

SITE SYNOPSIS

SITE NAME: BARNESMORE BOG NHA

SITE CODE: 002375

Barnesmore Bog NHA is an area of upland blanket bog and heath in south Co. Donegal. It extends from Barnesmore Mountain in the north to Clogher Hill in the south and from the lower slopes of Croaghmeen and Croaghakeadew in the west to the Donegal/Tyrone border in the east. The site is bound to the north-west by the main road from Donegal to Ballybofey. The western boundary of the site extends down the slopes of Croaghmeen and Croaghakeadew as far as improved agricultural fields and overgrazed bog. Mature forestry plantations border the eastern, southern and northern parts of the site. Part of the eastern boundary of the site runs between Lough Innaghachola and Loughnaweelagh along the border between Co. Donegal and Co. Tyrone. A wind power installation and associated access roads, which occupies part of Croaghakeadew Mountain (398 m) on the west and extends eastwards to Loughnaweelagh, northwards to Lough Namaddy, and southwards to just north of Lough Naleaghany, has been excluded from the site.

The site has an altitude range 150 m to 450 m, Barnesmore Mountain being the highest point. The western part of the site is drained by tributaries of the Lowerymore River and the eastern part of the site by Camowen Burn and the Leaghany River, the latter watercourses flowing into Lough Derg. Bedrock geology consists of schist and gneiss.

The site is a complex mosaic of upland blanket bog, wet heath and flushes developed on a series of granite ridges connected by gently sloping terrain and incorporating a number of streams. Over twenty relatively nutrient-poor lakes occur within the site, the largest being Lough Golagh, Lough Slug, Lough Atlieve, Lough Namaddy, Lough Nabrackboy and Loughnaweelagh. The blanket bog reaches its greatest extent on the gently undulating slopes on the western, north-western and southern parts of the site.

The vegetation consists of a relatively intact assemblage of blanket bog species, including Ling Heather (*Calluna vulgaris*), Cross-leaved Heath (*Erica tetralix*), Purple Moor-grass (*Molinia caerulea*), Round-leaved Sundew (*Drosera rotundifolia*), Great Sundew (*D. anglica*), Common Cottongrass (*Eriophorum angustifolium*), Black Bog-rush (*Schoenus nigricans*), Deergrass (*Scirpus cespitosus*), Bog-myrtle (*Myrica gale*), Tormentil (*Potentilla erecta*), Carnation Sedge (*Carex panicea*), Bog Asphodel (*Narthecium ossifragum*), Bilberry (*Vaccinium myrtillus*) and Fir Clubmoss (*Huperzia selago*).

There are occasional bog pools on the site colonised with Bogbean (*Menyanthes trifoliata*) and Bog Sedge (*Carex limosa*) grading into quaking bog-moss lawns of *Sphagnum papillosum*, *S. cuspidatum* and *S. auriculatum* at the pool margins together with sundews and Marsh Violet.

Bog mosses are locally frequent throughout the site as hummock/hollow complexes (*Sphagnum subnitens*, *S. papillosum*, *S. capillifolium*, *S. compactum*, *S. auriculatum* and *S. cuspidatum*), quaking lawns and flushes (*S. recurvum*) or on localised areas of bare peat (*S. tenellum*). Other mosses include large hummocks of *Racomitrium lanuginosum*, *Hypnum jutlandicum*, *Pleurozium schreberi* and *Campylopus atrovirens*. Liverworts characteristic of blanket bogs include *Mylia taylori* and *Odontoschisma sphagni*. Lichens on the bog surface include *Cladonia portentosa*, *C. uncialis* and *C. subcervicornis*.

Other habitats on the site include scrub along stream corridors, dry heath, wet heath, acid grassland on peaty soil, lakes, streams and flushes. Regenerating cutover with deep pools occurs west of Lough Slug.

