## CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES

## SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

POWYS PENTREGWYN

**Date of Notification:** 1992

National Grid Reference: SN 959339

**O.S. Maps:** 1:50,000 Sheet number: 160

1:25,000 Sheet number: SN 83/93

Site Area: 14.3 ha

## **Description:**

The site comprises a complex mosaic of unimproved dry neutral grassland, mire, broadleaved woodland and small areas of dry acid grassland. It provides an excellent example of the natural transition between the mire habitat and adjacent semi-natural habitats. Natural transitions are now infrequently encountered and zonations are often truncated and degraded.

The site lies approximately 2 kilometres south-east of Llanfihangel Nant Bran on a slope varying between 250 metres and 350 metres in altitude. It comprises two wooded dingles with open areas of dry neutral grassland, mire communities dominated by purple moor-grass *Molinia caerulea* or rush *Juncus* sp., or bracken *Pteridium aquilinum*, leading northwards to the highest point where there is a larger open area of mire with several small areas of dry acid grassland. The southern section of the site is bordered on both sides by wooded dingles with a mosaic of woodland and open areas between. The Old Red Sandstone of Devonian age which underlies the site characteristically gives rise to stagnogley soils and brown podzolic soils, and it is the influence of the geology and soils of the catchment on the chemical properties of the water supply which create the variation in the vegetation.

There are two main areas of dry neutral grassland within the site. Both areas are similar, being dominated by grasses such as crested dog's-tail *Cynosurus cristatus*, common bent *Agrostis capillaris* and sweet vernal-grass *Anthoxanthum odoratum*, with frequent red fescue *Festuca rubra*. There tends to be a high proportion of herbs in the sward, including common knapweed *Centaurea nigra*, selfheal *Prunella vulgaris*, common bird's-foot-trefoil *Lotus corniculatus*, red clover *Trifolium pratense*, yarrow *Achillea millefolium*, cat's-ear *Hypochoeris radicata* and burnet-saxifrage *Pimpinella saxifraga*. Plants more characteristic of acidic grasslands, such as tormentil *Potentilla erecta*, devil's-bit scabious *Succisa pratensis*, field wood-rush *Luzula campestris* and betony *Stachys officinalis* are also present.

Associated with the neutral grassland in the southern part of the site are patches of a mire community characterised by sharp-flowered rush *Juncus acutiflorus*, Yorkshire-fog *Holcus* 

lanatus, common marsh-bedstraw Galium palustre and greater bird's-foot-trefoil Lotus uliginosus. Other herbs include sneezewort Achillea ptarmica, marsh pennywort Hydrocotyle vulgaris, water mint Mentha aquatica and lesser spearwort Ranunculus flammula. There is a transition from this mire community to a further mire community dominated by purple moor-grass and sharp-flowered rush. Associated species include velvet bent Agrostis canina, tormentil, marsh thistle Cirsium palustre, greater bird's-foot-trefoil and devil's-bit scabious. Herbs which are more sparsely represented include common marsh-bedstraw, fen bedstraw Galium uliginosum, wild angelica Angelica sylvestris and sneezewort. A much larger area of this community occurs in the northern part of the site. This tends to be wetter than that in the southern area, with standing water between the tussocks of purple moor-grass.

In the south there is another transition from the purple moor-grass – tormentil mire to an open sedge community dominated by carnation sedge *Carex panicea* with tawny sedge *C. hostiana*, glaucous sedge *C. flacca* and flea sedge *C. pulicaris*. There is a high bryophyte cover and a range of herbs and grasses including quaking-grass *Briza media*, bog pimpernel *Anagallis tenella*, marsh arrowgrass *Triglochin palustris*, marsh lousewort *Pedicularis palustris*, marsh valerian *Valeriana dioica*, common cottongrass *Eriophorum angustifolium*, fen bedstraw, devil's-bit scabious and occasional common butterwort *Pinguicula vulgaris*. This community grades into small areas dominated by sedges and with a similar herb component, but with a lower bryophyte cover. Globeflower *Trollius europaeus* occurs throughout this area. In the east of the northern field there are several similar flushes dominated by carnation sedge and common yellow-sedge *C. demissa*, associated with the banks of a small stream.

In the south-west corner of the large northern field several drier areas support acid grassland dominated by common bent and sheep's-fescue *Festuca ovina*, with red fescue and locally frequent heath-grass *Danthonia decumbens*. Herbs include abundant heath bedstraw *Galium saxatile* and tormentil, with harebell *Campanula rotundifolia*, mouse-ear hawkweed *Hieracium pilosella*, field wood-rush, betony and heath speedwell *Veronica officinalis*.

Additional interest is provided by the two wooded dingles which bound the southern part of the site. The canopy species here include sessile oak *Quercus petraea* and ash *Fraxinus excelsior*, with an understorey of hazel *Corylus avellana*, alder *Alnus glutinosa*, holly *Ilex aquifolium* and rowan *Sorbus aucuparia*. The field layer is varied, reflecting the base status and drainage of the soil, and is characterised by species such as betony, wood-sorrel *Oxalis acetosella*, bitter-vetch *Lathyrus montanus*, pignut *Conopodium majus* and creeping soft-grass *Holcus mollis* in the drier, more acid areas, and by species such as sanicle *Sanicula europaea*, wild strawberry *Fragaria vesca*, yellow archangel *Lamiastrum galeobdolon* and woodruff *Galium odoratum* where the soils are richer.

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