



cofnod

Gwasanaeth Gwybodaeth Amgylcheddol Gogledd Cymru
North Wales Environmental Information Service





Golygyddol ◦ Editorial

Welcome to the first issue of the Cofnod Newsletter, packed with a range of articles focusing on wildlife and recording in North Wales. As a reader we hope you'll be able to contribute articles for future issues. We've stretched the definition of Spring this year so that we can produce two issues per year!

Croeso i'r rhifyn cyntaf o Gylchlythyr Cofnod, sy'n llawn erthyglau amrywiol yn rhoi sylw i fywyd gwylt a chofnodi yng Ngogledd Cymru. Fel darlennydd rydym yn gobeithio y byddwch yn gallu cyfrannu erthyglau ar gyfer rhifynnau'r dyfodol. Rydyn ni wedi ymestyn y diffiniad o Wanwyn eleni er mwyn gallu cynhyrchu dau rifyn y flwyddyn!



Richard Gallon
Intec, Ffordd y Parc
Parc Menai
Bangor LL57 4FG

www.cofnod.org.uk

newsletter@cofnod.org.uk

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The Final Push for the 2020 Atlas of Vascular Plants

Barbara Brown

The Botanical Society of Britain and Ireland (BSBI) has been dedicated to identifying and recording vascular plants since its inception in 1836. It started the trend to develop species distribution Atlases with the first ever Atlas of Vascular Plants in 1962. This work pioneered the use of dot maps aligned to the Ordnance Survey grid and presented 1706 taxa. It aimed to record in 10x10 km squares and be as comprehensive as possible by enlisting volunteer recorders. These objectives now seem so familiar to recording schemes that it is hard for us to grasp how ambitious they were at the time. Perhaps a glimmer of this can be conveyed by the project's reliance on punch code cards to collate records!

Once the Atlas was published it provided

fundamental background information for further ecological research. The 1962 Atlas and its sister 2000 publication have also had a great impact on conservation, documenting the changing distributions of our native and alien flora. The data collected for them was analysed to produce the 2005 GB Red Data List and the Vascular Plant Red Data List for Wales (2008). This work is being continued with the next 2020 Atlas and Vice Country recorders are embarking on the last season of fieldwork across Britain and Ireland for this publication as I write.

The Cofnod recording area covers the Vice Counties of Anglesey, Flintshire, Denbighshire, Caernarvonshire, Merionethshire and part of Montgomeryshire each of which has either one or two Vice County recorders. Several of the Vice Counties organise regular field days nearly all of which are focussed on collecting records for the Atlas this year. Information about these is posted up on the [BSBI website](http://www.bsbi.org.uk) and everyone is welcome!

| | | |
|------------------------|--|---|
| Anglesey | Green-winged Orchid Mountain Everlasting Dropwort Common Gromwell Great Burnet Wild Celery Hairy Rock Cress Yellow-wort Dwarf Spurge Yellow Horned Poppy Pale St John's-wort Ploughman's Spikenard Common Cow-wheat Cranberry Purple Ramping-fumitory Chamomile | <i>Anacamptis morio</i> <i>Antennaria dioica</i> <i>Filipendula vulgaris</i> <i>Lithospermum officinale</i> <i>Sanguisorba officinalis</i> <i>Apium graveolens</i> <i>Arabis hirsuta</i> <i>Blackstonia perfoliata</i> <i>Euphorbia exigua</i> <i>Glaucium flavum</i> <i>Hypericum montanum</i> <i>Inula conyzae</i> <i>Melampyrum pratense</i> <i>Vaccinium oxycoccos</i> <i>Fumaria purpurea</i> <i>Chaemamelum nobile</i> |
| Denbighshire | Would like records of invasive aliens with an indication of their coverage for example Himalayan Balsam <i>Impatiens glandulifera</i> | |
| Merionethshire | Melancholy Thistle Bog Orchid Small-white Orchid Forked Spleenwort | <i>Cirsium heterophyllum</i> Found in the 60s in the Migneint area <i>Hammarbya paludosa</i> <i>Pseudorchis albida</i> <i>Asplenium septentrionale</i> |
| Montgomeryshire | Wood Bitter Vetch Great Burnet Dyer's Greenweed Early-purple Orchid Saw-wort | <i>Vicia orobus</i> <i>Sanguisorba officinalis</i> <i>Genista tinctoria</i> <i>Orchis mascula</i> <i>Serratula tinctoria</i> |

Table 1. Plant species where records are particularly required for each vice county.

These days are a great way to sharpen your botanical skills though complete beginners should be prepared for a steep learning curve! However, it is worthwhile countering our natural human tendency to focus on animals by trying to learn more about plants. They provide the structure and habitats which support so many other species, whether looking for Long-tailed tits nesting in gorse bushes or the Tormentil mining bee feeding on Tormentil flowers, learning more about plants will improve your recording almost whatever your specialism.

If you are a complete beginner and wish to learn more then you might like to join in with #wildflowerhour on Twitter [@wildflower_hour](https://twitter.com/wildflower_hour). This is great fun to participate in every Sunday

night between 8pm and 9pm. Just post up a wildflower picture with the hashtag above, preferably with an identification if possible. The #wildflowerhour team tries to retweet all the pictures, helping with identification where required. They also now tweet weekly challenges, for example on the week beginning 6th May the challenge was #carrotsandpeas with participants looking for flowers from these two large plant families.

The [Anglesey Flora Group](#) have also started a twitter account. These accounts show followers what plants to look for in a locality and when they are becoming noticeable.

Owing to changes in their distribution several



Figure 1. Forked Spleenwort *Asplenium septentrionale* a target species for records in Merionethshire.

© Allan Brandon.

local botany groups would particularly welcome records on the following species, so if you can just do a bit of casual recording, do look out for them. Remember to include the date, site (a grid reference is ideal) and your contact information; photos are helpful as well as an assessment of the abundance of the plant.

If you feel ready to start recording regularly you could also get involved with a citizen science project. Having a structure and a purpose can help organise your efforts. These projects often have support networks which offer guidance with identification problems. The National Plant Monitoring Scheme provides all of these and it collects statistically amenable data. More

volunteers are needed though, as a bigger data sample would be really useful.

The NPMS is organised and funded by the Centre for Ecology and Hydrology, the BSBI, Plantlife and the JNCC. It relies on volunteer surveyors who can choose a 1km square from the [NPMS website](#). Five plots should be surveyed twice during the summer season. As the plots can be surveyed at three different levels of botanical expertise, it is possible for beginners to take part and also measure their own progression. Over a thousand volunteers are now involved and they are looking at 806 km². Training events are being held across the UK. Dates for these can also be found on the website.

So with all of these projects and activities happening in North Wales, take a cure for plant blindness and consider the lilies – and their fellow blooms. They bring into focus the state of our habitats across the region and track the changes to them, as well as forming and flagging up the ecological niches upon which the species you record depend.

Staff Focus: Catharine Moss (Cofnod Data Officer)



I have been working for Cofnod now for over two years, having been taken on after an initial spell working as a volunteer entering historic plant records into the database. Prior to this I did not always have an interest in conservation, having a somewhat eclectic history which included studying philosophy and psychology, teaching English in Russia, an MSc in Agroforestry and carrying out research into farmers' knowledge of soil fertility in Ghana.

I have, however always had an interest in plants, and can remember surprising the adults by successfully growing lemons and oranges from pips as a young child. These days I have more of an interest in wild flowers and carry out the National Plant Monitoring Survey in two squares every year, as well as being a member of the North Wales Non-Flowering Plant group which focuses on bryophytes.

At Cofnod I work alongside Aisling matching up columns to process the hundreds and thousands of records we receive in spreadsheets into the database. This data comes from all sorts of different sources, from small spreadsheets from individual recorders, to datasets of tens of thousands of records from national recording schemes and societies. I have also recently started to investigate and analyse the record coverage in the Cofnod database, creating maps for *Monad of the Month* to highlight recording gaps in our five vice-counties. I look forward to processing more of your data in the future!

