

DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT STRANGFORD LOUGH (PART 2), COUNTY DOWN. 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 Committee for Nature Conservation and being satisfied that the area of land and intertidal foreshores down to low water mark on the seaward side of the solid black line and enclosed within the broken black lines over water on the attached map (the area) is of special scientific interest by reason of the flora and fauna and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the "Strangford Lough (Part 2) area of special scientific interest".

Strangford Lough as a whole is one of the largest sea-loughs in Northern Ireland, and possesses a landscape of drowned drumlins and raised beach terraces which have been shaped by the Quaternary glaciation. The drumlins display various stages of wave erosion, with a number of them reduced to rocky islets and reefs, known locally as "pladdies". The intertidal zone covers approximately 50 km² and the diversity of the marine habitats is internationally renowned. The many different intertidal habitats are identifiable on the basis of substrate type and wave exposure with each one supporting a characteristic range of species; no comparable area in Northern Ireland has so wide a range of either habitats or species. There are a number of species of interest because they are near the northern (eg Diodora apertura (Keyhole Limpet), Elysia viridis (a sea slug), Cereus pedunculatus (Daisy Anemone)) or southern (eg Acmaea tessulata (Tortoise-shell Limpet), Leptasterias mulleri (a starfish)) extremes of their ranges. The richness of the marine flora and fauna can largely be attributed to physiographical features resulting in the immense tidal flow through The Narrows, the range and timing of the tidal variations in the lough and the wide variety of substrates which occur. The lough as a whole represents a unique and extremely complex, integrated system.

The Strangford Lough (Part 2) area of special scientific interest contains representative areas of a large number of intertidal habitats ranging from soft mudflats to steeply faced bedrock. The principal physical factor influencing these various intertidal habitats is the exceptional flow of water through The Narrows and this gives rise to an extremely diverse flora and fauna. A considerable number of species exhibit the "emergence phenomenon", where typically sublittoral organisms are found living on the shore.

Large numbers of filter-feeding organisms take advantage of the high plankton turnover provided by the exceptional water movement. Many phyla are represented including the Porifera (sponges eg Hymeniacidon sanguinea and Myxilla incrustans), Bryozoa (sea-mats), Sipunculoidea (cylindrical-shaped worms eg Golfingia elongata) and Chordata (sea-squirts eg Dendrodoa grossularia and Corella parallelogramma). The Phylum Cnidaria is represented by numerous species of both the Class Hydrozoa and the Class Anthozoa. Of the latter class, notable species found on the shore include the usually sub-tidal soft-corals Alcyonium digitatum (Dead Man's Fingers) and Alcyonium glomeratum, which is at the northern extreme of its range, and the true coral Caryophyllia smithii (Devonshire Cup Coral), which is only very rarely found intertidally. The diversity of sea-anemones is extremely high. Burrowing species, all of which occur normally only at extreme low water spring tides and below, are Cerianthus lloydi, Halcapa chrysanthellum, Sagartia sp., Peachia cylindrica, Edwardsiella carnea and Cereus pedunculatus (Daisy Anemone), the latter being near the northern extreme of its range. Rocky substrate anemone species include Tealia felina, Anemonia sulcata (Snakelocks Anemone) and Actinia equina (Beadlet Anemone).

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The latter species is particularly notable at Rue Point, where very large populations form carpets of anemones around the mid shore. Metridium senile (Plumose Anemone), a species which it is most unusual to find on the shore, and Corynactis viridis (Jewel Anemone) which is at or near the northern extreme of its range are both found on the low shore, particularly around Rue Point.

The various soft sediments range from soft mudflats around Castle Island and Gores Island, through muddy sand such as at Bar Hall Bay, to clean sandy bays like those at Kilclief Bay and Mill Quarter Bay. The soft mudflats support dense communities of a variety of burrowing organisms including numerous spionid worms of the genera Nereis and Nephtys and the bivalve mollusc Macoma balthica (Baltic Tellin) and the amphipod, Corophium volutator. The rare priapulid worm, Priapulus caudatus, which is the only known British representative of this very unusual group of animals, is found around Gores Island.

The muddy sand in Bar Hall Bay contains a large population of Lanice conchilega (Sand Mason Worm); this is an uncommon species in Strangford Lough. The muddy shell-sand and gravel beaches around Black Island and Green Island to the north of Ballyquintin Point have a rich meiofauna and are the type locality for two species; the gnathostomolid, Austrognathia boadeni, and the turbellarian Retronectes terpsichore.

The sandy shore at Kilclief Bay supports very dense populations of various deep burrowing organisms including Ensis siliqua (Pod Razor Shell) and the echinoderms Echinocardium cordatum (Sea-potato) and Acrocrida brachiata, a peculiar burrowing brittle star.

There are a number of sheltered boulder shores which all have a very species-rich flora and fauna, locations of special note include the shore around Ballyhenry Island, where there are luxuriant growths of the unusual free-floating form of the Knotted Wrack, Ascophyllum nodosum var Mackaii. The under-boulder fauna is particularly diverse and includes the nemertine Lineus longissimus (Bootlace Worm) and a notable variety of echinoderms: Henricia oculata, Leptasterias mulleri, Asterina gibbosa (Cushion-star), Echinocardium cordatum (Sea-potato), Psammechinus miliaris (Green Sea-urchin) and Echinus esculentus (Edible Sea-urchin), the latter being a species not normally found in the intertidal zone.

