National Plant Monitoring Scheme

ISSUE 13 DECEMBER 2023

# WINTER NEWSLETTER 2023

Chris Harris, Plantlife

Sarah Shuttleworth

## WELCOME AND INTRODUCTION

RACHEL MURPHY

**Welcome** to the 2023 NPMS Winter newsletter! It is that time of year again, and what a water-logged time it has been for many parts of the country. Even despite 2023 being one of the wettest years in recent times, our dedicated volunteers have been out in force once again for another busy survey season, and we have welcomed many more volunteers. We hope you have enjoyed learning about the scheme and are looking forward to getting out in the field in the spring.

**2023 in numbers (at point of print):**

- ~290 Squares surveyed and counting
- 774 new volunteers registered
- 390 new square allocations

A huge thank you, as always, from the NPMS Team for all your efforts and engagement with the scheme over the last 12 months. With CoP28 (Conference Of Parties – Convention on Biological Diversity) recently taking place Dubai, with nations gathering to report on their progress towards keeping global warming to 1.5°C and taking action to minimise biodiversity loss – It has been a stark reminder of the importance and value of our efforts in monitoring the health of our habitats here in the UK.

In Issue 12 we highlighted high-profile applications of the hard work carried out by our dedicated team of NPMS volunteers and staff, produced through 2023. It has also been an exciting year owing to the expansion of our support team and planning ahead for the next scheme phase (p.9). We are also thrilled to see the broadening of volunteer roles and opportunities within the NPMS, from data entry and verification roles to photography. All contributing to our aim of being an accessible and inclusive scheme. Indeed, we have enjoyed hearing more volunteer voices and stories in our communications, including our Newsletters (p.8, p.13-15).

There are still plenty of ways to engage with the scheme over the winter months, from site reccys, to our winter events mini-series (p.7) and many other ways to enjoy botanising over winter (p.10).

Lastly, we wish you a happy and healthy festive period, from all in the NPMS Team. Do stay in touch.

support@npms.org.uk

## THIS ISSUE

## Habitat Hotspot – Kevin Walker, BSBI

### Flushes

**Flushes are a bit of a Cinderella habitat as they are seldom encountered and difficult to define. So, in this habitat hotspot we'll learn what they are, where they occur and what species to look out for if you've been lucky enough to find one.**

In simple terms, flushes are spring-like wetlands that form wherever water percolates over the surface of level or slightly sloping ground. Usually, they form where water meets an impermeable barrier, such as solid rock or heavier soil, and consequently flows along the plane of resistance (for example, along bedding planes of limestone or chalk). When the water reaches the surface, it continues to flow diffusely over the ground, creating a small wetland, often with a small rill or stream. In the mountains they also form on slopes adjacent or below snow-beds where there is a constant supply of water from the melting snow and ice.

Most flushes are small and intergrade into larger wetland habitats, such as fens or mires, where deeper soils and peats have formed thereby reducing the influence of the underlying substrates. Ecologically, their key feature is the permanent saturation of the substrate, at least if water continues to run, although occasionally they dry out if the water supply is reduced during droughts or because of changing water-table depth. In most flushes the vegetation is open, with areas of bare soil, gravel, rock, tufa or other deposits. These are maintained by the constant wetness and shallow soils that create a harsh environment for plants to survive in and hence they are dominated by specialists and short-lived species that are able to exploit the unstable conditions.

Great Close Mire, near to Malham Tarn in the Yorkshire Dales, is an extensive calcareous flush system that is home to many rare plants such as **Alpine Bartsia** *Bartsia alpina*, **Dwarf Milkwort** *Polygala amarella* and **Broad-leaved Cottongrass** *Eriophorum latifolium*.
Photo Kevin Walker.

Like most vegetation assemblages, the composition of flushes varies dramatically depending on the chemical properties of the substrate and in Britain they range from species-poor on acid rock types through to the very species-rich on calcareous substrates such as chalk, limestone and volcanic (ultrabasic) rocks. However, as a general rule, flushes tend to be more calcareous in character than the surrounding vegetation as the groundwater brings base-rich minerals to the surface leading to localised enrichment in acidic environments such as upland grasslands, mires and heaths. As a result, flushes are often hotspots of botanical diversity in otherwise botanically poor surroundings, and therefore botanists often make a beeline for them.

Right:
Close-up of a calcareous flush at Cow Myers SSSI, North Yorkshire with **Bird's-eye Primrose** *Primula farinosa*, **Butterwort** *Pinguicula vulgaris* and **Dioecious Sedge** *Carex sterilis*.
This is one of the most characteristic flush communities associated with Carboniferous limestone in Northern England.

Photo Kevin Walker.

Flushes cont.

Calcareous flushes in the uplands often have deposits of calcium (tufa) that build up around mosses and these are joined by many species of sedge or sedge allies (including rushes, spike-rushes, cottongrasses, deergrasses, etc.). Typical species include **Flea Sedge** *Carex pulicaris* and **Carnation Sedge** *C. panicea*, **Bird's-eye Primrose** *Primula farinosa*, **Butterwort** *Pinguicula vulgaris* and **Grass-of-Parnassus** *Parnassia palustris*. In the mountains they are joined by many arctic-alpines, some of which are exceedingly rare in Britain such as **Bristle Sedge** *Carex microglochin*, **Chestnut Sedge** *Juncus castaneus* and **Brown Bog-rush** *Schoenus ferrugineus*.

**Upland base-rich flushes:**

Below, a montane flush in Caenlochan, home to **Mountain Bog-sedge** *Carex rariflora.*

Below, a gravelly flush on Widdybank Fell, Teesdale, home to many rarities including **Teesdale Sandwort** *Minuartia stricta* and **False Sedge** *Kobresia simpliciuscula*.

