

The Ogwen Valley

Site: Cwm Idwal National Nature Reserve, Tryfan and y Glyderau

Dates of surveys: 13/06/2022 and 17/06/2022

Transect routes: main footpaths around Cwm Idwal, Y Garn, Tryfan and y Glyderau



Large Marble moth (*Phiaris schulziana*) on the ridge near Glyder Fach – a nationally scarce micro moth restricted to upland areas.

1. Survey details

The survey routes in 2022 followed the same transects as 2020 and 2021. The Ogwen Valley region was divided into two main sections and visits: one covering Cwm Idwal, Y Garn and the area surrounding these sites (surveyed on 17 June 2022) and another to cover Tryfan, y Glyderau and Llyn Bochlwyd (covered on 13 June 2022). These routes are detailed on the map below (figure 1).

During these surveys, observers recorded any birdlife seen during the transect (especially signs of breeding activity), as well as litter abundance along footpaths, mammal activity, vegetation condition and several fixed-point images were taken along the pathways for ongoing assessment of changes using a visual comparison (see figure 2 for details of specific survey locations).

Weather conditions: for the survey of Tryfan and Y Glyderau on 13 June, there was 90% cloud cover, a 15mph westerly wind, and temperatures between 8°C and 12°C. The survey of Cwm Idwal and Y Garn on 17 June saw very strong winds from the south-east gusting to 40mph and above at the summit top and northern end of Llyn Idwal. This was accompanied by warm temperatures (20°C) and clear skies (0% cloud cover). The wind strengths were noted for their potential to reduce detectability of birdlife during the survey; species such as Ring ouzel and Meadow pipit could still be seen and heard, but it is likely these conditions affected survey results to a certain degree.

