

THE BIRDS OF ESTUARIES ENQUIRY - SOME RESULTS FROM THE 1985-86 WINTER

Jeff Kirby and Mike Moser

The Birds of Estuaries Enquiry (BoEE) is co-ordinated by the British Trust for Ornithology and co-sponsored by the Nature Conservancy Council and Royal Society for the Protection of Birds. The Enquiry was initiated in 1969 in response to a surge in potential threats to Britain's estuaries. Over 1 000 participants are now involved, carrying out synchronised monthly counts on the majority of Britain's estuaries. The aims, methods and results of the first five years of the BoEE are summarised in *Estuary Birds of Britain and Ireland* (Prater 1981). Information from the BoEE programme is held in the BTO computerised databank for research, conservation and education purposes. This is the first in a series of regular features for the WSG Bulletin giving the latest results from the Enquiry. It covers the 1985-86 non-breeding season, the sixteenth season of monitoring for the BoEE.

The most striking feature of the 1985-86 season was the very large number of waders which returned to winter in the UK. The December count of over 1.4 million waders represents a midwinter record for the Enquiry. In January and February the numbers declined to 1.2 million and 900 000 respectively, largely as a result of the cold weather exoduses of Lapwing *Vanellus vanellus* and Golden Plover *Pluvialis apricaria*, as well as a substantial decrease in the numbers of Knot *Calidris canutus* present. Several species must have had an excellent breeding season in 1985 and were present in record numbers on estuaries - Knot (290 000), Oystercatcher *Haematopus ostralegus* (280 000), Curlew *Numenius arquata* (68 000), Grey Plover *Pluvialis squatarola* (25 000) and Turnstone *Arenaria interpres* (18 000). In E England, the December count of 118 000 Knot on the Wash was the highest count of any single species ever recorded on an estuary for the BoEE, beating the previous record (also for Knot on the Wash) by 9000 birds. The Wash also recorded the highest numbers of waders of any estuary in 1985-86, with a winter peak of over 214 000, followed by Morecambe Bay (145 000), the Humber (83 000), the Dee (77 000) and the Ribble (73 000). More than 50% of the coastal waders wintering in the UK in 1985-86 occurred on the top ten estuaries highlighting the importance of protecting these key sites.

The number of Grey Plovers wintering in Britain has almost quadrupled since the start of the Enquiry in 1969, representing the most spectacular population change of any of the common waders that winter in Britain. The 1985-86 counts show a further increase with the January index (calculated from sites counted in both 1985 and 1986) up by 19% and the December total exceeding the previous highest by 4000 birds. This pattern of increase in Grey Plovers matches closely that of the Dark-bellied Brent Goose (*Branta bernicla bernicla*) which breeds in the same area. Other species which are increasing include Oystercatchers, Ringed Plovers *Charadrius hiaticula* and Turnstones, which all reached record levels in January 1986.

Recent analyses show a fall of 22% in Dunlin *Calidris alpina* populations wintering in Britain, from an estimated population of 550 000 at the start of the Enquiry to the present total of 430 000 (Moser in press). This

decline has not occurred equally on all sites. Indeed a large proportion of the decline can be attributed to changes at three sites only: Lindisfarne (NE England), The Ribble and the Dee estuaries. The peak winter count on Lindisfarne showed a slight recovery in 1985-86 to 12 050 birds; the Ribble winter peak of 6735 was another record low for this site, a fall of 39% from the record high of 61 000 in 1976-77; the Dee also recorded a new low of 8800 birds in 1985-86, a fall of 81% from the record high of 46 826 in 1975-76. Wintering Redshank *Tringa totanus* have also declined by 25% since the inception of the BoEE, and detailed studies are underway to investigate the causes of these declines.

On many estuaries BoEE counts are made throughout the year. A substantial spring passage of Sanderling *Calidris alba* was recorded in May 1986 by BoEE participants. The highest counts were in NW England with 6400 on the Ribble, 3900 at Pilling (Morecambe Bay) and 1760 on the Alt (Merseyside). These counts, representing only a minimum estimate of the numbers passing through Britain, total over 12 000 individuals, which accounts for a very high proportion of the estimated breeding population in Greenland. The estuaries of NW England are therefore extremely important as a staging area for Sanderlings, as are those of the west coast of Britain for many waders migrating north to their breeding grounds.

The data collected by the BoEE is widely used by conservation bodies in site assessments. The most regular users of the BoEE data are the Nature Conservancy Council and the Royal Society for the Protection of Birds, both co-sponsors of the Enquiry. During 1985-86 BoEE data were presented as evidence to two Select Committees in the House of Commons, for the Felixstowe Dock and Railway Bill and the Taff Crossing Bill. Extensive fieldwork was also carried out at sites adjacent to Southend, in order to evaluate the importance of the intertidal areas for waders and wildfowl in relation to a 200 ha recreational development proposal. Moser (in press) used the most recent BoEE data, combined with the results of the 1984-85 BTO/WSG 'Winter Shorebird Count' (Moser & Summers in press), to revise population estimates of waders wintering on Britain's coastline. The analysis resulted in some large changes to previous population estimates with increases in estimates for Grey Plover, Ringed Plover and Turnstone and decreases for Redshank and Dunlin. From this analysis new values have been recommended for use in ornithological site assessments, based on the criterion of 1% of the national population.

