

Spring 2024 Sample Issue

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Botanical Society of Britain & Ireland





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Using Plant Alert as part of a gardener





Cover photo: Cakile maritima (Sea Rocket), Cornwall by David Steere; a shortlisted entry in the 2023 Photographic Competition (see p. 79).

Contributions for future issues should be sent to the Editor, John Norton (bsbinews@bsbi.org)

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BSBI News reports on new plant finds, from mountain tops and tower blocks to coastal woodlands



New altitudinal records on Ben Nevis and Ben Macdui

There have been several visits to our highest summits to gather altitudinal records of vascular plants. Ben Nevis (1345 m), the highest mountain in the British Isles, for example, has previously been visited in 2002 by Gordon Rothero, in 2014–2016 by a team of North Face Survey botanists led by Ian Strachan (Skyring, 2017; Strachan 2017), and by the author in 2008. The summit flora of Ben Macdui (1309 m), the second highest mountain in the British Isles, was systematically recorded in 2010 by a BSBI party that I was part of (Table 1).

According to the most recent Altitudes spreadsheet (Pearman, 2023), Ben Macdui holds 23 altitudinal records and Ben Nevis has 26. Given that 42 hectares of Ben Nevis's summit plateau are higher than the summit of Ben Macdui, one might expect many more taxa to be at their altitudinal limit on Ben Nevis than on Ben Macdui, even allowing for Ben Nevis' more sparsely vegetated summit. So, 1 decided to investigate.

Dan Watson and Lewis Donaghy measuring the altitude of *Alchemilla alpina* (Alpine Lady's-mantle) with a weighted length of string, Ben Nevis, September 2023. *Sarah Watts*

Method

I visited the Ben Nevis summit plateau, via the Carn Mor Dearg Arete, on 14 August 2022 and 8 September 2023 and searched systematically for vegetation above 1300 m. I chose days with exceptionally good weather, as conditions can make surveying at extreme altitudes particularly unpleasant and consequently unproductive. Much of the plateau is indeed devoid of vegetation; however, I discovered sparse vegetation at the top of the north face gullies and cliffs, around the Ben Nevis summit and its subsidiary summits, and along the Carn Mor Dearg Arete; and there were isolated patches of vegetation amongst boulders high above Coire Leis.

Herniaria glabra (Smooth Rupturewort) as a pavement weed in Surrey ... on the 7th floor!

n 7 May 2021 whilst carrying out invertebrate surveys on the green roofs on the roof of the Drake Building, a 7-storey tower block in the Trafalgar Place development, Elephant & Castle, Surrey (v.c. 17) (TQ322787) JD noticed a sprawling patch of what he suspected was Herniaria glabra

arvense (Hare's-foot Clover), but with none detected in the adjacent artificial substrate.

The origins of this scarce plant are unknown, but it is perhaps telling that it occurs close to an area with abundant *Thymus serpyllum* (Breckland Thyme) which was also much reduced during the post-2022



New naturalisations in coastal woodland of Exmoor (v.c. 5)

GRAHAM LAVENDER

Exmoor National Park (v.c. 5) has an almost unbroken strip of coastal temperate oak woodland from the Devon/Somerset boundary in the west to Porlock in the east, stretching a distance of more than 9 km. Although much is north-facing, the steepness of the wooded strip and the proximity to the sea, create a microclimate which has little or no frosts. This article is to draw attention to four naturalisations within the coastal woodland noted over the past few years, all of which seem to be flourishing.

Dicksonia antarctica (Australian Tree-fern) was recorded in 2021 as 12 plants to 2 m in height on the edge of woodland in one location. It has Dicksonia antarctica (Australian Tree-fern), December 2022. Photographs by the author

scattering of *D. antarctica* throughout the UK and Ireland, but the only concentration of records is in the southernmost tip of Cornwall¹. Given the numbers and variation in size of plants in v.c. 5 it is possible we are seeing *Dicksonia antarctica* establishing as part of the flora in this part of Somerset.

