

ISSUE14

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SUMMER NEWSLETTER 2024

WELCOME AND INTRODUCTION RACHEL MURPHY

Welcome to the 2024 NPMS Summer newsletter!

With the evenings starting to get a touch darker, the school holidays drawing to a close and dare I say it - the prospect of

wearing our favourite woolly jumpers getting closer - any volunteers not yet to have completed their late summer survey will be heading out in the next couple of weeks, before we bid farewell to the 2024 survey season. Another summer of field surveys has whizzed by, accompanied by a flurry of welcome communications from our volunteers, alongside our ever-popular training and development programme (p.6).

As ever, it has been all hands on deck at NPMS HQ during the first half of the year. From the start of the new scheme phase, web updates, new guidance and of course the launch of the 2023 Annual Report, you may well have noticed a fair bit of activity (p.10). Keep an eye out for more opportunities and more useful website updates throughout the rest of the year. Including the pending release of the new and improved NPMS mobile App. We continue to be committed to reviewing and optimising your volunteer journey and experience with us as far as possible. Thank you to those that have provided feedback on training, materials and verification through this season.

Similarly, we have seen mounting engagement from our volunteers, existing and new. Just since the start of the year we have noted a very positive increase of 100 new volunteers allocated to 110 squares. Welcome and thank you for your time and hard work. Please get in touch if you would like any further support with survey methods, data entry or even finding support local to you. As you will see from this current issue, we love to give a voice to our dedicated and knowledgeable volunteers, sharing their stories and experiences. Please let us know if you may be interested in sharing your plot stories, either as a blog, newsletter piece, or even as part of an online volunteer Rachel Murphy meet. We have been excited to see a broadening of NPMS volunteer roles and development options in 2024 (p.16), all contributing to our aims of becoming a more accessible scheme.

> Botanical Society of Britain & Ireland



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NPMS SUMMER NEWSLETTER 2024

UK Centre for Ecology & Hydrology

Golden samphire, Inula crithmoides

Plantlife

Habitat Hotspot – Kevin Walker, BSBI

Calaminarian Grassland

If you are lucky enough to live in limestone regions such as The Peak District, The Mendips or The Yorkshire Dales then you may be familiar with the term Calaminarian Grassland. This is a very rare and specialised grassland with an assemblage of plants that thrive on soils that contain high levels of heavy metals that are poisonous to most plants (usually lead, zinc or cadmium, but also barium, nickel, chromium and tin). The most well-known 'metalophytes' that grow in these grasslands are **Alpine Pennycress** *Noccaea cearulescens*, **Spring Sandwort** *Sabulina verna*, **Thrift** *Armeria maritima* and **Mountain Pansy** *Viola lutea*. But many more specialist plants, mosses, fungi and lichens are restricted to them in otherwise inhospitable landscapes.

> Image right: Noccaea cearulescens and Sabulina verna growing together in calaminarian grassland on Greenhow Hill, North Yorkshire. Photo by Kevin Walker

The name 'calaminarian' is derived from the zinc ore calamine that has been mined extensively in continental Europe. Calaminarian communities that grow on metal-rich soils often form rather open plant communities on skeletal soils that are prone to drought. Although they occur naturally in Britian on metal-bearing rocks such as serpentinites (e.g. on the Lizard in Cornwall and on Unst in Shetland), most are associated with mine wastes contaminated with heavy-metal rich ores in Somerset, North Wales, the Pennines and central Scotland. Here the ores have been mined leaving waste deposits and spoil heaps on which these calaminarian grasslands develop. In some areas the best examples are found where the spoil has been washed down rivers in floods and deposited on river beaches and terraces.



▲ Cock Hill Lead Mine, Greenhow Hill is home to many 'metalophytes' typical of calaminarian grassland that grow on the waste heaps produced by 19th century lead mining.

Fans of Rudyard Kipling may have read his short story "On Greenhow Hill", a rather grim love story about a lead miner from Greenhow written in 1890. The mines in Kipling's story now support calaminarian grassland as do the strange mounds that are dotted over moorlands in the area. These are known locally as 'bell-pits' and mark the vertical shafts that were dug down by early miners to locate the mineral veins of galena. Once found the veins were then dug out horizontally with the waste piled up around the shaft entrances creating large circular pits. Today, these stand out as grassy mounds amongst heather moorland and wet heath, often stretching out in lines over hundreds of metres. Today they are some of the most botanically interesting habitats for miles around supporting limestone grassland with specialities such as:

Moonwort *Botrychium lunaria*, Spring Sandwort *Sabulina verna*, Mountain Pansy *Viola lutea* and a range of interesting mosses.

Calaminarian grassland cont.

▼ A line of bell-pits near to Greenhow Hill. The calaminarian grassland contrasts with the surrounding moorland vegetation. Photo: Kevin walker



Extraction of these metallic ores was at its peak during early to mid-19th century and the establishment of many of today's calaminarian grasslands occurred shortly afterwards. Consequently, most are more than 150 years old and, depending on local factors, they vary floristically. In some cases this can just relate to aspect and local climatic conditions, but in some cases this is due to natural leaching of the heavy-metals and succession to more closed communities as the soils develop. Grazing also has a part to play in removing nutrients and maintaining open conditions.

