

Coed y Brenin

Site: Coed y Brenin

Date of survey: 24/06/2022

Survey areas: Pistyll Cain trail and Afon Eden loop



A Wren (*Troglodytes troglodytes*) singing in the understorey.

1. Survey details

Covering the same area and transect routes as 2020 and 2021, 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; and the second taking a shorter route on the Afon Eden walking trail from the visitor centre to the river and back (approx. 1km long). Figure 1 below gives an overview of these two transect routes. Both these transects were carried out on 24 June 2022.

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 of these survey locations).

Weather conditions: it was overcast (100% cloud cover), with some light rain arriving towards the very end of the survey; temperatures were mild (15°C) and winds were light (<5mph).

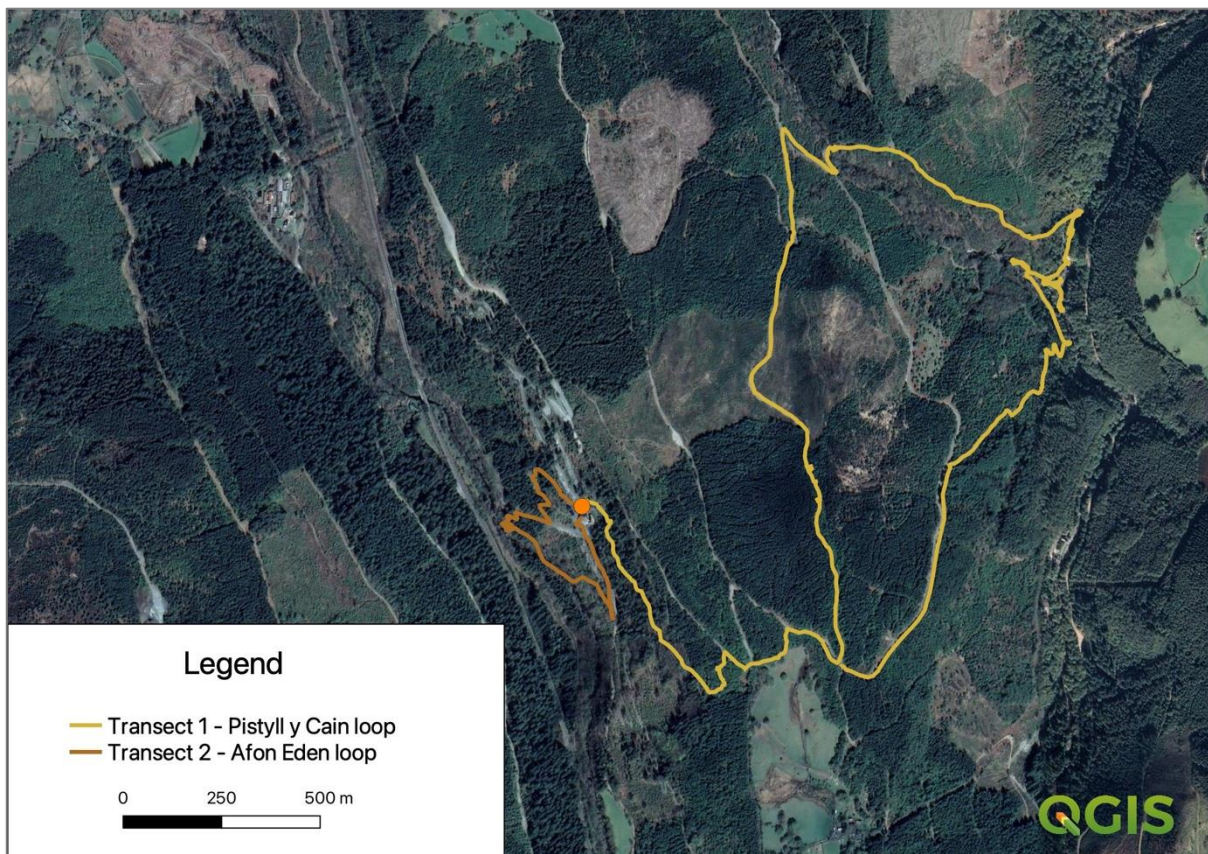


Figure 1. A map of the Coed y Brenin survey area showing the two transect routes carried out on 24 June 2022: the yellow line shows the circular route taken from the visitor centre (orange dot) around the ~7km long Pistyll Cain walking trail; the brown line shows the much shorter circular walking route 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)'.

