

SOMERSET RARE PLANTS GROUP

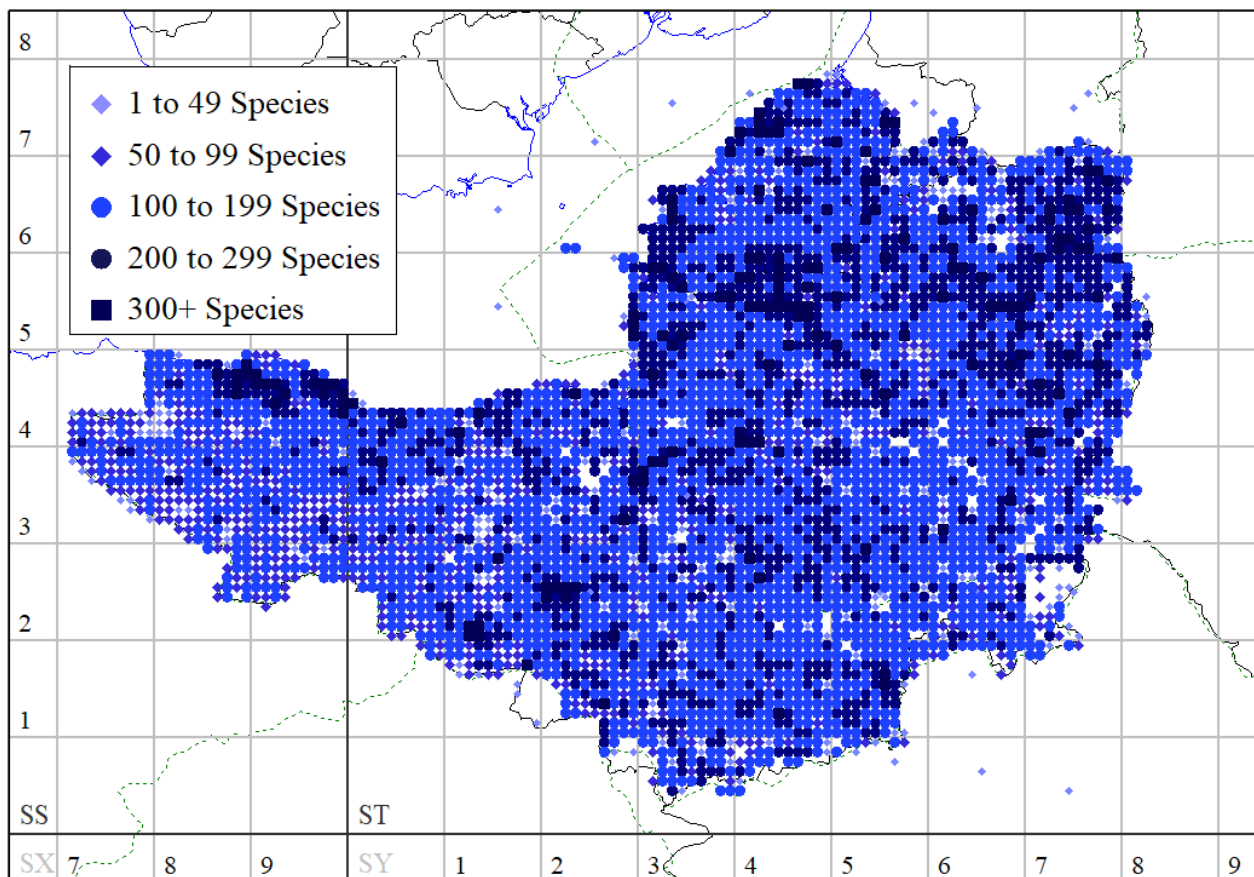
Recording all plants growing wild in Somerset, not just the rarities



2023 Newsletter

Issue No. 24

VC5 and 6 Total Species per Monad 2000 onwards



SRPG Members added a huge total of over 58,000 plant records to the database in 2023. **Source:** MapMate records

Chairman's 2023 Review

Once again, I am delighted to welcome you to the 2023 Somerset Rare Plants Newsletter. This has been first-rate year for the group. It was especially pleasing to welcome so many new members to the SRPG. Membership numbers are at an all-time high and financially the group is doing exceptionally well. The highlight of the year for me was the conference held at the end of October, celebrating twenty-five years of the group's activities by reflecting on the flora of the county of Somerset. Feedback on the event has been really good. My thanks go to the organising committee and the speakers. A wide range of botanical and environmental topics were covered. The event is covered in full in this publication. The celebratory cake was magnificent. Donations on the day covered the cost of the event. I hope we can hold similar events in the not-too-distant future.



