



© Crown copyright and database rights 2013 Ordnance Survey 100019741

Y Berwyn – disgrifiad cryno

Dyma gadwyn o fryniau prin eu poblogaeth, o rostiroedd eang, agored, grugog. Wedi'u naddu iddi ceir dyffrynnoedd rhewlifol ffurf 'U' tawel, ac weithiau dwfn, hefyd. Dyffrynnoedd Ceiriog a Thwrch, Rhaeadr a Thanat a'u blaenau. Mae'r ychydig aneddiadau yng nghyrrion isaf y prif ddyffrynnoedd, ymysg caeau cymharol fychain a chysgodol, rhwng gwrychoedd. Tua'r gorllewin, mae'r Berwyn yn ategu Eryri gerllaw, a thua'r dwyrain ceir y ffin â Lloegr yng Nghastell y Waun, ac ar hyn Glawdd Offa. Mae Llyn Efyrrwy, cronfa a adeiladwyd ym 1892 er mwyn cyflenwi Lerpwl â dŵr, yn amlwg yn y dirwedd, ac ynghyd ag ardal Coed Dyfnant, yn nodweddu rhan dde-orllewinol o'r ardal sydd yn amlwg yn wahanol i'r gweddill. Yn gyffelyb, mae graddfa fwy o gau tir ac anheddu, a thir is, yn nodweddu'r rhan ogledd-

ddwyreiniol. Ceir cyfres o gopaon amlwg, sef yn bennaf Moel Sych, Cadair Berwyn, Cadair Bronwen a Bwrdd Arthur. Mae hyd yn oed rhai enghreifftiau o gymoedd a llynnoedd rhewlifol. Atyniad i ymwelwyr yw Pistyll Rhaeadr, y rhaeadr fwyaf ei disgyniad fertigol yng Nghymru: ond y mae'r rhan fwyaf, o lawer, o'r ardal yn ddistaw ac yn gymharol annatblygedig.

Summary description

The area is a sparsely settled upland massif, mostly covered by extensive tracts of open moorland, often heather-clad. The area is cut by a series of quiet, and occasionally deep, 'U' shaped glaciated valleys. Valleys include Dyffryn Ceiriog, the Twrch and Rhaeadr valleys, the Tanat and its headwaters. The few settlements are located in the lower reaches of the main valleys, amidst relatively small-scale and sheltered fields, enclosed by hedgerows. To the west, Y Berwyn buffers against neighbouring Snowdonia, while its eastern limit is the border with England at Chirk Castle along Offa's Dyke. Llyn Vyrnwy, a reservoir built between 1881 and 1892 to supply water to Liverpool, is a significant landscape feature, and together with plantations in the Dyfnant Forest area, represents a distinctly different south-westerly portion of the area. Similarly, the greater degree of field enclosure, settlement and lower altitude of the north-eastern portion is notable. There are a number of distinct mountain summits, notably Moel Sych, Cadair Berwyn, Cadair Bronwen and Bwrdd Arthur. There are even some instances of cirques and glacial lakes. A popular visitor 'honeypot' is Pistyll Rhaeadr, the highest vertical waterfall drop in Wales. However the overwhelming majority of the area is quiet and relatively undeveloped.

Key Characteristics
Spine of extensive, open, unenclosed, rolling uplands
A series of deeply incised 'V' or 'U' shaped river valleys - to the south-east side.
Waterfalls including Pistyll Rhaeadr (the highest in Wales) to the north west of Llanrhaeadr-ym-Mochnant, relating to geology.
Moorland - of the central and western 'massif' is recognised and protected as being of significant ecological interest for moorland breeding bird species.
Marginal farming – fieldscapes extending up the hillsides with a distinct land-cover change to unenclosed moorland characterise some areas e.g. west of Glyn Ceiriog.
Remote and unsettled, inland character – contiguous with the uplands, but gentler with more enclosure up hillsides to the eastern fringe, e.g. around Pontfadog.
Some mining and quarrying heritage - e.g. slate in Glyn Ceiriog area.
Llyn Vyrnwy – a large reservoir in a 'U' shaped valley, and much C20th afforestation, plus the adjacent Dyfnant Forest result in significant change to former character.
Large scale upland coniferous forest – in some areas and interspersed with the moorland and on hillsides above Llyn Vyrnwy.
Lower lying pasture, field boundary hedgerows, hedgerow trees and deciduous woodland – in river valleys such as the Tanat.
Settlement in valleys - only a few, compact, linear valley villages such as Llangynog.
Archaeology - prehistoric ritual and funerary monuments such as the cairns and round barrows in the most elevated areas, and evidence of occupation on moorlands and in the Tanat valley.
Tranquil – the overwhelming majority of the area is quiet, rural and has a very low level of development.

