National Plant Monitoring Scheme

ANNUAL REPORT 2023

With all UK habitats challenged by growing pressures on our countryside, habitat surveillance programmes are crucial for understanding how our landscapes and species are responding to their changing conditions.

Launched in 2015, the National Plant Monitoring Scheme is a nationwide partnership project and the biggest continuous plant monitoring scheme of its kind. The incredible efforts of the dedicated survey volunteers are amassing vital data from the Channel Islands to the Shetland Isles, from Northern Ireland to the east coast of England. These records describe the abundance and diversity of plants and help us to understand the health of different habitats, along with how they are responding to changes in our environment, including climate change exposure. Only through continued monitoring at this scale will we be able to meet such challenges head on.

www.npms.org.uk

Botanical Society of Britain & Ireland

JNCC

Plantlife

UK Centre for Ecology & Hydrology

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ANNUAL REPORT 2023

National Plant Monitoring Scheme

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Highlights in numbers


©Paul Richardson

Total number of volunteers with squares
1,229

Total number of squares allocated
1,443

Total number of plots with data
4,992

Total number of squares with data
1,205

Total number of surveys overall
7,857

▲ Frogbit *(Hydrocharis morsus-rana)* recorded by Jean Richardson, image by Paul Richardson. NPMS habitat Nutrient-rich lakes and ponds, North Somerset

Total number of records overall
229,457

Total number of species/species groups recorded overall
1,724

◀ Bogbean *(Menyanthes trifoliata)* recorded by Andrew Sugden and Karen Powell. NPMS habitat Acid fens, mires and springs, Ross and Cromarty

Bogbean ©Andrew Sugden and Karen Powell


©Nic Bullivant

▲ Overall

▼ In 2023

Number of squares with data
317

Number of plots with data
1,257

Number of surveys conducted
692

▲ Autumn gentian *(Gentianella amarella subsp. septentrionalis)* recorded by Nic Bullivant at Kinlochdamph Estate. NPMS habitat Dry calcareous grassland, Ross and Cromarty

Number of species/species groups recorded
954

Number of records
21,431

Highlights in numbers


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Top 5 NPMS Broad Habitats surveyed overall:

1. **Broadleaved woodland, hedges and scrub (1,903 plots in 1,315 1 km squares)**
2. **Lowland grassland (1,832 plots in 1142 1 km squares)**
3. **Bog and wet heath (492 plots in 268 1 km squares)**
4. **Heathland (438 plots in 258 1 km squares)**
5. **Arable field margins (408 plots in 288 1 km squares)**


©Sarah Shuttleworth

▲ **Bog asphodel (*Narthecium ossifragum*)**

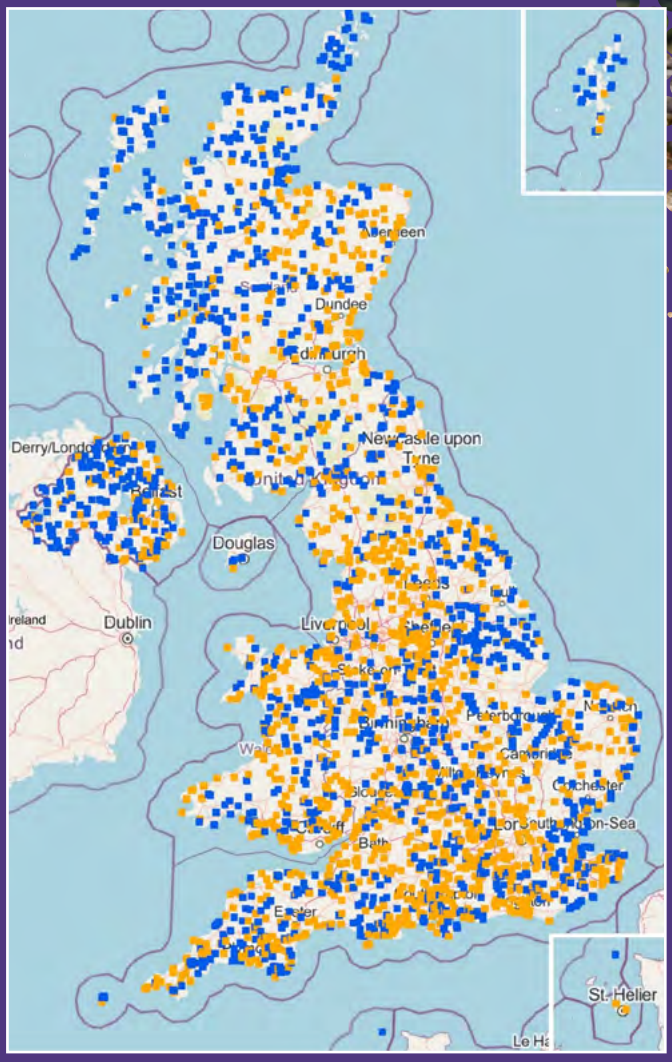
The broad habitats for which survey coverage increased the most in 2023, in terms of total number of plots surveyed, were Upland grassland (10%), Heathland (7%) and Rock outcrops, cliffs and scree (7%). The latter represents one of the least surveyed NPMS broad habitats in the scheme (92 plots, including those with a broad-scale classification), along with Native conifer woods and juniper scrub (60 plots), so it is great to see it surveyed in some new squares this year.

