

FURTHER RECLAMATION ON THE WASH ?

by Rowena Cooper

The Wash in eastern England is a site of major international importance for its wader populations. It supports at least eight species of waders in internationally-important numbers (Prater, A.J. 1981. *Estuary Birds*. Poyser, Calton). It is an area of great importance for the West European flyway populations of many waders as a wintering site, and during moult and migration stop-overs. The Wash has a history of reclamation for agriculture dating from about Saxon times. Reclamation involves the enclosure of saltmarshes by earth embankments to prevent tidal inundation. Levelling and drainage of the enclosed land then follows.

In 1978, Lincolnshire County Council (LCC) prepared a Structure Plan which determined local planning and development policies for the County and District Councils in Lincolnshire up to 1991. After consultations with agricultural and conservation organisations, the County Council incorporated the policies in the Structure Plan that:

1. 'Planning permission will not be forthcoming for the construction of sea banks and engineering works necessary to reclaim the saltmarshes on the coast of Lincolnshire, north of Mablethorpe', and
2. 'Planning permission will not be forthcoming for the construction of sea banks and engineering works necessary to reclaim saltmarshes between Gibraltar Point and Wingland during the period 1980 to 1986'.

These areas are shown in Figure 1.

Lincolnshire County Council proposed these moratoria on further reclamation of saltmarshes, effective from 1980, to allow accumulation and assessment of scientific information about the effects of reclamation on the ecology of the Wash. Existing knowledge was considered to be inadequate. At the end of the moratoria, the LCC proposed to review its attitude and decide whether agricultural or conservation interests should prevail throughout the Structure Plan period. However, objections to the moratoria were made by the Ministry of Agriculture, Fisheries and Food (MAFF), the National Farmers Union (NFU), the Parish Council of North Somercotes, the District Councils of East Lindsey and South Holland, and the Land Improvement Group. This last is a commercial company concerned with an application for reclamation at Sutton Bridge, on the River Nene - see Figure 1. These objections led to a Public Local Inquiry, held at Spalding, Lincolnshire between 7 and 21 June 1983. Below, I summarise the arguments for and against the moratoria on reclamation that were presented at the Inquiry.

The objectors attitude was that individual reclamations should be considered on their own merits, and not subjected to the blanket refusal incorporated in the Structure Plan. MAFF considered that the moratoria are contrary to government policy (which is to encourage efficient agricultural production), because virtually all the saltmarsh reclaimed in Lincolnshire contributes to the stock of top quality agricultural land (Grades 1 and 2 on the MAFF scale). Only 17% of agricultural land in England and Wales is of these grades, and the Wash is the main area for reclaiming such land. MAFF stated that the reclaimed land produces high quality crops, increases our self-sufficiency, and helps Britain's balance of payments by contributing to the export market. (However, just how economically justified reclamation is, in view of the grant-aid and crop subsidies currently available, must remain questionable.) Reclamation also ameliorates losses of agricultural land elsewhere to other developments, notably forestry. MAFF claimed that the delay imposed by the moratoria may lead to deterioration of the land now ripe for reclamation, through the deposition of additional clays, although this is disputed.

The Nature Conservancy Council supported the moratoria.

The low-water mark has remained static in the Wash at least since 1828, so that the long-term effect of continued reclamation is to reduce the intertidal area of mud and sand-flats, since new saltmarsh will accrete outside the new sea-wall and other intertidal zones will become compressed. NCC anticipate a loss of 12 - 17% of the existing intertidal areas of the Wash during the next 100 years. This follows a reduction of 20% during the last 150 years. The factors determining the numbers of birds using an estuary are still, in many cases, poorly understood. Further studies are needed to find out the impact, on shorebird populations in particular, of continued loss of intertidal feeding areas in the Wash and elsewhere. The immediate loss of mature saltmarsh following a reclamation is also of concern to the NCC, both because of the removal of a habitat which is becoming increasingly rare in the Wash as well as elsewhere, and because of the damaging effect on breeding wader populations. Whilst saltmarsh accretion does occur against a new sea-wall, its development is often truncated and reclamation prevents the vegetation from reaching its climax state. The moratoria were also supported by the Royal Society for the Protection of Birds, and

