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NPMS guidance and training materials

All the guidance booklets for the NPMS are available as PDFs on the NPMS <u>resources page</u>. As well as technical guidance on how to carry out the survey, this page includes the <u>NPMS Species Lists</u>, which give the positive and negative indicators species we would like you to record for the Wildflower and Indicator level surveys, and the <u>Species Guide</u> of which volunteers also receive a hard copy.

The NPMS team have developed a programme of <u>online training materials</u> that can be accessed at your convenience, covering themes you may be interested in learning more about, or to use as a refresher — from NPMS methodology to habitat ID. We also offer a programme of live <u>Training Webinars</u> that are available for volunteers to register on. Check <u>the link</u> to see what's available and see our <u>YouTube channel</u> for a complete set of recorded webinars!

We don't expect volunteers to buy any reference books, but you may find some of the following books and websites useful!

Species identification

Field Guides

We list below some of our favourite picture guides, many of which were reviewed in more detail for the Botanical Society for Britain and Ireland (BSBI) <u>here</u>.



• The Wild Flower Key: How to identify wild flowers trees and shrubs in Britain and Ireland. (Francis Rose, revised by Clare O'Reilly). Warne, 2006.

An excellent reference combining good illustrations and descriptions together with comprehensive keys. List of words used in the keys is the at the back.

• Collins Wild Flower Guide, 2nd Edition. (David Streeter, C. Hart-Davies, A. Hardcastle, F. Cole & L. Harper). Collins, 2016.

This has a useful combination of descriptions, illustrations, and keys (from family level downwards). Also includes grasses, sedges, rushes, and ferns.

• Wild Flowers of Britain and Ireland (Marjorie Blamey, Richard Fitter and Alistair Fitter) Bloomsbury, 2013.

With lovely illustrations, combined with mini distribution maps, this also features information about grasses often omitted in other similar books.

 Harrap's Wild Flowers: A Field Guide to the Wild Flowers of Britain and Ireland. (Simon Harrap). Bloomsbury, 2013.

The use of photographs rather than illustrations, and the species distribution maps, can be very helpful, especially if used in conjunction with the keys from other guides.

• Field Guide to Grasses, Sedges and Rushes. (Dominic Price). Species Recovery Trust, 2016.

Features over 100 species with photographs, grouped by habitat and focusing on key features.

Online resources

There are extensive links to video clips and other guidance to help you identify indicator species in the 'supporting links' document available for each broad habitat on the <u>NPMS online training page</u> (and see below). The <u>NPMS Species Identification Crib</u> also gives guidance on some particularly tricky indicator species, namely the Mayweeds and Chamomiles, Prickly Lettuce, Trifid Bur-Marigold and Small Cudweed (Asteraceae), Yellow Archangel (Lamiaceae), Buckthorn (Rhamnaceae) and Common Cornsalad (Valerianaceae).

It is well worth having a browse on the BSBI's excellent pages on <u>plant identification resources</u>, both for <u>beginners</u> and <u>experienced botanists</u> which include the more comprehensive and complex field guides, floras and <u>handbooks for difficult plants</u>, as well as lots of links to other websites and resources. The BSBI also lists <u>local botanical groups</u>, many of whom have wonderful websites of their own containing ID help and lots of lovely photos, which can be very helpful whether you are in their area or not. Great examples include the <u>Flora of East Anglia: An Identification Guide</u>, <u>Flowers of Lanarkshire</u> and the <u>Norfolk Flora Group Resources page</u>. Other local groups instead use Facebook, such as the <u>Société Jersiaise Botany Section</u>, who post beautifully annotated photos of Jersey flora.

The <u>Plant Atlas 2020 website</u> provides 10 × 10 km grid square distribution maps for 3,495 species, alongside expert accounts of their national status, habitats, biogeography, phenology and trends. Based on over 30 million records collected over many decades by voluntary recorders of the BSBI, this is a truly incredible resource that is highly recommended for any botanist to explore.

Social media support

The BSBI can help with plant ID on X (Twitter), Instagram or Facebook (with pages for Britain and Ireland), and you can get involved with Wildflower Hour between 8-9pm every Sunday on X (#wildflower hour; which you can also follow on Facebook or Instagram). The BSBI also recommend the beginner-friendly Wild Flowers of Britain and Ireland Facebook group for help with identifying wildflowers, and another similar group is British Wildflowers.