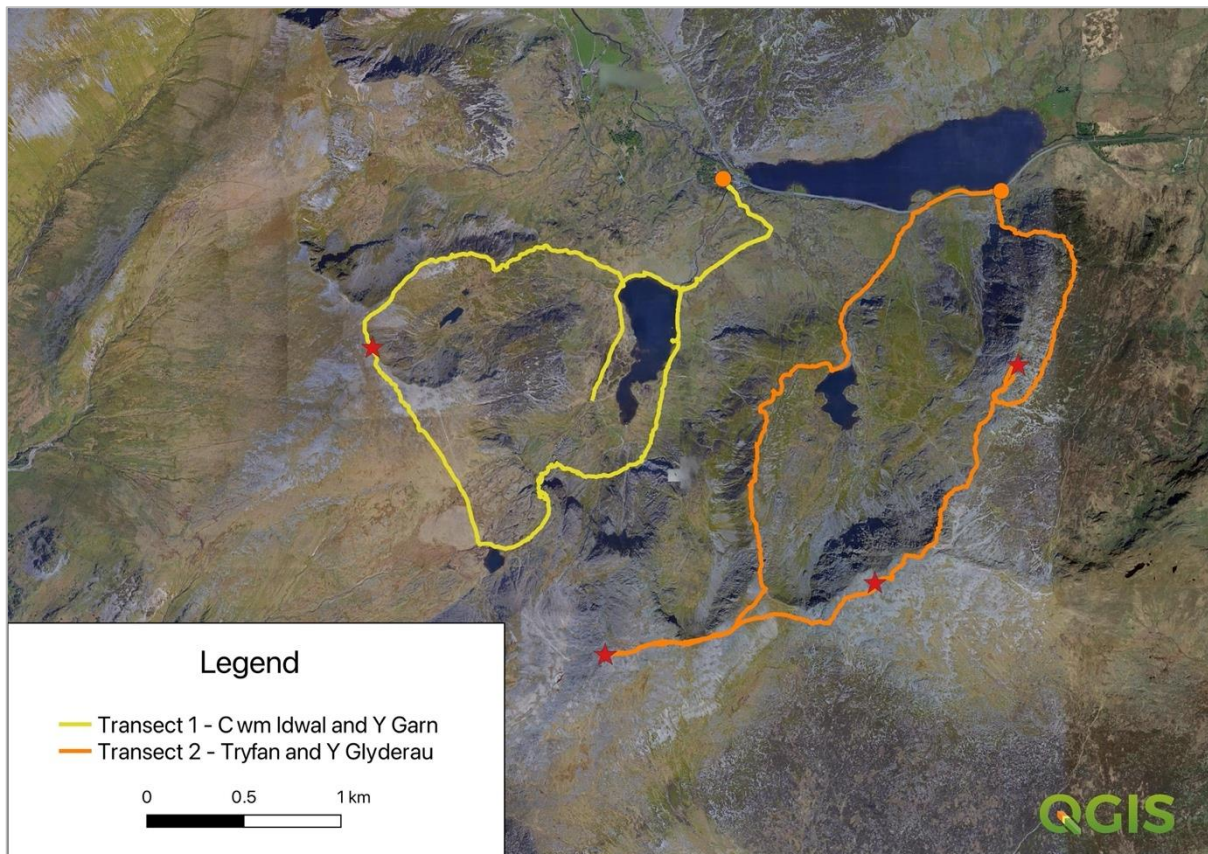


Figure 1. Transect routes for the Ogwen Valley surveys outlined in orange and yellow tracks; orange dots denote start and end of transect routes; and red stars denote main summits.

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 and the numbered code, for example '(P3)'.

