions, although two shorter reports have been produced for the individual years 1976 and 1986 by G. Ward. To coincide with maximum seabird activity and optimum weather and day length we generally embark for the Treshnish in the third week of June, taking a team of 4 - 6 active observers to camp at the old village site at the north-east end of Lunga, where the largest concentrations of breeding birds are to be found, for a hectic week of surveying, recording and counting, supplemented by carefully-targetted and selective ringing studies which provide capture-recapture data from prior visits in addition to contributing to both the National Seabird Colony Register and the National Ringing Scheme database.

## GENERAL DESCRIPTION OF THE TRESHNISH ISLES ( from G.Ward, 1976,1986)

The Treshnish Isles are a group of 8 terraced Tertiary basalt islands, together with 3 smaller vegetated islets and numerous skerries, situated about 4 miles off the NW point of Mull. The basalt is weathered into terraces giving this group of islands its distinctive outlines, and providing friable soil conditions ideal for Puffins and Manx Shearwaters to excavate their nesting burrows

In winter, up to a thousand Barnacle Geese and hundreds of thrushes, Blackbirds and Starlings can be seen on the islands, these birds helping to produce the fertile grass areas which have been used in spring and summer by a few sheep and cattle, brought over by boat from the mainland of Mull.

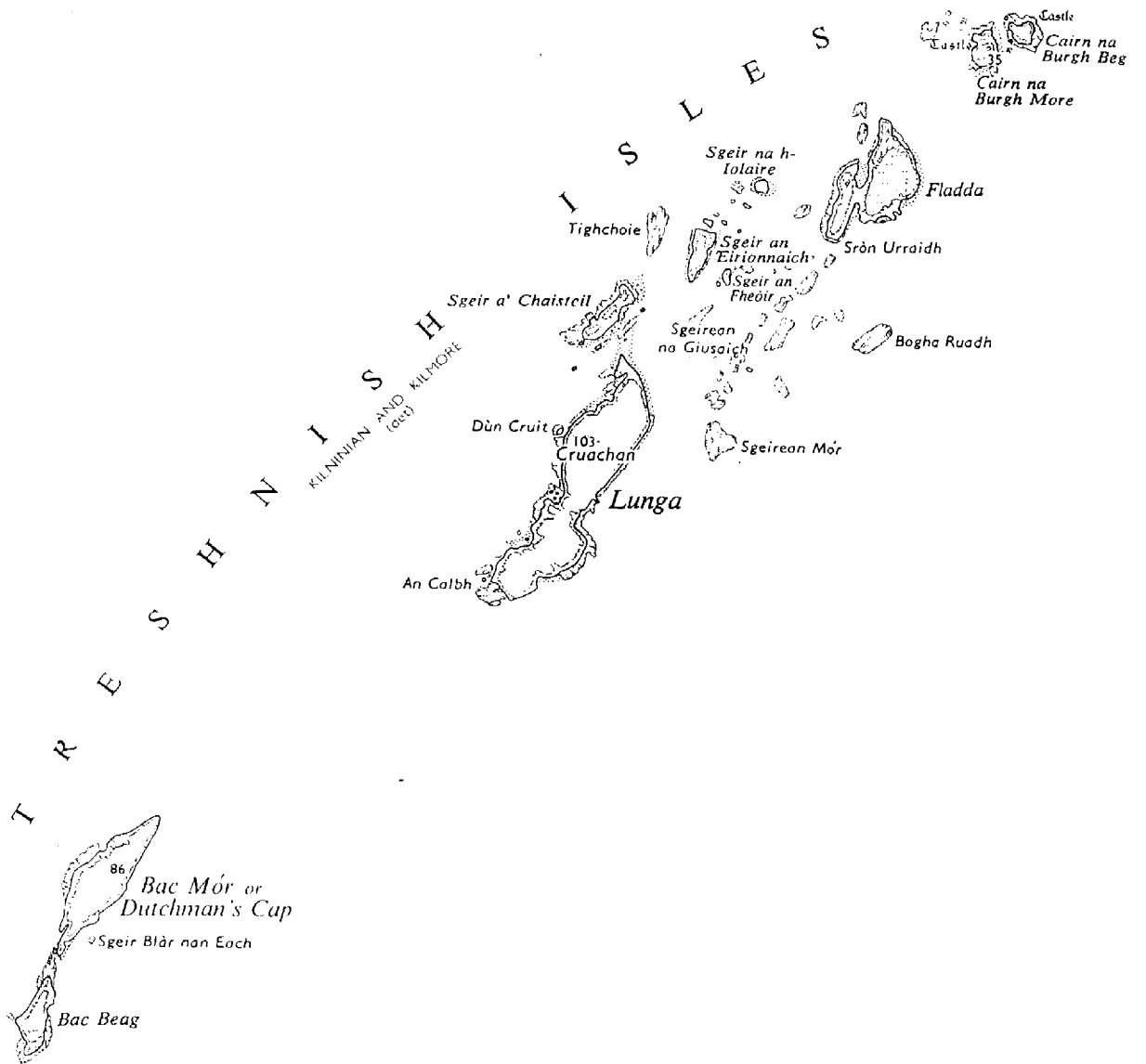
LUNGA is the largest island of the group, 170 acres in extent and one and a quarter miles long by about 500 yards wide, its long axis lying roughly SW - NE. The island is generally a grassy plateau with raised areas of terraced basalt, surrounded with sheer cliffs and a number of steep gullies, with vegetated slopes and boulder scree. The island reaches its highest point (the Cruachan) in the northern part of the island, with a well-built cairn visible from the NW at the 337 ft. summit. From here the plateau drops down to a gully extending almost entirely across the island at its central point and just above high tide level (the Dorlinn). Beyond this, the plateau becomes flatter, more uniform and rather waterlogged, with sheer cliffs and lava terraces almost all round the south of the island

Landings are usually made from the North-east onto the large area of boulder beach, and this gives an excellent sheltered landing should the wind be South-westerly. The area of talus (high stone beach), above the landing provides an extensive breeding area for Storm Petrels, as do the walls of the old village houses where holes and crevices have been taken over by the Petrels since the last human tenants left in 1860. The odd house mouse can also be found sharing these holes in the old, massive walls.

Harp Rock or Dun Cruit, on the NW side of Lunga, is an isolated basalt stack separated from the main island by a narrow, L-shaped gully and provides ideal nesting sites for thousands of Guillemots, with Razorbills, Puffins and Kittiwakes as well. It is the most important auk breeding site on the islands, though these species occur elsewhere along the cliffs where conditions are suitable. Most of the detailed survey work has been done on Lunga.

The CAIRN na' BURGHs, Mor and Beag, lie detached to the northwest of the main Lunga - Fladda group, closest to the mainland of Mull at Treshnish Point. They are largely surrounded by steep cliffs and in former times were used as a stronghold by the local chiefs during disputes with the government. Two miles southwest of Lunga, BAC MOR, the Dutchman's Cap, and the Little Dutchman's, BAC BEAG, are similar in structure to Lunga with a single basalt cone hump in the North above sea cliffs, and a flat southern plateau, but are separated. FLADDA is a very flat island above low seacliffs and boulder scree. Grazed by cattle or sheep in the past, all the larger islands are currently ungrazed, except that Lunga is grazed by rabbits.

The Treshnish Isles are privately owned by Lady Jean Rankin of Mull, and permission to land should be obtained from Sir Alick Rankin of Edinburgh.



## STATUS OF BREEDING BIRDS

Here follows a brief account of each species known to occur on the Treshnish in the breeding season, and notes as to the numbers of breeding pairs where known.

### FULMAR *Fulmarus glacialis*

A well-established breeding bird, to be seen nesting on most of the cliffs of the larger islands. On Lunga and Chaisteil numbers fluctuate greatly from year to year, with 759 nests in 1969, 184 in 1978, and 677 in 1994, but regularly producing over 400 pairs. In 1993 there were 45 apparently occupied sites on Fladda, 234 on Dutchman's Cap, and 82 on Little Dutchman's. Fulmar is also known to breed on the Cairn na Burghs in small numbers.

### MANX SHEARWATER *Puffinus puffinus*

A colony of between 200 and 500 pairs breeds along the Northeast side of Lunga on the steep bracken-covered slopes below the Cruachan. No accurate census of occupied shearwater burrows has been attempted because of the bracken concealing many holes, and the hundreds of burrows in use by rabbits confusing the picture. On overcast nights many birds are heard calling as they fly in to their burrows, particularly above the deserted village site and at Shearwater Gully. Rafts of over 500 birds have been seen on the sea, off the Southeast tip of Lunga on several evenings as they gather to await darkness.

### STORM PETREL *Hydrobates pelagicus*

Another nocturnal species, difficult to census, but a large breeding colony in the storm beach (talus) above the landing place at the North end of Lunga contains approximately 2000 pairs. The areas of talus, 48 x 16 and 190 x 5 metres, with about one bird calling per square metre, must contain at least 1700 apparently occupied sites, a figure which is borne out by the large numbers in nocturnal flight in this area.

Storm Petrels also breed in the ruined buildings and in old walls throughout the island. Birds have been heard "churring" at several locations on Fladda, and the species almost certainly breeds in suitable sites on all the other larger islands.

### SHAG *Phalacrocorax aristotelis*

Breeds singly in holes in cliff faces and colonially in large boulder scree, with an average of 150 nests on Lunga, concentrated in five main areas: Harp Rock, Shag Alley, Sgeir a Chaisteil, and cliff areas 2 and 5 (see map). The species is susceptible to disturbance, especially in open sites, and has declined markedly along the well-trodden visitors' path from the landing area to Harp Rock. On Fladda about 30 pairs breed, whilst the two Dutchmans' hold approximately 40 pairs between them.

### GREYLAG GOOSE *Anser anser*

Small non-breeding flocks are seen every summer, especially near Fladda where 40 adults were seen in 1993.

### SHELDUCK *Tadorna tadorna*

A pair seen regularly on Sgeir a Chaisteil in June 1976.

### TEAL *Anas crecca*

One flushed from plateau on the Little Dutchmans' in 1993.

### EIDER *Somateria mollissima*

Small numbers breed on Lunga, Chaisteil, Fladda, Sgeir na h-Iolaire, Sgeir an Eirionnaich, Sgeirain na Giusaich and Dutchmans' Cap, totalling 15-20 females with nests.

### BUZZARD *Buteo buteo*

One pair breeds most years on the Eastern sea cliffs of Lunga.

PEREGRINE *Falco peregrinus*

Present during the breeding season but, as far as we know, does not nest on the Treshnish. Seen most years, particularly around Harp Rock, with bird kills commonly found.

CORNCRAKE *Crex crex*

Birds seen or heard on Fladda or Cairn na Burghs on several occasions - almost certainly breeds.

OYSTERCATCHER *Haematopus ostralegus*

10 - 12 pairs nest around the shore of Lunga, mostly on the lava erosion platforms, with breeding confirmed on all the other larger islands, totalling 20 -25 pairs.

RINGED PLOVER *Charadrius hiaticula*

Two pairs nest regularly in the shingle and boulder beaches of the sound between the landing place on Lunga and Sgeir a Chaisteil .

