BTO/WSG WEST COAST SPRING PASSAGE PROJECT

A PROGRESS REPORT

by Mike Moser, Peter Ferns and Stephen Baillie

The first field season of the BTO/WSG West Coast Spring Passage project was undertaken between 1 April and 10 June 1984. An introduction and background to the project was given in *WSG Bulletin* 29 (Ferns and Moser 1983) and these are not repeated here. The project has three aims:

1. to identify the main spring staging areas of migrating Ringed Plover, Dunlin, Turnstone and Sanderling.
2. to estimate the number of migrants visiting the individual staging areas through measures of population turnover.
3. to determine whether individual migrants visit a single staging area each season, or whether they use a network of sites within Britain.

Fieldwork was confined to 42 estuaries/coastal sites on the west coast of Britain and in Ireland (Figure 1) and involved regular counts at roosts, ringing, plumage dye-marking and follow-up observations of marked birds.

This report presents a summary of the data which were collected for the project. Detailed analysis of the results will be undertaken following the second and final field season, in 1985. The information currently available on the west coast spring passage of waders from previous projects can be found in Ferns (1980a, 1981a) and Moser and Carrier (1983).

RESULTS

Counts

A total of 955 counts were carried out for the project on 89 different roost-sites, representing an average of 10.7 counts per site during the 10 week survey period. The record number of counts was 58 on Swansea Bay (R.J. Howells). For comparative purposes the maximum counts of Ringed Plovers, Dunlins, Turnstones and Sanderlings between 1 April and 10 June 1984 are listed in Table 1 for each of the sites counted. The site-code numbers refer to locations marked in Figure 1.

One feature of the passage of all four species was the very few sites at which large-scale migration was recorded; most individuals apparently focus on very specific staging areas. The distribution of sites used by Ringed Plovers and Sanderlings are shown in Figures 2 and 3. The major staging areas for Ringed Plover were the Severn, Ribble, Morecambe Bay and the Solway; lower levels of migration were also observed on Swansea Bay, the Dee, the Alt, the Duddo and Lough Foyle. Concentrations of Sanderlings occurred at even fewer sites, with peaks of over 1000 birds on only four sites - the Alt, Ribble, Morecambe Bay and Solway. Many of the smaller sites showed no observable migration whatsoever, most observations being confined to the resident breeding Ringed Plovers. Very little passage was observed at any of the sites counted in Ireland, with the exception of Lough Foyle and the Bann, where there was notable passage of both Dunlins and Ringed Plovers.

Ringing, marking and sightings of marked birds

A total of 1826 waders of the four target species were captured during the project (see breakdown of totals in Table 2). This total was rather lower than had been hoped for because of a failure to catch on Morecambe Bay and because totals for the Solway were low (despite many catches!).

A total of 1342 of those birds captured were marked with site-specific plumage-dyes and temporary leg-flags, although *alpina* Dunlin, and first summer birds of all four species, were not marked. These resulted in 903 subsequent sightings of marked birds at the same site as they were marked. These data will permit some first estimates of the rates of turnover to be calculated for the individual sites.

All sightings reported so far of marked birds on estuaries other than the site of capture are listed in Table 3. A notable feature of this table is the low number of sightings! The large number of sightings within estuaries where birds were marked suggests that observers could detect marked birds in flocks and that the low number of between estuary sightings was a real indication that short 'hops' are not regularly undertaken. Although some dyes faded rather rapidly, there is good evidence that others remained visible throughout the duration of the project, since marked birds were observed both in Iceland and back in Britain during the Autumn passage.

IMPLICATIONS FOR STUDIES IN 1985

The techniques employed for this study have given useful information on several new aspects of wader migration through Britain. The results will enable the first attempts to assess the total numbers of migrants using individual staging posts, as well as to determine the network of sites being used by the migrating waders.

