# CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES

### SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

# CARMARTHENSHIRE/POWYS MYNYDD DU (BLACK MOUNTAIN)

**<u>Date of Notification</u>**: 1963 1972, 1973, 1986

**National Grid Reference**: SN 780195 (approx centre of site)

**O.S. Maps**: 1:50,000 Sheet number: 159, 160

1:25,000 Sheet number: SN 61, 5N71, SN 72, SN 81 & SN 82

Site Area: 6,739 ha

2,190 ha in Powys

4,549 ha in Carmarthenshire

## **Description**:

### **Biological**

This is an important upland site of special interest for its vegetation, open water and birdlife. If forms an interesting comparison with Brecon Beacons SSSI to the east in having a more varied geology. In addition to the Old Red Sandstone there are significant outcrops of Carboniferous Limestone and Millstone Grit.

The summit ridges are notable for their extensive grassland, dominated in the main by matgrass *Nardus stricta*, frequently seen developing on mineral soil exposed by the total erosion of the once widespread blanket bog peat. Heavy grazing, burning and the possible past and present effects of soot and sulphur dioxide pollution are believed to have caused the decline of blanket bog vegetation and dwarf-shrub heath here and elsewhere. However, small areas (notably Drysgol) still support heather *Calluna vulgaris* and bilberry *Vaccinium myrtillus*.

The north and east facing cliffs of Bannau Sir Gaer and Bannau Brycheiniog support an interesting arctic-alpine flora, with such species as northern bedstraw *Galium boreale*, dwarf willow *Salix herbacea*, lesser meadow-rue *Thalictrum minus* and roseroot *Sedum rosea*, together with a rich moss and liverwort flora.

Nutrient-rich flushes are frequent throughout the site, with herb, sedge and moss-rich examples. Limestone grassland and low limestone pavement support lime-loving plants such as limestone bedstraw *Galium sterneri*, limestone fern *Gymnocarpium robertianum* and common rock-rose *Helianthemum nummularium*.

Of the several mountain lakes present, Llyn y Fan Fach is of special note as one of the most southerly examples of a corried lake in Britain. It has the uncommon quillwort *Isoetes lacustris* growing on its sandy bed, and also there is a diverse benthic insect fauna which includes five species of stonefly.

The northern cliffs support an important population of ring ouzels and the site is hunted over by raptors, particularly in winter by the red kite.

# Geological/Physiographical

The site covers the two major cave systems of Dan-yr-ogof and Tunnel Cave, which between them contain about 15 km of passages. The caves are excellent examples of phreatic systems, rejuvenated, and modified by vadose erosion, and contain many textbook examples of underground geomorphic features. They also demonstrate a close response to geological structure with the main drainage oriented in a synclinal axis. Extensive calcite and clastic deposits combine with the morphological features to produce a very complete record of cave development in sympathy with the progressive Pleistocene excavation of the Tawe valley.

The best British examples of debris flows are found on the Old Red Sandstone (Devonian) scarp of Mynydd Du above Llyn y Fan Fach. A number of deep gullies are cut through the vegetated scree surface. These possess levees, showing that quite rapidly moving flows have repeatedly followed the same track in a fluid-like manner. Below the gully mouths are depositional cones built largely of levees; most individual flows have apparently continued to move until all their load was deposited as levees, very little of the original mass being found at the end of each flow track.

### **Remarks**:

Most of the site is registered as common land.

The site lies within the Brecon Beacons National Park.

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