At the NPMS Fine Habitat scale, Dry deciduous woodland (684 plots), Hedgerows of native species (625 plots) and Neutral pastures and meadows (590 plots) continue to be the most well represented. Habitats that have the least coverage so far at the fine scale include the five individual coastal habitats and many of the montane habitats, these are perhaps not surprising given their more limited distribution.
It is not always easy to assign a habitat at the fine scale, in which case the broad habitat is recorded. This is most common for Bog and wet heath (32% of plots), Lowland grassland (27% of plots) and Broadleaved woodland, hedges and scrub (23%).

NPMS fine scale habitats with <100 plots surveyed so far:

NPMS Broad Habitat	NPMS Fine-Scale Habitat	No. plots total	No. plots 2023
Bog and wet heath	Raised bog	13	0
Coast	Coastal saltmarsh	83	23
	Coastal sand dunes	63	15
	Coastal vegetated shingle	59	14
	Machair	3	1
	Maritime cliffs and slopes	94	23
Freshwater	Nutrient-poor lakes and ponds	58	10
Heathland	Montane dry heathland	62	5
Marsh and fen	Base-rich fens, mires and springs	76	12
Rock outcrops, cliffs and scree	Inland rocks and scree	42	18
	Montane rocks and scree	32	9
Upland grassland	Montane calcareous grassland	45	15

Highlights in numbers



Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

NPMS survey monads across the UK, January 2024.

= Allocated
= Available

©Sarah Shuttleworth

Rocky calcareous

There are 2,884 NPMS survey monads (1 km^2) nationwide. 50% (1,443) of these monads are currently allocated to volunteer surveyors, with more surveyors added to the volunteer pool every day. The NPMS has seen 383 square allocations within the last 12 months, following a mass release of previously inactive squares earlier in spring 2023 — equating to more than 1 square allocated per day! NPMS survey monads are randomly generated, weighted for the semi-natural habitats the scheme is investigating and to minimize surveyor selection bias. Each time ~70% of survey monads are allocated within a region, more monads are released from the available pool.

Squares can also be released by volunteers no longer able to survey them and can then be adopted by new volunteers in the area. The survey plots already created by the previous volunteers are ideally taken up by the volunteer adopting the square for consistent long-term monitoring of the same sites

Overall	England	Scotland	Wales	N. Ireland
Total number of squares allocated	1,017	241	114	71
Total number of volunteers with squares	873	209	100	47
Total number of squares with data	823	194	115	73
Number of surveys overall	5,691	1,195	723	248
Number of records overall	161,887	37,765	22,757	7,048
Number of species/species groups recorded overall	1,530	851	790	425
Number of squares with data submitted in 2023	230	46	22	19
Number of plots with data submitted in 2023	901	201	88	67
Number of surveys conducted in 2023	506	98	58	30
Number of records in 2023	14,859	3,490	1,943	1,139
Number of species/species groups recorded in 2023	825	443	351	204

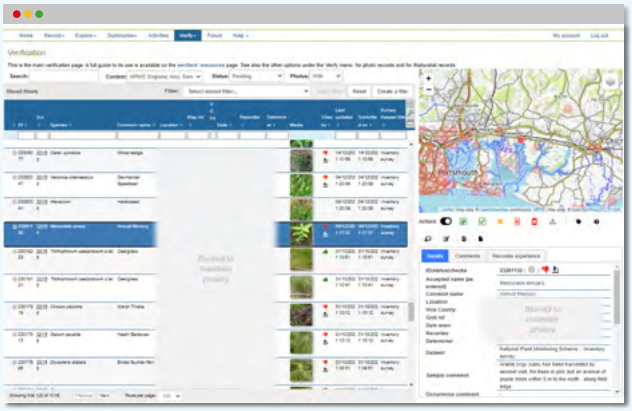
Making monitoring more accessible

The NPMS was collaboratively co-designed with significant input from volunteers. This was to ensure an inclusive scheme with 3 different survey levels, to enable participation by volunteers with varying levels of experience and time to commit, while maintaining robust and accurate data capture. In line with the ongoing development of our NPMS Equality, 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. From those wishing to take part, but unable to access an NPMS square, to keen botanists with bundles of enthusiasm but limited time.

In recent years the volunteering offer of the NPMS has grown with the addition of new roles and ways of getting involved. Alongside our volunteer surveyor and volunteer mentor roles, in 2023 the NPMS has developed a further 3 volunteer roles.

Verification volunteers

To verify our survey's species records, the NPMS uses automatic checks based on the known 10 km range of a plant, identification difficulty, and length of time since a species has been recorded previously to flag records that could possibly contain errors. However, ultimately, verification still relies on a human to make a judgement on whether a record is correct or not. This is carried out by our volunteer expert botanists 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 (as do many other recording websites) to enable botanical volunteers to access and verify NPMS records.