COMMON SANDPIPER *Actitis hypoleucos*

Singles seen in most years but the only confirmation of breeding comes from Fladda in 1993.

SNIFE *Gallinago gallinago*

Breeds on Lunga (2 - 5 pairs) and Fladda (1 - 3 pairs).

ARCTIC SKUA *Stercorarius parasiticus*

Coll, with its small breeding population of Arctic Skuas, is close by and groups of 4 - 5 birds regularly cross to the Harp Rock area to harass and rob the auks as they fly in with fish. Eight individuals is the most seen together.

COMMON GULL *Larus canus*

Irregular breeding records ; probably overlooked in years when it was not possible to visit other islands in the group. Records include 16 pairs on Sgeir an Fheoir in 1976, 1 pair on Sgeir an Eirionnaich in 1986 and 3 pairs on Fladda in 1993 .

LESSER BLACK-BACKED GULL *Larus fuscus*

On Lunga/Chaisteil has decreased from 10 pairs in 1972 to 2 - 4 pairs in the 1990s , nesting with Herring Gulls near the landing. Dutchmans' Cap and the Little Dutchmans' held 8 pairs and 1 pair respectively in 1993.

HERRING GULL *Larus argentatus*

The total breeding Herring Gull population of Treshnish is around 220 - 250 pairs , and average numbers break down as follows : Lunga/Chaisteil 70 pairs , Fladda 36 pairs , Sgeir na h'Iolaire 60 pairs , Sgeir an Fheoir 10 pairs , Dutchmans' Cap and the Little Dutchmans' 20 pairs each, with the balance on small islets. Highest numbers on Lunga were recorded in 1993, the main colony being at the landing place (area 1) . Small numbers also breed on the Cairn na Burghs .

GREATER BLACK-BACKED GULL *Larus marinus*

Dutchmans' Cap , Lunga , Little Dutchmans' , and Sgeir an Eirionnaich hold the main concentrations, averaging a total population of 100 to 130 pairs. On Lunga the colony is on the plateau at the South end of the island, with a maximum of 62 pairs recorded (1971).

KITTIWAKE *Rissa tridactyla*

The main breeding colony is in the Harp Rock area of Lunga, where the 25 year span of counts shows a slow increase in the population. Other small groups have developed elsewhere around

Lunga and Chaisteil. Kittiwake does not breed on any of the other islands , but a roosting flock of up to 500 birds has been recorded on skerries north of Lunga.

**COMMON TERN / ARCTIC TERN** *Sterna hirundo / Sterna paradisaea*

Irregular breeders, absent in some years. Usually the mixed colony is on Sgeirain na Giusaich with a maximum size of 250 pairs recorded in 1976 , and present in 1972, 1994 and in 1995, when there were 50 Common and 79 Arctic Tern nests. In 1986 a small colony was present on Sgeir na h-lolaire .

**GUILLEMOT** *Uria aalge*

The main concentration of birds is at Harp Rock on Lunga , and this is easily the most abundant breeding species with over six thousand birds present in the 1990s , nearly all on Lunga with very small numbers on Sgeir a Chaisteil and Dutchmans' Cap . The species has increased from 1500 to over 6000 over a twenty-five year period.

**RAZORBILL** *Alca torda*

Breeds on all the larger islands in small numbers , and with nearly 700 birds occurring on nest sites on Lunga. Though tending to favour more dispersed sites than Guillemot , Harp Rock remains the main colony , while small groups occur all round the rest of the coastal cliffs , generally in clefts, blowholes and under boulder scree.

**BLACK GUILLEMOT** *Cephus grylle*

Breeding confirmed only for Fladda and Lunga, with most records being of birds on the sea. Total Treshnish Isles population is about 12 - 15 pairs but could be larger. The largest concentration noted was 33 off Fladda in 1993.

**PUFFIN** *Fratercula arctica*

Numbers have been slowly increasing over the years and currently over 1600 pairs are present on Lunga, although their distribution here has varied , with much setting up and subsequent abandonment of new breeding areas.

There is a small breeding colony on Dutchmans' Cap , and Puffins also breed in small numbers on Fladda , but a colony of 70 pairs noted on Chaisteil in 1994 has not persisted.

**ROCK DOVE** *Columba livia*

Present on Lunga during the breeding season , but status elsewhere unknown.

**SKYLARK** *Alauda arvensis*

Two or three pairs breed on Lunga with one pair on Fladda.

**MEADOW PIPIT** *Anthus pratensis*

On Lunga there are six to eight pairs, with 2 pairs on Fladda and 1 pair on Dutchmans' Cap .

**ROCK PIPIT** *Anthus spinoletta*

A very common breeding bird around the shores of all the larger islands , with 35 - 40 pairs on Lunga.

**PIED WAGTAIL** *Motacilla alba*

Two pairs breed on Lunga, a pair on Fladda and at least one pair on the Dutchman's .

**WREN** *Troglodytes troglodytes*

Breeds on all the larger islands with 5 - 7 pairs on Lunga.



DUNNOCK *Prunella modularis*

Occasional breeder on Lunga or Fladda.

WHEATEAR *Oenanthe oenanthe*

Over 20 pairs breed on Lunga with smaller numbers (up to 5 pairs ) on Dutchman's Cap and Fladda .

BLACKBIRD *Turdus merula*

Irregular sightings but no evidence of breeding. All records from the late 1970s but none since.

SONG THRUSH *Turdus philomelos*

One breeding record from Lunga .

HOODED CROW *Corvus corone cornix*

Two pairs normally breed on Lunga, a pair on Fladda, and 4 pairs on Dutchman's Cap .

RAVEN *Corvus corax*

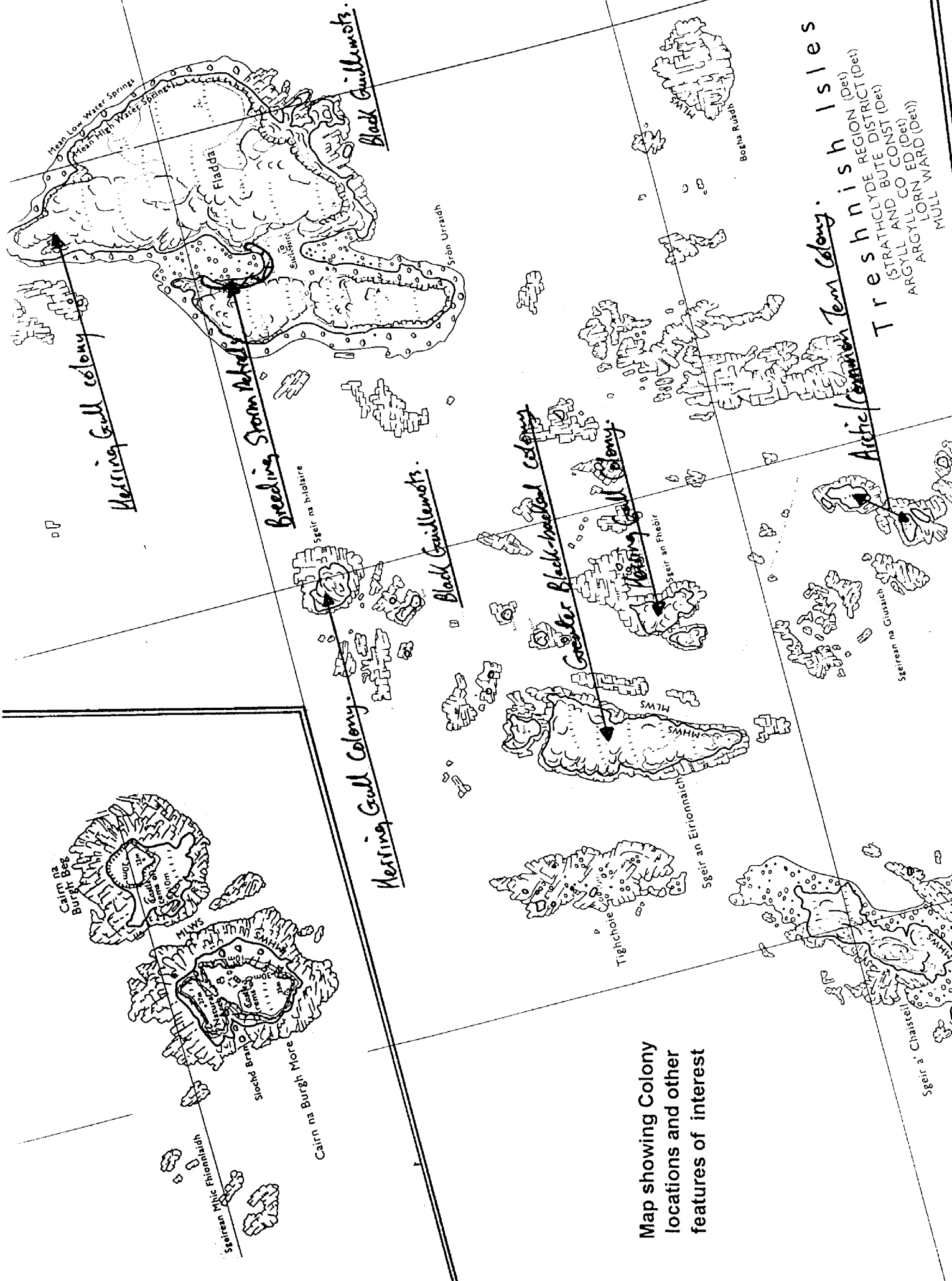
One pair nests most years on the South end of Lunga .

STARLING *Sturnus vulgaris*

About four pairs breed in sites in old walls on Lunga .

TWITE *Carduelis flavirostris*

Three pairs normally breed on Lunga, two pairs on Fladda, and at least one pair on Dutchman's Cap .