There is variation in the species composition and abundance of the aquatic flora in the lakes depending on exposure, water depth and the nutrient status of the lake waters. The aquatic flora of the lakes includes Broad-leaved pondweed (*Potamogeton natans*), Bladderwort (*Utricularia* sp.), Shoreweed (*Littorella uniflora*), Quillwort (*Isoetes lacustris*), Water Horsetail (*Equisetum fluviatile*), stands of Bottle Sedge (*Carex rostrata*) and Bogbean.

Flushes with a diverse flora occur throughout the site, along the stream corridors and in the vicinity of lakes and at the base of and on slopes. Vegetation includes stands of rushes (*Juncus effusus*, *J. conglomeratus*, *J. acutiflorus*), Marsh Thistle (*Cirsium palustre*), Purple Moor-grass, Black Bog-rush, Marsh Pennywort (*Hydrocotyle vulgaris*), Star Sedge (*Carex echinata*), Lesser Spearwort, Royal Fern (*Osmunda regalis*), Bulbous Rush (*Juncus Bulbosus*), Marsh Violet, Bog Pondweed (*Potamogeton polygonifolius*) and Common Butterwort (*Pinguicula vulgaris*).

There are patches of dry heath on the drier banks of the streams or on steep slopes with a thinner soil notably the eastern slopes of Barnesmore Gap and the north-eastern side of Lough Nabrackboy. The vegetation of these areas includes Tormentil, Ling Heather, Hard Fern (*Blechnum spicant*), Heath Milkwort (*Polygala serpyllifolia*), Bell Heather (*Erica cinerea*), Green-ribbed Sedge (*Carex binervis*), Wood Sorrel (*Oxalis acetosella*), wood-rushes (*Luzula multiflora*, *L. sylvatica*) and Bracken (*Pteridium aquilinum*).

Acid grassland/wet heath mosaics occurs on thinner mineral/peat soils on the slopes of Croaghmeen, to the west of the site, and the hill slopes north-east of Lough Slug. These are characterised by Mat Grass (*Nardus stricta*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Heath Bedstraw (*Galium saxatile*), Green-ribbed Sedge, Sheep's Fescue (*Festuca ovina*), Devil's-bit Scabious (*Succisa pratensis*), Velvet Bent (*Agrostis canina*), Heath Grass (*Danthonia decumbens*) and the mosses *Pleurozium schreberi*, *Hylocomium splendens* and *Polytrichum commune*.

Irish Hare, Badger, Red Grouse, Golden Plover, Peregrine Falcon and Common Frog occur on the site. Peregrine Falcon nest on the steep slopes of Barnesmore Gap. These are all Irish Red Data Book species.

In general the blanket bog resource has decreased in the Barnesmore Gap area due to extensive afforestation on the eastern, northern and southern sides of the site. Relatively recent land uses on the western periphery of the site include localised heavy grazing by sheep.

Apart from very localised damage, Barnesmore Bog NHA is a site of considerable conservation significance containing a very large area of relatively intact upland blanket bog with virtually no peat extraction or overgrazing. This site supports a good diversity of blanket bog microhabitats including hummock/hollow complexes and flushes. Other habitats on the site include rocky outcrops, dry heath, wet heath, streams, several naturally nutrient-poor lakes that add to the habitat diversity and therefore conservation value of the site. Blanket bog habitat is a globally scarce resource. It is largely confined to coastal regions at temperate latitudes with cool, wet, oceanic climates. North-west Europe contains some of the best-developed areas of blanket bog in the world. The most extensive areas are found in Ireland and Britain. Upland blanket bogs, due to their exposure to severe climatic conditions at high elevations, are particularly vulnerable to erosion by human activities and extensive areas are currently undergoing active erosion due mainly to overgrazing. The current area of intact upland blanket bog in Ireland represents only a fraction of the original resource, due to the combined impacts of afforestation and overgrazing, and intact examples are therefore extremely valuable for nature conservation. Their long-term survival requires sensitive management.