BSBI NEWS

## January 2023 Sample Issue

See inside for a selection of articles from *BSBI News* no. 152 and details of how to join the BSBI. Members receive three issues of *BSBI News* each year as part of the package of membership benefits.

Botanical Society of Britain & Ireland

BSBI NEWS
NEWSLETTER OF THE BOTANICAL SOCIETY OF BRITAIN & IRELAND

## CONTENTS January 2023 No. 152




Cover photo: Toothwort (*Lathraea squamaria*), Sheepleas, Surrey, March 2022. *Chris Heath.* One of the images submitted in the Spring category for the 2022 BSBI Photographic Competition. *See pp. 60 & 80.*

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

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Feature articles in *BSBI News* look at the changing flora of heathland and suburban gardens

# Changes to the heath vegetation of the Wirral Peninsula

ERIC GREENWOOD

The Wirral peninsula (v.c. 58, Cheshire) extends for 27 km (17 miles) north-west of Chester. It is 8–13 km (5–8 miles) wide and is bounded on the north-east side by the Mersey estuary, on the south-west side by the Dee estuary and on the north-west side by the Irish Sea. Running parallel to the Mersey and Dee estuaries are two low sandstone ridges. Nearest to the Mersey are Bidston, Oxton and Storeton heaths, whilst on the Dee side there are Grange Hill (West Kirby), Caldy, Irby and Thurstaston Commons and Heswall Common. Large portions of these heaths were extant in 2022 but Heswall is fragmented into the Beacons, the Dales and Cleaver Heath with smaller fragments at Poll Hill, Whitfield Common and elsewhere. As their names suggest heaths refer to flat land on acid soils supporting ericaceous dwarf shrubs such as *Calluna vulgaris* (Heather). Within this dominant vegetation there may be variation with wetter and drier parts and even localised mire and flushed areas. In areas with deeper soils farms were established within the heath, e.g. Benty Farm at Thurstaston or Dale Farm at Heswall. Burdett's map of Wirral (1777, Figure 1) shows the heaths criss-crossed by tracks.

Above: Bidston Heath in 2022 from near where Ellis took his photo (*see p. 5*). The trees have completely hidden the mill. *Barbara Greenwood*

In addition to those on the sandstone outcrops other heaths in the south-east of the peninsula include Thornton Common and Flatt Heath, Willaston, but Burdett's map indicates further fragments around Brimstage, Neston and Eastham. These heaths were situated on boulder clay overlying sandstone but so far as is known there were no rock exposures. Leaching of the basic clay must have occurred over many years to give rise to heaths, or alternatively the heaths developed on less calcareous glacial sands and gravels. Anderson (2021) described a similar situation with the development of heaths on the limestone plateau of the Peak District.

Whatever the substrate, heaths have an anthropogenic origin as grazed common lands. Without grazing they would be deciduous woodland





# The flora of a suburban garden and change over time

TONY F. MARSHALL

## The garden

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**Plate 3.** Same meadow as Plate 2 and wood edge, in June just before cutting, including *Dryopteris filis-mas* (Male-fern), *Corylus avellana* (Hazel), *Euphorbia amygdaloides* Wood Spurge, *Betula pendula* (Silver Birch), *Silene dioica* (Red Campion), *Leucanthemum vulgare* (Oxeye Daisy), *Ranunculus repens* (Meadow Buttercup), *Hypericum androsaemum* (Tutsan), *Hesperis matronalis* (Dame's-violet), *Allium roseum* (Rosy Garlic) and *A. triquetrum* (Three-cornered Garlic).

**Plate 4.** Same meadow as shown in Plate 1, June, with Oxeye Daisy, *Rumex acetosa* (Common Sorrel), *Crepis vesicaria* (Beaked Hawk's-beard) and a multitude of grass species.

action, however, is necessary if it is not to become a uniform thicket of scrub and tall grass. I have never used artificial chemicals or fertilisers. Each meadow is mown once a year, the cuttings taken off. Other than that the main pursuit is cutting back over-exuberant shrubs and other plants, of which we seem to have a lot, filling a green bin once a fortnight. (This is a good time to look out for galls, leaf-mines and micro-fungi, incidentally.) The willow is pollarded every three or four years – I leave it in between because twice it has been visited by egg-laying Purple Emperors. Each winter I intend to dig over the 'cultivated' area, but recent drought and the hard stony clay have made that very difficult. Occasional seeding or planting is undertaken when opportunity provides, but usually of native plants or