The British estuaries are currently facing their greatest threats ever, with major barrage proposals for the Severn and Mersey, two of the very best estuaries for Dunlin in Britain. In addition, there are development proposals for the Plym and Camel (SW England), the Taff (S Wales), at Southend and Felixstowe (E England), and for parts of the Isle of Wight and the Dee. In the face of such threats, the value of the BoEE increases every year. It is essential that we both maintain and improve coverage of our coastal habitats. Offers of help are always welcome.

REFERENCES

- Moser, M.E. in press. A Revision of population estimates for waders (Charadrii) wintering on the coastline of Britain. *Biological Conservation*.
- Moser, M.E. & Summers, R.W. in press. Wader populations on the non-estuarine coasts of Britain and N.Ireland: Results of the 1984-85 Winter Shorebird Count. *Bird Study*.
- Prater, A.J. 1981. *Estuary Birds of Britain and Ireland*. Poyser, Calton.

Jeff Kirby and Mike Moser, British Trust for Ornithology, Beech Grove, Tring, Herts., HP23 5NR, U.K.

N.B. Staffing of the estuaries programme is currently in a state of flux. Mike Moser has left the section to take up his position as the BTO's Director of Development. Jeff Kirby started as Asst. Estuaries Officer on 1st September 1986, and Dr. Robert Prys-Jones will take up his post as Estuaries Officer on 1st January 1987.

1987 BTO SURVEY OF NESTING LAPWINGS *VANELLUS VANELLUS* IN BRITAIN

Michael Shrubbs

Many birdwatchers believe that Lapwings *Vanellus vanellus* are declining rapidly as nesting birds in Britain, particularly in lowland farmland. The evidence is ambivalent: the National Common Birds Census index shows no very sharp decline but there are marked regional differences. My own experience over 25 years in SW Sussex is of reasonably constant numbers - a statement which covers wide fluctuations and a great diminution in breeding distribution. To gain a better insight into these problems the BTO is doing a sample survey of nesting Lapwings in England and Wales in April 1987.

The survey requires one complete count of nesting pairs in a randomly selected tetrad in each 10 km square in England and Wales. The aim is to record both the number of pairs nesting and full details of the habitats used. In farmland, the nesting habitat often differs from that used to rear chicks and loss of preferred nesting habitats may partly account for declines in farmland populations of this species. We are not asking observers to check nests. Counts will be based on incubating birds (which are often easy to spot on short vegetation or bare ground), birds standing guard near nests or displaying birds, with counting done as much as possible from paths, tracks and roads to minimise disturbance; accurate counts are also easier to obtain in this way.

Inevitably this exercise demands careful habitat recording. The objective in counting a strictly random selection of tetrads is to make it possible to compare the results with the MAFF June census. This records cropping on every farm of more than one acre in England and Wales annually, on a county basis and, in some cases, a parish basis. Pilot work for the Lapwing Survey in 1986 suggested that the habitat recording required poses comparatively few problems and definitions of technical farming terms are provided. The most difficult problems arose with autumn cereal fields and

the identification of grass fields. Autumn cereals may or may not be 'tram-lined' and the difference is possibly significant, as it affects the density of crop stands. Lapwings also tend to nest in autumn cereals only if bare patches are present, perhaps as the result of flooding in winter. Observers need to specifically check and record these points in any occupied autumn cereal fields. In grassland, correctly identifying leys, permanent grass and rough grass poses problems for everyone, including farmers! The differences are important, however, and should be made whenever possible. The presence or absence of livestock (cattle, sheep or horses or combinations thereof) is also needed. Otherwise crop recording proved very straightforward. The presence of spring cultivation, for example spring cereals, sugar-beet (or similar crops) or stubble or plough is probably important to nesting Lapwings and accurate details on this subject are quite scarce. Space is also provided to record non-agricultural nesting habitats. A detailed instruction and recording card has been devised and all observers taking part will be supplied with a copy of the 1:25 000 Ordnance Survey maps of their tetrads, on which to record occupied fields and the field boundaries.

The total number of tetrads involved is about 1 600, of which a proportion are in urban or other areas unlikely to attract nesting Lapwings. Realistically I believe we shall need about 500 observers to guarantee full coverage. I know that some regional organisers' observer forces are thinly stretched and help from interested Wader Study Group members would therefore be very welcome. Can you please get in touch with me, as national organiser, at the address below:

Michael Shrubbs, Hillcrest, Llanwrtyd Wells,
Powys, LD5 4TL, U.K.