

upheaval in the earth's crust. On some of the surfaces the meandering trails left by creatures on the sea floor can be seen. Tree-roots have penetrated between the plates of shale, prising them loose from the bedrock.

The horizontal boughs and crevices of the large oaks beside the steps bear a community of ferns, mosses, and even grasses and other flowering plants. Plants growing upon other plants in this way are termed epiphytes, and their survival is made possible only by the high rainfall and humidity which keep them moist. More than twice as much rain falls here as in the Midlands and eastern England, the average total is over 60 inches a year. Proceed with care down Jacob's Ladder. You have now descended over 300 feet into the gorge and are halfway around the nature trail walk.

⑨ Look at the rocks here. Again you can see the dip – a steep eastward tilt in the thin layer of rocks. At a steeper angle is a series of parallel closely-spaced fractures which are known as cleavage planes. They were produced during the earth's upheaval which converted the shale into slates. The cleavage planes are developed only in the finer grained rocks between the siltstones. Carefully cross over the iron footbridge and begin the ascent back up the other side of the gorge, and enjoy a closer look at the waterfalls.



⑩ This grotto beside the waterfall is all that remains of a cave which once housed a family of highway robbers. The cave was partially destroyed after their capture. It is now a pleasant mossy place in the summer, and a dramatic viewing point in the winter when the swollen river cascades over the edge of the rocks above and icicles cling to the cave ceiling. Some visitors have carved their initials in the rock, with dates going back to the late eighteenth century, but the oldest inscriptions are natural – Silurian worm-trails made 400 million years ago! Most probably the cave originated as a crevice behind a fallen slab of rock, which was later enlarged by man. The Silurian shale does not normally contain natural caves away from the sea coast. Return to the main path and continue upwards. Some of the ascent is made on steps hewn out of the living rock. Notice that the slates are polished into a bright blue colour, while the ribs of coarser rock tend to be brownish.

⑪ Here you see one of the largest pot-holes in the bed of the Mynach, overhung by oak, ash and holly trees, and rhododendrons. When the river is in full spate the waterfall crashes down into a boiling cauldron, and spray drifts up over the viewpoint. In dry weather the fall is less spectacular, but you see the many boulders and pebbles in the pot-hole, often worn smooth by being whirled round against the rock.

⑫ Have a well earned rest and enjoy the wooded landscape. You have now reached the halfway point of your ascent. When ready move on up the path to the foot of the next stairway.

⑬ Here you may notice a line of large cast-iron pipes, some of them detached, which formerly led from a concrete weir across the Mynach right down to a small building beside the Rheidol, 400 feet below. The water diverted through this pipe provided power for an early hydro-electric scheme, which gave electricity for local use before the days of the public supply.

⑭ At the top of the last flight of steps there is a spectacular view of the Gyfarllwyd Falls and Cambrian Mountains. Use the telescope to take a closer look at the falls and the beautiful gorge through which you have walked.

The path emerges on the main road on the West side of the Devil's Bridge. Turn right for the narrow-gauge railway. Turn left for the car park, The Woodlands Café and The Woodlands Caravan Park.

The legend of Devil's Bridge:

Once upon a time an old lady lived near the river Mynach. One day her cow wandered across the river and because of the steep gorge she did not know how to get it back. The Devil appeared and told her that he would build a bridge, but he wanted the first living thing which crossed it for himself. She agreed. He believed that she would be crossing first to fetch the cow. However, she outwitted him by throwing a crust of bread across the bridge. The old lady's dog ran across the bridge after the crust; the Devil had the dog and the old lady had her cow back.



Devil's Bridge Waterfalls & Nature Trail

(12 miles east of Aberystwyth on the A4120)

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DEVIL'S BRIDGE NATURE TRAIL GUIDE BOOK



This Nature Trail guides you along the Jacob's Ladder footpath in the Rheidol Gorge below Devil's Bridge, which has attracted countless visitors since the eighteenth century. We hope that the leaflet will add to your enjoyment of the woodlands and gorge by indicating features of interest you might otherwise miss, and by describing something of the history and the wildlife of the area. The stopping-places mentioned in the text are marked by numbers on your map ① to ⑭.