Round-leaved Crowfoot - Andrew Gagg, Plantlife

Springs and flushes on more acid rocks tend to be less species-rich and take the form of mossy lawns around springs and rills that support few vascular plants of which **Blinks** *Montia fontana* and **Round-leaved Crowfoot** *Ranunculus omiophyllus* are probably the most characteristic. In parts of Northern England these acid flushes are the favoured habitat of the nationally scarce **Pale Forget-me-not** *Myosotis stolonifera*.

Upland acid spring and flush on Great Whernside, Nidderdale showing the distinctive apple green colour of the moss lawns below the spring. **Pale Forget-me-not** *Myosotis stolonifera* is a characteristic plant of these flushes in this area.

In the lowlands flushes are much more localised but occur on sloping ground in a variety of habitats including woods, mires, heaths and at the base of chalk escarpments. As in the uplands, some can have substantial deposits of tufa which over time have formed small mounds or dams creating small pools or mounds with associated flush vegetation. These can form in a variety of undisturbed habitats such as woodlands and lowland fens.

*Right:* A tufa flush in woodland on magnesian limestone near to Harrogate. The green mounds are tufa deposits colonised by the moss *Palustriella commutata*. Photo: Kevin Walker.

## Flushes cont.

Sadly, many flush habitats have disappeared or been degraded by human activities. In the uplands, large-scale drainage of blanket bog ("gripping") to improve grazing or make way for commercial forestry has damaged many flushes, leading to localised losses of sensitive species such as **Marsh Saxifrage** *Saxifraga hirculus* or **Hairy Stonecrop** *Sedum villosum*.

Lowland flushes have suffered too. Many have been lost to agriculture, as part of drainage and conversion to intensive pasture and arable, or have been degraded by runoff of nutrients from agricultural land. On some chalk escarpments in the lowlands the extraction of groundwater by urban centres has created "ghost flushes" at the base slopes – places where wetland plants such as **Butterwort** *Pinguicula vulgaris* and **Grass-of-Parnassus** *Parnassia palustris (right)* used to occur. Many of these were lost due to groundwater extraction for urban centres. Possibly the most famous (and damaging) was the tapping of the artesian waters under London to feed the royal fountains – these ran for over 100 years draining the artesian basin and lowering the water table dramatically on the surrounding chalk escarpments.


Beth Newman


Kevin Walker

Above: Ghost flushes at the base of a chalk slope on Knocking Hoe NNR, Bedfordshire, were the former home to wetland plants such as Grass-of-Parnassus and Butterwort. Sadly, most of these have been lost due to groundwater extraction over the past 150 years.

Despite these losses, there are still plenty of flushes left for us to enjoy, although they remain sensitive to human activities. Those in the upland and mountain regions of the UK are particularly important as they provide a refuge for many species that have declined in other habitats elsewhere. Some of you may be lucky enough (like me) to have some in your NPMS squares. But if you don't then maybe head up to somewhere like Ingleborough in the Yorkshire Dales in May. Here you'll find them scattered throughout the limestone landscape, marked out by spectacular displays of **Bird's-eye Primrose** *Primula farinosa* and a carpet sedges. Enjoy!

**Bird's-eye Primrose** amongst sedges in flushed grassland on the lower slopes of Ingleborough. Photo Kevin Walker.


Looking to learn more? If you didn't catch it live in September, a recording of our Flushes and Springs Webinar with botanist Ben Averis, is available to watch on the NPMS Support YouTube channel **HERE**.

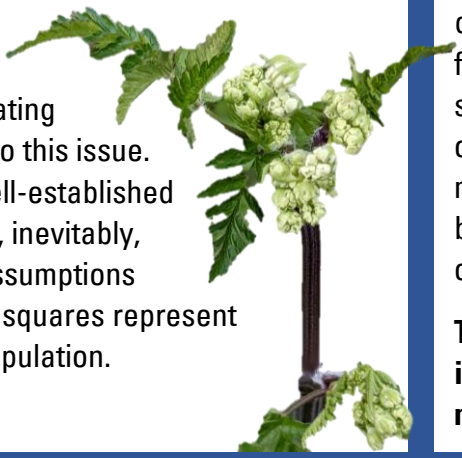
## What does the NPMS have in common with opinion polling? – Thoughts on releasing NPMS species trends into the wild.

Dr Oli Pescott – UKCEH

Volunteers will no doubt be happy to hear that we will be showcasing indicator species' and habitat trends on new pages within the NPMS website in early 2024.

This is part of a larger ongoing piece of work focused on making NPMS data and results more accessible for volunteers. However, it throws up at least one additional challenge for the NPMS analysts, sweating away in their data dungeons producing these "trends" for our species of interest. As we have noted before in this newsletter, biodiversity monitoring schemes such as the NPMS rely on some underlying statistical sampling design to guarantee a degree of reliability in the results. Reliability here can be taken to mean that things like trends in species' abundances are representative of the wider landscape—clearly it would not be desirable for us to make broad claims about change in the countryside without some confidence in our data being representative of such changes.

This what the NPMS has in common with endeavours such as opinion or election polling. Accurate results to some known confidence level depend on statistical design: non-random samples can produce highly erroneous answers. One would not, for example, trust the electoral predictions arising from a survey which stationed a pollster on the steps of any given political party's headquarters! This is an extreme example, but the logic underlies all problems with non-random sampling: there is some non-zero correlation between the thing of interest (voting preference in the example; a species' abundance in the NPMS) and sample membership (i.e. whether or not some unit of the population, whether a 1 km square or an individual on the electoral register, made it into the sample). Despite the design of the NPMS, non-random uptake of squares and other challenges in surveying, such as land access, do have the potential to introduce such issues to our trend calculations. All initial trends produced by the NPMS to date, including those in the UK Biodiversity Indicator "Plants of the wider countryside" (https://jncc.gov.uk/our-work/ukbi-c7-plants-of-the-wider-countryside), potentially suffer from this problem.



