

Coed y Brenin



Site: Coed y Brenin

Date of survey: 15/06/2021

Survey areas: Pistyll Cain trail and Afon Eden loop



Wood Warbler (*Phylloscopus sibilatrix*) in Coed y Brenin.

1. Survey details

Covering the same area and transect routes as 2020, the survey of Coed y Brenin involved two transect routes: one taking the Pistyll Cain walking trail (7km long) from the main visitor centre in a loop to Pistyll Cain and back; the second taking a shorter route on the Afon Eden walking train from the visitor centre to the river and back (approx. 1km long). Figure 1 below gives an overview of these two transect routes.

During the survey, observers recorded any birdlife seen or heard (especially signs of breeding activity), mammal activity, litter abundance along footpaths, vegetation diversity in specific locations and several fixed-point images along the pathways (see figure 2 for details).

Weather conditions: there were clear skies (0% cloud cover) and calm winds (<10mph NW), with cool temperatures at the beginning of the survey (7°C) and mild temperatures by the time of finishing (18°C).

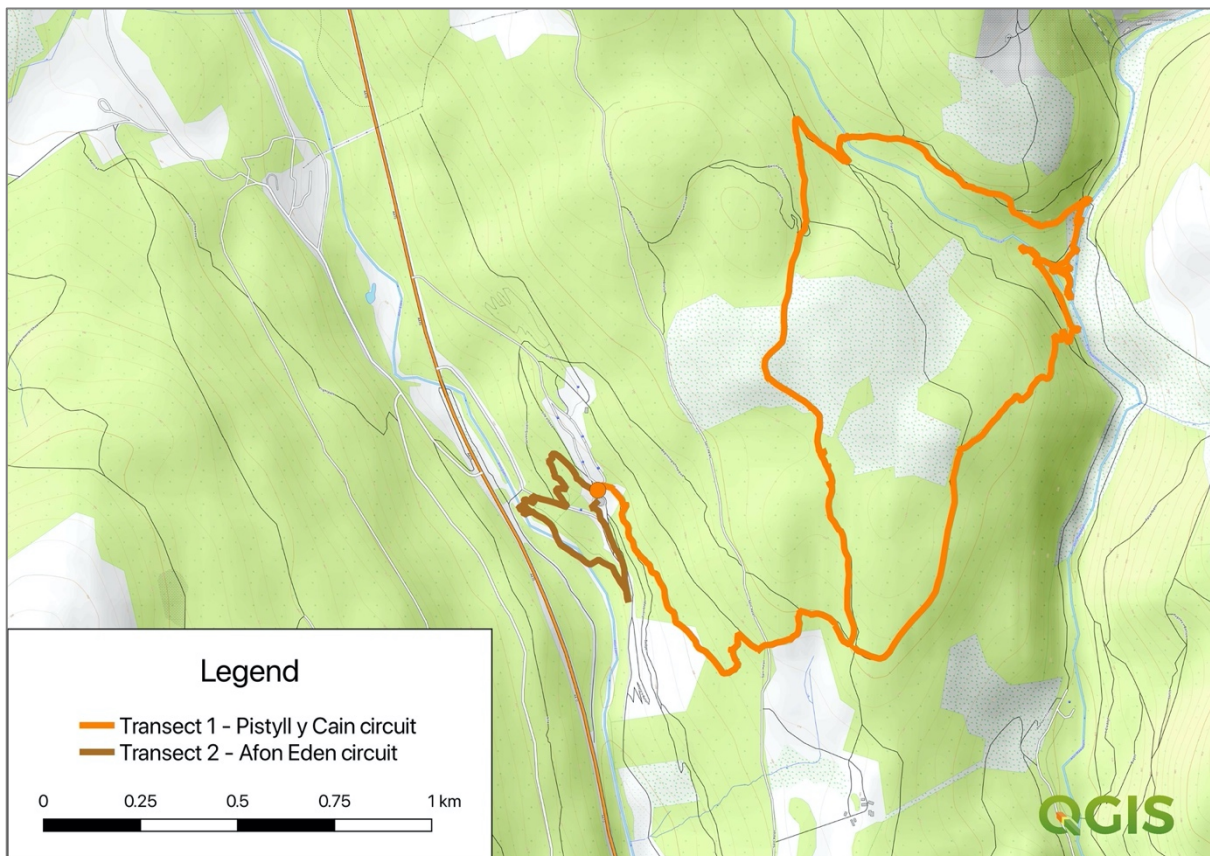


Figure 1. A map of the Coed y Brenin survey area showing the two transect routes carried out on 15 June 2021: the orange line shows the circular route taken from the visitor centre (orange dot) around the ~7km long Pistyll Cain walking trail; the brown line shows the much shorter circular walking route from the visitor centre to the Afon Eden and back.