Screen view of iRecord verification

2023 saw the first NPMS verification training delivered to experienced surveyors to review records as part of this new volunteer role. This role offers experienced botanists, confident in their identification, an opportunity to contribute to the scheme throughout the year, even those that are perhaps unable to survey in-field or who are currently limited to desk based activities.

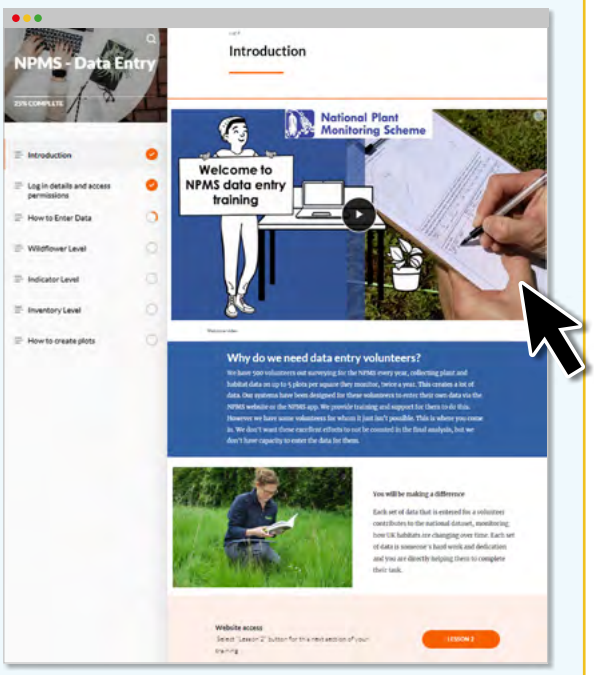
James Warren,
Botanist/Senior Ecologist and
NPMS verification volunteer

"I have been volunteering as an NPMS field surveyor for many years. This has helped me in developing my botanical expertise and I was keen to help out with the project further. The main difference in these roles is the flexibility of the verification, which means I can fit this into my work schedule. In addition, determining records with limited information provides an added layer of botanical challenge."

Data entry volunteers

The survey efforts of dedicated NPMS volunteers generate a large amount of data, helping us us to monitor the health of our habitats. The vast majority of NPMS survey volunteers enter and submit their own data, whether via the NPMS app or the NPMS website, but for a handful of volunteers that isn't possible. Each year we receive a number of recording forms with hugely valuable data that we want to make sure is captured and added to the NPMS database. Entering this data and making sure that it is all counted can of course take time. That is why this year we have developed these desk-based volunteer roles to make sure that the efforts of those volunteers sending paper forms is included, and that their data are used in our analyses. During the Plantlife "Vibrant Volunteering Virtually Everywhere" project, supported by The National Lottery Heritage Fund, five data entry volunteers were recruited, trained and provided with a self-led (and continuously accessible) training course, along with support from the NPMS team.

This role offers a flexible and desk-based opportunity to take part, gain experience and skills, and access to a range of training opportunities.



Georgia Davies,
NPMS Data entry volunteer

"After my ecology degree, I really wanted to continue my contribution to the field, so as soon as I saw the advert from Plantlife as a data entry volunteer, I knew I had to apply. This opportunity has helped me keep in touch with my passion for ecology and plants!"

Jan Galley,
NPMS Data entry volunteer

"I've started this new role with NPMS to help with transcription of survey data into useable data sets. Fun experience so far, very good onboarding from the team and now entering data, improving my flower knowledge and hoping to visit a nearby square, if it ever stops raining, to further enhance the experience."

Photography volunteers

NPMS volunteers are a widely knowledgeable community with a range of skills and experiences. We are keen to encourage volunteers to use these skills in a flexible way that suits their circumstances while supporting the scheme. As an example, many NPMS volunteers are budding photographers, or simply have a keen eye and an eagerness to learn. As such, for the first time, the NPMS has a photography volunteer role, with two recruited thus far.

This is an incredibly useful role, with our volunteer photographers helping to build up a library of high-quality species and habitat images. The NPMS team use photography in a number of ways, including presentations, on our website, to develop training modules, in survey resources and to promote our work in both printed and online materials, to name just a few.

©Sue McBean

Gorse (*Ulex europaeus*) by volunteer photographer, Sue McBean

©Mitch Mitchell

Sue McBean,
NPMS Photography volunteer

"I like to depict the distinguishing features that botanists search out, like sepal number and shape. I enjoy getting to know people and feeling that I'm being supportive to an important cause. It is great that I can do this virtually and also get out for walks. I feel that I'm learning every day, keeping body and mind fit. Most of all, it is about contributing something that I try to do well and giving it as a legacy that could live after my time. Combining my love of plants, photography, and the outdoors is perfect."