The NPMS team and friends have been working on evaluating different potential solutions to this issue. Various workarounds are well-established in survey sampling, although, inevitably, they all depend on making assumptions regarding how well sampled squares represent important gradients in the population.

In opinion polling, this might involve down-weighting demographics that are over-represented in the sample, and up-weighting others. Similar approaches can be imagined for NPMS surveys, where the results from under-represented parts of the environment (e.g. the uplands, or other hand to access landscape types such as the Fens) are up-weighted and other areas down-weighted. There are of course risks to doing this. The wrong things may be adjusted for, or perhaps the key variable of importance does not exist in a quantitative form that could be used in modelling. A example here might be habitat quality: if surveys are preferentially performed in areas of high quality habitat, we cannot adjust for this directly, as we do not have national maps of habitat quality (indeed, estimating these types of statistics is one reason for the existence of the NPMS!)

Readers may perhaps now understand the tentative steps that we have been making in regards to the release of our species and habitat indicators, and it will certainly be fascinating to receive feedback on them from volunteers when they come out. Of course, surveyors should not get the impression that these types of indicators are the scheme's only value: there are many other fascinating sources of information collected by NPMS volunteers, including habitat management observations and your plot photos.

**There is a rich and floriferous landscape of additional information in the NPMS, and we look forward to many more uses and exploration!**


## National Trust support for the NPMS

Rachel Murphy, Plantlife

**108 NPMS survey squares overlap the boundaries of National Trust land and properties within England, Wales and Northern Ireland. The NPMS team have been working with the National Trust, particularly the Nature evidence team, in recent years to promote uptake of NPMS and ensure that we keep track of progress in monitoring squares overlapping the National Trust estate in these three nations.**

The National Trust have an ambitious target, aiming to have 100% of NPMS squares overlapping these boundaries surveyed. Indeed, the Trust has an ambition for utilising the NPMS and its robust sampling methodology, as part of their nature monitoring framework.

During the 2023 survey season, the NPMS team worked with the National Trust to increase Trust staff and volunteer engagement with the scheme as well as provide NPMS survey training.

Activities this year have included two in-field training courses at National Trust sites, one of which was specifically aimed to deliver training for National Trust staff and volunteers from across a wide area. A live online training session was also provided to National Trust staff and volunteers nationwide, in addition to the online training resource provided for all staff. This has had the added benefit of greater scheme awareness within the Trust, so that even where squares are already allocated, having local rangers and conservation staff who are familiar and engaged with the scheme provides a useful link and support to existing surveyors. Support from National Trust teams can help with information about area access and suitability, as well as advice regarding land access permissions, and information about the site and its management.

**Introducing:** Catherine Highfield, National Trust Nature Evidence Ecologist

Catherine's role will include securing NPMS engagement from National Trust sites, including recruiting and retaining volunteers, and supporting them in recording and submitting data, along with her work on a broader Nature Volunteer programme to encourage more recording on the Trust estate more generally.

Currently **79** of the NPMS squares overlapping National trust boundaries are allocated to volunteer surveyors. This is a 13% increase from the start of the 2023 field season. Of the 108 overlapping squares, **70%** have been surveyed so far, with data submitted for at least one season or more, some with 9 years of consistent data. We very much look forward to seeing what the new season brings for this joint effort and would encourage any volunteers currently surveying one or more of these overlapping squares to reach out to a local National Trust ranger or site manager if they have not already done so. Alternatively, contact support@npms.org.uk who, with the help of Catherine and the Nature Evidence team, can help you get in touch with the local team.

If you are interested in taking on one of these squares, do visit our "Squares near me" map to find available squares.

National Trust boundary lines are one of the helpful layers on the NPMS map that you can switch on to take a look if there is an NPMS square over-lapping A National Trust site near you.


Sally Luker, Budding Nature

## Support and guidance

We have seen a bumper year for our NPMS training programme. Between our live webinars, in-field training days and online interactive workshops, attendance has been high, with **757** participants joining **20** events since the season began in spring!
But training and engagement opportunities are not over yet. Head to our training and events page to find details of further events coming up in our winter mini-series (below). With both webinars and interactive training events to look forward to at the start of the new year - Be sure to book your places now!

### Still to come in our Winter mini-series...

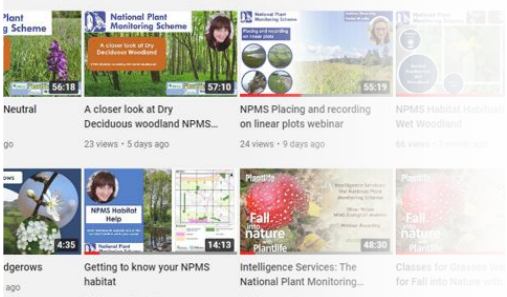
| | |
|---|---|
| 10th Jan. 18:00 | **Wild Watercolour Snow Drops** Online Workshop – With artist Iris Hill |
| 18th Jan. 12:30 | **BSBI Plant Atlas 2020** Webinar – With Kevin Walker, BSBI |
| 1st Feb. 12:30 | **NPMS survey methodology for new volunteers** Webinar – With Rachel Murphy |
| 7th Feb 18:00 | **Wildflower Poetry** Online Workshop – With artist Iris Hill |
| Date TBC | Keep an eye out for our upcoming, interactive **Botany Bookclub and Author Q&A** event |

▲ Find out more about the above wildflower art and poetry workshops with artist Iris Hill on page 12.


