

ISLES OF SCILLY
NON-BREEDING WADER SURVEY 1996

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SUMMARY

- The only systematic counts of non-breeding waders on Isles of Scilly (carried out in 1984/85) indicated internationally important numbers of turnstone and nationally important numbers of sanderling and ringed plover.
- In 1996, despite incomplete coverage of the islands and the survey not being carried out during the period of peak numbers, nationally important numbers of sanderling were recorded.
- The lower numbers of turnstone, sanderling, ringed plover and purple sandpiper recorded in 1996 may also be part of a national decline in the populations of these key non-estuarine wader species, emphasising the need for greater national and Isles of Scilly monitoring effort to further define these populations.
- Turnstone, sanderling and ringed plover are identified as the key wader species of conservation concern on the Isles of Scilly.
- A number of recommendations are made to progress the conservation of these species, including a complete survey of all coastal habitats as part of the 1997/98 Non-Estuarine Coastal Waterfowl Survey (NEWS, more regular counts of the principal islands, and, if appropriate, completion of SPA/Ramsar designation of this site.

1 INTRODUCTION

The only systematic counts of non-breeding waders of the Isles of Scilly were carried out in December/January 1984/85 as part of the national winter shorebird count co-ordinated by the BTO (Moser and Summers 1987, Kirby 1985). These recorded internationally important numbers of turnstone and nationally important numbers of sanderling and ringed plover.

Since then, while there has been some recent monitoring of wader numbers on St Mary's, there have been no co-ordinated all-island counts. As a result, there is very limited understanding of current populations and trends.

The Isles of Scilly have been identified as an Important Bird Area (Pritchard et al 1992), and a candidate SPA and Ramsar site for populations of breeding seabirds and non-breeding waders. The case for designation for non-breeding waders is based upon the results of the 1984/85 survey and lack of subsequent information has held up the designation of the site.

The aims of this study were therefore:

- (i) to get an estimate of the current population levels of non-breeding waders on the Isles of Scilly,
- (ii) to develop a conservation strategy for these species.

2 SURVEY METHODS

Survey work was carried out between 16 and 19 March 1996. The aim was to visit as much of the area as possible within the available time, with priority given to the islands which held the highest number of birds in the 1984/85 study, ie, St Mary's, Tresco, Bryher, Samson and St Agnes. All waders were recorded.

The majority of survey work was carried out at least two hours before high tide, but some counts relate to high tide roosts. Care was taken to avoid duplicate counts.

The survey results from 1996 are summarised in Table 1. Counts for individual sections of coastline on each island are held by IoSET. Table 2 summarises the results from the 1984/85 study (Kirby 1985).

DISCUSSION

A number of points arise from the 1996 survey:

- The population estimates for 1996 show oystercatcher, turnstone and sanderling to be the most abundant species in the islands.
- Sanderling numbers exceeded the level of national importance but no species were found in numbers exceeding levels of international importance.
- St Mary's was found to hold the majority of the birds, with the area between Porthloo and the Harbour found to be the most important, holding the majority of the island's sanderling and turnstone.

When the 1996 results were compared with the results of the 1984/85 survey, the distribution of birds was found to be generally similar. However, numbers of birds would appear to be considerably lower than those recorded previously, particularly on the islands of Tresco, Bryher, St Agnes and Samson.

There are possibly a number of reasons for this:

- (i) Due to the difficulty in gaining access, counts were not made of all the islands in 1996.
- (ii) Available data from the Isles of Scilly would suggest that peak counts occur in the mid winter period, with lower numbers in March. Many birds may have dispersed from the Isles of Scilly before the 1996 survey was carried out.
- (iii) It is also considered that the numbers of birds recorded in 1984/85 are not typical of the winter period, but rather large (Will Wagstaff, pers comm). The relatively large numbers of species such as bar-tailed godwit and grey plover possibly indicate hard weather movements which may also have resulted in larger than usual numbers of all wader species.
- (iv) There is some evidence that there may have been a national decline in the population of the four key non-estuarine wader species since the 1984/85 survey.

A pilot count for the proposed Non-Estuarine Coastal Waterfowl Survey (NEWS), carried out in 1994/95 and covering 8.5% of the UK's non-estuarine coast, indicated the following declines since the 1984/85 survey: ringed plover 28%, sanderling 21%, turnstone 44%, and purple sandpiper 53% (Browne, Austin and Rehfisch 1996).

Assuming this level of decline as occurred on all non-estuarine coasts, the estimates for the national populations of all four species would need major revision. This would also clearly affect the qualifying levels for national (and possibly international) importance.

