

DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT KILLARD, 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 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 the flora, fauna and geological features, and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the "Killard area of special scientific interest".

The area is of special scientific interest because of the coastal flora and fauna and geological features. Killard is a cliff headland, fronted by a peninsula with a raised beach profile, that has dunes across its southern side and a low rocky coastline with pockets of saltmarsh along its northern shore.

The glaciomarine sediment sequence within the site represents part of a unique moraine deposited in a tidewater setting. This feature fronts and is associated with the formation of the drumlin swarms to the west and dates from the Late Midlandian, some 17,000 years ago.

Materials effluxing at the base of the grounded ice mass were resedimented in a marine environment during a period of relatively high sea-level. Three main lithofacies associations are recognised and are, from base to top, the diamict, the sand and mud and the gravel. The massive diamict overlies a rock pavement and represents release of basal materials into a water environment and their deposition, with minimal sorting. The variety of sedimentary structures present, including stratification, interbedded sands, clast freighting and mud drapes, does not suggest a typical basal till. Bedded muds and sands were formed by increased bottom current activity with occasional ice-rafted material included. The final series of gravels occur in channels. High-density turbidity flows eroded these structures in the sands and infilled them with the suspended gravels as current velocities reduced. This glaciomarine series lies on an ice-moulded rock pavement which exhibits glacial striae in places.

This site was the first sedimentological study to demonstrate that the deglaciation of the Irish Sea Basin was affected by tidewater processes, including sea surface temperature, resulting in marine downdraw of the lowland icesheet, and that terrestrial climatic factors alone do not explain Late Midlandian ice sheet disintegration.

An extensive range of rock types are represented within cobble lag materials, including Ailsa Craig riebeckite-microgranite and fossiliferous limestone.

Biological interest is associated with the intertidal communities and the unusual juxtaposition of habitats, ranging from splash zone, saltmarsh and strandline vegetation, to actively developing foredune, species-rich calcareous dune grassland, maritime grassland and maritime heath. This has resulted in a diverse range of plant communities.

At Craiglewey, there is an exceptionally rich littoral community, with species of both sheltered and exposed shores. This site is the second most diverse rocky shore known in Northern Ireland, and is particularly rich in seaweeds, or marine algae. Over 90 species of Green, Red and Brown algae have been recorded. The upper shore is dominated by the lichen Verrucaria maura.

Channelled Wrack Pelvetia canaliculata grades downshore into Spiral Wrack Fucus spiralis, and there are successive bands of Knotted Wrack Ascophyllum nodosum, Stackhouse Frond Membranoptera alata and Toothed Wrack Fucus serratus, with Batters Frond Gigartina stellata and Oarweed Laminaria digitata towards low tide. The invertebrate community consists largely of fairly robust species, and varies in composition with current flow and substrate. The main species are the Common Limpet Patella vulgata, Acorn Barnacle Semibalanus balanoides and the barnacle Chthamalus stellatus. Attached filter feeders are particularly diverse and include many bryozoan species. Among the species found, Hairy Sea-mat Electra pilosa and Flustrellidra hispida, along with Breadcrumb Sponge Halichondria panicea are typical.

The rocks at Killard Point and Craiglewey have an extensive splash zone with a well-developed zonation of characteristic maritime lichens. Saltmarsh is developed in sheltered bays along the north and north-east facing sides of the peninsula. The saltmarsh consists of a matrix of Sea-milkwort Glaux maritima, Common Saltmarsh-grass Puccinellia maritima, tall clumps of Red Fescue Festuca rubra and Saltmarsh Rush Juncus gerardii, and occasionally Sea Plantain Plantago maritima, Sea Rush Juncus maritimus and Common Couch Elytrigia repens. Small stands of beach-head saltmarsh are present. These are dominated by sedges, such as Distant Sedge Carex distans, Long-bracted Sedge C. extensa and Saltmarsh Flat-sedge Blysmus rufus, and spike-rushes, such as Few-flowered Spike-rush Eleocharis quinqueflora and Slender Spike-rush Eleocharis uniglumis. Both the south and north-facing coasts are well endowed with strandline vegetation, generally dominated by Sea Mayweed Tripleurospermum maritimum and Cleavers Galium aparine.