I'm lucky enough to have some calaminarian grassland both on bell-pits and amongst limestone grassland with rock exposures in my NPMS square on Greenhow hill. These plots are certainly the most diverse and interesting in my square although locating them was challenging as none were sampled using the regular

grid. I therefore chose to treat them like flushes and selected plots where the grid lines crossed suitable areas of habitat. I'm glad I did as it has added a lot in interest including **Moonwort** *Botrychium lunaria* and **Mountain Pansy** *Viola lutea*. So, if you have them in your NPMS square then it is worth taking a closer look and sampling them in this way. **Best of luck!**





Mountain Pansy Viola lutea and
 Moonwort Botrychium lunaria

Two characteristic plants of calaminarian grassland on bell-pits in Nidderdale.



Investigating the environmental coverage of NPMS data Dr Oli Pescott – UKCEH

As our tenth year of data collection progresses this summer, at NPMS central we are continuing to investigate how well NPMS data represent the UK's plant biodiversity. Whilst it is not the only aim of our scheme, your data are used to assess how habitats are faring across the UK, and so, relatively even national representation is an important part of our mission. Assessing this can help to suggest novel ways of statistically adjusting our data to better achieve the desired representativeness, and helps us to address scheme resources to filling gaps, e.g. through encouraging the uptake of "holiday squares" or targeting training.

One challenge with investigating representativeness is that we must first decide what that environmental variation is that requires covering in the first place.

There are many potential answers to this question, but broad schemes that can cover the whole of the UK provide a simple starting point. One such scheme is the "Environmental Zones" set, established by the UK Countryside Survey (see **Here**). This is a set of nine regions, grouped by their similarity across a number of environmental parameters. They are based on an older, more finely-grained, classification of 45 "Land Classes" (Bunce et al., 1996). Making the broad assumption that many species' distributions and abundances are likely to be related to these zones, and the closely related one that, even for widespread species, responses to environmental change (and any change itself) are also likely to be correlated with them, they provide a useful starting point for our assessment. The map accompanying this article provides a view of the current relationship between all surveyed 1 km NPMS squares (2015-2023) and these Environmental Zones.





Figure 1. UK Countryside Survey Environmental Zones. Grey circles - 2015–2023 NPMS 1 km sites with survey data.

Having decided on the zones of relevance to the problem, it is not too difficult to come up with a metric that can be used to rank them relative to the objective of achieving even coverage. One straightforward approach is to compare the current coverage of zones by NPMS 1 km squares to that which one would expect had the same number of squares been distributed randomly. For any given zone, we can then quantify how far it departs from that "null distribution" and compare this across zones. Table 1 shows the output of such an exercise. Perhaps unsurprisingly, this suggests that Scotland contains the three environmental zones that are currently most under-surveyed relative to the total current NPMS effort.

CS Environmental Zone (ECS)	Z-statistic	Rank
True Uplands, Scotland	-13.2	1
Intermediate Uplands and Islands, Scotland	-11.9	2
Lowlands, Scotland	-3.4	3
Northern Ireland	0.7	4
Uplands, Wales	0.8	5
Lowlands, Wales	1.1	6
Easterly Lowlands, England	3.2	7
Uplands, England	4.0	8
Westerly Lowlands, England	5.3	9

Table 1. Ranked list of Countryside Survey (CS) Environmental Zones by "under-sampling" relative to a random distribution.

Of course, this is a simplistic view of the problem, as we have assumed that the set of all squares ever visited by NPMS volunteers forms a reasonable assessment of current geographical survey effort. In reality, not all squares are visited in all years, and some may actually have significant gaps across years. However, as broad heuristics, they provide a useful insight into a number of things: (i) they identify the zones that might require more effort if we wanted to rely more on regional-level metrics in isolation (e.g. Scottish biodiversity indicators); (ii) they allow us to qualitatively contextualise things like national trends relative to the potential for bias or unrepresentativeness; and, (iii), the quantified index of departure from randomness may provide a basis for statistically adjusting national trends for potential geographical biases in our results.

Of course, all NPMS data and records are incredibly valuable from many other points of view, including characterising how UK plant communities are changing at small scales locally. The type of assessment presented here is just one way of viewing our data relative to one aim—such goals and approaches always need to be considered alongside other objectives: having more data for one region over another may allow for more detailed explorations of environmental change in that area. There is no one-size-fits all optimisation!

Reference

Bunce, R.G.H., Barr, C.J., Clarke, R.T., Howard, D.C. & Lane, A.M.J. (1996) ITE Merlewood Land Classification of Great Britain. *Journal of Biogeography*, 23, 625-634.



Bon anniversaire to the sister scheme!

Dedicated readers of the NPMS newsletter may remember a feature <u>back in 2018</u>, when we interviewed one of the coordinators of the French plant monitoring scheme "Vigieflore". We are now happy to report that Vigie-flore has just celebrated its 15th birthday, and is going from strength to strength. Professor Emmanuelle Porcher, of the Muséum national d'Histoire naturelle in Paris, sends the following message: "We were extremely happy to celebrate the 15th birthday of Vigie-flore with the volunteers.

The scheme got off to a rocky start, as several botanical institutions were sceptical about the idea of participative plant monitoring. Yet, thanks to the enthusiasm of hundreds of volunteers, Vigie-flore has succeeded in producing invaluable data to characterise ongoing changes in flora, which will soon be used by the French government to document new biodiversity indicators."

The Vigie-flore website can be found <u>here</u>, with a review of the 15 years of French plant and habitat monitoring in this PDF <u>here</u>. (Note that PDFs can be translated using <u>Google</u> <u>Translate</u>, via the "Documents" option followed by uploading the PDF file.)

