
16 Pont Dolgefeiliau to Gwynfynydd

The area of the Coed-y-Brenin forest between the Afon Eden and Afon Mawddach has been developed by the Forestry Commission for recreation and, starting at the Forestry Commission car park near the A470, Dolgellau–Trawsfynydd road at Dolgefeiliau [SH 7225 2686], there are numerous footpaths, all marked on the Forestry Commission maps which can be obtained from the Forest Visitor Centre at Maesgwm, 3 km N of Ganllwyd. There are many points of geological interest on these paths, some of which are given below. The route presented defines a circular tour of about 10 km of moderate to easy walking but the map (Figure 37) can be used in conjunction with the Forestry Commission footpath map, and the outcrops described visited by almost any combination of the forest paths. Gwynfynydd gold mine is currently being worked and visitors to it should remain strictly on the public footpaths.

From Pont Dolgefeiliau the footpath strikes south eastwards, across the boulder-strewn hillside. Sections in drainage ditches reveal only boulder clay, which overlies the Hafotty and Barmouth formations. At the edge of the meadow around Cefndeuddwr the path bears north to the forest road.

Locality 1 [SH 72733 26515] The section exposed in the road cutting is typical of the Gamlan Formation consisting of grey siltstone, either massive or laminated, with 1-cm thick chloritic beds and greywacke beds 1 to 10 cm thick. Towards the top of the section thick beds of coarse-grained, quartzose sandstone occur. The turbiditic character of these beds is clearly demonstrable in the sedimentary structures they contain which can be examined in the loose blocks. Pyrite is locally abundant.

Locality 2 [SH 72933 26566] Thick beds of coarse-grained quartzose sandstone, pebbly at the bases, contain grains of blue quartz. Such quartz is common in the sandstones of the Harlech Grits Group.

Locality 3 [SH 72962 26481] On the west of the road there is an old gold working or trial level which followed a vein along a fault. Near the road the open stope is filled with rubbish, and below it the entrance is blocked. The waste tips are partly overgrown, but quartz, calcite, a little pyrite, rare chalcopryrite, galena and sphalerite can all be found. Most of the rock waste is of the Gamlan Formation, but some black mudstone is of the overlying Clogau Formation. Indeed, these mudstones are exposed in the cutting above the old level at the junction with the R576 and they contain bands, disseminations and veinlets of pyrite and pyrrhotite (which is magnetic). The mudstone is well bedded, but broken into blocks by closely spaced joint sets. At the crossroads a large block of quartz shows most of the characteristics of the gold-bearing quartz veins: anastomosing sets of minor veins, enclosed blocks of wall rock, stringers rich in sulphides including pyrite, sphalerite, chalcopryrite and bornite.

Locality 4 [SH 72988 26290] A small outcrop of pyrite-rich microtonalite, near the junction of the R57 and R572, is typical of the minor sills in the region.

Locality 5 [SH 73178 26477] An exposure on the R572 contains the junction between intrusions of grey microtonalite and dolerite. The locality is at the edge of a thick dolerite sill.

The Forestry road (R572) ends about 200 m beyond Locality 5 although a footpath continues. Close to its beginning a wooden bench is sited at a viewpoint overlooking the Mawddach valley. The rusty, treeless scar on the east side of the valley is intensely pyritised microtonalite within the pyrite zone around the Coed-y-Brenin porphyry copper deposit (see Excursion 3).

Locality 6 [SH 73279 26626] The path crosses the lower part of a tip outside one of the upper levels of the old Tyddyn Gwladys gold mine. The vein that was worked is 1 m thick and dips about 70° N. The tip is composed mostly of crushed rock, all the vein material having been taken to lower levels.

The footpath winds downhill to join a forest road by the Afon Mawddach. Turn south at the road, follow it for 50 m, then turn east down a path to the lower road which leads to the bridge over the river below Pistyll Cain and thence to Gwynfynydd gold mine.

There were several mines in this small area and detailed accounts of their history are given in *The Gold Mines of Merioneth* by G. W. Hall and *Goldmining in Western Merioneth* by T. A. Morrison. Roughly one-third of all the gold produced in Merioneth came from Gwynfynydd. Mining at Gwynfynydd ceased in 1935 when the mill burned down, but periodical attempts at revival are still made as at present. For a person interested in mining archaeology there is much to see in this area.