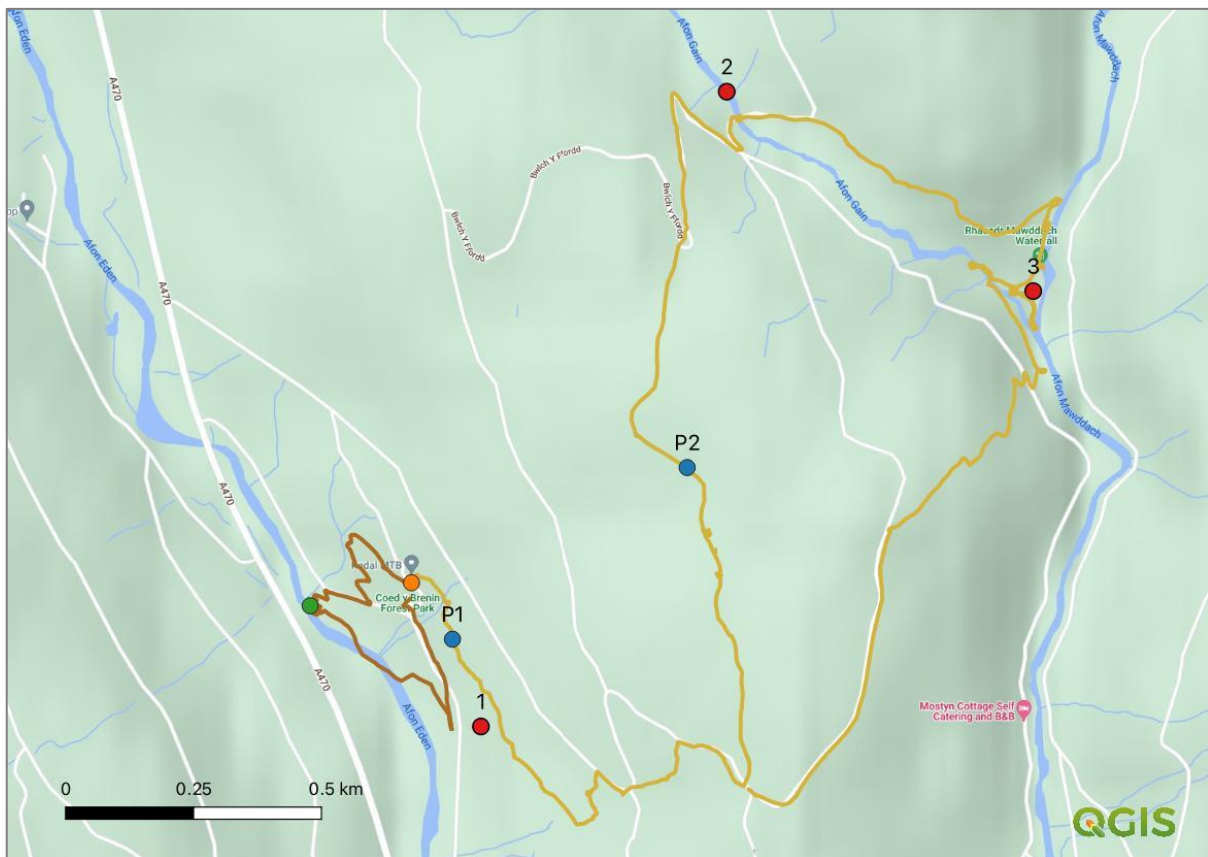


Figure 2. A map of the Coed y Brenin survey area showing the transect routes carried out on 24 June 2022 and the locations of key survey points: red points are target notes referred to in the results summary below; blue points are fixed-point photography sites mainly targeted along pathways (see section 2.4) and the green dot near the Afon Eddin is a vegetation survey site.

2.1 Birdlife

A total of 25 different bird species and 211 individuals were recorded during the 2022 survey of Coed y Brenin (see table 1 below). This total comprised 25 species of 180 individuals along the longer Pistyll y Cain transect route, and 10 species of 31 individuals on the shorter transect to the Afon Eddin. The most abundant species recorded were Wrens (34 in total), Coal Tits (24), Goldcrests (22) and Robins (21). More noteworthy sightings included four Wood Warblers (several singing males), a Spotted Flycatcher (point 1 on the map in figure 2) and a Dipper along the Afon Gain (at point 2).

Overall, the total abundance of birdlife this year is much less than 2020 and 2021 (see figure 3 below); these years recorded 314 individual birds (2020) and 265 birds (2021), compared to this year's 211. In terms of the species diversity, the figure of 25 species this year is also greatly reduced from the 33 recorded in 2020, and the 32 species recorded in 2021 (see in figure 4). There were ten species absent from the 2022 survey which were recorded in 2021, including Buzzard, Crossbill, Cuckoo, Garden Warbler, Goldfinch, Jay, Long-tailed Tit, Mistle Thrush, Pied Flycatcher and Woodpigeon. The absence of some of these species, which are scarce breeding birds in some cases, is a disappointing result. In slight contrast, three species seen in 2022 were not recorded in 2021: Bullfinch, Dipper and Raven.