Hoheria sexstylosa (Long-leaved Lacebark) seems to be established in the oak woodland above West Porlock where there are 17 trees, all between 2m and 3m tall with a few small saplings. This species is also likely to have spread from nearby

Discover the latest evidence on how flowering times are changing



Flowering periods are getting longer: a 15-year study from a grassland-dominated common on the western border of Surrey

DAN BOSENCE

This article describes the results of 15 years I of weekly recording of flowering times on Bealeswood Common in western Surrey (v.c. 17). Just under 200 species have been recorded as first flowering dates, last flowering dates and flowering periods over the 52 weeks of the year. The total numbers of species in bloom for each week of the year shows the expected trend of increasing numbers through the late winter and spring to a mid summer maximum of between 40-80 species. The length of this midsummer peak flowering ties in with weather records and is cut short in the recent hot and dry summers. Numbers then tail off to the early winter

A more detailed analysis of 100 frequently recorded species shows that the most common pattern of flowering times is of inter-annual variability, frequent non-flowering years but no overall trends. However, one quarter of these species show, on average, a trend of increasing flowering periods over the past 15 years. This is accounted

Dry grassland community at Bealeswood Common, Surrey (v.c. 17) including Conopodium majus (Pignut) and Centaurea nigra (Common Knapweed).

for by progressively later last flowering dates over the study period, rather than the more commonly cited trend of earlier flowering dates recorded in the literature. Longer-term studies throughout the UK (e.g. Büntgen et al., 2022) report first flowering dates are one month earlier than in the 1950s and that this correlates with late winter to spring maximum

It is hoped that this study will lead to comparisons with other similar collections of records that may lead to an understanding of the underlying causes of such trends and patterns in flowering,

Bealeswood Common

Bealeswood Common is an approximately 4-hectare (just under 10 acres) site on the western fringe of Surrey, noted for its ancient grasslands. It is elongate

New Year Plant Hunt 2024

New Year Plant Hunt 2024: thousands of participants, many taking their first steps in botanical recording LOUISE MARSH

The BSBI's thirteenth New Year Plant Hunt NYPH) took place between Saturday 30 December 2023 and Tuesday 2 January 2024. It attracted a record number of participants - 3,336 volunteers - who used smartphones and an online recording form to submit lists of native and nonnative plants found in bloom in the wild during a three-hour walk at locations throughout Britain and Ireland. In total, 2,205 lists were submitted, comprising 21,096 records of 629 plant species in bloom. This total excludes 40 lists where, despite assiduous searching at altitude and/or in inclement weather, Hunts yielded no records of plants in flower.

Full breakdowns and analyses of results from this and previous years' Hunts, along with the methodology, press coverage, etc. can be found at bsbi.org/new-year-plant-hunt. You can also visit the NYPH micro-site at nyph, bsbi, org where you will find an interactive map - clicking on a marker will bring up a list of the species recorded at that location. The micro-site also features a Results page where you can see at a glance the Top 20 Longest Lists and Most Frequently Recorded Taxa.

The aim of this article, however, is to look at the differences and similarities between 2024's results and those of previous years, and to consider what the underlying reasons might be.

Similarities to previous years

In 2024, as in previous years, more species were flowering late (53%) rather than early (27%), as opposed to 20% which would either be expected to flower at New Year or are typical 'all-year-rounders'. These proportions of species flowering early, late or as expected were broadly similar to previous years, suggesting that the majority of plant species flowering out of season are 'autumn stragglers' such as Achillea millefolium (Yarrow), Jacobaea vulgaris



Members of Grow Community, Sopwell, St Albans, with Senecio squalidus (Oxford Ragwort). Image courtesy of Grow Community - Sopwell

(Common Ragwort) and Lamium album (White Deadnettle), that continue to flower in the winter.

The three most frequently recorded species were also the same as in previous years: Bellis perennis (Daisy), Senecio vulgaris (Groundsel) and Taraxacum spp. (Dandelion).

On examining the Top Twenty Longest Lists on the NYPH website and comparing them against

Articles on how to get involved, from citizen science projects to local botany groups

Local groups and their contribution to BSBI **TONY MARSHALL**

write from the perspective of one local group, that of the Central Chilterns of Buckinghamshire (v.c. 24 in part). The group was started in 2021 and it has a programme of fortnightly field meetings through the green summer period and others less frequently in the brown time of year. The original group were all resident in the area west from Great Missenden to Speen, north of High Wycombe. The meetings were led by one or, almost always, two members who could pretend to some knowledge

this gap and also allows more in-depth learning of the botany of a particular area and climate. Some events are mainly for enjoyment. Each year, for instance, we now have one event in which members are challenged to find, in a limited area, as many as possible of plants mentioned in a particular poem, starting in 2023 with the famous lines from Oberon's poem in A Midsummer Night's Dream beginning 'I know a bank whereon the wild thyme blows'. (Not only did members find all the flowers mentioned.