We hope to strengthen links with the French scheme in the future, including the investigation of the potential for joint data analyses.

Congratulations again to our French colleagues on the achievement of this fantastic milestone!

Support and guidance

We have seen a variety of development opportunities for volunteers so far this year and enjoyed more chances to practice survey methods in field. From live webinars, interactive workshops and in-field training, we have thus far delivered 12 events to 184 participants, and our collection of YouTube videos have received an impressive 7,000 views since spring. Here you can find recordings of past webinars, plus extra guidance and support videos. There is still more to come in our 2024 training programme (see below). So, visit our **Training and events webpage** to view and register on to all sessions and explore online resources

Upcoming training and events...

12 th Sept. 12:00	NPMS survey methodologyWebinar – With Rachel Murphy
7 th Oct. 12:30	NPMS Data Entry and support sessionWorkshop – With Rachel Murphy
14 th Nov. 12:30	Coastal vegetative shingle Webinar – With Joshua Styles
20 th Nov. 18:00	Nature Journaling: Creatively recording your nature experiences. Workshop – With Alex Boon
28 th Nov. 12:30	Winter Trees – Identifying native broadleaves in autumn-winter. Webinar – Neill Talbot
Date TBC	Botany Bookclub - And Author Q&A event



Find out more about the above Nature journaling workshop with Alex Boon on p. 15.

Interested in joining a local botany group? Find out more about this fantastic way to learn, make friends and share experiences. Check your nearest local BSBI group <u>HERE</u>

Already involved with a local botany or biological recording group? 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 <u>NPMS</u> <u>YouTube channel</u>

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



Frequently asked questions:

Can I see records of past surveys carried out on the plots in my square? Yes, you can. From the main menu go to 'My data' then 'My visits'. This will lead to a screen showing your records. You will notice there are clickable tabs such as 'Others' visits' and 'Others' records'. It is always interesting to see what species other people have recorded, however, don't get too hung up on past data, or worry if you aren't seeing those same species. Just record what *you* see on *your* visits.

My Records	My Visits	Others' records in my squar
Others' visits	in my square	



I can't survey at the moment, should I relinquish my square?

Not necessarily. One of the great things about the NPMS is that you can take part when you are able to. If life gets busy and you need to miss one of your surveys, or an entire season, just keep in touch and let us know. Please don't feel you need to give up your square if you intend to return to surveying. If you know you aren't going to be able to survey your square for a long period of time, it is best to release it and give someone else the opportunity to continue the great work you've been doing.

*

Is there another way I can volunteer? We have other volunteering

opportunities with the NPMS if you decide it's time to hang up your clipboard. Get in touch if you want to explore things like:

- Mentoring
- Writing for our blog or newsletter
- Photography
- Data entry

Support getting a plant identified Sarah Shuttleworth, Plantlife

Sometimes we are not 100% sure on species ID, especially between some tricky confusion species or during certain times in the season. We want to be able to help identify your interesting find, but in order for us to do so, we often need more information. Below are our top tips on what kind of photos and information are need from you, either to share within our NPMS support Facebook group, or to send to our expert team.

Photos of the whole plant

Sometimes we need more than just the flower or top of the plant. If you can get a photo of the whole specimen, that certainly helps. If possible, you can try turning your phone or camera upside down to take the photo from ground level, and simply rotating the image later. This might also mean taking several photos to capture all identifying features of the plant. But more photos is always preferable to too few. Remember to clearly label your images, especially if they are of the same plant as others provided.



In what kind of habitat did you spot the plant? Woodland, grassland, heathland, coast, upland?



Is the ground wet, dry, coastal, heathy, marshy, boggy, peaty?



If the ground is wet, for how much of the year? Just in winter, or throughout the year? Photo tips (p.7) are also relevant for image uploads accompanying survey records.

Habitat or environmental information

Where you have observed the plant growing can be one of the most important things to describe in order to get an identification.



Sometimes plants have different leaves on the top, compared with the bottom. This can sometimes be crucial to identification.



Support getting a plant identified

Continued:



It's all about the details!

You can never include too much information. Look really closely at the specimen. Take close up photos if you can. Make notes. Draw sketches. Does it have hairs? What are the stamen and stigma like? Where is the ovary positioned? Not sure, just take more photos!

Websau NUEBsau

Where on earth are you?

This is a simple one to answer, but critical to our understanding of what your specimen might be. If you can add a grid reference, or if not even a description of the location can be a great help.



How to snap the best plant shots

Sarah's top tips for getting the best and most useful images for verification and ID support. These tips can of course also be applied simply to take a beautiful image you can be proud of.



Think about where the sun is. Don't take photos of the plant in your own shadow. Can you capture a shot where it is in some light? Try not to use the flash as it creates shadows. Can you use a torch or similar?

Distance and background

If you're struggling to get the camera to focus, try moving back and zooming in. Make sure the background isn't distracting from the plant. It can be helpful to hold a sheet of white paper behind a particular feature you are trying to capture. Do you want the plant to take up the whole picture?



Remember, sometimes even with all of this information, we still might not be able to identify the plant. For some species it is just not possible remotely. It may be that you need to return

to the plant for additional images or information. Perhaps make a note and return at a different time in the season when certain features are more prominent.

Focus

Having the plant in focus is key. If you can't get it in focus, try using your finger next to it to focus, then move it away at the last second.