The reasons for the greatly reduced numbers of common breeding birds and the lower diversity is unclear, but is also the overall trend that has been found across almost all the sites covered in 2022

(both upland and lowland). The potential drivers of such changes are discussed in full in the overall summary report.

Table 1. Results of breeding bird survey in Coed y Brenin for 2022.

Site Name		Coed y Brenin			
Survey type		Breeding birds			
Surveyors		Ben Porter and Giulio Mescia			
Date of surveys		24/06/2022			
Species	Scientific name	Transect or site			Evidence of breeding during visits
		Pistyll y Cain circular walk	Afon Eden circular walking trail	Total number	
House Sparrow	<i>Passer domesticus</i>	2		2	
Wren	<i>Troglodytes troglodytes</i>	31	3	34	Singing males
Blackbird	<i>Turdus merula</i>	6	2	8	Singing males and fledged young
Blackcap	<i>Sylvia atricapilla</i>	9	3	12	Singing male and alarm-calling adults
Spotted Flycatcher	<i>Muscicapa striata</i>	1		1	
Chaffinch	<i>Fringila coelebs</i>	4	1	5	Singing males
Blue Tit	<i>Cyanistes caeruleus</i>	8		8	
Great Tit	<i>Parus major</i>	5		5	Fledged young
Willow Warbler	<i>Phylloscopus trochilus</i>	11	1	12	Singing males
Wood Warbler	<i>Phylloscopus sibilatrix</i>	5		5	Singing males
Coal Tit	<i>Periopus ater</i>	20	4	24	Singing males
Robin	<i>Erithacus rubecula</i>	16	5	21	Fledged young
Nuthatch	<i>Sitta europaea</i>	3		3	
Goldcrest	<i>Regulus regulus</i>	13	9	22	Singing males
Chiffchaff	<i>Phylloscopus collybita</i>	7	2	9	Singing males
Treecreeper	<i>Certhia familiaris</i>	2		2	
Siskin	<i>Carduelis spinus</i>	8	1	9	
Song Thrush	<i>Turdus philomelos</i>	6		6	Singing males
Great Spotted Woodpecker	<i>Dendrocopos major</i>	3		3	
Bullfinch	<i>Pyrrhula pyrrhula</i>	8		8	
Lesser Redpoll	<i>Carduelis cabaret</i>	4		4	

Raven	<i>Corvus corvax</i>	4		4	Fledged young
Grey Wagtail	<i>Motacilla cinerea</i>	2		2	
Dipper	<i>Cinclus cinclus</i>	1		1	
Dunnock	<i>Prunella modularis</i>	1		1	Singing male
Total number of species		25	10	25	
Total number of individuals		180	31	211	



Figure 3. Bird abundance (i.e. number of individual birds recorded) along the main transect routes in 2020 (pale grey), 2021 (darker grey) and 2022 (grey).