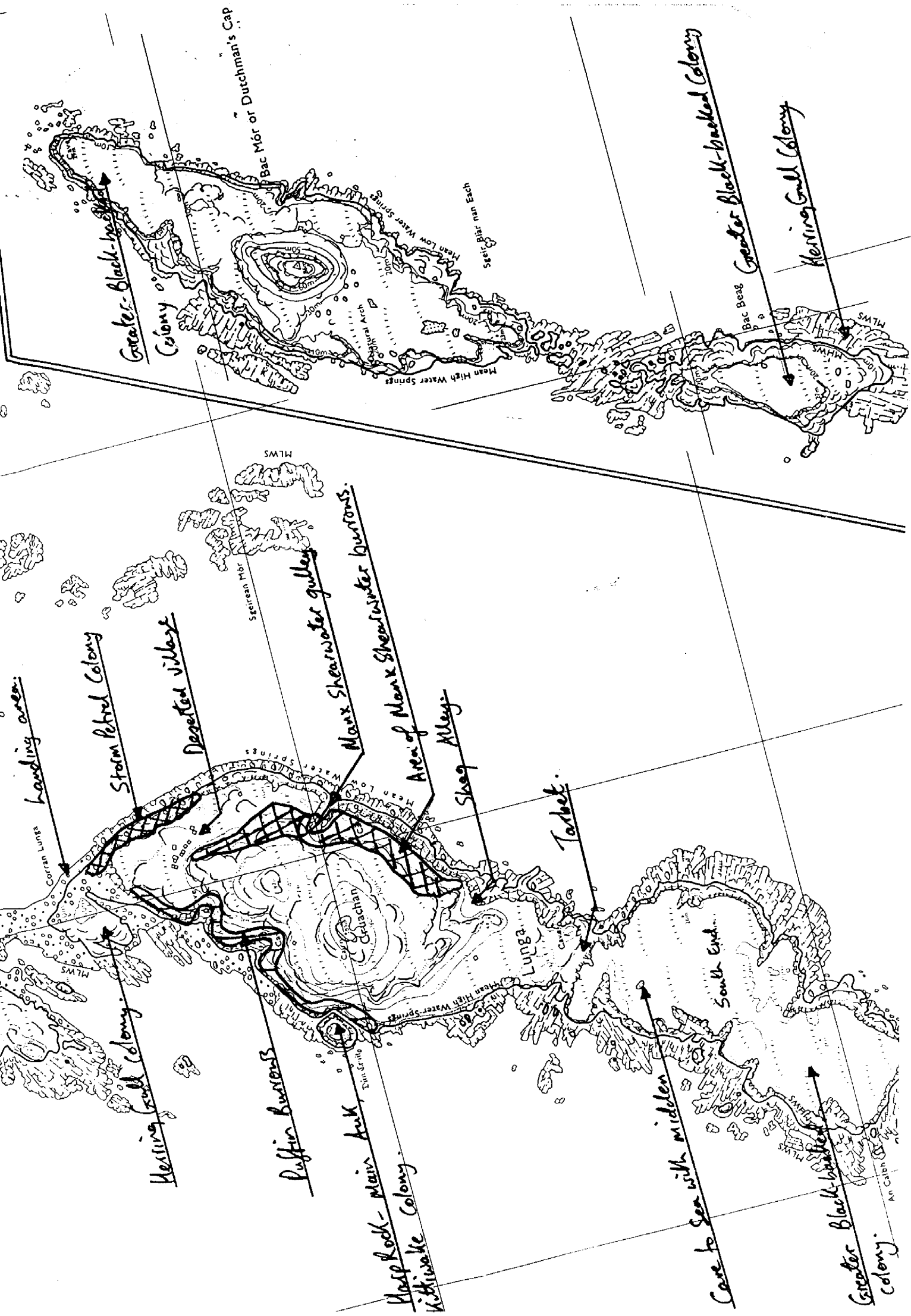
Map showing Colony locations and other features of interest

**Treshnish Isles**  
 (Strathclyde Region (Det))  
 (Argyll and Bute Dist (Det))  
 (Argyll and Glens (Det))  
 (Argyll and Western Isles (Det))  
 (Highland (Det))

Sgeir 2, Cairn na Bun

Sgeir an Eneitir

Boths R. Urrath



Greater-Black-backed Colony  
Bac Mór or Dutchman's Cap  
Mean Low Water Springs  
Mean High Water Springs  
Secret Birt nu n East

Greater Black-backed Colony  
Herring Gull Colony  
Bac Beag

Landing area  
Storm Petrel Colony  
Deserted village

Herring Gull Colony  
Puffin burrows  
Map Rock - Main Auk  
Kittiwake Colony

Manx Shearwater gullies  
Area of Manx Shearwater burrows  
Sheep Alley  
Tarbet

Cave to Sea with midden  
Greater Black-backed Colony  
South End  
AN GIBB

## SEABIRD CENSUS RESULTS

The first census took place in 1971 as part of the follow-up to "Operation Seafarer" in 1969-70 (the first complete seabird population count of Britain and Ireland) when Barry Lawson and Peter Deans surveyed the Treshnish and other islands not fully covered in the main survey. Since then, full counts for Lunga and Sgeir a Chaisteil have been made in ten of the sixteen successful expedition years. Census coverage of the other islands has been possible only in years when a dinghy has been available to venture to the nearer ones. Dutchman's Cap has always been too distant and the only counts were obtained in 1993 when a Scottish Natural Heritage charter party surveyed this island, as well as Lunga, Fladda and Chaisteil. ( R.Broad et al.)

Seabirds are notoriously difficult to census, for many reasons, but techniques developed for the "Seabird Colony Register" for each species ensures that the count is carried out in a consistent fashion. Guillemots and Razorbills are particularly difficult as actual nests are often not visible and there is a large non-breeding element present within the colony. In these two species, therefore, we count the number of *individuals* at the colony, whereas in the case of Puffins we now count *apparently occupied burrows*.

Table 1 shows maximum numbers of seabirds so far recorded for each island, categorised by species.

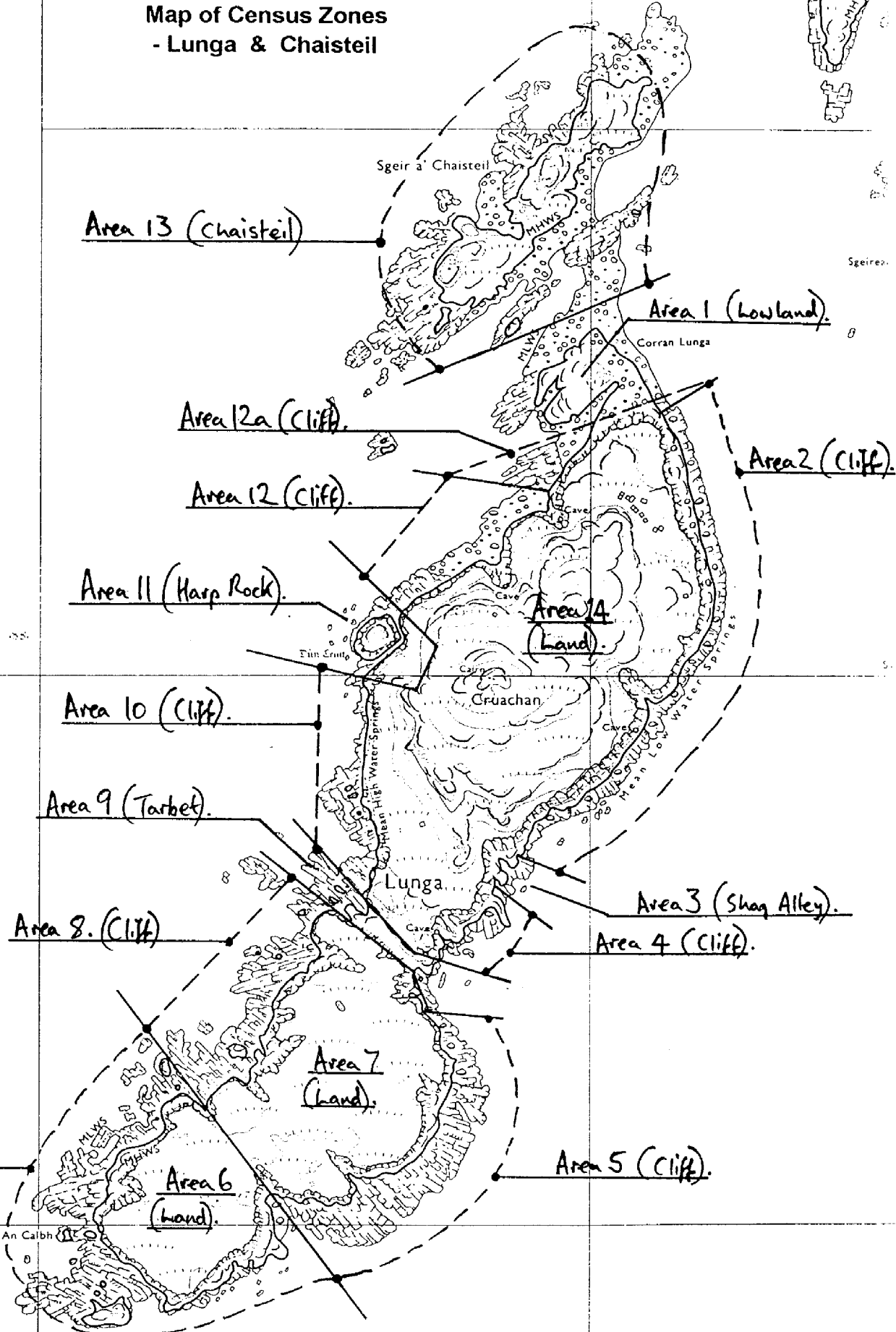
Most of the counting has taken place on Lunga and Sgeir a Chaisteil, and Table 2 displays the count totals for each species through the years. Reviewing the Treshnish results in isolation, the only clear observation which emerges is that Puffin and Guillemot have certainly increased; but when, as originally envisaged, the results are incorporated with data from other colonies into the overall picture, real trends are easier to recognise and are published annually in a "Seabird Numbers and Breeding success" review by JNCC and RSPB. These are displayed on a regional and national basis, with discussion of population changes.

To ensure consistent and comparable results, counting on Lunga is performed by dividing the island into 14 distinct census zones (see Map and Table 3 which shows distribution of seabirds in a particular year: 1995.) This zonation has been especially useful in looking at the response of breeding seabird numbers to increased day visitor pressure. Zones 11, 12 and 12a are the areas where nearly all visitors walk when landed on Lunga, so we examined the two species most directly in contact with users of this pathway, i.e. Puffin and Shag. Our counts here for 5 years between 1976 and 1995 show increasing Puffin numbers but a decline in the number of Shags. As the total number of breeding Shags on Lunga has increased over the same period, it is likely that some birds have switched to less disturbed locations; it is noticeable that Shags usually display anxiety at the approach of humans, whereas Puffins, on the other hand, show the opposite trend, seeming oblivious to sustained close contact with humans, and with an increase of over 100% in population in this area over 20 years. (Though a more direct problem is too close visitor approach to the burrows, causing collapse and probably desertion.)