Positioning

You can try turning your camera or phone upside down for an image closer to the ground. Just make sure to gently move vegetation that may be blocking the view or taking focus.



SPECIES SPOTLIGHT

Corrrron Dog-violet (*Viola riviniana***)** Karen Fisher, Volunteer support officer

Listed as an indicator in the following NPMS fine scale habitat types:

Broadleaved woodland, Dry Deciduous Woodland, Native Pinewood & Juniper Scrub, Upland Grassland and Montane Calcareous Grassland

Confusion species:

Early Dog-violet, Heath Dog-violet, Sweet Violet.

Identification:

Distinctly heart shaped leaves. Common dog-violet has a spur that is paler than the petals, whereas Early dog-violet has a spur that is darker than the petals. Sepal appendages are >1.5mm, whereas in Early Dog-violet sepals are <1.5mm.



Common Dog Violet Facts:

- Widespread and common.
- Bluish purple flowers, 15-20mm across with darker veins in the centre.
- Flowers appear April June, and unlike those of Sweet Violet, are unscented.
- Pale greyish white spur slightly grooved at the tip.
- Basal, alternate long-stalked heart shaped leaves.
- Main food plant of the Small Pearl Bordered Fritillary and Silver Washed Fritillary.





Other common names: dog violet, wood violet

Family: Violaceae

Foliage: Evergreen

Mat-forming perennial, found in all soils except those which are acid or very wet. Beth Newman





Violets in Folklore

The violet's connection to death and mourning runs through folklore in many cultures. However, in the Victorian 'language of flowers' they represent delicacy in love. Indeed, ancient Greeks thought of violets as symbols of fertility and romance. They are also associated with innocence, modesty and openness. To dream of violets is said to bring an improvement in fortune. Some legends even speak of violets being sacred to the Fairy queen.

Sweet Violet (Viola odorata) was used as a perfume and also for love charms. The name 'dog' violet is thought to distinguish this plant from the perfumed 'sweet violet'.

In folklore, many believed that if a child accidentally swallowed a milk tooth, they would have to eat a dog violet petal to prevent the adult tooth then growing long, like a dog's tooth.

SCHEME NEWS

New phase of the NPMS Jasmin Salvati (JNCC)

In April 2024, NPMS partners Plantlife, BSBI, UKCEH, and JNCC, were thrilled to enter the 4th phase of our partnership in running this scheme, signing the contracts for another 5 years of government funding. This means we'll be continuing to support the gathering of vitally important plant biodiversity data, and we'll be continuing our work turning this data into government statistics and advice. At JNCC, we consider biodiversity monitoring schemes like the NPMS to be a key part of our ability to carry out our work, and the combined efforts of volunteers and NPMS partners forms a really strong foundation that we're delighted to be a part of.



This funding renewal also coincides with the NPMS turning 10 years old in 2024/25 - an exciting milestone which signals the hard work of our volunteers and supporters is really paying off. The last 10 years have

seen the scheme go from strength to strength, and plant monitoring become more cemented as a key piece of our biodiversity monitoring work. Through the 2025 season we'll be celebrating our 10th anniversary, and we're looking forward to seeing you all in the field to celebrate your hard work and achievements - And to kick off another decade of fantastic data collection!

NPMS Annual Report 2023

Earlier this year we published the third NPMS Annual Report. This provides a summary of data from the scheme. survey coverage and highlights from the 2023 season.



along with research updates and volunteer experiences. The report is available to download from the NPMS website Here.

Species trend visualisations now live

Towards the start of the season we launched a new page on the NPMS website showcasing



the current indicator trends from NPMS survey data.

The new trends page allows you to view the current annual abundance estimates for any indicator species within a broad-scale NPMS habitat. We have also linked to the BSBI Plant Atlas 2020 website to provide photographs of all species, and all plots generated can be easily downloaded. Both scientific and common names are provided, and the trends can be viewed either "zoomed" in or out, allowing you to see year-toyear variation in detail, or to view any changes at a coarser level. Find out more about how these trends are generated and used on the new trends page Here.

NPMS square and plot details

Further updates on the NPMS website have focused on improving the information available to existing or potential new volunteers about the individual NPMS survey squares. Both to provide information on how they may fall within the boundaries of stakeholders, and also help volunteers make a more informed decision as to which square to adopt.

By viewing square details, the summary provided displays any overlapping boundaries and also if this square has existing plots and previously been surveyed. We can even see a summary of what has previously been recorded on this square.

Core square SH6067

Summary info



Core square coverage: Caernarvonshire (Vice County): 100%

Work is currently ongoing with a view to also providing indications of

square accessibility at this stage of requesting a square. Including information on elevation, hazardous habitats, public transport access point, road access and public rights of way. Watch this space!



SCHEME NEWS

NPMS/PP App development

Thanks to funding from the Defra Natural Capital and Ecosystem Assessment program, we are near completion of the development of the new joint NPMS and Plant Portal App for in-field data entry. The same app can be used to submit data by both NPMS volunteers and also others submitting to the Plant portal. For example for our project extension, the NPMS+ for local or regional applications of the NPMS



survey methodology. Field testing of the App is currently underway, by both staff within the partnership and NPMS volunteers with varying degrees of experience of NPMS. Following this "road test", we are confident that the new App will be ready to launch widely in plenty of time for the next season.