Rachel Murphy

Why not find out more about joining a local botany group! It's a fantastic way to learn, make friends and share experiences. Check your nearest local BSBI group **HERE**

Perhaps you are already involved with a local botany or biological recording group. Please do get in touch if you think they may like to host free NPMS training or hear more about opportunities in your area.




**Don't forget...**
Recordings of our training webinars and other helpful guidance videos can be found on the NPMS YouTube channel

**Subscribe to our NPMS Support YouTube channel to be alerted to the latest video resources!**

## Frequently asked questions:

### Is there anyone local to me that I can join/shadow?

We're often asked this, particularly by new volunteers, as peer-to-peer support can be helpful. We follow strict GDPR regulations, so do not share contact details and would never do so without express permission from all parties. If you are interested in linking with local volunteers, we are can enquire on your behalf, if this is something they are also interested in. If the answer is yes, we'd ask both parties to confirm that they are happy to be put in touch by email. Only once written permission is received from both, would we link volunteers. Don't forget, there's also a great NPMS Facebook support group enabling volunteers to network and share knowledge and expertise, as well as puzzle out any ID conundrums.

### I'm m unsure about the habitat type of some of my plots, how can I get help?

Don't worry, habitat classification can be tricky. You can contact us npmssupport@gmail.com for help if you aren't sure. Here 's the information we need to help:

a. Some good photos of your plot within the wider habitat and landscape, and some closer photos of the ground flora within the plot.
b. The top 3 species you find in the plot, to get an idea of what the dominant species are. Domin scales for each will also help if possible.
c. Your assessment of the soil type, i.e. peaty, sandy, clay etc.
d. An idea of the location, altitude and situation of the plot in question.

Don't forget you can always reach out to the **mentor network** if you need a second opinion or help with habitat or species ID.

# SPECIES SPOTLIGHT

## Chickweed (*Stellaria media*)

Tara Mason, Volunteer

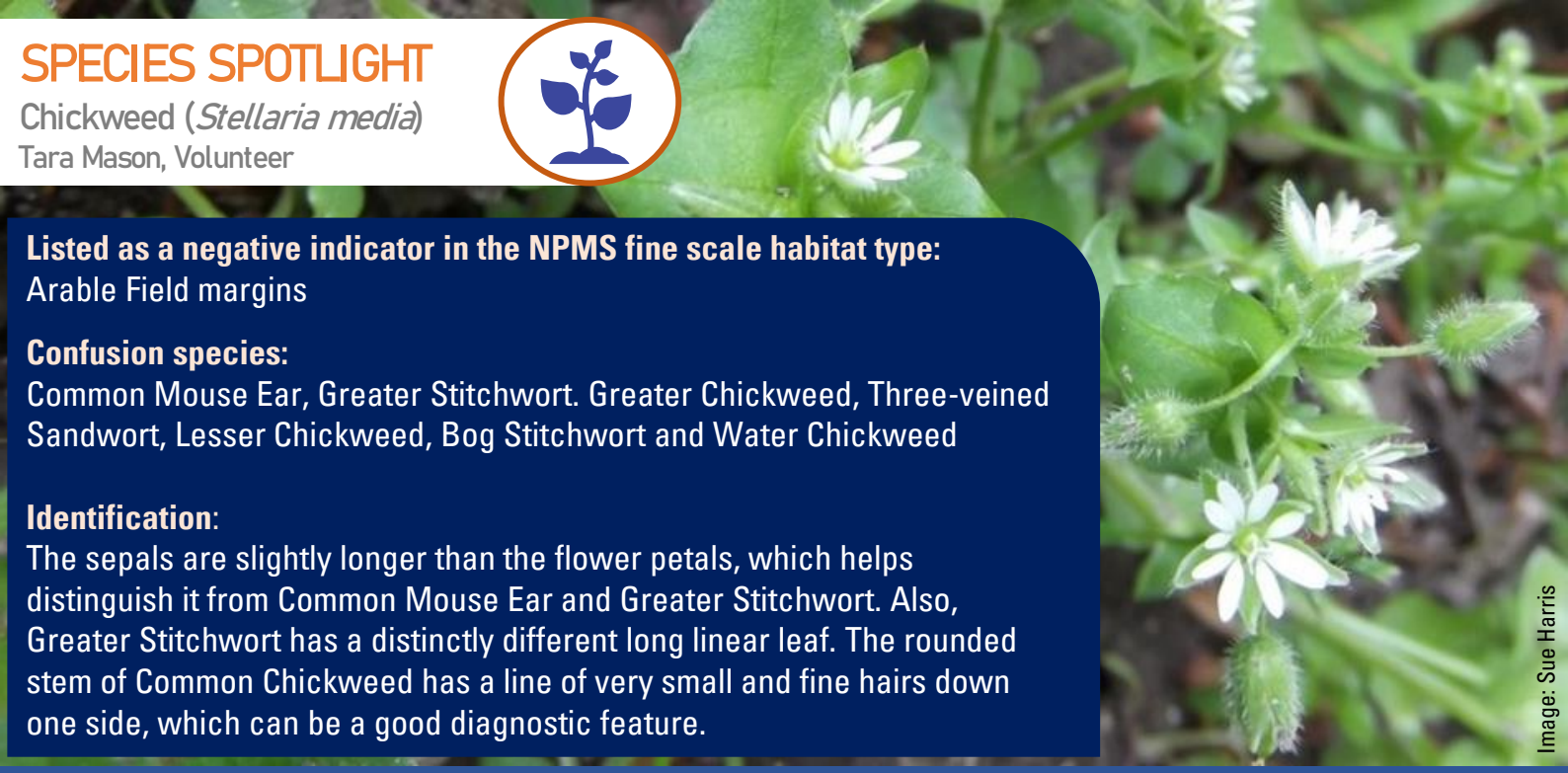


Image: Sue Harris

**Listed as a negative indicator in the NPMS fine scale habitat type:**
Arable Field margins

**Confusion species:**
Common Mouse Ear, Greater Stitchwort. Greater Chickweed, Three-veined Sandwort, Lesser Chickweed, Bog Stitchwort and Water Chickweed