# Map of Census Zones - Lunga & Chaisteil

Tighchoie

Sgeir an Eirionnach



Area 13 (Chaisteil)

Sgeir a' Chaisteil

Area 1 (Lowland)

Corran Lunga

Area 12a (Cliff)

Area 12 (Cliff)

Area 2 (Cliff)

Area 11 (Harp Rock)

Area 14 (Land)

Area 10 (Cliff)

Tin Luth

Cruachan

Area 9 (Tarbet)

Lunga

Area 3 (Shag Alley)

Area 8 (Cliff)

Area 4 (Cliff)

Area 6a (Cliff)

Area 7 (Land)

Area 5 (Cliff)

Area 6 (Land)

An Calbh

TABLE 1  
ISLAND DISTRIBUTION OF SEABIRDS (Maximum Numbers)

SPECIES/ COUNT CRITERIA	Cairn na Burgh Beag	Cairn na Burgh Mor	Fiadda	S. na h'Iolaire	S. an Eirionnach	S. an Fheoir	S. na Giusaich	S. a' Chaitteil	Lunga	Bac Mor	Bac Beag	MINIMUM TOTAL
FULMAR <i>nests</i>	B	B	45					84	593	234	82	1038
MANX SHEARWATER <i>estimate</i>									200-700	PS		200-700
STORM PETREL <i>estimate</i>	B	B	B					B	1000-250	PB	PB	1000-2500
SHAG <i>nests</i>			30					19	166	35	5	255
COMMON GULL <i>pairs</i>			3		1		16	1				
LESSER BB GULL <i>pairs</i>					1	1			4	8	1	15
HERRING GULL <i>pairs</i>	B	B	36	60		10		24	86	20	20	256
GREATER BB GULL <i>pairs</i>	B	B	6	1	17	1		2	56	56	20	159
KITTIWAKE <i>nests</i>								6	724			730
COMMON/ARCTIC TERN <i>nests</i>							250					
GUILLEMOT <i>birds at colony</i>								153	6469	B		6622
RAZORBILL <i>birds at colony</i>			29					39	635	23		726
BLACK GUILLEMOT <i>birds offshore</i>			31		17	4		2	4	10	3	71
PUFFIN <i>occupied burrows</i>			B					70	1580	B		1650

Codes:

PS = Possible Breeding

PB = Probable Breeding

B = Breeding (no Count)

Based on maximum recent count (1980s, 1990s)

TABLE 2 :  
SEABIRD CENSUS RESULTS for LUNGA/CHAISTEIL

SPECIES/ COUNT CRITERIA	1971a	1971b	1972	1974	1976	1978	1981	1986	1993	1994	1995
FULMAR <i>nests</i>	759		208	420	184	374	462	463	677	435	
MANX SHEARWATER <i>estimate</i>							200plus	200-500	200-700	200-500	
STORM PETREL <i>estimate</i>							2000	1000-2500	1000-2500	1000-2500	
SHAG <i>nests</i>	170		92	155	123	170	153	(42)	142	185	
LESSER BB GULL <i>nests</i>			10	3		6	1	2	4	2	
HERRING GULL <i>nests</i>	42	75	55	45	19	60	68	110	71	83	
GREATER BB GULL <i>nests</i>	62	21	40	50	35		23	56	38	44	
KITTIWAKE <i>nests</i>	570		632	494	(200)	497	336	479	726	730	
GUILLEMOT <i>birds at colony</i>	1530		2352	3000	(320)	3432	4926	6464	5222	6622	
RAZORBILL <i>birds at colony</i>	574		415	500	399	646	471	423	674	640	
BLACK GUILLEMOT <i>pairs offshore</i>				1			3	1	3	2	
PUFFIN <i>birds</i>		1120	1863	-662	1976	2050	-607	1650	1631		
<i>burrows/pairs</i>	774										

Lawson & Richardson    Anon.    Ward    Ward    via NCC    Ward & Cope    Ward    Broad    Walker    Walker

Deans

Count figures bracketed where accuracy is in doubt

TABLE 3: DISTRIBUTION OF SEABIRDS ON LUNGA/CHAISTEIL 1995

SPECIES	CENSUS ZONES														TOTAL		
	1	2	3	4	5	6	6a	7	8	9	10	11	12	12a		13	14
FULMAR		62	7	15	47		38	36	21	13	8	116	17	55			435
MANX SHEARWATER																	200 to 500
STORM PETREL	1000 to 2500																1000 to 2500
SHAG		36	33		39		3	24	3	4	16	6	2	19			185
LESSER BB GULL								1						1			2
HERRING GULL		18	2	3			2	4	23	4		3		24			83
GREATER BB GULL		2	1	1		24		13			1			2			44
KITTIWAKE							6	7		7	603	101	6				730
GUILLEMOT		28			12		4			110	6010	285	20	153			6622
RAZORBILL		50	35	5	80		14	5	12	19	286	87	8	39			640
BLACK GUILLEMOT							2										2
PUFFIN		22	90		6				4		590	339	576	4			1631

See Map for explanation of census zones.



## RINGING RESULTS

The ringing of seabirds provides important information for their conservation . It not only shows where the birds go and how long they live, and gives essential data on the origin of birds involved in ecological disasters such as oil spillages, toxic algal blooms and extreme weather, allowing subsequent enquiry into the effects on breeding numbers ; but it is also used to help estimate colony size , indicate migration routes and timing, and build detailed pictures of survival rates, life histories , site fidelity and behaviour in different species. After over 50 years of ringing seabirds in Britain, they remain a group of which much more remains to be learnt. Rings for some species are supplied free to auk ringers by the Government agencies to encourage this information gathering , which is a major tool in the monitoring of the marine environment . Since 1971, our expeditions to Treshnish have ringed over eleven and a half thousand birds, of which six and a half thousand are auks (Puffin, Razorbill and Guillemot) .

Bird ringing has taken place in all years , and in the light of our experience we have improved the catching techniques used in order to minimise disturbance and increase the efficiency of the sampling. At colonial nesting sites , i.e. auks and Kittiwake , we restrict ringing to adults only, and only those adults which are away from the nest site. Several techniques are used, but in 1978 we first tested our prototype of the "Fleyg" net, based on the traditional Faeroese *Fleygustong* , used for hundreds of years to take seafoal for food. A vast increase is apparent in the ringing totals for Guillemot from 1980 onwards , resulting from this successful technique. This is a very important contribution to the national ringing data for this species, since this specialised ringing of adults on Treshnish represents in some years one-third of all the adult Guillemots ringed in Britain. Since adults have, by the time they appear at breeding colonies, already survived the very heavy mortality encountered in their first years, they are especially valuable to ring since they may be expected to live for many more years.

In addition to the auk ringing each season, we ring a sample of Shag and gull chicks and also mistnet at night for adult Storm Petrels around the colonies along the storm beach and the old village. The results show a fascinating pattern of Storm Petrel movement through the Irish Sea. The large numbers caught may indicate that the size of the colony has been underestimated, and more precise count techniques will be explored. In general , the ringing has provided good information regarding movements and wintering areas, and a future aim is to continue to analyse the ringing data and in particular our own retrap data, which is considerable, in relation to the census results.

A ringing totals table and a selection of recoveries and controls follows.

TABLE 4: RINGING TOTALS

SPECIES	1971	1972	1974	1976	1977	1978	1980	1982	1984	1986	1989	1991	1993	1994	1995	TOTAL
FULMAR	17		6	4		8	21	14	18	7	21	15		4	27	162
MANX SHEARWATER			2	13		4	4	1	8					9	1	42
STORM PETREL			245	22		1	283		203	800	411	975	75	440	536	3991
SHAG	150		7	10	10	24	80	50	160		40	10		10	59	610
BUZZARD							1	2								3
OYSTERCATCHER			1				1	4	2							8
HERRING GULL	6		1			14	46	35	56	4	4	3		5	24	198
GREATER BB GULL	3		6	3	7	6	22	14	35		22	15		6	25	164
KITTIWAKE							1	1	1	2	2	4		6	10	27
GUILLEMOT	32		20	14		66	502	137	364	180	250	306		109	498	2478
RAZORBILL	65		72	90		115	266	218	236	151	103	64		81	101	1562
PUFFIN	70		198	271		203	200	208	182	174	160	114		358	236	2374
MEADOW PIPIT															4	4
ROCK PIPIT										5	1				2	8
PIED WAGTAIL														1	3	4
WREN															3	3
WHEATEAR				12					1	3						16
WILLOW WARBLER															1	1
TOTAL	343		558	439	17	441	1427	684	1266	1326	1014	1506	75	1029	1530	11655

1972 ringing data not available.

ABRIDGED LIST OF RECOVERIES AND CONTROLS:  
 BIRDS RINGED OR RECOVERED ON THE TRESHNISH ISLES, STRATHCLYDE REGION.  
 (based on all known records - not necessarily ringed by Treshnish Auk Ringing Group)

EXPLANATORY NOTES:

i) a numerical code is used to indicate the bird's age at ringing:

AGE 1, 1J denotes a chick or pullus - a young bird ringed in the nest  
 AGE 3 denotes a bird born in the same year it was ringed.  
 AGE 4 denotes a bird at least one year old at the ringing date  
 AGE 6 denotes a bird at least two years old at the ringing date  
 AGE 8 denotes a bird at least three years old at the ringing date

ii) a "control" is a bird recaptured by a ringer at another place.

GREATER BLACK-BACKED GULL		AGE AT RINGING	FINDING DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	CO-ORDINATES	DISTANCE (KM:)	DIRECTION (DEG:)	AGE IN DAYS:
HW/87219	1	Killed	03 07 1987	NORTH BOISDALE, SOUTH UIST, WESTERN ISLES	57 08'N 07 24'W	94	320	1103	
HW/14861	1	Found dead	25 06 1976 10 05 1977	TRESHNISH ISLES, STRATHCLYDE R. nr. KILMARNOCK, AYR, STRATHCLYDE R.	56 30'N 06 24'W 55 36'N 04 18'W	164	128	319	
GUILLEMOT		AGE AT RINGING	FINDING DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	CO-ORDINATES	DISTANCE (KM:)	DIRECTION (DEG:)	AGE IN DAYS:
AM/819	1	Shot	07 07 1931 06 12 1931	TRESHNISH ISLES, STRATHCLYDE R. STRANDER, FAEROE ISLANDS	56 30'N 06 25'W 62 02'N 06 41'W	615	359	152	
GJ/35417	4	Found dead	04 07 1980 22 01 1984	LUNGA LE PORGE, BORDEAUX, GIRONDE, FRANCE	56 29'N 06 25'W 44 53'N 01 06'W	1341	164	1297	
GJ/35462	4	Sick/Injured after storm	04 07 1980 14 02 1990	LUNGA CONTIS-PLAGE, LANDES, FRANCE	56 29'N 06 25'W 44 06'N 01 19'W	1422	165	3512	
GJ/76260	4	Tangled in fishing net	25 06 1984 10 02 1990	LUNGA JORSTADVAGEN, FINNOY, ROGALAND, NORWAY	56 29'N 06 25'W 59 18'N 05 58'E	795	67	2056	

GJ76328	4	27 06 1984	LUNGA	56 29'N 06 25'W	1270	163	664
GJ76328		22 04 1986	LE VERDON, GIRONDE, FRANCE	45 33'N 01 04'W			
GJ76351	4	27 06 1984	LUNGA	56 29'N 06 25'W	1121	166	927
GJ76351		10 01 1987	AT SEA, OFF ILE D'YEU, VENDEE, FRANCE	46 43'N 02 20'W			
GP74625	4	29 06 1980	LUNGA	56 29'N 06 25'W	1196	163	2375
GP74625		30 12 1986	LE BOIS-PLAGE, ILE DE RE, CHARENTE-MARITIME FRANCE	46 11'N 01 23'W			
GP74824	4	30 06 1988	LUNGA	56 29'N 06 25'W	823	161	598
GP74824		18 02 1990	SHELL BEACH, HERM, CHANNEL ISLES	49 28'N 02 27'W			
T14637	4	23 06 1986	LUNGA	56 29'N 06 24'W	1276	162	1361
T14637		15 03 1990	BARZAN, CHARENTE-MARITIME, FRANCE	45 32'N 00 51'W			
T82077	4	26 06 1991	LUNGA	56 29'N 06 25'W	1092	165	234
T82077		15 02 1992	NOIRMOUTIER-EN-L'ILE, VENDEE, FRANCE	47 00'N 02 15'W			
T82154	4	28 06 1981	LUNGA	56 29'N 06 25'W	874	149	240
T82154		23 02 1992	GRAINVAL, FECAMP, SEINE-MARITIME, FRANCE	49 45'N 00 22'E			

