

## THE BIRDS OF ESTUARIES ENQUIRY - SOME RESULTS FROM THE 1986-87 WINTER

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The Birds of Estuaries Enquiry (BoEE) is the United Kingdom's scheme for monitoring estuarine bird populations. It is organised by the British Trust for Ornithology (BTO) and co-sponsored by the BTO, Nature Conservancy Council and Royal Society for the Protection of Birds. The objectives of the BoEE are to document seasonal and annual trends in shorebird populations and to synthesize this information for scientific and conservation purposes. The seventeenth consecutive season of co-ordinated counts for the BoEE took place between July 1986 and June 1987. As usual, counts were made by over 1 000 participants on selected dates near the middle of each month, timed to coincide with the best tidal conditions for censusing estuarine birds. Coverage included almost all of 119 designated estuarine sites in the United Kingdom (Salmon *et al.* 1987b), as well as about 40 non-estuarine coastal sites. Detailed results for the winter period (November-March) are available in the publication *Wildfowl and wader counts 1986-87*, available from the BTO (address below), price £1.50 (inc.p&p).

Table 1 shows the total populations of the main wader species recorded on BoEE counts in each winter month of 1986-87. Peak numbers occurred in February when 1.16 million waders were counted. This was considerably lower than the record 1.45 million of December 1985 (Salmon *et al.* 1987a), which apparently reflected an excellent breeding season. The January index (calculated only for those sites counted in both January 1986 and January 1987) showed declines for most species: Oystercatcher (-16%), Ringed Plover (-35%), Grey Plover (-10%), Turnstone (-25%), Curlew (-8%), Redshank (-11%), Knot (-11%), Dunlin (-19%) and Sanderling (-16%). The only species showing an increase in the January index was the Bar-tailed Godwit (+17%).

Interpretation of the biological significance for each species of these changes in January index levels is made complex as a result of the January 1987 recommended count date falling at the end of a week of exceptionally severe weather across the whole of the United Kingdom. Thus, January troughs in Curlew and Redshank numbers were only temporary; indeed, the February 1987 count for Curlew was a BoEE record. Although Redshank are well known to

suffer increased mortality in severe weather, the January decline in both species may be at least partly explained through birds being missed because they were feeding inland over the high tide count period. By contrast, recorded numbers of both Knot and, in particular, Bar-tailed Godwit were distinctly higher in January relative to December, probably as a result of cold-weather influxes of birds to British estuaries from continental Europe. Indices for Lapwing and Golden Plover are not calculated because a high proportion of both species' populations occur inland and they are highly prone to cold-weather movements. As expected, striking exoduses from coastal sites occurred in January, with recorded Lapwing numbers declining by 86% relative to their December level and Golden Plover numbers declining by 72%.

Total numbers of Dunlin wintering in the United Kingdom in 1986-87 were down on the previous year, and the January index declined 19% to its lowest ever value, continuing the pattern of decline evident over the past 12 years. An analysis by Goss-Custard and Moser (*in press*), based largely on BoEE data, has shown that decreases in Dunlin numbers on particular estuaries have been closely correlated with spread of the cordgrass *Spartina anglica*. This spread has the effect of reducing available upper tidal feeding areas and, perhaps more importantly, restricting the time available to birds for feeding. More detailed study of the causal nature of this relationship is clearly of considerable conservation relevance, in particular because Dunlin numbers have so far failed to recover on estuaries at which *Spartina* has died back.

All BoEE sites which either supported more than 20 000 waders in winter 1986-87, or have averaged more than 20 000 wintering waders over the past five years, are listed in Table 2. Sites regularly supporting over 20 000 waders qualify as internationally important. Among the listed sites, the small Alt estuary, in the county of Merseyside, has been notable for its steadily increasing wader populations recorded during the 1980s. This trend was continued in winter 1986-87, when over 65 000 waders constituted a record for the site and ranked it seventh among all United Kingdom estuaries. Over the same period, BoEE counts on the nearby

Table 1. Total numbers of the main wader species recorded by the BoEE in the United Kingdom during winter 1986-87.