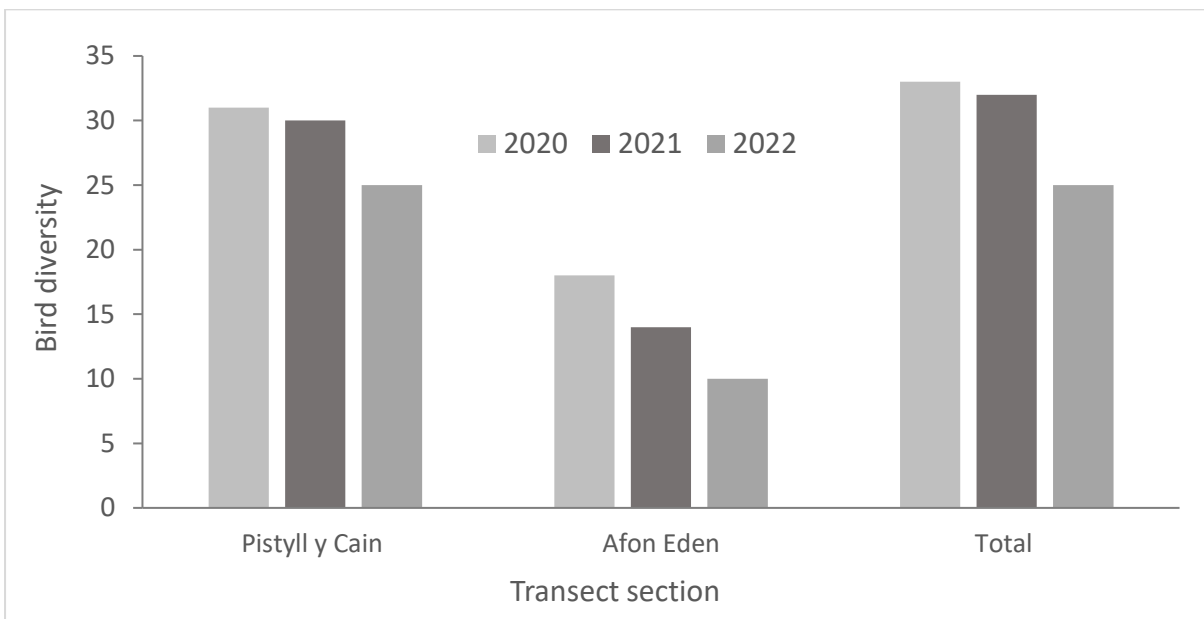


Figure 4. Bird diversity (i.e. total number of species) along the main transect routes in 2020 (pale grey), 2021 (darker grey) and 2022 (grey).

2.2 Vegetation

There were few signs of adverse effects from human usage of the area with regard to vegetation communities. However, the one site that showed potential impact from human footfall and usage was around Pistyll Cain (point 3): 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 the rocks, as was noted in 2021.

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 and this year 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, and show just nine plant species recorded in 2022; compared to 17 species in 2021 and 19 plant species found in 2020.

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
Surveyor	Ben Porter	Grid Ref	SH721268
Date of survey	24/06/2022		
Species	Scientific name	Abundance (DAFOR score)	
Daisy	<i>Bellis perennis</i>	Occasional	
Dog Violet	<i>Viola riviniana</i>	Occasional	
Wood Sorrell	<i>Oxalis acetosella</i>	Occasional	
Heath Bedstraw	<i>Galium saxatile</i>	Occasional	
Sweet Vernel Grass	<i>Anthoxanthum odoratum</i>	Occasional	
Meadow Buttercup	<i>Ranunculus acris</i>	Occasional	
Common Cow-wheat	<i>Melampyrum pratense</i>	Occasional	
Yellow Pimpernel	<i>Lysimachia nemorum</i>	Occasional	
Pignut	<i>Conopodium majus</i>	Occasional	
Total number of species	9		

2.3 Litter

A total of 12 items of litter were recorded across the survey site in 2022 (see table 3 below); this total involved five different litter types, the most numerous of which were dog poo bags (three in total) and sweet wrappers (three). The total of 12 is two items more than that found in 2021, but still illustrates a relatively low amount of littering compared to some of the upland areas covered in these surveys across Eryri.

Table 3. Results of the litter survey at the Coed y Brenin survey site in 2022.

Site Name	Coed y Brenin		
Survey type	Litter survey		
Surveyors	Ben Porter and Giulio Mescia		
Date of survey	24/06/2022		
Litter type	Quantity		
	Pistyll y Cain	Afon Eden	Total
Dog Poo Bag	3		3
Sweet wrapper	3		3
Plastic bag	1		1
Plastic bottle	1	3	4
Crisp packet	1		1
Total number of litter types	5	1	5
Total number of litter items	9	3	12

2.4 Fixed-point pathway images to record vegetation condition

Images from across the three years are shown side-by-side to allow for any comparisons to be made of vegetation and landscape condition.

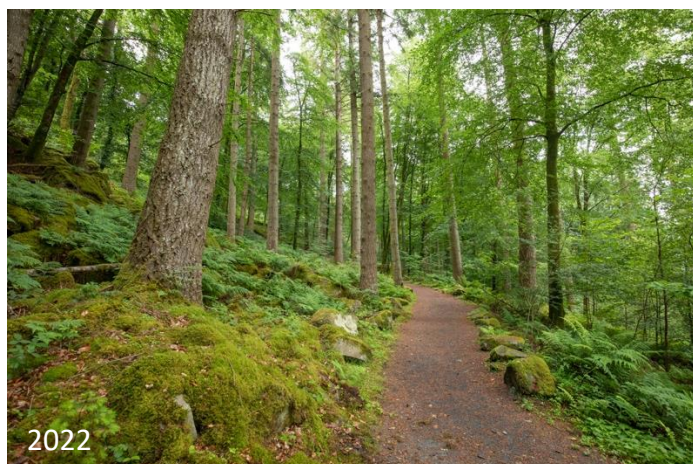


Image locations: **left-hand column** at beginning of Pistyll Cain trail at **P1** on the map in figure 2; **right-hand column** along the Pistyll Cain loop near a woodland clearing at point **P2** on map in figure 2.