The project will be repeated in the spring of 1985, to evaluate the importance of year-to-year variations in the use of individual sites. Counts will be carried out on a selected range of sites only, including those for which very comprehensive data was collected in 1984, as well as certain sites which were not covered in the first season (including selected sites in S and E England and E Scotland).

ACKNOWLEDGEMENTS

The great success of the 1984 season of the West Coast Spring Passage Project has been a direct result of the enthusiasm of the counting and ringing teams who participated. It is not possible to thank the very great number of participants individually, but the ringing teams and those who coordinated the counting teams are listed below:

Table 1. Peak counts of migrating Ringed Plovers, Dunlins, Turnstones and Sanderlings between 1 April 1984 and 10 June 1984. The site code numbers refer to the locations marked in Figure 1.

	Site	No. Counts	Ringed Plover	Dunlin	Turn-stone	Sander-ling
1	Hayle	12	12	53	20	3
2	Plym	8	4	29	2	0
3	Wembury	19	4	30	140	0
4	Exe: Starcross	14	0	0	315	0
4	: Dawlish	13	52	860	86	154
5	Taw/T: Caen mouth	10	14	91	2	4
5	Taw/T: Skern	4	16	62	8	6
5	Taw/T: Saunton Sands	2	12	94	0	6
5	Taw/T: Appledore-Greysand	4	11	42	22	0
5	Taw/T: Instow-Isley	10	11	48	34	0
5	Taw/T: Whiteho.-Airey Pt.	14	16	7	0	28
5	Taw/T:Pottington	3	20	32	0	0
6	Severn:Steart	9	15	265	37	0
6	Severn: Sand Bay	9	12	1000	0	6
6	Severn: Clevedon-Yeo	20	140	440	28	1
6	Severn Beach	33	255	400	180	8
6	Severn: Oldbury	11	36	190	2	0
6	Severn: Collister Pill	28	150	6000	67	30
7	Taff/Ely	18	11	25	82	0
8	Swansea Bay	58	63	400	446	380
9	Burry:Whiteford	18	37	176	766	84
10	Taf	4	200	1000	2	52
11	Teifi	26	19	32	0	1
12	Anglesey: Traeth Cymyran	3	19	34	4	13
12	Anglesey:Rhos	7	0	126	0	0
12	Anglesey(Beaumaris)	9	1	2	90	0
13	Lavan (Llanfairfechan)	4	3	35	0	0
14	Dee:Marsh End	14	110	5000	0	0
14	Dee:Parkgate	8	20	7000	0	0
14	Dee:Hilbre	46	35	500	70	30
14	Dee:Red Rocks	18	200	2000	10	70
14	Dee:Gronant	15	10	40	1	14
