
14 Precipice Walk

Precipice Walk (Figure 34) is a courtesy footpath around Foel Cynwch on land owned by the Nannau Estate. There is a car park and W.C. at the junction of two minor roads [SH 7458 2113]. The round trip from the car park is about 5.5 km. The walk itself is approximately along the 240 m contour. Precipice Walk is signposted from Dolgellau.

Most visitors follow the walk anticlockwise around the mountain. It traverses well exposed rocks of the Ffestiniog Flags Formation, and various intrusions.

Locality 1 [SH 74015 21421] Thinly interbedded light grey silty mudstone and white, coarse quartzose siltstone of the Ffestiniog Flags Formation are gently folded into an anticline and faulted. The siltstone, in beds up to 12 cm thick, locally reach 25 cm in channel-fills and show lens-like bedding, parallel- and ripple-lamination. The silty mudstone is cleaved. At the northern end of the exposure there is a small lens-shaped area, 60 x 45 cm, of breccia. All the fragments are of rocks from the Ffestiniog Flags Formation. Such breccias form thin dykes and sills, and are common on this mountain. They are intrusive breccias emplaced during the Rhobell Volcanic Group magmatic episode.

Locality 2 [SH 74039 21512] A crag near where two walls converge is composed of grey porphyritic microtonalite. Numerous concordant intrusions of microdiorite and microtonalite are common all over Foel Cynwch and are well exposed on the northern part of this walk. They represent the south-western extension of the subvolcanic intrusion complex at Moel y Llan (see Excursion 4), emplaced beneath the Rhobell Fawr volcano. On the eastern side of Llyn Cynwch there is a sharp increase in the number of intrusions, and on the lower slopes of Foel Offrwm, which is an outlier of Ordovician volcanic rocks, eruptive rocks of the Rhobell episode are also exposed. Prior to the eruption of the Rhobell lavas the underlying sedimentary rocks were tilted eastwards and folded, hence the marked unconformity beneath the lavas. Subsequent folding during the Caledonian earth movements steepened this initial tilt and modified the folds. Thus, though in most exposures round this path the bedding dips at only moderate angles eastwards, elsewhere on the mountain, particularly where there is a dense complex of intrusions, the bedding may be vertical or overturned.

Locality 3 [SH 73869 21683] Alongside the foundations of a small building is an erratic, 1.5 m long, of lapilli tuff derived from the lower Ordovician volcanic succession.

Locality 4 [SH 73750 21651] In this area there are many outcrops in which the sedimentary structures in the Ffestiniog Flags Formation are well displayed on weathered surfaces (Figure 35). Note especially the collapsed ripples, with flat tops and lobate bases, and the layers of totally disrupted sandstone beds between perfectly flat, uniform beds. Note also the lineations on bedding planes caused by cleavage/bedding intersections.

Locality 5 [SH 73670 21576] Outcrops of microdiorite contain xenoliths of country rock and abundant 1 cm pyrite cubes.