**Identification**:
The sepals are slightly longer than the flower petals, which helps distinguish it from Common Mouse Ear and Greater Stitchwort. Also, Greater Stitchwort has a distinctly different long linear leaf. The rounded stem of Common Chickweed has a line of very small and fine hairs down one side, which can be a good diagnostic feature.

Andrew Gagg, Plantlife

### Chickweed Facts:

- Common chickweed is an annual wildflower which can grow up to 30cm in height.
- This widespread annual has a sprawling growth habit and can be seen all year round. A good species to look out for to get your winter flower fix. It flowers throughout the growing season and can complete its life cycle within 7 weeks.
- Each 5-10mm wide star-like flower has five white petals, that are deeply notched, so they can appear at first glance, as ten tiny petals.

Michael Langdeveld

- Chickweed *Stellaria media* have a single line of hairs along one side of the stem. This is a recognisable feature of chickweeds. Unlike mouse-ears (*Cerastium*), which can be be confused with chickweeds but are hairy all over. The opposite leaves are small, untoothed, oval shaped and have a pointed end. Veins finely netted – not just three clear veins from the leaf-base - this is most Likely to be Three-veined Sandwort (Moehringia trinervia).


- Each plant can produce around 2200-2700 seeds each year and it does well in areas of disturbed ground. Seeds are distributed by pollination from insects, but it can also self-pollinate.
- The species is often viewed as a prolific weed which can suppress crops on arable land.

**What's in a name?**

As the name suggests, the plant was widely used as chicken feed, and is enjoyed by sparrows, finches and blackbirds. However, it can also be eaten and used in salads and stir-fries. In early spring when flowers are produced, its flowers are a vital source of nectar for bees and other insects. It seems to be associated with treating many maladies in folklore and herbalism, from colds and coughs, to being a laxative, reducing inflammation, even attracting and holding onto a mate!

Aelwyn / Wikimedia Commons

## NEWS AND RESEARCH

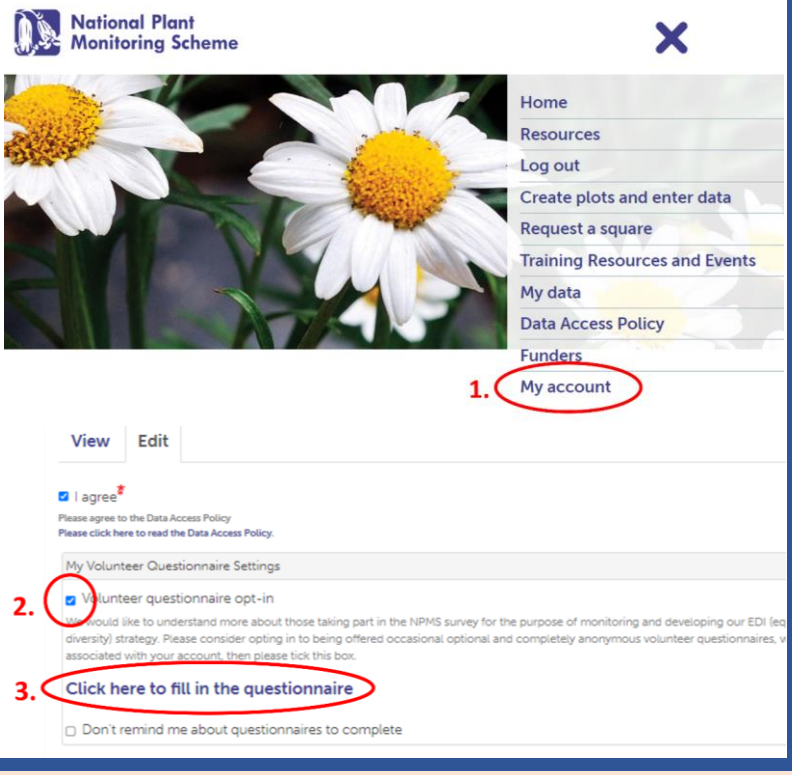
### Equality, Inclusivity and Diversity matters

We would like to encourage as many people as possible to get involved with monitoring plants and habitats with the NPMS. To help with this, last year over 250 of our survey volunteers kindly filled in a questionnaire to help us understand more about who they are.

One recommendation that came out of this was to implement a similar, but very brief, optional questionnaire when people sign up to the scheme, which will complement opportunities for more in-depth feedback.

**We would be very grateful if existing volunteers could please 'opt-in' to being offered this and occasional future questionnaires, and then complete at your convenience.**

This will take just 2 minutes via your My Account/Edit page on the NPMS website, and you can complete the questionnaire straight away following the link. Otherwise, a reminder will also show at the top of certain NPMS web pages until you do so. Thank-you!