Gill Read and Steve Parker prepare to cut the 25th anniversary cake at the conference. Photo © Karen Andrews

SRPG training and field meetings have been really well attended and have visited a wide range of habitats and exciting plants. Recording has gone well with many new records being sent to the VC recorders. As usual, these have been sent to the BSBI database. More than ever, it is vital that we continue to record the flora of the county. These data are critical in helping to understand the trends in the county's wildlife. This year the Somerset Wildlife Trust published their first *State of Nature in Somerset Report 2023*. Nearly all the information in this publication and similar reports are down to the information collected by the county's naturalists. As a group and individuals, we must carry on the work of recording and documenting our changing flora, publishing the records, training and encouraging new botanists. Keep up the good work.

The year's botanical discoveries are documented in this newsletter. I want to thank everybody who has contributed to the work of the Somerset Rare Plants Group and botanical recording in the county.

In 2024, I will be standing down as the chair of the SRPG. Of course, I will remain on the committee and still be an active member, but now is the time for others to guide the group over the next few years. Thank you everyone for all your support over many years.

Steve Parker



Our Chair Steve Parker getting to grips with fungi in the field.
Photo © Simon Leach

A Tribute to Steve Parker

Steve is thanking us when, truthfully, we should be thanking him! Ever since the Group's founding more than a quarter of a century ago, Steve has been deeply involved in SRPG. From the start – even before we had anything like a formal committee or constitution – Steve has been our *de facto* chair, happy to be the frontman at indoor meetings, never fazed or flustered, invariably good-humoured, and *always* quick to give credit to others for their contributions to the life of the Group. Under his guiding hand and watchful eye, SRPG has grown to become a real force to be reckoned with, a shining example of what a local botanical group can be.

Over many years, Steve has given innumerable talks and lectures, chaired committee meetings, and organised and led more training workshops and field meetings than you could shake a stick at. He has also been responsible for the (now legendary) winter quiz. His cheery presence and calm persistence have, at times, helped to keep the Group together, not least during the pandemic when his mastery of Zoom helped us to keep the show on the road when it might otherwise have floundered.

He has always had half an eye on the beginner, organising special events for those starting out on botany and encouraging new members to develop their botanical skills. And he has more than done his bit to ensure that botanical records made by the Group are put to good use by agencies and organisations involved in the conservation of nature in Somerset, shared with local Environmental Records Centres and fed through to the national database of the Botanical Society of Britain and Ireland, for which he is joint Recorder for South Somerset (VC5).

Steve is not just a botanist, of course, and we mustn't forget how over the years he has encouraged members of the Group to develop their interests in so many other aspects of natural history, including fungi, birds, mammals, plant galls, and various invertebrate groups.

We will miss him as Chair, of course, but we're pleased that he is continuing on the committee in his role as the 'senior' Recorder for VC5.

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Part 1: 2023 Meeting Reports



The Hunt begins: Team VC5 and Team VC6 ready to start the clock and seek flowers in the rain. Photo by anonymous bypasser.

Saturday 31st December 2022, Bridgwater New Year Plant Hunt (VC5 & VC6)

Leaders: Steve Parker & Helena Crouch

Report: Helena Crouch & Steve Parker

It is now traditional for SRPG to participate in the New Year Plant Hunt (NYPH) organised by the Botanical Society of Britain & Ireland (BSBI). This year we chose to revisit Bridgwater, a low altitude, almost coastal, urban location, with the added bonus of sitting astride the vice-county boundary, thus allowing us all to meet up, but then to split into smaller teams for a more concentrated (maybe competitive) search in each VC, reconvening at the end to compare lists. The rules of the BSBI NYPH are simple: find as many species in flower as possible within a 3-hour search. Different teams cannot combine lists when inputting them to the NYPH website, but it is interesting to note how many species we found altogether.

The forecast for the day was foul, with a Yellow Warning of rain, which put off a few members; nine of us met on the Town Bridge, and one more joined the VC6 team as we set off. The hunt was on!

