

Ceunant Llennyrch



Site: Ceunant Llennyrch National Nature Reserve

Date of survey: 19/06/2022

Transect routes: circular loop on footpath past Rhaeadr Ddu and around Coed Nyth-y-Frân



Common Cow-wheat (*Melampyrum pratense*) flowering along the path in Ceunant Llennyrch.

1. Survey details

The survey of Ceunant Llennyrch woodland and river gorge followed the same route carried out in 2020 and 2021 (see figure 1 below), beginning at the gate along the road where the main footpath begins at grid reference SH665392. The first transect (yellow line) covered the main way-marked circular route from here, through the woodland to Rhaeadr Ddu, and back to the start point. The second transect route (orange line) began in the river gorge and followed a way-marked circular trail through Coed Nyth-y-Frân woodland area to the west of the Afon Prysor. Both transects were carried out on 19 June 2022.

During the survey, the observer recorded any birdlife seen during the transect (especially any signs of breeding activity), mammal activity, litter abundance along footpaths and at popular gathering spots and several fixed-point images along the pathways (see section 2.5). The map in figure 2 outlines details of specific survey locations.

Weather conditions: there was overcast skies (100% cloud cover), no wind and mild temperatures (15°C) for the survey this year.

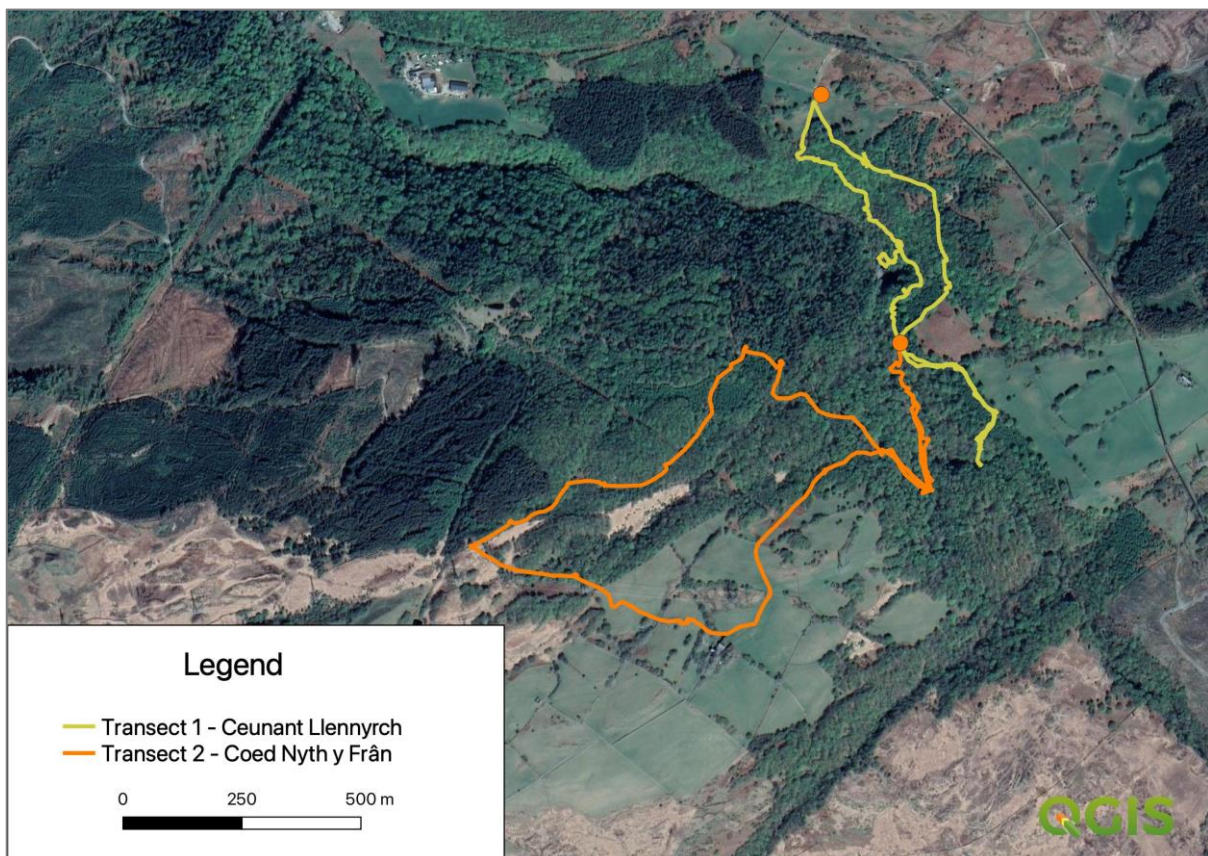


Figure 1. A map of the Ceunant Llennyrch survey area showing the two transect routes carried out on 19 June 2022: the yellow line shows the circular route along the main footpath which passes the main waterfall Rhaeadr Ddu; the orange line shows the circular route taken through the Coed Nyth-y-Frân woodland area.