*BSBI News* offers plant identification resources aimed at both beginners and more experienced botanists

BEGINNER'S CORNER

## Making sense of mouse-ears

**MIKE CREWE**

Little Mouse-ear (*Cerastium semidecandrum*). *John Norton*

The large and highly diverse plant family, Caryophyllaceae, contains a great many species that we know as pinks, campions, chickweeds, catchflys, stitchworts and the like. Within this rather bewildering wealth of species sits a little group known as the mouse-ears, in the genus *Cerastium*.

The mouse-ears get their name from their noticeably hairy leaves, which are usually simple, rounded and do indeed look like little mouse's ears on some species. This overall hairiness sets them apart from otherwise rather similar groups such as chickweeds and stitchworts and so is a good starting point for identification.

Mouse-ears have white flowers with (usually) five styles and four to five, free petals. The petals are partly divided or notched at the tip. There are 11 species currently mapped on the BSBI website and covered in Stace's flora; three species are of higher altitude, largely confined to Scotland but also rare in Wales and Northern England; these are Alpine Mouse-ear (*Cerastium alpinum*), Arctic Mouse-ear (*C. nigrescens*) and Starwort Mouse-ear (*C. cerastioides*). Dwarf Mouse-ear (*C. pumilum*) is a rather localised native of chalky grassland from the south coast northward to the Cotswolds and Northamptonshire; Grey Mouse-ear (*C. brachypetalum*) is a rare introduction, perhaps currently known from just two locations and Snow-in-summer (*C. tomentosum*) is a common garden escape, but rather different to the other mouse-ears in having densely white-hairy stems that creep to form large patches and unlikely to be confused with the native species covered here. This leaves us with a manageable five species likely to be encountered by beginners throughout much of Britain and Ireland (though some are rather local in Ireland) with Sticky, Little and Sea Mouse-ears being the three that can be most confusing. Spring is the time to look for these little gems, with some species starting to flower as early as March.

### The five commoner species

Each of the five commoner species is described below, but it is worth first noting their habitat choice and growth style. We have two species that



## Ivy confusions?

**ALISON RUTHERFORD**

Atlantic Ivy (*Hedera hibernica*). *Michael Jeeves*

Ivy species are not sprinkled over the landscape like chickenpox spots on a human body! Only Common Ivy (*Hedera helix*) and Irish Ivy (*Hedera hibernica* 'Hibernica') occur near each other. The first is native for much of the UK mainland, while Irish Ivy is co naturalised. B (*Hedera hibernic* along a narrow Ayrshire down t sole Ivy. Irish Iv sides of the co seaboard, and east. Only in t Ivy been seen i began in the e

The map fo *hibernica*) in the a good distribu red dots (i.e. n (native) are rea It is shown as n McAllister & M

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### Ivy identification

#### Leaves

Irish Ivy (*H. hibernica* 'Hibernica') is an easy plant to spot. It passes directly from seedling leaves to the

#### Habitats

Common Ivy enjoys mortared walls, but does poorly on acid soils. Atlantic Ivy, on the other hand, is happy on acid soils and can be found among granite boulders, Bracken (*Pteridium aquilinum*) and Gorse (*Ulex europaeus*). Irish Ivy is frequently grown and widely naturalised. It is found in hedges, woodlands and garden dumping spots. It is not fussy about soils, but not found at much of an altitude.

#### Looking at the hairs

In Common Ivy, the hairs are like a sea anemone – a little stalk with the rays like tentacles bristling in all directions. In very new leaves, when the new foliage at the shoot tips have barely drawn apart, these hairs mesh together, giving a bristling, fuzzy appearance. In both Irish Ivy and Atlantic Ivy the hairs lie flat on the leaf surface, like starfish on the seabed, and the rays look like lengths of spider's web (Figure 1 & 2).

To check the hairs an 8× or 15× lens may be easier than a 20×, but try different ones and different degrees of light. It is not necessary to count the rays of the hairs to distinguish Common Ivy from Irish or Atlantic Ivy. Even with the naked eye (or in a close-up photo as in Figure 2) it is possible to discern whether the hairs are raised away from the surface or lying flat against it.

