

**CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES**

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

CARMARTHENSHIRE

CWM CLYDACH, CYDWELI

Date of Notification: 1998

National Grid Reference: SN 444075

O.S. Maps: 1:50,000 Sheet number: 159
1:10,000 Sheet number: SN 40 NW, SN 40 NE

Site Area: 7.8 ha

Description:

Cwm Clydach, Cydweli is of special interest for its communities of lower plants (lichens) and ferns. Located about 4 km from the coast near the ancient port of Cydweli (Kidwelly), Cwm Clydach is a deep ravine cut into a low ridge of slightly calcareous and resistant sandstones of Upper Carboniferous age, popularly known as the "Farewell Rock" by past generations of miners as no coal lay beneath it. The ridge has been cut through by the Afon Clydach to form a deep, humid, wooded gorge.

The upper (northern) part of the gorge is more acidic and is dominated typically for the South Wales coalfield by oak *Quercus* spp. and with some ash *Fraxinus excelsior* on its lower slopes. The pure oak-dominated areas are characterized by a ground cover of bilberry *Vaccinium myrtillus*, wavy-hair grass *Deschampsia flexuosa*, greater wood rush *Luzula sylvatica* and broad buckler fern *Dryopteris dilatata*. Holly *Ilex aquifolium* and hazel *Corylus avellana* contribute to the shrub layer. In contrast, the lower (southern) length of the gorge is noticeably more base-enriched with much more ash and wych elm *Ulmus glabra*, and also some spindle *Euonymus europaeus* in the understorey. Here the ground flora has abundant wood anemone *Anemone nemorosa*, woodruff *Galium odoratum*, early dog violet *Viola reichenbachiana*, early purple orchid *Orchis mascula* and a profusion of soft shield fern *Polystichum setiferum*. Butcher's broom *Ruscus aculeatus* and sweet violet *Viola odorata* are two noteworthy plants which grow at the edge of the wood. Due to the steepness of the gorge, most of it is ungrazed by livestock.

The gorge supports a well-developed lower plant flora, particularly on shaded rock outcrops. Noteworthy liverworts, confined to the Atlantic seaboard in Britain, include *Lejeunea lamacerina*, *Saccogyna viticulosa* and *Plagiochila spinulosa*. Of particular importance is the largest population of the lichen *Sticta sylvatica* in Carmarthenshire, found on steep, cliff-like rock faces in the gorge. This lichen is one of the most conspicuous members of the *Lobarian* community, which was once more widespread but has declined significantly due to atmospheric pollution.

The most noteworthy fern which grows in the gorge is the hay-scented buckler fern *Dryopteris aemula*, a species of very restricted distribution, being found in the wetter, western parts of the British Isles; indeed the most important European populations of this species are found in Britain. The hybrid fern *Polystichum* x. *bicknellii* also occurs; it is but rarely seen as its parents

(soft shield fern and hard shield fern *Polystichum aculeatum* are usually ecologically separated.

The wetter, flushed sides have much scaly male fern *Dryopteris affinis* agg., and deep mats of opposite-leaved golden saxifrage *Chrysosplenium oppositifolium* clothe the saturated slopes. In areas of thinner soil, or on damp rock faces, mosses and liverworts thrive. Associated with these flushes is a notable assemblage of old woodland molluscs including the snails *Spermodea lamellata*, *Leiostyla anglica* and *Zenobiella subrufescens*. The slug *Limax cinereoniger*, a nocturnal feeder on lichens on tree trunks, also occurs in the woodland. The harvestman *Sabacon viscayanum*, which is confined to a small number of woodlands and mires in south Wales, is found under loose stones in damp, often flushed situations. Two uncommon moths - the scorched carpet *Ligdia adustata* and the white-line snout *Schrankia taenialis* have also been recorded.

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