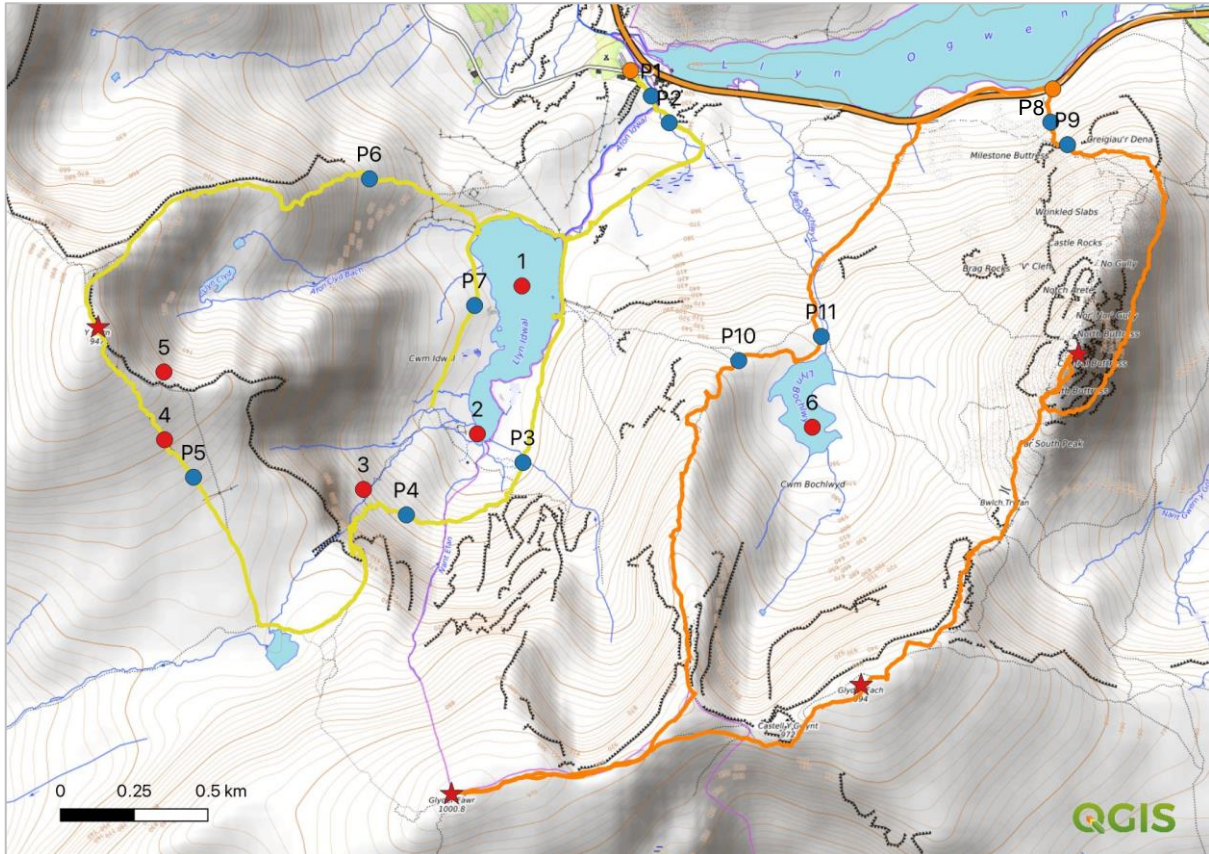


Figure 2. A map of the Ogwen Valley and survey area showing the transect routes and key points from the survey: orange points are the start and end points of the surveys, red points are target notes referred to in the results summary below, and blue points are fixed-point photography sites (see section below).

2.1 Birdlife

A total of 17 different species and 231 individual birds were recorded across the transect sections over the two survey visits (see table 1 below). The most abundant species recorded were Meadow Pipits (a total of 130 individuals), Wrens (39 individuals), House Martins (15 individuals) and Northern Wheatears (11 individuals). More noteworthy sightings included five Ring Ouzels around Cwm Idwal and Y Garn (including one fledged young), two alarm-calling Common Sandpipers on Llyn Idwal and Llyn Bochlywyd, and the nesting pair of Great Crested Grebes on Llyn Idwal for their third year in the lifetime of these surveys (point 2 on the maps in figure 2).

The total of 17 species is one less than was recorded in 2021, and ten fewer than the 28 species seen in the 2020 surveys (see figure 4). There were two species seen in 2022 that were not present in 2021, including House Martin and Mallard; conversely, three species seen in 2021 were absent this year, namely that of Dunnock, Kestrel and Lesser Redpoll. Species such as Dipper, Cuckoo, Willow Warbler and Blackcap were recorded in the 2020 surveys but were once again absent during this year's survey visits.

With regards to the effects of visitor pressure on the birdlife of the area, there were no direct impacts recorded during these surveys, but some notes on key observations are outlined below:

- **Birdlife around Llyn Idwal and Llyn Bochlwyd** (points 1 and 6 in figure 2): just one Common Sandpiper was seen on Llyn Idwal (point 1) this year, and a single on Llyn Bochlwyd (point 6); this is lower than the two pairs recorded in these locations in 2021, and down on the three pairs seen in 2020. However, the strong winds during the survey of Cwm Idwal on 17th June may well have reduced the detectability of seeing these timing birds. The pair of Great Crested Grebes were once again present on the southern end of Llyn Idwal, with a bird incubating on a nest in this area of the lake. It is good to confirm their breeding activity here for a third consecutive year, and that visitor numbers here have not adversely disturbed their breeding activity.
- **Ring Ouzels.** A total of five Ring Ouzels were again recorded during the 2022 surveys, which is the same figure as seen in 2020 and 2021. A single fledged juvenile was seen with adult birds on the lower flanks of Y Garn (point 5 on figure 2), and two adults were present in the boulder fall below Twll Ddu (point 3),
- **Birds nesting near pathways:** fewer breeding songbirds were recorded in general in 2022, and none were noticeably nesting close to main pathways as was observed in 2020. The lower numbers of birdlife in general in 2022 could be attributable partly to the difficult survey conditions on 17th June, and also a carry-over effect from the poorer breeding season in 2021 amidst a very cold, delayed spring (and so with fewer birds fledged and able to return to breed in 2022).



Meadow Pipit (*Anthus pratensis*) with a Common Heath moth (*Ematurga atomaria*), ready to feed its fledged chicks. The commonest species recorded in upland areas such as the Ogwen Valley, this bird species provides a useful indicator of the breeding success and year-to-year fluctuations in songbirds in these areas.

Table 1. Breeding bird survey results for Ogwen Valley transects.

