

THE BIRDS OF ESTUARIES ENQUIRY - RESULTS FROM THE 1988-89 WINTER

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The Birds of Estuaries Enquiry (BoEE) is the United Kingdom's scheme for monitoring estuarine bird populations. It is organized by the British Trust for Ornithology (BTO) and co-sponsored by the BTO, Nature Conservancy Council, Royal Society for the Protection of Birds and the Department of the Environment for Northern Ireland. 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. Including the 1969-70 Pilot Study, the twentieth consecutive season of co-ordinated counts for the BoEE took place between July 1988 and June 1989. 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 all but seven of the 117 main estuarine sites in the United Kingdom, as well as about 90 sections of open coastline. Detailed results for the winter period (November-March), together with a summary of key findings from passage periods, are available in Salmon et al. (1989) *Wildfowl and Wader Counts 1988-89*, (68pp, available from the BTO (address below), price £1.50, inc.p&p). Here we present a synopsis of results for 1988-89.

The mid-winter (December-February) United Kingdom (UK) population in 1988-89 averaged 17% higher than for the equivalent period in 1987-88. The total of almost 1,500,000 waders counted in January 1989 (Table 1) appears to be a BoEE record, exceeding the previous highest number of December 1985. The January index (calculated only for those sites counted in both January 1988 and 1989) showed population increases of 10% or more for Oystercatcher (+10%), Ringed Plover (+31%), Grey Plover (+29%) and Dunlin (+21%), whereas Sanderling (-21%) and Bar-tailed Godwit (-12%) populations declined by over 10%.

The major factors underlying this high wintering population appeared to be a combination of a high productivity in 1988 by species breeding in

arctic Siberia, and the outstandingly mild winter weather in Britain. The January indices for Oystercatcher, Ringed Plover and Grey Plover were the highest ever. Grey Plover numbers exceeding 40,000 in January 1989 were unprecedented, continuing the spectacular increase in the UK wintering population of this species: it was only in the previous winter that they had reached 30,000 for the first time! An increase in Dunlin numbers for the second successive year was particularly welcome, and the species now shows signs of recovering from the low levels it reached in the mid-1980s. Among species for which population indices are not calculated, both Black-tailed Godwit and Avocet wintering numbers were well up, with the latter now approaching 1,000 birds.

All BoEE sites which either supported more than 20,000 waders in winter 1988-89, or have averaged more than 20,000 waders over the past five winters, are listed in Table 2. For a second successive year, notably high numbers were present on the Ribble, with particularly large populations of Knot (60,000), Oystercatcher (20,000) and Black-tailed Godwit (2,500) making major contributions towards this total population. Despite problems caused by incomplete coverage, exceptional numbers were clearly also present on the Humber. A peak Wash count of 47,000 Oystercatcher was much the highest ever at this site, being exceeded only by the 51,000 birds on Morecambe Bay, and the total of 66,000 Dunlin recorded on the Wash was much higher than in recent years. The Wash, Severn and Morecambe Bay feature as the most important sites in the U.K. in terms of total numbers of birds for wintering Dunlin, each averaging between 42,000 and 46,000 birds. Among sites not listed in Table 2, the BoEE count of wintering Avocet on the Ore complex exceeded 500 birds for the first time.

During 1989, results from the BoEE were integrated with information derived from specially conducted low tide surveys in order to

Table 1. Total numbers of the main species of waders recorded by the BoEE at coastal sites in the United Kingdom during the 1988-89 winter.