Once over half-way across the bridge, Team VC6 found their first flowers, Annual Meadow-grass (*Poa annua*) and Groundsel (*Senecio vulgaris*), both consistently in

the Top Five species found each year during the NYPH. A patch of unmown amenity grassland outside Asda provided an exciting bounty of flowers, including Daisy (*Bellis perennis*) and Dandelion (*Taraxacum* sp), two of the other NYPH Top Five species: we found the fifth, Smooth Sow-thistle (*Sonchus oleraceus*) as our last species! In minutes, we reached ten species, additions including Yarrow (*Achillea millefolium*), Hoary Mustard (*Hirschfeldia incana*), Red Dead-nettle (*Lamium purpureum*), Sun Spurge and Petty Spurge (*Euphorbia helioscopia* and *E. peplus*) and abundant Annual Mercury (*Mercurialis annua*). More exciting was a single plant of Common Ramping-fumitory (*Fumaria muralis*).



Flowers of Common Ramping-fumitory.

Photo © Karen Andrews

Verges around Asda yielded a few more species, including Oxford Ragwort (*Senecio squalidus*) and White

Dead-nettle (*Lamium album*), but eventually we headed south towards older streets. Along a weedy back alley, we found a splendid Fool's-parsley (*Aethusa cynapium*) in flower, and close examination under hand lenses confirmed that Bilbao's Fleabane (*Erigeron floribundus*) was also in flower: we had already found Guernsey Fleabane (*E. sumatrensis*).



The stunning flowers of Bilbao's Fleabane. Photo © Karen Andrews

Inspired by these, we continued along the seedy back-alley, finding nothing else in flower, then headed for the churchyard of St John the Baptist. Here we met the vicar, who remembered the SRPG visiting in the previous year! She was pleased that we found a Primrose (*Primula vulgaris*) and Cow Parsley (*Anthriscus sylvestris*); we also spotted Wood Avens (*Geum urbanum*) as we left, taking our total up to a promising 27 species in flower by half-time.



Karen, Val, Fred and John relaxing in The Lunch Shack
Photo © Helena Crouch

We headed for the station, along streets of Victorian terraces, both of which proved disastrously devoid of flowers, with only three more species added. The rain set in, as did hunger, and in desperation we headed for Eastover Park. Alas there was no shelter, and almost no flowers, until a cheerful Celandine (*Ficaria verna*) revived us and we entered the adjacent industrial park.

Amazingly, while others perused the verges, the starving leader found the perfect place for lunch! Seats would have been a bonus, but hey! it was dry!

Refreshed (but still wet), we re-started our clock and set out to get wetter. In a yard, Fred found a few bedraggled heads of Annual Beard-grass (*Polypogon monspeliensis*), alas not in flower but a good record. This species has spread considerably in the last 20 years, although not as dramatically as the related Water Bent (*P. viridis*), which we had found in flower before lunch. We considered the path beside the River Parrett, but it looked bleak! On the ramp up to it though was a carpet of a slightly yellow little grass. A specimen collected had tiny pollen, and was thus confirmed as Early Meadow-grass (*Poa infirma*), another species which has expanded its range very considerably in recent years. A chickweed hurriedly grabbed with it turned out to be Lesser Chickweed (*Stellaria pallida*), with no petals, another characteristic weed of paving. Opting to explore the industrial estate, John and I were approached by two men who came out of a yard asking the inevitable question! They were genuinely interested and invited us into their yard to see their own exciting plant. We were surprised when this turned out to be a huge dead fruiting specimen of Thorn-apple (*Datura stramonium*), the first post-2000 record for this species in the hectad!



Narrow-leaved Ragwort. Photo © Helena Crouch

We finally found Ivy (*Hedera helix*) in flower, and a few plants of Narrow-leaved Ragwort (*Senecio inaequidens*);

we found masses more as we headed towards the river along a newly constructed road.

More excitingly, we found two plants of Cut-leaved Dead-nettle (*Lamium hybridum*) in flower. Near the bridge we added Hemlock (*Conium maculatum*) and a bedraggled Ox-eye Daisy (*Leucanthemum vulgare*). We were also feeling rather bedraggled by now, so opted for a quick march back along the riverside path, adding Hogweed (*Heracleum sphondylium*) to our list before our three hours was up. We had seen a total of 51 species in flower.