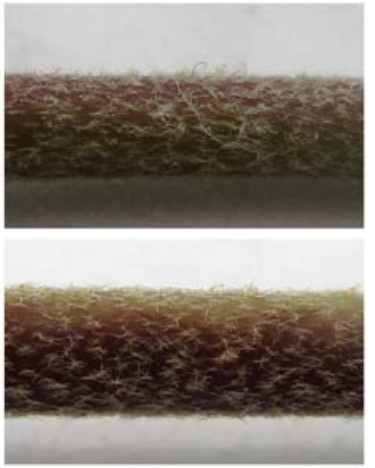

**Figure 2.** The hairs of Common Ivy (top) can clearly be seen rising from the surface, making it look 'hairy'. The hairs of Atlantic Ivy and Irish Ivy (bottom) are flattened. *Michael Philip*

this is the only chance of reaching that area, put the cuttings in cold water for half an hour before preparing them.

*BSBI News* reports on the latest plant finds from across Britain & Ireland: from new county records of native species to recent discoveries of escaped and naturalised plants.

# ADVENTIVES & ALIENS

## Adventives & Aliens News 28

**Compiled by Matthew Berry**
Flat 2, Lascelles Mansions, 8–10 Lascelles Terrace, Eastbourne, BN21 4BJ
**m.berry15100@btinternet.com**

It is with considerable pleasure that I include a record for *Sagittaria subulata* (Narrow-leaved Arrowhead) at Shortheath Common (v.c. 12), after having previously reported its very probable extinction at the site in 2017 (see Adventives & Aliens News 11, preamble, *BSBI News* 135: 67).

Similarly, it was a considerable relief to see a couple of very recent records for *Carduus pycnocephalus* (Plymouth Thistle) at Plymouth Hoe (v.c. 3) in the BSBI Distribution Database (DDb), after what seemed to be a bit of a scare c. 2016 (see Adventives & Aliens News 10, preamble, *BSBI News* 134: 40).

The only other point I would make concerns *Chenopodium berlandieri* (Pitseed Goosefoot). There is some small suggestion that it might be on the increase (see v.c. 56). To make sure it is not evading detection as 'odd' *C. album* (Fat-hen) the careful microscopic examination of fruiting perianth and seed testa will be necessary.

*Papaver atlanticum*, Northam, North Devon (v.c. 4). *Bob Kirby*

### V.c. 3 (S. Devon)

*Nigella hispanica* L. (Fennel-flower). Newton Abbot (SX847728), 16/6/2022, R. Smith, J. Day & P. Sansum (det. J. Day): in a reseeded roadside below Highweek. It differs from the much more familiar *N. damascena* (Love-in-a-mist) in having flowers that lack a leaf-like involucre and follicles fused for c. two-thirds of their length (vs fused to tip); and from *N. gallica* Jordan (Pale Fennel-flower) in its densely glandular follicles and larger flowers (4–5 cm vs 2–3.5 cm) that are bright blue (vs pale blue to whitish). The only 'modern' record I can find details for is one on a Guildford refuse tip (v.c. 17) from 1975, Leslie (1987). A bird-seed casual, it has also been a garden annual and can presumably be a constituent of wild flower mixes. Clement et al. (2005): 9.

*Aptenia cordifolia* (Heart-leaf Iceplant). Dawlish (SX96587689), 19/8/2022, P. Pullen (conf. I. Bennallick & D. Cann): naturalised on sea cliffs. New to v.c. 3. A perennial, S. African succulent (Aizoaceae) of spreading habit that has ovate, papillose leaves and purplish-red flowers up to c. 2 cm across. A not frost hardy garden plant established in coastal sites





