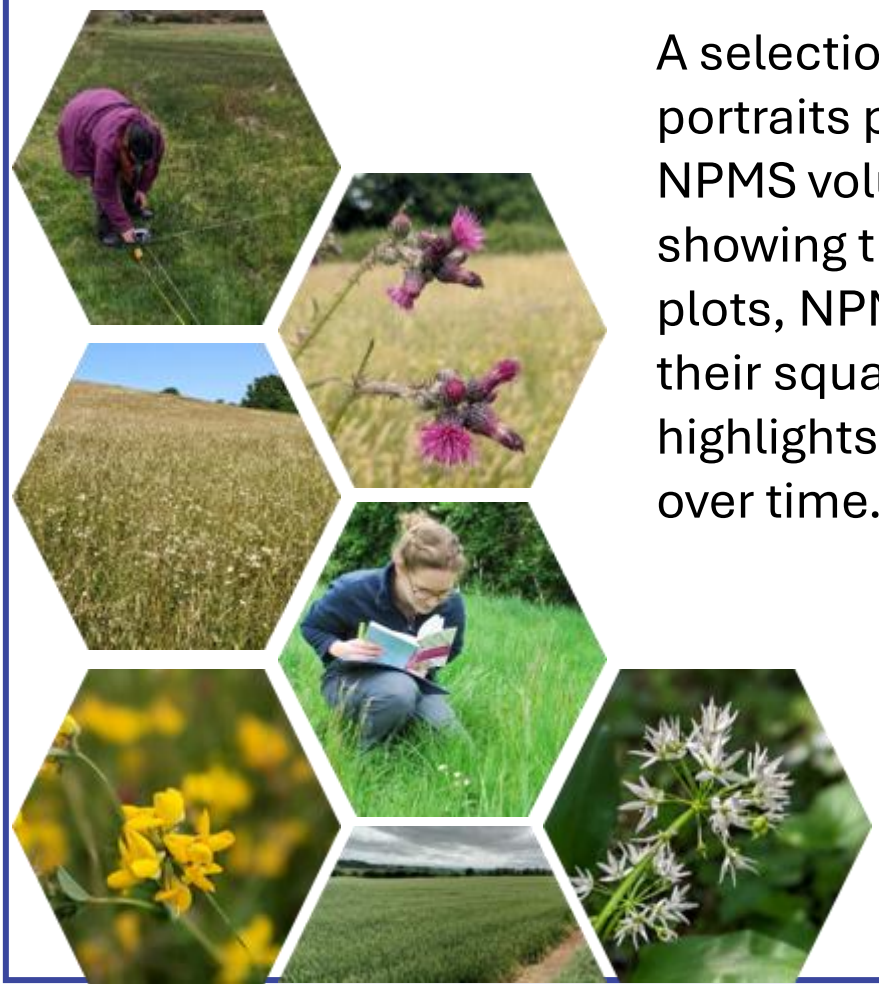
National Plant Monitoring Scheme

CELEBRATING **10 YEARS** AMONG THE WILDFLOWERS

NPMS Plot Portraits



A selection of plot portraits produced by NPMS volunteers showing their survey plots, NPMS habitats in their square, species highlights, & changes over time.

NPMS TEN YEARS AMONG THE WILDFLOWERS

Plantlife | UK Centre for Ecology & Hydrology | Botanical Society of Britain & Ireland | JNCC

National Plant Monitoring Scheme

CELEBRATING **10 YEARS** AMONG THE WILDFLOWERS

Plot Portrait
by Michael & Catherine Pettipher

Survey location:
Lancashire

NPMS TEN YEARS AMONG THE WILDFLOWERS

Plantlife | UK Centre for Ecology & Hydrology | Botanical Society of Britain & Ireland | JNCC

Changing Plots

We have surveyed 10 plots. 5 at a private site and 5 on open moorland. 5 of them have been continually managed in some way. 1 was initially managed but the management stopped after about 3 years. 4 have not been managed, apart from fencing around one to exclude livestock grazing.

The management of plots on the private site was essentially incidental – the plots were near tracks that needed to be maintained, so they were cut to ensure the tracks remained usable. These plots remained fairly stable. There has been some variation in the flora seen but no obvious trend.

The management of the moorland plots has included burning and cutting/crushing. Without this the sites would have quickly changed probably to birch woodland. One plot has remained fairly stable, but scarcer species such as crowberry and cross-leaved heath disappeared after some management, and subsequently returned. Currently they have disappeared again.

19/08/2019. Deep, flourishing heather.

15/06/2025. After management to encourage new growth – it is expected to return to the state in the previous photo.

The other managed, moorland plot is linear next to a small watercourse. Some of this has become wetter now with moss dominating, while elsewhere nearby rosebay willowherb is encroaching. The management will limit any major changes, but gradual changes may occur, particularly resulting from water level variations.

The unmanaged plot at the private site is predominantly mature woodland with dogwood understorey. The dogwood continues to become much denser despite the closed canopy. The most interesting flora is broad-leaved helleborine which has increased slightly during the monitoring.