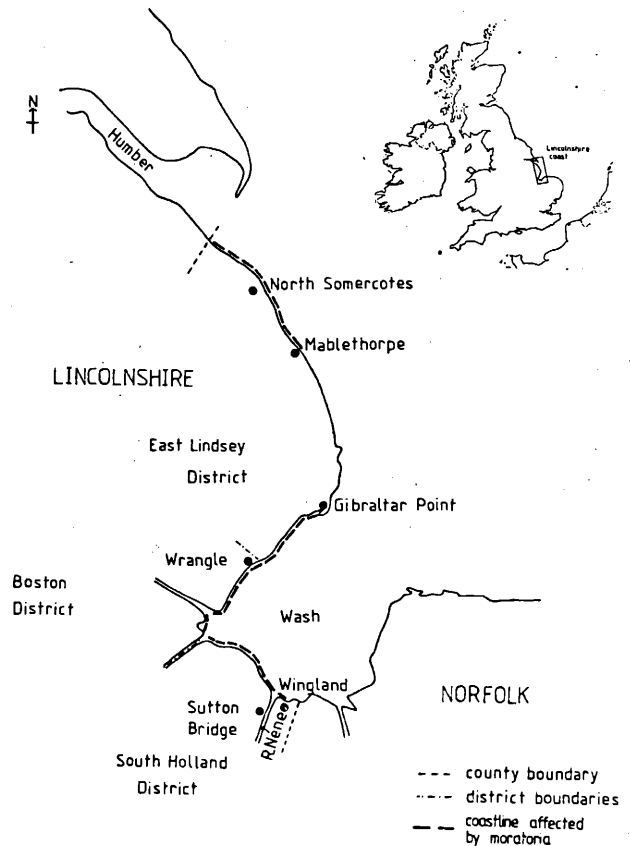


Figure 1. The Lincolnshire coast, showing regions where moratoria on reclamation are effective.

the Lincolnshire and South Humberside Trust for Nature Conservation, and Norfolk County Council.

The sediment budget of the Wash has been a key issue in the Inquiry. Conflicting theories were presented in the evidence for and against the moratoria: there is uncertainty as to whether there is a finite supply of sediment to the Wash, and as to whether sediments are coarsening. Also, the effects on sediments of compression of the intertidal area through reclamation are not clear. NCC has proposed a two-year study by the Hydraulics Research Unit, and are seeking funding of several hundreds of thousands of pounds for the study. The outcome of such a sediment study would, however, be of interest to all participants in the debate on reclamation.

On the Wash, the moratorium has only three further years to run. Planning appeals have been referred to the Secretary of State for the Environment for a decision on whether the Structure Plan policies should be up-held. Both MAFF and the NFU consider that the Wildlife and Countryside Act 1981 is adequate protection for SSSIs (Sites of Special Scientific Interest, designated by the NCC). However, it must be emphasised that the provisions of the Wildlife and Countryside Act are an adjunct to current planning legislation, intended for cases where planning permission is not required. Planning permission is not needed if a saltmarsh is already considered to be used for agriculture, for example grazing. Most of the potentially-reclaimable saltmarsh sites on the Wash are of this nature and so are likely to come under the Wildlife and Countryside Act rather than the moratorium. The first of these sites proposed for reclamation is the outmarsh at Wrangle (see Figure 1), which the Secretary of State for the Environment has recently declared to be exempt from planning permission. Under the provisions of the Wildlife and Countryside Act, the NCC will be attempting to negotiate management agreements with the landowners at Wrangle. The outcome of these may indicate the future prospects for the conservation of much of the saltmarsh on the Wash.

At the time of writing, only the NFU have yet to present their evidence. The verdict on the moratoria is expected from the Inspector at the Public Inquiry later this year.

Rowena Cooper, Department of Zoology, University of Durham, South Road, Durham DH1 3LE, U.K.

DECREASES IN THE WEIGHTS OF DUNLINS AND CURLEWS IN THE DUTCH WADDEN SEA DURING A COLD SPELL

by Steltloperringroep F.F.F.

Prompted by the recent boom in studies of the effects of severe weather on mortality and body condition of waders in Western Europe, we present here a short note on decreases in the weight of Dunlins *Calidris alpina* and Curlews *Numenius arquata* during a cold spell in February 1982 in the Dutch Wadden Sea.

On 13 February 1982 we were mist-netting 13 adult Dunlins and 18 Curlews on the mudflats near Wierum, Friesland (53°24'N, 06°01'E). On 26 February 1982 we caught 5 Dunlins (4 adults and 1 second-year bird) and 8 Curlews on the same site. The birds were weighed with Pesola spring-balances and were all processed within one hour after capture.

As the wing-length and bill-length of both species did not differ on the successive dates (Table 1), it is likely that the samples were taken from the same groups of birds, and that the effects of differences in body size on weight will have been minimal. The sex ratio of the Curlews was approximately the same on both dates: using data on wing-length and bill-length from the Wadden Sea (figure 123 in Boere & Smit 1980), we estimate that the percentage of males in the samples was 72% on 13 February and 75% on 26 February.

Table 1 shows that between 13 and 26 February the decrease in mean weights of Dunlins was 5.3%, but that the difference was just not statistically significant. An individual Dunlin caught on both evenings decreased in weight from 53 g to 48.5 g (8.5%). The mean decrease in weight of the Curlews was 9.8%. This difference was statistically significant.

Table 1. Biometrics of Dunlin and Curlew caught on the mudflats near Wierum, the Netherlands on two dates in February 1982.

		13 February			26 February			Students' t test
		n	mean	SD	n	mean	SD	
Dunlin	Wing	13	121.8	2.2	5	121.2	1.9	NS
	Bill	13	33.2	2.6	5	33.1	2.9	NS
	Weight	13	54.5	4.6	5	51.6	2.6	0.05 < p < 0.10
Curlew	Wing	18	310.7	11.9	8	307.4	11.3	NS
	Bill	18	126.0	11.5	8	127.2	14.1	NS
	Weight	18	932.5	90.6	8	841.3	88.4	p < 0.025