Therefore, whilst the relatively low numbers recorded in March 1996 may be in part due to the effects of timing and coverage of the survey, other factors may be operating which are influencing the number of birds on the islands.

4 TOWARDS A CONSERVATION STRATEGY

The UK's leading NGO bird conservation organisations have recently agreed the bird priorities for conservation after reviewing the status of all bird species in the UK, Channel Islands and Isle of Man. This list is divided into three sections: red, amber and green. The red listed species are of greatest concern and deserve urgent effective conservation action, amber listed species are of medium conservation concern, while green listed species must, at least, be monitored.

Using these priorities, Table 3 highlights the most important non-breeding wader species for conservation action on the Isles of Scilly. These species are turnstone, ringed plover and sanderling.

There are however three points to consider in relation to this table.

- It is based on the only complete population estimates, ie, the 1984/85 survey, and may therefore not reflect current populations.
- Given the evidence for declines in the populations of sanderling, turnstone, ringed plover and purple sandpiper, international, national and Isles of Scilly population estimates may all need revision.
- Revision of this table would therefore be recommended following the Non-Estuarine Coastal Waterfowl Survey in 1997/98.

5 RECOMMENDATIONS

1 POPULATION MONITORING

There is a clear need for further monitoring of non-breeding wader numbers on the Isles of Scilly, and for these populations to be assessed within a national and international context.

The 1984/85 winter shorebird count, which covered 90% of Britain's coastline, remains the only large scale survey of non-estuarine coasts in Europe.

Following the pilot survey of 1994/95, a full scale repeat survey is planned for 1997/98 winter: the Non-Estuarine Coastal Waterfowl Survey (NEWS), co-ordinated by the Wetland Bird Survey partners (BTO, WWT, JNCC and RSPB) and carried out by volunteers.

As part of this national/international effort, comprehensive coverage of all the Isles of Scilly coastline is essential so that an accurate current population figure can be obtained.

In addition, it is recommended that more regular counts of some areas are made. Ideally, all of the coastline of the six major islands should be surveyed every two years. This would allow monitoring of the major sites for the three key species and allow some monitoring of trends on the Isles of Scilly, as well as providing information to assist with SPA designation.

2 SPA/RAMSAR DESIGNATIONS

If further population monitoring supports the case for SPA/Ramsar site designation, this should be completed by the year 2000, to include all appropriate intertidal habitats.

3 CONSERVATION MEASURES

(i) Disturbance

Given the relatively small number of people on the islands during the winter months and given the extent of suitable intertidal habitat, it is not considered that widespread disturbance to roosting/feeding waders is currently a serious problem. However, given the importance of the areas between Porthloo and the Harbour on St Mary's, recreational use of this area needs to be carefully controlled and monitored, and disturbance to birds minimised.

(ii) Beach cleaning

Concern has recently been expressed over the effects of beach cleaning programmes on populations of strandline invertebrates, and consequently on bird populations (Llewellyn & Shackley 1996). On Scilly, mechanical beach cleaning is currently largely restricted to Town Beach, St Mary's, with hand picking methods employed elsewhere to remove human-related debris and driftwood. As there are extensive sections of shoreline elsewhere where

strandline communities are able to develop, at this time beach cleaning is not considered to present a problem for wintering shorebirds. However, an expansion of the mechanical beach cleaning programme should be approached with caution.

6 SUMMARY OF RECOMMENDATIONS

■ POPULATION MONITORING

Complete coverage of all coastal habitats as part of NEWS in December/January 1997/98.

IoSET/RSPB

Complete coverage of principal islands (St Mary's, Tresco, Bryher, Samson, St Martin's, St Agnes) every two years.

IoSET

■ SITE DESIGNATION

Complete designation of SPA/Ramsar site by 2000 if designation supported by data from 1997/98 survey.

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■ CONSERVATION MEASURES

Monitor recreational use of key areas.

IoSET

Control expansion of beach cleaning programme.

IoSET

7 ACKNOWLEDGEMENTS

Fieldwork in 1996 was carried out by Leigh Lock and Will Wagstaff.

Thanks to Will Wagstaff (IoSET) who commented on the draft of this report.