### Biological recording in Northern Ireland

This autumn we attended an informative and encouraging workshop organised by the BTO on barriers, challenges and possible opportunities for biological recording in Northern Ireland, as part of the JNCC funded Terrestrial Surveillance, Development and Analysis (TSDA) project . Great discussions with and presentations by CeDar, Daera, NIEA, Ulster Wildlife BSBI to name a few! Below, Sam Amy (UKCEH and part of the NPMS team) presents on N. Ireland records submitted to iRecord for verification.

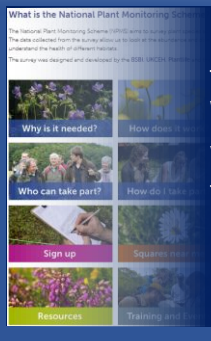

We're delighted to introduce a new member of our NPMS support team. Jen Farrar has joined the BSBI as Botanical Skills Officer - Northern Ireland, responsible for developing, delivering and facilitating a range of botanical skills training events and opportunities and supporting the NPMS in Northern Ireland.

*"I will be developing and delivering events around the province specifically to provide more opportunity for anyone keen to learn more about our native flora and habitats.*
*Events will be a mix of workshops and field meetings."*

Read Jen's full introduction blog **Here**.

### Looking ahead to NPMS Phase 3

April 2024 marks an important and exciting milestone for the NPMS, with the end of the current project phase and moving in to the third 5-year phase of the scheme. The partners have been working hard to review current working and plan for the next stage of the partnership. We're excited and invested in the continued evolution and development of this important scheme that has already achieved so much, for what is still a young long-term monitoring programme.




Many thanks to all those that took the time to complete our NPMS Website user survey and for all your helpful feedback. Watch out for web updates, from increased reporting, trends mapping, e-learning provisions and improved site navigation in 2024!

# GET INVOLVED

## NPMS

### Submit your data:

If you have not yet entered your data for the 2022 season, don't panic! But please do submit your data as soon as possible, to be included in the over winter analyses.

### Previous season's data – it's not too late!

Similarly, if you still have historical data, this can still be entered any time to contribute to the NPMS database and analyses.

For any advice on entering your data, contact support@npms.org.uk.

### Experienced botanist? Confident in your species ID?

Please get in touch if you would like to find out more about volunteering to review and verify species records. We have introductory training to iRecord and verification available. Full support is given.

### Could you be an NPMS Mentor? - And help support other sureyors in your region?

Volunteer mentors are a hugely valued part of our team, and there are several ways you can be involved. With both field and desk-based opportunities, from local walks and square shadowing, to assisting with species ID and methods queries, there are plenty of options.

Full support is provided, including expenses. Find out more in our Mentors Opportunities video here and please get in touch if you feel you can give any time.

Sally Luker, Budding Nature

### Don't let the season stop you!

There are plenty of ways to get involved with the NPMS, or simply enjoy botanising over winter….

Karen Fisher

1. Enter any data that hasn't yet been submitted.
2. Join any event in our winter mini-series (p7).
3. Enjoy our online training resources and videos.
4. Cosy up with some botanical literature (p12).
5. Study your square, reccy and plan for 2024.
6. Share your photos and stories from 2023 with us.
7. Enjoy a frosty walk.
8. Examine species features out of flowering season.
9. Consider penning a plot portrait (p13).
10. Follow us on social media and stay in touch!

Follow us @the_npms @theNPMS

New recording forms for 2024 can be downloaded from the **resources page** of the NPMS website. If you are unable to print these, we will be sending them out to those who request them during the last week of February.

If you do need us to send new recording forms for the upcoming season, we are more than happy to do so. See our guidance blog **here**, to find out how to request these.

# GET INVOLVED

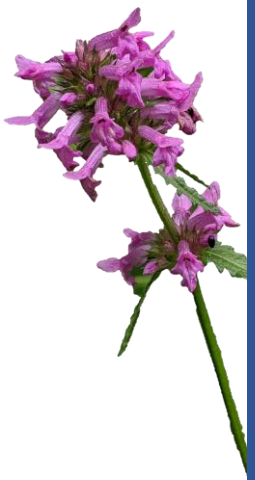
## Further opportunities...

… and projects that may be of interest to NPMS volunteers.

### Keep botanising through winter with the BSBI!

The **New Year Plant Hunt** is receiving record numbers of registrations, and we hope this will be the biggest ever year, so please join us! This year's Hunt runs from 30th December to 2nd January and is an opportunity to help us understand more about how British and Irish wildflowers are responding to a changing climate. This year we have produced some spotter-sheets to help newcomers take part in the Hunt so please spread the word and register for yourself here.

### More good news…



BSBI grants are live! Our grants programme for 2024 is now open for applications. We have:

- Grants for training - these are ideal for any beginner botanists who want to take a short plant ID course
- Grants for plant study - these are aimed at undergrads and postgrads
- Grants for science and research - these are aimed at PhD students, academic researchers and amateurs working on botanical research.

All the forms and guidance can be found on our grants page, where we also share links to any other sources of grant funding that we know about. So don't delay, apply today - and help us spread the word that BSBI grant applications are now open!

### Keen gardener?

Plant Alert is a citizen science project for gardeners, designed by the BSBI and Coventry University. It is aimed at discovering which garden plants have the potential to become invasive and problematic in future, therefore helping other gardeners and protecting the countryside by warning about invasive plants before they become a problem. Find out more about this project and how you could become involved **HERE**.

Follow the **Botanical University Challenge**, or even form a student team and take on the challenge yourself!

This fun and friendly annual contest of botanical knowledge between teams of UK and Irish university students has been growing in recent years.

BUC 2024 kicks off in February, followed by the **Student Botany Festival**.

Find out more about these two events and their sponsors **HERE**. Or follow @botanicalunichallenge on Instagram.

