

DEPARTMENT OF THE ENVIRONMENT

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT SHEEPLAND COAST, COUNTY DOWN. ARTICLE 28 OF THE ENVIRONMENT (NORTHERN IRELAND) ORDER 2002.

The Department of the Environment (the Department), having consulted the Council for Nature Conservation and the Countryside and being satisfied that the area described and delineated 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 'Sheepland Coast Area of Special Scientific Interest'.

The area is of special scientific interest because of its coastal flora and fauna and earth science features. Sheepland Coast is a rocky coastline in County Down, with cliff vegetation and other grassland communities. It includes pockets of saltmarsh and strandline along sheltered inlets.

The rock exposures along the Sheepland Coast are exceptional, providing much detail of the important geology of the area. The exposures are composed of Lower Palaeozoic sedimentary rocks of deep marine facies, strongly folded, faulted and weakly metamorphosed. The main rock types are thinly bedded, fine-grained sandstones and siltstones of the Hawick Group. These are Silurian sedimentary rocks of approximately 395 million years old and are part of the Scottish Southern Uplands/Irish Down-Longford Terrane, which records the closure of the Iapetus Ocean during the Caledonian Orogeny. A terrane is a geological unit, discrete in terms of structure and age, and distinct from adjoining areas.

Since 1977, the terrane has attracted international interest because of its interpretation as an accretionary prism. There is ongoing debate concerning the geographical position of the sediments which now form the rocks of this region, namely whether they were fore-arc or back-arc sediments. Irrespective of this, sediments were accreted on the north-western, Laurentian, shore of the Iapetus Ocean during plate collision and ocean closure. The unresolved argument between proponents of these rival hypotheses is critical to understanding of the British and Irish Caledonides.

Numerous fold axes are displayed in the rocks along the section from Ballyhornan to St Patrick's Well. An excellent example of sole markings is found on an exposure at Port Rusley.

Biological interest is associated with the intertidal communities and the unusual range of habitats from splash zone, saltmarsh and strandline vegetation to maritime grassland, maritime heath and fen. This has resulted in a diverse range of plant communities.

The rocks at Sheepland coast have an extensive splash zone with a well-developed zonation of characteristic maritime lichens. Areas of saltmarsh and shingle beaches



have developed in sheltered bays and inlets along the length of the coast. 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*. Sea Plantain *Plantago maritima* and Common Couch *Elytrigia repens* occur less frequently. Small areas of strandline occur behind the saltmarsh and shingle beaches and are generally dominated by Sea Beet *Beta vulgaris* ssp. *maritimus*, Silverweed *Potentilla anserina*, Common Scurvygrass *Cochlearia officinalis* and Curled Dock *Rumex crispus*.

Maritime communities along Sheepland Coast extend inland from the shore. A diverse range of grassland communities are part of a sequence which has developed in relation to decreasing maritime influence on moving inland. These communities begin just behind the shoreline, with grassland developing on very shallow soils in crevices and hollows amongst lichen-covered rocks, where skeletal mixtures of mineral and organic matter have accumulated. This grassland type also occurs around rock outcrops where deeper soils thin out. The vegetation comprises Sea Fern-grass *Catapodium marinum* along the shore, with species such as Thrift *Armeria maritima*, Buck's-horn Plantain *Plantago coronopus*, Red Fescue *Festuca rubra*, Sea Mouse-ear *Cerastium diffusum* both species of Hair-grasses (Silver Hair-grass *Aira caryophyllea* and Early Hair-grass *A. praecox*) and Stonecrops *Sedum* spp. (English Stonecrop *Sedum anglicum* and Biting Stonecrop *S. acre*) throughout.

Further inland on the cliffs and slopes, ungrazed grassland is 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*, Cock's-foot *Dactylis glomerata* and Glaucous Sedge *Carex flacca*. Where grazing occurs a distinctive terracing on the slopes is created, which helps to maintain a very species-rich, open sward. This open grassland contains plants such as Spring-sedge *Carex caryophyllea*, Wild Thyme *Thymus polytrichus*, Red Fescue *Festuca rubra*, Field Wood-rush *Luzula campestris*, Common Bird's-foot-trefoil *Lotus corniculatus*, Bulbous Buttercup *Ranunculus bulbosus*, Lady's Bedstraw *Galium verum* and Sea Campion *Silene uniflora*. There is great diversity of species on the slopes with distinctive colourful plants such as Spring Squill *Scilla verna*, Common Spotted-orchid *Dactylorhiza fuchsii*, Primrose *Primula vulgaris* and Kidney Vetch *Anthyllis vulneraria*. Further interest on the steeper slopes is added by flushing with base-rich waters, which has created distinctive wetland vegetation with Purple Moor-grass *Molinia caerulea*, Common Butterwort *Pinguicula vulgaris*, Few-flowered Spike-rush *Eleocharis quinqueflora*, Bog Pimpernel *Anagallis tenella* and Marsh Arrowgrass *Triglochin palustre*.

