



DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT WHITE PARK BAY, COUNTY ANTRIM. 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, geological and physiographical 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 'White Park Bay area of special scientific interest'.

The area is of special scientific interest because of its geology, coastal physiography and calcareous flora and fauna. The bay comprises a massive land-slipped area backed by high chalk cliffs. Several exposures are well represented, with sea-stacks and natural arches present. In addition, White Park Bay is notable for its diverse plant and animal communities, its largely unmodified nature and the number of rare plants and animals recorded.

Jurassic age material belonging to the Lower Lias, some 200 million years old, outcrops within White Park Bay below chalk landslips and blown sand. The calcareous mudstones and limestones are richly fossiliferous. The Cretaceous rocks, including the distinctive White Limestones, are some 80 million years old. Notable exposures include the thin conglomerate occurring at the base of the chalk and lying unconformably over the Jurassic series. The lowest part of the White Limestone succession is seen in the slipped sections at the eastern end of the Bay and includes the very distinctive Oweynamuck Flint Band. Post glacial marine activity has

produced distinctive coastal landforms including the former seacliffs which form the amphitheatre within which White Park Bay now sits. Associated sea-stacks and natural arches are common, many still subjected to marine activity.

The position of White Park Bay has resulted in the development of one of the finest displays of rhythmic bedforms in Ireland and beyond. These include outstandingly well-developed sets of inner and outer bars, beach cusps and giant cusps within the bay. These features are intimately related to the nature of the beach, particularly in terms of sediment transfers.

The dunes are fronted by a narrow band of colonising Marram *Ammophila arenaria* and Sand Couch *Elytrigia juncea*. More stable foredunes inland support a complex mosaic of different vegetation communities, some of which are very species-rich. Marram *Ammophila arenaria* remains one of the main species, but there is a range of associated species such as Red Fescue *Festuca rubra*, Sweet Vernal Grass *Anthoxanthum odoratum*, Sand Sedge *Carex arenaria*, Portland Spurge *Euphorbia portlandica* and Field Wood-rush *Luzula campestris*, growing through a carpet of the pleurocarpous moss *Rhytidiadelphus triquetrus*.

Between the chalk cliffs and the frontal dunes, the land-slipped slopes are partly covered by blown sand and support a diverse range of grassland communities. Wet hollows and patches of scrub and Bracken *Pteridium aquilinum* provide additional habitat diversity. In places, low soil fertility, grazing and exposure have encouraged a relatively species-rich sward, especially where the sand is rich in calcareous shell material. The turf is dominated by fine grasses, such as Red Fescue *Festuca rubra* and Sheep's-fescue *Festuca ovina*, together with additional species such as Glaucous Sedge *Carex flacca*, Sand Sedge *Carex arenaria*, Bulbous Buttercup *Ranunculus bulbosus*, Ribwort Plantain *Plantago lanceolata* and the moss *Hypnum cupressiforme*. Other herbs include Wild Thyme *Thymus polytrichus*, Lady's Bedstraw *Galium verum*, Fairy Flax *Linum catharticum*, Harebell *Campanula rotundifolia*, Bird's-foot Trefoil *Lotus corniculatus*, Spring Squill *Scilla verna* and Mouse-ear-hawkweed *Pilosella officinarum*. Locally, the grassland is more acidic in nature, as indicated by the presence of Sheep's Sorrel *Rumex acetosella*, Common Sorrel *Rumex acetosa*, Creeping Buttercup *Ranunculus repens* and Common Sedge *Carex nigra*, together with small quantities of Heather *Calluna vulgaris*.

Wet pockets support a variety of communities ranging from monodominant stands of Yellow Iris Iris pseudacorus to more species-rich marshy grassland, dominated by Meadowsweet Filipendula ulmaria and Wild Angelica Angelica sylvestris, with Sharp-flowered Rush Juncus acutiflorus and Soft-rush Juncus effusus. Damp, low-lying hollows have a mixture of Creeping Bent Agrostis stolonifera, Marsh Foxtail Alopecurus geniculatus, Soft-rush Juncus effusus and Yorkshire-fog Holcus lanatus. In wetter situations, Common Sedge Carex nigra and Silverweed Potentilla anserina become more prominent, forming dune slack communities.