Buddying opportunities

We are also keen to encourage buddying opportunities, for those volunteers preferring to team up with others in their area, either to share the task or to provide peer support and learn from one another. Currently this is being done on request, when a volunteer expresses an interest in making contact with others local to them. Communication is always via the NPMS support team and no contact details are shared unless expressly requested by both parties, in keeping with GDPR guidance. Through 2024 we hope to investigate and trial additional support for buddying on the NPMS website, making this option more visible to a wider audience, including those wishing to get involved but who would be more confident with this local support.

New and varied roles

The addition of new and varied roles, along with improved facilitation of buddying, offers the opportunity to engage and work with a more diverse group of volunteers, while also providing more inclusive opportunities to take part. This is central to our developing an NPMS EDI strategy and our aims as an inclusive scheme. Additional work in this area throughout the next year will include improving the accessibility and navigation of the NPMS website and resources, and reviewing additional measures to improve the inclusivity of NPMS training sessions and events.

Research demonstrates power of NPMS plots for climate change impact monitoring

The accumulation of hundreds of National Plant Monitoring Scheme plots across the UK, Isle of Man, and the Channel Islands is an incredible resource for climate change researchers, and in 2023 an important new study using NPMS data was published in the *Journal of Applied Ecology*. According to this paper, all UK habitats are set to be severely challenged by exposure to climate change in coming years, but some are facing far greater difficulties than others.

The new research, conducted by NPMS researchers at Plantlife, UKCEH and the University of York, used past observed and future modelled climate data to create an index of expected climate change in every 1 km square of the UK. This "climate change exposure" measure integrates changes in things such as seasonal temperatures and rainfall to create a single estimate of how much overall climatic change is expected in any given location between various multi-year periods. The results show how far human-driven climate change has shifted conditions from their state at the beginning of the 20th Century, and how much more change could be in store over the coming decades. The research also reveals the value of habitat monitoring initiatives such as the NPMS for tracking the impacts of these changes on nature in the UK.

The authors reported that in each successive multi-year period studied "the UK's climate change exposure has increased drastically: changes from the last decade to 2021–2040 are predicted to be far larger than those within the 20th Century." Human-driven climate change is likely to fall hardest on arable and horticultural land, calcareous (i.e. high pH) grasslands, and urban and suburban areas. According to the findings, calcareous grasslands are the most exposed semi-natural habitat (as well as the most exposed of all between the 2021–2040 and 2061–2080 periods).

"In the face of climate change, many plant populations will need to move to survive, but that is made difficult by human activity such as building pressures. Intact habitats and wildlife corridors - from hedgerows to road verges - offer lifelines to climate migrant species so they must be effectively managed."

Dr Oliver Wilson,
Report Author, University of York and Plantlife

©Rachel Murphy

Pyramidal orchid (*Anacamptis pyramidalis*)

The paper shows that climate changes are affecting the UK unevenly. As the paper states, "regionally, [climate change] falls more in southern, central and eastern England; locally, it is greater at higher-elevation locations than nearby areas at lower elevations." In a worst-case scenario for greenhouse gas emissions, much of England could experience Mediterranean-type climatic conditions—with hotter, drier summers—by 2061–2080.

Warming temperatures have seen some wild plant species such as Lizard orchid (*Himantoglossum hircinum*), Bee orchid (*Ophrys apifera*) and Pyramidal orchid (*Anacamptis pyramidalis*) expand their ranges. Some rare arctic-alpine plants including Norwegian Mugwort (*Artemisia norvegica*), Diapensia (*Diapensia lapponica*), and Mountain Sandwort (*Sabulina rubella*) are also likely to be at risk of going extinct in Britain as our uplands become more temperate.

The study also reveals how the NPMS plays a crucial part among the UK's habitat monitoring schemes: plots created between the beginning of the scheme in 2015 and 2020 demonstrated excellent coverage of the climate change exposure gradients to which many habitats are likely to be exposed in the coming years. This information will help to direct future research using NPMS plant community data, highlighting where volunteer-contributed information is most likely to provide insights into climate-driven changes in our most valuable semi-natural habitats. The NPMS also hopes to make the supporting climate change exposure data available to volunteers in an interactive fashion in the coming months, supplementing other geographic information already available for their adopted squares.

"Climate change will be one of the biggest drivers of ecological change over the coming decades. Sites that are regularly monitored through schemes like the NPMS give us crucial data on the UK's changing habitats, and this study's findings are invaluable for helping us understand how they relate to changes in the wider environment nationwide."

Dr Oliver Pescott,
Report Author, UKCEH

"These findings underline how crucial the efforts of volunteers are in taking the pulse of what is happening on the ground to wild plants. The abundance and diversity of plant life is changing as habitats are exposed to climate change and only through continued monitoring will we be able to mitigate and meet the challenges head on."