Hub for Wildlife in Mold

Amy Green

Wild About Mold is an 18 month project from North Wales Wildlife Trust, funded by the National Lottery Community Fund. The project aims to forge connections between the community in and around Mold with their local wildlife. We have been coordinating workshops and volunteer days locally for people to get involved with activities to improve their local area for wildlife through activities like tree planting and wildflower area creation as well as getting in touch with some of their wild neighbours through bat walks and wildlife workshops. An innovative element of the project is the *Wildlife Hub* which is operating out of Mold library on alternating Tuesday afternoons. A representative from NWWT is present to talk about all things wildlife, accompanied by a box full of different survey equipment which is all available to borrow for a couple of weeks. Equipment available to borrow include binoculars, magnifying glasses, bug pots, identification guides and mammal footprint tunnels. The footprint tunnels were specifically designed to survey for hedgehogs, but also function well to capture the footprints of mice, voles and whatever else can fit through the tunnel. Alongside borrowing equipment, people are being encouraged to record their



findings on Cofnod and to take part in some of the coordinated surveys such as the big garden birdwatch and big butterfly count. Over time we will hopefully see an increase in wildlife records for the area and this will help to inform us where efforts could be concentrated to improve connectivity in this living landscape area. It will also raise awareness and appreciation of the wildlife that surrounds us, whether we are in a wilderness area, nature reserve or in the middle of town. The next times the hub will be at Mold library are 13th August, 10th and 24th September from 1–4pm.

Volunteers Needed to Create a Picture of the UK's Butterflies

Amy Green

The Wider Countryside Butterfly Survey (WCBS) was established by Butterfly Conservation and British Trust for Ornithology in 2009 to gather data about butterfly populations across the UK as a whole. Most other butterfly monitoring is site based and therefore often biased towards



Figure 1. Silver-studded Blue *Plebejus argus caemensis* on the Great Orme.

© Richard Gallon.



Figure 2. Clouded Yellow *Colias croceus*.

© Susan Loose.

areas of good quality habitat which is rich in butterflies. This makes the scientific and random nature of the WCBS even more important to get an accurate picture of the nation's butterfly populations across a wide variety of habitats.

In North Wales there are currently 44 squares in circulation through Butterfly Conservation, of which nine were surveyed last year. I am asking for your help to double this figure in 2019! In depth knowledge of butterflies is not required and support is available to set up the transects (the route to walk and survey). Two butterfly identification workshops were run in the region this year – one near Mold in North East Wales on 6th June courtesy of North Wales Wildlife Trust and the other in Trawsfynydd on 22nd June courtesy of Snowdonia National Park and the Afon Eden project.



Figure 3. Wider Countryside Butterfly Survey (WCBS) event at Trawsfynydd in Merionethshire.
© Richard Gallon.

Undertaking butterfly surveys is very enjoyable, partly because the ideal time to survey is when the weather is dry and warm, and who doesn't want to go and wander outside at a time like that? The tricky part has come about thanks to the randomly generated squares. Some of these squares are remote, so personal transport is useful; the closest available square might be a bit of a drive away. However, the data which we receive in exchange is incredibly important, and the survey method only requires two trips, one each during the months of July and August with a 10 day gap in between.



Figure 4. Large Heath *Coenonympha tullia* at Cors Goch, Trawsfynydd.
© Richard Gallon.



Aberdaron SH173268 – The Llŷn Peninsula Gwynedd “There is everything to look forward to...” R. S. Thomas

Howard Harris

Only by travelling through the Llŷn can you really appreciate this ancient land, created by volcanic activity and sculpted first by ice then humans. Its soils have formed as glaciers retreated, leaving a land where farming has been a mainstay, and a patchwork landscape of fields enclosed by clawdd (bund) walls. The peaks of Llŷn’s volcanic spine, once home to Iron Age people, now support important habitats and rare species, while the ancient rocks upon which Llŷn has evolved have been quarried and transported all over the world.

It is this rich tapestry of landscapes and human interaction that make Llŷn so unique, culturally rich and ecologically diverse. The ancient pilgrims journeyed through these landscapes on their way to Bardsey Island.

To the farmer, fisherman and pilgrim, the sea has been an integral part of life on Llŷn for thousands of years – an ever-present companion to the land and its people. Deep beneath the sea is a place where the boundaries between myth, legend and reality blur. Huge forests of kelp as diverse as a rainforest lie secretly in the darkness, briefly unveiled by the ebb and flow of the tide. This hidden world is revealed by the sea birds that skim the sea’s surface and plunge into its depths.

The Big Five!

The combination of coastal grassland and heathland for feeding, and rocky cliffs for nesting, make the tip of Llŷn one of the best places to see **(#1) Red-billed Chough *Pyrrhocorax pyrrhocorax*** (Fig. 1). Choughs are acrobatic members of the crow family that have unique, bright red, curved bills. Within the UK they are restricted to the coasts of Cornwall, Wales, and a few isolated regions of Scotland. They engage in spectacular aerial displays, and



Figure 1. Chough *Pyrrhocorax pyrrhocorax*.

© Rhodri Parry via the Cofnod ORS.

courtship involves the preening and feeding of the female by the male. Neighbourly hillside sheep keep turf short, allowing choughs to probe the ground in search of invertebrates. The relationship is mutually beneficial since choughs often perch on the backs of sheep to remove ticks. **(#2) Grey seal *Halichoerus grypus*** (Fig. 2). Grey seals are the largest breeding seals found in the UK. Half of the world’s population of grey seals are found around British coasts, and numbers here have doubled since 1960. They can be spotted around the coast of



Figure 2. Grey seal *Halichoerus grypus*.

© Tim May.



Figure 3. Porpoise *Phocoena phocoena*.
© Joel Walley via the Cofnod ORS.

Aberdaron. Their favourite haul out spots include secluded rocky outcrops, beaches and caves. In the autumn, females congregate at traditional pupping sites called 'rookeries'. Pups weigh 14 kilograms at birth, but since their mother's milk contains 60% fat, they quickly balloon and develop the blubber layer, essential for maintaining body temperature out at sea. When feeding, these seals can dive to a depth of 70 metres in search of food and the rich waters around the Llŷn provide the seals with plenty to eat. Also found on the sea cliffs are the **(#3) Peregrine** *Falco peregrinus*, a large and powerful falcon. It has long, broad, pointed wings and a relatively short tail. It is blue-grey above, with a blackish top of the head and an



Figure 4. Hare *Lepus europaeus*.
© Tim May.

obvious black 'moustache' that contrasts with its white face. Its breast is finely spotted. It is swift and agile in flight, chasing prey. The strongholds of the breeding birds in the UK are the uplands of the north and west and rocky seacoasts. It has made the cliffs between Aberdaron and Mynydd Mawr its home. **(#4) Porpoise** (Fig. 3) are shy creatures that do not ride the waves alongside boats or jump out of the water like dolphins, but scan the sea and you may see their fins. They are smaller than dolphins with a flatter face and straight edged dorsal fin. Porpoises eat fish and search for their prey using echo-location. **(#5) Hare** *Lepus europaeus* (Fig. 4); the subject of many references in Welsh mythology, but intensive farming has had a significant impact on them over the last century. Farmland on Llŷn contains a good mix of habitat and you may well spot a hare's long black-tipped ears as it hunkers down in 'forms' (shallow depressions in the ground) during the day. Hares are much longer-limbed and swifter than rabbits. They use their powerful hind legs to escape predation by outrunning their enemies, and have been known to reach speeds of 72km/h (45mph). Brown hares are widespread throughout central and western Europe, including most of the UK, where they were introduced during the Iron Age. Courtship involves boxing, and this well-known 'mad March hare' behaviour involves unreceptive females fending off passionate males.

Gorse *Ulex europaeus* dominates the heathlands. As part of an ongoing restoration project gorse is been cut back and these areas sown with **Heather** *Calluna vulgaris*. The long-term hope is for managing the heathland with the help of traditional farming methods and grazing animals.

The sea around Aberdaron is designated as a Special Area of Conservation (SAC) and contains an amazing underwater world of kelp forests, rocks covered in sponges and animals from octopus and fish to large crabs and lobsters. The coastal cliffs and islands are perfect places for sea birds including Puffin and Manx shearwater.



Figure 5. Spotted Rock Rose *Tuberaria guttata*.

© Richard Gallon.

The tip of the Llŷn is the only place on mainland Britain where the **Spotted Rock Rose** *Tuberaria guttata* grows and its yellow flowers only appear once in its lifetime (Fig. 5).