Visual and Sensory Profile

This is an extensive upland plateau of rolling heather moorland, cut into by a number of steep-sided valleys, especially on the southern side. The highest point is Cadair Berwyn at 827m. Though not as rugged or extensive as Snowdonia to the west, the area includes some dramatic landforms reflecting the underlying geology. The result is an upland landscape of remote, exposed, windswept character, with clearly defined dissecting valleys including the Tanat and Ceiriog. These valleys contrast the uplands in providing a more intimate, smaller scale, sheltered landscape. They are characterised by a mosaic of lush, green pasture interspersed with hedgerows and small woodland areas. The visual continuity of their valley sides is broken by a number of minor streams feeding into the main rivers. These are often wooded with minor waterfalls, and occasionally large examples such as the scenically attractive Pistyll Rhaeadr, the tallest in Wales and one of the 'Seven Wonders'.

A further valley has been flooded to create Llyn Vyrnwy. This large scale landscape feature is matched by extensive woodland plantations on the valley sides – mirrored elsewhere by other large woodland blocks, such as in the Dyfnant Forest to the south.

The lower slopes, more particularly in the eastern and southern peripheries, give way to open fields and improved pasture. These upland margins are distinct in themselves as they include relatively large, straight-edged fields with fences, unmanaged remnant hedges, and a number of coniferous shelter belts. All this contrasts with the lower valley bottoms of the area that are more typically lush with deciduous trees, and have a patchwork of smaller fields and hedges.

Tranquillity is only lessened by the few 'B' class and minor roads that cross the area, while the few settlements that do exist, such as Llangynog, are distinctively compact in form and structure. To have such a visually varied and engrossing landscape so close to the border with the extensive lowlands of Cheshire and Shropshire to the east is notable, as are the many quiet and unfrequented areas by comparison to the adjacent Vale of Llangollen.



Llandrillo near Pont Cilan © LUC



The area includes upland fringes where farmed land meets open hill, where enclosures meet open ground, and where hillsides show a transition between sheltered valley and exposed hilltop. © John Briggs



The typical pattern of hills, moors, valleys, upland farming and forestry as seen at Plas Nantyr. © John Briggs



Pontfadog, on the eastern fringes of the range of hills. Here the enclosed valley pastures extend further up hillsides, giving way to larger hillside and hill top fields, some arable.

© John Briggs



Upland fringes above Llanarmon Dyffryn Ceiriog. In some areas as here, hedges have become overgrown and gappy and supplemented by fences.

© John Briggs



The Llyn Vyrnwy reservoir and forestry. The scale of this reservoir is impressive, filling the valley floor entirely for it's 4 mile length and creating a very different character. © John Briggs



Near Llanarmon Dyffryn Ceiriog © John Briggs

Geological Landscape influences

The bedrock geology for the greater extent of Berwyn comprises rocks of Ordovician age, while the northern edge and to the west of Llyn Vyrnwy is underlain by Silurian rocks. The rocks are predominantly mudstones and siltstones, but later, intermittent volcanic activity during the Ordovician period has left ash (tuff) layers, which are now preserved around the margins of the Berwyn and form prominent crags such as at Craig Rhiwarth, Pistyll Rhaeadr (GCR site) and Pandy (GCR site). At Pandy, in the Ceiriog valley, the volcanic ash has been quarried. Towards Chirk there is a small area of younger rock from the Carboniferous period, which includes faulted blocks of limestone and millstone grit.

The exploitation of geological resources has influenced the landscape of Berwyn. There are lead mines in the Tanat valley, and the village of Llangynog developed through lead-mining and slate-quarrying. The mineralization at Llangynog is associated with an igneous intrusion and the vestiges of mining are evident in the spoil tips which overlook the village. Another example of lead mining on a scale which makes an obvious impression on the landscape is at Craig y Mwyn near Pistyll Rhaeadr. The mineralization here is associated with the volcanic tuffs.

The Berwyn ridge with its highest point reaching 827m at Cadair Berwyn, runs approximately north east to south west and is drained by numerous streams generally flowing to the at right angles to this axis. The south east flowing streams sometimes occupy glacially deepened U-shaped valleys, often with waterfalls at the head of the valleys. Pistyll Rhaeadr, the highest waterfall in Wales (75m), marks the boundary between the Afon Disgynfa, upstream of the falls and the Afon Rhaeadr downstream. Afon Disgynfa displays all the characteristics of a mountain torrent, including rapids and a boulder-lined channel. In contrast, downstream of the falls, the Afon Rhaeadr occupies the floor of a spectacular U-shaped valley and displays characteristics of a lowland river, including terraces, gravel bars and meanders. There is further geomorphological interest in the fact that the waterfall plunges over an erosion resistant cap rock of volcanic ash, and this hard layer can be traced around the upper sides of the valley towards the lead mines of Craig y Mwyn. Pistyll Rhaeadr is one of Wales' most scenic attractions.

Drift geology is confined to glacial deposits in the Tanat valley, although blanket peat overlays upland areas near Cadair Berwyn.

Peat soils overlay the geology of much of the area, giving rise to extensive areas of upland moorland, with areas of well drained fine loamy / silty soils associated with the pastoral valleys that dissect parts of the area.