Hand lenses

An incredibly useful piece of equipment for any botanist is a hand lens, but the quality of those available online does vary, and the cheapest ones don't always give the magnification they state. The NHBS guide to hand lenses is very helpful, and the BSBI give some recommendations including a link to a helpful video on how to use a hand lens.

Habitat information

Habitat-specific information can be found on the <u>NPMS online training page</u>, which includes for each broad habitat an introductory presentation, a list of supporting links, and an introductory video presentation. Links to these are also given available below, along with links to additional webinar recordings for each habitat and any Habitat Hotspot articles from previous <u>NPMS newsletters</u>.

For a comprehensive overview of the wildlife habitats of Britain and Ireland, <u>Britain's Habitats A Field Guide to the Wildlife Habitats of Great Britain and Ireland</u> is available in a handy field-guide format. We have provided a table to show the correspondence between the NPMS habitats and those described in the book <u>here</u>.

Arable field margins

- Training aims, introduction & supporting material
- Introduction to Arable Field Margins with Hannah Gibbons

Bog & wet heath

- Training aims, introduction & supporting material
- NPMS Introduction to Bog and Wet Heath
- Bog and Wet heath Identifying the fine scale habitats
- Closer look at wet heath and the species within

Broadleaved woodland, hedges and scrub

- Training aims, introduction & supporting material
- Introduction to Broadleaved Woodland
- A closer look at Dry Deciduous woodland
- Plantation woodland (article on pp. 4-5)

Coast

- Introduction & supporting material
- NPMS Introduction to Coastal Habitats with Ben Averis
- A closer look at Sand dunes and indictor plants
- Spectacular Saltmarshes with Joshua Styles: NPMS
- NPMS: Maritime cliff tops and slopes with Ben Averis

Freshwater

- Introduction & supporting material
- NPMS Introduction to Freshwater Habitats
- Freshwater habitats (article on pp. 3-5)

Heathland

- Training aims, introduction & supporting material
- NPMS: A closer look at lowland dry heathland
- Heathlands (article on pp. 6-8)

Lowland grassland

- Neutral damp/pastures/meadows training aims, introduction & supporting material
- Dry calcareous grassland <u>introductory presentation</u>
- Dry acid grassland training aims, introductory presentation & supporting material
- NPMS Introduction to Lowland Grassland Neutral Damp & Neutral Pastures and Meadows
- NPMS Introduction to Lowland Grassland Dry Acid Grassland & Heathland
- A Closer look at Neutral Grasslands
- Grasslands in late summer (article on p. 5)
- Lowland grassland (article on pp. 8-9)

Marsh & fen

- Training aims, introductory presentation & supporting material
- NPMS Introduction to Marsh and Fen
- Flushes (article pp. 2-4)

Native Pinewood and juniper scrub

- Training aims, introductory presentation & supporting material
- NPMS Introduction to Pinewood and Juniper Scrub

Rock outcrops, cliffs & screes

- Training aims, introductory presentation & supporting material
- NPMS Introduction to Rock Outcrops, Cliffs and Screes

Upland grassland

- Training aims, introductory presentation & supporting material
- NPMS Introduction to Upland Grasslands
- NPMS: A closer look at Montane acid grassland
- A guide to NPMS habitats dry acid grassland
- NPMS: A closer look at Dry acid grassland
- Montane calcareous grassland (article on pp. 3-6)

Useful general mapping resources

Where's The Path is useful for viewing an aerial photo of your area alongside the Ordnance survey map. You can zoom in on either of them, and the blue box shows the position of the map on the aerial photo (or vice versa). Use the "binocular" icon to search for a place or grid reference.

If you zoom in on <u>Streetmap.co.uk</u> you come to Ordnance Survey maps (smaller and then larger scale), and notice print icon near the bottom of the page.

You can also print from <u>Bing maps</u> - make sure you select Ordnance Survey map at the top right of the map. Another option is <u>UK Grid Reference Finder</u>, which allows you to find a postcode from the grid reference, which can be handy for entering to your Satnav!

To find out where your survey map is in relation to nearby places, type the grid reference (printed on your survey map) into the search box on any of the sites mentioned above (having checked the map looks like yours!) zoom out until nearby places appear around your square.

Although not required for the NPMS, <u>Watsonian vice-counties</u> are often used in biological recording, and if you are interested to know which your square falls in, cucaera.co.uk provides a useful <u>grid-reference to vice-county</u> function.