

SITE SYNOPSIS

SITE NAME: GRAGEEN FEN AND BOG NHA

SITE CODE: 002186

Grageen Fen and Bog NHA is an upland bog and alkaline fen located on the southern side of the Slievefelim Mountains, approximately 6 km east of Moroe and 7 km south-east of Newport, Co. Limerick. It lies in the townlands of Moher, Ballyvorheen and Portnard. The Dooglasha River forms the northern boundary of the site. A mature conifer plantation forms the eastern boundary, while a young conifer plantation forms part of the western boundary. The southern boundary and remainder of the western boundary are defined by the transition from intact blanket bog to cutover bog habitat. The site encompasses an altitude range of between 310 m and 365 m and is underlain by quartzite bedrock and calcareous glacial gravels.

The site consists of an area of upland blanket bog and fen that occur on a slight shelf sloping gently northwards toward the Dooglasha River. Cutover bog occurs on the hillside to the south, with an area of recent turbary activity on the north-west side of the site. The blanket bog vegetation is typified by a tall, unburnt and ungrazed canopy of Ling Heather (*Calluna vulgaris*), Cottongrasses (*Eriophorum angustifolium*, *E. vaginatum*), Deergrass (*Scirpus cespitosus*) with occasional Purple Moor-grass (*Molinia caerulea*), Cross-leaved Heath (*Erica tetralix*) and scattered Bog Asphodel (*Narthecium ossifragum*). There is a well-developed moss ground flora with frequent hummocks of bog mosses (*Sphagnum capillifolium* and *S. subnitens*). The moss lawns and hummocks are frequently colonised by Crowberry (*Empetrum nigrum*) and Cranberry (*Vaccinium oxycoccos*). Cutover bog also occurs within the site on the southern side and is characterised by old, abandoned hand-cut banks that are now re-colonised by typical blanket bog species.

The north-eastern corner of the site supports a small alkaline fen with a well-developed hummock and watertrack topography. The fen community is dominated by Common Reed (*Phragmites australis*) with abundant Bogbean (*Menyanthes trifoliata*), Purple Moor-grass, Sharp-flowered Rush (*Juncus acutiflorus*), Carnation Sedge (*Carex panicea*), Water Horsetail (*Equisetum fluviatile*), Devil's-bit Scabious (*Succisa pratensis*) and Marsh Hawk's-beard (*Crepis paludosa*). The wettest areas support some Willows (*Salix aurita*, *S. cinerea*) along with Bog Pondweed (*Potamogeton polygonifolius*), Marsh Cinquefoil (*Potentilla palustris*), Bog-sedge (*Carex limosa*), Marsh Willowherb (*Epilobium palustre*), Ragged Robin (*Lychnis flos-cuculi*) and Arrowgrass (*Triglochin palustre*). In addition to large hummocks of bog mosses, an excellent diversity of other bog mosses (*Sphagnum palustre*, *S. contortum*, *S. auriculatum* var. *inundatum* and *S. recurvum*) occurs in the wetter depressions. Close to watertracks, sedges (*Carex dioica*, *C. lepidocarpa*, *C. demissa* and *C. rostrata*) are abundant, along with occasional Red Rattle (*Pedicularis palustris*), Frog Orchid (*Coeloglossum viride*) and Jointed Rush (*Juncus articulatus*). These flushed areas support a notable diversity of mosses and liverworts (*Campylium*

stellatum, *Aulacomnium palustre*, *Aneura pinguis*, *Ctenidium molluscum*, *Bryum pseudotriquetrum* and the rare Boreal relict *Homalothecium nitens*).

Transitional areas between fen and blanket bog also include an interesting flora. Here large tussocks of Purple Moor-grass occur with Yorkshire Fog (*Holcus lanatus*), Wild Angelica (*Angelica sylvestris*), Devil's-bit Scabious and Marsh Ragwort (*Senecio aquaticus*) between them. Red Fescue (*Festuca rubra*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Tormentil (*Potentilla erecta*), Heath Wood-rush (*Luzula multiflora*) and Heath Milkwort (*Polygala serpyllifolia*) occur in the driest areas, while Common Sedge (*Carex nigra*), Lady's Smock (*Cardamine pratensis*) and Lesser Spearwort (*Ranunculus flammula*) occur in hollows. Heather, Bilberry (*Vaccinium myrtillus*), Wavy Hair-grass (*Deschampsia flexuosa*), Star Sedge (*Carex echinata*) appear towards the margins with rushes (*Juncus acutiflorus* and *J. effusus*) locally frequent. On the southern edge, Fen Bedstraw (*Galium uliginosum*), Meadow Thistle (*Cirsium dissectum*) and Meadow Grass (*Poa pratensis*) grow among Purple Moor-grass and Hare's-tail Cottongrass (*Eriophorum vaginatum*).

Current landuse within the site consists of small amounts of mechanical peat cutting on the northern edge, adjacent to the river. There is currently no grazing within the site except by occasional Red Deer. Threats to the site include peat cutting, compaction from machinery, as well as construction of drainage channels and firebreaks that can damage the integrity of the site. Peat cutting is frequent adjacent to the western and southern edges of the bog. Extensive tracts of land adjacent to the site have been afforested.

Grageen Fen and Bog NHA is a site of considerable conservation significance as an example of an upland blanket bog and fen habitat. The presence of the rare Boreal relict moss, *Homalothecium nitens*, suggests that the vegetation of the site has remained intact and undisturbed for a considerable period, possibly since post-glacial times. The occurrence of several additional uncommon plants such as Fen Bedstraw, Frog Orchid, Cranberry and the sedges *Carex dioica* and *C. limosa* also indicate the high botanical quality 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.