Landscape Habitats influences

In botanic terms, this is an area of heather dominated heath and blanket bog. Blanket bog covers many of the summits, spilling over onto the surrounding slope. Dominant species are heather, cotton-grass and bog mosses, with cross-leaved heath, deer-grass, cranberry and cloudberry, at its southernmost point in Britain, and lesser twayblade. The drier heath occurs on the steeper slopes, dominated by heather and bilberry. Within and around the heath, acid grasslands, flushes and bracken provide contrasting habitats. Whilst the summit ridge of the Berwyn is gently sloping and even, the sides are very steeply sloping in places and many rivers cascade down from the summit, producing spectacular scenery.

The Berwyn and South Clwyd SSSI / Berwyn SPA (pSAC) is the most important upland in Wales for breeding birds. It supports internationally-important populations of merlin, hen harrier, peregrine and red kite, as well as nationally-important populations of short-eared owl, golden plover, and both red and black grouse. There is also a colony of the Welsh clearwing moth.

Around the edge of the moorland areas there is a landscape of improved pasture, with small woods and relict areas of wetland and heath. Steeper land around the moor is often infested with bracken, with scrub in the many dingles and rivulets cascading down from the moor.

Llyn Vyrnwy is surrounded by both conifer plantations and mature sessile oak woodlands, creating a varied landscape of woodland and water, and managed by the Severn Trent Water Authority and the RSPB. It is home to many typical Welsh woodland bird species, including pied flycatcher, redstart, wood warbler and siskin, as well as peregrine. It is also one of the few Welsh sites where nightjar can be seen. Other tracts of coniferous forest include the Dyfnant Forest to the south and the smaller Cynwyd and Ceiriog Forests in the north. Within the Dyfnant Forest a large area of valley mire at Cors Llyn Coethlyn SSSI remains, supporting extensive areas of bog-moss lawn, slender sedge and birch / willow carr.

Historic Landscape influences

The Tanat valley in the east contains evidence of early occupation such as the large Iron Age hillfort at Craig Rhiwarth, the purpose of which might have been to safeguard and exploit the metal ores in the vicinity, although these were more fully exploited in the 19th century. The primary settlements of the area, such as Pennant Melangell, are associated with early Medieval religious foundations. The uplands of the Berwyn to the west have well preserved relict, prehistoric and Medieval agricultural landscapes, in addition to which there is a number of prehistoric cairns and round barrows concentrated in the most elevated parts of the area.

Some of the nucleated villages have early origins such as Llanrhaeadr-ym-Mochnant, but many seem to be roadside communities of the 19th century, sometimes owing their growth to mining and quarrying. There are some significant early farm houses in these valleys, and early churches also indicate a long history of settlement.

Chirk Castle and its associated designed parkland, located at the eastern edge of the area, is a significant feature in the landscape. The monumental Vyrnwy dam built between 1881 and 1892 to supply water to Liverpool, was the first large masonry dam in Britain and formed the largest reservoir in Europe at the time of its construction.

Cultural Landscape influences

Though this area is defined by river valleys which flow into the Shropshire Plain, its landscape, architecture and to a great extent its language is Welsh. The village of Llanrhaeadr-ym-Mochnant may seem a remote place for anyone to undertake a task so fundamental and academically challenging as translating the Bible into Welsh, yet it was in the rectory here that the task was accomplished, by Dr William Morgan in the 1580s; the comparatively easy access to England and to London and Oxford may have been a reason for his appointment. The villages and scattered farms of this area have been a nursery of poets for centuries; other than those associated with Dr Morgan, strong Welsh-language

literary traditions are those of Dyffryn Ceiriog, the birthplace of Hyw Morys, 'Eos Ceiriog' (1622-1709), who at lived at Pont y Meibion, where a memorial has been erected, of 'Ceiriog', John Hughes, though most of his verse was composed in England and Caersws, and the Rev. Robert Cynddelw Ellis. Eben Fardd, a native of Clynog, was for a while a schoolteacher in the valley. The novelist Islwyn Ffowc Ellis was born in Wrexham in 1924 but brought up in Dyffryn Ceiriog; his *Cysgod y Cryman* is a remarkable early work, an unsentimental view of rural Wales in the years after the Second World War.



A water level view of Llyn Vyrnwy from the dam. The aesthetic appeal of the water tower as a distinctive local landmark in a tranquil setting is clear. © John Briggs

The 'Gothic mysteries' of Liverpool Corporation's dam and water straining tower at Llyn Vyrnwy serve as reminders that large-scale water-catchment systems were already controversial as early as the 1880s, and that they needed in consequence to be architecturally refined. The area around the lake is now a focus for recreation – hiking, cycling, sailing, climbing and horse riding.

Chirk Castle is in origin one of Edward I's great ring of fortifications, guarding the entrance to the mountain passes into Wales. It was later the home of the Myddelton (Myddleton) family, and is now managed by the National Trust.