Dr Rachel Murphy,
NPMS Volunteer Manager, Plantlife

To mitigate the impacts of climate change, the report authors highlight the importance – and challenges – of using protected areas in highly climate-exposed habitats. They note that, although species' shifting ranges will pose difficulties for static park boundaries, these areas *"often shelter relatively intact landscapes and may be better placed to implement management interventions which mitigate the impacts of changing conditions."*

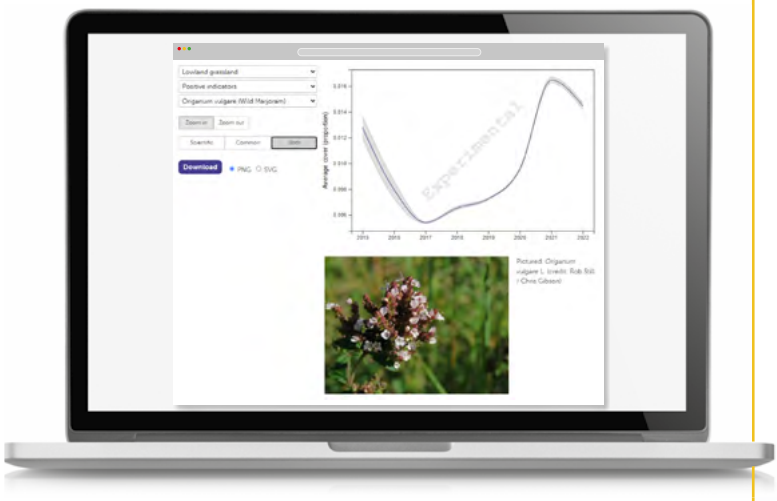
The study is freely available to download **here**, and is currently shortlisted for the 2023 Southwood Prize – An annual prize that will be awarded to one of the 12 shortlisted papers by the *Journal of Applied Ecology.* It is given to the best paper by an author at the start of their research career.

Links to the climate change exposure and other supporting data on the NERC Environmental Information Data Centre can be found on the NPMS **Conservation and research page**.

Species and habitat trend visualisations now live on the NPMS website!

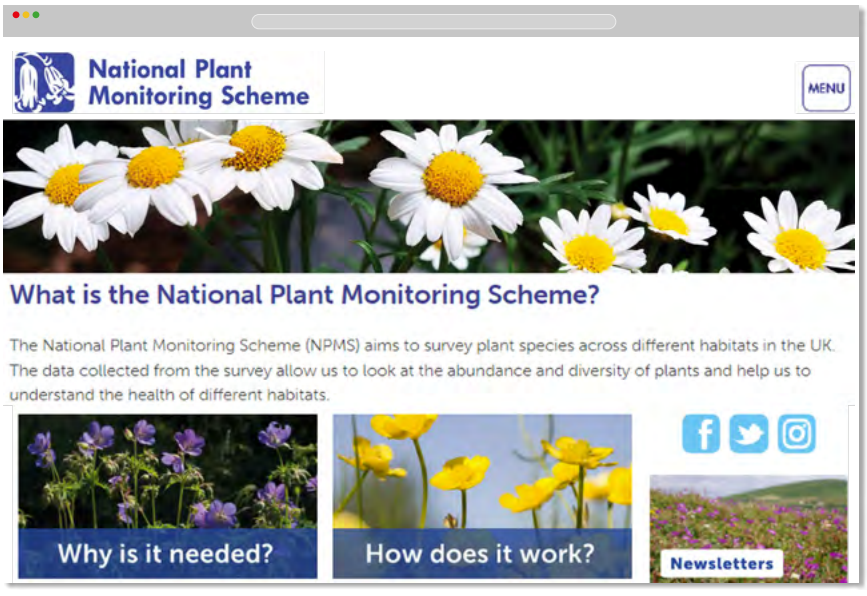
The NPMS team are very happy to announce the launch of a new page on the website (www.npms.org.uk/trends) showcasing the current trends from your data. Making the fruits of your efforts more visible is something that we have been working on for some time, and we hope that this is just the first step in bringing more interactivity to the NPMS website.

The new trends pages allow you to view the current annual abundance estimates for any positive or negative indicator species within a broad-scale NPMS habitat. We have also linked to the *BSBI Plant Atlas 2020* website (https://plantatlas2020.org) to provide photographs of all species, and all plots can be easily downloaded in two separate formats. Both scientific and common names are provided, and the trends can be viewed either "zoomed" in or out, allowing one to see year-to-year variation in detail, or to view any changes at a coarser level.



The abundance estimates currently featured are those estimated by the customised statistical model developed for NPMS data (see links on the webpage). The annual values are the mean proportional covers of species across all plots within a broad habitat category, including those plots where the species was recorded as being absent.

As discussed in last year's annual report, these estimates, which feed into the Defra/JNCC "C7 Plants of the Wider Countryside" indicators, currently reflect average species' proportions within the sampled data, but do not specifically adjust for the possibility that these estimates may be biased relative to the true national abundance of a plant within a given habitat. This is why the released plots are currently watermarked with text stating "Experimental". We look forward to releasing adjustments to the abundance estimates featured in the plots later in 2024.



The NPMS website

Digging into NPMS data I: Abundance profiles of arable indicator species

Oli Pescott, UKCEH

Alongside the announcement of our new NPMS "Trends" webpage, we also begin an occasional series on other aspects of your data. In this first instalment we look at the abundance profiles of arable positive indicator species recorded in field margins.