HERRING GULL		FINDING		CO-ORDINATES		DISTANCE	DIRECTION	AGE IN
RING NO	AGE AT RINGING	DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	(KM:)	(DEG:)	DAYS:	
GK91489	1	Ring only found	25 06 1984	LUNGA	193	106	2886	
GK91489			20 05 1992	INVERKEITHING, FIFE R.				
GG14688	8	Dying - poor physical state	13 03 1983	HELENSBURGH, GLASGOW, STRATHCLYDE R.	114	294	65	
GG14688			04 06 1983	AT SEA, TIRRE PASSAGE BETWEEN BAC MOR & STAFFA				
GK34363	1	Ring only found	01 07 1982	LUNGA	122	129	1583	
GK34363			31 10 1986	LARGS, STRATHCLYDE R.				
GJ32165	8	Found dead	23 07 1980	HELENSBURGH, STRATHCLYDE R.	116	298	719	
GJ32165			12 07 1982	LUNGA				
GK34353	1	Hit wires	03 07 1980	LUNGA	168	198	310	
GK34353			09 05 1981	CULMORE POINT, LONDONDERRY N.I.				
GP13352	1	Botulism	28 06 1971	LUNGA	167	118	4573	
GP13352			04 01 1984	STRATHCLYDE PARK, MOTHERWELL, STRATHCLYDE R.				
GP13372	1	Control	29 06 1971	LUNGA	150	116	3039	
GP13372			24 10 1979	BISHOPBRIGGS, GLASGOW, STRATHCLYDE R.				

**MANX SHEARWATER**

RING NO	AGE AT RINGING	FINDING DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	CO-ORDINATES	DISTANCE (KM:)	DIRECTION (DEG:)	AGE IN DAYS:
FL3011	4	4	12 09 1966	PHARE DU CREACH, FINISTERE, FRANCE	48 28'N 05 08'W	895	354	6148
FL3011		Killed by G. Blackback Gull	13 07 1983	LUNGA	56 29'N 06 25'W			

**OYSTERCATCHER**

RING NO	AGE AT RINGING	FINDING DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	CO-ORDINATES	DISTANCE (KM:)	DIRECTION (DEG:)	AGE IN DAYS:
FA38092	3	Found dead	29 10 1989	GREENCASTLE, BELFAST, N.I.	54 38'N 05 54'W	210	351	1768
FA38092		Found dead	01 07 1994	SGEIR A' CHAISTEIL, TRESHNISH ISLES	56 30'N 06 25'W			

**PUFFIN**

RING NO	AGE AT RINGING	FINDING DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	CO-ORDINATES	DISTANCE (KM:)	DIRECTION (DEG:)	AGE IN DAYS:
EH54502	4	Dying	26 06 1978	LUNGA	56 29'N 06 26'W	2065	185	173
EH54502		Dying	16 12 1978	SINES, BAIXO ALENTEJO, PORTUGAL	37 58'N 08 52'W			
EH54588	4	Found dead	28 06 1978	LUNGA	56 29'N 06 29'W	64	351	733
EH54588		Found dead	30 06 1980	CANNA, HIGHLAND R.	57 03'N 06 35'W			
EH54868	4	Found dead	29 06 1980	LUNGA	56 29'N 06 25'W	201	217	1471
EH54868		Found dead	09 07 1984	INISFREE BAY, DONEGAL, EIRE	55 03'N 08 22'W			
EJ77054	6	Control	25 07 1981	ISLE OF MAY, FIFE R.	56 11'N 02 33'W	240	278	1070
EJ77054		Control	29 06 1984	LUNGA	56 29'N 06 25'W			
EK29703	4	Netted & killed	28 06 1989	LUNGA	56 29'N 06 24'W	1087	315	21
EK29703		Netted & killed	19 07 1989	STORHOFDI, HEIMAËY, VESTMANNEYJAR, ICELAND	63 24'N 20 17'W			
EK29831	4	Found dead	23 06 1991	LUNGA	56 29'N 06 25'W	18	317	728
EK29831		Found dead	20 06 1993	GORTAN, COLL. STRATHCLYDE R.	56 36'N 06 37'W			
EK34632	1J	Ring only found	24 07 1982	SULE SKERRY, ORKNEY	59 04'N 04 24'W	311	203	1466
EK34632		Ring only found	29 07 1986	LUNGA	56 29'N 06 26'W			
EN22133	4	Found dead	29 06 1991	LUNGA	56 29'N 06 25'W	20	304	1496
EN22133		Found dead	03 08 1995	CROSSAPOL, ISLE OF COLL, STRATHCLYDE R.	56 35'N 06 41'W			

**RAZORBILL**

RING NO	AGE AT RINGING	FINDING DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	CO-ORDINATES	DISTANCE (KM:)	DIRECTION (DEG:)	AGE IN DAYS:
FS51093	6	Dying - oiled	19 06 1976	LUNGA	56 29'N 06 25'W	881	146	2781
FS51093		Dying - oiled	30 01 1984	POURVILLE, SEINE-MARITIME, FRANCE	49 55'N 01 02'E			

FS51233	4	Found dead	22 06 1976	LUNGA	NORDERNEY, OSTFRIESISCHE INSELN, FED.REP. GERMANY	56 29'N 06 25'W	922	110	1788
FS51233			15 05 1981			53 42'N 07 15'E			
FS51337	4	Dead - oiled	28 06 1978	LUNGA	MERS LES BAINS, SOMME, FRANCE	56 29'N 06 25'W	881	144	2047
FS51337			04 02 1984			50 04'N 01 23'E			
FS87008	4	Found dead	02 07 1980	LUNGA	NEAR MIMIZAN, LANDES, FRANCE	56 29'N 06 25'W	1411	165	1317
FS87008			09 02 1984			44 12'N 01 18'W			
M55195	4	Found dead	23 06 1986	LUNGA	PLAGE DU ROZEL, LES PIEUX, MANCHE, FRANCE	56 29'N 06 24'W	837	159	1336
M55195			18 02 1990			49 28'N 01 50'W			
M55252	4	Dead - oiled	28 06 1989	LUNGA	GOULVEN, FINISTERE, FRANCE	56 29'N 06 24'W	884	171	285
M55252			09 04 1990			48 38'N 04 18'W			
M55281	4	Found dead	29 06 1989	LUNGA	LAREDO, CANTABRIA, SANTANDER, SPAIN	56 29'N 06 24'W	1469	172	247
M55281			03 03 1990			43 24'N 03 24'W			

**STORM PETREL**

RING NO	AGE AT RINGING	FINDING DETAILS	DATES	PLACE RINGED (1) PLACE RECOVERED (2)	CO-ORDINATES	DISTANCE (KM:)	DIRECTION (DEG:)	AGE IN DAYS:
2137990	4	Control	10 08 1974	COPELAND, CO. DOWN , N. IRELAND	54 41'N 05 31'W	208	344	7624
2137990	4	Control	25 06 1995	LUNGA	56 29'N 06 26'W			
2348124	4	Sick - later released	26 06 1986	LUNGA	56 29'N 06 25'W	10547	164	1346
2348124			03 03 1990	AT SEA, AGHULHAS BASIN, OFF SOUTH AFRICA	34 51' S 23 38'E			
2405554	4	Control	26 06 1991	LUNGA	56 29'N 06 25'W	2166	185	722
2405554	4	Control	17 06 1993	PONTA DE ALMADENA, FARU, ALGARVE, PORTUGAL	37 03'N 08 47'W			

TABLE 5: MOVEMENTS OF STORM PETRELS RECORDED ON THE TRESHNISH ISLES

MOVEMENTS FROM TRESHNISH		COLONY/LOCATION DETAILS	MOVEMENTS TO TRESHNISH		RATIO OF MOVES IN / OUT	
NUMBER	%	(BREEDING or PASSAGE SITE, DISTANCE & DIRECTION)	NUMBER	%		
1	5.6	CAPE CLEAR, EIRE (PM) ; Island ; 596 Km SSW	2	1.6		
		GREAT SKELLIG, EIRE (BC) ; Island ; 588 Km SSW	1	0.8		
		POWER HEAD, EIRE (PM) ; Coastal ; 534 Km SSW	1	0.8		
1	5.6	MARLOES, PEMBS (PM) ; Coastal ; 553 Km S	1	0.8		
		BARDSEY, GWYNEDD (BC) ; Island ; 426 Km SSE				
		INISHGLORA, EIRE (BC) ; Island ; 344 Km SW				
1	5.6	CALF OF MAN, I.o.M. (PM) ; Island ; 289 Km SSE	9	7.1	9:1	
		INISHMURRY, EIRE (BC) ; Island ; 269 Km SSW	1	0.8		
		SHEEPLAND HARBOUR, N.I. (PM) ; Coastal ; 252 Km SSE	8	6.3		
4	22.2	COPELAND, N.I (PM) ; Island ; 208 Km SSE	9	7.1	2.2:1	
		THE GOBBINS, ANTRIM, N.I. (PM) ; Coastal ; 170 Km S	1	0.8		
1	5.6	AILSA CRAIG, FIRTH of CLYDE (PM) ; Island ; 159 Km SSE	3	2.4	3:1	
8	44.4	SANDA, KINTYRE (BC) ; Island ; 143 Km SSE	60	47.2	7.5:1	
		BERNERAY, (BARRA) , W. ISLES (PM) ; Island ; 81 Km WNW	1	0.8		
		VALTOS, LEWIS, W. ISLES (PM) ; Coastal ; 195 Km N	1	0.8		
		ST. KILDA (BC) ; Island ; 197 Km NW	1	0.8		
		RHUM , INNER HEBRIDES (PM) ; Island ; 54 Km N	1	0.8		
		SUMMER ISLES, HIGHLAND R. (BC) ; Island ; 172 Km NNE	5	3.9		2.5:1
		MELLON UDRIGLE, GRUINARD BAY (PM) ; Coastal ; 167 Km NNE	2	1.6		
		BETTYHILL, HIGHLAND R. (PM) ; Coastal ; 261 Km NE	1	0.8		
		ORKNEY (PM) ; Island ; 338 Km NE	3	2.4		
		1	5.6	FAIR ISLE , SHETLAND (BC) ; Island ; 442 Km NE		1
YELL, SHETLAND (BC) ; Island ; 540 Km NNE	2			1.6		
NOSS HEAD, WICK (PM) ; Coastal ; 298 Km NE	3			2.4		
TARBAT NESS, MORAY FIRTH (PM) ; Coastal ; 220 Km NE	2			1.6		
COLLIESTON, GRAMPIAN R. (PM) ; Coastal ; 290 Km ENE	1			0.8		
ISLE OF MAY, FIRTH of FORTH (PM) ; Island ; 187 Km E	2			1.6		
EYEMOUTH, BORDERS R. (PM) ; Coastal ; 277 Km ESE	1			0.8		
LOW HAUXLEY, NORTHUMBRIA (PM) ; Coastal ; 330 Km ESE	1			0.8		
TYNEMOUTH, NORTHUMBRIA (PM) ; Coastal ; 353 Km ESE	1			0.8		
FLAMBOROUGH HEAD, YORKS. (PM) ; Coastal ; 479 Km SE	1			0.8		
18	100.0		127	100.0	7:1	

(BC) (presumed) breeding colony  
(PM) (presumed) passage migrants

**TABLE 6: SUMMARIES OF RECOVERIES & CONTROLS OF SHAG  
SHOWING DISTANCE MOVED AND CIRCUMSTANCES OF DEATH**

This species is unusual in that significant numbers were ringed on the Treshnish Isles before the Second World War; some as far back, in fact, as 1927.