Great Seagrass Survey 2024

Great Seagrass Survey 2024 SEAV KATHERINE KNIGHT



eagrasses, otherwise known as eelgrasses, are Oflowering plants living fully within the marine environment. Zostera marina (Eelgrass) which is usually found subtidally, and Zostera noltii (Dwarf Eclgrass) which lives in the intertidal zone, can be found in sheltered bays and estuaries around the UK. Seagrasses may be diminutive plants, often living hidden from view, but by providing a 3-dimensional structure in an otherwise barren marine landscape, they create extremely valuable habitats, According to the Ocean Conservation Trust, a single hectare of seagrass can support 80,000 fish and 100 million small invertebrates1 such as molluses, shrimps and

The benefits don't stop there. Seagrass pumps oxygen into otherwise anoxic marine sediments, making them ideal for abundant animal life to thrive. Due to their aquatic location, much like peatlands, seagrass beds are highly effective carbon stores2. One hectare of Z marina may contain up to 380 tonnes of carbon3. Seagrass accounts for 10% of the ocean's capacity to store carbon, despite occupying only 0.2% of the sea floor. It is thought to be able to capture carbon from the atmosphere up to 35 times faster than tropical rainforests4. As well as this, seagrass meadows dissipate wave energy, aiding coastal protection and absorb nitrogen from the water column.

Like so many ecosystems, seagrass meadows are under threat. It is estimated that since the 1930s,





Seagrass (Zostera) exposed at low tide. Seawilding

that we know so little about its location and extent. The BSBI holds some of the most comprehensive records of seagrass in the UK but more information on the current distribution of seagrasses is required to ensure adequate understanding and protection.

To address this lack of data, the marine habitat restoration charity, Seawilding, and the British Sub Aqua Club, (BSAC), have teamed up to create the Great Seagrass Survey. They would like you to visit sheltered areas of coastline and estuaries and record your seagrass findings. The project has a web-based recording form where you have the options to record

ADVENTIVES & ALIENS: Using Plant Alert as part of a gardener engagement project in North West Wales

Using Plant Alert as part of a gardener engagement project in North West Wales TOMOS JONES, LISA TOTH & KATHARINA DEHNEN-



Inhroughout 2023, Plant Alert was the focus of directly with gardeners across North West Wales with the aim to identify and prevent future invasive species. This project was co-led by Coventry University and North Wales Wildlife Trust (NWWT) and funded as part of the Resilient Communities Grant programme by Natural Resources Wales. We focused on three target areas (shown below) across North West Wales (Ynys Môn, Conwy and Gwynedd). The process of choosing the target areas considered the following main criteria:

SCHMUTZ

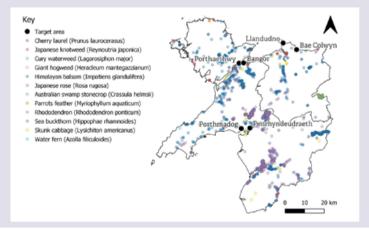
 Distribution of invasive species, specifically ones listed under long-term management in the Wales Invasive Priority Species for Action list (see below).

- · Main areas of population (2011 census data).
- · Protected sites such as SSSIs and Evri National Park nearby. We also looked at NWWT reserves.

Although the criteria were set up to be systematic in choosing the target areas, there was also an element of expert judgment (e.g. gardening interests). To engage with gardeners in these areas we organised workshops and conducted ornamental plant inventories in private gardens.

Gardeners' workshops

We delivered six interactive workshops engaging with 78 gardeners. The workshops involved: an introduction to invasive species and solutions for gardeners through the Be Plant Wise campaign of the GB Non-Native Species Secretariat and Plant



Map of North West Wales showing distribution (2010-2022) of long-term management invasive plants and the three target areas. Contains public sector information licensed under the Open Government Licence v3.0 and National Biodiversity Atlas (NBN) Atlas occurrence data.

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Other regular sections include book reviews, news and announcements from BSBI and a round-up of plant records from across England, Ireland, Scotland and Wales.