Name		Ogwen Valley: Cwm Idwal, y Garn, Tryfan and y Glyderau			
Survey type		Breeding birds			
Surveyors		Ben Porter and Iago Thomas			
Dates of surveys		13/06/2022 and 17/06/2022			
Species	Scientific name	Transect or site			Evidence of breeding activity during visits
		Cwm Idwal and Y Garn	Tryfan and y Glyderau	Total number	
Meadow Pipit	<i>Anthus pratensis</i>	67	63	130	Singing males, fledged young and alarm calling adults
Pied Wagtail	<i>Motacilla alba yarellii</i>	1	1	2	
Wheatear	<i>Oenanthe oenanthe</i>	4	7	11	
Raven	<i>Corvus corvax</i>	2		2	
Wren	<i>Troglodytes troglodytes</i>	11	28	39	Singing males and alarm calling adults
Carrion Crow	<i>Corvus corone</i>	1		1	
House Martin	<i>Delichon urbica</i>	15		15	
Stonechat	<i>Saxicola torquatus</i>	1	1	2	Singing male
Grey Wagtail	<i>Motacilla cinerea</i>	4	1	5	Singing males
Herring Gull	<i>Larus argentatus</i>	1	2	3	
Mallard	<i>Anas platyrhynchos</i>	4		4	
Canada Goose	<i>Branta canadensis</i>	4		4	
Great Crested Grebe	<i>Podiceps cristatus</i>	1		1	
Common Sandpiper	<i>Actitis hypoleucos</i>	1	1	2	Alarm calling
Ring Ouzel	<i>Turdus torquata</i>	5		5	One fledged young
Skylark	<i>Alauda arvensis</i>	2		2	Singing males
Buzzard	<i>Buteo buteo</i>	1	2	3	
Total number of species		17	9	17	
Total number		125	106	231	

Comparisons of bird abundance and diversity across years

Looking across the three years of these surveys, the graphs below outline comparisons in the figures for bird abundance and diversity. Both the number of species seen (17 in total) and the number of birds seen (231 in total) is lower than both previous years, and substantially so compared to 2020. The figure of 231 birds is 36% fewer than the 363 seen in the survey area in 2020, and 23% fewer than the 299 birds seen in 2021. These differences are mirrored across all upland sites in the 2022 surveys, and reasons for the lower figures are most likely due to weather patterns across the years and its knock-on effects on breeding activity. A full analysis of these year-to-year changes is given in the overall summary report for the survey work.

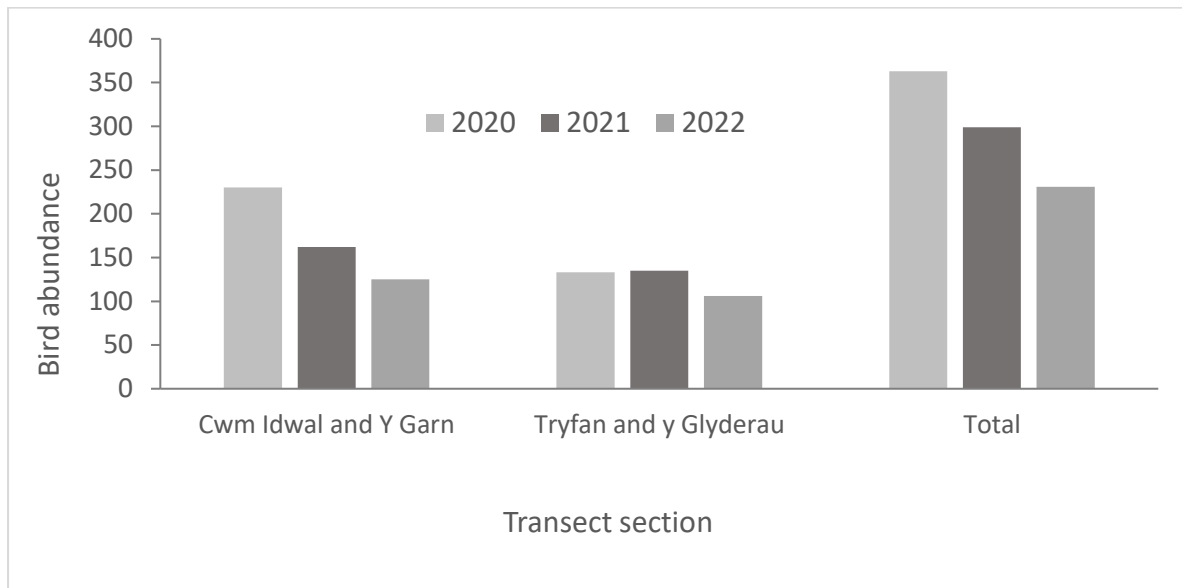


Figure 3. Bird abundance (i.e. number of individual birds recorded) along the main transect routes in 2020 (pale grey), 2021 (darker grey) and 2022 (grey).