2. Results

A summary of the results for each of the different surveys are given below. Figure 2 provides an overview of the locations of more noteworthy sightings, the key survey points and the locations of fixed-point images. These numbered points are referred to in the results text using parentheses followed by the numbered code, for example '(P3)'.

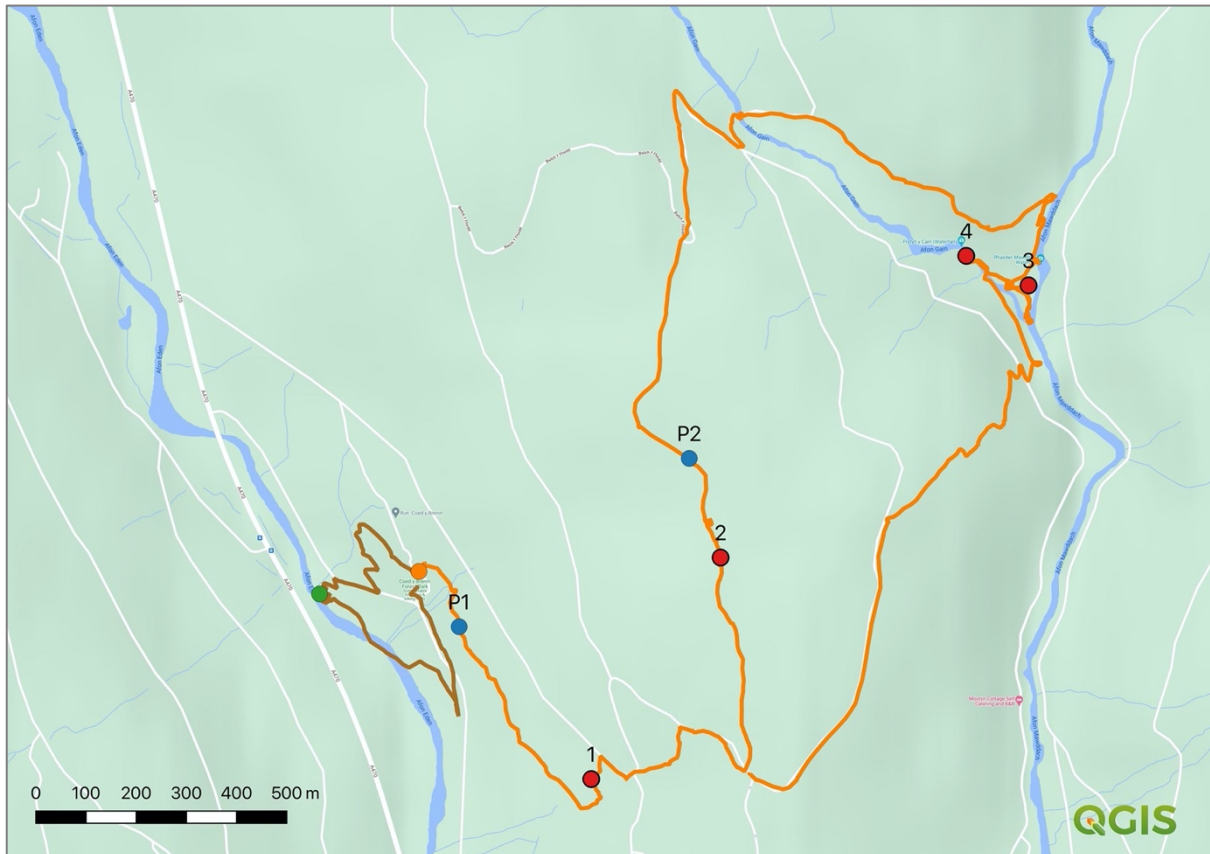


Figure 2. A map of the Coed y Brenin survey area showing the transect routes carried out on 15 June 2021 and the locations of key survey points: **red** points are target notes referred to in the results summary below; **blue** points are fixed-point photography sites mainly targeted along pathways (see section 2.5) and the **green** dot near the Afon Eden is a vegetation survey site.