Deall Ecosystemau - Understanding our Environment (bat detector loan scheme)

Rob Booth

Understanding our Environment is an exciting new project in Anglesey, Gwynedd, and Conwy (west of the River Conwy only) designed to

enable you to take an active interest in finding out about your local bats. Being nocturnal mammals, identification to species level can be a challenge! Fortunately for us modern technology means we can eavesdrop into their world by using bat detectors to record their high frequency calls.

There are 17 species of bats known to be resident in the UK – 15 of these are in Wales. They are all different and each has their own ecological needs, so it is important that we know what species of bat we have and where they occur. Bats are an essential part of our ecosystem and play a vitally important role in controlling nocturnal insects such as mosquitoes, midges, crane flies and moths.



local park or even your back garden. BCT will analyse the recordings and send a written report back identifying what bat species were recorded, and an indication of the level of activity. The information gathered will be used to help BCT better understand the distribution of bats across Wales and help direct future conservation strategies.

There are three loan centres: Llangefni Library (Anglesey Council); SNPA offices in Penrhyndeudraeth; NWWT office in Bangor. You will be asked to deploy two sets of detectors: SM2 and Audiomoth (Figs. 1–2). To book the equipment and learn more about this project [visit here](#).

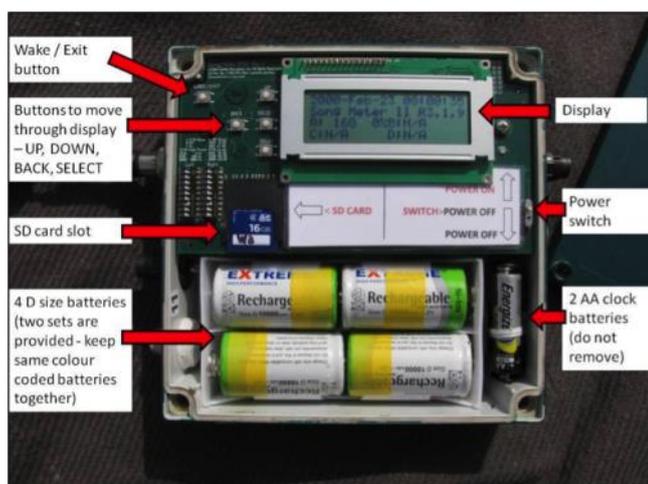


Figure 1. Internal workings of the SM2 Detector.

Monad of the Month – Focusing on Under-recorded Squares!

Catharine Moss (Cofnod Data Officer)

This Bat Conservation Trust (BCT) project enables you to borrow a bat detector pack for FREE and place it in a location of your choice for a few nights to automatically record the bats' echolocation calls. This could be in a woodland,

The recording season is now in full swing and the database here at Cofnod is growing month on month. With the fantastic effort of our recorders we now have over 3 million records. We have mapped those records for each vice-county on a 1km by 1km (monad) basis (Figs.1–5). This has shown us both the scale of the recording effort and the variation in recording coverage. The most heavily recorded monads in North Wales have an amazing number of records with SH7977 at RSPB Conwy topping the list at over 60,000 records (Table 1). Other nature reserves including Cemlyn, Cors Goch, the Spinnies, Rhydymwyn and Connah's Quay also feature amongst the most intensively recorded monads as well as the local patches of some of our top recorders and the sites of regular moth trapping.

At the other end of the scale Cofnod still has many under-recorded squares and some that even have no records at all (Table 2). There are a number of reasons that this may be the case.



Figure 2. Audiomoth.



Anglesey Records per 1km square March 2019 Cofnodion Ynys Môn ym mhob 1km sgwâr Mawrth 2019

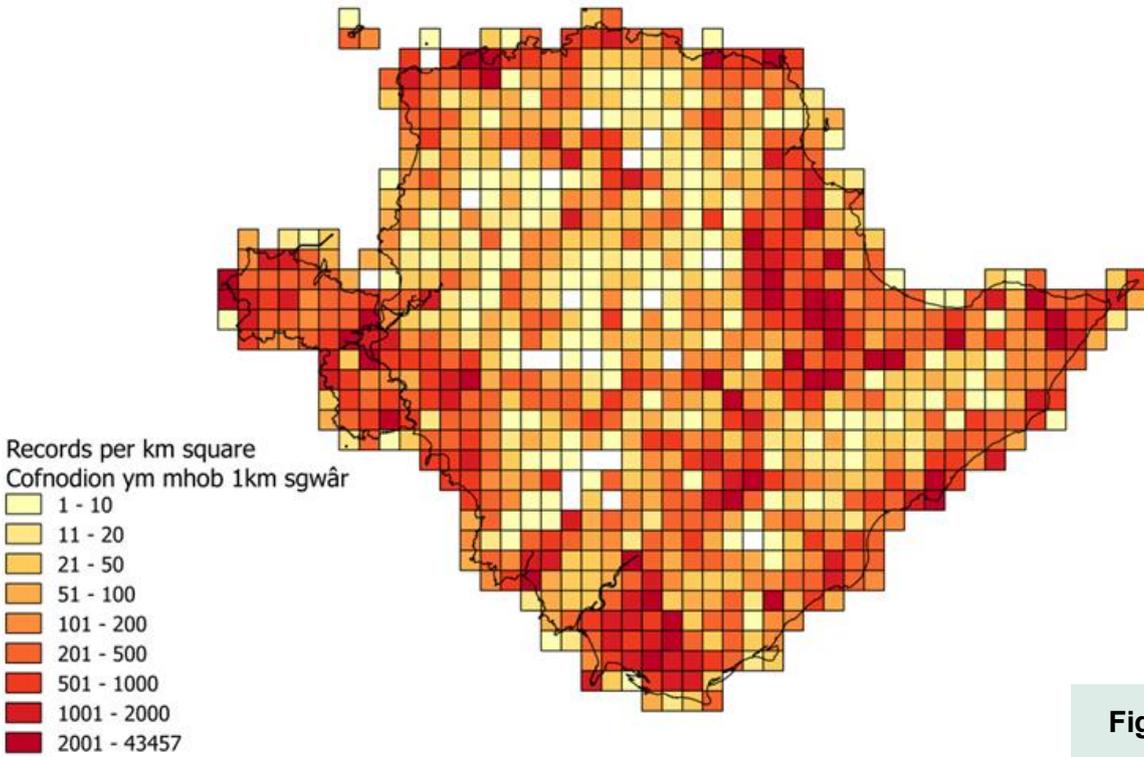


Figure 1

Caernarvonshire records per 1km square March 2019 Cofnodion Caernarvonshire ym mhob 1km sgwâr Mawrth 2019

