

Site Name: Owenduff/Nephin Complex SAC

Site Code: 000534

This large area of relatively intact blanket bog and mountains incorporates the catchment of the Owenduff River and much of the Nephin Beg Mountain range, and is situated in Co. Mayo. Lough Feeagh, which is located approximately 5 km north-west of Newport Town, lies in the south-east corner of the site. From here, the site extends northwards to the Owenmore River and almost to the town of Bangor Erris, and westwards to the townland of Ballycroy.

Within the site, the terrain varies enormously from the peaks of the Nephin Beg Mountains, which reach a maximum altitude of 717 m, to areas where the land slopes westwards to the floodplain of the Owenduff River. The upper slopes of the mountains in the Owenduff/Nephin complex carry wet heath and cliff vegetation, and patches of upland grassland are frequent. The presence of small corrie lakes and rock basin lakes adds to the habitat diversity of the mountains. Along its southern and eastern limits the site is bounded by coniferous plantations and/or the high mountain slopes of the Nephin Bogs. Along its northern and western margins the site is fringed by agricultural land reclaimed from bog or from wet floodplain vegetation.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

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| [3110] Oligotrophic Waters containing very few minerals |
| [3160] Dystrophic Lakes |
| [3260] Floating River Vegetation |
| [4010] Wet Heath |
| [4060] Alpine and Subalpine Heaths |
| [5130] Juniper Scrub |
| [7130] Blanket Bogs (Active)* |
| [7140] Transition Mires |
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| [1106] Atlantic Salmon (<i>Salmo salar</i>) |
| [1355] Otter (<i>Lutra lutra</i>) |
| [1393] Slender Green Feather-moss (<i>Drepanocladus vernicosus</i>) |
| [1528] Marsh Saxifrage (<i>Saxifraga hirculus</i>) |

The lower mountain slopes of this site are covered with blanket bog, with a broad representation of good quality bog habitats occurring. There are continuous tracts of

vegetation dominated by Purple Moor-grass (*Molinia caerulea*), Black Bog-rush (*Schoenus nigricans*) and Deergrass (*Scirpus cespitosus*). In places, the flat surface is differentiated into an undulating micro-topography of hummocks and wet hollows, formed by a variety of bog moss species, including *Sphagnum imbricatum* and *S. fuscum*. Extensive pool systems occur, where large peaty ponds are scattered over the bog. Typically, Bogbean (*Menyanthes trifoliata*) and spike-rush (*Eleocharis* sp.) colonise the pools, and frequently also Water Lobelia (*Lobelia dortmanna*), Pipewort (*Eriocaulon aquaticum*) and Yellow Water-lily (*Nuphar lutea*). Large hummocks lie between the pools, colonised by Heather (*Calluna vulgaris*), Hare's-tail Cottongrass (*Eriophorum vaginatum*), and occasionally, Crowberry (*Empetrum nigrum*).

Around the many small streams and flushes which cross the bog, the vegetation is quite different. There is frequently a wet quaking mat of *Sphagnum* moss (including *S. recurvum* var. *tenue*), which is colonised by a range of higher plants, including Bog-sedge (*Carex limosa*), Marsh Cinquefoil (*Potentilla palustris*), Ragged-Robin (*Lychnis flos-cuculi*) and Cranberry (*Vaccinium oxycoccos*). These minerotrophic flushes also contain a rich and varied moss and liverwort flora. The rare moss *Tomentypnum nitens* has been recorded in two flushes on this site. Areas such as these, some of which can be classified as transition mire (a habitat listed on Annex I of the E.U. Habitats Directive), occur in several parts of the site.

The remote upland areas along the eastern and southern fringes of this site contain approximately 15 oligotrophic lakes, many of which are fine examples of corrie lakes, backed by precipitous mountain cliffs (for example, Lough Anaffrin, Lough Adanacleeveen and Corryloughnaphuil Lough). The lakes vary greatly in size, ranging from a couple of hectares to approximately 25 ha. Most of these lakes are base-poor, and have little emergent vegetation. It is sometimes difficult to distinguish between small examples of oligotrophic lakes and dystrophic lakes, which by their nature are generally smaller, do not have a rocky bottom and have more sparse marginal flora. Typical plant species of oligotrophic lakes are Water Lobelia, Pipewort, Shoreweed (*Littorella uniflora*), spike-rush and Bulbous Rush (*Juncus bulbosus*).

Dystrophic lakes of various sizes are found in areas of low-lying blanket bog. These are extremely base-poor, have a peaty bottom and as a result, the water is often highly coloured by humic acids. A feature of these lakes is that there is usually an abrupt transition from blanket bog to open water, with little in the way of shallow lake margin present. The vegetation of these nutrient-poor lakes is typically limited and sparse. Marginal vegetation may include narrow floating rafts of Bulbous Rush, White Beak-sedge (*Rhynchospora alba*) and *Sphagnum cuspidatum*. Small peaty islands in these lakes may support Crowberry and Juniper (*Juniperus communis*), both species which are generally uncommon in lowland blanket bogs. The Juniper often forms scrub, but this is relatively rare, and is confined to the larger and ungrazed islands.