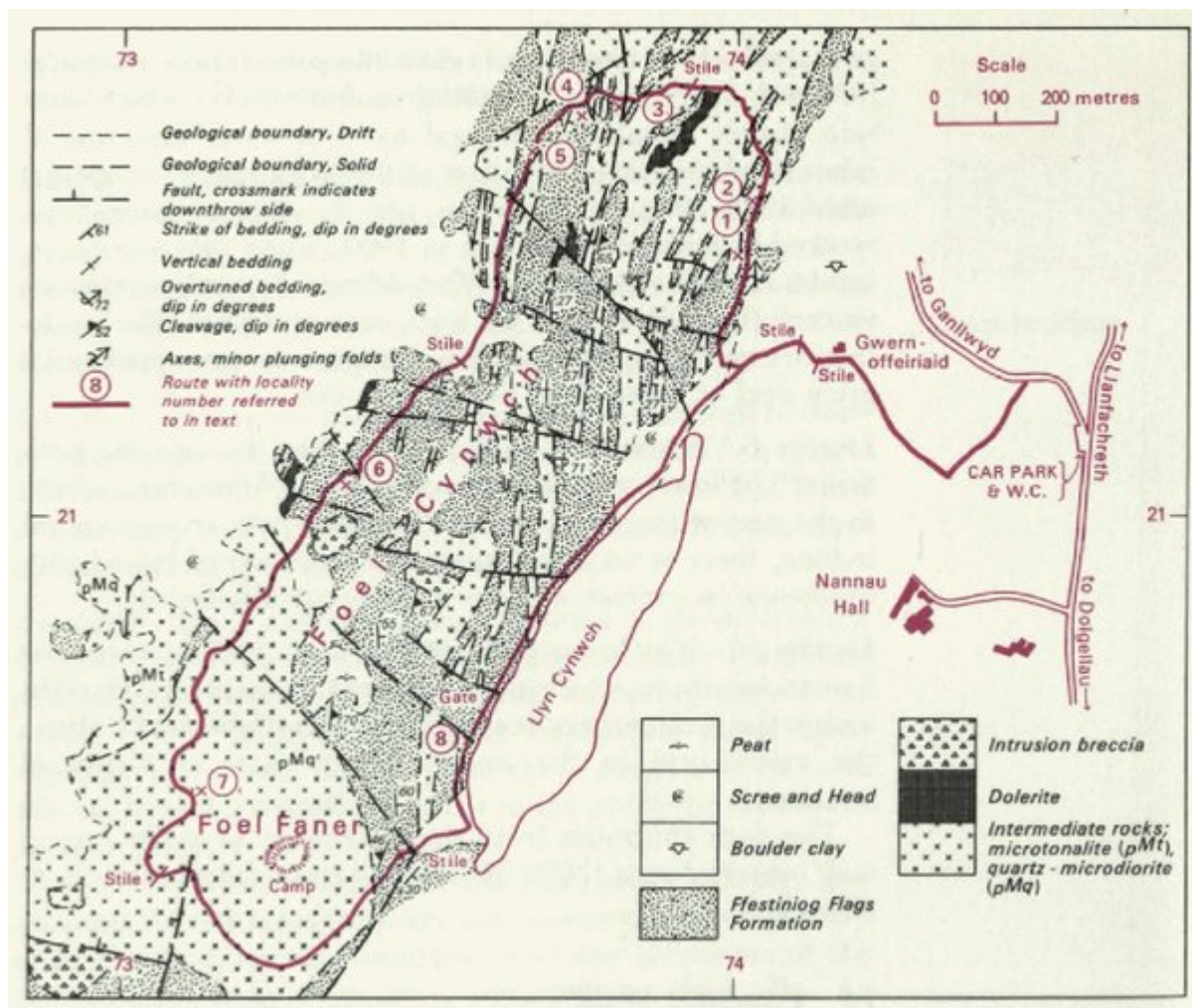
Locality 6 [SH 73384 21071] The bedding here is totally disrupted. These outcrops are on the northern edge of a large breccia pipe which forms the prominent rocky knoll. There are four similar pipes on Foel Cynwch all intruded during the episode of Rhobell volcanism. In porphyry copper districts such bodies are commonly mineralised and, indeed, a pipe at Glasdir, a little over 1 km to the north-west, was mined for copper until 1914.

The view of the Mawddach valley from this locality is informative: the river meanders along the flat-bottomed valley, and dry channels and old cut-off meanders are visible. The lower slopes on both sides of the valley are scree-covered.