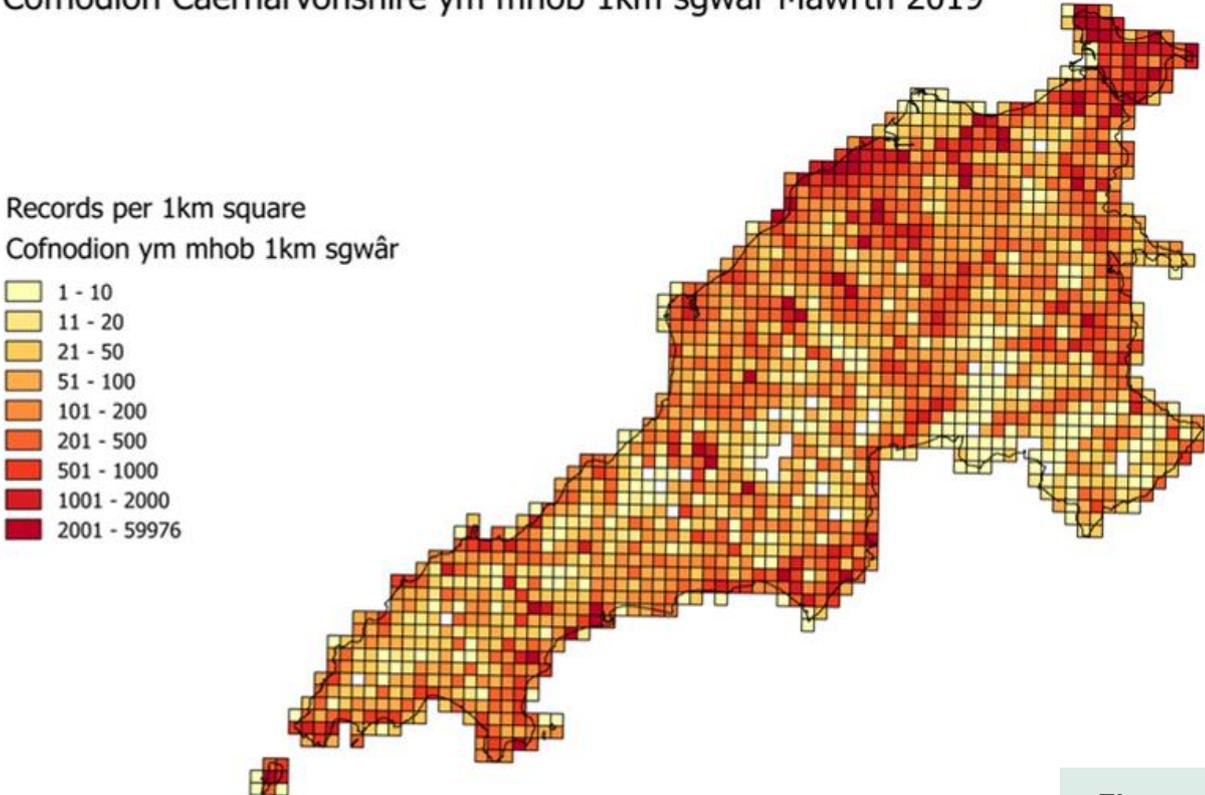


Figure 2

Flintshire records per 1km square March 2019
Cofnodion Flintshire ym mhob 1km sgwâr Mawrth 2019

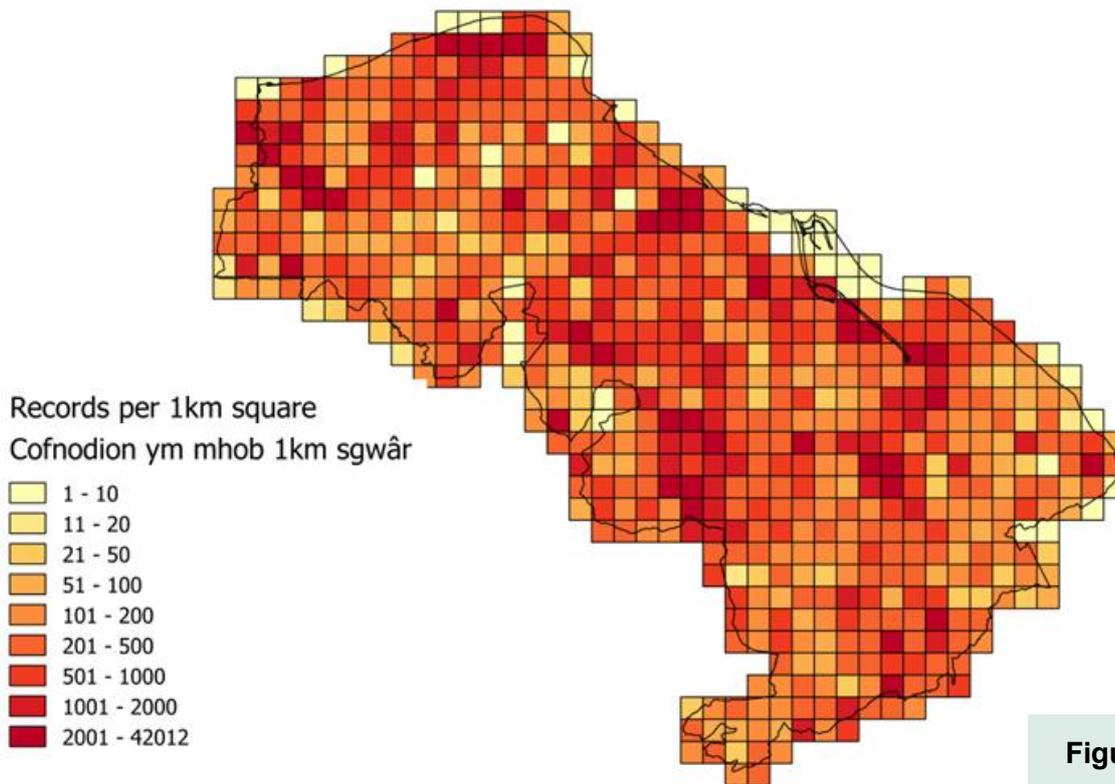


Figure • Ffigur 3.

Denbighshire records (Cofnod area) per 1km square March 2019
Cofnodion Denbighshire (ardal Cofnod) ym mhob 1km sgwâr Mawrth 2019

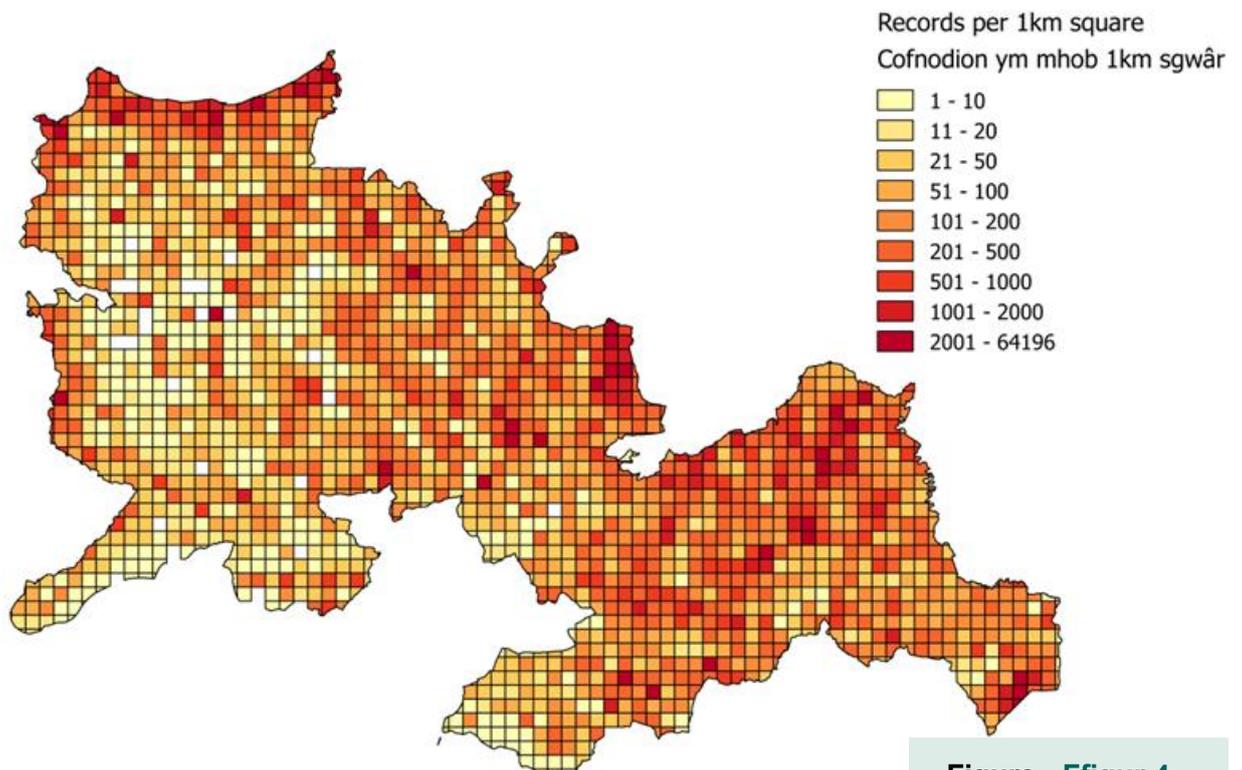
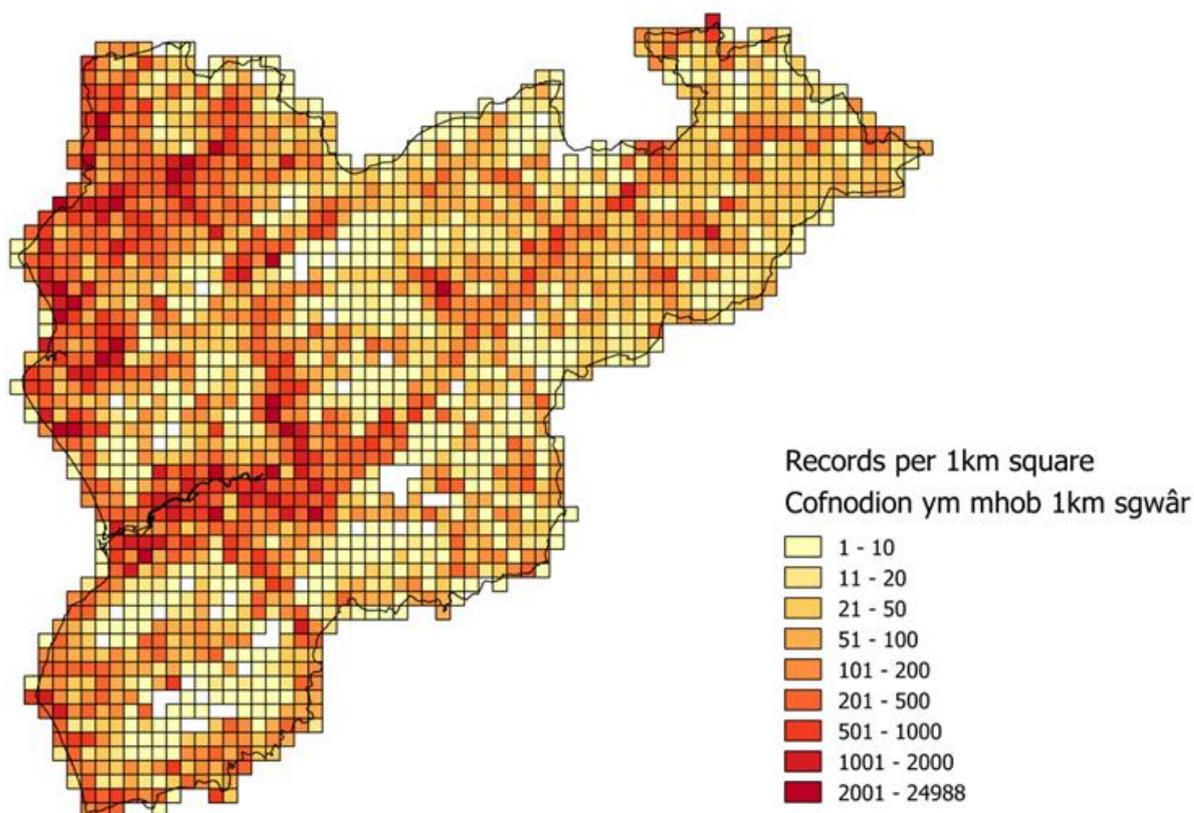