15	Mersey	2	46	1600	0	1
16	Alt:Formby	11	186	1419	53	1552
16	Alt:Hightown	11	85	1050	5	150
17	Ribble:Banks	11	305	2950	3	56
17	Ribble: Lytham-Fairhaven	5	750	2730	40	140
17	Ribble:St.Annes-Sq. Gate	11	51	220	0	2900
17	Ribble:Crossens	10	910	12450	5	710
17	Ribble:Marshside	11	167	3400	10	780
17	Ribble:Ainsdale-Southport	11	320	1569	247	2530
17	Ribble:Banks west	8	525	20000	0	0
18	Morecambe:Pilling	7	900	7600	0	3950
18	Morecambe:Hest Bank	15	670	1806	125	2000
18	Morecambe:Conder Green	12	4	2	2	0
18	Morecambe:Inland of Leven	2	19	482	0	15
18	Morecambe:Priory Pt.	3	140	2264	4	0
18	Morecambe:Foulney	17	200	4000	200	2
19	Duddon:Kirkby	4	85	80	1	0
19	Duddon:Roanhead	10	272	343	5	21
19	Duddon:Cellophane	9	15	30	50	25
20	O.S.Solway:Beckfoot	10	13	150	2	119
20	O.S.Solway:Mawbray	2	10	60	0	230
20	O.S.Solway:Siddick	8	47	10	222	8
21	Solway:Grune	15	200	301	108	800
21	Solway:Cardurnock	6	75	690	0	0
21	Solway:Easton Marsh	14	94	350	0	9
21	Solway:Mossland-Kirtle	8	31	4500	0	500
21	Solway:Waterfoot/Bowness	24	400	2420	178	2090
21	Solway:Priestside	22	640	3500	0	6
21	Solway:Carse Bay	4	14	1150	7	0
21	Solway:Southerness	5	90	800	74	220
22	Loch Ryan	11	41	149	98	0
23	Clyde:Doonfoot	3	18	120	46	0
23	Clyde:Troon/Barrassie	2	45	112	54	0
23	Clyde:Prestwick	9	78	102	186	7
24	Arran:Clauchlands	11	5	0	0	0
24	Arran:Whiting	3	27	0	9	0
24	Arran:Catacol	4	7	0	29	0
25	Inner Clyde:Ardrossan	5	30	2	100	1
26	Ardmucknish Bay	8	25	7	52	0
27	Colonsay Strand	5	30	30	0	0
28	Melbost, Hebrides	4	45	31	27	0
29	Mousa, Shetland	7	0	0	50	0
30	Pool of Virkie, Shetland	7	20	24	35	7
31	Bannow	3	0	0	0	0
32	Tacumshin	5	84	1597	71	59
33	Inishkea, Co Mayo	3	11	20	250	82
34	Ballycotton	8	9	115	204	115
35	Ballymacoda	15	14	85	101	9
36	Wexford Hbr.	10	63	4290	25	138
37	Belfast L.:Kinnegar	3	12	67	163	0
37	Belfast L.:W.Shore	2	5	68	39	0
38	L.Foyle:Roe-Balls Pt.	12	64	314	22	182
38	L.Foyle:Ballykelly	12	180	310	36	0
39	Bann:	13	122	270	6	26
40	Carlingford L.	11	13	22	106	0
41	Dundrum Bay	14	9	43	30	41
42	Strangford L.	10	25	33	92	0