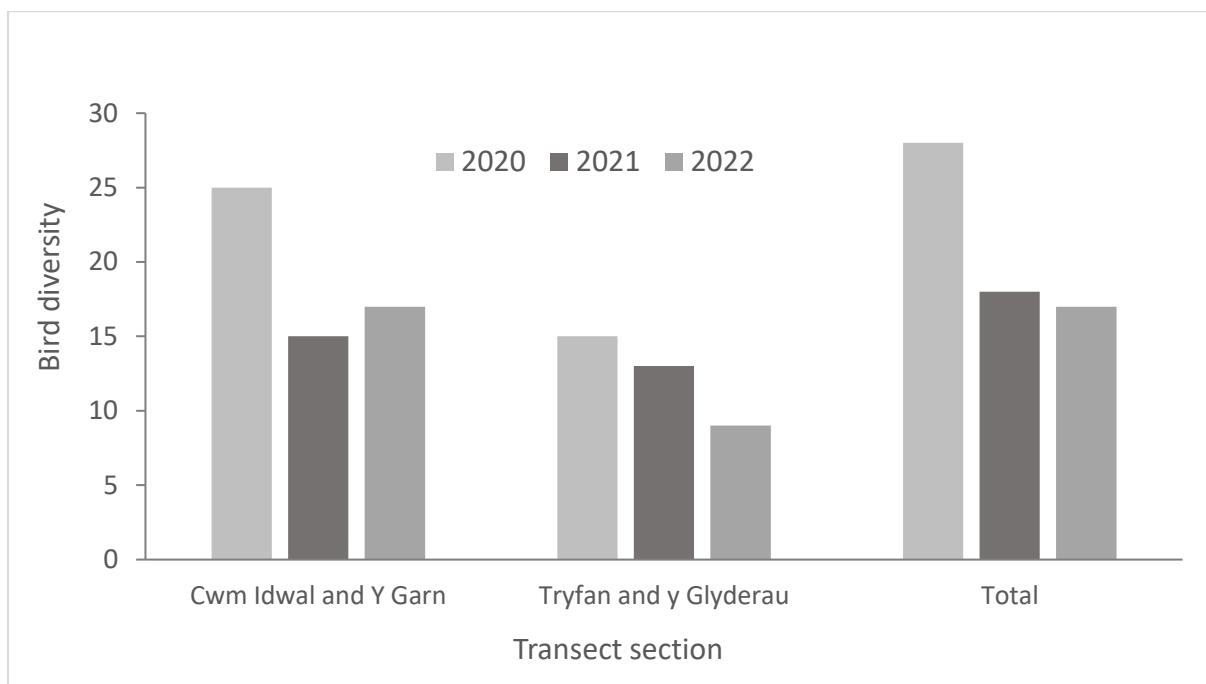


Figure 4. Bird diversity (i.e. total number of species) along the main transect routes in 2020 (pale grey), 2021 (darker grey) and 2022 (grey).

2.2 Vegetation

There were no significant differences in vegetation condition noted compared to the 2021 surveys, although the verdant explosion of plant life along pathways and popular gathering sites witnessed during the 2020 lockdown was not evident, as would be expected. The fixed-point images (section 2.6 below) give a visual comparison of several sites along the transect routes to illustrate any differences visually across the three years.

As was noted in 2021, some sections of the area's pathways are experiencing erosion in the absence of the hardcore rock paths installed in popular sites such as around Llyn Idwal. The areas particularly noticeable in this erosion include Y Garn (see image below) and the pathways to Bwlch Tryfan from Llyn Bochlywd. The pathways up Y Garn are gradually splaying outwards and widening onto the surrounding rocky, moss habitat which also supports populations of Dwarf willow (*Salix herbacea*). The willow plants are very small and easily overlooked but could be impacted by the continued trampling in some of the areas near this pathway (at point 4 in figure 2, for example).