Please follow the Country Code and Outdoor Studies Code. In particular leave no litter, and do not pick or uproot wild plants or damage trees. Please DO NOT stray off the path.

After passing through the turnstile, turn left to view the Three Bridges from below:

① Here the river Mynach has carved a deep narrow gully through the rock and this is spanned by the three famous bridges. The lowest is the Devil's bridge, a simple stone arch which, despite its name, is thought to have been made by the monks of Strata Florida abbey, for it lies on the route between their former hospices for travellers at Ysbyty Ystwyth and Ysbyty Cynfyn (near Parson's Bridge). The river itself also takes its name from the holy men, mynach being Welsh for monk.

The middle bridge was built about 1708 and has a fine iron balustrade. The topmost iron bridge was provided by Cardiganshire County Council at the beginning of the 20th century and was strengthened by the insertion of deep girders beneath it in 1971-72. Dyfed C.C. replaced the Victorian parapets with a similar design in 1983.

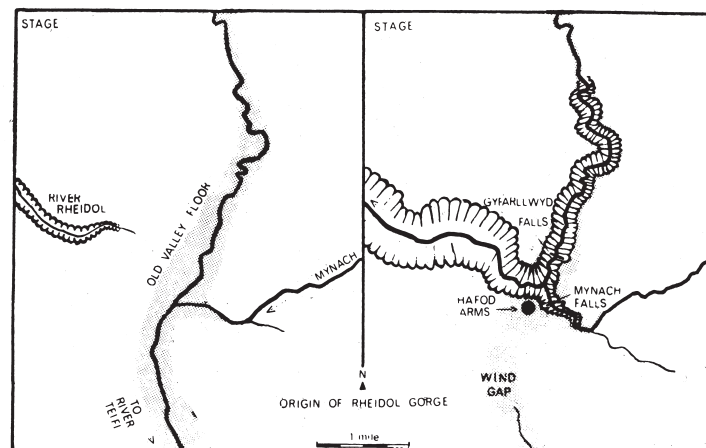
The vertical side of the gorge opposite you is not even, but is scalloped by a series of concave depressions. These curves are the sides of former pot-holes marking the successive depths of rock through which the river has cut. At the bottom of the gorge the lowest of these is still being scoured out by the river at the present day.

Notice the abundance of mosses on the rocks, favoured by the cool and humid conditions in this shady place.

Head back along the path to nature watch corner. Time permitting sit and watch the wildlife feeding. Read the notice boards to help you identify the different birds, lichens and ferns that live and grow within these woods. Now pass between banks of rhododendron, a south European shrub which thrives here at the expense of native plants, until you reach a place with a view over the gorge.

② From here you look out across the chasm, described by George Borrow in 1854 as a "profound hollow with all the appearance of an extinct volcano".

In fact there is nothing volcanic about this landscape, the chasm has been worn out by fast-flowing water. You will see that the River Rheidol in its gorge makes a right-angled bend below you, the river comes from the north and turns sharply westward at this point. At one time the Rheidol is believed to have flowed away to the south (your left) at a much higher level, to join the Teifi near Tregaron. The westward-flowing river



before you, which is now the lower Rheidol, was then a separate stream, but its headwaters cut back into the hills until they 'captured' the upper reaches of the Rheidol near where you are standing. Since that time the Rheidol has turned west to reach the sea near Aberystwyth, and carved out the deep gorge. Its former course is the "wind-gap" in which the village of Devil's Bridge now stands.

You may also notice the strangely-battlemented hilltop on the skyline to the west. This is Bryn y Castell, the site of an early fortification.

Move along about 150 yards to the next stop, with another fine view down the valley.