Maritime heath has developed in combination with the grassland communities where there are particularly rocky outcrops, banks and steep slopes. On slightly deeper soils, small, scattered stands of heath with Heather *Calluna vulgaris* and Western Gorse *Ulex gallii* occur. Where soils are thinner, the heathland communities are dominated by Heather *Calluna vulgaris*, Bell Heather *Erica cinerea*, Spring Squill *Scilla verna*, Common Birds-foot-trefoil *Lotus corniculatus*, Thrift *Armeria maritima* and Ribwort Plantain *Plantago lanceolata*. Most notably, Rock Sea-lavender *Limonium procerum* ssp. *procerum*, which is endemic to Ireland and Great Britain, occurs here, its only known site in Northern Ireland. Rock Sea-lavender *Limonium procerum* ssp. *procerum* is the only Northern Ireland member of a group of closely-related species referred to collectively as the Rock Sea-lavender *Limonium binervosum* aggregate or group. It is a

UK priority species of maritime cliff and is protected under the Wildlife (NI) Order 1985.

Behind the slopes the habitat has less maritime influence and grades into species-rich neutral grassland, characteristic of lowland meadows. These grasslands are dominated by fine-leaved grasses with high herb and sedge cover. Distinctive species amongst the sward include Red Fescue *Festuca rubra* and Sweet Vernal-grass *Anthoxanthum odoratum*, with Glaucous Sedge *Carex flacca*, Spring-sedge *C. caryophyllea*, Burnet-saxifrage *Pimpinella saxifraga*, Pignut *Conopodium majus*, Bluebell *Hyacinthoides non-scripta*, Common Knapweed *Centaurea nigra*, Spring Squill *Scilla verna* and Devil's-bit Scabious *Succisa pratensis*.

Additional interest is provided by a small base-rich fen within the townland of Newtown. The area represents an extended basin with gently undulating valley sides, and although much of it is comprised of swamp vegetation dominated by Common Reed *Phragmites australis*, calcium-rich ground waters feed into the wetland along its northern edge. Consequently, Newtown fen represents one of the most easterly examples of base-rich fen in County Down. The area supports many wetland species, including Stoneworts *Chara* spp. and a variable sedge component dominated by Brown Sedge *Carex disticha* and Bottle Sedge *C. rostrata*, with the notable Lesser Tussock-sedge *C. diandra* also occurring. Blunt-flowered Rush *Juncus subnodulosus* is locally dominant where peaty soils are flushed by base-rich waters. Associated higher plants with a widespread occurrence include Bogbean *Menyanthes trifoliata*, Wild Angelica *Angelica sylvestris*, and Water Mint *Mentha aquatica*. Additional species with a more localised occurrence include Marsh Cinquefoil *Potentilla palustris*, Meadowsweet *Filipendula ulmaria*, Ragged-Robin *Lychnis flos-cuculi* and the more notable Brookweed *Samolus valerandi*. A dense mat of brown mosses dominated by Pointed Spear-moss *Calliergon cuspidatum* grows beneath the sedge and herb sward. Other mosses include Marsh Bryum *Bryum pseudotriquetrum* and scarcer Giant Spear-moss *Calliergon giganteum*.

Sheepland Coast is also notable for the Wall butterfly *Lasiommata megera*. Historically, this species has been found fairly widely across Northern Ireland, but it has undergone a severe decline in the last 20 years. By 2001 the only known populations remaining were on the Down coast. The species is a colonial species found in open habitats with sparse vegetation and bare ground. They choose food plants growing along a vertical edge, such as a wall, in warm, sheltered locations. The commonest food plants are tall grasses such as Cock's-foot *Dactylis glomerata*, Yorkshire-fog *Holcus lanatus*, Sheep's-fescue *Festuca ovina* and Wavy Hair-grass *Deschampsia flexuosa*.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora and fauna 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. The 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 paragraph 5 above.
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 consent is not required under paragraph 3 above.
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 (include marsh, fen, bog, rivers, streams and open water), e.g.
 - (i) change in the methods or frequency of routine drainage maintenance;
 - (ii) modification of 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 wild animal except where such killing or taking is treated as an exception in Articles 5, 6, 11, 17, 20, 21 and 22 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. 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.
18. Use of vehicles or craft likely to damage or disturb the wildlife of the area.

FOOTNOTES

- (a) Please note that consent by the Department to any of the operations or activities listed in the Schedule 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.
- (b) Also note that many of the operations and activities listed in the Schedule 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.