



© Crown copyright and database rights 2013 Ordnance Survey 100019741

## Dyffryn Tywi – Disgrifiad cryno

O Lanymddyfri i Gaerfyrddin, mae'r afon llawr gwlad hon yn ymddolennu o fewn ffiniau gorlifdir eang, gweithredol. O ran golygfeydd ac ecoleg, mae Tywi'n eithriadol. Mae'r pridd gwaddodol wedi rhoi bywoliaeth dda i genedlaethau o amaethwyr. Mae patrwm rheolaidd o gaeau, wedi'u hamgáu â gwrychoedd sydd â llawer o goed ynddynt. Defnyddiwyd y dyffryn yn llwybr trafndiaeth ers y cynoesoedd. Mae sawl tref hanesyddol yn y manau pontio, a thref sirol helaethach, Caerfyrddin, gyda ffyrdd prysur ac ehangiaid cyfoes cysylltiedig.

Yn hanesyddol, amddiffynnwyd y dyffryn gan gadwyn o gaerau, o gestyll carreg i domennydd pridd syml, bryngaerau cynhanesyddol a gwersylloedd Rhufeinig. Ar adegau mwy heddychlon, denodd ei brydferthwch foneddigion cefnog i sefydlu parciau a phlasau lle gellid edmygu'r dirwedd. Canodd feirdd glodydd uchelwyr fel Rhys ap Iosaf, a dyma gynefin y bardd Saesneg, John Dyer. Denwyd artistiaid yno, hefyd.

Bu modd mordwyo rhannau isaf yr afon ar un adeg, a bu yno gryn fasnachu, cyfathrebu a chludo. Heddiw mae'r afon yn enwog ei physgota, gan gynnwys pysgota o gwryglau.

## Summary description

From Llandovery to Carmarthen, this lowland river meanders on a wide but contained, active flood plain. The River Tywi is both scenically and ecologically outstanding. The alluvial soils have produced a good living for generations of farmers. There is a regular pattern of fields, enclosed by hedgerows with many hedgerow trees. The valley has been used as a transport corridor since prehistoric times. There are a number of historic towns at bridging points and a larger county town, Carmarthen, with associated busy roads and modern expansions.

Historically the valley was protected by a string of fortifications, from stone castles to simple mottes and ancient prehistoric hill forts and Roman encampments. In more peaceful times its beauties lured the wealthy gentry who established parklands and mansions overlooking the landscape. The Tywi Valley has attracted artists and poets such as John Dyer.

The lower reaches of the river were formerly navigable, and were thus associated with trade, communications and transport. Today the river is celebrated for sports-fishing and is associated with coracle fishing.

Key Characteristics
<b>Meandering River Tywi and it's active flood plain</b> – westward flowing and joined by many tributaries from nearby upland areas.
<b>Exposed glacial deposits</b> - Mounds of boulder clay and glacial till, exposed in small cliffs alongside the meandering river channel. Important for a wide range of plant and animal species, including shingle grasses, fish and otter populations.
<b>Fertile grazing pastures</b> – helped by alluvium-rich soils. Dairy cattle and sheep with occasional cereal cropping. .
<b>Wooded slopes to valley sides</b> - Broadleaved woodlands cover some slopes but cover is not continuous. The wood pasture habitats are important for lichens and invertebrates.
<b>Regular pattern of medium to large rectilinear fields enclosed by hedgerows and hedgerow trees</b> – including species rich hedgerows with frequent hedgerow oaks. Higher ground to the east is enclosed by hedgebanks.
<b>Historic designed parks and gardens</b> - across the valley including Dinefwr Castle –
<b>Historic Defensive sites</b> - the valley is overlooked by strategically located defensive sites including Iron Age hillforts and medieval stone castles.
<b>Historic towns</b> - The main town of Carmarthen lies to the west of the area, with the smaller settlements of Llandeilo, Llangadog and Llandovery located at river crossing points. Elsewhere, settlements are dispersed with individual whitewashed farmsteads being key features. Modern urban developments spread from Carmarthen.
<b>Road and rail corridor</b> - Strategic road and rail routes follow the course of the river, adding urban infrastructure to an otherwise rural landscape.