Figure • Ffigur 4.



Merionethshire records per 1km square March 2019
 Cofnodion Merionethshire ym mhob 1km sgwâr Mawrth 2019

Figure • Ffigur 5.



Some coastal monads have little land area, and others share boundaries with adjacent vice-counties. Some occur in intensively farmed areas not favoured by recorders, whereas other potentially more biodiverse monads are somewhat remote or otherwise not easily accessible. Furthermore, records recorded at a coarser resolution such as the many vascular plant records at tetrad resolution and some historical records digitised only at 10km resolution, could not be included in this mapping.

Cofnod is launching a new initiative, **Monad of the Month**, to encourage recorders to get out to locations with few or no records. Every month we will be promoting one monad in each vice-county in the hope of filling in some of the gaps on our maps. The locations of the first five monads are shown in the table below. Go to the [Monad of the Month](#) area of the website to select a monad and click on the link to obtain a pdf file with information and maps of your chosen square. Happy recording! We look forward to receiving your records – they could be the first for these squares!

| Vice-county | Monads with zero records |
|-----------------|--------------------------|
| Anglesey | 19 |
| Caernarvonshire | 33 |
| Denbighshire | 90 |
| Flintshire | 0 |
| Merionethshire | 58 |

Table 2. Vice-county monads with no records.

| Vice-county | Monad | Location |
|-----------------|--------|---------------|
| Anglesey | SH4181 | Llanerchymedd |
| Caernarvonshire | SH5148 | Nantlle Ridge |
| Denbighshire | SH8565 | Pandy Tudur |
| Flintshire | SJ1677 | Carmel |
| Merionethshire | SH7338 | Trawsfynydd |

Table 3. Vice-county Monads of the Month.

| Vice-county | Monad | Location | Number of Records | Number of Species |
|-----------------|--------|---------------------------------------|-------------------|-------------------|
| Anglesey | SH3393 | Cemlyn Nature Reserve | 43457 | 1485 |
| | SH5278 | Pentraeth | 37434 | 781 |
| | SH4981 | Cors Goch Nature Reserve | 11080 | 2179 |
| | SH5083 | Marian-glas, Benllech | 10355 | 1270 |
| | SH4571 | Malltraeth Marsh/Cors Ddyga | 9273 | 779 |
| Caernarvonshire | SH7977 | RSPB Conwy | 59976 | 717 |
| | SH5571 | Treborth, Menai Bridge | 26106 | 1741 |
| | SH5671 | Bangor | 23992 | 1282 |
| | SH7876 | Benarth, Conwy | 16882 | 275 |
| | SH6172 | Spinnies, Aberogwen Nature Reserve | 11644 | 669 |
| Denbighshire | SH7977 | RSPB Conwy | 64196 | 1249 |
| | SH9779 | Towyn | 14483 | 316 |
| | SJ1051 | Afon Clwyd, Clawdd Newydd | 7904 | 450 |
| | SJ1858 | Alyn Valley | 7495 | 563 |
| | SJ0079 | Afon Clwyd, Rhyl | 6349 | 238 |
| Flintshire | SJ2066 | Rhydymwyn Nature Reserve | 42012 | 1574 |
| | SJ2771 | Connah's Quay Nature Reserve | 14952 | 403 |
| | SJ1284 | Point of Ayr Nature Reserve | 12317 | 812 |
| | SJ1184 | Talacre Dunes | 9512 | 691 |
| | SJ0180 | Brickfields Pond nature reserve, Rhyl | 9312 | 361 |
| Merionethshire | SH5822 | Dyffryn Ardudwy | 24988 | 810 |
| | SH5730 | Harlech | 23759 | 970 |
| | SH8432 | Trawscoed | 16552 | 2796 |
| | SH6641 | Coedydd Maentwrog | 11527 | 721 |
| | SH6540 | Plas Tan-y-Bwlch | 9889 | 1601 |

Table 1. Top five most heavily recorded monads for each vice-county of the Cofnod area.

Monad y Mis – Ffocws ar Sgwariau Sydd Wedi'u Tangofnodi!

Catharine Moss (Swyddog Data Cofnod)

Mae'r tymor cofnodi yn ei anterth nawr ac mae'r bas data yma yn Cofnod yn tyfu o fis i fis. Gydag ymdrech wych ein cofnodwyr ni, mae gennym ni fwy na 3 miliwn o gofnodion yn awr. Rydyn ni wedi mapio'r cofnodion hynny ar gyfer pob is-sir ar sail 1km wrth 1km (monad) (Ffig.1). Mae hyn wedi dangos i ni raddfa'r ymdrech gofnodi a'r amrywiad yn y cofnodi. Mae gan bob monad gyda'r nifer mwyaf o gofnodion yng Ngogledd Cymru nifer anhygoel o gofnodion gyda SH7977 yn RSPB Conwy ar frig y rhestr gyda mwy na 60,000 o gofnodion (Tabl 1). Mae gwarchodfeydd

natur eraill, gan gynnwys Cemlyn, Cors Goch, Spinnies, Rhydymwyn a Chei Connah ymhlith y monadau sydd wedi'u cofnodi ddwysaf hefyd, yn ogystal ag ardaloedd lleol rhai o'n prif gofnodwyr a'r safleoedd dal gwyfynod rheolaidd.