UK Centre for Ecology and Hydrology

Downloads PEGI 3 ⁽¹⁾

Additional volunteering opportunities

In line with the ongoing development of our NPMS Equity, Diversity and Inclusion (EDI) strategy, we have been exploring new ways to make the NPMS, and plant monitoring in general, more accessible and inclusive to all those interested. This has included the building of new digital volunteering opportunities for those wishing to take part or develop their skills, but are unable to access an NPMS square, and keen botanists with bundles of enthusiasm but limited time.

The expanded NPMS volunteering offer now includes 3 further roles alongside our volunteer surveyors and volunteer mentors. These are:

- Record verification volunteers
- Data entry volunteers
- Photography volunteers

See p.16 for further information on these roles.



NPMS Updated verification guidance

Additional verification guidance materials have been produced and made available on our <u>Resources</u> <u>webpage</u>. One for NPMS surveyors - providing an overview of record verification and offering advice on how those collecting records in the field can help the process. In addition, there is now a guidance resource for NPMS verifiers, to support their training and role.

Resources

The verification of plant records: guidance for NPMS surveyors An overview of the verification of NPMS records for volunteers

Guidance for NPMS verifiers Guidance for verifiers of NPMS data

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32(154	Fraxinus excelsion	Ash
321154	Poe pretenais	Smooth
32 154	Anthoxenthum odoratum	Sweet V
32(154	Gnaphalium uliginosum	Marsh C
321154	Viola riviniana	Commo

NPMS - useful books and online resources



We have updated our <u>list of useful books and online</u> <u>resources</u>, which now includes sections on:

- NPMS guidance and training materials A reminder that all the guidance you need is provided, and we don't expect you to buy any reference books...unless you want to!
- **Species Identification** Some of our favourite field guides, and links to online species identification resources, including the BSBI's excellent webpages on the subject.
- Habitat information A round-up of links to information on the <u>NPMS online training page</u>, the NPMS <u>YouTube channel</u> and past <u>NPMS</u> <u>newsletters</u>, organised by habitat.
- Useful general mapping resources Including websites to help you locate and put your survey square in context.



Botany through art

We were once again delighted to receive such positive feedback following our most recent botanical art workshop earlier this year: Wild watercolour, with artists Iris Hill. During the session, attendees were invited to trust their intuition in creatively exploring the delicate snowdrop. Thanks to those that have shared below some of their expressive experiments, using different tools and breathing techniques. As one participant commented – "If only we could have Watercolour Wednesday every week!"



Nick Lawson-Williams



Irene Godfrey



Anne Laws



Anonymous



Nature journaling

This centuries-old act allows the creative expression of our observations and relationship with nature. It can take many forms, from an artist's sketchbook to a photo album, focussing our attention and developing our observations and learning. You do not need to be an artist to begin, and for NPMS volunteers, journaling may prove useful in honing field skills and in getting to know their survey square and plots.



Alex Boon is an artist and nature journaling educator from East Devon. He earned a Ph.D. in environmental science before working in postdoctoral research and scientific communication roles.

Alex left academia and started his first nature journal in 2016. He now teaches both online and in-person workshops and courses and is active on YouTube, Instagram and Facebook (@alexboonart). His style is inspired by the British tradition of artists recording nature, particularly Edith Holden, Beatrix Potter, and Charles Tunnicliffe. His mission is to promote the wider uptake of nature journaling in the UK. Alex's current teaching and exhibition schedule is at www.alexboonart.com

Read Alex's full intro to nature journaling in this blog post. Plus, he will be leading a journaling workshop for volunteers in November. See p.6.





Rachel Murphy Carol Crawford NPMS SUMMER NEWSLETTER 2024

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Botany through art

Where to see botanical artwork:

The Royal Horticultural Society collection: https://collections.rhs.org.uk.

They also hold Botanical Art & Photography Shows. For information see <u>https://www.rhs.org.uk/shows-</u> <u>events/rhs-london-shows/rhs-</u> <u>botanical-art-and-photography-show</u>

The Royal Botanic Gardens Kew: The Shirley Sherwood Gallery of Botanical Art – <u>Here</u> Also, the Marianne North Gallery <u>Here</u> contains 833 paintings of more than 900 species of plants.

The Society of Botanical Artists holds a major annual open exhibition in London in April or May. Plantae 2024 was in fact held online, with planning underway for a special exhibition in 2025, as Plantae 2025 will mark the Society's 40th anniversary and Ruby celebration. See https://www.soc-botanicalartists.org/exhibitions/ for details.

The list goes on. A useful directory of major botanical art exhibitions and collections in the UK is provided by **Botanical Art and Artists**.



Have you read a natural history or botanical book lately, that you think fellow NPMS volunteers maybe be

interested to hear about? Consider contributing a book review for our next issue! Contact **support@npms.org.uk**





Botany book club Book review



Frustrating Flowers and Puzzling Plants: Identifying the difficult species of Britain and Ireland - John M Warren (2024) Pelagic Publishing, London.

Sue McBean – NPMS Photography volunteer

After first impressions it is always a good idea to try out what is being offered. I started with Forget-me-nots and moved on to Violets!

I saw immediately I will now be much more likely in the new 2024 season to correctly name wildflowers I came across last year from those groups. In the preface Warren wrote that his book is to help confidence as a botanist to grow. He also states that most books on wildflowers give the same amount of help for all plants. This book gives extra help with just some groups. It provides information on how to distinguish difference between species in less straightforward groups such as



Eyebrights, Speedwells, Vetches, Docks, Sorrels and so on. The last chapter even teases out the Umbellifers.