Locality 7 [SH 73512 27496] A mill was built here in the early 1890s. Water was taken by a leat from the top of the Rhaiadr Mawddach, and by pipeline from above Pistyll Cain to a concrete storage tank from which it passed down a steel pipe to drive turbines. Only the mill foundations are now visible.

The track northwards from the mill site to the old workings was originally a tramway, but is now a public footpath. The rocks exposed in the river bed up to, and a little beyond, Pont Gilrhyd are of the Gamlan Formation, though the waterfall, Rhaiadr Mawddach, is over a microtonalite sill.

Locality 8 [SH 73665 27697] Cwm Hesian West mine, visible through the trees on the east bank was worked for lead in the early 1840s. Gold was found here, but it was difficult to separate from the associated sulphides and little work was done after 1864. The outcrop in the river is very dark grey, banded silty mudstone of the Clogau Formation.

Locality 9 [SH 73726 27890] Here the Trawsfynydd fault crosses the river. The Maentwrog Formation on the east is thrown down against the Clogau Formation containing a dolerite sill. The throw on this major fault increases northwards, and near Trawsfynydd the Clogau Formation is thrown against the Rhinog Formation. In the Gwynfynydd mine the fault divides two major vein systems, and correlation across it has always presented a tantalising problem.

Locality 10 [SH 73735 27980] The ruins of the Cwm Hesian mill are on the east bank. The outcrops in the river bed clearly display the characteristics of the interbedded silty mudstone, coarse quartzose siltstone and fine sandstone of the Maentwrog Formation (p. 24).

Locality 11 [SH 73752 28080] No 6 adit of Gwynfynydd gold mine. The mines in this area worked ENE-trending quartz veins containing galena, sphalerite, minor pyrite and rare chalcopryrite in association with the gold. This assemblage contrasts sharply with the chalcopryrite-dominant assemblage in the veins mined at the Clogau gold mine (Excursion 3). Of all the veins here, the Chidlaw was the most productive on the west of the Trawsfynydd fault; the Main, which may be an upward extension of it, was the most productive on the east. The path crosses old waste tips for about 200 m before passing on to open hillside.

Locality 12: [SH 74023 28186] Robert's Level. A sill of microtonalite with good columnar jointing intrudes the Maentwrog Formation and forms the waterfall.

Locality 13 [SH 74074 28215] The thick quartz vein here is named Owen's Discovery. It is rich in sulphide minerals, including pyrite, sphalerite, galena and chalcopryrite. It trends ENE, and across the river was mined at Cwm Hesian East, said to be the first mine in the area to yield gold in 1844.

Locality 14 [SH 74097 28263] Just above the river the path passes the flooded Vaughan Shaft. Adits, shafts and tips hereabouts are part of the Bedd-y-Coedwr or Princess Marina mine, named because the gold for the princess' wedding ring came from here.

The path continues up the hill and joins the road from Bronaber to the Bedd-y-Coedwr farm. For those walkers who have an aversion to retracing their steps, follow the Bronaber road westwards for about 1.5 km, then turn south down the track to Gwynfynydd Farm. The footpath passes the farm and joins a forest road which leads to Pont Gwynfynydd. Whatever return is chosen it is worth visiting Pont Gwynfynydd and Localities 15 and 16.