Above: the eroded footpaths ascending the mountain of Y Garn.

2.3 Litter

A total of 59 items of 14 different litter types were recorded across the main pathways and survey areas covered across the Ogwen Valley in 2022 (see table 3 below). The transect route along Y Glyderau from Llyn Ogwen contained the most items (24 different items of 12 types), which is perhaps surprising considering the popularity of Llyn Idwal as a gathering place for people. Conversely, the shores of the lake were relatively litter free, with this section of the survey containing 12 different items of seven types. The summit of Tryfan was again a hotspot for litter items, often hidden between the cracks and crevices of the large rocks and boulders at this location,

which makes it difficult to see the litter compared to an open, grassy summit top. A total of 23 litter items of six types were recorded on the Tryfan summit top. The total of 59 items is lower than the 88 items recorded in 2021, but still substantially higher than the 11 items found across the same routes in 2020. Similarly, only four items were found in 2020, compared to the 19 in 2021 and 14 in 2022. This demonstrates something of a post pandemic peak, with a slight stabilisation this year in such littering activity.

The most common litter items recorded were cigarette butts (15), followed by sweet wrappers (10), tissues (9) and organic waste such as orange peel (5).

Table 3. Results of litter surveys around Cwm Idwal, Tryfan and y Glyderau in 2022.

Site Name	Ogwen Valley: Cwm Idwal, y Garn, Tryfan and y Glyderau				
Survey type	Litter survey				
Surveyors	Ben Porter with help from Iago Thomas				
Dates of survey	13/06/2022 and 17/06/2022				
Litter type	Quantity				Notes
	Cwm Idwal and Y Garn	Tryfan and y Glyderau	Tryfan summit	Total	
Tissues	1	5	3	9	
Cigarette butts	1	5	9	15	
Metal/aluminium can	1	1		2	
Sweet wrapper	4	2	4	10	
Crisp packet		1		1	
Other organics	1	2	2	5	
Hard plastic pieces		2		2	
Hair band		1		1	
Wet wipes		1		1	
Plastic bottle			4	4	
Banana peel		1	1	2	
Foil pieces		1		1	
Clothing items	2	2		4	
Dog poo bag	2			2	
Total number of litter types	7	12	6	14	
Total number of litter items	12	24	23	59	

2.4 Other sightings and notes from the survey

Feral mountain goats: fewer feral goats were seen during the 2022 survey compared to previous years; a total of 30 individuals were seen, consisting of 17 animals along Heather Terrace and 13 below Y Garn. This is fewer than the total of 57 Feral goats recorded across the survey area in 2021, and than the 99 recorded during 2020.

Insects: due to the mild conditions during the two survey visits, a good variety of insect species were recorded during the 2022 surveys. These sightings included Common Heath butterflies, over 30 Bilberry Bumblebees (*Bombus monticola*) and a variety of micro moth species: six Northern Grass Veneers (*Catoptria furcatellus*) on Y Glyderau, two Obscure Tortrixes (*Clepsis senecioana*), more than 15 Bilberry Rollers (*Ancylis myrtillana*) and the nationally scarce Large Marble (*Phiaris schulziana*).



Fewer Feral goats were recorded across the 2022 surveys.

Camping activity: a total of four tents were recorded during the survey, including three in the National Nature Reserve of Llyn Idwal, and one near Llyn Bochlwyd. Following the large explosion in wild camping activity around Llyn Idwal post lockdown in 2020 and 2021, a sign has also now been erected near the lake to discourage camping at this site.



A sign at the northern end of Llyn Idwal National Nature Reserve to discourage activities such as camping and the use of drones, which have been becoming more of an issue in areas such as this site over the last two years.

2.5 Grazing levels

Whilst not specifically monitored during the surveys, the condition of habitats along the transect routes plays a significant role in dictating the abundance and diversity of plant life, insect life and birdlife existing in these areas. The Cwm Idwal National Nature Reserve (NNR) area itself has seen a reduction in grazing pressure from sheep since its designation as a SAC (Special Area of Conservation) in the 1990s. This is now reflected in the spread of heather, bilberry, flowering plants and grasses in the area surrounding the lake. Across the majority of the other areas covered in this survey (such as the summit plateau area of Y Glyderau, Cwm Tryfan and the land surrounding Y Garn) sheep grazing is the dominant player in dictating the habitat condition, which largely consists of semi-natural grassland and few vascular flowering plants. These differences in habitat are reflected in the assemblage of birdlife recorded during the survey, both in terms of diversity and abundance.



