

HUMBER MANAGEMENT SCHEME

Land Use

High Tide Roosts

Lead author: English Nature - Emma Hawthorne and Kate Jennings.

Additional Input: Nick Cutts, IECS. Ian Higginson & Nicola Melville, RSPB.

The land use to be covered in this annex relates to the use of high tide roosts adjacent to the Humber Estuary, but outwith the boundary of the European marine site. However, these high tide roosts are an important habitat for many of the SPA birds, and relevant authorities are required to have regard to such adjacent interests.

Hard sea defences confine much of the Humber Estuary and this has led to 'coastal squeeze', whereby intertidal habitats are squeezed between sea defences and rising sea levels. This, and extensive land claim on the estuary has resulted in few areas being left uncovered at high tide, which are suitable for wildfowl and waders to roost on. In addition, there is little pasture or grazing marsh behind the sea walls.

Areas outwith the European marine site that are important as high tide roosts for the SPA birds, are widely distributed throughout the estuary. They include areas of wet grassland such as Brough airfield and Long Bank Marshes at Kilnsea. The pasture at the Grues and at Immingham is also an important roosting site, and the fields at Alkborough, Swinefleet and Blacktoft support large flocks of golden plover and lapwing.

Roosting curlew also use the bank and pasture up to the railway line between Crabley and Brough.

Arable fields behind the floodbank are also used as high tide roosts and feeding areas. Although permanent pasture provides a better source of invertebrate prey, the lack of pasture around the Humber means that birds are often found roosting on arable land. In numerical terms, the golden plover and lapwing inland high tide roosts are the most important, and they are proportionally the most significant. The greatest proportion of the Humber population of these species moves off the estuary to roost, as unlike waders they will not move onto upper shore areas during high tides, preferring to move off the estuary completely. These golden plover roosts often support the entire Humber population at many states of the tide. Since the majority of these birds use arable roosts they are highly reliant on crop type and agricultural activity. It can be argued that the dramatic increase in golden plover on the Humber in the late 20th Century reflects the change from spring to autumn sown crops (Nick Cutts, pers com). Cereal fields are now clear by late July or early August in time for returning golden plover to use them. In the past, these large areas would not have been available until late September.

The high tide roosts tend to comprise large, mixed species flocks, although the largest roosts are often single species flocks of 5-10,000 golden plover, as there is safety in numbers. The areas used tend to be open with short vegetation and unrestricted viewlines, which the birds require to scan for predators and other potential threats. The presence of shallow open water also reduces the risk from ground predators.

HUMBER MANAGEMENT SCHEME

The distribution of high tide roosts is believed to be related, (at least in part), to the location of feeding areas. For example, North Killingholme Haven Pits was used by wildfowlers in the past, but the pits are now managed by Lincolnshire Wildlife Trust and are an important high tide roost, particularly for black-tailed godwits. Since the use of these pits as a roost has increased, so has the use of the Immingham foreshore as a feeding area. This suggests that in areas where food is abundant, bird numbers may be limited by the availability of roosting sites nearby. There may also be an issue of birds using excessive energy levels if they have to fly long distances to roost, or are continually disturbed over the high tide period when their food source is covered by the tide. In addition, species such as black-tailed godwit are highly reliant on certain sectors of the estuary for feeding and roosting.

Some birds will also use hard structures to roost on, such as jetties and piers, which are used by ringed plover and turnstone. Seawalls are also used for roosting, such as those at Immingham docks, Pyewipe, Humberston and the Hull frontage.

(Along the Lincolnshire Coast, the intertidal zone is sufficiently wide for birds to roost seaward of the floodbank on most tides, and therefore the provision of high tide roost sites landward of the floodbank is not such an issue in this area.)

Management

English Nature

Defra - management agreements

Local authorities (in terms of planning consents for development) ABP/Crown Estates as a statutory body and landowner on the estuary

Current management objectives

Objectives are to maintain areas of pasture with short sward height during autumn and winter for waders and wildfowl to roost on. Areas adjacent to the estuary are particularly important. Also to provide new areas where appropriate.