REVIEWS

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Frustrating Flowers and Puzzling Plants

John M. Warren Pelagic Publishing, London, 2024

[2023]. Pp. xiii + 290, wi drawings & char 9781784273316

ost botani the ease v can be identifie simple to difficu groups. Frustrat and Puzzling Pla 'explain why sor plants are comperplexing', to sets of tips to hand to be a 'gui lumpers'. The b novice botanist those with a bit to tackle unfam

There are five grouping taxa w similar identifica – apomicts, hyb polyploids and i with lots of spec

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23 chapters attempts to explain why a particular group is difficult; this is then broken down into smaller groups with tabular keys and sometimes thumbnail line drawings of selected plant parts and short descriptions. Some historic context and cultural information is given, followed by recommendations of how far to split each group. There is a very short glossary and an index. There is no bibliography but some references are cited in full in the text. It does not claim to cover all difficult groups and some, such as grasses and sedges, are not included at all.

To a novice, the book certainly looks tempting and accessible,

These methods can seriously affect later destructive tissue use, for instance in phytochemistry and DNA analysis, and, if such practices are used now, sheets should be annotated to record treatments. I would like to have seen rather more warning to specimen users than to simply wash their hands after using specimens.

I was pleased to see that the book deals with the subject of loans and indeed the whole business of moving specimens across international borders. Hopefully, the up-to-date information in the handbook will help stop illegal acts. I was surprised that so little

mention was made of bryophyte, lichen and fungal collections. I was also once responsible for these. Reading's extensive bryophyte collections were filed in packets in metal drawers designed for 6 × 4 inch index cards (following the tradition at the Manchester Museum) rather than mounting six or more packets on a standard herbarium sheet (and perhaps having the need to cut the sheet up later following a redetermination).

It is necessary to use the good index to find your way around this handbook; although there the northern European treatment of apomictic Hieracium and that of central Europe is that the latter attempts to explain the origins of taxa whereas the former does not; Hieracium taxonomy has never been a particular compulsion in Britain alone, and has nothing to do with Brexit (or was that supposed to be a joke?).

The second frustration arises from the over-simplification of botanical terminology, presumably to make characters more accessible to novices, and Warren often makes up his own terminology. This results in undefined terms such as 'droplet-shaped' fruits (globose or ovoid?) or 'parallel' sepals.



Woodrushes of Britain and Ireland Tim C.G. Rich

Self-published, 2024. Obtainable from the author, tim_rich@sky.com. Pp. iv + 74, with many drawings, maps and coloured photos; pbk £10, Kindle edition £7. No ISBN

Woodrushes (Luzula DC.) are an easily recognised genus and contain few difficulties in the identification of our nine native and two alien species, one extra subspecies and two hybrids.

Nevertheless, mistakes are often made by beginners, and also by those more experienced botanists who fail to examine their material with sufficient care, so this slim volume is a welcome addition to our literature.

a detailed list of the characters (including plenty of precise measurements), followed by paragraphs on identification hints, taxonomic notes, and distribution and habitats (with dot maps of the British Isles). The text is illustrated by clear line-drawings and by many coloured photographs depicting everything from habit/ habitat to close-ups of seeds, etc. The photographs are well chosen. but their reproduction in several cases is poor, being too dark or with inadequate contrast. It is not clear whether this is due to substandard originals or printing.

The only taxonomically contentious taxa are what Rich calls the L. multiflora group, which he interprets as L. multiflora, containing two subspecies, and L. congesta, which is often treated as another subspecies of the last. The fact that in Britain the distributions of L. multiflora subsp. multiflora and L. congesta coincide very closely suggests that more work would be welcome on their genetic relationship. This view is reinforced by the widespread presence of L. congesta in Ireland, where L. multiflora is represented only by subsp. hibernica. At present the relationships of these three taxa (and the other four foreign

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- A membership welcome pack which includes the three most recent issues of *BSBI News*, the BSBI Yearbook, BSBI Code of Conduct, our booklet 'So You Want to Know Your Plants' and a BSBI bookmark.
- Your password for the members-only area of the BSBI website where you can access all the scientific papers published in New Journal of Botany 2011–2017, hear about exciting volunteering opportunities for BSBI members... and much, much more.