**PRE-1970:**

CAUSES	0 - 20km		21 - 50km		51 - 100km		over 100 km		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Found Dead	3	37.5	2	50.0	1	8.3	0	0.0	6	20.7
Human Persecution	1	12.5	2	50.0	5	41.7	4	80.0	12	41.4
Accidental Causes	0	0.0	0	0.0	2	16.7	0	0.0	2	6.9
Other	4	50.0	0	0.0	4	33.3	1	20.0	9	31.0
<b>TOTALS</b>	<b>8</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>	<b>29</b>	<b>100.0</b>

**POST-1970:**

CAUSES	0 - 20km		21 - 50km		51 - 100km		over 100 km		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
Found Dead	7	63.6	9	90.0	1	50.0	3	60.0	20	71.4
Human Persecution	0	0.0	0	0.0	0	0.0	1	20.0	1	3.6
Accidental Causes	2	18.2	1	10.0	1	50.0	0	0.0	4	14.3
Other	2	18.2	0	0.0	0	0.0	1	20.0	3	10.7
<b>TOTALS</b>	<b>11</b>	<b>100.0</b>	<b>10</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>

**CATEGORIES**

**Found Dead**

(after leaving the nest) with no clear indication of cause of death.

**Human Persecution**

includes birds deliberately shot trapped or killed by man.

**Accidental Causes**

includes birds entrapped by fishing nets, lobster pots etc., killed by predators, oiled or involved in seabird wrecks.

**Other**

all other circumstances, including birds recorded by other ringers, chicks dead in the nest, or no details given.



**TABLE 7: SUMMARY OF AUK MOVEMENTS FROM AND TO THE TRESHNISH ISLES**

<b>DISTANCE MOVED (km)</b>	<b>PUFFIN</b>	<b>GUILLEMOT</b>	<b>RAZORBILL</b>
5 - 100	3	12	7
101 - 250	2	7	6
251 - 500	1	7	5
501 - 1000	0	11	11
1001 - 1500	1	7	2
over 1500	1	0	0
<b>TOTALS</b>	<b>8</b>	<b>44</b>	<b>31</b>
<b>MEAN DIRECTION (Degrees)</b>	<b>271</b>	<b>164</b>	<b>132</b>

**Remarks on Treshnish ringing recoveries:**

**PUFFIN**

Rather few recoveries considering numbers ringed; a high proportion relate to birds returning to the breeding colony. Our Puffins appear to have a more westerly dispersal than other auks but this may not be significant. The timing of recoveries shows a marked bias, most records being in or just after the breeding season. Perhaps this means that outside the breeding season they are so far offshore that few casualties are recovered.

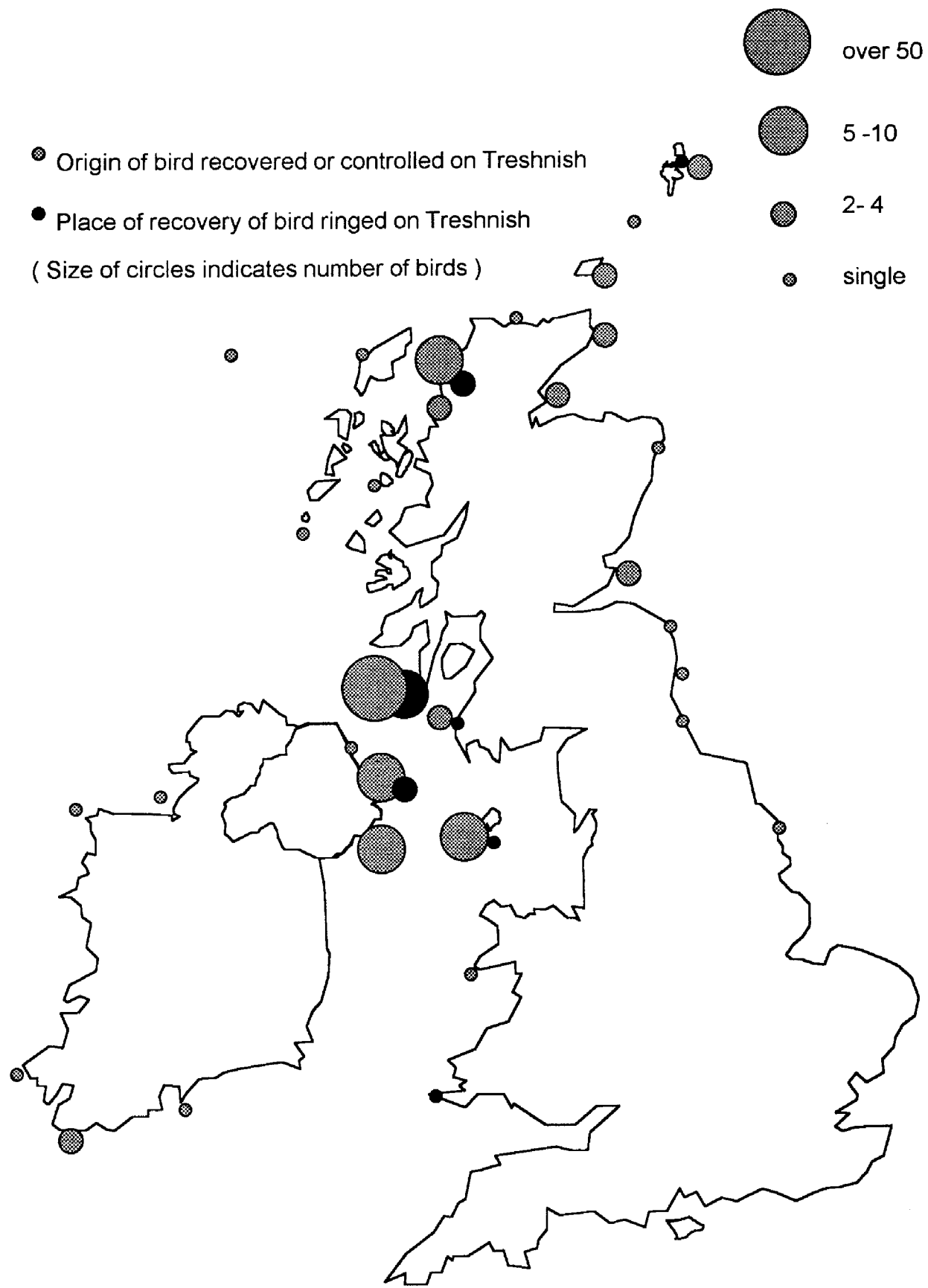
**GUILLEMOT**

Our results show that this species winters more westerly than Razorbill, with a strong preference for the Bay of Biscay. A high proportion of recoveries occur in winter: 66% compared with 33% for the rest of the year. Direction of movement remains consistent at all distances, even to some extent in local movements.

**RAZORBILL**

Winter recoveries tend, on average, to be more easterly than in Guillemot, though this appears to be less of a clear preference than birds choosing between two wintering options - Biscay (50%) or a more scattered dispersal along the English Channel and Western Approaches. The same preponderance of recoveries in winter as in Guillemot also occurs in this species. The average distance moved appears rather higher than in the other auks.

# Movements within Britain & Ireland of birds ringed on the Treshnish Isles : STORM PETREL



# Movements within Britain & Ireland of birds ringed on the Treshnish Isles : SHAG

1927 - 1995

★ Place of recovery of single  
bird ringed on Treshnish



◆ Multiple recoveries :