2.1 Birdlife

A total of 32 different bird species and 265 individuals were recorded during the 2021 survey of Coed y Brenin (see table 1 below). This total involved 30 species of 219 individuals along the longer Pistyll Cain transect route, and 14 species of 46 individuals on the shorter transect to the Afon Eden. The most abundant species recorded were Wrens (39 in total), Blue Tits (37), Blackcaps (19), Robins (17) and Goldcrests (16). More noteworthy sightings included eight Wood Warblers (several singing males, and a breeding pair carrying food to their nest, at point **1** on the map in figure 2), ten Crossbills (most being birds flying overhead, but also several singing males), two Spotted Flycatchers, a singing male Pied Flycatcher and a singing Cuckoo.

There were four species recorded during the 2021 surveys which were absent in 2020, including Cuckoo, Mistle thrush, Goldfinch and Woodpigeon. Conversely, six species were seen in 2020 that

were not recorded in the 2021 surveys: Dipper, Bullfinch, Tree Pipit, Carrion Crow, Swallow and Common Whitethroat. Figures 3 and 4 give a more detailed comparison of both the diversity and abundance of birdlife between the two years.

There were no obvious indications that birdlife was being negatively affected by the greater number of people returning to this popular site after the baseline surveys during lockdown 2020. The well-marked pathways and abundance of dense forest cover for species to exist within is likely to minimise the amount of disturbance possible to most species (apart, perhaps for the more wary raptor species like buzzards and goshawks).

Table 1. Results of breeding bird survey in Coed y Brenin.

Site Name		Coed y Brenin			
Survey type		Breeding birds			
Surveyors		Ben Porter			
Dates of surveys		15/06/2021			
Species	Scientific name	Transect or site			Evidence of breeding during visits
		Pistyll Cain circular walk	Afon Eden circular walking trail	Total number	
Wren	<i>Troglodytes troglodytes</i>	35	4	39	Singing males and alarm calling adults
Blue Tit	<i>Cyanistes caeruleus</i>	35	2	37	Fledged young
Blackcap	<i>Sylvia atricapilla</i>	14	5	19	Singing males
Robin	<i>Erithacus rubecula</i>	13	4	17	Singing males and fledged young
Goldcrest	<i>Regulus regulus</i>	15	1	16	Singing males
House Sparrow	<i>Passer domesticus</i>		15	15	
Chaffinch	<i>Fringilla coelebs</i>	6	1	7	Singing males
Great Spotted Woodpecker	<i>Dendrocopos major</i>	2		2	
Chiffchaff	<i>Phylloscopus collybita</i>	9		9	Singing males
Blackbird	<i>Turdus merula</i>		3	3	Fledged young
Treecreeper	<i>Certhia familiaris</i>	2		2	
Great Tit	<i>Parus major</i>	2		2	
Song Thrush	<i>Turdus philomelos</i>	7	1	8	Singing males and fledged young
Willow Warbler	<i>Phylloscopus trochilus</i>	12	1	13	Singing males
Wood Warbler	<i>Phylloscopus sibilatrix</i>	8		8	Singing males and adults carrying food

Grey Wagtail	<i>Motacilla cinerea</i>	5		5	Fledged young
Long-tailed Tit	<i>Aegithalos caudatus</i>	3		3	
Coal Tit	<i>Parus ater</i>	9		9	Singing males
Lesser Redpoll	<i>Carduelis cabaret</i>	1	1	2	Singing male
Siskin	<i>Carduelis spinus</i>	12	6	18	Singing males
Pied Flycatcher	<i>Ficedula hypoleuca</i>	1		1	Singing male
Spotted Flycatcher	<i>Muscicapa striata</i>	2		2	
Nuthatch	<i>Sitta europaea</i>	1	1	2	
Garden Warbler	<i>Sylvia borin</i>	5		5	Singing males
Jay	<i>Garulus glandarulus</i>	3	1	4	
Buzzard	<i>Buteo buteo</i>	1		1	
Crossbill	<i>Loxia curvirostra</i>	10		10	Singing males
Dunnock	<i>Prunella modularis</i>	1		1	Singing male
Cuckoo	<i>Cuculus canorus</i>	1		1	
Mistle Thrush	<i>Turdus viscivorus</i>	2		2	
Woodpigeon	<i>Columbus palumba</i>	1		1	
Goldfinch	<i>Carduelis carduelis</i>	1		1	
Total number of species		30	14	32	
Total number of individuals		219	46	265	



Singing male Wood Warbler (*Phylloscopus sibilatrix*)

Comparing the overall figures for 2020 and 2021, the survey of this area highlighted slight differences to the abundance and diversity of birdlife (see figures 3 and 4 below). The total of 265 individual birds recorded in 2021 is 15% lower than the figure of 314 for the same area in 2020. This difference in abundance is similar to that found across all other (both upland and lowland) sites covered during these surveys. This, once again, is most likely attributed to the drastically different weather conditions in spring 2020 compared to 2021, and the delay in the season resulting in later breeding seasons for some species, and much lower numbers of fledged young recorded. In contrast to this difference in abundance, the diversity was very similar for 2020 and 2021, with 32 species recorded in 2021, compared to 33 species in 2020.