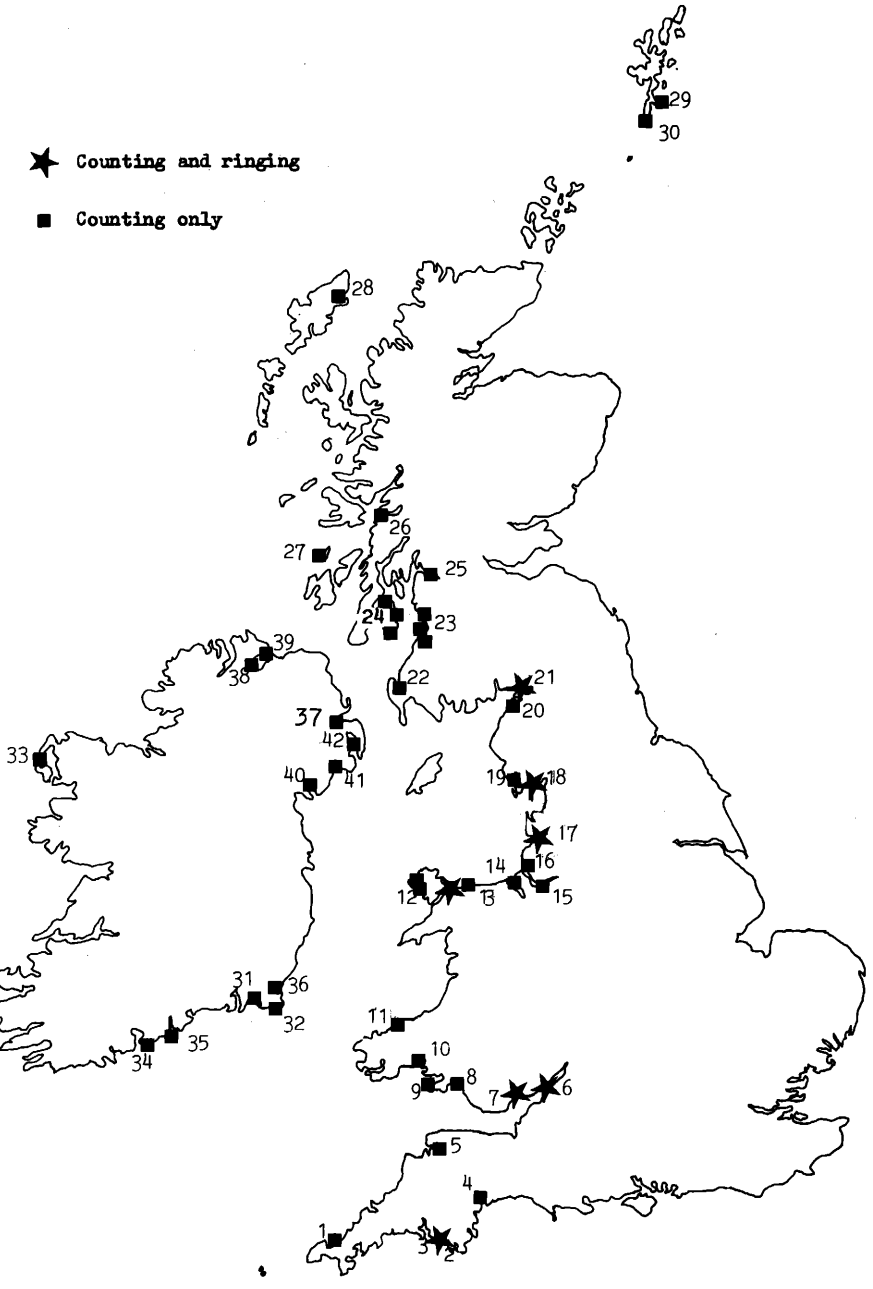

Figure 1. Counting and ringing sites for the West Coast Spring Passage Project in 1984

Ringing
Devon and Cornwall RG, Celtic Wader RG, members of the Chew Valley Ringing Station, Scan RG, the Merseyside and SW Lancs RGs, Morecambe Bay RG, and the N Solway RG. The Wash Wader RG are gratefully acknowledged for the loan of equipment.

Counting
Counts on individual estuaries were coordinated by the following individuals (site codes as in Table 1): 1. D Flumm, 2. J Grice, 3. R Swinfen/J Grice, 4. D Price/P Nicholson, 5. A Vickery/T Davis, 6. Dr H Rose/S Hinsley, 8 R Howells, 9. R Howells/S Howe, 10. L Gravett, 11. R Willey, 12. J Clark/A Vernon/Dr D Moss, 13. Dr D Moss, 14. C Wells, 15. G Thomason, 16 & 17. F Mawby, 18. Dr C Clapham/R Marsh/J Wilson/M Hutcheson/J Sheldon, 19. R Treen, 20. J Callion, 21. M Carrier/R Mearns/ M Wright, 22. G Sheppard, 23. J Melrose, 24. Mrs M Dunn, 25. N Metcalfe, 26. Dr A Jennings, 27. J & P Clarke, 28. Dr N Buxton, 29. P Ewins/P Ellis, 31,32,34,35,36. Forest and Wildlife Service (Republic of Ireland), 33. Dr D Cabot, 37. R Weyl, 38. D Allen, 39. H Dick, 40. E Chapman, 41. R Ellis, 42. R Bleakly.

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It is with great sadness that we report the death of Ray Thomas, one of the most dedicated counters for the Severn Beach area. Ray collapsed and died at home in mid-May, having made a considerable contribution to this project.

