

DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

**DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT THE CLIFFS
OF MAGHO, COUNTY FERMANAGH. 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 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 Cliffs of Magho Area of Special Scientific Interest'.

The area is of special scientific interest because of its geology and woodland flora and fauna. In addition, the area contains a number of habitats which support a wide range of species, including several rare plants.

The Cliffs of Magho consists of a large, north-facing limestone escarpment overlooking Lower Lough Erne. The area includes the dip slopes and a series of smaller sandstone scarp ridges behind the main cliffs. The limestones and shales exposed are of Lower Carboniferous age, some 330 million years old. The continuous nature of the exposure in the cliffs is quite exceptional and allows the relationships between the various rock formations to be seen in great detail. These are, from oldest to youngest, the Benbulbin Shale, Glencar Limestone and Dartry Limestone Formations of the Tyrone Group. The limestone cliffs at Magho represent the most northerly occurrence of strata belonging to the Glencar and Dartry formations in Northern Ireland.

The main cliff line is a vertical rock face formed of limestones of the upper part of the Glencar and lower part of the Dartry Formations. The top-most series, the Dartry, is dominated by limestones and thin shales, all rather poor in fossil material. In contrast, the underlying Glencar limestones are extremely fossiliferous with brachiopods, or lampshells, dominating.

The outcrop of the lowest Formation, the Benbulbin Shale, occurs on the lower slopes of the cliff line. Exposures are largely restricted to deeply incised streams where the contact with the overlying Glencar Formation can be seen. The Benbulbin Formation consists of dark grey and black shales and mudstones with abundant fossils. Particularly common are solitary corals, bryozoans, scattered crinoids and prolific brachiopods.

The Cliffs of Magho supports an exceptional range of habitat types. The lower escarpment slopes are covered by an extensive semi-natural woodland, with the secondary scarp above supporting a mixture of grassland and cliff-ledge communities. Smaller sandstone ridges contain a mixture of heathland, woodland and scrub. Wet heath and blanket bog occur on flatter, deeper peats. Wetland habitats are represented by a large mesotrophic lake, Glenereawan Lough, with open waters, swamp, fen and wet grassland.

Base-rich woodlands are characteristic of the limestone outcrops in western Fermanagh and The Cliffs of Magho represents one of the best examples. Although fragmented, it is one of the largest blocks of semi-natural woodland in Northern Ireland. The diversity of the woodland is increased by physical features such as waterfalls, streams, cliffs, rock faces and boulder and scree slopes, all of which are widespread. The woodland itself displays a high degree of naturalness, with a well developed structure. As a result, The Cliffs of Magho contains the highest number of woodland species recorded for a single site in Northern Ireland, in addition to a wide range of plant communities. Rare species include Welsh Poppy *Meconopsis cambrica*, Thin-spiked Wood Sedge *Carex strigosa* and Bird's-nest Orchid *Neottia nidus-avis*.

The main canopy species are Ash *Fraxinus excelsior* and Goat Willow *Salix caprea*, with Hawthorn *Crataegus monogyna* and Holly *Ilex aquifolium* in the understorey. The field layer is dominated in places by Bramble *Rubus fruticosus* and Soft Shield Fern *Polystichum setiferum*. The upper slopes are drier and are generally covered by a carpet of Greater Wood-rush *Luzula sylvatica*. The lower slopes are flushed by water draining from above and support a more diverse woodland flora. Widespread species include Opposite-leaved Golden Saxifrage *Chrysosplenium oppositifolium*, Meadowsweet *Filipendula ulmaria*, Wood Sorrel *Oxalis acetosa*, Water Avens *Geum rivale*, Herb Robert *Geranium robertianum* and Lesser Celandine *Ranunculus ficaria*, with such typical woodland mosses as *Eurhynchium praelongum*, *E. striatum*, *Rhytidiadelphus triquetrus* and *Thuidium tamariscinum*. Diversity is increased by the presence of wet woodland on the shallow, waterlogged slopes towards the base of the escarpment. Although rather similar to the adjoining woodland with which it merges, the canopy is predominantly formed by Alder *Alnus glutinosa* with occasional Ash *Fraxinus excelsior* and Goat Willow *Salix caprea*, while the shrub layer and field layer tend to be more sparse. Wetland species in the ground flora include Creeping Buttercup *Ranunculus repens*, Lesser Spearwort *Ranunculus flammula*, Bugle *Ajuga reptans*, Marsh Bedstraw *Galium palustre*, Yellow Iris *Iris pseudacorus* and Floating Sweet-grass *Glyceria fluitans*.

There are also localised stands of woodland on the smaller scarps. Some of these occur on more acidic sandstone rocks and are characterised by a different woodland community, thus adding further diversity. The low canopy of these acid woodlands is composed of trees and shrubs such as Rowan *Sorbus aucuparia*, Hazel *Corylus avellana*, Downy Birch *Betula pubescens*, Goat Willow *Salix caprea* and occasional mature Sessile Oak *Quercus petraea*. The ground flora is very similar in composition to that of the dry heath.

