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Humber Estuary Low Tide Count Programme 2003-2004

Report Authors: L Mander & N Cutts, 2005

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Introduction

Information on, and management of the internationally important waterfowl populations on the Humber Estuary rely heavily on data from the national WeBS Core Counts scheme, which is run by the WeBS partnership (British Trust for Ornithology (BTO), the Wildfowl and Wetlands Trust, the RSPB and the JNCC (on behalf of English Nature, CCW and SNH)). Undertaken at high water, these counts provide an accurate assessment of population size as birds are concentrated onto the upper shore and adjacent areas. However, the importance of low and mid shore areas is not well demonstrated by this methodology. To gain a more accurate assessment of the distributions and densities of birds feeding and roosting on intertidal areas at low tide, the WeBS Low Tide Count scheme was initiated by the BTO in 1992/3 to census the main UK estuaries at low water on a 5 - 7 year rotational basis. This report presents the results of the second Low Tide Count Programme on the Humber, following a previous count in 1998/99 (also instigated and funded by English Nature).

What was done

English Nature commissioned the Institute of Estuarine and Coastal Studies (IECS) to coordinate and report on a year long Humber Low Tide Count Programme. The basic methodology followed the UK Low Tide Count methodology, as described by Musgrove et al (2003). Over 40 skilled volunteers undertook 12 monthly counts of all waterfowl on 40 count sectors between September 2003 to August 2004. The count sectors used were coincident with (or subdivisions of) those used for the Humber Core Counts and 1998/99 Low Tide Programme. Counts were timed to coincide with the dates of the Core counts on the estuary, and were restricted to a period two hours either side of low tide on all sectors, except in the outer estuary where the extent of intertidal habitat necessitated counts at mid-water. The results of the Count Programme were analysed to detect changes in species abundance and to identify the within-sector densities and cross-site distributions of key species by season. The results for these species are presented in the context of both the 1998/99 Low Tide Counts and wider contextual information.

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Results and conclusions

In terms of species composition and spatial distribution, the findings of the 2003/04 study were generally consistent with those of the 1998/99 programme. For many key species, the 2003/04 counts exceeded those of the previous study reflecting, at least in part, the increased spatial coverage achieved. Species composition was found to vary across the estuary, with the distribution of waders and wildfowl on intertidal areas reflecting several factors including sediment type, prey distribution and densities, mudflat morphology, and the extent of saltmarsh and other habitats.

English Nature's viewpoint

The estuary is a dynamic system, facing a series of changes including sea level rise, development pressures and habitat creation. The results of the Humber 2003/04 Low Tide Count programme add value to those of the previous Low Tide Count Programme and the ongoing WeBS Core Count programme. Together, they improve understanding of the Humber's waterfowl populations and site usage, will assist in the targeting of conservation efforts to greater effect and help to inform the many decisions that must take account of nationally and internationally important bird populations on the Humber. They also have numerous additional potential research applications.

Both English Nature and IECS wish to acknowledge the substantial and invaluable contribution of the Humber volunteer bird counters, without whose dedication and expertise this project, the previous Humber Low Tide Count Programme and the WeBS Core Counts would not be possible.

Selected references

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Further information

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