Meanwhile, the VC5 Team headed towards Blake Gardens a small urban park alongside the River Parrett, peering over the sea wall we spotted Sea Aster (*Tripolium pannocium*) with one rather miserable-looking flower still clinging on. The rest of the park however proved somewhat disappointing, so we made our way through the streets to the main shopping area, noting a few common species on the way. Arriving back at the starting point of the walk the small VC5 party were rewarded with some colourful garden plants that had escaped from hanging baskets and plants along West quay: on the wall were Fern-leaved Beggarticks (*Bidens ferulifolia*) and French Marigold (*Tagetes patula*). By now the rain was making recording rather difficult and my paper notes started to disintegrate. At around one o'clock the group sheltered to have their lunch by Bridgwater Marina, this is normally an area for uncommon aliens however recent cold weather had killed many of these. Growing from the walls were Mexican Fleabane (*Erigeron karvinskianus*), Red Valerian (*Centranthus ruber*) with Ivy-leaved Toadflax (*Cymbalaria muralis*).

A straggling yellow composite was soon identified as Hoary Mustard (*Hirschfeldia incana*), a plant which appears to be increasing in the Bridgwater area. From the Marina we headed back into town and past the newly built cinema (once an interesting building site colonised by plants) and to St Mary's Churchyard, which delivered no new species. Our last plant to add to the list was Primrose (*Primula vulgaris*). Now thoroughly soaked through we returned to the meeting point to check and compare notes with the VC6 team. Once all the data had been collated the VC5 team had recorded 44 plants in flower, the 16th longest list submitted to BSBI. The VC6 team recorded 51 species, the tenth longest list.



Soaking wet but still smiling in Blakes Gardens © Steve Parker

Somerset Rare Plants Group AGM 2023

By Steve Parker

Once again, the AGM was held over Zoom on the 14th January 2023. Steve Parker welcomed members to the meeting, stating he hoped that that for the AGM in 2024 the group would be able to meet in person. The year 2022 had been overshadowed by the untimely deaths of two of the group's leading members, Clive Lovatt and Liz McDonnell. Both had been long-serving members and leading botanists. The news of their deaths had saddened all members of the Somerset Rare Plants Group.

Over the last twenty-five years the group had grown from a small band of local botanists to a very active recording group that had encouraged recording of all plant species in the county of Somerset (VC5 and 6). Records were shared locally with the SERC and BREC. All records had been sent to the BSBI and had contributed to the forthcoming BSBI Plant Atlas.

As acting Treasurer, the chairman gave an overview of the accounts for 2022. Some problems in receiving full access to the bank account had occurred, however financially the group was well funded. During the year there had been a steady increase in membership. The

bank balance at the end of 2022 was £2182.04. The membership fee would remain at £10 per annum. Expenses were likely to increase due to the need to book rooms for indoor meetings, the meeting room at the Avalon Marshes Centre was now too small to accommodate the SRPG for training events and general meetings.

All the committee members agreed to serve another year, all were elected unanimously. For the next year the committee would be assisted by three ordinary

members who would act as Membership Representatives and help with running the group activities.

With no other business, Steve Parker closed the meeting and then invited Nigel Phillips to give a talk on *The Nature of the Somerset Coast*. This was a brilliantly illustrated presentation describing the many wonders of the coastal habitats and species found along the seashore.

Sunday 19th February 2023, 'A Day of Twigs' at Shapwick and the Avalon Marshes Centre (VC6)

Leaders: Steve Parker *et al.*

Report: Simon Leach

After last year's successful twigs training day in Taunton, we thought we'd give it another go, this time in VC6. The training came in two halves, the first half taking about 10 days while the second was over in less than four hours.

The first bit, like last year, involved daily 'twiggles' on the SRPG WhatsApp Group. Pictures of twigs were posted each morning at breakfast time, then anyone who fancied having a go at identifying them had until one o'clock, when people could post their thoughts and exchange views as to what that day's twiggle might be.