Bracken Pteridium aquilinum encroachment is common, often in association with shade-tolerant herbs such as Ground-ivy Glechoma hederacea, Lesser Celandine Ranunculus ficaria and Bluebell Hyacinthoides non-scripta. Low scrub is scattered over the area, with Blackthorn Prunus spinosa, Hawthorn Crataegus monogyna and Bramble Rubus fruticosus being the dominant species. Gorse Ulex europaeus is frequent throughout, with Grey Willow Salix cinerea, Hazel Corylus avellana and mature Elder Sambucus nigra abundant under the cliffs. Low-growing Burnet Rose Rosa pimpinellifolia is locally frequent in areas of rank grassland.

The area is backed by high chalk cliffs. On the shady, damp, north-facing cliff slopes deeper, brown-earth soils have developed. These areas are characterised by a wide range of constant species such as Red Fescue Festuca rubra, Yorkshire-fog Holcus lanatus, Primrose Primula vulgaris, Devil's-bit Scabious Succisa pratensis, Common Dog-violet Viola riviniana and Tormentil Potentilla erecta. Other associated species include Lady's-mantle Alchemilla glabra, Slender St John's-wort Hypericum pulchrum, Wood Anemone Anemone nemorosa, Common Sedge Carex nigra, Carnation Sedge Carex panicea, Flea Sedge Carex pulicaris and a variety of bryophytes such as Rhytidiadelphus triquetrus and Thuidium tamariscinum.

White Park Bay is notable for its orchids. Eight species have been recorded, including Frog Orchid Coeloglossum viride, Pyramidal Orchid Anacamptis pyramidalis, Fragrant Orchid Gymnadenia conopsea, Bee Orchid Ophrys apifera and Small-white Orchid Pseudorchis albida. Additional species of note include Adder's-tongue Ophioglossum vulgatum and Moonwort Botrychium lunaria (two fern species), Meadow Crane's-bill Geranium pratense, Wood Vetch Vicia sylvatica, Fragrant Agrimony Agrimonia procera, Smooth Cat's-ear Hypochoeris glabra

and Thyme Broomrape Orobanche alba. The moss Rhodobryum roseum, which is rare in Ireland, is also of interest.

Invertebrate records for White Park Bay date back over a century. A number of characteristic coastal invertebrates have been recorded, including some specialist dune species. In addition to the dunes themselves, the streams and flushes flowing through the area are also of high nature conservation interest for various invertebrates.

Shells of the very rare Narrow-mouthed Whorl Snail Vertigo angustior have been found amongst the dunes, indicating that a population has been present in recent years. This species is listed under the 'endangered' category of the British Red Data Book. Populations of a related species, Striated Whorl Snail Vertigo substriata, are known to occur. A further species Vertigo pusilla, which is extremely rare in Ireland, has been recorded in the past.

Species diversity amongst the Lepidoptera is high with several rare or uncommon species. Thirteen butterfly species have been recorded, including the Dark Green Fritillary Argynnis aglaja, which is a typical duneland species in Northern Ireland but very local elsewhere, the Common Blue Polyommatus icarus and Small Heath Coenonympha pamphilus. The Wood White Leptidea sinapis butterfly, which is rare in Britain but locally frequent in Ireland, is also present. Amongst the moths, the Six-spot Burnet Zygaena filipendula and Mother Shipton Callistege mi have been recorded. Solitary Hymenoptera have also been studied, with Halictus rubicundus, Lasioglossum rufitarse (first record for Ireland) and Nomada bicolor among the species recorded.

SCHEDULE

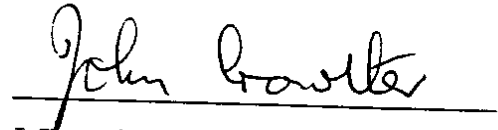
The following operations and activities appear to the Department to be likely to damage the flora, fauna, geological and physiographical features of the area:

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, 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, planting, clearing, selective felling and coppicing.

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, bog, 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.
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.

Sealed with the Official Seal of the
Department of the Environment for
Northern Ireland on 22 July 1996



J Crowther

Assistant Secretary

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