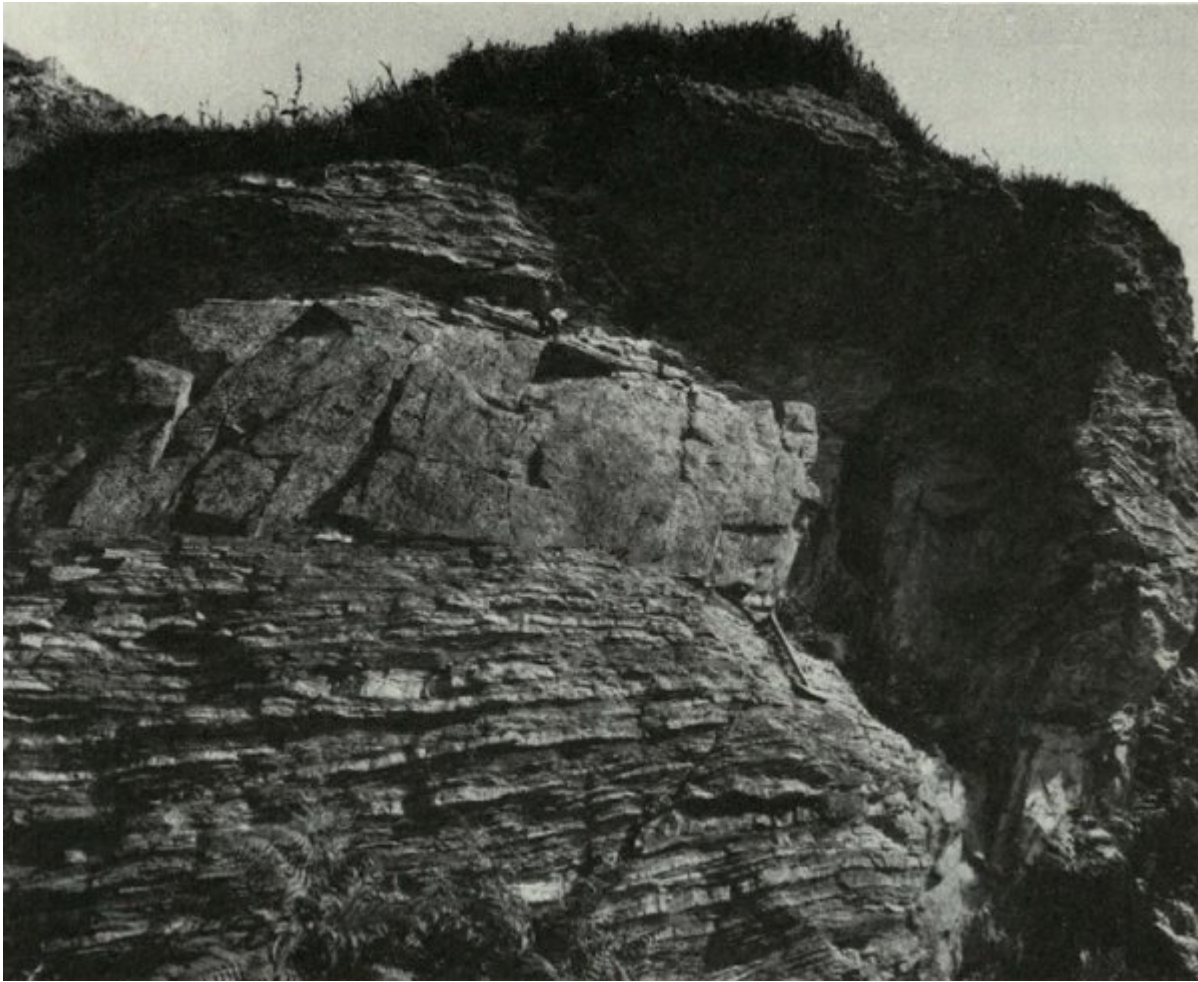
Locality 7 [SH 73128 20551] Outcrops by the fence along the path are of a large, faulted quartz-microdiorite intrusion complex. It is possibly laccolithic and one of several similar intrusions on the eastern side of the Harlech dome. The rock contains spots of epidote, some with pyritic centres, which probably represent infilled vesicles.

Locality 8 [SH 73568 20633] Despite the wall at the southern end, Llyn Cynwch, now used as a reservoir, is a natural lake occupying a depression in a subglacial channel. Outflow at both ends of the lake is blocked by boulder clay. Note that the bedding in the outcrops hereabouts is nearly vertical.

References



(Figure 34) Geology of Precipice Walk (No. 14).



(Figure 35) Ffestiniog Flags Formation intruded by a thin sill of microtonalite.