	November	December	January	February	March
Oystercatcher	186,623	214,450	213,225	239,725	145,500
Ringed Plover	9,940	11,959	7,798	8,191	5,031
Golden Plover	30,465	34,247	9,745	10,661	8,014
Grey Plover	19,338	21,564	20,169	29,205	24,025
Lapwing	103,620	106,105	14,441	46,749	16,157
Knot	91,340	157,576	226,463	241,398	148,589
Sanderling	5,752	4,807	6,038	5,445	4,854
Dunlin	220,564	325,964	316,085	341,681	218,368
Black-tailed Godwit	5,248	4,412	3,145	4,113	2,786
Bar-tailed Godwit	23,657	32,671	63,227	62,510	33,373
Curlew	49,976	63,428	47,408	79,867	49,373
Redshank	66,273	69,506	55,841	70,718	52,377
Turnstone	18,441	20,060	16,863	17,824	15,299

Table 2.1 wader counts at principal BoEE sites in winter.

Peak winter count	Average peak winter count	
	1986-87	1982-83 to 1986-87
Wash	172,107	152,884
Morecambe Bay	(111,097)	143,552
Dee (Eng/Wales)	70,949	83,529
Humber	(85,884)	83,127
Thames	99,347	82,882
Ribble	86,514	72,438
Solway	(37,275)	70,028
Severn	(34,474)	52,899
Alt	65,701	47,533
Strangford Lough	37,968	46,568
Chichester Harbour	31,472	41,037
Langstone Harbour	35,770	37,444
Forth	(37,500)	36,415
Burry	38,245	35,427
Mersey	18,654	33,699
Swale	(13,065)	33,413
Lindisfarne	31,200	31,587
Stour	20,685	25,120
Medway	24,774	24,620
Blackwater	24,111	22,067
Duddon	29,211	21,628
Outer S Solway *	23,812	18,791
Colne	21,529	13,504
Dengie	20,639	12,106

Bracketed totals refer to sites lacking any complete counts in winter 1986-87

\* non-estuarine coastal site

and very important Dee estuary, on the English/Welsh border, have tended to decline. An analysis by Mitchell et al. (in press) indicates that these opposing trends are linked, with numerous Knots and Bar-tailed Godwits, many of which feed along the north Wirral shore, having switched roost sites, apparently as a result of increasing levels of disturbance on the Dee. The strikingly low wader population on the Mersey in 1986-87 was almost entirely a consequence of much reduced Dunlin numbers, with the maximum winter count of 12 000 Dunlin being less than half that normally recorded.

The 1986-87 season saw an unprecedented expansion in the scope of the BTO Estuaries Programme. Dr Mike Moser left the post of Estuaries Officer at the end of August 1986 and at the same time Jeff Kirby assumed the new post of Assistant Estuaries Officer. In February 1987, Dr Robert Prys-Jones took up the post of Estuaries Officer. In April, two contract research officers joined the Estuaries Programme to conduct assessments of the implications for birds of proposed power station developments on the Humber and Southampton Water. In May, a third research officer, Dr Nigel Clark, began an 18-month contract to investigate the potential impact on intertidal birds of the proposed Severn tidal barrage. If it goes ahead, this barrage will be one of the largest engineering projects ever carried out and will radically alter the tidal regime of the estuary. The Severn ranks as internationally important for its wader populations, notably its Dunlin for which it is the single most important wintering site in the United Kingdom. BoEE counters are playing a major role in this research on the Severn, carrying out numerous low-tide feeding counts around the estuary in addition to their normal high-tide roost counts.

Recent publications and reports from the BTO Estuaries Programme are listed below:

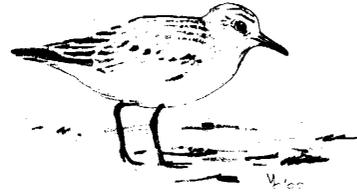
- Goss-Custard, J.D. & Moser, M.E. in press. Rates of change in numbers of Dunlin *Calidris alpina* wintering in British estuaries in relation to the spread of *Spartina anglica*. *J.appl.Ecol.*
- Kirby, J.S. 1987. The ornithological significance of the Mostyn Docks area of the Dee estuary to wildfowl and waders. *BTO Research Report 24.*
- Kirby, J.S. 1987. The ornithological significance of Flint marshes and mudflats to wildfowl and waders. *BTO Research Report 25.*
- Mitchell, J.R., Moser, M.E. & Kirby, J.S. in press. Declines in midwinter counts of waders roosting on the Dee estuary. *Bird Study.*
- Moser, M.E. 1987. A revision of population estimates for waders (Charadrii) wintering on the coastline of Britain. *Biol.Conserv.* 39: 153-164.
- Moser, M.E. 1987. Ecological effects of man's activities on waders. *North Sea Forum Report*, Chapter 18, 107-110.
- Moser, M.E. 1987. Importance of UK estuaries for waders and wildfowl. *RSPB Conservation Review* 1: 34-36.
- Moser, M.E. & Summers, R.W. 1987. Wader populations on the non-estuarine coasts of Britain and Northern Ireland: results of the 1984-85 Winter Shorebird Count. *Bird Study* 34: 71-81.

