5. Lindisfarne

Geographical Coordinates 55°41'N 1°48'W Area 3,625ha

Location Coastal zone extending south from the town of Berwick-upon-Tweed, to include most of Holy Island and Budle Bay, in the county of Northumberland, north-east England.

Date of Ramsar Designation Original designation 5 January 1976; site extended from 3,123ha on 11 March 1992.

Other international designations Special Protection Area under EC Directive 79/409.

National Designations National Nature Reserve (NNR); Site of Special Scientific Interest (SSSI); Area of Outstanding Natural Beauty (AONB); Heritage Coast.

Principal Features The site contains extensive intertidal flats, together with a large area of saltmarsh, the lower part of which is dominated by *Spartina anglica*. The shoreline is partly rocky, but there is also a major sand dune system with well-developed dune slacks. The sand and silt flats support beds of *Zostera*, which provide food for an internationally important flock of wintering *Branta bernicla hrota* (2,428*) of the Spitzbergen breeding population. Other birds wintering in internationally important numbers* include *Anser anser* (2,990), *Anas penelope* (15,224), *Charadrius hiaticula* (577), *Limosa lapponica* (6,027) and *Tringa totanus* (3,275). The average peak count of all wintering water birds regularly exceeds 20,000 individuals (54,317*). The dune systems support a rich flora and diverse invertebrate fauna and the site is of national importance for breeding terns, including *Sterna dougallii* and *S. albifrons*. (1a,2c,3a,3b,3c)

Conservation Issues Tourism is an important industry in coastal Northumberland and up to 750,000 visitors are attracted to Holy Island each year, presenting a number of management difficulties (e.g. sewage disposal from caravan sites). The impacts of bait-digging, controlled hunting, wind surfing and micro-light aircraft are also being carefully monitored. Bye-laws and foreshore zonation have recently been introduced to control bait-digging, while English Nature and National Rivers Authority have agreed a programme of work to reduce or eliminate point sources of domestic sewage pollution. The colonisation of intertidal flats by *Spartina anglica* has been mirrored by a decline in *Zostera*. Chemical control measures have been used with some success in an effort to limit the spread of *Spartina*. It may be desirable to set aside agricultural land within the site to permit natural landward movement of saltmarsh in response to rising sea levels.

^{*}All figures are average peak counts for the five winters 1987/88 to 1991/92