CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

POWYS **NANT LLECH**

Date of Notification: 1990

National Grid Reference: SN 842121

O.S. Maps: 1:50, 000 Sheet number: 160
1:25, 000 Sheet number: SN 81

Site Area: 42.1 ha

Description:

Biological

The Nant Lech, flowing off the Millstone Grit rocks and on to Coal Measure shales over the spectacular waterfall at Henrhyd, has carved a steep-sided valley of special interest on account of its rich variety of woodland and cliff plant communities.

A range of woodland types has formed in response to variations in soil moisture content and soil chemistry. The drier, upper south-facing slopes, in areas where nutrients are freely leached out, support a woodland of sessile oak *Quercus petraea*, downy birch *Betula pubescens* and wavy hair-grass *Deschampsia flexuosa*. On the north-facing side, under a similar canopy, mosses dominate the ground flora to produce a woodland type more characteristic of areas further west in Britain. This western element of the flora is particularly well represented on wet rocks with ferns such as Wilson's filmy-fern *Hymenophyllum wilsonii* and royal fern *Osmunda regalis*; the liverworts, *Jubula hutchinsiae, Odontoschisma denudatum* and *Saccogyna viticulosa* and the mosses, *Tetradontium brownianum* and *Fissidens curnovii*, and on soil the moss, *F. celticus*. On sites receiving nutrients other woodland types have formed. In drier areas a type characterised by ash *Fraxinus excelsior*, rowan *Sorbus aucuparia* and dog's mercury *Mercurialis perennis* is present, whilst in wet flushed areas alder *Alnus glutinosa* dominated types occur with a ground layer including wood horsetail *Equisetum sylvaticum* and ramsons *Allium ursinum*. Small-leaved lime *Tilia cordata* is frequent on the edges of cliffs and on steep slopes. The abundance of beech fern *Phegopteris connectilis* is notable on wet cliffs, with the rarer, montane, green spleenwort *Asplenium viride* present about Henrhyd falls.

Though most trees are relatively young and of coppice origin, the bird life is rich and includes wood warbler, redstart and great spotted woodpecker. Dippers occur on the

river and tributary streams. The invertebrate fauna awaits detailed study, but the uncommon soldier beetle *Podabrus alpinus* has been recorded from the wood.

Geological

Westphalian: the rock exposures in the lower part of the valley provide the best section of lower Westphalian A sediments in the South Wales Coalfield. From a series of faulted blocks, it has proved possible to reconstruct a sequence of over 120 metres of rock strata, including the *Gastrioceras subcrenatum* Marine Band (which defines the base of the Westphalian Series), five other marine bands, two plant beds and two non-marine bivalve beds. It provides a standard section with which all other sections of this age in South Wales are normally compared. The site is critical for understanding the stratigraphy of the South Wales Coalfield

Palaeozoic palaeobotany: The site also exposes several distinct plant beds which have yielded the best known early Westphalian A (lower *Lyginopteris hoeninghausii/ Neuralethopteris schlehanii* Biozone) floras in Britain. They contain abundant neuralethopterids, particularly *N. jongmansii* (Laveine) and *N. rectinervis* (Kidson), which are characteristic elements of floras of this age. Also found is abundant *L. hoeninghausii* (Brongniart) which, although rarely occurring in late Westphalian A floras, is usually more characteristic of the early Westphalian A. The site is of outstanding interest for demonstrating the composition of British floras of this age.

Remarks:

The site lies within the Brecon Beacons National Park.

Part of the site is owned by the National Trust.

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