Arable margins are one of the most recorded habitats in the National Plant Monitoring Scheme, being widespread in the south and east of Britain, and often of easy access where they occur. However, arable habitats often receive short-shrift in books on plant communities, despite hosting numerous species of conservation concern and brightly colouring the landscape at certain times of the year. Here we look at how your data are providing new insights into the typical abundances of arable species in small areas.

As noted elsewhere in this *Annual Report*, our experimental annual trends track the average abundance of a species across plots recorded in a certain habitat type; these measures include absences (i.e. zeros). In this way the trends (and indicators based on them) allow for the expansion or contraction of habitats across our landscapes, as well as responding to increases and decreases in abundance where a species does occur. However, because such measures tend to be dominated by the fact that many species are absent from most plots in the scheme, focusing in on species' "abundances-when-present" can provide more intuitive insights into species' ecologies. The graph (page 14) accompanying this article does just this. The distributions shown for each species depict the spread of our estimates of mean annual abundances across all arable plots in the NPMS for the period 2015–2022. Abundance here is given as plot cover on the proportion scale (i.e. 0–1), although we have limited the x-axis of the plot to 0.1 (i.e. 10%), because the bulks of all species' distributions are considerably below 100% cover. The text on the right of the plot also gives species' overall observed plot frequencies for the same period ("Average yearly plot frequency"), revealing a reasonably clear correlation between species' frequencies and their in-plot abundances (the frequency of 0.00 for Wild Mignonette is the result of rounding: the species was only recorded in <0.5% of all NPMS arable plots for the period). The abundances here are estimated from the statistical model used for the annual trends; the colours used for the distributions essentially try to depict their "peakiness", with central white lines indicating median values. The plot frequencies given are simply those observed in the raw data.