After a short preamble background each chapter has a section on "Why is this group of plants complex?" moving on to "How can I tell them apart?". Warren believes we start to remember differences between species when we understand them. This he writes will be a rewarding activity and he writes in a personal manner addressing the reader as a fascinated enthusiast.

This is not a "coffee table" book full of large photographs. It is much more precious in that it can change the way you think about plants and inspire recognition of difference between one species and another.

In every section, every few pages there is a table where you can compare features of several species in a genus with the plant you are trying to identify. At first sight it looks like a crossword puzzle but in this case the answers are already displayed. An hour from opening the book you'll have found your way around it and will be plotting outings to find those plants that troubled you last year. That aspiration to sort out troublesome identifications has become a tangible project for this year.

This is not only a book to treasure but one which will be a joy to use.

Plot Portrait

Welcome to my square: NPMS Volunteer, Ed Dolphin

I studied Botany and Zoology back in the sixties but dropped out before graduation. Eventually, I found my way into primary school teaching and spent more than thirty happy years teaching. My favourite sessions were always outdoors with the children doing Nature Study. Now that I am retired, I spend much of my time out and about recording the nature of the beautiful Devon valley in which I live, taking pictures and sharing them with others to enjoy. When I saw the NPMS on one of my many incoming emails last year, it seemed logical to pitch in.

A few years ago, a local group of like-minded people formed the Sid Valley Biodiversity Group with the aim of cataloguing what we have and engaging local people with nature.



In 2021, we unearthed a copy of the

1849 book Flora Sidostiensis, a catalogue of local species compiled by the local doctor, W.H. Cullen, and his friends.

FLORA SIDOSTIENSIS.

DICOTYLEDONES OR EXOGENÆ.

RANUNCULACEÆ.

CLEMATIS vitalba. Traveller's Joy. Cliffs, Dunscombe and Branscombe. ANEMONE nemorosa. Wood Anemone. Knowle Harpford Wood Sta

The first page of W H Cullen's book (Image: Sidmouth Museum)

I enjoy a spot of detective work and we have taken every opportunity to track down the 650 species listed, with the added fun of tracking the last 175 years of name changes.

My personal favourite is Yellow Archangel Lamiastrum galeobdolon, which was Lamium galeobdolon when I started out. Cullen has it as Galeobdolon luteum, with the common name Yellow Weasel-snout.

Currently we are up to 450 species, but the new list includes recent arrivals and so we have some way to go to find them all. My NPMS Square is above

Ottery St Mary on the east side of the Otter valley in East Devon, now famous as home to beavers and the project to restore the salt marshes at the river's mouth. Most of the square is not useable for the NPMS, access is discouraged and it is improved and semi-improved grassland cut for silage to feed the beef cattle associated with the regional abattoir at the centre of the square.



The saving grace is that the eastern 10% of the square is separated from the gently sloping Mercia Mudstone grassland by a north south line marking the change in bedrock to Upper Greensand with a spring line and a significant increase in gradient. Apart from the change of gradient, the geological boundary is marked by an ancient track running north south the length of the square with a Devon hedge in various states of decline along the lower side. There are several old marl pits on the Mercia Mudstone just below the transition.

The steep slope is woodland, neglected coppice with Oak standards. This has allowed the selection of a 10m woodland plot along with two very different 25m linear hedgerow plots. There is a flush near the western boundary of the square that I aim to access this year. Plot images: Ed Dolphin

Plot Portrait NPMS Volunteer, Ed Dolphin continued

Plot 1: Dry Deciduous woodland



The western edge of the plot is at the edge of the level track but the plot itself is on the steep gradient of the Upper Greensand. The NE corner of the plot is marked conveniently by a distinctive leaning Oak, a bonus when trying to locate a specific point in a woodland with very suspect phone connection. There are no springs within 10m of the plot. There is a badger sett just above the plot.

The trackside bank has some veteran to ancient trees along its length but the actual woodland progressing up the steep gradient has a chequered history that means it may have been under canopy for a very long time but the current growth is not ancient.

It is marked as conifer plantation on the 1840 Tithe Map, but it must have been cleared in the late C19th and was open scrub by the 1904 OS 25 inch map. It is now closed canopy deciduous woodland, mainly Oak, some up to 100 years old, but there are some Cherries and Hollies interspersed with Hazel that was coppiced at one time but not recently. The plot is clear of standing trees but has a lot of dead wood lying about and was mainly covered with Bluebells in spring, then the deciduous Ferns open fully to take over with a small number of Foxgloves struggling between them. There is some straggly Bramble and Ivy, it will be interesting to see if it spreads.

Plot 2: Hedgerow of native species

The hedgerow runs along the western downslope side of the track. Some areas are totally relict, bare soil with occasional standard trees. Plot 2 is the last 25m at the southern end of the woodland before the track opens out between pastures. It has Oaks aged about 100, spaced at 10m with a mix of Hazel, Hawthorn, Blackthorn and Holly shrubbery between. This has been flailed in the past but not recently and is spindly growth to about 4m.

The ground is moist and there is a varied herb layer of 18 species on the bank and alongside the track in spring, which subsides to 12 species in summer as the canopy comes into leaf and the ferns grow.