Table 2. Numbers of migrating Ringed Plovers, Turnstones and Sanderlings caught and dye-marked during the 1984 West Coast Spring Passage Project. (Note that *alpina* Dunlins, and first-year birds of all species, were not dye-marked.)

	RINGED PLOVER		DUNLIN		TURNSTONE		SANDERLING		TOTALS	
	No. captured	No. marked	No. captured	No. marked	No. captured	No. marked	No. captured	No. marked	No. captured	No. marked
Wembury	0	0	0	0	205	135	0	0	206	135
Severn	106	98	541	289	6	6	7	7	660	400
Taff/Ely	0	0	0	0	59*	33*	0	0	59	33
Anglesey	3	1	7	0	41	40	0	0	51	41
Frodsham	0	0	1	1	0	0	0	0	1	1
Ribble	40	39	205	204	0	0	32	32	277	275
Solway	169	163	340	240	57	47	7	7	573	457
TOTALS	318	301	1094	734	368	261	46	46	1826	1352

*Includes 2 birds caught on Flatholm

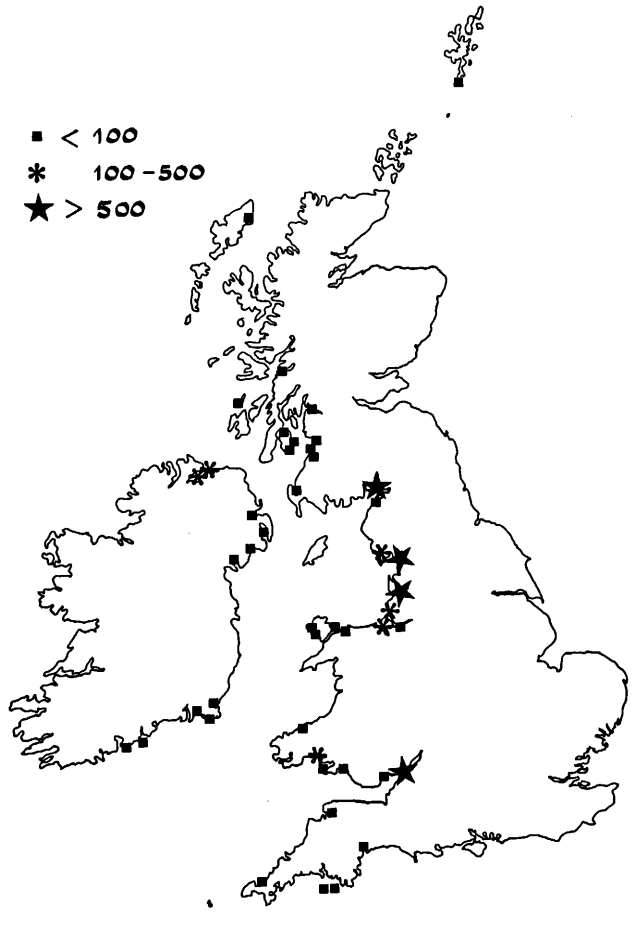

Figure 2. Peak counts of Ringed Plovers in May 1984

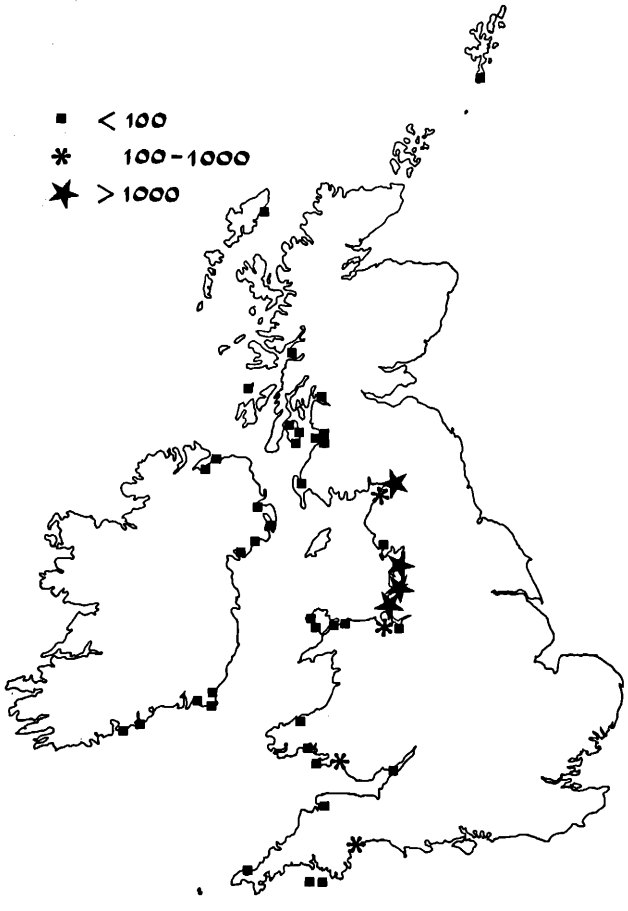

Figure 3. Peak counts of Sanderling in May/June 1984

Table 3. Sightings of birds dye-marked during this project*, at sites other than their site of marking. All marking and sighting dates are for 1984.

Marked	Seen
Ringed Plovers	
1) Severn, Avon 12/13 May	Teesmouth, Cleveland 28 May
2) Severn, Avon 28/29 April	Solway, Dumfries 30 April - 19 May (7 sightings)
3) Solway, Dumfries/Cumbria 24 April - 13 May	Teesmouth, Cleveland 16 May
4) Solway, Cumbria 12 May	Iceland 10-15 July (breeding + 4 chicks)
5) Solway, Dumfries/Cumbria 28 April - 27 May	Severn Beach, Avon 29 July
6) Solway, Dumfries/Cumbria 28 April - 27 May	Stanpit Marsh, Dorset 14 + 15 August
7) Bowness-on-Solway, Cumbria 6 May	N.-Thing, Iceland 23 June
Dunlins	
1) Solway, Dumfries 28/29 April	Foulney Is., Cumbria 3 May
