

Track 1: A forest full of cycles [60 secs]

Since the 1990's, Coed y Brenin has become a Mecca for mountain bikers from across the country, and beyond. But these are not the only 'cycles' to be found within the forest.

An abundance of wildlife co-exists happily with the many thousands of human visitors who enjoy the many kilometres of trails here. And as we meander our way towards the River Eden we will discover the *life cycles*, and strange habits of some of the forests more intriguing inhabitants, which includes creepy crawlies with a smelly surprise and freshwater shellfish concealing hidden riches.

These species have seen dramatic changes here over the last 100 years and many of them are depicted on beautifully engraved slate sculptures along the route. Can you identify them all?

Before you set off in search of stop 2, have you seen the large bullhorns away to your right? They mark the start of the Tarw mountain bike trail and have major significance for this area. Any ideas? We will also discover this later too.

Now follow the yellow waymarkers and look out for the next MP3 post on the trail

Track 2: Northern Hairy Wood Ants [120 secs]

As you have walked along have you spotted any reddy-brown mounds near the base of the trees by the path? If you have do you know what they are and who lives there? These are nests of the Northern Hairy Wood Ant and each of these ant cities will be home to hundreds of thousands of inhabitants working together building and maintaining their community. So why are they called Northern Hairy Wood Ants? Unlike their sun-loving cousins Red Wood Ants, mid Wales is about as far south you will find these shade tolerant insects. And, if you were able to get a really good, close-up view of them you would be able to see they have impressive hairy eyebrows. But don't get too near - these feisty insects squirt formic acid at anything, and anyone, who they deem a threat. This acid not only pongs, but can also blister the skin and even turn bluebells pink! Yet its main purpose is to turn its prey into soup, making a much more palatable snack for these tireless ants.

You have probably seen that their nests are made from pine needles, leaves and twigs. Did you know these ants often build them over tree stumps, because the rotting wood releases heat to help incubate their young? These particular nests are quite small - some can reach well over 1 metre tall! But these cities aren't built in a day - some of the bigger nests in this forest are

likely to be nearly 100 years old! See who can spot the largest one as you make your way to stop three and beyond, but don't disturb the nests with sticks or your feet as this would cause a lot of destruction and would be the same as an earthquake or bomb exploding in a human city!

Follow the trail again to look for post 3.

Track 3: Spinning £1 coins [120 secs]

Have you noticed all the different types of trees that are here? Some are native, which means they have always grown here. These tend to be deciduous trees, ones that lose their leaves in the winter. But, you will also notice many coniferous trees too. These keep their leaves all year round, except the Larch, which is an exception to the rule – its needles turn yellow before they fall.

A combination of skeletal broadleaf trees in the winter and careful management ensures a good amount of light reaches the forest floor for large amounts of the year. In spring a luxurious carpet of flowers adds a touch of colour to the ground.

The mix of tree species also ensures you can always expect a year-round chorus from a variety of birds. Summer visitors include the Wood Warbler, a small green and yellow bird with a call very much like that of a spinning coin, revolving slower and slower. Redstarts are also present, nesting in the stone walls and they can be recognised by their bright orange-red, often quivering tails. In winter large flocks of Siskin can be seen flying through the woodland canopy where they feed on the seeds from the cones of the conifer trees.

If you have a really sharp eye, you may spot the UK's smallest songbird. The Goldcrest has a very distinctive orange or yellow stripe across the top of its head that stretches from its beak to its back. If you can't see it, the high-pitched and repeating zi-zi-zi song, which ends in a flourish, may help you locate it.

But it is not just birds that dominate these skies; nearly a third of the UK's bats species can be found hunting amongst these trees. At dusk, Pipistrelles – our most common and smallest bat - weighing less than a £1 coin, can consume 3,000 tiny insects here in just one night! Equally impressive is the Long-eared bat. With super sensitive hearing, it is believed they can even hear a ladybird walking on a leaf!

Yet, trees and the species associated with them haven't always been here in such abundance, as we will find out at stop 4.

Track 4: Where did all these trees come from? [120 secs]

Did you spot the stone barn to the right of the main road entrance to Coed y Brenin when you arrived today? How about the remains of a stone wall to the left of where you stand now? These structures and the sheepfolds – stone enclosures for containing livestock – that can be found in the overflow car park suggest this wasn't always forest.

In fact, less than one hundred years ago you would have been standing at a field edge, looking across a view with relatively few trees, sheep grazing the grassland all around. Walls like these were made from the stone cleared off the adjacent land to increase pasture.