Figure 3. Bird abundance (i.e. number of individual birds recorded) along the main transect routes in 2020 (pale grey) and 2021 (darker grey).

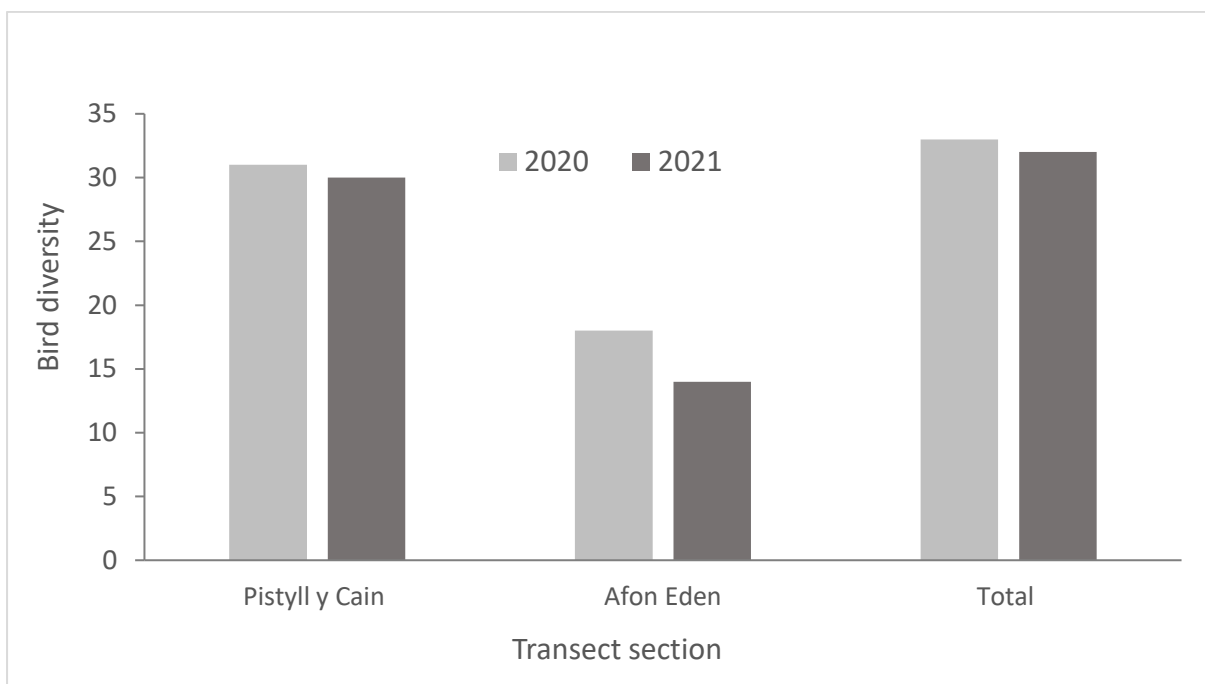


Figure 4. Bird diversity (i.e. total number of species) along the main transect routes in 2020 (pale grey) and 2021 (darker grey).

2.2 Vegetation

There were few signs of adverse effects from human usage of the area with regard to vegetation communities. One site that seemed to be impacted by human footfall and usage was around Pistyll Cain: pathways around either side of the river, to some of the viewpoints and along to pools for swimming spots showed compacted vegetation and the wearing away of moss and vegetation along these paths. See the image below for an example of this effect (taken at point 4 on the map in figure 2).



Erosion of the river bank where paths have been created and used heavily to access Pistyll Cain from the main track (point 4 on the map in figure 2).

