DISCOVERING BRITAIN

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Trail

The Celtic rainforest

Explore an ancient tropical forest on the slopes of Snowdonia

Time: **60-90 mins** Distance: **2 ½ miles** Landscape: **rural**

Step into a world of dripping ferns, gushing gullies and sweeping treetop vistas.

You might feel you are in the Amazonian rainforest but instead the ancient flora that surrounds you tells the tale of some of the oldest woodlands in Britain - and the fight to save them for future generations.

Explore this seemingly untouched oasis of tropical calm amidst the towering slopes of Snowdonia.

Uncover how two small strips of woodland come to life as Britain's own Celtic Rainforest.

Location:
Coed Felinrhyd, Blaenau Ffestiniog, Gwynedd, LL41 4HY

Start and finish:
Entrance to The Woodland Trust path, just off the A496

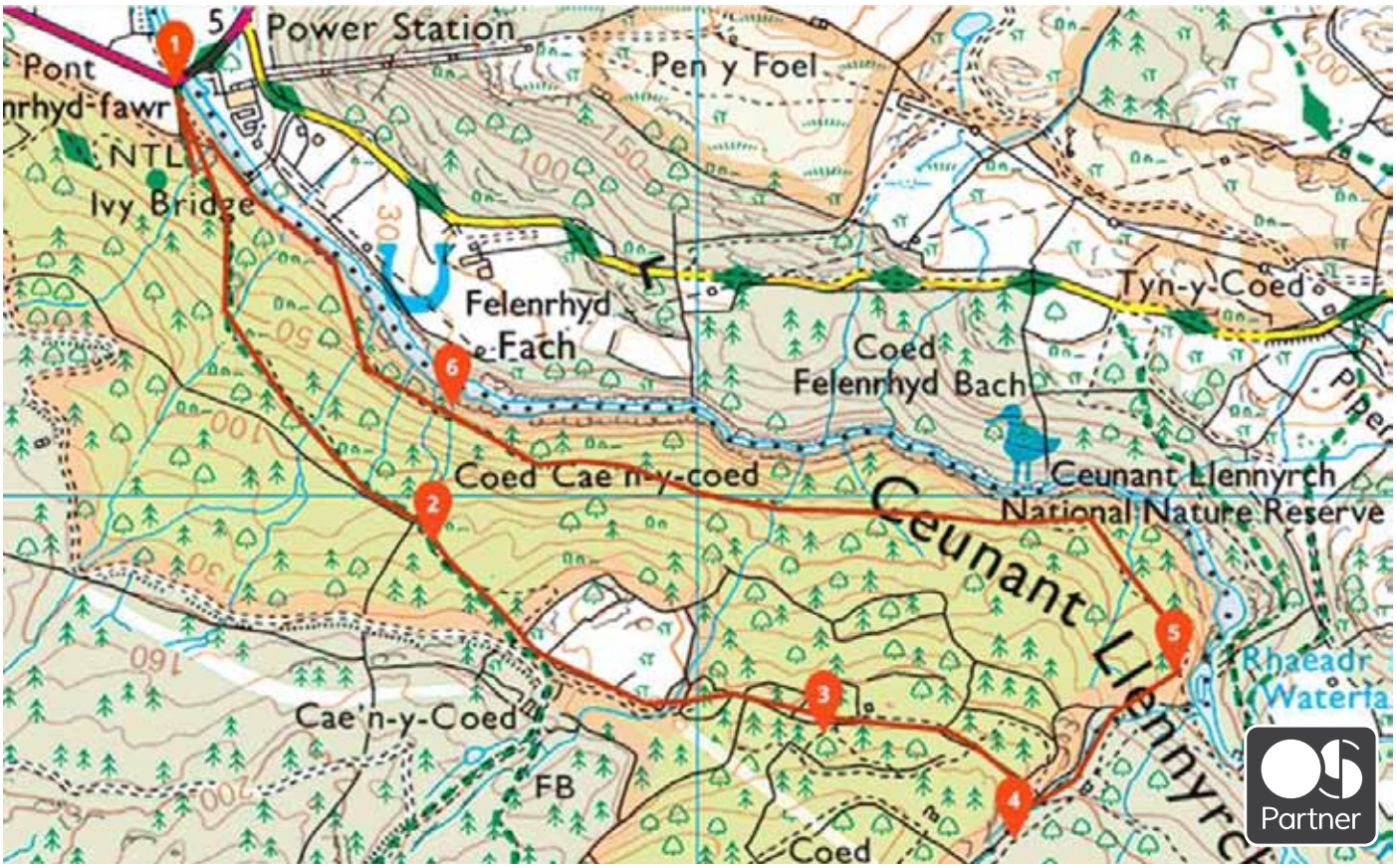
Grid reference:
SH 65421 39663

Keep an eye out for:
See if you can spot a rare lichen in the forest known as Blackberries and Custard!

Directions

Park for free at the layby on the A469 towards Harlech. Walk down towards the Hydropower station passing its entrance on your left. Cross the stone bridge and turn immediately left through a wooden gate. The trail starts at the Woodland Trust 'Welcome/Croeso' post.

Route and stopping points



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01 The oak tree

Greeted from the road by a mighty oak, you can immediately feel the age and stature of this hidden pocket of woodland. An oak tree is a familiar symbol of the British landscape – oaks have featured across folklore, poetry and art throughout the ages. But on this trail we will see how there is much more to this ancient woodland than might first meet the eye.

This tree is no exception. Look closely at its bark. Can you see fine green layers of what looks like a frilly skirt, or even a lung? This is a lichen, aptly named Tree Lungwort. Tree Lungwort is quite abundant in Western Scotland but has been lost from much of the rest of the UK due to air pollution and acidification and is now considered 'threatened' in many European countries.

It likes unpolluted atmospheres with lots of moisture and humidity, and hates acidic environments. This reveals that this slice of woodland is relatively sheltered from pollutants – a rare bastion of clean air in a crowded Britain.

Lungworts, like many Atlantic lichens, have a very scattered distribution across the globe. Lichens, mosses and lungworts found here might next be found as far afield as Tenerife, the Azores or the Scottish Highlands – wherever the environment is just right for them to flourish. Their specific habitat requirements make them a great way to understand the climate and landscape that they live within. And no more so than here.