Ym mhen arall y raddfa, mae gan Cofnod lawer o sgwariau wedi'u tangofnodi o hyd a rhai heb unrhyw gofnodion o gwbl (Tabl 2). Mae sawl rheswm dros hyn. Efallai mai ychydig iawn o arwynebedd sydd mewn rhai monadau arfordirol, ac mae eraill yn rhannu ffiniau gydag is-siroedd cyfagos. Mae rhai mewn ardaloedd sy'n cael eu ffermio'n ddwys ac nid yw'r cofnodwyr yn hoff o fynd i'r rhain, ac mae rhai monadau eraill sydd â mwy o fioamrywiaeth o bosib yn anghysbell neu nid ydynt yn hygyrch iawn am reswm arall. Hefyd, nid oedd modd cynnwys yn y mapio hwn y cofnodion a gofnodwyd ar fanylder brasach, fel y



| Is-sir | Monad | Lleoliad | Nifer y Cofnodion | Cyfoeth o Rywogaethau |
|-----------------|--------|---|-------------------|-----------------------|
| Ynys Môn | SH3393 | Gwarchodfa Natur Cemlyn | 43457 | 1485 |
| | SH5278 | Pentraeth | 37434 | 781 |
| | SH4981 | Gwarchodfa Natur Cors Goch | 11080 | 2179 |
| | SH5083 | Marian-glas, Benllech | 10355 | 1270 |
| | SH4571 | Cors Malltraeth/Cors Ddyga | 9273 | 779 |
| Sir Gaernarfon | SH7977 | RSPB Conwy | 59976 | 717 |
| | SH5571 | Treborth, Porthaethwy | 26106 | 1741 |
| | SH5671 | Bangor | 23992 | 1282 |
| | SH7876 | Benarth, Conwy | 16882 | 275 |
| | SH6172 | Gwarchodfa Natur Spinnies, Aberogwen | 11644 | 669 |
| Sir Ddinbych | SH7977 | RSPB Conwy | 64196 | 1249 |
| | SH9779 | Towyn | 14483 | 316 |
| | SJ1051 | Afon Clwyd, Clawdd Newydd | 7904 | 450 |
| | SJ1858 | Dyffryn Alyn | 7495 | 563 |
| | SJ0079 | Afon Clwyd, Y Rhyl | 6349 | 238 |
| Sir y Fflint | SJ2066 | Gwarchodfa Natur Rhydymwyn | 42012 | 1574 |
| | SJ2771 | Gwarchodfa Natur Cei Connah | 14952 | 403 |
| | SJ1284 | Gwarchodfa Natur Y Parlwr Du | 12317 | 812 |
| | SJ1184 | Twyni Talacre | 9512 | 691 |
| | SJ0180 | Gwarchodfa Natur Brickfields Pond, Y Rhyl | 9312 | 361 |
| Sir Feirionnydd | SH5822 | Dyffryn Ardudwy | 24988 | 810 |
| | SH5730 | Harlech | 23759 | 970 |
| | SH8432 | Trawscoed | 16552 | 2796 |
| | SH6641 | Coedydd Maentwrog | 11527 | 721 |
| | SH6540 | Plas Tan-y-Bwlch | 9889 | 1601 |

Tabl 1. Y pum monad gyda'r nifer mwyaf o gofnodion ar gyfer pob is-sir yn ardal Cofnod.

| Is-sir | Monadau gyda dim cofnodion |
|-----------------|----------------------------|
| Ynys Môn | 19 |
| Sir Gaernarfon | 33 |
| Sir Ddinbych | 90 |
| Sir y Fflint | 0 |
| Sir Feirionnydd | 58 |

Tabl 2. Monadau is-sir heb gofnodion.

| Is-sir | Monad | Location |
|-----------------|--------|---------------|
| Ynys Môn | SH4181 | Llanerchymedd |
| Sir Gaernarfon | SH5148 | Crib Nantlle |
| Sir Ddinbych | SH8565 | Pandy Tudur |
| Sir y Fflint | SJ1677 | Carmel |
| Sir Feirionnydd | SH7338 | Trawsfynydd |

Tabl 3. Monadau is-sir y Mis.

cofnodion niferus o blanhigion fasniglaidd ar fanylder tetrad a rhai cofnodion hanesyddol wedi'u digideiddio ar fanylder o 10km yn unig.

Mae Cofnod yn lansio menter newydd, Monad y Mis, i annog cofnodwyr i godi allan i leoliadau heb lawer o gofnodion, os o gwbl. Bob mis byddwn yn hybu un monad ym mhob is-sir yn y gobaith o

lenwi rhai o'r bylchau ar ein mapiau ni. Dangosir lleoliad y pum monad cyntaf yn y tabl isod. Ewch i adran [Monad y Mis](#) y wefan i ddewis monad a chlicio ar y ddolen i gael ffeil pdf gyda gwybodaeth a mapiau o'r sgwâr rydych chi wedi'i ddewis. Pob hwyl yn cofnodi! Rydym yn edrych ymlaen at dderbyn eich cofnodion – gallant fod y rhai cyntaf ar gyfer y sgwariau yma!



Figure 1. North Wales Non-flowering Plant Group studying bryophytes with Sharon Pilkington.
Ffigur 1. Grŵp Planhigion Heb Flodau Gogledd Cymru yn astudio bryoffytau gyda Sharon Pilkington.

© Richard Gallon.

North Wales Non-flowering Plant Group Visit to Nant-y-Gamar 6th April 2019

Richard Gallon (Cofnod Recording Specialist)

On Saturday 6th April 2019 the North Wales Non-flowering Plant Group (NFPG) visited Nant-y-Gamar, one of several Carboniferous limestone hills on the Creuddyn Peninsula near Llandudno. The NFPG had successfully applied for a Cofnod grant so that Sharon Pilkington, a professional bryophyte surveyor, could attend the event to share her expertise with the group.

We rendezvoused in the backstreets of Craig-y-don, before walking onto Nant-y-Gamar. My role on the day was to lead the group around, making sure we visited the best parts and to negotiate the complex network of paths on site. Fortunately Nant-y-Gamar was my childhood stomping ground. Although some former paths had subsequently scrubbed over we were able to negotiate the labyrinth of bramble, blackthorn, gorse and bracken to get to where we wanted to be.

As we walked towards Nant-y-Gamar I was able to point out some of the site's botanical



Figure 2. Limestone pavement on Nant-y-Gamar.

Ffigur 2. Palmant calchfaen ar Nant-y-Gamar.

© Richard Gallon.

highlights fringing the footpath: Rock Whitebeam (*Sorbus rupicola*), Wild Madder (*Rubia peregrina*) and the parasitic Ivy Broomrape (*Orobanche hederæ*) erupting from the soil. However, we were there to see non-flowering plants and our attention soon focused on these once we entered the ash woodland.

Sharon and the more experienced members of



Figure 3. Bryophytes under close examination.

Ffigur 3. Archwilio bryoffytau'n fanwl.

© Richard Gallon.

the group were soon shouting out scientific names and an impressive species list started to develop. Of course, the main reason for the visit was to share knowledge and learn, and it was fabulous having Sharon there pointing out the different species, highlighting field characteristics and identification tips.

This field meeting was followed up by an indoor identification session on the 27th April 2019. In total 101 bryophyte records were made and 69 species identified from the Nant-y-Gamar visit. Four of the species are Nationally Scarce: *Eurhynchium striatulum*; *Bryum canariense*; *Pleurochaete squarrosa*; *Grimmia orbicularis*.

Ymweliad Grŵp Planhigion Heb Flodau Gogledd Cymru â Nant-y-Gamar 6ed Ebrill 2019

Richard Gallon (Swyddog Ymholiadau Cofnod)

Ddydd Sadwrn 6ed Ebrill 2019, aeth Grŵp Planhigion Heb Flodau Gogledd Cymru (NFGP) ar ymweliad â Nant-y-Gamar, un o sawl bryn calchfaen Carbonifferaidd ar Benrhyn y Creuddyn ger Llandudno. Roedd NFGP wedi llwyddo i wneud cais am grant gan Cofnod fel bod Sharon Pilkington, syrfëwr bryoffytau proffesiynol, yn gallu dod i ddigwyddiad i rannu ei harbenigedd gyda'r grŵp.

Daethom at ein gilydd ar strydoedd cefn Craig-y-don, cyn cerdded i Nant-y-Gamar. Fy rôl i ar y diwrnod oedd arwain y grŵp o amgylch y safle, gan sicrhau ein bod yn ymweld â'r rhannau gorau ac yn mynd ar hyd y rhwydwaith cymhleth o lwybrau ar y safle. Wrth lwc, yn Nant-y-Gamar oeddwn i'n chwarae'n blentyn. Er bod rhai hen lwybrau wedi'u gorchuddio gan lwyni erbyn hyn, fe wnaethom llwyddo i symud o amgylch y labyrinth o fieri, drain duon, eithin a rhedyn a chyrraedd ble roeddem eisiau bod.

