



## DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

### DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT CARLINGFORD LOUGH, COUNTIES DOWN AND ARMAGH. ARTICLE 24 OF THE NATURE CONSERVATION AND AMENITY LANDS (NORTHERN IRELAND) ORDER 1985.

The Department of the Environment for Northern Ireland (the Department), having consulted the Council for Nature Conservation and the Countryside and being satisfied that the area delineated and described on the attached map (the area) is of special scientific interest by reason of its flora, fauna and geological interest and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the 'Carlingford Lough area of special scientific interest'.

The Carboniferous series at Greencastle and Soldiers Point belong to the Carlingford Limestone Group. The limestones at Soldiers Point are fossiliferous with a middle to late Arundian age (some 339 million years old) as indicated by the brachiopod Delepinea carinata and the solitary coral Siphonodendron martini. The range of facies includes limestones together with calcareous sandstones and siltstones. This series comprises the only known rocks of Arundian age in Northern Ireland which rest directly on an older Palaeozoic basement. As such, they are a vital link in our understanding of Carboniferous basin evolution in north-east Ireland.

The Carlingford Lough area contains evidence of complex late-glacial interactions between major ice masses lying within the lough and off-shore in the Irish Sea. A major moraine system reaching the coast at Cranfield Point represents one halt in the retreat phase of the Carlingford glacier while a series of sediments provide evidence of deposition in a glaciomarine environment. Contorted bedded muds indicate disturbance possibly associated with a glacial readvance. Post-glacial raised beach facies are also represented.

The upstream extent of the area includes the very narrow channel of the Newry River and associated deep mud banks.

Carlingford Lough exhibits a range of unusual and rich littoral communities. The current swept lower beach at Cranfield Point holds the highest intertidal densities of the sea-potato Echinocardium cordatum in Northern Ireland. This species is normally sublittoral. Mill Bay shows a unique community association in Northern Ireland with a boulder based fucoid zonation superimposed on a wide mud and sand dominated intertidal sedimentary flat. Channelled Wrack Pelvetia canaliculata grades down shore into Spiral Wrack Fucus spiralis with successive bands of Knotted Wrack Ascophyllum nodosum, Bladder Wrack Fucus vesiculosus, and Toothed Wrack Fucus serratus towards low tide. Examples of three out of the four major intertidal

sedimentary communities found in Northern Ireland are present in Mill Bay. There is a moderate/sheltered sand community containing the Thin Tellin bivalve Tellina tenuis present along the seaward edge. Muddy sands towards the coastal fringe support Common Cockle Cerastoderma edule, the Baltic Tellin Macoma balthica and a high polychaete worm diversity. Finally, at the landward edge of the flats, a muddy community consisting of Laver Spire Shell Hydrobia ulvae, the Peppery Furrow Shell Scrobicularia plana, Sand Gaper Mya arenaria, Fabricia sabella and the amphipod Corophium volutator, is typical.

The shore for 1.5 km north from Killowen Point is a sheltered boulder shore very rich in invertebrate species. A number of normally sublittoral species occur here within the intertidal zone including the anemone Metridium senile, (here at its only Northern Ireland intertidal location), Feather-star Antedon bifida, the starfish Solaster endeca and Green Sea-urchin Psammechinus miliaris. This is the only example of this type of shore community in Northern Ireland outside Strangford Lough.

The botanical interest of this site is centered within the Mill Bay area and is related primarily to the saltmarsh vegetation located along the foreshore and to the localised but frequent beds of Dwarf Eelgrass Zostera noltii covering the intertidal mudflats.

Large areas of saltmarsh are rare and under threat in Northern Ireland as most have been subjected to considerable grazing pressure or have disappeared either through natural erosion or as a result of commercial development. The Mill Bay area supports the largest remaining intact block of saltmarsh in Northern Ireland. The saltmarsh here exhibits an extremely clear and characteristic successional zonation from open mud flats to upper brackish marsh, while displaying a classic pattern of drainage channels (creeks), pools (saltpans) and hummocks. The range of saltmarsh communities which are found in the zonation sequence is diverse, comprising lower and middle saltmarsh communities along channels and the coastal margin, and backed by extensive expanses of Sea Rush Juncus maritimus brackish marsh around the mouth of the White Water River. These communities incorporate many typical saltmarsh plants, as well as a number of species with more restricted distributions, such as English Scurvygrass Cochlearia anglica, Lax-flowered Sea-lavender Limonium humile, Frosted Orache Atriplex laciniata and Sea-purslane Atriplex portulacoides. Also of note are the remnants of the transitional sequence from saltmarsh to fen vegetation as this element is now lost from most saltmarsh areas due to recent agricultural activities.