Granagh Bay on the east coast of The Narrows is an extremely interesting area, with the complete range of substrates occurring within a relatively confined area. The boring bivalve Pholas dactylus (Common Piddock) is found most unusually burrowing into clay, and a rare member of the Phylum Hemichordata, Glossobalanus sarniensis, is present in the sandy areas. At extreme low water mark, living in sediment is Maxmuelleria lankesteri, a rare member of the Phylum Echiura, of which only 6 species are recorded from British waters.

At the northern end of Marlfield Bay there is an area of uniformly sloping bedrock which is an uncommon physical feature in Strangford Lough. The classical zonation pattern of intertidal algae and under-canopy fauna can be seen here.

Areas of fringing saltmarsh are important because of the diversity of plant species found and the rarity of this habitat in Northern Ireland. A typical assemblage of saltmarsh plants occurs at these sites. At Bar Hall Bay the rich

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saltmarsh flora is dominated by Puccinellia maritima (Common Saltmarsh Grass), Aster tripolium (Sea Aster) and Halimione portulacoides (Sea Purslane); the latter is of particular interest as it is near its northern limit in Ireland and is present in unusual abundance. Other notable saltmarsh species include Cochlearia danica (Early Scurvy-grass), Blysmus rufus (Saltmarsh Flat Sedge) and Eleocharis uniglumis (Slender Spike-rush). In addition, there are several localities in the Part 2 area where the strandline species Atriplex littoralis (Grass-leaved Orache) occurs, which is rare in Ireland.

In places there are natural transitions from mudflat and saltmarsh to freshwater fen, maritime heath and scrub. Bar Hall Bay, with its complex topography of rocky promontories and muddy inlets, is particularly notable in this respect.

Four species of Tern breed on a number of islands in the area. The principal colonies are found on Jackdaw Island, and to a lesser extent on Swan Island and Dunnyneill Island. Small numbers of Roseate Tern (Sterna dougallii) and Arctic Tern (Sterna paradisaea) have been recorded, while numbers of Common Tern (Sterna hirundo) and Sandwich Tern (Sterna sandvicensis) constitute over 10% and over 40% respectively of the total Irish breeding population, and more than 45% and 70% respectively of the Strangford Lough populations.

Strangford Lough is the most important breeding site in Ireland for the Common Seal (Phoca vitulina). Over 60% of the breeding population of Strangford Lough is found in The Narrows, the largest colonies being at Bar Hall Bay, Angus and Garter Rocks and Cloghy Rocks. In addition, small numbers of Grey Seals (Halichoerus grypus) regularly occur in The Narrows of Strangford Lough.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora and fauna of the area and require prior notification to and permission from the Department:-

- Cultivation, including ploughing, rotovating, harrowing or re-seeding.
- Changes in the grazing regime, including changes in type of livestock or significant increase or decrease in livestock population, or changes in the seasonal pattern of grazing or cessation of grazing.
- Changes in livestock feeding practice.
- Changes in the mowing or cutting regime, including changes from hay making to silage cutting, or cessation of mowing.
- Application of manure, slurry, fertilisers or lime.
- Application of pesticides, herbicides, fungicides or other chemicals deployed to kill, selectively or non-selectively, any form of animal, plant or other living organism.
- Dumping, spreading or discharge of any matter.

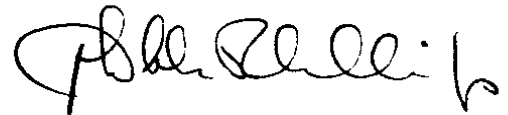
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- Burning.
- The release into the area of any wild, feral or domestic animal, plant, or seed. "Animal" includes any mammal, reptile, amphibian, bird, fish or invertebrate but does not include livestock.
- The destruction, displacement, removal or cutting of any plant, seed or plant remains.
- Changes in tree or woodland management (including, afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition).
- Drainage, including the use of mole, tile, tunnel or other artificial drains.
- Modification of the structure of water courses (for example, rivers, burns, springs, ditches, drains), including their banks and beds such as by realignment, regrading or dredging.
- Management of aquatic or bank vegetation.
- The alteration of water levels or water tables or utilisation of water (including storage or abstraction).
- Infilling of ditches, drains, ponds, pools, marshes or pits.
- Changes in coastal fishing practice, and changes in fisheries management, and changes in the use of traps or fish cages.
- Collection of sea food or marine organisms.
- Reclamation of land from sea, estuary, marsh, lake or river.
- Bait digging in intertidal areas.
- Erection of sea defences or coast protection works including cliff or landslip drainage or stabilisation measures.
- Extraction of minerals including shingle, sand, gravel, topsoil, sub-soil, or shells.
- Construction, removal or destruction of roads, tracks, walls, fences, hard-standings, banks, ditches or other earthworks or the laying, maintenance or removal of pipelines or cables, above or below ground.
- Storage of materials.
- Erection of permanent or temporary structures or the undertaking of building, engineering or other operations, including drilling, or the formation of access roads.
- Alteration or modification of natural or man-made features, (including clearance of boulders, large stones, loose rock or scree, infilling of pits or quarries).

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- Use of vehicles or craft likely to damage or disturb the wildlife.
- Recreational, educational or research activities likely to damage the wildlife.
- Changes in game or waterfowl management or hunting practices.
- Exercising of animals in areas where they are likely to disturb or damage the wildlife.

Sealed with the Official Seal of the
Department of the Environment for
Northern Ireland on *22 September 1988*



J C L PHILLIPS
Assistant Secretary

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