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 Ceunant Llennyrch survey area showing the two transect routes and target notes from the survey: red points are target notes referred to in the results summary below and blue points are fixed-point photography sites mainly targeted along pathways (see section 2.5).

2.1 Birdlife

A total of 32 different bird species and 205 individuals were recorded across the two transect routes (see table 1 below); this total included 21 different species and 70 individuals recorded on the transect around Coed Llennyrch and Rhaeadr Ddu, with 28 species and 135 individuals recorded on the circuitous survey route around Coed Nyth-y-frân. The most numerous species were Wrens (42 in total), Blue Tits (14) and Coal Tits (13). Some of the more noteworthy sightings from the survey included three different singing male Wood Warblers, two Crossbills, a singing male Tree Pipit and six Pied Flycatchers (a single family with fledged young).

There were six species recorded during the 2022 surveys that were absent in 2021, namely that of Chiffchaff, Crossbill, Dunnock, Linnet, Swift and Woodpigeon. However, there were four species seen in 2021 that were absent this year: Canada Goose, Hawfinch, Sparrowhawk and Spotted Flycatcher.

There were no immediately obvious effects observed during these surveys to suggest impacts of visitors on the birdlife in this site. However, the ongoing development of the gorge walking and exploration tours may be affecting or disturbing species such as Dippers and Grey Wagtails which nest within the gorge itself. No dippers were recorded during 2021 or 2022, but were seen during the lockdown period when there was much less visitation to the site.

Table 1. Breeding bird survey results for Ceunant Llennyrch in 2022.

Site Name		Ceunant Llennyrch			
Survey type		Breeding birds			
Surveyors		Ben Porter and Jo Porter			
Date of survey		19/06/2022			
Species	Scientific name	Transect or site			Evidence of breeding during visits
		Ceunant Llennyrch and Rhaeadr Ddu	Coed Nyth-y-Fran	Total number	
Wood Warbler	<i>Phylloscopus sibilatrix</i>	3		3	Singing males
Dunnock	<i>Prunella modularis</i>	1		1	
Chiffchaff	<i>Phylloscopus collybita</i>	2	1	3	Singing males
Blackbird	<i>Turdus merula</i>	2	5	7	
Coal tit	<i>Parus ater</i>	3	10	13	Singing males and fledged young
Blackcap	<i>Sylvia atricapilla</i>	4	8	12	Singing males
Blue tit	<i>Cyanistes caeruleus</i>	6	8	14	Fledged young
Wren	<i>Troglodytes troglodytes</i>	15	27	42	Singing males and fledged young
Chaffinch	<i>Fringilla coelebs</i>	3	5	8	Singing males
Song Thrush	<i>Turdus philomelos</i>	1	3	4	Singing male and fledged young
Robin	<i>Erithacus rubecula</i>	4	8	12	Alarm calling adults and adults with food
Treecreeper	<i>Certhia familiaris</i>	4	6	10	
Nuthatch	<i>Sitta europaea</i>	2	5	7	
Great tit	<i>Parus major</i>	3	1	4	
Long-tailed Tit	<i>Aegithalos caudatus</i>	5	4	9	Fledged young
Siskin	<i>Carduelis spinus</i>	2		2	
Mistle thrush	<i>Turdus viscivorus</i>	3	3	6	Alarm calling adults
Grey wagtail	<i>Motacilla cinerea</i>	3	1	4	Fledged young

Goldcrest	<i>Regulus regulus</i>	2	10	12	Singing males
Jay	<i>Garulus glandarulus</i>	1		1	
Crossbill	<i>Loxia curvirostra</i>	1	1	2	
Common Redstart	<i>Phoenicurus phoenicurus</i>		2	2	Alarm calling adults
Swallow	<i>Hirundo rustica</i>		3	3	
Meadow pipit	<i>Anthus pratensis</i>		2	2	
Willow warbler	<i>Phylloscopus trochilus</i>		7	7	Singing males
Swift	<i>Apus apus</i>		1	1	
Linnet	<i>Carduelis cannabina</i>		3	3	
Tree pipit	<i>Anthus trivialis</i>		1	1	Singing male
Great Spotted Woodpecker	<i>Dendrocopos major</i>		2	2	
Pied flycatcher	<i>Ficedula hypoleuca</i>		6	6	Fledged young
Woodpigeon	<i>Columba palumbus</i>		1	1	
Buzzard	<i>Buteo buteo</i>		1	1	
Total number of species		21	28	32	
Total number		70	135	205	



A singing male Wood Warbler (*Phylloscopus sibilatrix*). This is one species for which the Celtic Rainforest is especially important as a breeding habitat.