The lichen also tells us that this tree is very old. As oak trees age, their bark becomes less acidic. This means the Lungwort finds them more attractive as a host. In fact its presence indicates that both the tree itself and the woodland it grows in are of considerable age.

Directions
Start to walk up the hill, keeping to the right fork of the path up to the wooden gate. Continue up through the kissing gate. Keep to the path as it winds up through the hillside with slate and moss underfoot. At the top of the hill pass the single bench on your left and go through the gap in the dry stone wall that crosses your path.

02 Woodland restoration

Take a breather from your climb up the woodland path and peer out through the foliage to your right. Can you see a darker patch of forest further up the hill, filled with brambles and conifer trees?

The contrast between where you stand and this other patch of woodland might not seem obvious at first, but there are lots of signs which point to their differences.

Both would have originally been upland oak woodlands. As we know from the Tree Lungwort's presence, this is a damp and humid environment. Over 500 species of plants are associated with this type of woodland. This includes 35 species regarded as conservation priorities in the UK. But the conifer we can see opposite is not on that extensive list. So why are they there?

Throughout Britain's history, oak has been used as a valuable resource. For centuries the trees that grew here would have provided charcoal and building materials for shipping slate from the nearby hillsides. Tannin within its bark was used for processing leather. Useful trees to have around!

Historically there has always been a fear of not having enough home-grown timber at times of war. Right back as far as the era of the Plantagenet's in the 12th century most of our native Yew trees were used up in the making of longbows.During the attempted invasion by the Spanish Armada (in 1588), trees were planted and used to build our naval fleet. As the twentieth-century world wars beckoned, an intense period of tree planting began. Straight after the First World War the Forestry Commission was set up with the aim of making us self-sufficient in timber.

Pine and other coniferous trees were introduced in swathes across Britain to provide a more ready and affordable supply, with many ancient woods being cleared to make way for these exotic crops. Conifers are quick-growing, do well in northern latitudes and saw a much quicker return on investments than other slower-growing species.

Changing the make-up of the forest like this meant that many of the 500 species associated with oakwood environments perished, paving the way for other species to invade. Virulent rhododendrons took hold beneath new canopies of towering conifers.