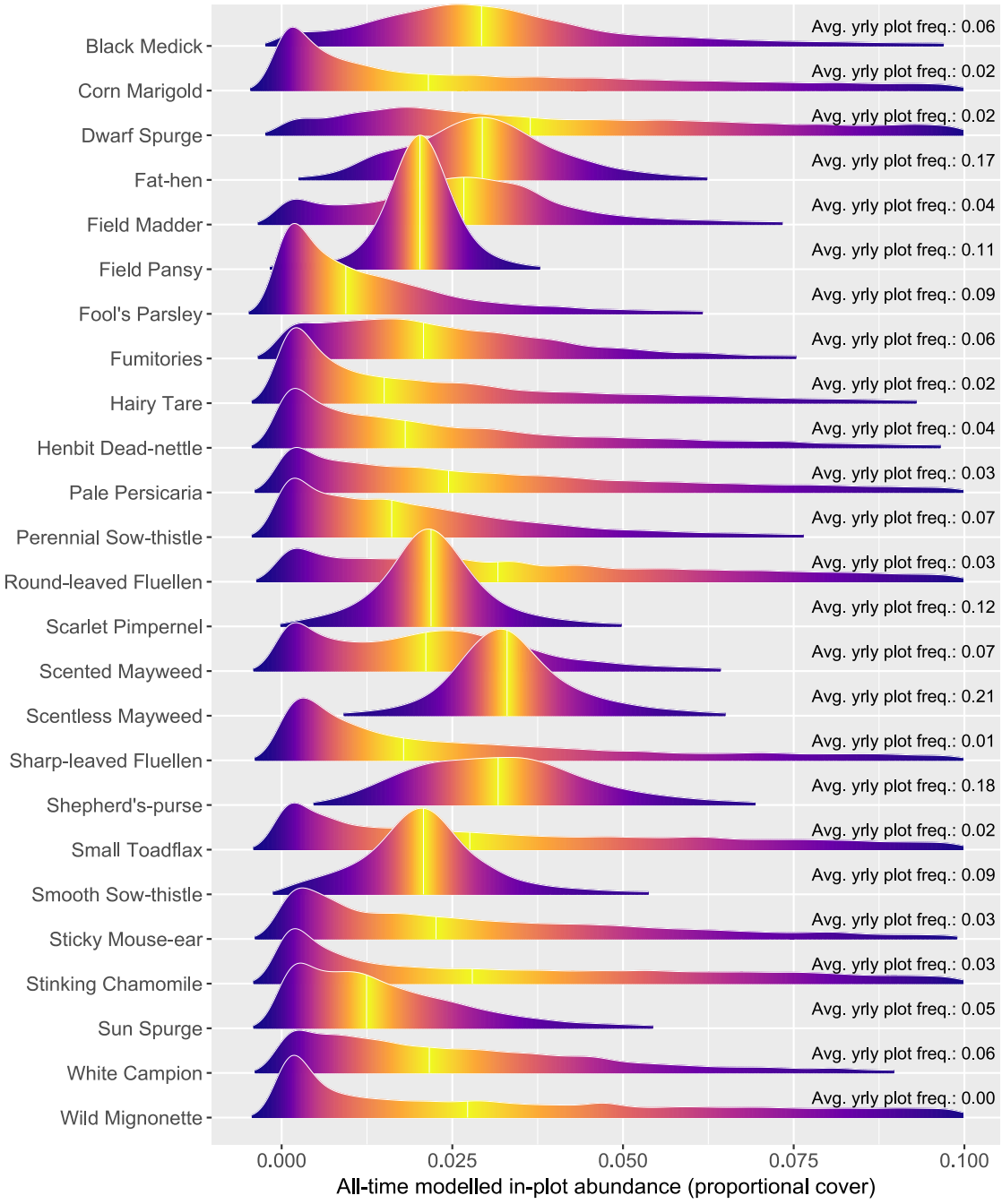
©Sarah Shuttleworth

Perhaps the most obvious conclusion from plotting the data for arable species in this way is the generally low cover—not unexpected for weeds competing with a crop for space, light, water and nutrients, not to mention occasional herbicide treatments! This is particularly clear when we compare across habitats; for example, for the "Bog and wet heath" broad habitat category, much larger cover values are found for many species, especially for perennial sub-shrubs such as Common Heather. Another clear pattern is the distinction between species with higher, less variable abundances, which appear to be well-estimated (lower variation), with those that are present in smaller amounts, with much greater variation or uncertainty. The first group includes Black Medick, Fat-hen, Field Madder, Field Pansy, Scarlet Pimpernel, Scented Mayweed, Scentless Mayweed, Shepherd's-purse, Smooth Sow-thistle, and perhaps also the Sun and Dwarf spurges. The second group includes most of the other species, including Corn Marigold, Round-leaved Fluellen and Sticky Mouse-ear. As noted, those species in the first group tend to be found in more plots as well (higher "Avg. yrly plot freq." values), especially Fat-hen, Field Pansy, Scarlet Pimpernel, Scentless Mayweed and Shepherd's-purse; that these species' mean abundance distributions appear "normal" or Gaussian also suggests a degree of stability between years, at least in terms of their typical abundances when they are found. In contrast, some species with relatively broad modelled abundance distributions (e.g. Dwarf Spurge, Pale Persicaria, Round-leaved Fluellen, Small Toadflax etc.) may occur in far more variable amounts when they are present (although some of this variation may also be due to the small number of observations, coupled with variation in how surveyors estimate Domin cover categories in the field — recall that there is a guide to approaching this within the back cover of the NPMS Survey Guidance). Expanding these results to visualise species' modelled abundances per year might help to clarify these patterns, and is something that we may add to the Trends page on the website in the coming years.

Widely available estimates of species' abundances at the plot scale are largely lacking for the British and Irish flora, although categorical distributions for different habitat types were provided for 280 species in the Sheffield region for the second edition of Grime, Hodgson and Hunt's *Comparative Plant Ecology* (2007), and the National Vegetation Classification lists the ranges of typical Domin cover classes for numerous species in different plant community types. As well as helping us to understand year-to-year changes in plant populations and community compositions, such data and model outputs can also help us to understand the extent to which plants provide resources for insects, birds and other animals.

©Luke Morton

Arable margin positive indicator species abundance profiles, with plot frequency information



Studies using or acknowledging NPMS data in 2022/2023

Botella, C., Deneu, B., Gonzalez, D.M., Servajean, M., Larcher, T., Leblanc, C., Estopinan, J., Bonnet, P. and Joly, A., 2023. Overview of GeoLifeCLEF 2023: Species composition prediction with high spatial resolution at continental scale using remote sensing. *CLEF 2023 - Working Notes of the Conference and Labs of the Evaluation Forum*, Thessalokini, Greece. pp.1954-1971.

Wilson, O.J. and Pescott, O.L. 2023, Assessing the exposure of UK habitats to 20th- and 21st-century climate change, and its representation in ecological monitoring schemes. Journal of Applied Ecology, 60(9), 1995-2006

Volunteer engagement and training

NPMS Training 2023

2023 training and engagement events, including the over-winter series:

5 in-field training events

7 methodology and data entry online sessions

6 habitat and species-specific webinars

5 interactive workshops

2 regional recording group presentations

Total: 25

NPMS videos

NPMS videos shared publicly in 2023: **6**
(plus an additional 3 provided to specific groups)

Total NPMS videos available to view publicly: **54**

Video views 2023: **13,500**

Total views 2015-2023: **39,200**

All training webinars and videos have been made available to view any time on the NPMS YouTube Channel: NPMS Support – YouTube