One unmanaged plot on the moorland is oak/birch woodland, with purple-moor grass and bracken dominating the ground. This has hardly changed. Another is a linear heathland plot, dominated by bracken. Heath bedstraw has persisted but perhaps now reduced a little. Marsh thistle and congested woodrush are both increasing.

17/08/2024. Purple Moor-grass forever!

The last unmanaged (except for fencing to exclude grazing livestock) plot is by far the most stable – about 95% Purple Moor-grass, with tiny amounts of Deer Grass, Bilberry and Wavy Hair-grass. Occasional Heath Rush and other grasses have been seen.
The photo could have been taken at any time during the surveying, between 2015 and 2025.

In the plot at the private site which was originally managed and classified as grassland, we initially identified about 17 species. A bee orchid was found in a later year. After management stopped it gradually developed taller, denser areas of fewer grasses, with bramble and alder trees taking over. Eventually we could no longer survey and the plot was abandoned.

04/06/2015. Grassland plot. 17 species identified,

28/06/2016. Bee orchid found in the plot only in this year.

21/08/2018. Becoming overgrown.

20/08/2020 – Plot abandoned!

Note: Additional activity and work at the private site has resulted in access restrictions so unfortunately no further surveying is possible.

Always Something to Learn

Having visited moorlands for many years with flower books, we thought we were very familiar with the plants that we might encounter in ours plots. However doing the surveying made us realise we normally only try to identify a plant when it is in flower, with the flowers similar to the photos or diagrams in the books. However even familiar plants can be difficult to identify not only when not in flower, but also when the flower is not fully developed. Here is one example (of many):

	
18/06/2019. The leaves should give this away, but the flower is so unfamiliar. Is it damaged or galled?	08/06/2020. Returning at a different time shows the familiar flower of Cross-leaved Heath, along with the earlier form.

We have never seen the earlier stages or Cross-leaved Heath shown in any book. Incidently when trying to identify plants without flowers we have found 'The Vegetative Key to British Flora' by John Poland, an invaluable resource. It may appear daunting initially, but it is surprising how easily many species have keyed out.

Catherine and Michael Pettipher
12th October 2025

National Plant Monitoring Scheme

CELEBRATING **10 YEARS** AMONG THE WILDFLOWERS

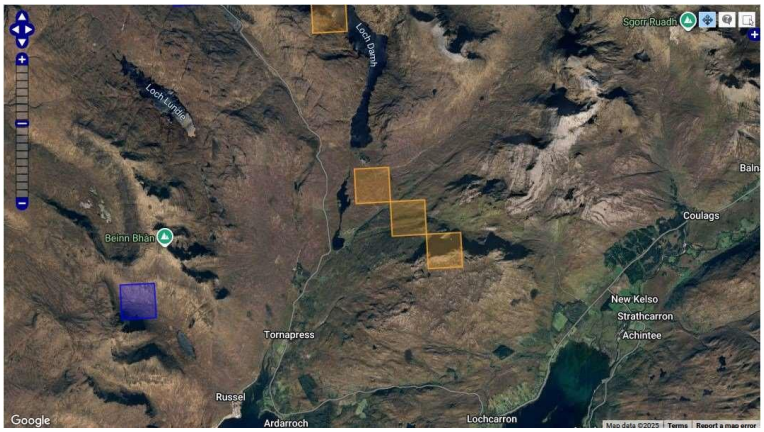
Plot Portrait
by Nic Bullivant

Survey location:
North-West Highlands,
Scotland

NPMS TEN YEARS AMONG THE WILDFLOWERS

Plantlife | UK Centre for Ecology & Hydrology | Botanical Society of Britain & Ireland | JNCC

3 mountain plots on Sgurr a'Gharaidh, Wester Ross



From access point by Loch Damh in NW
Plot 1: NG8646, low, boggy moor, rivers
Plot 2: NG8745,woodland, limestone
Plot 3: NG8844, crags, scree, summit.

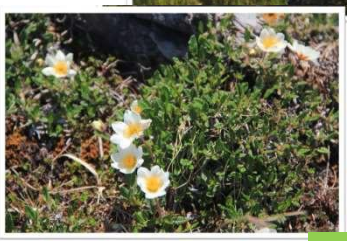
Mountain plant monitoring:
The season starts late, finishes late.
Wind and rain make surveying impossible.
Surveyor needs mountain skill and to cope with remote working.
Any changes to habitats are very slow.
Monitoring is in for the long haul. A return period of 20 years or more is not too long.
Land-use is deer stalking and sheep-grazing: Extensive and light touch.

Visits to
Plot 1 2021, 2022
Plot 2 2021, 2023
Plot 3 2022, 2023

Plot 2: 'Moribund' birch woodland with limestone pavements beyond.

Plot 3: Mountain slope with rock faces , scree. Position of sample site 3 shown on scree. Not visible: Summit and hill lochan.

Walk in, walk out:
Plot 1 30 / 45 mins
Plot 2: 60/90 mins
Plot 3: 100 mins.