Tiree 9

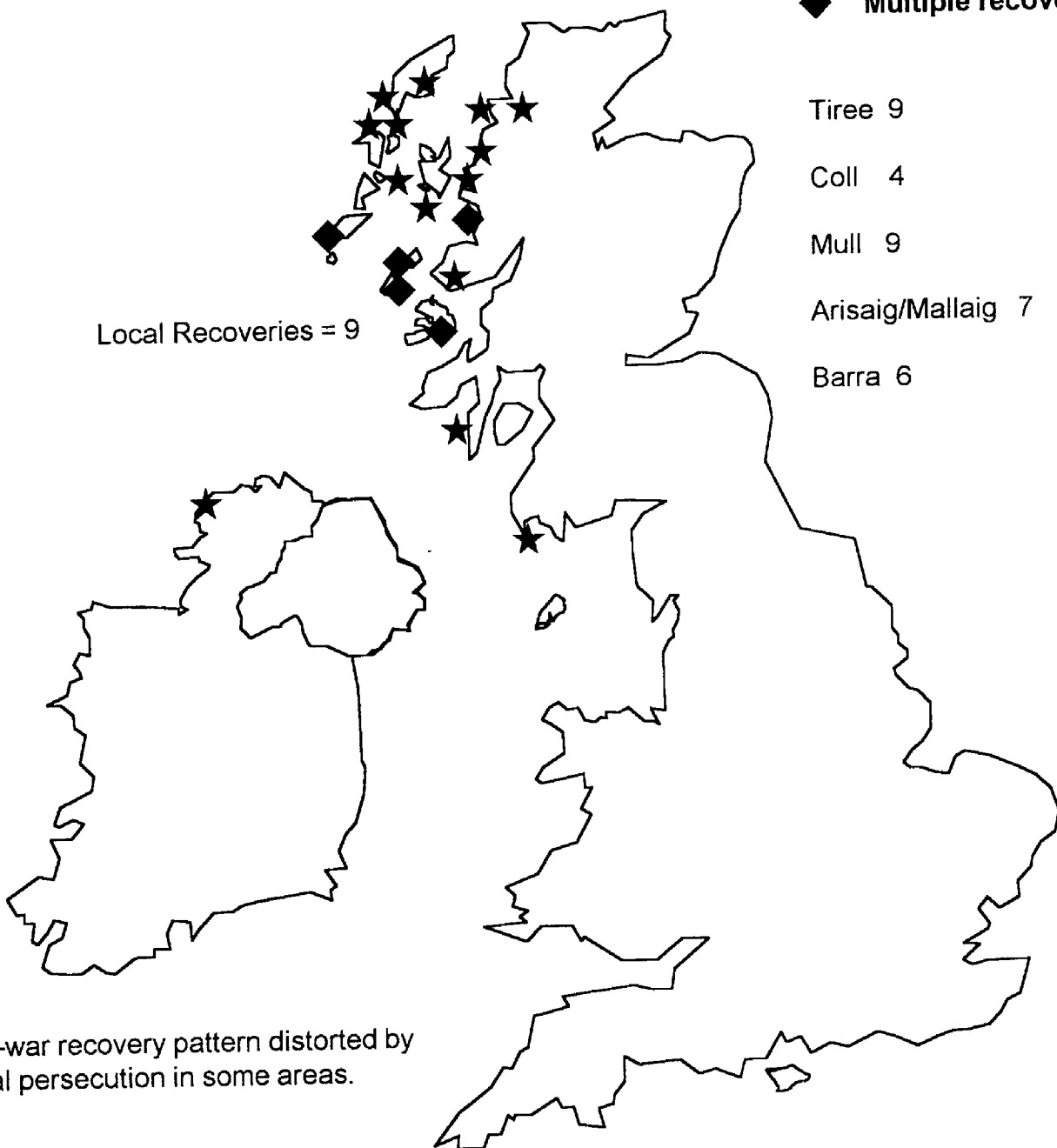
Coll 4

Mull 9

Arisaig/Mallaig 7

Barra 6

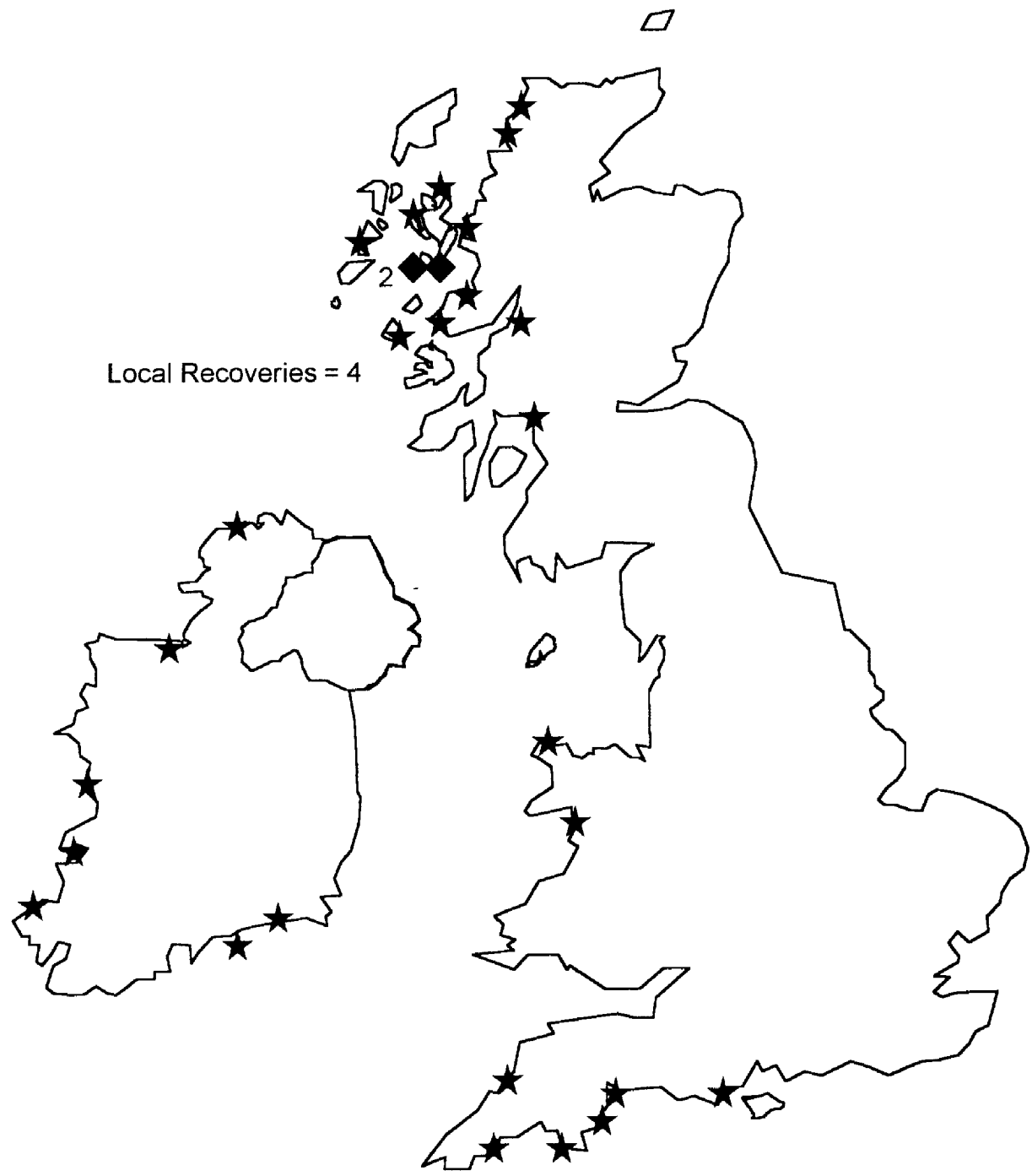
Local Recoveries = 9



Pre-war recovery pattern distorted by  
local persecution in some areas.

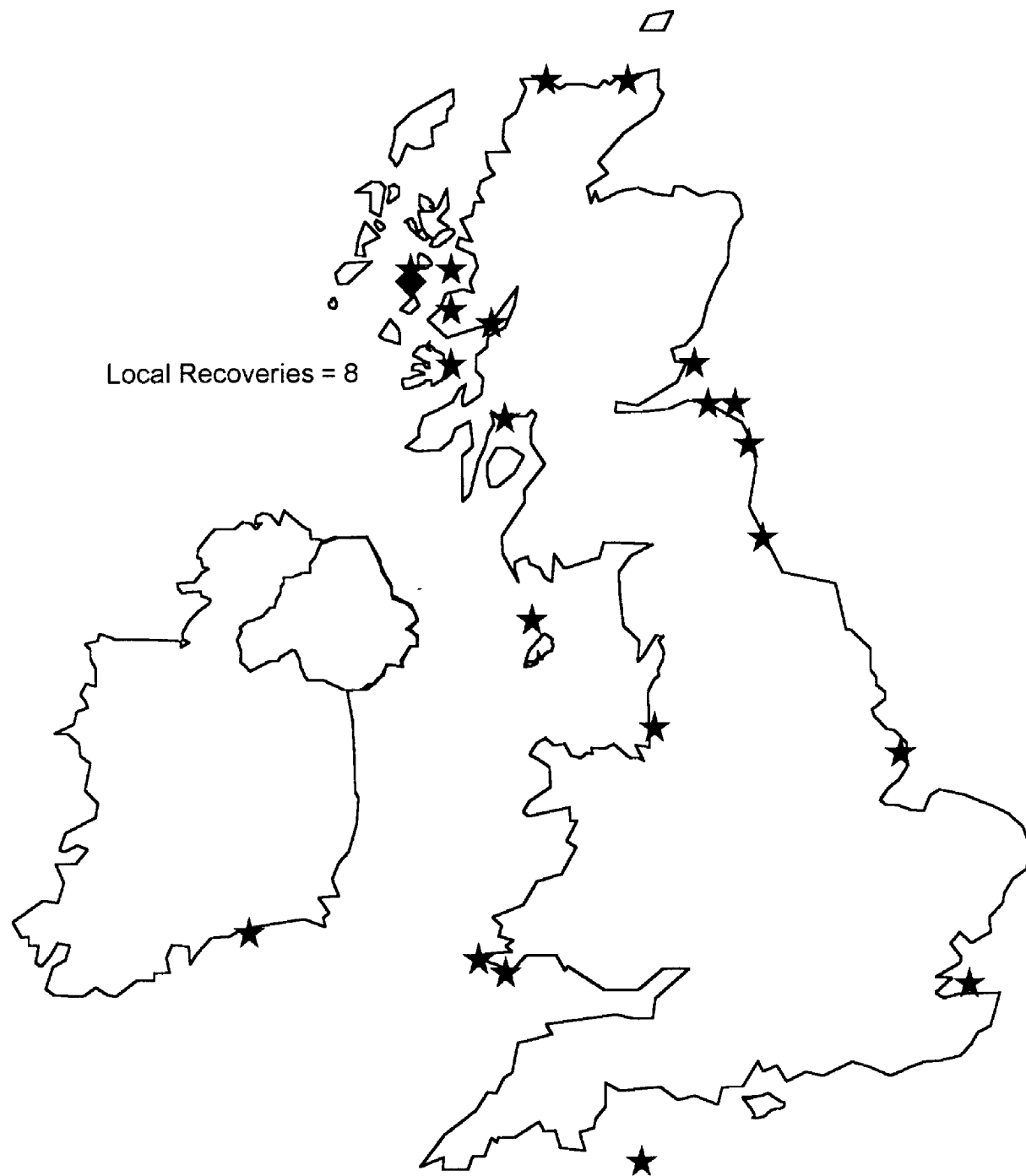
Movements within Britain & Ireland  
of birds ringed on the Treshnish Isles : GUILLEMOT

- ◆ Origin of bird recovered or controlled on Treshnish
- ★ Place of recovery of bird ringed on Treshnish



Movements within Britain & Ireland  
of birds ringed on the Treshnish Isles : RAZORBILL

- ◆ Origin of bird recovered or controlled on Treshnish
- ★ Place of recovery of bird ringed on Treshnish



## SPECIES LISTS

The lists below include casual observations of birds or mammals recorded on Treshnish , not already mentioned in the text . It is certainly incomplete , and reflects the fact that nearly all our own activity has taken place in June and July.

Also included is an extensive list of flora, produced in 1978 by an unknown recorder.