Month	November	December	January	February	March
No. of sites counted	174	201	205	203	157
Oystercatcher	248,611	258,438	285,163	237,367	112,239
Avocet	778	894	866	658	556
Ringed Plover	12,415	12,312	12,349	11,642	4,348
Golden Plover	38,032	49,725	47,940	26,297	20,894
Grey Plover	34,449	33,496	40,572	38,807	33,850
Lapwing	89,471	148,115	167,983	101,890	9,715
Knot	187,432	300,572	248,932	210,625	120,877
Sanderling	5,671	6,706	5,203	5,006	4,506
Purple Sandpiper	1,312	1,630	2,345	2,184	1,709
Dunlin	376,573	408,303	437,791	477,629	184,378
Black-tailed Godwit	6,734	7,737	7,778	5,531	5,904
Bar-tailed Godwit	39,175	44,026	48,620	44,569	12,638
Curlew	54,931	58,843	74,049	76,051	42,369
Redshank	76,303	80,418	86,819	77,501	52,882
Turnstone	17,453	18,195	20,258	17,335	13,887
Totals of all spp.	1,193,138	1,433,040	1,490,175	1,355,721	622,665

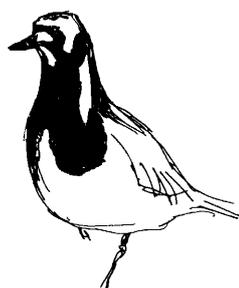


Table 2. Wader counts at principal BoEE sites in winter.

	Peak winter count, 1988-89	Average peak winter count, 1984-85 to 1988-89
Wash	225,180	199,947
Morecambe Bay	171,516	157,051
Ribble	142,399	97,778
Thames	87,650	85,408
Humber	(97,536)	84,984
Dee (Eng./Wales)	76,691	82,068
Solway	74,899	76,683
Alt	62,987	57,758
Severn	57,970	51,216
Strangford Lough	41,452	49,028
Langstone Harbour	41,605	39,978
Swale	(32,424)	39,015
Forth	40,675	38,262
Burry	38,619	36,194
Chichester Harbour	28,408	35,961
Medway	(45,211)	33,226
Mersey	29,563	30,866
Lindisfarne	31,539	30,248
Stour	27,285	26,133
Blackwater	27,446	24,773
Colne	23,577	22,459
Duddon	21,505	21,880
Inner Moray Firth	21,531	19,152
Dengie	23,734	17,599

Bracketed totals refer to sites lacking any complete counts in winter 1988/89.



produce comprehensive reports on the abundance and distribution of waterbirds on the Burry Inlet (Prys-Jones *et al.* 1989) and Cleddau (Prys-Jones 1989) estuarine systems in south Wales. In a different context, integration of BoEE results with other available data permitted analysis of the spatial patterning of the autumn 1988 Curlew Sandpiper influx into the British Isles, as well as progress in understanding the temporal patterning of such events over the years (Kirby *et al.* 1989). Up-to-date assessments of the non-breeding wader populations present on Tieve and Coll (Madders & Moser 1989), the Solent (Kirby & Tubbs 1989) and the Isles of Scilly (Kirby 1989) were also made using BoEE and Winter Shorebird Count data. The Estuaries Unit "Shorelines" feature in BTO News was a regular double-page spread throughout 1989, carrying articles on the Burry Inlet, Cleddau, Hayle, Mersey, Severn and Wash estuaries' as well as on Baltic wader migration.

From limited beginnings in 1987, the quantity of commercial contract work carried out by the Estuaries Unit has expanded greatly. Such studies, none of which is confidential once completed, usually form parts of environmental impact assessments but also provide information often of considerable intrinsic interest. As a result of the increased workload, Dr. Nigel Clark was appointed to the new permanent position of Estuaries Contracts Officer in 1989, with responsibility for day-to-day running of commercial estuaries contracts. The main studies under way in 1989 focused on the Severn and Mersey estuaries. On the Severn, a programme of work in connection with the proposed huge tidal barrage development there was completed for the Energy Technology Support Unit (ETSU) of the UK Government's Department of Energy, and the first reports produced (Clark 1989a,b). In addition, further studies were begun on behalf of the Cardiff Bay Development Corporation, monitoring bird populations that may be affected by the proposed amenity barrage across the mouths of the Taff and Ely rivers, major tidal tributaries of the Severn.

In Liverpool Bay, work under way included studies for ETSU relating to the proposed Mersey tidal barrage, as well as investigations funded by

Shell Oil into the effects on intertidal bird populations of a large oil spill that occurred on the Mersey in August 1989.

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