Comparisons of bird abundance and diversity across years

Looking at the overall figures for this year, it was the lowest of the three years surveyed for the abundance of birdlife recorded: only 205 birds were seen across the two transects, compared to 327 in 2021 and 360 in 2022 (see figure 3). This illustrates quite a dramatic change, and was most prominently observed in the Ceunant Llennyrch and Rhaeadr Ddu area. It was noticeable that scarcer breeding species such as Pied Flycatchers, Hawfinches and Wood Warblers were very low in numbers, alongside common species such as Blue tits and Great tits. The exact reasons underlying such differences are unclear, and it will be interesting to compare these survey results to the broader 'Breeding Bird Survey' results carried out nation-wide by the British Trust for Ornithology – this will allow an assessment as to whether our results are reflected in the wider trends observed in 2022. In terms of diversity, the 32 species found in 2022 was comparable to that of previous years (see figure 4).

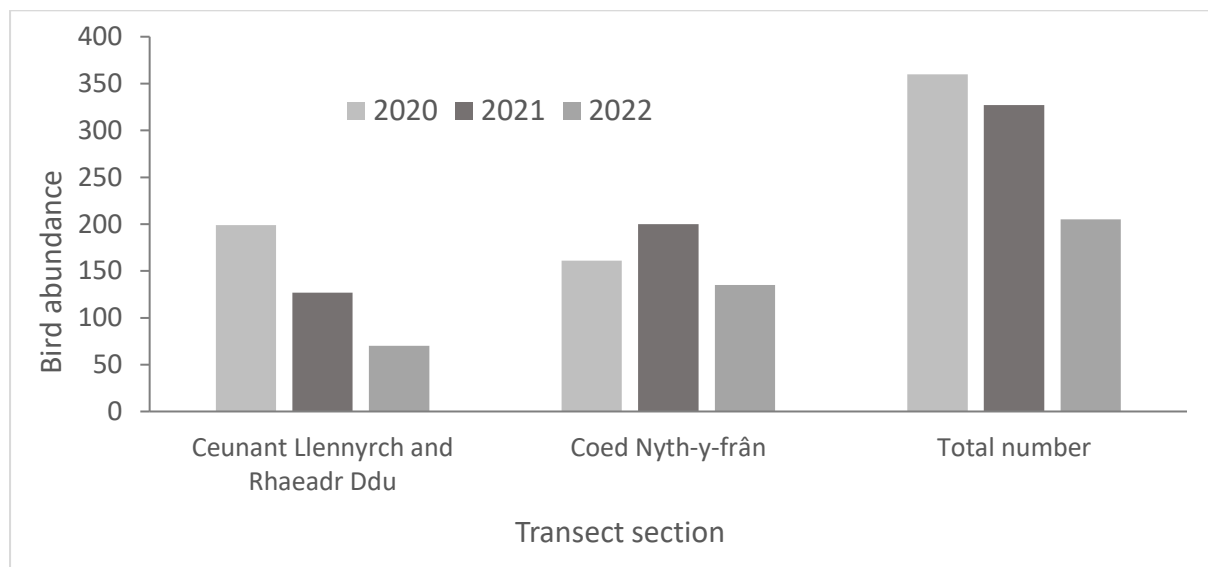


Figure 3. Bird abundance (i.e. the number of individual birds recorded) along the main transect routes in 2020 (pale grey), 2021 (darker grey) and 2022 (grey).