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TABLE 1 ISLES OF SCILLY WADER COUNTS 16-19 MARCH 1996

SPECIES	ST MARY'S	ST AGNES & GUGH	SAMSON	BRYHER	TRESCO	TEAN & OTHERS	ST MARTIN'S	TOTAL
Oystercatcher	47	57	156	47	95	127	-	529
Ringed plover	16	3	-	30	30	-	-	79
Grey plover	3	6	-	10	5	-	-	24
Sanderling	225	10	-	-	21	-	-	256
Purple sandpiper	14	12	-	-	0	-	-	26
Dunlin	8	-	-	-	1	-	-	9
Bar-tailed godwit	-	-	5	-	-	-	-	5
Curlew	11	6	18	16	6	4	-	61
Redshank	2	4	2	1	15	-	-	24
Greenshank	3	-	-	2	2	-	-	7
Turnstone	208	36	1	80	21	-	-	346
TOTAL	537	134	182	186	196	131	-	1366
NOTES			Includes Puffin Island/ Green Island			Island not visited. Large waders counted from Tresco	Island not visited	

TABLE 2 ISLES OF SCILLY WADER COUNTS DECEMBER/JANUARY 1984/85

SPECIES	ST MARY'S	ST AGNES & GUGH	SAMSON	BRYHER	TRESCO	TEAN & OTHERS	ST MARTIN'S	TOTAL
Oystercatcher	147	111	44	50	109	48	74	583
Ringed plover	42	15	90	77	52	4	32	312
Golden plover	0	25	0	0	0	0	0	25
Grey plover	11	11	16	30	29	9	5	111
Lapwing	1	0	0	1	3	0	0	5
Knot	0	0	0	0	0	0	10	10
Sanderling	168	17	21	0	105	4	14	329
Purple sandpiper	3	47	43	0	0	1	12	106
Dunlin	0	0	36	24	58	0	0	118
Bar-tailed godwit	1	3	9	0	40	0	2	55
Curlew	20	15	44	20	25	34	23	181
Redshank	8	15	8	3	10	5	0	49
Greenshank	2	0	2	1	1	0	2	8
Turnstone	219	148	149	138	198	39	45	936
TOTAL	622	407	462	344	630	144	219	2828

TABLE 3 ISLES OF SCILLY NON-BREEDING WADERS - SPECIES OF CONSERVATION CONCERN

SPECIES	NEW RDB LISTING	QUALIFYING CRITERIA	ISLES OF SCILLY POPULATION ESTIMATE	THRESHOLD - NATIONAL	THRESHOLD - INTERNATIONAL	ISLES OF SCILLY AS % OF NATIONAL POPULATION	ISLES OF SCILLY AS % OF INTERNATIONAL POPULATION	NOTES	CONSERVA HIGH	MEDIUM	LOW
Oystercatcher	Amber	WI, WL	583	3,600	9,000	0.1	<0.1				YES
Ringed plover	Amber	WI	312	300	500	1.0	0.6				YES
Golden plover	Amber	WI	25	2,500	18,000	<0.1	<0.1		YES		YES
Grey plover	Amber	WI, WL	111	430	1,500	0.3	<0.1				YES
Lapwing	Amber	WI	5	20,000	20,000	<0.1	<0.1				
Knot	Amber	WI, WL, SPEC	10	2,900	3,500	<0.1	<0.1				
Sanderling	Green		329	230	1,000	1.4	0.3			YES	
Purple sandpiper	Amber	BR, WI	106	210	500	0.5	0.2				YES
Dunlin	Amber	WI, WL, SPEC	118	5,300	14,000	<0.1	<0.1				YES
Bar-tailed godwit	Amber	WI, WL, SPEC	55	530	1000	0.1	<0.1				YES
Curlew	Amber	BI, WI, SPEC	181	1,200	3,500	0.2	<0.1				YES
Redshank	Amber	WI, SPEC	49	1,100	1,500	<0.1	<0.1				YES
Greenshank	Amber	BL	8	50	50	4.0	<0.1				YES
Turnstone	Amber	WI	936	640	700	1.5	1.3	Internationally and nationally important	YES		YES

KEY

QUALIFYING CRITERIA:

BR Five year mean of 0.2-300 breeding pairs in the UK

BI >20% of the European breeding population in the UK

BL >50% of the UK breeding population can be found in 10 or fewer sites, but not BR

WI > 20% of the north-west European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in the UK

WL >50% of the UK non-breeding population can be found in 10 or fewer sites

SPEC Species of European Conservation Concern

CONSERVATION PRIORITY:

HIGH Species of Conservation Concern (Red or Amber listed species) occurring at levels of national or international importance

MEDIUM Green listed species occurring at levels of national or international importance

LOW Remaining species

REFERENCES:

1 Gibbons et al (1996)

2 Kirby (1985)

3 Cranswick et al (1995)

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