2) Severn, Gwent 18/19 April	Solway, Dumfries/Cumbria 30 April, 1/4 May (? 2 birds)
3) Severn, Gwent 4 May	Solway, Dumfries 17 May
4) Severn, Gwent 14/15 May	Solway, Cumbria 17 May
Turnstones	
1) Taff/Ely, Gwent 5 April	Hafnir, Iceland 16 May

* In addition to sightings of birds marked for this project, 3 Dunlin which had been marked on the Oosterschelde (Netherlands) were observed at Foulney Is., Cumbria on 3 May 1984.

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REQUEST FOR INFORMATION

WADERS COLOUR-MARKED IN U.S.S.R.

In September and October 1984, in eastern Kazakhstan, U.S.S.R., waders were marked with yellow and red celluloid rings with small 'flags'. Over 300 waders, including 240 Little Stints *Calidris minuta* were marked on the left leg in this way. In addition, about 100 waders, mostly Red-necked Phalaropes *Phalaropus lobatus*, were marked with red and yellow neck-bands. Standard metal rings were put on the right leg of most of the waders.

Many of these birds probably migrate to overwinter in South-east Asia, but it is also possible that some may be seen in southern Europe and Africa. In view of the considerable range over which these birds may be seen, and so that information about their marking can reach as wide a readership as possible, we are publishing a separate request for information on any sightings of these birds. Sightings can be reported directly to *Dr. A. Vinokurov, U.S.S.R. Research institute of Nature Conservation, Znamenskoye-Sadki, 113628 Moscow M-628 (Vilar), U.S.S.R.* Alternatively, observations can be sent, as usual, through the WSG Colour-marking Register (*Dr. D.J. Townshend, Department of Zoology, University of Durham, South Road, Durham DH1 3LE, U.K.*).