Carlingford Lough is also significant for wintering and breeding birds. The wintering population of Pale-bellied Brent Goose Branta bernicla hrota is of international importance, with an average of 255 birds, representing some 1.3% of the world population. It also holds nationally significant numbers of wintering Great Crested Grebe Podiceps cristatus (an average of 200 birds, 6.7% of the all-Ireland wintering population), Shelduck Tadorna tadorna (233, 3.3%), Scaup Aythya marila (342, 11.4%), Red-breasted Merganser Mergus serrator (36, 1.8%), Oystercatcher Haematopus ostralegus (783, 1.6%), Dunlin Calidris alpina (1598, 1.3%), Redshank Tringa totanus (676, 2.8%) and Greenshank Tringa nebularia (12, 1.4%).

Carlingford Lough is internationally important for its breeding Roseate Tern Sterna dougallii, holding some 4.3% of the European Community population. In addition three species of breeding tern are nationally significant within the site. Sandwich Tern Sterna sandvicensis, Common Tern Sterna hirundo and Arctic Tern Sterna paradisaea are regularly present although

they can undergo population fluctuations. Population sizes are 59 pairs (1.6% of the Irish breeding population), 218 pairs (10.4%) and 64 pairs (2.7%) respectively.

The invertebrate community of the saltmarsh in Mill Bay is also of interest, being one of the most species-rich in Northern Ireland. Several species of predatory beetles have been recorded. The pools in the saltmarsh support a few brackish water beetles, including Helophorus fulgidicollis at its only recent site in Northern Ireland.

## SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora, fauna and geological interest of the area:

- 1 Any activity or operation which involves the damage or disturbance by any means of the surface and subsurface of the land, including ploughing, rotovating, harrowing, reclamation and extraction of minerals, including rock, sand, shingle, shell, gravel and peat.
- 2 Any change in the present annual pattern and intensity of grazing, including any change in the type of livestock used or in supplementary feeding practice.
- 3 Any change in the established method or frequency of rolling, mowing or cutting.
- 4 Any change in the annual pattern of application of manure, slurry or artificial fertiliser.
- 5 The application of herbicides, fungicides or other chemicals deployed to kill any form of wild plant, other than plants listed as being noxious in the Noxious Weeds (Northern Ireland) Order 1977.
- 6 The storage or dumping, spreading or discharge of any material not specified under (4) or (5).
- 7 The destruction, displacement, removal or cutting of any plant, seed or plant remains, other than for
  - (i) plants listed as noxious in the Noxious Weeds (Northern Ireland) Order 1977;
  - (ii) normal cutting or mowing regimes for which a consent is not required under (3).
  - (iii) the exercising of rights on established wrack beds.
- 8 The release into the area of any animal (other than in connection with normal grazing practice) or plant. 'Animal' includes birds, mammals, fish, reptiles, amphibians and invertebrates; 'Plant' includes seed, fruit or spore.
- 9 Burning.
- 10 Afforestation and planting.

11. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.
12. Alteration of natural or man-made features, the clearance of boulders or large stones and grading of rock faces.
13. Sampling of rocks, minerals, fossils or any other material forming a part of the site, undertaken in a manner likely to damage the scientific interest.
14. Operations or activities which would affect wetlands (including marsh, fen, rivers, streams and open water), e.g.
  - (i) change in the methods or frequency of routine drainage maintenance;
  - (ii) modification to the structure of any watercourse;
  - (iii) lowering of the water-table, permanently or temporarily;
  - (iv) change in the management of bank-side vegetation.
15. The killing or taking of any animal in a manner likely to affect the continued existence of the species within the area except as provided for under the terms of the Wildlife (Northern Ireland) Order 1985.
16. The following activities undertaken in a manner likely to damage or disturb the wildlife of the area:
  - (i) educational activities;
  - (ii) research activities;
  - (iii) recreational activities;
  - (iv) exercising of animals.
17. Changes in game, waterfowl or fisheries management or fishing or hunting practices.
18. Use of vehicles or craft likely to damage or disturb the wildlife of the area.

Sealed with the Official Seal of the  
 Department of the Environment for  
 Northern Ireland on 03 October 1996



**ROBERT C MARTIN**  
**Chief Executive**

*H. Spratt*  
 CIVIL SERVANT  
 CLARENCE COURT  
 BELFAST

## FOOTNOTES

- (a) Please note that consent by the Department to any of the above operations or activities does not constitute planning permission. Where required, planning permission must be applied for in the usual manner to the Department under Part IV of the Planning (NI) Order 1991. Operations or activities covered by planning permission are not normally covered in the list of Notifiable Operations.
  
- (b) Also note that many of the operations and activities listed above are capable of being carried out either on a large scale or in a very small way. While it is impossible to define exactly what is "large" and what is "small", the Department would intend to approach each case in a common sense and practical way. It is very unlikely that small scale operations would give rise for concern and if this was the case the Department would normally give consent, particularly if there is a long history of the operation being undertaken in that precise location.