## Visual and Sensory profile

This is one the main lowland valleys of Wales and running out from adjacent extensive upland areas. The valley is a green and fertile vale with a notably wide and active flood plain, across which the river twists and contorts remarkably in places. Slopes dip down from the hills either side.



The curves of the slow-moving river and its pools and oxbow lakes, contrast with the flat land and straight lines of the drainage ditches and hedges of the pasture of the valley floor. The river spills over across its floodplain regularly, with sheets of water crossing the valley. On occasions the morning mists sit just within the valley, a weird pale snaking form when seen from the adjacent hills.

This is a well-settled area with a long sense of history. Its importance for defence, trade and agriculture is apparent from the hillforts and ancient castles on vantage points, and the later great houses and parklands which utilised the borrowed landscape of valley views. Today their importance continues as visitor attractions, as at Dinefwr Castle.

The quintessential view can be gained from Paxton's Tower, built as a banqueting house in 1815 for the appreciation of the classic beauty of the valley. This view retains its charm today, where the elements of fertile pasture, wooded and gentle slopes, with romantic ruined castles, give pleasing contrasts which combine to form the architypal 'beautiful' landscape, seen from an elevated position.

The market towns of Carmarthen, Llandeilo and Llandovery, each smaller than its neighbour downstream, and each with its castle, prominent church and bridge, are built along the valley on slightly higher land alongside the river. These are generally compact in form and have attractive bustling centres with a core of fine historic buildings. Only at Carmarthen at the western extent of the area, do the urban elements jar. There is the A48 dual carriageway, taking heavy traffic to the Irish seaports, and the ubiquitous bypasses, concrete bridges, and retail parks on the outskirts.

The A40, passing along the north western lower flanks of the valley, is also busy with traffic at times. It never dominates the scene, however, as it sits comfortably within the valley landscape. Likewise the B-road on the southern side, and the railway which joins the valley at Llandeilo keep to their places, and all routes allow pleasing views of the valley and surrounding slopes.

Above Llandovery the main valley is similar but of a smaller scale, carrying the smaller Afon Bran, while the Tywi joins the main valley coming from its source in the high uplands of the Cambrian Mountains.



Looking down the Tywi Valley from near Dryslwyn Castle © Bronwen Thomas





Flood plain (in partial flood) between Llanegwad and Felindre © John Briggs



Wooded hillsides and open valley bottom near Llanarthney © John Briggs



Llandeilo and bridge © John Briggs





Field pattern looking down the Tywi valley from Dryslwyn Castle © John Briggs



River meanders and flood plain, looking down the Tywi valley from Dryslwyn Castle © John Briggs



## Geological Landscape influences

The Tywi is the longest river entirely in Wales at 108km and flows from its source in the Cambrian Mountains to Carmarthen Bay. Flowing in a south-westerly direction from Llyn Brianne as far as Llandeilo, it flows westwards between Llandeilo and Carmarthen. For much of its length it follows a meandering course along a flat floodplain and from Abergwili, just east of Carmarthen, the river is tidal. Tributaries of the Tywi include the Gwydderig, confluent near Llandovery, the Sawdde and Bran confluent near Llangadog, Afon Cennen confluent at Llandeilo, and the Afon Cothi which joins the Tywi near Nantgaredig. Because the valley is generally broad and wide, the landscape is generally flat and low lying in nature. However, the valley slopes are steep and rise distinctly from the flood plain in many sections.

The bedrock geology is dominated by NE-striking Ordovician sedimentary rocks. There was also volcanic activity, recorded as layers of volcanic ash or tuff, for example the Ffairfach Group near Llandeilo. Rocks of the Llanvirn Series (which include the former Llandeilo Series) crop out north of the Tywi from Carmarthen to Llandeilo, and south of the river from Golden Grove to Llangadog. Mudstones form the floor and western side of the Tywi Valley from Llandeilo, past the western side of Llandovery and up in to the hills towards Rhandirmwyn.

