

DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

**DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT GARRY BOG
PART II, COUNTY ANTRIM. 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 delineated and described on the attached map (the area) is of special scientific interest by reason of the flora, fauna and physiographical 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 'Garry Bog Part II Area of Special Scientific Interest'.

The area is of special scientific interest because of its physiographical features and peatland flora and associated fauna. It is a southern extension to the Garry Bog Area of Special Scientific Interest, and includes a small lowland raised bog that is hydrologically connected to the main site. Physiographical interest is associated with the active peat processes involved in peat bog development. In addition, the Garry Bog system is internationally significant for peat stratigraphy. Biological interest is associated with the plant and animal communities and individual species that are associated with the raised bog vegetation.

The peat sequence holds information on the history of local vegetation and climate and also international vulcanism for the last 8,500 years in the form of sediments, pollen, tree remains and volcanic glass shards (tephra). The peats show a classic succession from clay and lake muds dating from 8,500 years before present (BP), through reed-swamp and wood peats (6,650 years BP), to raised bog peats (commencing 6,000 years BP).

The pollen record reflects environmental changes, including selective forest 'Landnam' clearance coincident with the introduction of agriculture some 5,000 years BP and evidence of climatic deterioration with eventual extinction of native Scots Pine (*Pinus sylvestris*) some 4,000 years BP. In addition, sub-fossil bog Oak from Garry Bog has been used to produce a ring time-series of international importance to dendrochronology studies, which accurately show the influence of climatic variability on tree growth.

Most recently tephra have been identified in the peat column. At least one of these tephra layers relate to the volcanic activity of Hekla on Iceland, known as H4, dated to 2310 +/- 20 years BC. This layer has been identified from many sites throughout the northern British Isles, offering a precise marker horizon and permitting more reliable cross correlation of peatland stratigraphy. At Garry Bog, this tephra layer has been shown to be related to a period (some 15 years) of poor growth of the contemporary Oaks, indicating climatic deterioration, but is not clearly linked to the near-extinction of the Scots Pine.

The raised bog features a central pool and hummock complex with an extensive Sphagnum-rich bryophyte carpet. Occasional hummocks of S. imbricatum and S. fuscum occur. The pools support a characteristic growth of aquatic Sphagnum mosses with frequent stands of Bogbean Menyanthes trifoliata in the deeper pools. Their margins support extensive growth of the rare Sphagnum pulchrum. The surrounding water-logged lawns of Bog Asphodel Narthecium ossifragum, support an abundance of White Beak-sedge Rhynchospora alba, interspersed with low Sphagnum papillosum hummocks.

The raised bog surrounding the pool system is characterised by a greater abundance of dwarf-shrubs, particularly Heather Calluna vulgaris and Cross-leaved Heath Erica tetralix over a Sphagnum-rich bryophyte carpet. Bog Asphodel Narthecium ossifragum and White Beak-sedge Rhynchospora alba are still prominent in the sward, together with Common Cottongrass Eriophorum angustifolium, Hare's-tail Cottongrass E. vaginatum and Deergrass Trichophorum cespitosum.

The lagg surrounding the bog has been cut for turf, creating a mosaic of water-logged cuttings at different levels, separated by elevated ramparts. The water-logged cuttings are dominated by Cross-leaved Heath Erica tetralix, with Deergrass Trichophorum cespitosum and Eriophorum angustifolium over a dense Sphagnum moss carpet. The ramparts are much drier and are dominated by rank Heather Calluna vulgaris with frequent Cladonia portentosa.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora, fauna and physiographical features of the area:

1. Cultivation, including ploughing, rotovating or re-seeding.
2. Increase in grazing intensity or change either in the type of livestock used or in feeding practices.
3. Introduction of mowing or other methods of cutting vegetation.
4. Application of manure, slurry, fertiliser or lime.
5. Application of pesticides, herbicides, fungicides or other chemicals deployed to kill, selectively or non-selectively, any form of animal, plant or other living organism.

6. Dumping, spreading or discharge of any matter.
7. Burning.
8. The release into the area of any wild, feral or domestic animal, plant or seed. "Animal" includes any mammal, reptile, amphibian, bird, fish or invertebrate, but excludes livestock and animals used in controlling livestock.
9. The destruction, displacement, removal or cutting of any plant, seed or plant remains, or the disturbance, killing or removal of any wild animal in a manner likely to affect the continued existence of the species within the area except as provided for under the terms of the Wildlife (Northern Ireland) Order 1985.
10. The introduction of tree or woodland management, including afforestation or planting.
11. Drainage, including peat drainage or the use of mole, tile, tunnel or other artificial drains.
12. Modification of the structure of water courses, including their banks and beds as by realignment, regrading or dredging.
13. Management of aquatic and bank vegetation.
14. The alteration of water levels or water tables or the utilisation of water including storage or extraction, but excluding water used for domestic requirements.
15. Infilling of ditches, drains, ponds, pools, marshes or lakes.
16. Reclamation of land from bog, marsh, river or lake.
17. Extraction of minerals including peat, sand, gravel, topsoil or subsoil.
18. Construction, removal or destruction of roads, tracks, walls, fences, hard-standings, banks, ditches and other earth works or the laying or removal of pipelines or cables, above or below ground.
19. Storage of materials.
20. Use of craft or vehicles likely to damage the vegetation.
21. Erection of permanent or temporary structures or the undertaking of building, engineering or other operations, including drilling.
22. Recreational, educational or research activities likely to damage the vegetation.

23. Changes in game management.

Sealed with the Official Seal of the
Department of the Environment for
Northern Ireland on 10 July 1996



J CROWTHER
Assistant Secretary

R. Lynchlaun
Civil Servant in charge
BELFAST

FOOTNOTES

(a) Please note that consent by the Department to any of the above operations or activities 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 (NI) 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 above 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.