Starry Saxifrage (*Saxifraga stellaris*- left) and Foxgloves (*Digitalis purpurea*).



Mossy Saxifrage (*Saxifraga bryoides*) in Twll Du ('Devil's Kitchen').

2.6 Fixed-point pathway images to record vegetation condition

For this year's report, images from across the three years for each point are included side-by-side to allow for comparisons.

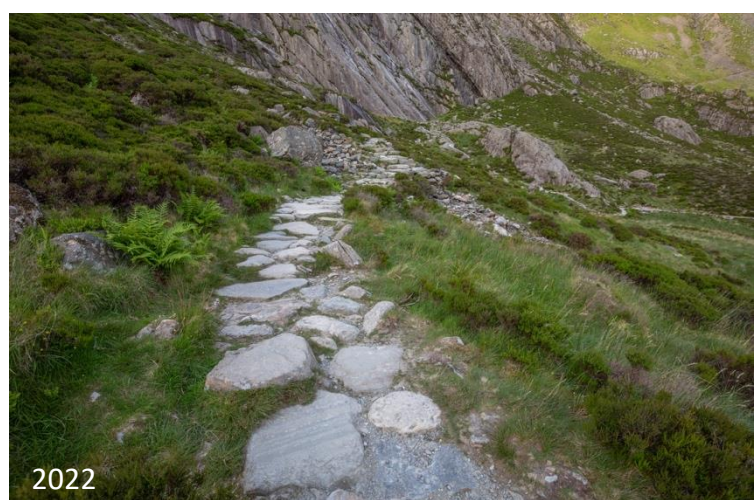
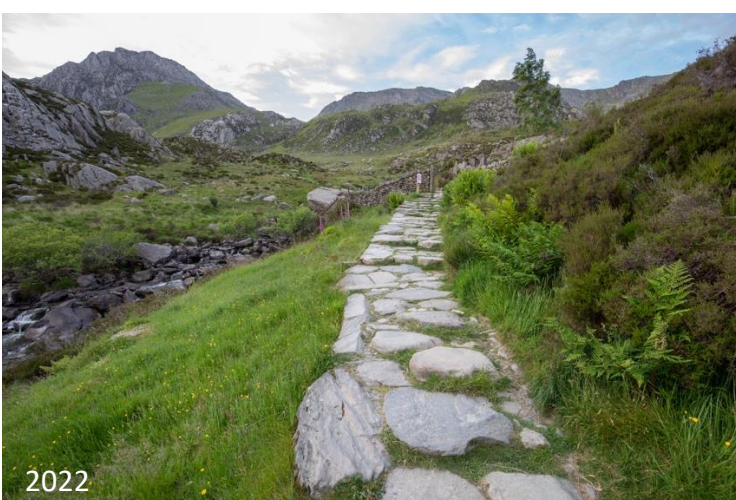


Image locations (numbers referencing to map in figure 2 at beginning of section): **left hand column** at beginning of path to Llyn Idwal (**P1**), and **right hand column** at southern end of Llyn Idwal (**P3**).



Image locations: above, at beginning of path to Llyn Idwal (**P1** in figure 2).



Image locations: **left hand column** ascending towards Twll Ddu boulder scree (**P4**) and **right hand column** on ascent up Y Garn's southern face (**P5**).



Image locations: **left hand column** descending from Y Garn to Llyn Idwal (P6) and **right hand column** along edge of Llyn Idwal (P7).



Image locations: **left hand column** at start of ascent to Y Tryfan (**P8**) and **right hand column** descending from Y Gribbin towards Llyn Bochlywd (**P10**).



Image locations: **top row** looking over to Llyn Ogwen from the base of the north-east side of Tryfan (**P9**) and **lower two rows** descending from Llyn Bochlwyd towards Llyn Ogwen (**P11**).