The disposition of strata in the Tywi Valley is strongly controlled by the geological structure which gives the area a NE-SW 'grain'. This orientation is due to the position of the area on the margin of the Welsh Basin which was delineated by the Welsh Borderland Fault System (WBFS), a plexus of almost parallel, deep-seated and long-lived NE-SW-striking faults that transect the area. One of these, known as the Garth-Llanwrtyd Fault Belt, forms part of the Pontesford Lineament and exerts a strong control on the orientation of the Tywi Valley between Llandovery and Carmarthen.

During the last glaciation, the Tywi Valley was only affected by Welsh ice and locally it would have flowed in a south-westerly direction from Mynydd Du and Mynydd Epynt. The effect was to over-deepen and over-steepen the valley and to deposit glacial till (boulder clay) which locally reaches a thickness of 15m. This till locally forms areas of hummocky topography on the valley sides, which are interpreted as moraines that formed in front of the valley glacier either during pauses in retreat or temporary re-advances. Meltwater channels developed along the valley sides, and the area between Bethlehem and Llandeilo is possibly a kame terrace – a large landform composed of glaciofluvial sands and gravels deposited by glacial meltwaters where the glacier abutted the valley sides.

The modern drainage system in the Tywi Valley was established at the start of the Holocene, about 11,500 years ago, since when the glacial sediments have been progressively re-worked and re-distributed by river processes. Although initiated as a broad braid plain, for much of its length the Afon Tywi is now a typical lowland river that occupies a broad, flat floodplain and displays a wide range of fluvial landforms which reflect high mobility, including tight and sinuous meander loops, abandoned channels, ox-bow lakes, terraces and gravel bars. Fine examples of the sinuous nature of the Tywi are seen at Dryslwyn and Carmarthen, and the reach downstream of Dryslwyn is particularly mobile. The largest ox-bow lake in the valley is at Bishop's Palace east of Abergwili. The upper reach of the Tywi north of Llandovery, and its main tributaries such as the Bran, Gwydderig, and Cennen, follow a straighter, higher-gradient course through steeper and narrower valleys which have been cut into bedrock.

The outstanding geological diversity of the Tywi Valley is represented in numerous SSSI that reflect the importance of the area for stratigraphical studies into the Ordovician Period.

## Landscape Habitats influences

The Tywi flows in a meandering course south-westwards through the character area, fed by streams originating from the surrounding slopes and uplands. It is a valued natural habitat, supporting submerged plant communities such as water crowfoot, along with shingle grasses and plants such as yellow cresses and reed canary grass. The river and its shingle ridges are home to a wide range of invertebrate and bird species, along with important otter and fish populations. As such, it is protected as a Site of Special Scientific Interest (SSSI) and candidate Special Area of Conservation (cSAC).

The underlying geology and fertile alluvial deposits have given rise to deep loamy and silty soils that have created rich pastures for sheep and dairy cattle (the latter being more common in the west). This main soil type is interspersed by more clayey soils that can bring about waterlogged conditions on low lying ground and lower slopes, with rush pastures and wet grasslands largely grazed by sheep. Gentle slopes are often covered by small broadleaved woodlands along with occasional conifer plantations. Lines of mixed woodland including alder and willow carr also fringe the course of the river in places.

Parks and gardens with mature trees, ancient woodlands and pasture are strung out along the valley. These are valued both historically and biologically. The 17th century deer park of the Dinefwr Estate is particularly valued for its wood pasture – with large veteran trees and parkland supporting varied lichen and invertebrate assemblages. Exposure of rocks from the Llandeilo Series is also a key feature of the estate, which is a designated SSSI.

A strong pattern of large rectilinear pasture fields across the floodplain are enclosed by mixed species hedgerows with frequent hedgerow and in-field oak trees. A higher pocket of land in the east at Fforest contains rough grazing land and rush pasture enclosed by hedgebanks supplemented by post and wire fencing.

## Historic Landscape influences

Settlement today is largely concentrated on the banks of the river in a linear form or at crossing points, including the towns of Carmarthen, all of which are associated with Roman and medieval defensive sites. While Llandovery and Llandeilo had Roman forts, Carmarthen encompasses the site of largest Roman fort and town, and had two distinctive foci of settlement in the medieval period. These early origins remain clear in the spatial structure and topography of the town.