Plot 3: Hedgerow of native species



When the track emerges from the woodland, the hedgerow changes dramatically. Half of the first 25m is uncut and growing to about 4m but the growth is much more dense. The second half has been flailed down to 1.5m tall in the last year. There are no Oaks but a single Ash tree. The species mix is similar but, as there is so much more light, the herb layer is much more densely packed.

Although the farmer had been through with a strimmer to clear the path in the summer.

2023 was my first year with the NPMS. I had a preliminary visit in April, then the first two surveys for each of my plots,

one in May and one in August. I am now interested to see if things have changed during my revisits in **2024**. Also, I have taken on another square this year. This is further along the coast and looks to be very different.





Submit your data:

Please submit your 2024 season data as soon as possible, to be included in the over winter analyses.

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

For any advice on entering



Volunteer stories

support@npms.org.uk.

your data, contact

We love contributions from volunteers towards our bi-annual newsletters and NPMS web blog. If you think you'd be interested to pen a plot portrait or interest piece, please don't hesitate to get in touch.

Additional volunteering opportunities

Unable to get to and survey an NPMS square just now? Wishing to develop your skills and experience? Perhaps you already have an NPMS square and simply fancy taking on another challenge?

Along with surveyor, there are several other volunteer roles within the scheme. An overview of each is listed below, please contact <u>support@npms.org.uk</u> for further details or to register your interest.



NPMS Mentor - Could you offer any time to help support other sureyors in your region?

Mentors are a valued part of our team, and there are several ways you can be involved. We are in the process of updating the role,

But with both field and desk-based opportunities, from local walks and square shadowing, to assisting with species ID and methods or data queries, there are plenty of ways you can make a difference to fellow volunteers. Full support is provided, including expenses.

Find out more in our Mentors Opportunities video <u>here</u> and please get in touch if you feel you can give as little or as much time as you'd like.



Volunteer verifier - Are you an experienced botanist and confident with your species ID?

Along with automated verification, verification still relies on a human to make a judgement. This is carried out by expert botanists.

Those with good knowledge of the flora of an area, county, or region from where the record originated. The NPMS uses the inbuilt verification interface of iRecord to enable botanical volunteers to access and verify NPMS records. We have introductory training to iRecord and verification available, along with new guidance for verifiers. Full support is given.



Data entry volunteer - A flexible and deskbased opportunity to take part, gain experience and access a range of training opportunities.

For a handful of volunteers it isn't possible to enter their own data.

Each year we receive a number of recording forms with valuable data that we need to make sure is captured. Data entry volunteers are trained and provided with a self-led (and continuously accessible) course, along with support from the NPMS team.



Photography volunteer - Species and habitat images are used for NPMS training, comms and reporting.

You don't need to be a pro. But a good eye for an image and botanical knowledge would be an advantage for this incredibly flexible role.





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

GET INVOLVED

Learn more about our wonderful wildflowers With the BSBI!



If you've already devoured all the amazing NPMS online <u>training resources</u> and <u>webinars</u> and you're hungry for more, check out these options:

- Helpful tips for getting started with plant ID.
- Short <u>plant ID videos</u> and longer <u>training</u> <u>webinars</u> on the <u>BSBI YouTube channel</u>.
- Plant ID resources for both <u>beginner</u> and <u>more</u> <u>experienced botanists</u>.
- <u>Identiplant</u>, the online ID course run by BSBI applications open on 1st December.
- Botanical training courses running next year from short courses by a range of providers across Britain and Ireland to BSBI's in-house training courses and opportunities.
- Did you know that you can apply for a BSBI grant of up to £250 to help you take a training course? Grant applications go live <u>here</u> on 1st December so be ready to apply and don't forget to say on your application that you are a NPMS surveyor.

Meet up with fellow plant-hunters!

All NPMS surveyors are invited to attend BSBI's autumn conferences. The <u>Scottish Botanists'</u> <u>Conference</u> takes place on Saturday, 2nd November at RBG Edinburgh.



NPMS SUMMER NEWSLETTER 2024



There is a small charge for the Scottish Botanists' event but the <u>British & Irish Botanical Conference</u>, taking place at the Natural History Museum, London on Saturday 23rd November, is absolutely free. You'll be made very welcome and these conferences are a great way to pick up ID tips, hear fascinating talks about our wonderful wildflowers and meet fellow plant hunters. Just click on the links to find out what's on offer.

Wildflower Hour!

Help spread love for British and Irish wildflowers, and join the online **#WildflowerHour** community.





Whether a seasoned botanist or someone who's simply spotted a nice wildflower locally and wants to know what it is.

Every Sunday between 8-9pm, hundreds of people take part to share photos of the flowers they have found growing wild in Britain and Ireland during the previous week and help each other to identify and learn about them.

Join in on:

<u>Twitter</u>, <u>Facebook</u>, <u>Instagram</u>, <u>Bluesky</u> or <u>Mastodon</u> using the hashtag <u>#WildflowerHour</u>.

Including the hashtag <u>#WildflowerID</u> indicates that identification help would be appreciated from other members of the Wildflower Hour community.

Weekly challenges (a bit like botanical treasure hunts!) add to the fun and focus attention on groups of plants, habitats or characters like leaves.

To find at more about Wildflower hour, visit the website <u>Here</u>



Further opportunities cont...

Forays into Fungi!