### BIRDS

Red throated Diver  
Cormorant  
Grey Heron  
Barnacle Goose  
Mallard  
Sparrowhawk  
Kestrel  
Lapwing  
Whimbrel  
Curlew  
Redshank  
Great Skua  
Wood Pigeon  
Turtle Dove  
Cuckoo  
Short eared Owl  
Swift  
Alpine Swift  
Swallow  
Fieldfare  
Redwing  
Willow Warbler  
Linnet

### MAMMALS

Grey Seal  
Common Seal  
Otter  
House Mouse  
Rabbit

PLANTS FOUND ON LUNGA 1st - 15th JULY 1978

Pteridium aquilinum	Bracken
Asplenium adiantum nigrum	Black Spleenwort
Asplenium obovatum	Lanceolate Spleenwort
Asplenium marinum	Sea Spleenwort
Athyrium felix-femina	Lady Fern
Dryopteris dilatata	Broad Buckler Fern
Polypodium vulgare	Common Polypody
Ranunculus repens	Creeping Buttercup
Ranunculus acris	Meadow Buttercup
Ranunculus flammula	Lesser Spearwort
Cochlearia officinalis	Common Scurvy Grass
Cardamine hirsuta	Hairy Bittercress
Polygala vulgaris	Milkwort
Silene maritima	Sea Campion
Cerastium holosteoides	Common Mouse-ear
Cerastium glomeratum	Sticky Mouse-ear
Stellaria media	Chickweed
Sagina procumbens	Mossy Pearlwort
Honkenya peploides	Sea Sandwort
Montia fontana	Blinks
Beta vulgaris	Sea Beet
Atriplex hastata	Halberd-leaved Orache
Atriplex glabriuscula	Babington's Orache
Linum catharticum	Fairy Flax
Geranium sanguineum	Bloody Cranesbill
Trifolium pratense	Red Clover
Trifolium repens	White Clover
Lotus corniculatus	Birdsfoot Trefoil
Lotus uliginosus	Greater Birdsfoot Trefoil
Vicia sepium	Bush Vetch
Lathyrus pratensis	Meadow Pea
Filipendula ulmaria	Meadowsweet
Rubus fruticosus	Bramble
Potentilla anserina	Silverweed
Potentilla erecta	Tormentil
Rosa pimpinellifolia	Burnet Rose
Sedum rosea	Roseroot
Sedum anglicum	English Stonecrop
Epilobium palustre	Marsh Willowherb
Callitriche stagnalis	Water Starwort
Hydrocotyle vulgaris	Marsh Pennywort
Ligusticum scoticum	Lovage
Heracleum sphondylium	Hogweed
Daucus carota	Wild Carrot
Rumex acetosa	Common Sorrel
Rumex crispus	Curled Dock
Urtica urens	Common Nettle
Salix repens	Creeping Willow
Calluna vulgaris	Ling
Erica tetralix	Cross leaved Heath
Armeria maritima	Thrift
Anagallis tenella	Bog Pimpernel
Primula vulgaris	Primrose
Centaurium erythraea	Common Centaury
Gentianella campestris	Field Gentian
Myosotis discolor	Changing Forget me not
Mertensia maritima	Oyster Plant
Veronica chamaedrys	Birdseye Speedwell
Veronica arvensis	Wall Speedwell

<i>Pedicularis sylvatica</i>	Lousewort
<i>Euphrasia nemorosa</i>	Eyebright
<i>Pinguicula vulgaris</i>	Butterwort
<i>Thymus drucei</i>	Thyme
<i>Prunella vulgaris</i>	Selfheal
<i>Teucrium chamaedrys</i>	Wood Sage
<i>Plantago major</i>	Ratstail Plantain
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago maritima</i>	Sea Plantain
<i>Galium verum</i>	Ladys Bedstraw
<i>Galium saxatile</i>	Heath Bedstraw
<i>Galium aparine</i>	Goosegrass
<i>Lonicera periclymenum</i>	Honeysuckle
<i>Senecio jacobea</i>	Common Ragwort
<i>Bellis perennis</i>	Daisy
<i>Achillea millefolium</i>	Yarrow
<i>Tripleurospermum maritimum ssp maritimum</i>	Mayweed
<i>Arctium nemorosum</i>	Wood Burdock
<i>Cirsium vulgare</i>	Spear Thistle
<i>Cirsium arvense</i>	Creeping Thistle
<i>Centaurea nigra</i>	Hardhead
<i>Hypochoeris radicata</i>	Common Catsear
<i>Leontodon taraxacoides</i>	Hawkbit
<i>Sonchus asper</i>	Prickly Sow Thistle
<i>Hieracium pilosella</i>	Mouse ear Hawkweed
<i>Triglochin palustris</i>	Marsh Arrow Grass
<i>Potamogeton polygonifolius</i>	Bog Pondweed
<i>Narthecium ossifragum</i>	Bog Asphodel
<i>Scilla verna</i>	Spring Squill
<i>Endymion non-scriptus</i>	Bluebell
<i>Juncus bufonius</i>	Toad Rush
<i>Juncus effusus</i>	Soft Rush
<i>Juncus conglomeratus</i>	Compact Rush
<i>Juncus articulatus</i>	Jointed Rush
<i>Juncus bulbosus</i>	Bulbous Rush
<i>Luzula multiflora</i>	Heath Woodrush
<i>Luzula campestris</i>	Good Friday Grass
<i>Allium ursinum</i>	Ramsons
<i>Iris pseudacorus</i>	Yellow Flag
<i>Orchis mascula</i>	Early Purple Orchid
<i>Dactylorhiza maculata</i>	Heath Spotted Orchid
<i>Dactylorhiza fuchsii</i>	Common Spotted Orchid
<i>Eleocharis uniglumis</i>	Slender Spike Rush
<i>Scirpus setaceus</i>	Bristle Clubrush
<i>Lemna minor</i>	Lesser Duckweed
<i>Schoenus nigricans</i>	Bog Rush
<i>Carex serotina</i>	Small fruited Yellow Sedge
<i>Carex flacca</i>	Glaucous Sedge
<i>Carex nigra</i>	Common Sedge
<i>Carex otrubae</i>	False Fox Sedge
<i>Carex arenaria</i>	Sand Sedge
<i>Carex echinata</i>	Star Sedge
<i>Carex ovalis</i>	Oval Sedge
<i>Carex pulicaris</i>	Flea Sedge
<i>Carex dioica</i>	Separate headed Sedge
<i>Sieglingia decumbens</i>	Heath Grass
<i>Molinia caerulea</i>	Purple Moor Grass
<i>Festuca rubra</i>	Red Fescue
<i>Festuca ovina</i>	Sheeps Fescue
<i>Lolium perenne</i>	Perennial Rye Grass
<i>Poa annua</i>	Annual Meadow Grass
<i>Poa trivialis</i>	Rough Meadow Grass
<i>Dactylis glomerata</i>	Cocksfoot
<i>Cynosurus cristata</i>	Crested Dogstail



Brachypodium sylvaticum  
Bromus mollis  
Agropyron repens  
Koelaria cristata  
Arrhenatherum elatius  
Holcus lanatus  
Deschampsia flexuosa  
Aira praecox  
Agrostis stolonifera  
Anthoxanthum odoratum  
Nardus stricta

Wood False Brome  
Soft Brome  
Common Couch  
Crested Hair Grass  
False Oat Grass  
Yorkshire Fog  
Wavy Hair Grass  
Early Hair Grass  
Creeping Bent  
Sweet Vernal Grass  
Mat Grass

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## THE EXPEDITIONS 1971 - 1995

A list of participants through the years, with brief notes on the work performed.

- 1971 Barry Lawson, Peter Deans, John Eatough, Shiela Anderson and Dick Hansford.  
Full census and ringing.  
*(This was the first trip and the Treshnish Isles were included in a "mopping up" of islands not fully covered during the 1969/70 "Operation Seafarer" National Seabird Census.)*
- 1972 Barry Lawson, Geoff Ward, and Bevan Craddock.  
Part census and ringing.  
*Forced to leave after three days due to bad weather.*
- 1973 Barry Lawson, Peter Deans, John Hodson, Geoff Cope.  
*Trip abandoned - unable to land due to rough seas.*
- 1974 Barry Lawson, Peter Deans, Geoff Ward, John Hodson, Geoff Cope, Tom Pool.  
Census of Lunga and ringing.  
*An RAF helicopter landed a photographer onto Harp Rock, causing many bird casualties.*
- 1976 Barry Lawson, Peter Deans, Geoff Ward, John Hodson, Geoff Cope, Tony Kilgallen.  
Full census Lunga - Fladda and ringing.  
*The very hot summer.*
- 1977 Barry Lawson, John Hodson.  
Ringing only.  
*Called in on "Corryvreckan" boat cruise.*
- 1978 Barry Lawson, Peter Deans, John Hodson, Simon Walker.  
Full census Lunga and Chaisteil and ringing.
- 1980 Barry Lawson, Peter Deans, John Hodson, Simon Walker, David Lawson.  
Ringing only.
- 1981 Geoff Ward, Geoff Cope.  
Part census and photography.
- 1982 Barry Lawson, Peter Deans, John Hodson, Simon Walker, Andrew Lawson.  
Ringing only.
- 1984 Barry Lawson, Peter Deans, John Hodson, Simon Walker.  
Ringing only.
- 1986 Barry Lawson, Peter Deans, Geoff Ward, John Hodson, Simon Walker, Andrew Lawson.  
Full census with ringing.
- 1989 Barry Lawson, Peter Deans, John Hodson, Simon Walker.  
Ringing only.
- 1991 Barry Lawson, Peter Deans, Simon Walker, David & Andrew Lawson, Jan Densham.  
Ringing only.
- 1993 Roger Broad *et al.* ( Scottish Natural Heritage charter )  
Full census of The Dutchmans, Lunga, Chaisteil, and Fladda.  
Chris Redfern *et al.*  
Storm Petrel ringing.
- 1994 Simon Walker, Mike Smith, Dennis Cooper, Jan Densham, Danny Lenain.  
Full census Lunga and Chaisteil and ringing.
- 1995 Simon Walker, Mike Smith, Dennis Cooper, Jan Densham, Fergus Henderson.  
Full census Lunga and Chaisteil and ringing.

## REFERENCES

- Cramp, S. (ed.) (1994) *The Birds of the Western Palearctic*. Oxford University Press.
- Cramp, S., Bourne, W.R.P., and Saunders, D. (1974) *The Seabirds of Britain and Ireland*. The Seabird Group.
- Darling, F.F. (1940) *Island Years*. G.Bell and Sons.
- Darling, F.F. and Boyd, J.M. (1964) *The Highlands and Islands*. Collins.
- Gibbons, D.W., Reid, J.B., and Chapman, R.A. (1993) *The New Atlas of Breeding Birds in Britain and Ireland 1988-1991*. T and A.D. Poyser
- Lockley, R.M. (1969) *The Island*. Andre Deutsch.
- Harris, M.P. (1984) *The Puffin*. T. and A.D. Poyser.
- Sharrock, J.T.R. (ed.) (1976) *The Atlas of Breeding Birds in Britain and Ireland*. BTO/IWC.
- Stroud, D.A. and Glue, D. (1991) *Britain's Birds in 1989-1990: The Conservation and Monitoring Review*. NCC/BTO.
- Walsh, P.M., Brindley, E. and Heubeck, M. (1989-1994) *Seabird Numbers and Breeding Success in Britain and Ireland (annual reports)*. JNCC/RSPB Shetland Oil Terminal Environmental Advisory Group.
- Walsh, P.M., Halley, D.J., Harris, M.P., del Novo, A., Sim, I.M.W. and Tasker M.L. (1995) *Seabird Monitoring Handbook for Britain and Ireland*. JNCC/RSPB/ITE/Seabird Group.

## ACKNOWLEDGEMENTS

Firstly we would like to express our appreciation to Lady Jean and Sir Alick Rankin for permission to allow our continuing studies to be made on these beautiful islands .

We are grateful to the Lawson family for providing access to earlier records, and to all past participants in the studies , specifically Peter Deans , John Hodson , Geoff Ward, Geoff Cope, David Lawson and Bevan Craddock.

Thanks are due to Roger Broad for giving permission to use data collected during the S.N.H. 1993 survey , and to J.N.C.C. and the B.T.O. for supplying other information .

We thank Iain Morrison for providing our transportation in the 1980s and 1990s, and are grateful for his continuing advice, co-operation and help.

Finally our thanks go to all who have , knowingly or unwittingly, assisted in the production of this report , which we hope will be welcomed by all who know and appreciate the Treshnish Isles.

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