### iRecord and other apps for Biological Recording

The UKCEH Biological Records Centre (BRC) has collaborated with a number of recording schemes and mobile app developers to launch a range of free smartphone apps, to make it easy to submit wildlife records. The sightings in most cases go to the iRecord website, as do your NPMS records, Allowing recorders to see all their observations in one place and to be checked by expert verifiers.

The iRecord App can be used to record any species of plant or animal in the UK, and now benefits from automatic image recognition to help aid identification. Other apps focus on specific groups, some with other information included, and you can see the range of available apps on the BRC website here.

One example is the Bloomin' Algae app. This is designed for anyone to report the presence of harmful algal blooms of blue-green algae. The app helps speed up public health warnings and can help teach you how to recognise the risks to you, children and animals.


There were 337 confirmed or plausible bloom records reported across the UK in 2023.

Algal blooms become more prevalent with warmer weather; why not download the app this winter ready for 2024? With an iRecord account you can also set up an alert to receive email notifications of bloom records in your area. You can do this by going to iRecord's Species alert notifications.

Biological Records Centre | UK Centre for Ecology & Hydrology

## Botany through art

In our last issue, we introduced **Lisa Gardner** Plantlife's artist in residence. A watercolour artist inspired by the natural world, Lisa crafts whimsical artwork under the name Iris Hill – a tribute to her Nan.
www.irishhill.co.uk
Instagram: @irishill


Winchester studio: Credit Miss Winchester

We are now delighted to provide more details of our upcoming online workshops with Lisa in the New Year – Free to NPMS volunteers.

**10/01/2024 18:00-19:30**
**Wild Watercolour Snowdrops**
In this workshop we will explore: Seasonal Botanicals, Watercolours and alternative art tools, Breathing to connect you to your creativity and quieten your 'inner critic', Trusting your artists intuition, The benefits of watercolour painting for positive wellbeing.

**07/02/2024 18:00-19:30**
**Wildflower Poetry**
Join Iris Hill to create short wildflower poems and Haiku. We will explore: Seasonal Botanicals, Creative writing techniques, One line biro drawing, Wildflower Writers, along with journalling techniques to inspire your words to flow.

Registration is now open on the **NPMS Training Events** web page and spaces are limited! So do book ASAP.


Iris Hill credit Luminary Photography

All levels of creative experience are welcome. Whether you are a practicing artist seeking fresh inspiration or are curious to tap into the creativity that already resides within you.

## Botany book club

### Book review

**Botanical Folk Tales of Britain and Ireland - Lisa Schneidau**

**Karen Fisher**


I've had this book on my shelf for a few while, just waiting for some time out to dive into it. A bitterly cold day provided the perfect opportunity to spend a lazy morning by the fire reading this collection of short botanical folk tales. The book follows the wheel of the year with traditional stories based on our native plants in the UK with mythical non-human characters and human characters interacting in the same stories. This blurring of the lines between the real and the otherworld is a refreshing way to shine a light on interactions with nature. I loved the fact that this book is easy to pick up and put down, the stories being long enough to be engaging in their own right, but short enough to keep the pace of the book ticking along. There were some great characters in the stories including a bad-tempered Dandelion and the Elder Tree Witch. My own favourite stories were 'The Forest of the Yew', and 'The Apple Tree Man'. I enjoyed the way the author managed to weave age-old traditions into the stories, such as including the tradition of wassailing in the story of 'The Apple Tree Man'.

There were alternative takes on classic folk tales such as Mossycoat – a Cinderella-esque tale where a girl receives a coat made of moss that becomes a wishing coat. Transporting her to places and situations that could sometimes be better or worse than those she looked to escape. What a great concept! I think we all need a mossycoat, and who knew moss had such transformative properties?

The book is interspersed with short rhymes or regional proverbs which break up the narrative beautifully. All in all, a refreshingly different fireside read.

# Plot Portrait

## Meet NPMS Volunteer: David Simcock

I studied Plant and Animal Ecology at University back in the 70's. After an initial short period of reserve management work on Cannock Chase I moved into Horticulture, both in retail and on my own plant nursery (bedding plants etc) which I still run part – time with my wife. In 2003 I moved back to reserve management work for the local council, based at Park Hall Country Park in Stoke on Trent but working on any of the 26 local nature reserves in the city. Aside from many school visits to the reserves from mainly local primary schools, most of the work was routine maintenance. I wanted to reconnect with the more academic experiences I had in my university days so when I became aware of the NPMS I considered it a good idea to become involved and to reconnect with the distant past. (I had already been involved for a while with the BTO Garden Bird Watch Surveys).

My NPMS square is in the area of Whitfield Valley, Stoke on Trent, through Ford Green Nature Reserve SSSI and on through the valley.

2 plots are on an area restored from colliery spoil near a Mine Water Treatment Scheme. This was implemented around 12 years ago to control the quality of water which was arising at the surface of low-lying areas due to the closure of local coal mines and the cessation of water pumping, which resulted in iron containing water coming to the surface and running down the valley into the Nature Reserve. The third plot is adjacent to a stream which exits the treatment reed beds and flows into the Reserve pool.

The fourth plot is along the margin of the pool and the fifth is along the stream after the water has exited the pool and flowed past an industrial estate, which is sited on a former iron works.

### Plot 1: Lowland grassland - Neutral meadow

At the high point of the square on Smallthorne Park and sited on Coal Mining spoil is lowland grassland, neutral Meadow which I believe had been seeded before I commenced my surveys with a wild-flower mix.