③ As in George Borrow's time "the sides of the hollow are beautifully clad with wood". A century ago the woods would have been almost entirely of sessile oak, the dominant native tree of these upland valleys (sessile means "unstalked" – the acorns have no stalks, unlike those of the common English oak). Today, many of the oakwoods have been replaced by plantations of foreign conifers. Notice how the foresters have tried to make the planting more pleasing to the eye by setting various species of trees in irregular patches rather than in regimented blocks.



④ Sessile oakwood still covers much of the grounds through which the path runs, and both sides of the gorge to the north, as it has for many centuries. Note typical vegetation of the local oakwoods, with heather, bilberry, various grasses, and a great variety of mosses. When sheep are present (as in most local woods) the heather and bilberry tend to be eliminated, but here there are no grazing animals. Most of these nearby oakwoods are part of the Coed Rheidol National Nature Reserve, managed by the Countryside Council for Wales. This reserve is one of a series of outstanding wildlife habitats which the Council manages throughout Wales. Many of these reserves are used for teaching and for research into problems connected with nature conservation. At Coed Rheidol a major problem is to ensure that a succession of young oak trees becomes established; in the past most seedlings were eaten by sheep, and now few can survive the effects of shading by the large oaks, which are all about the same age. An experiment being tried in one part of the reserve suggests that the solution may lie in creating small artificial clearings where the young oaks can have enough light to survive. The woods beside the path contain native oak and birch, and some introduced larch.

Fifty yards further on, where the path descends more steeply, is another place to pause.

⑤ Here there are poor stunted oaks below the path, and you can see from the bare patches on the ground how thin and stony is the soil in which they grow. Above the path, where the ground slopes less steeply, there are better-grown trees, including larch, oak, holly, and young birches. Several nest-boxes for small birds have been placed in these trees, and in the spring some of them are occupied by pied flycatchers and blue tits, the two abundant hole-nesting species of the Mid-Wales woods. If you watch quietly you may see the birds come and go.

From late May onwards you may notice that many of the leaves on the oaks are being damaged by small moth-caterpillars. These are given by the flycatcher and tits to their nestlings as food and they are also taken by many other small birds which inhabit the woods, including nuthatch, redstart, willow warbler and wood warbler.

In the autumn the acorns are taken by woodpigeons, jays, and squirrels, and throughout the year the rough bark and buds of the oak trees shelter a host of small creatures which provide food for birds.

The path now curves down to the left, and after about 90 yards comes to a viewing gazebo.

⑥ From here there is a splendid view of the Mynach Falls. The little river tumbles abruptly in a series of cascades from the lip of the gorge down to join the Rheidol over 400 feet below. Its course provides a good example of a "hanging

valley". For several miles the Mynach has flowed comparatively gently through the hills, but the mouth of its valley is no longer at the same level as the bed of the Rheidol. The main river has curved its gorge much more rapidly than its small tributary, leaving the Mynach to leap down the steep face.

⑦ Before going on down the steps, walk about 50 yards to the north (your right) to view the Gyfarllwyd Falls, in the river Rheidol.

⑧ The Rheidol is one of the swiftest rivers in Britain, falling through 1,750 feet in the 28 miles between its source on Plynlimon and the sea at Aberystwyth. In the gorge to the north of the viewpoint, it descends as much as 200 feet in a mile. Its speed of flow, especially at times of spate, has given the river enormous power to wear away the rock, producing a deep narrow gorge with almost vertical sides. The gentle profile of the original valley can still be seen at either side of the gorge to the north.

In future the gorge will be deepened less rapidly, for the river's energy has been tapped to produce electricity. With the building of the hydro-electric dam at Nant y Moch, some six miles upstream, and the lower barrage near Ponterwyd, the spates are now controlled, and about half the river's flow diverted through pipes to a generating station below Devil's Bridge.

Notice how the rocks beside the steps here are exposed. They were originally muds and silt which accumulated on the sea-bed in Silurian times, about 400 million years ago. The layers of sediment, originally horizontal, have been hardened to shales or slates and siltstones, and have been tilted to dip at a steep angle as a result of an