However, in an effort to overcome the timber shortages that resulted from the disruption of overseas supplies during the First World War, the Government took action to establish the Forestry Commission in 1919. Its aim was simple: to protect and expand Britain's forests, ensuring timber self-sufficiency.

Large areas of marginal, and mainly upland areas of land were bought up and planted with fast growing, non-native species including many of the coniferous species you see here today. Our mild climate encourages these trees to grow much quicker than in their native lands of America and Scandinavia, resulting in much timber for low end use, such as fencing or chipboard. However, the growth rings on these speedy trees are too wide to use in structural applications. But not all is lost. At stop 7 you will discover how the Forestry Commission got around this to build their impressive visitor centre.

But before we move on, have you seen any fallow deer in the forest yet? The ones here are very unusual. Rather than sporting typical red coats with white spots, these escapees from the nearby Nannau Estate were selectively bred and roam the forest with a distinctive dark coat.

It is now time to move on to stop 5 where we will hear about a species that makes winning the lottery look easy.

Track 5: Pearls and jasmine tea [115 secs]

Do you know one of the reasons why the Roman's first invaded Britain more than 2000 years ago? The answer lies in this river, and once upon a time, in hundreds of rivers across the British Isles.

Breeding not too far from this point is the now increasingly rare, freshwater pearl mussel - which can live more than 100 years! The life cycle of the pearl mussel is fascinating. Even though a mature female will release millions of eggs into the water, just 1 in 10,000 manage to attach themselves to the oxygen-rich gills of young salmon and trout. Here, they grow for nearly a year before dropping off into what they hope is clean sand or gravel.

Having successfully negotiated that obstacle, only 5% will survive the following 10 years to maturity – and of these, only 1 in 100 will actually produce precious pearls! Phew! This high risk of mortality in their early years means it is incredibly important that they are left undisturbed. Unfortunately, water pollution, river dredging and hunting for their valuable pearls to make jewellery has destroyed much of their habitat and as we have heard these shellfish need a bit of time, and luck on their side, to come up trumps.

For some species here, things are on the up. Sticky, black spraints - smelling like a combination of fish paste and jasmine tea – indicate the presence of otters on these riverbanks. Yet, even though their numbers are increasing, you'll need a bit of luck to spot them, as these mammals are very secretive. Something you are unlikely to find along this riverbank these days are cattle, but as you will learn at stop 6 that wasn't always the case.

Track 6: The Field of the Smithies [105 secs]

You are standing in the area known as Dolgefeiliau, meaning the Field of the Smithies. Back in the shadows of time, this spot is where blacksmiths used to shoe cattle before they continued on their long journeys from the coast, to as far a field as London.

The wooden bench here, complete with horns, depicts the kind of tools the blacksmiths would have used. But it wasn't just cattle that were driven along these old drover's routes, other less likely animals had to endure the same journey too: pigs wore woollen socks, whilst geese would have their feet dipped in soft tar and sand to harden them up!

For centuries, men would drive herds of several hundred animals along remote mountain tracks to avoid paying tolls on their 250-mile journey to market.

Having cashed in on the livestock, these journeymen became a target for highwaymen on their return to Wales. As a result, a number of drovers established the first Welsh banks so that they could deposit the money in London banks and return home without the burden of carrying pockets full of gold.

It is to another precious metal that we now turn. Cast your mind back to the start of this audio trail. If you recall, the Tarw mountain bike route began at a pair of horns - Tarw meaning 'bull' in Welsh. Their construction in copper was due to extensive mining of this metal in the locality. To find out where, visit Glasdir and embark on another fascinating audio trail!

The main trail now continues ahead, up a steeper slope, following the yellow waymarkers while the All ability trail returns to the visitor centre following the Blue trail.

Track 7: Coming full circle [80 secs]

And it is to yet another cycle that we arrive. The water from the toilets is channelled to these plastic containers where it is filtered through multiple peat beds to remove any nasty contaminants that may be harmful to wildlife. It must be clean as the treated water is released directly into a SSSI - a site of special scientific interest – designated due to its wildlife importance.

Cycles also had a bearing on the design of the visitor centre - the circular shape was chosen to represent a bicycle wheel. Most of the timber for this eco-friendly building was sourced locally, including Larch to clad the outside walls, Western Red Cedar used in construction of the balcony, and oak, ash and beech which were used for the floors inside the building. Now that we have come to the end of this walk, you can have a look yourself when you grab a drink and a bite to eat in the visitor centre.

You can hear more about Coed y Brenin's rich history on four other trails in the Forest Park. The audio trails were funded by The Rock Trust, a Meirionnydd Based Charity, and they are all available to download free from the Forestry Commission Wales website.