Prys-Jones, R.P. & Kirby, J.S. 1987. Summary statistics for waders on United Kingdom estuaries, 1981-82 to 1986-87. *BTO Research Report 26* (in four parts).

Salmon, D.G., Moser, M.E. & Kirby, J.S. 1987a. *Wildfowl and wader counts 1985-86*. Wildfowl Trust, Slimbridge.

Salmon, D.G., Prys-Jones, R.P. & Kirby, J.S. 1987b. *Wildfowl and wader counts 1986-87*. Wildfowl Trust, Slimbridge.

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## THE RAMSAR CONVENTION MEETING 1987 IN REGINA, CANADA: CHANGING PROCEDURES AND PRIORITIES FOR A DEVELOPING WORLD

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"Regina, Saskatchewan is the sunniest town in North America" said the VIP who welcomed 200 delegates and observers to the "Third Meeting of the Conference of Contracting Parties to the Ramsar Convention - 27 May to 5 June 1987". It was ironic to hear these words, having just flown in amidst a deluge of torrential rain and hail with lashings of sheet lightning. The delay this downpour caused in the unloading of our baggage from the plane, together with the prevailing bedlam at the airport due to President Mitterand's arrival in a Concorde 30 minutes previously, meant a much delayed arrival at the Regina Inn - site of the Ramsar meeting. Arriving 35 minutes before the reception banquet commenced and one minute before the registration desk closed, we hurriedly changed our travel stained clothes in the privacy of the registration room and stepped out into the melee of international faces.

Mike Smart (see *WSG Bull.* 49 Suppl./IWRB Special Publ. 7 (1987): 114-117) has already placed the Ramsar Convention in the context of waders, as being the most effective of the four modern global conventions on nature conservation for the conservation of wader habitat. The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat was adopted at the city of Ramsar, Iran, in 1971, during one of a series of international governmental conferences on waterfowl and their wetland habitats organized by IWRB. Contracting Parties (i.e. nations which are signatories of the Convention) have to designate at least one wetland of international importance for the Convention's list, and also to make "wise use" of wetlands in their territory, whether or not they are included in the list. Once a site is listed, its ecological character has to be maintained. If a site has to be deleted from the list (only acceptable in the "urgent national interest"), another of the same type must be designated to compensate the loss. Currently there are about 45 Contracting Parties, which together have listed 380 sites covering over 25 million hectares.

The meeting in Regina was the Third Conference of the Contracting Parties. These meetings are



RAMSAR

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organized to review the Convention, to evaluate its effectiveness by discussing national experiences and reviewing the status of listed sites, to introduce the Convention to observers from nations which are not yet Contracting Parties, to promote co-operative activities, to hear reports from international organizations, and also to promote wetland conservation in the host country. Certainly for this last aim the conference was a great success: Canada awarded Ramsar status to 11 new sites, several of which (e.g. Grand Codroy River in Newfoundland, Shepody Bay in New Brunswick, Muscadavit in Nova Scotia, and Point Pelee and James Bay in Ontario) are of great importance to waders.

The meeting in Regina is one of a series that started in Cagliari, Italy, in 1980, followed by a meeting in Groningen, The Netherlands in 1984. Its logo was an unidentified wader: a cross between a Wilson's Phalarope *Phalaropus tricolor* and a hybrid Knot *Calidris canutus*. Apart from the official delegates or observers from 50 countries, sitting in the front rows of the conference hall, a range of people backed up the meeting: academics, conservation lobbyists, publicists and environmental lawyers.

Since 1971 the Convention has been run by IUCN acting as the convention bureau, providing secretariat services on an *ad hoc* basis, with the assistance of IWRB as scientific advisors. UNESCO acted as Convention Depository. The Convention relied on voluntary funding from a minority of its member-governments and from conservation groups such as WWF. The point had been reached where the Convention could no longer be adequately serviced without a permanently funded secretariat to provide necessary information to its members, monitor compliance, organize working meetings and