Although there remain some traces of early buildings, and fine examples of 18th century urban architecture, much of the town was rebuilt from c1800, when it also expanded considerably beyond its historical extent in a series of more-or-less coherent suburbs of varied social and architectural character. Llandeilo is a distinctive hill-top town established at some distance along the ridge from the mediaeval castle of Dinefwr and the parkland around the newer Dinefwr mansion. The town commands splendid views over the Valley and has a Georgian and Victorian architectural feel. Dinefwr Park has exceptionally attractive parkland where deer and White Cattle graze.

Architecturally, Llandeilo owes its character to development during the 19th century, though early origins are suggested in its spatial structure and topography. In Llandovery also, the architectural character of the town is overwhelmingly 19th century but its spatial structure suggests its early origins, with a long wide main street alongside the castle. Llangadog, whilst small, also has the character of a town. A range of vernacular styles are present in the towns, including Georgian villas, Victorian brick-built terraces and coloured render and slate cottages.

Outside the urban areas, settlement takes the form of scattered farms (relating to mixed agriculture, and many of significant size) and some nucleated villages. The prosperity of the valley supported a series of major landed estates which have exerted considerable influence on its architectural landscape, especially during the 19th century. There are some early houses in the area, but it is 19th century building that contributes most strongly to its architectural character. Farmsteads are scattered throughout, often standing out from the landscape with their bright whitewashed walls and grey slate roofs. Stone is the dominant building material, most often lime-washed or white-rendered in the rural areas. A greater variety of materials and colour characterises the towns.

## Cultural Landscape influences

The Tywi Valley is recognised as of national historic significance principally as a setting to a unique collection of designed parks and gardens and for the inspiration it has provided to artists and writers since the Medieval period. "...The fountain's fall, the river's flow, The woody valleys, warm and low; The windy summit, wild and high. Roughly rushing to the sky! The pleasant seat, the ruined tower, The naked rock, the shady bower; The town and village, dome and farm, Each give each a double charm, As pearls upon an Aethiop's arm." This quote is from 'Grongar Hill' by John Dyer (1700 – 1758), where Grongar Hill overlooks the Tywi valley, south of Llandeilo.

The C18th poet John Dyer lived at Aberglasney House, where the distinctive but enigmatic gardens have been restored over the past 20 years. The area contains many important houses and mansions, along with a legacy of stone castles, earth and timber mottes, bridges and routeways which developed in strategic locations along the river. The remains of Dryslwyn Castle, for example, occupy a prominent position on top of a mound rising up from the flat floodplain landscape, while the ruins of the castle seat of the Lord Rhys of Deheubarth at Dinefwr commands the high ground overlooking Llandeilo bridge (an earlier version of which was painted by the celebrated artist of the Picturesque, J.M.W. Turner). What remains of Carmarthen Castle is also on a mound, now occupied by the County Hall.

The use of the river course as a major communication route was exploited by the Romans, with extensive lengths forming the beds of modern roads. A surviving pattern of routeways and defensive forts is a key feature of the historic environment. The heavy use of the valley as productive grazing land has probably overlain many more relict landscapes and buried evidence of earlier settlement and land uses. Prehistoric remains are particularly scarce in the valley, although glacially deposited raised areas found in the floodplain are likely to have been the location for early settlement. On the higher ground a small number of hillforts, standing stones and other ritual monuments overlook the valley.

Like many towns of along the M4/A48/A40 east-west communications corridor, Carmarthen's historicity is slowly being subsumed by modern development in the form of out-of-town retail, business and light industrial parks, though the central part contains a



wealth of Georgian and Victorian buildings, many of which are built over Roman remains. Half the original Roman amphitheatre is visible adjacent to a terrace of houses. The town is also associated with Merlin, the wizard connected with the court of King Arthur.

The A40 runs alongside the northern edge of the river across most of the character area, with smaller roads radiating out to link dispersed hamlets and farmsteads. The straightness of part of the main road from Llandeilo to Llandovery (suggesting Roman origins) are popular today with motorcyclists.

Although it is under some pressure, particularly from in-migration, the Welsh language is still strong throughout Carmarthenshire, including the Tywi Valley, in both urban and rural areas.



Dryslwyn Castle © Richard Kelly



Active flood plain with pastures, neat hedgerows and mature trees near Felindre © John Briggs