Wrth i ni gerdded tuag at Nant-y-Gamar, roeddwn i'n gallu tynnu sylw at rai o uchafbwyntiau botanegol y safle ar ymyl y llwybr troed: Cerddin y Graig (*Sorbus rupicola*),

Cochwraidd Gwyllt (*Rubia peregrina*) a Gorfanc Eiddew (*Orobancha hederæ*) parasitig yn ffrwydro o'r pridd. Ond yno i weld planhigion heb flodau oeddem ni ac fe drodd ein sylw at y rhain yn fuan iawn ar ôl i ni fynd i mewn i'r coetir o goedd ynn.

Roedd Sharon ac aelodau mwy profiadol y grŵp yn gweiddi enwau gwyddonol yn fuan iawn ac fe ddechreuwyd llunio rhestr nodedig o rywogaethau. Wrth gwrs, y prif reswm dros yr ymweliad oedd rhannu gwybodaeth a dysgu, ac roedd yn wych cael Sharon yno'n tynnu sylw at y gwahanol rywogaethau ac at nodweddion y caeau, ac yn rhoi cyngor ar adnabod.

Cafwyd sesiwn adnabod dan do wedyn ar ôl y cyfarfod maes yma, ar y 27ain Ebrill 2019. Gwnaed cyfanswm o 101 o gofnodion o fryoffytau, gan adnabod 69 o rywogaethau o ymweliad Nant-y-Gamar. Mae pedair o'r rhywogaethau'n Genedlaethol Brin: *Eurhynchium striatulum*; *Bryum canariense*; *Pleurochaete squarrosa*; *Grimmia orbicularis*.



Figure 4. North Wales Non-flowering Plant Group studying bryophytes with Sharon Pilkington.

Ffigur 4. Grŵp Planhigion Heb Flodau Gogledd Cymru yn astudio bryoffytau gyda Sharon Pilkington.

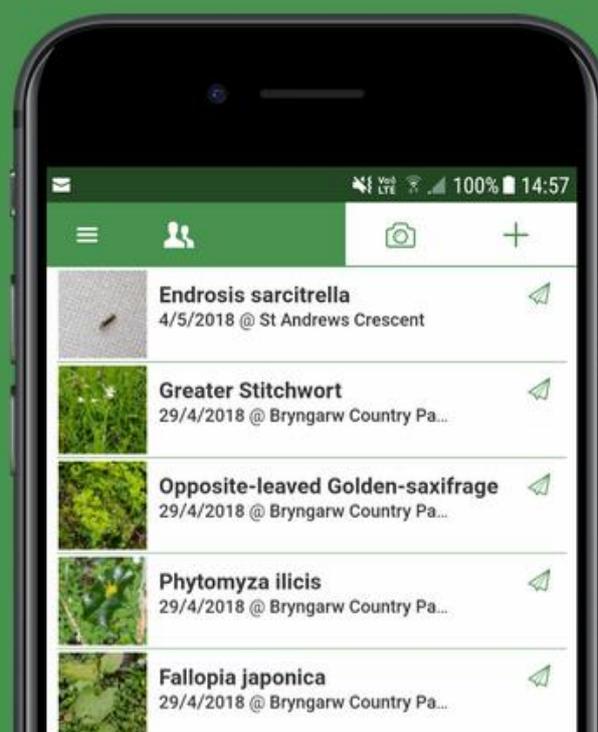
© Richard Gallon.

Yn Ddwyieithog



LERC Wales App

Record any species on the go in Wales.





Call for Volunteers

Aisling May (Cofnod Data Manager)

Cofnod is heavily reliant on volunteer help to mobilise paper data (or indeed records contained within reports or other documents which cannot be imported into our database).

If you have some time to spare, perhaps in the Autumn/Winter months when being outside is less appealing and there is less about to record, please get in touch for a chat to see if this might suit you. You will probably be entering records using the Cofnod ORS, so you really don't need to be a computer whizz. You might even be able to do this from home. What is most important is that you have some basic knowledge of at least one species group, and a willingness to carry out what can be a fairly repetitive job in an accurate and consistent manner, knowing that you're helping to make a difference to conservation in North Wales.

County Recorders

Do you know who your local County Recorder is for mammals, birds or butterflies for example? Cofnod's website has a search facility where you can check this ([Click on Find a Local Expert](#)). Any records you submit using the Cofnod Online Recording System (ORS) or submitted to us in spreadsheet format are made available to the relevant County Recorder via the ORS.

The County Recorder has many tasks, often being part of a specialist Recording Scheme or Society working across the UK, but where Cofnod is concerned they carry out essential data quality checking on an on-going basis. Working voluntarily, these individuals put huge amounts of time and effort into checking individual records and verifying them as fit for use in our database. We are very grateful to them for carrying out this very important role, and thank all who continue to commit their energy and enthusiasm to this, as well as those who have carried it out for a period of time and have had to pass the baton on to others.

Galw am Wirfoddolwyr

Aisling May (Rheolwraig Data Cofnod)

Mae Cofnod yn dibynnu llawer iawn ar gymorth gwirfoddolwyr i wneud data papur yn symudol (neu yn wir y cofnodion yn yr adroddiadau neu'r dogfennau eraill nad oes modd eu mewnbynnu i'n bas data).

Os oes gennych chi amser i'w sbario, yn ystod misoedd yr Hydref/Gaeaf efallai pan mae bod y tu allan yn llai apelgar a llai o rywogaethau i'w cofnodi, cofiwch gysylltu am sgwrs i weld a fydd hyn yn addas i chi. Mae'n bur debyg y byddwch yn nodi cofnodion gan ddefnyddio ORS Cofnod, felly does dim rhaid bod yn feistr cyfrifiadurol. Efallai y byddwch yn gallu gwneud hyn o'ch cartref hyd yn oed. Yr hyn sy'n bwysig yw bod gennych chi wybodaeth sylfaenol am o leiaf un grŵp o rywogaethau, a pharodrwydd i wneud gwaith sy'n gallu bod yn gymharol ailadroddus mewn ffordd gywir a chyson, gan wybod eich bod yn helpu i wneud gwahaniaeth i gadwraeth yng Ngogledd Cymru.

Cofnodwyr Sirol

Ydych chi'n gwybod pwy yw eich Cofnodwr Sirol ar gyfer mamaliaid, adar neu löynnod byw er enghraifft? Mae gan wefan Cofnod gyfleuster chwilio lle gallwch wirio hyn yn <https://www.cofnod.org.uk/Recording> (Cliciwch ar 'Dod o Hyd i Arbenigwr Lleol). Mae unrhyw gofnodion rydych chi'n eu cyflwyno gan ddefnyddio System Cofnodi Ar-lein (ORS) Cofnod neu sy'n cael eu cyflwyno i ni mewn taenlen ar gael i'r Cofnodwr Sirol perthnasol drwy'r ORS.

Mae gan y Cofnodwr Sirol lawer o dasgau, ac mae'n rhan yn aml o Gynllun Cofnodi arbenigol neu Gymdeithas sy'n gweithio ledled y DU, ond, o ran Cofnod, mae'n archwilio ansawdd data hanfodol yn rheolaidd. Gan weithio'n wirfoddol, mae'r unigolion yma'n rhoi llawer o amser ac ymdrech i wirio cofnodion unigol a'u dilysu fel rhai addas i'w defnyddio yn ein bas data. Rydym yn ddiolchgar iawn iddyn nhw am wneud y gwaith pwysig iawn yma, ac yn diolch i bawb sy'n parhau i ymrwymo eu hegni a'u brwdfrydedd i hyn, yn ogystal â'r rhai sydd wedi ei wneud am gyfnod o amser ac sydd wedi gorfod trosglwyddo'r cyfrifoldeb ymlaen i eraill.

