

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

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

CARMARTHENSHIRE

CAEAU AFON GWILI

Date of Notification: 1993

National Grid Reference: SN 578089 and SN 583088

O.S. Maps: 1: 50,000 Sheet number: 159
1: 25,000 Sheet number: SN 50

Site Area: 18.2 ha

Description:

The site consists of a series of eight enclosures situated at an altitude of between 60 and 140 metres, some 5 km north of Pontarddulais. The underlying geology comprises Middle Coal Measures and Lower Pennant Sandstones, overlain for the most part by boulder clay. Lying either side of the A483 trunk road, the site drains gently westwards towards the Afon Gwili (a minor tributary of the Loughor). The site is an important and extensive example of the kind of unimproved species-rich grassland that was once widespread in this part of Wales, but is now increasingly scarce due to land improvement and industrial/residential development. The western portion of the site is damp, often flushed, pasture while the eastern parts are at a higher altitude and are generally somewhat drier.

In the lower western part of the site, the grassland is dominated by purple moor-grass *Molinia caerulea* together with sharp-flowered rush *Juncus acutiflorus*, compact rush *J. conglomeratus*, carnation sedge *Carex panicea*, devil's-bit scabious *Succisa pratensis* and tormentil *Potentilla erecta*. Noteworthy species of local distribution include meadow thistle *Cirsium dissectum* (of which there is a very substantial population), saw-wort *Serratula tinctoria*, common butterwort *Pinguicula vulgaris*, petty whin *Genista anglica* and much whorled caraway *Carum verticillatum*. This particular community was once relatively frequent in southern Britain, but is now rare; whorled caraway is regarded as having its British stronghold on the western parts of the South Wales Coalfields. There is a thriving colony of the marsh fritillary butterfly *Eurodryas aurinia* in these pastures, the caterpillars feeding solely on devil's-bit scabious. This attractive butterfly has likewise undergone a massive decline throughout Britain, and these remaining colonies in south-west Wales are important for the survival of the species. Isolated bushes of alder buckthorn *Frangula alnus* in the hedgerows support the brimstone *Gonepteryx rhamni*, which is a very local butterfly in Wales.

The central enclosure is drier and has common bent *Agrostis capillaris* and sweet vernal-grass *Anthoxanthum odoratum* as the principal grasses, with heath-grass *Danthonia decumbens* in the more acidic areas. Again there is a floristic variety, with much devil's-bit scabious, tormentil and

some whorled caraway, but also stands of great burnet *Sanguisorba officinalis*, common knapweed *Centaurea nigra* and several sedges, including the rather local pale sedge *Carex pallescens*. The many grasses are utilised as larval food plants by the marbled white butterfly *Melanargia galathea*. The marbled white is rare in Wales, with an essentially geographically-isolated population occupying parts of the western coalfield and adjacent areas.

The fields in the south-east include both dry neutral and damper, more acidic grasslands. One particular enclosure, named "Stone Field" on account of a large standing stone, holds a colourful mix of common knapweed, rough hawkbit *Leontodon hispidus* and meadow vetchling *Lathyrus pratensis* amongst a grassy sward. Great burnet is locally abundant and common spotted-orchid *Dactylorhiza fuchsii*, heath spotted-orchid *D. maculata* and southern marsh-orchid *D. praetermissa*, occur. Royal fern *Osmunda regalis* grows in the hedgebanks.

Other enclosures in this south-eastern section include areas of rush pasture dominated by sharp-flowered rush, with abundant whorled caraway. Stands of the scarce meadow-thistle occur, intermixed with more neutral grassland, whilst some parts support a heathier element with cross-leaved heath *Erica tetralix* and heather *Calluna vulgaris*.

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