Most popular training 2023

Spectacular Saltmarshes webinar, with botanist Joshua Styles
Link

2023 training session attendance

878
Participants

Mentors

18 Mentors

In **7** Regions

Mentor Directory: NPMS Mentors | National Plant Monitoring Scheme

NPMS NEWS

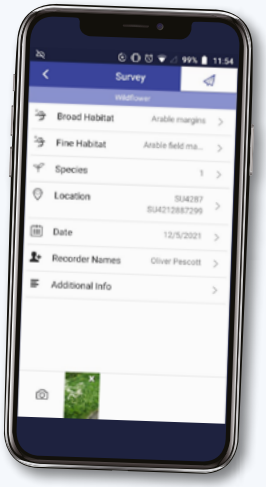
Heading into the next phase of the NPMS

2023 was a year of transition for the NPMS, with the completion of the third phase of the scheme, incorporating reviews of activities, scheme challenges and and crucially, scheme aims and work planned for the next phase. April 2024 marks an important and exciting milestone for the programme, with funding secured from the JNCC for the next 5 years, and the commencement of the fourth phase of the scheme. From scheme development to survey delivery, the NPMS has now been operating for 12 years, and 2024 will be the 10th year of field surveys. Scheme partners are excited to be evolving the scheme further and supporting the fantastic effort our wonderful citizen scientists put in year on year. The valuable information generated by dedicated volunteers improves our collective understanding of changes within species and habitat distribution across the UK over time.

The NPMS team are also looking forward to continuing to work with the other partners of the JNCC UK Terrestrial Evidence Partnership of Partnerships (TEPoP) to share best practice, including development and maintaining scheme Equality Diversity and Inclusion aims, consider common issues affecting monitoring schemes, and support the cross-cutting Terrestrial Surveillance Development and Analysis (TSDA) project.

NPMS app development

Various updates to the security requirements of the app stores have meant that it is time to update our app. We are taking this opportunity to provide support for our sister project, the "Plant Portal" website, which includes NPMS+, our project for local or regional applications of the National Plant Monitoring Scheme methodology. We hope to have a beta version ready for testing in the late spring, and hopefully a full launch by the end of the summer. Watch out for requests for beta testers! Thank you to the Defra Natural Capital and Ecosystem Assessment program for funding this work.



NPMS support and coverage in Northern Ireland

Jen Farrar, the BSBI Botanical Skills Officer in Northern Ireland, is now in post and settling into their new role well. This new role was made possible thanks to funding from the Department of Agriculture, Environment & Rural Affairs' (DAERA) Environment Fund for a project to grow botanical skills and evidence for nature recovery in Northern Ireland. Jen is responsible for developing, delivering, and facilitating a range of botanical training events and opportunities suitable for all skill levels, and supporting the National Plant Monitoring Scheme in Northern Ireland.

As a new NPMS mentor in Northern Ireland, Jen is intending to hold training events and informal meetups for volunteers, both existing and new, throughout the year ahead. Training events will be a mixture of How to Set Up Your Square days for new volunteers, Habitat Specific training in a range of habitat types, focussing on indicator species and fine habitat recognition, and Wildflower Identification field days.

These training events will be held throughout Northern Ireland, in places where suitable, accessible sites for the various types of training exist. We welcome this improved support for volunteers in Northern Ireland and are optimistic that the scheme will see great coverage in Northern Ireland in coming seasons.

©Jen Farrar

▲ Dune heathland with Gorse (*Ulex europaeus* and Western Gorse (*Ulex gallii*) growing with Calluna, Hawthorn and brambles

For enquiries regarding NPMS training and surveys in Northern Ireland, Jen can be contacted at jen.farrar@bsbi.org or on 07395 202 879.

Department of Agriculture, Environment and Rural Affairs
An Roinn Talmhaíochta, Comhshaoil agus Gnóthaí Tuaithe
Department of Fairmin, Environment an' Kintra Matthers
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An tSeirbhís Foraoisí

NPMS support team

We are also pleased to share that with the commencement of the next phase of the NPMS, Karen Fisher will be continuing her role with the NPMS support team permanently as Volunteer Support Officer. Karen will continue working alongside Volunteer Manager Rachel Murphy, directly supporting NPMS volunteer engagement, queries and communications.

Karen Fisher,
NPMS Volunteer Support Officer

Thank you!

Thank you to all the dedicated NPMS volunteers. Without their significant efforts over the last 9 years, the scheme and research carried out would simply not be possible. Also thanks to all the stakeholders who have supported the NPMS in recent years and have organised or attended workshops across the UK, including: The Department of Agriculture, Environment and Rural Affairs, Northern Ireland (DAERA-NI), National Trust, Natural England, Ministry of Defence, Chilterns AONB, Yorkshire Dales National Park, South West Scotland Environment Information Centre and Cairngorms National Park. Also, all the AONBs, National Parks and Record Centres who have promoted and supported the scheme.

National Plant Monitoring Scheme

To discuss the scheme, how data are used or volunteer involvement, please contact support@npms.org.uk

Full list of NPMS publications:
www.npms.org.uk/content/conservation-and-research

www.npms.org.uk

07711 922098

Facebook: https://www.facebook.com/National-Plant-Monitoring-Scheme

X: @theNPMS

Instagram: @the_npms

NPMS App available to download for Apple: https://apple.co/2HTySPJ
and Android: http://bit.ly/2VkOdRf

Design: evansgraphic.co.uk

National Plant Monitoring Scheme (2024). *NPMS Annual Report 2023*, NPMS Partnership, Salisbury.

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Botanical Society of Britain & Ireland

JNCC

Plantlife

UK Centre for Ecology & Hydrology