## *Artemisia austroyunnanensis* Y. Ling & Y.R. Ling ('Giant Mugwort') in v.c. 16 (West Kent)

**RODNEY BURTON**

At a meeting of the Kent Botanical Recording Group, led by Sue Buckingham and myself, on 4 August 2016, 13 members assembled in the private car park of a shooting club near the northern corner of Dartford Marshes (v.c. 16, W. Kent). Because of its remoteness this area had few recent records compared with the Crayford side of the tidal river Darent which has a much used right of way, but it was known to have several habitats with great potential. The car park was not one of these habitats, and I was eager to leave it, but one extraordinary plant commanded attention. Its great height and width were evident in comparison with *Helminthotheca echioides* (Bristly Oxtongue) and *Tripleurospermum inodorum* (Scentless Mayweed) in front of it (*see photo*), but the detail of the capitula and foliage showed that it was closely related to *Artemisia vulgaris* (Mugwort). Just as the party was about to move off, I discovered a much smaller and evidently younger specimen perhaps 60 metres away, presumably a seedling, which indicated the branching pattern of the plant. It was single-stemmed for about 15 cm, then immediately forked two or three times into branches growing almost horizontally for a short distance before turning to vertical. Presumably further branching of the plant will result in its shape at anthesis.

I had already made the acquaintance of Filip Verloove before he published an account of Chinese *Artemisia* species naturalised in the Benelux countries, so it was to him that I sent photographs of the unknown plant as email attachments, and Sue sent a pressed specimen by post. He was probably far away collecting specimens for the Belgian national herbarium, and I can forgive him for his failure to connect the two items lurking in his inbox and in-tray. As a precaution, I went back to the car park on 27 October to collect more specimens, which I was unable to do because all plant material there had been removed. Instead there was a tarmac surface covering the entire area of the car park.

The main plant of *Artemisia austroyunnanensis* at Dartford Marshes (v.c. 16), 4 August 2016. *Liam Rooney*

Much later I began my search for a name for this plant. No European species came anywhere near fitting, and it was only when a kind friend told

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

Compiled by Clive Stace, Book Reviews Editor

Appletree House, Larters Lane, Middlewood Green, Stowmarket, IP14 5HB

**cstace@btinternet.com**




**Where the W Grow**

**Leif Berswede**

Hodder & Stoug 2022; pp. ix + 3 coloured photog ISBN 978152934

Recent publi the harmful change has led awareness of th wildlife, and of t sustained in nat high proportion now lives in an and has little in the countryside that there is a g of knowledge o environment.

Leif Bersweden an interest in pl age, with a spec local Wiltshire fl botanise at ever puzzling out the flowers he found the reappearan through the sea known to many as the author of

*Hunter*, an account of his journey around Britain to find all of our native orchid species within the space of one year. Later, his studies completed, he resolved to visit all the special wildflower habitats in Britain and Ireland.

useful societies to join (the BSBI gets a special mention as 'the first organisation to become familiar with').

Overall, the book is an engaging and enjoyable read. It would make a good present

COUNTRY ROUNDUPS

Compiled by Pete Stroh

**peter.stroh@bsbi.org**

## ENGLAND

Having been invited to write the report for this issue of *BSBI News*, we are unashamedly starting with some fern news. Firstly, it is with great excitement that we report the discovery by Louis Parkerson of a new sporophyte of *Trichomanes speciosum* (Killarney Fern) in West Cornwall (v.c. 1). Although global warming has seen the production of new plants from the gametophyte generation of this fern across its British range, this is one of only two extant populations of sporophytes in southern England (outside gardens). Another fern which is rare and declining in southern England is *Gymnocarpium dryopteris* (Oak Fern): this was found by Mark Gurney in 2016 new to Dorset (v.c. 9) and has recently been confirmed by FJR to be still present in plantation woodland near Arne. Those who attended the Irish Autumn Meeting or the British & Irish Botanical Conference will have heard Alison Evans explain her PhD project on the *Dryopteris affinis* complex (see: *bsbi.org/irish-autumn-meeting-agm* and *bsbi.org/british-irish-botanical-conference-2022*). Alison visited North Somerset (v.c. 6) with Roger Golding for two days of targeted site visits with us, during which they found *Dryopteris kerryensis* (Irish Male-fern) and *D. pseudodisjuncta*, both new to southern England. Subsequently, Lionel Pike in South Devon (v.c. 3) has had a specimen found on Dartmoor confirmed by Roger as *D. pseudodisjuncta* and has subsequently found a second plant. This species was described by Ken Trewren (2014) as the scarcest species of fern in Britain: there are now three more known plants. Lionel has been studying this critical group of ferns in depth and has also found *D. lacunosa* (Pitted Male-fern) new to Devon and a new site for



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