

WSG CO-OPERATIVE PROJECT ON MOVEMENTS OF WADER POPULATIONS IN WESTERN EUROPE

by Michael W. Pienkowski

Many of the estuaries of western Europe are the subject of proposals for industrial and other developments which would lead to large scale losses of shore-bird habitats. An article detailing the many British estuaries under threat in this way is planned for a future issue.

So that sensible conservation proposals can be formulated and soundly based cases presented at public enquiries a knowledge of the ways in which waders use these estuaries is essential. In the preceding article Peter Evans has outlined the manner in which studies based on marking can help solve the crucial questions, and this article details the first steps in a larger programme which will continue over the next three years.

Two basic questions which always arise when major changes to estuaries are proposed are 'what will happen when the area has gone?' and 'can the birds go somewhere else?'. These are, of course, the most difficult questions to answer. Before we can realistically do so, we need to know the current patterns of movement (or lack of movement) which individual birds make between sites - and we need to know this in a quantitative way. We also need to know the timing of these movements before we can investigate the underlying causes for them.

Counting, ringing, and related studies are giving an increasingly complete picture of the total wintering numbers and general migration systems of most of our coastal wader species. However, until very recently relatively little progress has been made on understanding the detailed movement patterns of the birds once they have reached western Europe. This is because attainment of necessary quantified results requires a great deal of data handling and collaboration between ringers at different sites. A lot of information exists in both WSG files and those of individuals and ringing groups but the time and resources needed to bring this together have not been available. By putting together the resources of the Wader Study Group and a new study at Durham University, commissioned by the (British) Nature Conservancy Council and the European Economic Community, we hope to overcome this.

The project will both make use of existing material and also aim to fill gaps in the data by new co-operative efforts. The latter will make use of the type of marking techniques and associated systematic observation employed successfully by Pat Dugan at Durham University (WSG Bull 27: 19), Hugh Clark, Fraser Symonds and myself on the Firth of Forth (WSG Bull 27: 16-18), Bob Furness and Hector Galbraith on the Clyde (this issue) and Nigel Clark on the Severn, and add to them the experience of the two previous WSG projects in mobilizing a network of observers to count and look for marked birds.

This co-operative project therefore falls into two parts:

- (i) central collection of ringing data, present and past, and
- (ii) a new co-ordinated marking and systematic observational follow-up scheme for this autumn-winter-spring.

Collection of ringing data

Anyone who has tried to analyse material from the old-style WSG data forms or, even worse, field notebooks will not need to be told of the difficulties, especially once one enters the potentially very valuable area of retraps and controls. Several attempts have been made by various people to investigate and quantify aspects such as survival rates, returns to the same site and movements between sites, but almost all have been abandoned because the vast amount of data became impossible to manage 'by hand'.

We shall tackle this problem by using a computer. Not only will this enable our current project to be undertaken but also it will make the data available for future investigations by WSG and its members. The first step is to get the data on to the new WSG coding sheets (WSG Bull 28: 11-14) and send it to us at Durham. We can then transfer the material to the computer, carry out subsequent checks on accuracy of transfer, print out a listing for us and/or the ringer to check manually and then store the data in a form easy of access and use.

Clearly the new forms should be used for all future ringing - and we can handle these forms as they are submitted. However, as Harry Green stressed in WSG Bull 28, our main aim must be to make the valuable stock of data already gathered by WSG members fully usable. Thus we must start transferring existing data to the new WSG data forms (unless groups already use a form of computer storage - in which case they should contact me directly to arrange an easier form of transfer). This will be a large task for some ringers - but we hope they will feel it is worthwhile so that full use can be made of their data. The Wash Wader Ringing Group undoubtedly has the largest problem of this sort but has decided to recode its data in this way. We sincerely hope that other groups will follow suit.

Although we hope eventually (depending on the resources taken up by each species) to transfer the data on all common coastal species to this storage system, there are clear advantages in limiting the range of species being dealt with at any one time. Accordingly we propose to start collecting all existing data on the following three species as soon as people can supply it: Knot Calidris canutus, Sanderling C. alba, Ringed Plover Charadrius hiaticula. (If, however, ringers who lack data on these species are desperate to make a start, they should contact me to discuss alternatives!)

Blank forms and instruction sheets are available in large quantities from Graham Appleton or myself, and completed ones should be returned to me. I will also attempt to deal (by post or telephone) with any queries or problems concerning the use of the forms or the transfer of data to them.

Marking and watching waders 1980-81

The second part of this project concerns one of the gaps that we think the past data cannot fully answer: the extent and timing of onward movement from those important autumn areas, the Wadden~~zee~~/Wattenmeer of the Danish/German/Dutch coasts and the Wash on the east coast of England.

This autumn and winter, working with our colleagues on the continental coastline, we plan to mark with plumage dyes and temporary leg flags large numbers of waders of various species in these two estuarine complexes. We then need sightings of the marked birds. However, whilst any casual sightings will, of course, by very welcome, we really want more precise results than that. We would like observers to agree to make frequent checks at particular coastal sites to count the birds and check for marks: it is important to obtain systematic coverage of areas both where no marked birds are likely to turn up and also where they are likely to go. Weekly (or more frequent visits) would be ideal but less frequent visits would still be useful. However, we must stress that the timings of movements, not just their occurrence, is a most important aspect of our investigations - so the more frequent the visits the better.

We would like coverage of as many sites around the British Isles and on the coast of mainland Europe (and NW Africa if anyone is there to help) as possible. A form on which to register an interest in this project is enclosed with this issue of the Bulletin. Please complete and return it if you think you might be able to help.

Michael W. Pienkowski, Department of Zoology, University of Durham, South Road, Durham DH1 3LE, England
(Telephone 0385-64971 Extn 579 ; home 0385-733057)