# CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES

## SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

#### POWYS/BLAENAU GWENT

MYNYDD LLANGYNIDR

**Date of Notification:** 23 August 2012

**National Grid Reference:** SO140150

**O.S. Maps:** 1:50,000 Sheet number: 161

1:10,000 Sheet number: SO11NE, SO11NW, SO11SE, SO11SW

Site Area: 896.80 ha

### **Description:**

Mynydd Llangynidr is of special interest for the karstic geomorphology, particularly the doline field, that is evident as a series of depressions of varying size and depth across the moorland surface. The site is situated approximately 1km north of the village of Trefil on a relatively flat area of moorland which ranges from 460m above sea-level by the B4560 road in the east, to 557m above sea-level near Chartist Cave in the west.

The site covers the summit area and upper dipslopes of Mynydd Llangynidr, where the solid outcrop is dominantly the Twrch Sandstone Formation, locally the base of the Marros Group of Namurian age and informally referred to as the 'Millstone Grit'. The Twrch Sandstone Formation is underlain by the Dowlais Limestone Formation, locally the top of the Pembroke Limestone Group (informally referred to as the 'Carboniferous Limestone') but there is an unconformity that covers several million years between the two formations. To the north of the site the Carboniferous Limestone forms an escarpment that overlooks the Usk Valley.

The northern edge of the South Wales Coalfield provides the best British example of an interstratal karst, extending from Black Mountain in the west to the Blorenge in the east. Within this area Mynydd Llangynidr is exceptional for the morphological variety and density of caprock dolines while also containing shallow subsidence depressions and foundered rock masses of varying topographical form.

The site includes a densely packed doline field that clearly demonstrates how subsurface interstratal karst solution can induce collapse, pitting and foundering in the overlying non-carbonate outcrop. Although broadly classified as caprock dolines there is an array of depression morphologies ranging from shallow-sided forms that commonly contain permanent or ephemeral water bodies through to deep, steep-sided depressions. Some of the caprock dolines appear to have captured small surface streams and function as sinks and there are also unusual dolines developed entirely in grit boulder fields. In addition to surface landforms, Ogof Cynnes, Chartist Cave and Crescent Cave are of particular importance as they allow the interface between the grit and the limestone to be viewed in greater detail from underground, and provide further insights into the development of interstratal karst.

Mynydd Llangynidr is of international importance and provides tremendous potential for future research into caprock doline morphology and interstratal karst development.

## **Remarks:**

Mynydd Llangynidr has been selected as a result of the former Nature Conservancy Council's Geological Conservation Review (GCR), a national survey and evaluation of sites of geological and geomorphological interest. The geological feature of interest at Mynydd Llangynidr is described in the GCR volume entitled *Karst and Caves of Great Britain* (Waltham, A.C., Simms, M.J., Farrant, A.R. & Goldie, H.S., 1997).

The Mynydd Llangynidr GCR (as revised in 2012) extends into Mynydd Llangatwg SSSI east of the B4560 road.

The Powys part of the site lies within the Brecon Beacons National Park.

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