A vegetation survey was carried out in 2020 around the picnic benches beside the Afon Eden (grid reference SH721268 – illustrated with a green point on the map in figure 2). This survey was repeated in 2021 to compare how the ground flora of this area had changed given a return to increased levels of footfall and trampling. The results of this survey are presented in table 2 below. The total of 17 species recorded in 2021 is only slightly lower than the diversity of 19 plant species found in 2020; it was, however, noticeable that the overall abundance of flowering plants was lower here, as would be expected with increased trampling around this site.

Table 2. General vegetation survey around the Afon Eden picnic area (green point on the map in figure 2).

Site Name	Coed y Brenin	Location	Afon Eden picnic area
Survey type	General vegetation survey	Approx survey radius (m)	10
Surveyors	Ben Porter	Grid Ref	SH721268
Date(s) of survey	15/06/2021		
Species	Scientific name	Abundance (DAFOR score)	
Big Shaggy Moss	Rhytidiadelphus triquetus	Abundant	
Pignut	Conopodium majus	Frequent	
Daisy	Bellis perennis	Frequent	
Wood Sorrell	Oxalis acetosella	Frequent	
Heath Bedstraw	Galium saxatile	Frequent	
Sedge sp.		Frequent	
Grass sp.		Frequent	
Meadow Buttercup	Ranunculus acris	Occasional	
Dog Violet sp.	Viola sp.	Occasional	
Wild Strawberry	Fragaria vesca	Occasional	
Sweet vernal grass	Anthox anthum	Occasional	
Wood Speedwell	Veronica montana	Occasional	
Yellow Pimpernel	Lysimachia nemorum	Occasional	
Hard Fern	Blechnum spicant	Occasional	
Hawksbeard sp.		Occasional	
Germander Speedwell	Veronica chamaedrys	Rare	
Ragwort	Jacobaea vulgaris	Rare	
Total number of species	17		



Above: the picnic bench area near the Afon Eden in June 2020, when a great diversity and abundance of plantlife was recorded due to the very low use of this area during the spring.



Above: the same area in June 2021, where a reduced diversity and abundance of plants and flowering species was recorded.

2.3 Litter

Overall, the amount of litter found during these two transects was very low, especially when compared to some of the other sites surveyed during 2021 across North Wales. A total of 10 items were recorded, involving six different litter types (see table 3 below). Plastic dog poo bags were the most abundant item found (three in total), followed by plastic bottles (two) and medical plasters (a mixture of plastic and cotton). This total is more than the two items found in 2020, but is pleasantly low considering the use and popularity of this site.

Table 3. Results of the litter survey at Coed y Brenin.

Site Name	Coed y Brenin		
Survey type	Litter survey		
Surveyors	Ben Porter		
Date of survey	15/06/2021		
Litter type	Quantity		
	Pistyll Cain	Afon Eden	Total
Dog Poo bag		3	3
Plastic bottle	2		2
Sweet wrapper		1	1
Clothes item	1		1
Banana peel	1		1
Plaster	2		2
Total number of litter types	4	2	6
Total number of litter items	6	4	10

2.4 Other sightings

It was a quiet survey for other incidental sightings of insects and mammals. Several nest mounds of Hairy Wood Ants (*Formica lugubris*) were recorded along the track through the forest on the Pistyll Cain circular loop, particularly around the area denoted by point **2** on the map in figure 2.

2.5 Fixed-point pathway images to record vegetation condition

For this year's report, images from 2020 (left hand column) are shown alongside those from 2021 (right hand column) in the same locations to allow for comparison.

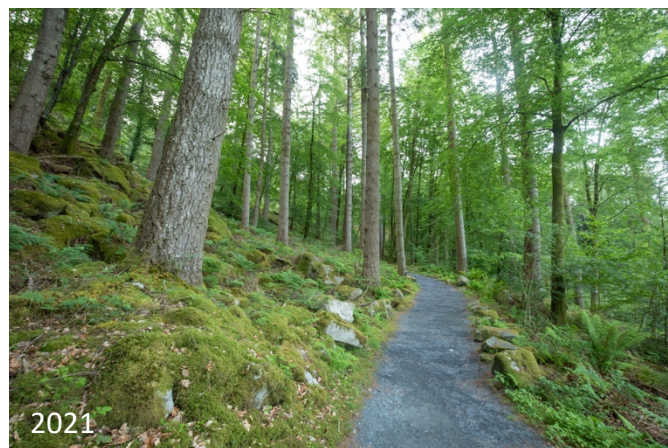


Image locations: **top row** at beginning of Pistyll Cain trail at **P1** on the map in figure 2; **bottom row** along the Pistyll Cain loop near a woodland clearing at point **P2** on map in figure 2.