For volunteers looking to stretch their nature know-how beyond vascular plants, there are a number of opportunities to delve into a different world. A world of waxcaps. cups and gills with -



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Waxcap Watch

Interested in recording grassland fungi? Grassland fungi are an internationally rare group of fungi which are found in ancient and undisturbed grasslands. We would love your help this autumn to record the fungi in a grassland near you. The first step is to download the Plantlife Waxcap Watch App onto your phone, tablet, or computer for **Android** or **Apple** devices.



Follow the steps to complete a survey in your local area. This could be a park, a churchyard, a playing field, or farmland. You don't need to be an expert, the survey is also suitable for beginners. More information is available on Plantlife's Waxcap Watch webpage, or by going to the WaxcApp Surveyors page on Facebook.

Grassland fungi identification and management

Fancy developing your knowledge of grassland fungi and management? Sign up free to Plantlife's online training module <u>Here</u>. With lyrical names like Ballerina waxcap, and Violet coral, these are one of the most colourful and charismatic groups of fungi to learn to identify. You can find out what these vibrant indicators can tell us about the health of a grassland, and how these habitats can be managed sympathetically to protect this globally important group of fungi.

Grassland Fungi Identification Training days

Plantlife are also running some free autumn training events on grassland fungi ID. Learn to identify the common waxcap species found in semi-natural grasslands.

Come along and hear more about our work on the Glaswelltiroedd Gwydn (resilient grasslands) project and learn new skills for surveying and monitoring the rare fungi of our nature reserves!

Provisional dates and locations are: 3rd October Pal Y Cwrt, Carmarthenshire

17th October Ysbyty Ystwyth, Ceredigion

29th October Caeau Tan Y Bwlch reserve, Caernarfon (event run jointly with North Wales Wildlife Trust)

Contact Bryony Jenkins bryony.jenkins@plantlife.org.uk for more information and to book.

These events are being run as part of the Glaswelltiroedd Gwydn (Resilient Grasslands) project, delivered by the Heritage Fund, on behalf of the Welsh Government and in partnership with Natural Resources Wales.





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Further volunteering opportunities

There are lots of other ways to get involved at Plantlife to help protect wild plants and fungi. Volunteers are welcomed in a wide variety of roles across the UK. Whether it's getting stuck into practical conservation work, data entry, research, botanical survey, or even campaigning and advocacy work. You can find out more about Plantlife's volunteers as well as details of current volunteering opportunities Here.





Field Diaries: Your pics

Some great images that have been shared with us through 2024. We love to receive your photos from out in the field, whether to help with a query, ID, or simply to share your plot set up, a fun find, or moment of reflection.



It is not that often we see such a wide range of habitat types within just one survey square. Here we can see four plot images taken this season by volunteer Caroline Phillips, within her East Inverness-shire square. Comprising; A. Linear freshwater plot along a river that Caroline noted as being low during her August visit; **B.** Dry acid grassland plot; C. Native pinewood and Juniper plot; and **D.** Blanket bog, where Caroline's records included Harestail Eriophorum vaginatum and Round-leaved sundew Drosera rotundifolia, this season.

Annual plot images are really helpful both for habitat classification verification and indeed monitoring change over time, let alone for aiding relocation of sites each year. Look closely and you will spot Caroline's helper for the day Brian Leite in the images. It is a real treat to see images of surveyors out in the field. As you can image, we often see species shots (naturally!) but not so many of the folk doing the recording. Caroline also has another NPMS square in East Ross, which she surveys on alternate years alongside the square described. We look forward to hearing about her second square next season.

Volunteer Ava Marley started her second season of NPMS surveys in 2024 at the inventory level. Ava is allocated two squares in East Sussex and has shared with us some lovely images to accompany her species records, during her first survey of the season. Including a record of **Petty whin** *Genista anglica*, within one of her dry heathland plots. This species is indeed most common in the south and southwest and is currently in decline in England. On another dry heath plot, Ava also recorded and snapped **Lousewort** *Pedicularis sylvatica*.

The decline of this species in SE England since the 1960s, can be attributed to the loss of heathlands and unimproved grasslands. Ava is now planning her second visit to her plots this month, and we look forward to hearing how she gets on.





Field Diaries: Your pics Continued...

Volunteer Emily Wilkins is allocated an NPMS square on the Isle of Mull, which overlaps The National Trust for Scotland Burg Estate, along with a coastal SSSI of national importance - owing to its array of biological and geological features. This square was first recorded as part of the scheme in 2018 and here we can see the montane calcareous grass plot in 2024, along with its set up in 2018. Here **Wild Thyme** *Thymus polytrichus* was recorded with significant coverage in June this year. We can also see here the dry montane heath plot, grazed by goats, deer and mountain hare, where this season Emily has recorded Heath Bedstraw Galium saxatile, Bell Heather Erica cinerea and Heath Speedwell Veronica officinalis, among other heath regulars.

> Lastly, we couldn't resist sharing with you this Lanceolate Spleenwort Asplenium obovatum, snapped and enjoyed by volunteer manager Rachel Murphy during a recent site visit to south-west Anglesey.

Montane calcareous grassland 2024



Montane calcareous grassland 2018



Dry montane heath plot 2024

















Rachel Murphy

THANK YOU!

A nationally scarce

and rock outcrops.

found in sheltered crevices and ledges on maritime cliffs

A huge thank you to all volunteers that make the scheme possible. It has been a busy season so far with both surveys and training events. As always, we are incredibly 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.

We are here to help. Send us an email or give us a bell. <u>support@npms.org.uk</u>

07711922098 or 07399299770

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 and @theNPMS