Conifer has altered the face of British woodlands for almost a century. In 1992 the Woodland Trust acquired the wood you stand in now. Since then the Trust has been working on restoring the original oak habitats back to health. On this side you can see where the conifer trees and invasive rhododendron have been largely removed to make way for oakwood species to return.

In contrast, the area across to the right remains in the early stage of restoration. Its canopy remains dense and woodland floor dark.

This is a delicate process though. Simply eradicating all of the planted conifer would change the woodland's humidity and remove protection for the more sensitive species, such as the lungworts we saw earlier. Brambles could take hold rather than mosses or heathers, and any young oaks could topple over if all of their shelter were removed in one fell swoop.

So the ideal solution is to gradually thin – remove some conifers and allow the environment to readjust before removing more. You might be able to spot a few of the younger oaks on your walk up the hill, a sign that the original environment is slowly being restored.

Directions
Continue following the path uphill – you are nearly at the top! Go through the wooden kissing gate and turn left onto the track. After 20 metres or so you will reach a fork in the path. Take the left hand fork downhill, past a small cottage on your left. Continue through another kissing gate past some large wizened old oak trees interspersed with larch.

Follow the path round a corner to the left as the ground opens up and gets mossier underfoot. Stop when you can see a derelict barn on your left.

03 Old slate barn

This crumbling, moss-covered hut hiding in the woodlands is a relic of this hillside's farming past. This barn was probably a small 18th or 19th century dwelling or barn and may have been used in 'hafod a hendre' farming. This was the Welsh term for a building where the farmers lived with their flock. Hafod means a farm on the higher pastures where they would take the sheep during the summer (haf is Welsh for summer) and hendre is the Welsh for old settlement or farm.

The other hint to this way of life is the slightly more organised-looking rows of oak trees you will see as you walk on through the forest. These rows may have lined old pasture boundaries. The farming would have been low impact and minimal, with sheep grazing between the trees and small areas of pasture weaving around the woodland landscape.

The clearings in which barns like these would have been used appear on 19th century tithe maps, which show that they were small pockets with a large expanse of woodland. Map evidence is one important way to research a wood's origins.

'Ancient woodland' in England and Wales is usually defined as that dating from 1650 or earlier: this is

because we have few reliable maps available for previous eras and we think that there was very little large scale woodland planting prior to this. So if a woodland appears on the earliest maps, it is likely to have been wooded fairly consistently for many centuries, maybe even millenia.

The clues on the ground are not always that straight-forward, however. Some of the biggest trees are often those that grew on open ground with little competition – like these oaks that probably grew up along field boundaries with plenty of sunlight. But the lack of big old trees does not mean a woodland ecosystem is not ancient: woodland trees may grow slowly or have been cleared over time.

Look out for other indicators, such as woodland flowers or mosses and lichens that only grow in old woods or the stumps of long dead mighty oaks. These are all clues that the ancient woodland may live on under the surface, in the fungi, micro-organisms and invertebrates that make up such a large part of a true woodland ecosystem.

Directions
Continue on the path in the same direction. When you reach gap in the wall that crosses the path, veer round to the right and follow the path as it drops downhill. Stop when you reach the wall with a kissing gate in front of you.

04 Gate into Llennyrch

You now stand on the cusp of change. Behind you is regenerating oak woodland while across the fence you are looking at a tract of land known as 'Llennyrch' that the Woodland Trust has just acquired. Compare the two now and you may not be able to notice any major differences. But there used to be some obvious ones.

The land on the other side of the fence was never planted with conifers. Instead it had a more consistent history of grazing and remained relatively open woodland, with bluebells popping up in spring and a mossy layer underfoot. It is still part of working farmland today. Now that it owns the land, the Woodland Trust has been able to build a strong relationship with the farmer.

With the management of the woodland behind, this is now what you can see on this side of the fence too. Coed Felinrhyd is now also lightly grazed by the next door sheep. This, along with the careful reduction in conifers and rhododendron that we explored earlier has been effective at reducing bramble and bilberry, and trampling bracken, so that rare mosses, lichens and liverworts can thrive.