The Owenduff River and its tributaries flow through this site, and this system is one of the best examples in the country of a large, base-poor river catchment which is largely intact (i.e. not afforested). The vegetation of the river itself is quite limited in

most places, with Bulbous Rush being the dominant vascular plant, with some Broad-leaved Pondweed (*Potamogeton natans*) present also. Riverbank and streamside flora often consists of acid wet grassland. Common species here include Bog Pimpernel (*Anagallis tenella*), Self-heal (*Prunella vulgaris*) and Common Sedge (*Carex nigra*). Ivy-leaved Bellflower (*Wahlenbergia hederacea*) occurs along the banks of the Owenduff River. This species is scarce in Ireland and mostly found in south-eastern and south-western counties.

Wet heath is likely to be widespread throughout this site, and is found in mosaic and transition with the lowland blanket bog. It is mainly found where peat is shallower, and Cross-leaved Heath (*Erica tetralix*) is characteristic.

The mountain tops, cliffs and crags support a high-level rocky vegetation. Quartzites prevail and typically support species-poor vegetation communities. Where outcrops of mica schist occur, a more diverse flora is found. The following arctic-alpine plant species have been recorded from the site: Starry Saxifrage (*Saxifraga stellaris*), Roseroot (*Rhodiola rosea*), Mountain Sorrel (*Oxyria digyna*), Brittle Bladder-fern (*Cystopteris fragilis*), Purple Saxifrage (*Saxifraga oppositifolia*), Alpine Meadow-rue (*Thalictrum alpinum*), Alpine Saw-wort (*Saussurea alpina*), Bearberry (*Arctostaphylos uva-ursi*) and Dwarf Willow (*Salix herbacea*). Alpine and subalpine heath typically occurs at high altitudes on thin, peaty soils with bare rock often evident. As well as the specialist species listed above, typical dominant species are Heather, Bilberry (*Vaccinium myrtillus*), Heath Rush (*Juncus squarrosus*), Crowberry, Tormentil (*Potentilla erecta*) and the moss *Racomitrium lanuginosum*.

Marsh Saxifrage (*Saxifraga hirculus*) has been recorded in two flushes on this site. This species is legally protected under the Flora (Protection) Order, 1999, and is one of the rarest flowering plants in Ireland. It is listed in Annexes II and IV of the E.U. Habitats Directive. Its decline in Ireland is due to the drainage and exploitation of its peatland habitat. Two other legally protected species have been recorded at the site: Bog Orchid (*Hammarbya paludosa*) and Marsh Clubmoss (*Lycopodiella inundata*). Slender Green Feather-moss (*Drepanocladus vernicosus*), a rare moss listed on Annex II of the E.U. Habitats Directive, also occurs on the site (last recorded in 1995).

Greenland White-fronted Goose regularly visit this site in winter. Up until 1990/91 numbers of around 50 geese were recorded. Since that time the flock has been partially displaced to an adjacent sub-flock's range (on the Mullet Peninsula), largely due to winter shooting and increased human disturbance. Currently numbers of 12-17 birds are recorded, mostly confined to the area of Lough Feeagh and neighbouring Altaconey Bog. Golden Plover breed here in summer, and the area is used as feeding grounds by Merlin which nest in the nearby conifer plantations. These three species are listed in the Red Data Book and are included on Annex I of the E.U. Birds Directive.

The site provides extensive areas of habitat for Otter, a species that is listed on Annexes II and IV of the E.U. Habitats Directive. The Owenduff River system holds an important population of Atlantic Salmon, another species listed on Annex II.

Spawning occurs on the Owenduff, the Tarsaghaun River to the east, the Glenadeeghan and the Baunduff/Scardaun, mainly in the upper reaches.

The site is heavily stocked with sheep. Cattle graze the riversides, but sheep penetrate into the uninhabited valleys and mountain slopes. Blanket bogs are sensitive to damage from over-grazing - the cover of *Sphagnum* mosses can be depleted and peat erosion can occur. Damage is currently severe on the slopes west of Lough Feeagh, where it has contributed to a recent decline in the numbers of Greenland White-fronted Goose which feed there. Peat erosion also threatens water quality in the rivers, which may in turn affect the fish population. Currently, fishing (Brown Trout and Atlantic Salmon) is a popular activity on the site and, together with game-shooting, attracts significant numbers of tourists to the region.

The Owenduff/Nephin Complex is one of the best and largest examples of intact blanket bog in the country. The range and quality of habitats present here is excellent, and a number of rare and protected plant and animal species occur. The Owenduff River system is the largest in the country which remains virtually free of conifer plantations. The site is a striking wilderness of bog and mountain, a unique landscape which is of international ecological importance.