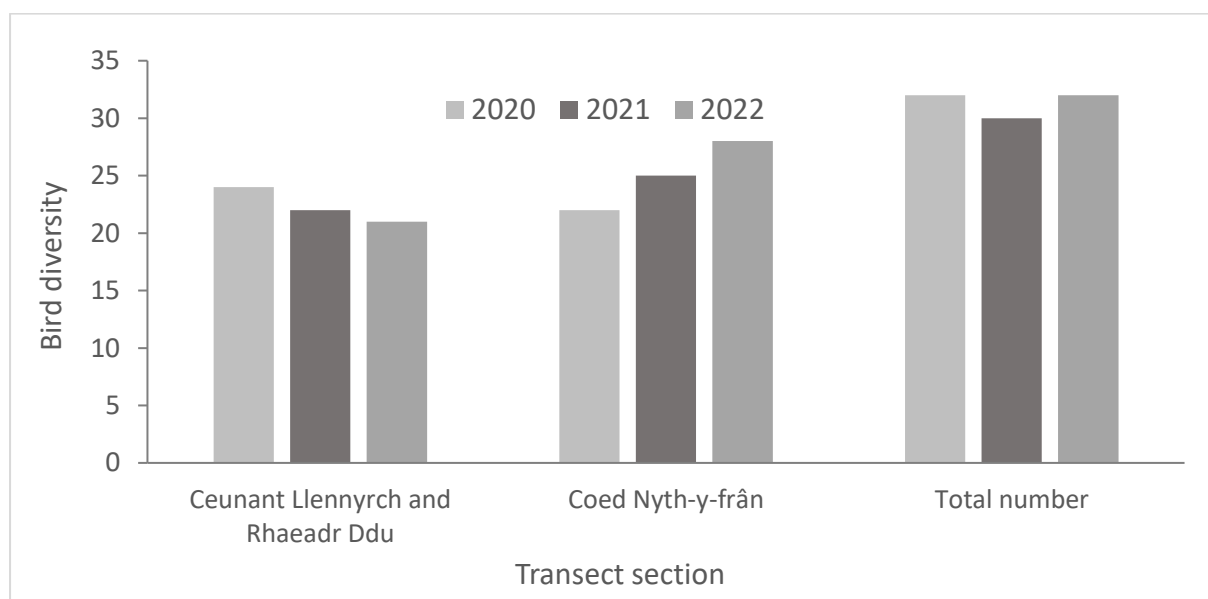


Figure 4. Bird diversity (i.e. total number of species) along the main transect routes in 2020 (pale grey), 2021 (darker grey) and 2022 (grey).

2.2 Vegetation

Whilst there were no specific vegetation surveys carried out at this site, the fixed-point images in section 2.5 give a visual comparison across the three years of any changes at these chosen points along pathways.

A continuing concern at this site relates to the increased erosion and trampling of the delicate moss, fern and bryophyte communities along the gorge sides due to regular gorge-walking activities in Ceunant Llennyrch. A number of well-trodden pathways leading to the gorge were heavily trampled, and the sides of the area around Rhaeadr Ddu (point 1 in the map in figure 2) also showed evidence of trampling effects to the mosses and ferns here. A specific survey of the gorge and its fern and moss communities would be most useful to inform the extent to which the gorge walking and exploration activities here might be impacting the important woodland vegetation communities.



Some effects of human footfall on the moss and fern communities along the side of Rhaeadr Ddu (point 1 on the map in figure 2).

2.3 Litter

Just two items of litter were found across the two transect routes in 2022: a crisp packet and sweet wrapper, both around the Rhaeadr Ddu area. This is similar to the one item found in 2021, and bucks the overall trend observed across the rest of the Eryri survey sites in demonstrating *lower* levels of litter outside of the lockdown period (seven items of litter were found in the area in 2020).

2.4 Other sightings

Two insects of particular note seen during the survey included a Gold Swift moth (*Phymatopus hecta*) and a Clouded Magpie moth (*Abraxas sylvata*).

2.5 Fixed-point pathway images to record vegetation condition

Images from all three years are shown alongside each other to allow for comparisons at the key fixed-point locations used for these images (shown on the map in figure 2).



Image locations: **left-hand column** entering the site (**P1** on the map in figure 2) and **right-hand column** looking back towards entrance at gate into woods (**P2**).

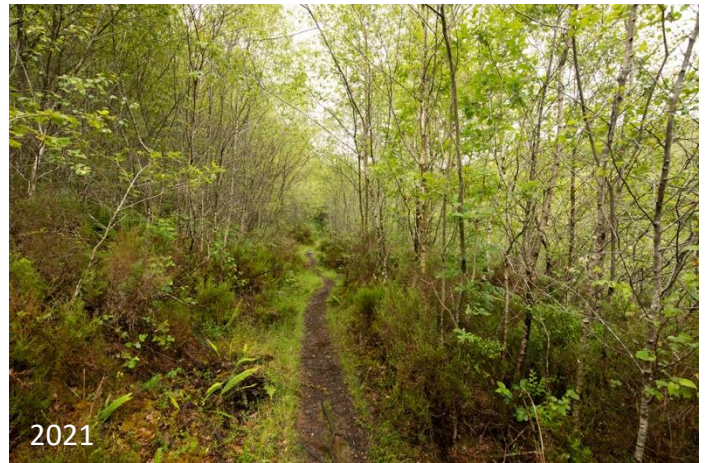


Image locations: **left-hand column** along way-marked woodland footpath (**P3**) and **right-hand column** along the way-marked woodland footpath (**P5**).