To protect existing roost sites from development pressures.

The lack of pasture and grazing marsh on the Humber highlights the importance of low levels of anthropogenic disturbance at these roost sites.

Current management for nature conservation

The Habitats Regulations can protect important roost sites, provided that there is sufficient data on the usage of the site by SPA birds.

Further Information

Allen et al., 2003 The Humber Estuary: A comprehensive review of its nature conservation interest. Peterborough English Nature Research Reports.

Catley, G. 2000. Humber Estuary wetland bird survey. Twelve months of high and low tide counts September 1998 to August 1999. Peterborough: English Nature Research Reports, No. 339.

Factors arising from the activity

Changes to land use – for example development, changes in agricultural practice.

Public rights of way across areas used as roosts will cause disturbance.

Presence of overhead power lines may also limit the suitability of an area to be used as a roost site.

| Activity | Location | Present /historic levels of activity | Existing management Responsible Organisation | Relevant authority Bold = Lead | Possible effect on features | Significant Effects |
|---|--------------------|--------------------------------------|--|-----------------------------------|--|---------------------|
| E1/ Changes in land use and/or vegetation type | Throughout estuary | High/ Lower | EN Defra LA | Defra EA EN LA | Physical loss: Loss of high tide roosting areas for SPA birds for e.g. through development or through a change in the timing of harvesting and ploughing. | YES |
| | | | | | Non-physical: disturbance Public rights of way across areas used as roosts will cause disturbance. Wildfowling and game shooting will also cause disturbance. Repeated disturbance will lead to increased energy expenditure and may affect the birds' survival. | YES |

Internal Natural factors

Severe weather conditions will limit the suitability of low-lying, exposed pasture as a suitable high tide roost during these conditions. Birds will often roost further inland to avoid the worst weather. In prescribing management, it may be possible to aim to provide areas with suitable shelter such as that found at North Killingholme Haven Pits where the water bodies and islands can shelter birds (Ian Higginson, pers com).

External factors

The high tide roosts on pasture and arable land are outwith the boundary of the site, however they are important to the waterfowl species of the SPA.

Arable land use influences the provision of roosts, and timing of activities such as harvesting and ploughing. As discussed in Section 1.1, it is possible that golden plover populations on the Humber increased following a switch from spring to autumn sow and earlier harvest dates. Frequent use of these areas for recreational activities may lead to significant disturbance.

Future management

Rationale

Due to coastal squeeze, the opportunities for high tide roosts on the estuary are limited, and therefore areas of suitable agricultural land above the high water mark are of high importance. In addition, a number of favoured roost sites are threatened by development. Loss of arable high tide roosts may be replaceable in terms of habitat area but, as many roost sites are used habitually and are close to feeding areas, there may be issues linked to longer flight periods and energy budgets (Nick Cutts, pers com).

Management Action

| Activity | Factor | Proposed management actions | Timetable | Implementation Bold = Lead RA |
|--|--------|--|---|----------------------------------|
| E1/ Changes in land use and/or vegetation type | F5 | <p>Monitor and review high tide roosts around the Humber.</p> <p>Promote the development of further high tide roosts on the estuary. (The EA's Shoreline Management Plan may help to deliver on this).</p> <p>Promote the take-up of Countryside Stewardship Schemes on SSSIs via or English Nature Management Agreements.</p> <p>Monitor bird numbers landward of the sea wall via revised WeBS counts to provide separate data for the HEEMS and the terrestrial habitat.</p> <p>Develop and implement Biodiversity Action Plan targets for creating coastal grazing marsh and other relevant habitats.</p> <p>Review the need for a buffer zone between the estuary and industrial development where appropriate.</p> | <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing via promotion with WeBS counters</p> <p>Humber BAP draft 2002</p> <p>Ongoing</p> | EN LA |
| | F6 | <p>Application of the Habitats Regulations for future developments</p> | | |