The area includes vertical cliff faces and steep ridges with block boulder talus below. The limestone cliffs above the wood support a scattered, cliff-ledge vegetation that is particularly rich in bryophytes (mosses) and ferns. Rare higher plants include Juniper *Juniperus communis*, Mountain Avens *Dryas octopetala*, Shady Horsetail *Equisetum pratense*, Welsh Poppy *Meconopsis cambrica* and both Yellow Saxifrage *Saxifraga aizoides* and Mossy Saxifrage *S. hypnoides*. Boulder slopes tend to be covered in dry heath, interspersed with stands of Greater

Wood-rush *Luzula sylvatica*. The heath is dominated by Heather *Calluna vulgaris* and Bilberry *Vaccinium myrtillus*, with Cowberry *V. vitis-idaea* and Bell Heather *Erica cinerea*, growing over a thick carpet of acid-tolerant pleurocarpous mosses. This community is the location for Lesser Twayblade *Listera cordata* and the rare Serrated Wintergreen *Orthilia secunda* and Common Wintergreen *Pyrola minor*.

Shallow, peaty slopes are covered by wet heath, characterised by Heather *Calluna vulgaris* and Cross-leaved Heath *Erica tetralix* with Tormentil *Potentilla erecta* and Milkwort *Polygala serpyllifolia*, growing over a carpet of *Sphagnum* mosses. On deeper peats, where the heath gives way to blanket bog, these species are still of frequent occurrence and are joined by Hare's-tail Cotton grass *Eriophorum vaginatum*, Common Cottongrass *E. angustifolium* and Deergrass *Trichophorum cespitosum*. Other species such as Bogbean *Menyanthes trifoliata*, Bog Asphodel *Narthecium ossifragum*, Round-leaved Sundew *Drosera rotundifolia* and the rare Oblong-leaved Sundew *D. intermedia* also occur. Lower plants include the moss *Racomitrium lanuginosum*, the liverwort *Pleurozia purpurea* and *Cladonia* lichen species. Localised flushes and seepage channels add to the diversity and are characterised by short sedges including Yellow-sedge *Carex viridula* ssp. *oedocarpa*, Dioecious Sedge *C. dioica*, Tawny Sedge *C. hostiana* and Carnation Sedge *C. panicea*, and herbs such as Lousewort *Pedicularis sylvatica* and Common Butterwort *Pinguicula vulgaris*. Where the flushing waters are particularly rich in calcium, the vegetation is dominated by Yellow-sedge *C. viridula* ssp. *brachyrrhyncha*, Grass-of-Parnassus *Parnassia palustris*, Marsh Hawk's-beard *Crepis paludosa*, Lesser Clubmoss *Selaginella selaginoides* and the calcicolous moss *Cratoneuron commutatum*. Localised marl deposits also occur.

Glenereawan Lough is a large, shallow mesotrophic lake with gently sloping margins and a stony substrate. Plants of the open waters include occasional submerged Stoneworts *Chara* spp., beds of Shoreweed *Littorella uniflora*, Floating Bur-reed *Sparganium angustifolium* and four species of Pondweed *Potamogeton* spp. The margins of the lake support stands of swamp with Common Reed *Phragmites australis*, Common Club-rush *Schoenoplectus lacustris*, Common Spike-rush *Eleocharis palustris* and Bottle Sedge *Carex rostrata*. In places, the swamp is backed by a tall-herb fen with such species as Marsh Cinquefoil *Potentilla palustris*, Bogbean *Menyanthes trifoliata*, Bottle Sedge *Carex rostrata*, Bog Sedge *C. limosa* and occasional Slender Sedge *C. lasiocarpa*. Patches of poor fen, also occur with *Sphagnum* mosses and a mixed sedge sward, although the majority of the shoreline consists of inundated marshy grassland dominated by Creeping Bent *Agrostis stolonifera*, Common Sedge *Carex nigra*, Marsh Pennywort *Hydrocotyle vulgaris* and Water Mint *Mentha aquatica*, growing over a moss mat of *Calliergon cuspidatum*.

Notable breeding birds include Common Sandpiper *Actitis hypoleucos* and Ringed Plover *Charadrius hiaticula* around the lough, Peregrine Falcon *Falco peregrinus* on the cliffs and Wood Warbler *Phylloscopus sibilatrix* in the woodland. In addition, the cliffs support notable colonies of both House Martin *Delichon urbica* and Swift *Apus apus*. Although these species are now more frequently associated with human habitation, cliffs are their natural nesting habitat.

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 increase in the present annual pattern and intensity of grazing, including any change in the type of livestock used or in supplementary feeding practice.
3. Introduction of mowing or other methods of cutting vegetation.
4. Application of manure, slurry, fertiliser or lime.
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 plants listed as noxious in the Noxious Weeds (Northern Ireland) Order 1977.
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, 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 disturbance, 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. Use of vehicles or craft likely to damage or disturb the wildlife of the area.
18. 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.

Sealed with the Official Seal of the
Department of the Environment for
Northern Ireland on 10 December 1998



ROBERT C MARTIN
Assistant Secretary

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. 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 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.