Cylchlythyr Cofnod

Mae Cylchlythyr Cofnod yn cael ei gyhoeddi ddwywaith y flwyddyn (Gwanwyn a Hydref) ac mae'n lle i gofnodwyr a phobl sy'n frwdfrydig am fywyd gwyllt gyhoeddi'r canlynol:

- Tynnu sylw at rywogaethau neu grwpiau o rywogaethau y gall pobl eraill helpu i'w cofnodi. Gallai hyn gael ei ddefnyddio i helpu gyda chofnodi dosbarthiad rhywogaethau sy'n newydd i Ogledd Cymru (fel Gwenynen yr Eiddew), neu helpu i lenwi bylchau cofnodi ledled Gogledd Cymru.
- Rhoi cyhoeddusrwydd i grwpiau cofnodi lleol a'u digwyddiadau.
- Rhoi gwybod am ddarganfod rhywogaethau diddorol, fel crynodeb blynyddol o gofnodion cyffrous/arwyddocaol efallai.
- Trip maes, adroddiadau safle neu gyrsiau adnabod, yn manylu ar ddiwyddiad wnaethoch chi ei fynychu neu ei drefnu.
- Adolygu offer. Rhannu gydag eraill eich profiad unioyngrychol o offer cofnodi, teclynnau neu ddiellad awyr agored hyd yn oed.
- Unrhyw fater arall sy'n berthnasol i Gofnodion Biolegol yng Ngogledd Cymru.
- Hefyd bydd Cofnod yn cynnwys erthyglau perthnasol i ddatblygiadau yn ein LERC.

Cyfarwyddyd i awduron

Paratowch eich erthyglau gan ddefnyddio'r canllawiau canlynol os gwelwch yn dda:

- Cyflwyno eich testun yn y Gymraeg neu yn Saesneg fel dogfen Word, gan restru unrhyw gapsiynau neu gyfeiriadau ar ddiwedd eich erthygl.
 - Osgoi defnyddio unrhyw fformatio diangen, fel 'bocsys testun', troednodiadau, cefndiroedd lliw neu fformatio anarferol ar baragraffau, oherwydd byddai'n rhaid i'r Golygydd ddad-wneud y rhain i gyd cyn cysodi.
 - Mae'n well cyflwyno tablau, yn enwedig rhai mawr, fel taenlenni Excel ar wahân, yn hytrach na'u creu mewn dogfen Word.
 - Anfon lluniau fel ffeiliau jpeg ar wahân (wedi'u labelu gyda rhif priodol y llun). Yn ddefnyddol dylai manylder y lluniau fod yn 300dpi o leiaf (gyda lled o ryw 12 cm), ond os oes gennych chi unrhyw amheuaeth, anfonwch nhw yn eu maint gwreiddiol.
 - Dylai enwau gwyddonol ar rywogaethau fod mewn teip italig gan roi prif lythren i enw'r genws (e.e. *Rana temporaria*). Dylid rhoi prif lythren i enw teulu, ond ni ddylai fod mewn teip italig (e.e. *Ranidae*) oni bai ei fod yn fersiwn wedi'i Gymreigio fel *ranid*. Ni ddylai enwau cyffredin fod mewn teip italig.
 - Dylai unrhyw gyfeiriadau sy'n rhan o destun yr erthygl ddilyn y fformatau canlynol: (Jones, 2019) neu (Williams *et al.*, 2018) (peidiwch â defnyddio cyfeiriadau rhifol).
- Jones, A. B. 2019. Teitl y papur. *Teitl y cyfnodolyn*, **10**: 1–2.
Williams, A. B., Jones, C. ac Ellis, P. 2018. *Teitl y llyfr*. Cyhoeddwr, Dinas.
- Gellir anfon erthyglau ar e-bost at y Golygydd. Gellir anfon ffeiliau mawr (>10Mb) gan ddefnyddio Dropbox, WeTransfer neu wefannau rhannu ffeiliau tebyg.
 - Y dyddiadau cau ar gyfer cyflwyno erthyglau yw Gwanwyn (1 Chwefror) a Hydref (1 Hydref).

Cofnod Newsletter

The Cofnod Newsletter comes out twice a year (Spring & Autumn) and is a place where recorders and wildlife enthusiasts can publish the following:

- Highlight species or species groups that others could help record. This might be used to assist with documenting the spread of species new to North Wales (like the Ivy bee), or helping to fill in recording gaps across North Wales.
- Publicise locally-based recording groups and their events.
- Reporting interesting species discoveries, perhaps as a yearly round-up of exciting/significant records.
- Fieldtrip, site reports or identification courses, detailing an event you attended or organised.
- Equipment reviews. Share your first-hand experience with others about recording equipment, techniques, gadgets or even outdoor clothing.
- Any other subject matter that may be of relevance to Biological Recording in North Wales.
- Cofnod will also include articles relating to developments within our LERC.

Guidance to authors

Please prepare your articles using the following guidelines:

- Supply your text in English or Welsh as a Word document, listing any figure captions or references at the end of your article.
 - Avoid using any unnecessary formatting like 'text boxes', footnotes, coloured backgrounds or unusual paragraph formatting, since the Editor would need to undo all of these prior to typesetting.
 - Tables, particularly large ones, are best submitted as separate Excel spreadsheets, rather than created within Word.
 - Send images as separate jpeg files (labelled with their appropriate figure number). Images should ideally have a minimum resolution of 300dpi (with a width of about 12 cm), but if in doubt supply them at their original size.
 - Scientific species names should be in italics with the genus name capitalised (e.g. *Rana temporaria*), family names should be capitalised, but not italicised (e.g. *Ranidae*) unless they are anglicised versions like *ranid*. Common names are not italicised.
 - References within the body of an article should follow the following formats: (Jones, 2019) or (Williams *et al.*, 2018) (please do not use numerical referencing).
- Jones, A. B. 2019. Paper title. *Journal title*, **10**: 1–2.
Williams, A. B., Jones, C. & Ellis, P. 2018. *Book title*. Publisher, City.
- Articles can be e-mailed to the Editor. Large files (>10Mb) can be sent using Dropbox, WeTransfer or similar file sharing websites.
 - Deadlines for article submission are Spring (1st February) and Autumn (1st October).

**Digwyddiadau** ◦ **Events**

| | | | |
|-----------------------|--|---|-----------------------------------|
| 10/08/2019 | Llanddona Bioblitz Bioblitz Llanddona | 10:30–16:30 | Llanddona |
| 31/08/2019–01/09/2019 | Earthworm Identification Course Cwrs Adnabod Pryfed Genwair | | Wepre Park Parc Wepre |
| 14/09/2019 | Snail Day! Diwrnod Malwod! | 10:30–15:30 | Parc Menai, Bangor |
| 15/09/2019 | Snail Day! Diwrnod Malwod! | 10:30–15:30 | Felin Puleston, Erddig |
| 19/09/2019 | Spider Identification Course Cwrs Adnabod Pry Cop | 10:00–16:00 | Newtown Y Drenewydd |
| 29/09/2019 | Slug Identification Course Cwrs Adnabod Gwlithod | 10:00–16:30 | Treborth, Bangor |
| 19/10/2019 | Woodlouse Identification Course Cwrs Adnabod Pryfed Llundw | 10:00–16:30 | Treborth, Bangor |
| 26/10/2019 | Cofnod Conference Cynhadledd Cofnod | Saturday! Dydd Sadwrn! | Craig-y-don, Llandudno |
| 01/11/2019 | Fungal Microscopy Course Cwrs Adnabod Microsgopeg Ffyngaudd | 10:30–16:30 | World Museum, Liverpool Lerpwl |

Archebion Digwyddiadau ◦ **Event Bookings****Submit your records!**

There are many ways to submit records to Cofnod:

1. [Cofnod ORS](#)
2. [Wales LERC App](#)
3. [E-mail a spreadsheet](#)

If your records are on iRecord or with a National Recording Scheme they will also come to us – please ask us if you wish us to check but you shouldn't have to enter them twice!

**Cyflwynwch eich cofnodion!**

Mae sawl ffordd i chi gyflwyno cofnodion i Cofnod:

1. [System Gofnodi Ar-lein \(ORS\) Cofnod](#)
2. [Ap LERC Cymru](#)
3. [Anfon taenlen ar e-bost](#)

Os yw eich cofnodion ar iRecord neu gyda Chynllun Cofnodi Cenedlaethol, byddant yn dod i ni hefyd – cofiwch ofyn i ni os ydych eisiau i ni wirio ond ni ddylech orfod eu cofnodi ddwywaith!



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Dyddiad cau'r erthygl ◦ **Article Deadlines**

Gwanwyn: 1 Chwefror Spring: 1 February
Hydref: 1 Hydref Autumn: 1 October

Anfonwch erthyglau/cyflwyniadau at y Golygydd erbyn y dyddiadau sydd wedi'u nodi uchod.

Please send articles/submissions to the Editor by the dates indicated above.

newsletter@cofnod.org.uk