Mountain avens (*Dryas octopetala)* June 2022

Survey times:
Plot 1: 2 – 3.5 hrs
Plot 2: 3 – 4 hrs.
Plot 3: 3h 30min

Northern Autumn Gentian (*Gentianella amarella* ssp. *septentrionalis*) August 2023

Possible causes of change:

1. Fire. (All three plots)
2. Increase or decrease in grazing pressure. (All three plots)
3. Climate change. (All three plots)
4. Tree-planting and natural regeneration. (Plot 1, 2)
5. Decrease in vehicle traffic. (Plot 1)
6. Riverbank erosion. (Plot 1)
7. Woodland decline (Plot 2)
8. Bracken encroachment. (Plot 2)
9. Increase in recreational traffic and trampling by walkers or climbers. (Plot 3)
10. Increase or decrease in deer movements affecting stability of steep ground. (Plot 3)

Pleasant surprises:

* Finding a swathe of limestone across Plots 2 and 3 which considerably diversified the flora and produced some dramatic sinkholes on the surface.
* Fairy flax, Mountain avens and Northern Autumn Gentian.
* Being able to make a sample point by the summit cairn at 730m.
* Meeting the landowner, explaining the purposes of the survey and being assured that he doesn't plan any changes of land use.
* Seeing him contradict himself with new tracks and considerable reductions in impacts from all-terrain vehicles.

n

National Plant Monitoring Scheme

CELEBRATING **10 YEARS** AMONG THE WILDFLOWERS

Plot Portrait
by Michelle Thomasson

Survey location:
Sussex

NPMS TEN YEARS AMONG THE WILDFLOWERS

Plantlife | UK Centre for Ecology & Hydrology | Botanical Society of Britain & Ireland | JNCC

National Plant Monitoring Scheme

CELEBRATING **10 YEARS** AMONG THE WILDFLOWERS

Michelle Thomasson

Coastal Habitat Plant Surveys on Sussex chalk coastline

Currently, I survey 5 plots near to the **Undercliff Walk, at Saltdean**. I began surveying in Gloucestershire in 2009, initially for Plantlife on calcareous grassland, then NPMS began.

When we moved near to the Sussex coast, my NPMS plots changed to this dramatic coastline. I now have **two 5m square plots on shingle beach (SSSI).**

The resilience, ingenuity and sculptured beauty of these plants as they meet the sea can be breathtaking!

My **two linear plots: foot of the cliff**, the chalk cliffs and foreshore down to low tide is also included in the SSSI. **My other linear plot is above the cliff**, inside the fence line, next to the England Coast Path.

I also have **one 5m square plot set back from the cliff** edge within the cliff top chalk grassland.

This narrow band of grass between the cliff edge and road, has a maritime influence near the cliff edge. The grassland, as part of a SSSI, is managed by minimal cutting and mowing. There are some garden escapes such as red valerian, *Centranthus ruber* and sea daisy, *Erigeron glaucus*.

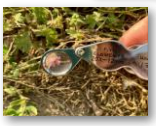
Map 1910 before the Undercliff Walk and groynes were built.

The High tide water mark is shown with a thin blue line, the low tide mark is in highlighter pen. The beach used to be only 10m wide at high tide, now this highly engineered beach is 35m wide during high tide.

Walkers and cyclists can use the Undercliff Walk, but they have to be aware of the chalk and flint pieces that may fall. The Undercliff Walk is part of Brighton & Hove's coastal defences, built 1931-1935, to protect the chalk cliffs from erosion.

The sea can be tempestuous, sometimes waves spill over the walk wall, especially during high tides and stormy weather, this can also uproot plants on the shingle and at the base of the windy cliff.

The foot of the cliff is usually dry and suffers heavy sea damage during storms, yet the plants reappear. Rock Sea Lavender is a master at finding a survival niche.



Plantlife

UK Centre for Ecology & Hydrology

Botanical Society of Britain & Ireland

JNCC

National Plant Monitoring Scheme

CELEBRATING **10 YEARS** AMONG THE WILDFLOWERS

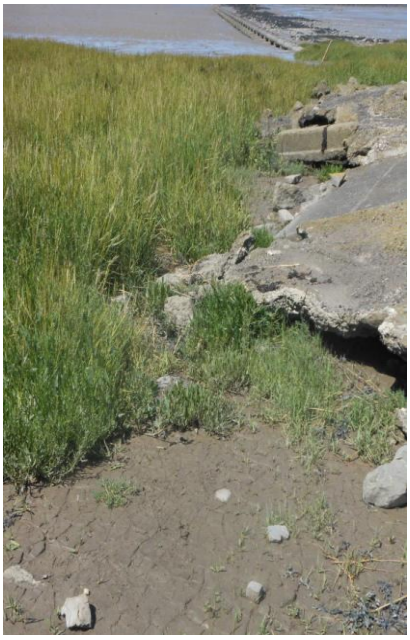
Plot Portrait
by Neill Talbot

Survey location:
Bristol

NPMS TEN YEARS AMONG THE WILDFLOWERS

Plantlife | UK Centre for Ecology & Hydrology | Botanical Society of Britain & Ireland | JNCC

Severn Beach, Bristol – coastal saltmarsh surveys 2016-2025 and beyond



Glaux maritima
Sea-milkwort

Limonium vulgare
Sea-lavender

Spergularia media
Greater Sea-spurrey