So, restoring this ancient woodland is not just about removing floral newcomers, but about working with local traditions to support sustainable management of the land. The newly acquired land goes on up the valley. All of the tracks are permissive paths, so feel free to explore if you want to lengthen the walk. Just remember how to get back to this gate to complete the trail!

Directions
Return to the Woodland Trust way-marker and veer off to the left. Follow the line of the wall, keeping it on your right. You should be able to hear water but at this point you won't be able to see it! The path changes to rough and misshapen steps – take care as you descend.

As you reach the bottom of the hill you will see a stile and fence leading a path down to the river. Do not take this route. Instead keep the fence to your right and follow the path as it veers round to the left at the level of the Woodland Trust way markers. Stop when you reach the viewing platform and fence on your right, towering over the gorge, and peer over the edge.

05 Celtic rainforest canopy

Perching among the dripping canopy while gazing down towards a babbling brook, the Celtic Rainforest starts to come alive. Only a stone's throw from the road, this feels a world apart. And it's here that the forest's ancient roots really take hold.

Rarely getting a frost and being shaded from direct sunlight creates the perfect conditions for several rare species. Look closely and you will struggle to find much tree bark without a patchwork crust of lichens or a green haze of moss upon it.

Despite the juicy name, Blackberries and Custard is fairly unprepossessing, while Barnacle Lichen looks like tiny barnacles - lurking beneath the undergrowth only the keenest of lichenologists might be able to hunt them out.

The steep-sided gorge that tumbles away below is home to pockets of Wales' true wilderness. Hazel trees have been harvested for centuries, but here on the slopes of unreachable terrain it is likely that they and their associated habitat have remained untouched.

It is possible that sections directly beneath your vantage point have the same species growing on them as first colonised after the last Ice Age 10,000 years ago! A time capsule of woodland heritage lies right beneath your feet.

Directions
Follow the same path downhill. The path starts to get slatey and will wind its way back up the hillside before dropping down with some steps. Cross the small wooden footbridge and continue past another single bench to your left.

As you pass the second bench on your left, big boulders appear on your left and there are several birch trees bowing out over the gorge to your right. Continue down the steps and stop at the bottom, between the knobbly tree stump to your left and the bottom of the steps

06 Tunbridge Filmy Ferns

From the towering trees of the canopy top right down to the smallest of species, the ancient roots of the Celtic Rainforest have flourished throughout the centuries. This unique woodland is home to not only some of the oldest inhabitants, but some of the smallest and rarest too.

Look towards the base of the trees and boulders lining your path and you can be a botanist for the day too, hunting out the minutiae of the plant world. You just need to know where to look.

Can you spot flourishes of deep and mottled greens, nestled amongst mosses and tree trunks? Look for delicate leaves hiding in the undergrowth that look like tiny versions of the ferns you may be used to seeing on woodland walks. These are the leaves of the rare and highly localised Tunbridge Filmy Fern (please do not pick any ferns as they are quite scarce!).

These plants are just one cell thick, giving them an almost transparent look. When they dry they change colour, so keep an eye out for their frond-like appearance tucked into the vertical surfaces of the acidic rocks or mossy branches they perch upon.

They are only found in moist woodlands, cloud forests (tropical forests shrouded in cloud) and temperate rainforests so this is a rare find within Britain's landscape. A cheap hand lens or magnifying glass will open up whole new worlds to a botanical explorer.

Having these delicate beauties here encapsulates the interconnectedness of the Celtic Rainforest's species. The oak trees may seem like the age-old symbol of an ancient landscape, but how all of the species live together is what tells the real story of forest's age and wisdom.

This unique landscape offers a slice of an ancient tropical paradise within Wales' own mountainsides.

Directions

Follow the path over the small footbridge and continue downwards until you reach the Ivy Bridge crossing the river on your right. This is a listed bridge, with the Woodland Trust interestingly owning just one third of it!

This single track bridge now enveloped in ivy, as its name would suggest, used to be the ancient route way through to Harlech. The road you left to come into the woodland is the modern version.

Continue past the bridge and follow the path round to the right where you will again reach the 'Welcome/Croeso' post, where this trail began.

Trail complete – we hope you have enjoyed it!

Thank you to...

Kylie Jones Mattock from **The Woodland Trust** for creating this trail and providing advive and assistance

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