The dunes along the south-western shore have a narrow foredune formed by tussocky Marram Ammophila arenaria and small amounts of Sand Couch Elytrigia juncea. The back of the foredunes is covered by a rather open grassland, dominated by Marram Ammophila arenaria and Red Fescue Festuca rubra, which gradually becomes more species-rich and includes such plants as Lady's Bedstraw Galium verum and Field Wood-rush Luzula campestris. This is interspersed with areas in which Red Fescue Festuca rubra, Yorkshire Fog Holcus lanatus and Yarrow Achillea millefolium are the dominant species. The dry central area of this south-facing slope is dominated by fine grasses and Wild Thyme Thymus polytrichus, Common Bird's-foot-trefoil Lotus corniculatus, Common Whitlowgrass Erophila verna, Marram Ammophila arenaria, Common Centaury Centaureum erythraea, the moss Tortula ruralis and the lichen Cladonia portentosa. This dry grassland extends up onto the coastal plateau, where increasing frequencies of Downy Oat-grass Helictotrichon pubescens and Quaking-grass Briza media are found. The bryophyte cover is dominated by Rhytidiadelphus triquetrus and Pseudoscleropodium purum.

On the north-east facing cliff slope and coastal plateau, an extensive area of herb-rich dune grassland has developed. This is dominated by Lady's Bedstraw Galium verum, Wild Thyme Thymus polytrichus and Yarrow Achillea millefolium, with constants such as Sweet Vernal Grass Anthoxanthum odoratum and Field Wood-rush Luzula campestris, and with frequent associates such as Common Dog-violet Viola riviniana, Ribwort Plantain Plantago lanceolata, Devil's-bit Scabious Succisa pratensis, Mouse-ear-hawkweed Pilosella officinarum, Cat's-ear Hypochaeris radicata, Primrose Primula vulgaris, Wood Sage Teucrium scorodonia, White Clover Trifolium repens, Bulbous Buttercup Ranunculus bulbosus and Sand Sedge Carex arenaria.

Maritime grassland communities are confined to the coastal edge of the peninsula, where they are dominated by Red Fescue Festuca rubra, Yorkshire-fog Holcus lanatus and Yarrow Achillea millefolium, with high frequencies of species such as Smooth Meadow-grass Poa pratensis and Glaucous Sedge Carex flacca. The thin skeletal soils over rocky outcrops are generally colonised by Early Hair-grass Aira praecox, Silver Hair-grass A. caryophyllea, Thrift Armeria maritima and Sea Mouse-ear Cerastium diffusum. These grassland communities vary considerably in appearance and composition, ranging from dry, wiry swards dominated by Kidney Vetch Anthyllis vulneraria and Mouse-ear-hawkweed Pilosella officinarum with Crested Hair-grass Koeleria macrantha, to more lush areas dominated by Common Restharrow Ononis repens, with Yorkshire-fog Holcus lanatus, Yellow-rattle Rhinanthus minor, Carnation Sedge Carex panicea and Common Sedge Carex nigra. Several species of orchids are present, including Early Marsh-orchid Dactylorhiza incarnata, Pyramidal Orchid Anacamptis pyramidalis and Common Twayblade Listera ovata.

Maritime heath is locally developed over ridges and outcrops. This is dominated by Heather Calluna vulgaris, Bell Heather Erica cinerea, Spring Squill Scilla verna and Common Dog-violet Viola riviniana. Small, scattered stands of heath with Calluna vulgaris and Western Gorse Ulex gallii are also present. Patches of Gorse Ulex europaeus dominated scrub occur along the north-facing cliff edge.

The area contains many vascular plants with a restricted distribution in the British Isles. In addition to some of those listed above, rare and scarce species include Green-winged Orchid Orchis morio (growing in its only Northern Ireland locality), Bee Orchid Ophrys apifera, Frog Orchid Coeloglossum viride, Henbane Hyoscyamus niger, Dodder Cuscuta epithymum, Sea Bindweed Calystegia soldanella and Hound's-tongue Cynoglossum officinale.

Killard provides feeding and roosting grounds for wintering birds. Several species of waders that are nationally or internationally important in the Strangford Lough area occur, including Redshank Tringa totanus, Oystercatcher Haematopus ostralegus and Turnstone Arenaria interpres.

In addition, the cliffs above Benderg Bay provide nest sites for small numbers of breeding Fulmar Fulmaris glacialis.

SCHEDULE


The following operations and activities appear to the Department to be likely to damage the flora, fauna and geological features 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 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 paragraphs 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 paragraph 3.
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. Changes in tree or woodland management, including 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. Operations or activities which would affect wetlands (including marsh, fen, and streams), 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.
14. 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.
15. 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.
16. Changes in game, waterfowl or fisheries management or fishing or hunting practices.

17. 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 30 June, 1995



J Crowther
Assistant Secretary


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 (Northern Ireland) 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 give consent, particularly if there is a long history of the operation being undertaken in that precise location.