The benefits of this are becoming apparent with time as the local council seem to be leaving the vegetation to flower and seed, only mowing the desired lines on selected areas of the park.
The plot seems to have had an increase in cover of non-grass species of wildflowers such as red and white clover and yellow rattle, a positive sign for insects as well as flowering plants, encouraged by this reduction in mowing.

### Plot 2: Lowland grassland - Neutral damp grassland

This plot is on a low-lying area of the park. The area is inaccessible for mowing equipment and is generally where water from the mines arises. However, drainage channels in the area have been cleared recently, resulting in some drying off and spoil from the channels has been spread across the area burying much of the vegetation from earlier surveys.

Plot 2, May 2017 prior to drainage

Plot 2, 2022 after drainage clearance

This drainage clearance through the area resulted in dramatic change on the plot, both in terms of drying out and also the bare soil thus exposed, moving succession back to the beginning of colonising the site.

# Plot Portrait

**NPMS Volunteer: David Simcock continued**

"With each passing year I get a little more confident with my ID skills and targeting survey times to best suit identifying species.

Along with re-gaining some ID skills, I've been driven to look at the history of the site and appreciate how it has changed from an intense industrialized area to what can best be described as a green space, where hopefully I'll be able to monitor the increase in biodiversity with the passage of time.

I find it rewarding when I can monitor changes, which gradually indicate an increase in biodiversity of the plots, as I hope that this process reflects changes throughout the city."

## Plot 3: Broadleaf- Wet woodland

The third plot is a small area of broadleaf wet woodland, adjacent to the stream of the treated water, which is prone to flooding occasionally. This

area is not very species rich, being dominated by bramble and nettles which can make surveying a bit of a nightmare (there are advantages in surveying early in the season!) This wet woodland plot seems to be quite static thus far, the nettles and Bramble maintaining their dominance.

## Plot 4: Freshwater- Nutrient rich pond

A freshwater nutrient rich pond on the eastern edge of Ford Green nature reserve pool. The pool has a diverse range of waterfowl and provides a good habitat for feeding swallows. The water level is usually quite constant due to the inflow of water from the mine water treatment area and outflow at a set level into a stream which runs from a stream - eventually emptying out into the river Trent.

Because of the constant water level, the survey area is usually marginal mud with marginal plants such as bulrush, yellow iris and water mint rather than open water species. However, monitoring of the open water appears to indicate that over time the line of bulrushes is gradually receding.

While the nutrient rich pool again seems quite static, I expect that this could change in the longer term if the bulrush line continues to recede due to some currently unidentified factor.

## Plot 1: Lowland grassland - neutral meadow

Along the stream after it has left Ford Green Pool and passed by an industrial estate which was a former iron works. Here the water flows quite fast and deep, flowing through terrain which appears to be spoil from coal mines, hence the

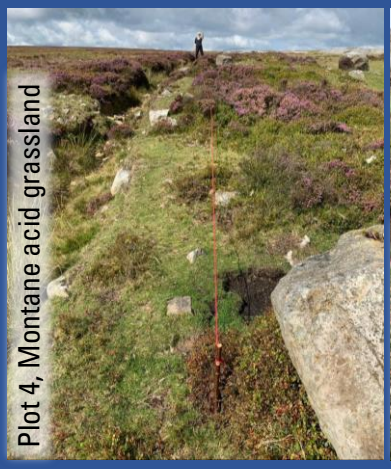
Channel has deep vertical sides where plants cannot get a foothold. The exception to this seems to be Branched Burweed and Bulrush, which I expect may have been introduced artificially when an adjacent house building project was landscaped, and the channel formed in an effort to reduce the flow.

This plot does not seem to have increased in diversity over time with only the 2 dominant species of bulrush and branched burweed. Any other species occasionally recorded at the margins seem to get wash away in the unstable substrate, while the water being influenced in its quality from the industrial origin of the area possibly inhibits more delicate species colonizing the area.

## Field Diaries: Your pics

Some great images that have been shared with us through 2023. We love to receive your photos from out in the field, whether to help with a query, ID, or simply to share a fun find, activity or moment of reflection.

Below we can see some excellent examples of annual plot images, submitted by volunteer **Jan Shepphard**. Jan uploads these images along with her species records each season. This is incredibly helpful, both for visualizing change over time, and also to verify habitat classification.



Plot 4, Montane acid grassland

Plot 5, Blanket bog

Plot 1, Dry Heathland

Plot 3, Dry heathland

▶ Images right, sent by new volunteer **Lizzie Jones**. The first showing some of the spectacular scenery surrounding her coastal western Scottish square. Lizzie has been using plot images and site descriptions with the NPMS support team to help confirm and verify the habitat types of her plots, just inland of the clifftops.

2nd plot from SW corner



Volunteer **Ed Dolphin** shared these beautiful images of Red Campion, when discussing the importance of submitted images of species records.

It can depend on your confidence and experience. But it helps to submit images with records for verification. Especially if it's the first time you recorded the species, if it is rare or if it is unusual in the area.

## THANK YOU

A huge thank you to the dedicated volunteers that make the scheme possible. We are so grateful for your enthusiasm and efforts. Also, thanks to the stakeholders who support and promote the NPMS.

Thanks to Andrew van Breda, Biren Rathod and Karolis Kazlauskis for technical support, along with our incredibly knowledgeable trainers.

Thank you to all the contributors to this newsletter.

𝕏 follower **Lloyd Evans** has shared with us this beautiful November image of a single Harebell *Campanula rotundifolia*.

We are here to help. Send us an email or give us a bell.
support@npms.org.uk
**07711 922098 or 07399 299770**

Don't forget to tag us in your social media plant or plot photos! We'd love to share what you see with the whole NPMS community!
#NPMS @theNPMS

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