

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

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

CARMARTHENSHIRE

**CWAR GLAS QUARRY
& SAWDDE GORGE**

Date of Notification: 1965, 1988

National Grid Reference: SN 726248

O.S. Maps: 1: 50,000 Sheet number: 160
1: 25,000 Sheet number: SN 72

Site Area: 6.8 ha

Description:

The site is of special geological interest on three scores:-

Non-Marine Devonian: The site shows a critical section through the base of the 'Downtonian' Lower Old Red Sandstone. The long continuous section present here, from low in the Ludlow sequence to well into the Red Mark, makes this an important stratigraphic section and allows comparison of depositional environments of the rocks at the base of the 'Downtonian' (the 'Tilestones' or Long Quarry Beds) with those present below and above. The Sawdde Gorge is the only good section for comparing the sediments above and below the Tilestones (in one area), and is thus crucial for sorting out the existing confusion over the nature of the marine - non-marine transition at the base of the Old Red Sandstone in South Wales.

Silurian Devonian Chordata (Vertebrate Palaeontology): The site has recently yielded the fossil chordate, *Archegonaspis* sp. from the upper part of the Black Cock Beds. These Ludlow Series specimens of *Archegonaspis* are considerably earlier in age than those from other recorded localities. This is the earliest site yielding heterostracans in Britain, and the earliest site for any osteostracan in the Welsh Borders (ignoring records of rare and indeterminate fragments of fish spine in Silurian rocks). The chordate occurs in a calcareous coquina with a dominantly bivalve/gastropod fauna. Potential exists here for research into the implications of this death assemblage and the delimitations of the palaeoenvironment of the early chordates.

Ludlow: Long stratigraphical sections here show the marine and non-marine strata of the late Silurian. The Sawdde section spans the Gorstian and Ludfordian stages and includes strata of the Black Cock, Trichrug, Lower Cwm Clyd, Upper Cwm Clyd, Lower Roman Camp and Upper Roman Camp Beds. Cwar Glas quarry shows extensive exposures of the Black Cock Beds and the junction with the conglomeratic, non-marine Trichrug Beds. Sandy facies in the upper part of the Black Cock Beds yield a distinctive bivalve fauna, a typical in comparison to most contemporaneous Ludlow sections elsewhere in Wales and the Borders. This is a key locality showing the transition from marine to non-marine sediments in lower Ludlow times.

Remarks:

The site lies within the Brecon Beacons National Park.

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