# CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES

### SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

DENBIGHSHIRE/
WREXHAM
RUABON/LLANYSILIO MOUNTAINS
AND MINERA

**Date of Notification**: 1955, 1972, 1979, 1983, 1984, 1991

National Grid Reference: SJ215495

**O.S. Maps:** 1:50,000 Sheet number: 116, 117, 125

1:25,000 Sheet number: SJ14, SJ24, SJ25

Site Area: 4795 ha

## **Description:**

Ruabon/Llantysilio Mountains and Minera SSSI occupies a major upland block stretching north from the Dee Valley between Corwen and Ruabon for a distance of up to 9 kms. It rises to an altitude of around 580 m. The site is notified firstly on biological grounds, for its heather moor, limestone and neutral grassland habitats and for its species interest comprising a range of upland breeding birds, rare and uncommon plants and the use of mines and caves by bats. The site is also notified on geological grounds as it contains three sites of special interest within its boundaries.

The area supports a range of sub-montane vegetation types reflecting its underlying geology, which includes both acidic and base rich rock types. The most characteristic and extensive vegetation is dry dwarf shrub heath usually dominated by heather Calluna vulgaris but more locally by bilberry Vaccinium myrtillus. The usual range of associated species occur including cowberry V. vitis-idaea. This is the second largest block of heather dominated dry dwarf shrub heath in Wales. A range of other acidic vegetation types are present including bracken Pteridium aquilinum, acidic grassland and gorse Ulex spp. scrub whilst locally wetter vegetation including flushes along watercourses and heather/hare's-tail cotton-grass Eriophorum vaginatum blanket bog occurs. Much of the area has recently or is being actively managed as a grouse moor and a good assemblage of upland breeding bird species is present including merlin, short-eared owl, golden plover and ring ouzel. Carboniferous Limestone outcrops over parts of the area particularly on the prominent scarp with its extensive cliffs, screes and grasslands and Mynydd Eglwyseg but also in the north around the Aber Sychnant. A number of nationally rare plant species are associated with the former including species at their southern limit in Britain (e.g. rigid buckler-fern Dryopteris submontana. The grassland here is heavily grazed by sheep and is relatively poor in species and contrasts with the species rich neutral/limestone grassland vegetation types around the Aber Sychnant, which additionally support a wide range of uncommon plant species. Parts of the vegetation here have developed on old mineral workings, including disused limestone quarries and waste product tips from lime burning and mine spoil heaps. A number of the disused mines are used by hibernating bats including the nationally uncommon lesser horseshoe bat Rhinolophus hipposideros.

Three geological sites are encompassed within the site boundary.

#### These are:

- 1. The Minera Caves (Karst/Cave) are a key site for their cave geomorphology and geology. The interest comprises three cave systems, Ogof Llyn Parc, Ogof Dydd Braf and Ogof Llyn Du, that together provide an exceptionally good example of multiphase karst drainage. The cave system developed in a series of stages as water tables were lowered in direct response to new lower resurgence outlets from the limestone. The new resurgences were the consequence of surface lowering through the later Pleistocene, and specifically the down-cutting of the Minera Valley which progressively exposed the top of the limestone at lower altitudes in a down-dip direction. The shifting patterns of karst drainage can be reconstructed through five phases. The site also provides one of the best examples in Britain of the controls on karst drainage imposed by stratigraphy and structure close to the base of an aquifer. Clastic sediment sequences are thick, extensive, well exposed and of major importance. They constitute an important research resource for studies of Pleistocene history and landform development, and are complemented with fine calcite and gypsum precipitates.
- 2. The Creigiau Egiwyseg (Mass Movement) site supports the most impressive set of limestone screes in Britain. The Carboniferous Limestone presents a west and southwest facing multiple cliff with an extensive scree accumulation below each cliff. At many locations along the hillside, unusually, there is a steep bedrock slope below the cliffs, across which rock particles detached from the cliffs must roll or bounce before accumulating on the substantial, lower-angled scree slopes below.
- 3. The Eglwyseg Mountain (Dinantian) site exhibits classic sections through the youngest Carboniferous Limestone. The scarp shows stepped topography resulting from the erosion of cyclic limestone repetitions within this Asbian-Brigantian sediment pile. This extensive site yields abundant fossil faunas and a wealth of sedimentological features including sediments associated with emergence as well as more marine carbonates. An outstanding site giving unrivalled exposures of Dinantian rocks.

#### **Remarks:**

Most of the site is registered as common land.

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