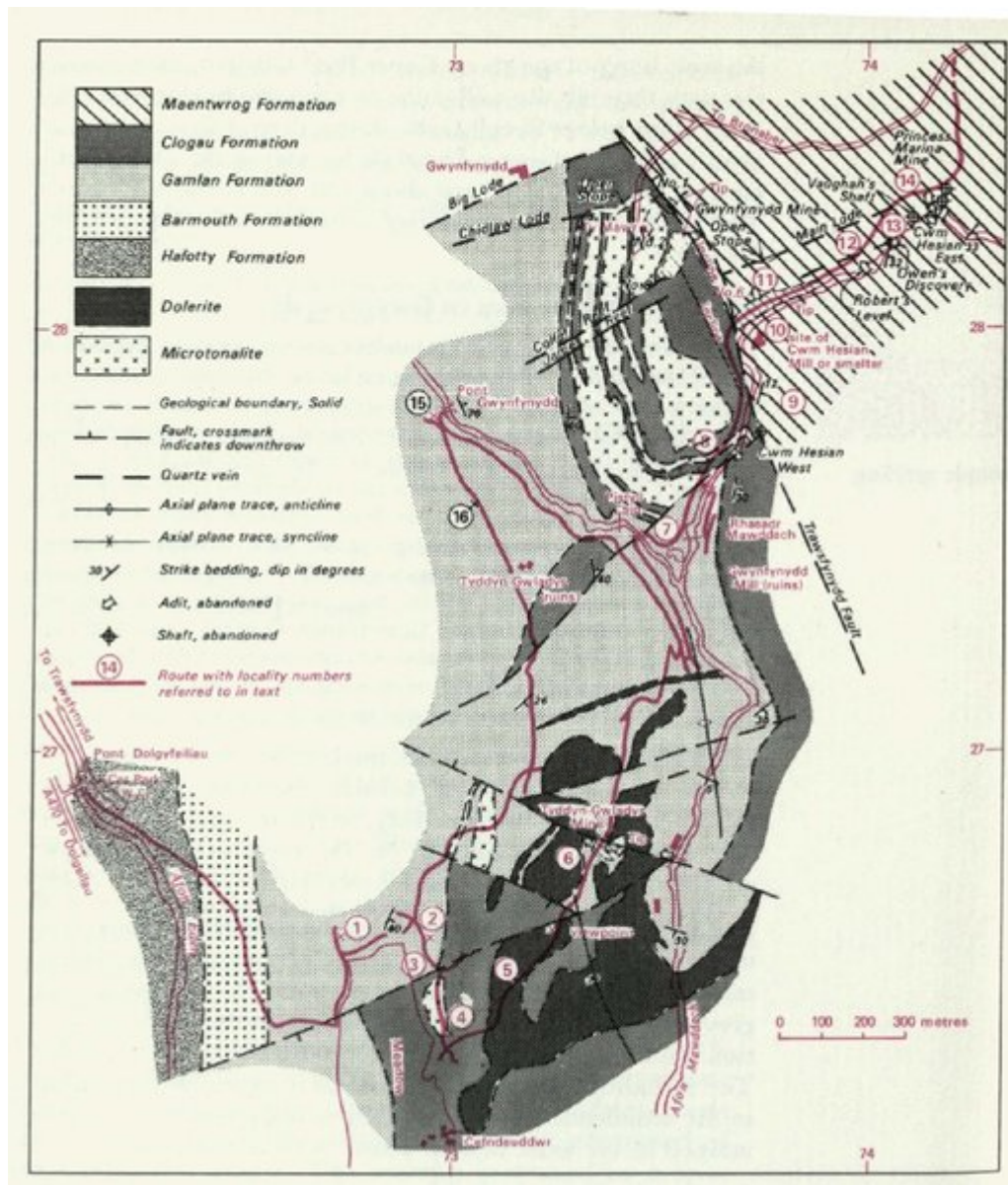
Locality 15 [SH 72965 27771] Near the cross-roads west of the bridge there is an excellent exposure of steeply dipping beds of coarse-grained quartzose sandstone of the Gamlan Formation. The beds, up to 1 m thick, are graded with pebbly bases, laminated fine-grained tops, and are typical of the turbidites in this formation. The sandstones are cross-cut by thin quartz veins, one of which is rich in galena. These veins are the westward extension of part of the vein system

worked in Gwynfynydd gold mine. This excellent exposure continues in the river, below the bridge.

Locality 16 [SH 73060 27579] At this locality the manganiferous rocks of the Gamlan Formation are well exposed. Pale pinkish yellow bands, nodules and lenses rarely more than 1 cm thick in grey or purplish grey siltstone are composed mainly of spessartine. The origin of the manganese is uncertain: it has been suggested that it was deposited in special conditions as rhodochrosite, the carbonate, as a gel on the seafloor and was metamorphosed to spessartine. In this outcrop the manganese bands have a black weathered surface of manganese oxides. The irregular bedding planes are the result of the original gelatinous layer being compressed between silt layers.

Most outcrops along the road from here are in the Gamlan Formation. There is a particularly good outcrop about 400 m S [SH 7317 2728]. A few metres beyond it a footpath crosses the road. This path can be followed south-westwards to near Locality 2, and then any of the routes shown on the Forestry Commission map can be followed back to the car park.

References



(Figure 37) Pont Dolgfeiliu to Gwynfynydd (No. 16).