The first twiggle, on 8th February, was Ash (*Fraxinus excelsior*) which, we all agreed, was really rather easy, whereas the last one, on the 18th – Smoke-tree (*Cotinus coggygria*) – was *much* more challenging. Along the way we would be able to compare Sycamore (*Acer pseudoplatanus*) with Norway Maple (*Acer platanoides*), the two alders *Alnus glutinosa* and *A. cordata*, Turkey Oak (*Quercus cerris*) and Pedunculate Oak (*Q. robur*), Guelder-rose (*Viburnum opulus*) and Wayfaring-tree (*V. lantana*), Privet (*Ligustrum vulgare*) and Buckthorn (*Rhamnus cathartica*), and many more besides. We also included a few less common things like Black Poplar (*Populus nigra* subsp. *betulifolia*) and Wild Service-tree (*Sorbus torminalis*). Some we struggled with, but others, like Horse-chestnut (*Aesculus hippocastanum*), were (literally) a walk in the park! These daily teasers produced a lot of twig-related banter and some really corny jokes too. As Fred said: "Great to see so many budding comedians." (Groan.)



One of the daily 'TWIGGLES', this one comparing Sycamore and Norway Maple. Photo © Simon Leach

As for the training day itself, around twenty of us gathered at the Avalon Marshes Centre on a gloriously sunny late winter's day. Outside, near the tea stall, we pulled together a couple of picnic benches, and then gathered round as Steve, with help from Helena and others, gave us a general introduction to twig morphology and the sorts of features to look for when

trying to identify deciduous trees and shrubs with their leaves missing. We were then given the opportunity to take a few twigs through the keys together, using both John Poland's excellent and comprehensive '*Field Guide to Winter Twigs*' (2018) and the Field Studies Council's AIDGAP guide to '*broad-leaved trees and shrubs in winter*' (May & Panter 2012/16).

Like last year, we began with Ash, immediately recognisable by its gorgeous black buds. But we were also encouraged to look at some less obvious features: the distinctive grey or olive-green colour to the bark, the *arrangement* of the buds (opposite and decussate), the crescent-shaped leaf scars, the numerous *bundle-scars*, the lack of an *interpertiar ridge*, and so on.

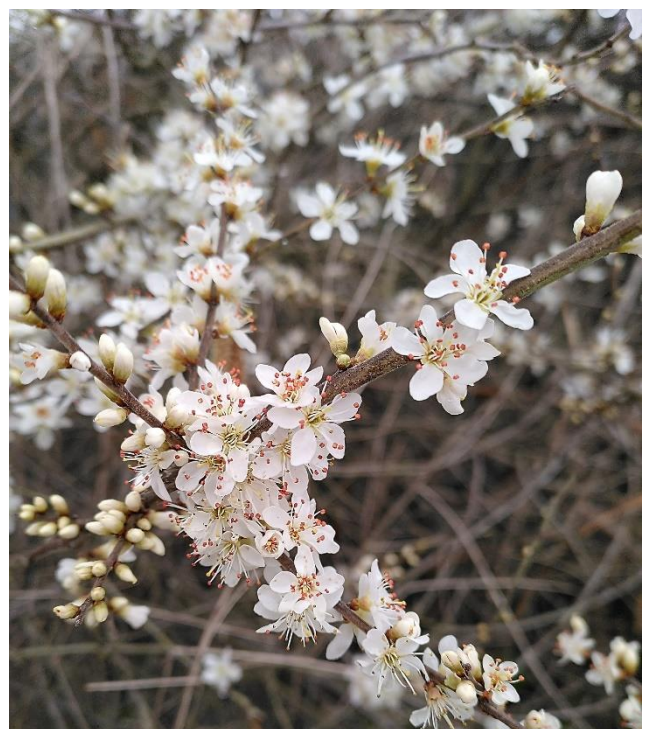


Admiring *Frangula alnus*. Photo © Simon Leach

We spent the first half-hour or more dividing up bundles of twigs so we could all have a go at keying out a variety of different species. After that we ventured out onto the nature reserve where an easy stroll allowed us to see a wide range of species 'in the flesh', including quite a few that hadn't featured in the daily twiggles, like Sallow (*Salix cinerea*), Goat Willow (*S. caprea*), Elder (*Sambucus nigra*) and Birch (*Betula* spp). Perhaps the most exciting find of the day, though, was Alder-buckthorn (*Frangula alnus*) – which we would probably have missed entirely had we not been in 'twigs' mode.

It was an excellent meeting, with many thanks to Steve and to all those who contributed on the day. In the weeks that followed, the WhatsApp group continued to ping with twig-related posts; but with a growing sense of relief, too, as the trees came into leaf and catkin, and the shrubs began to blossom. Even in flower, though, there was still room for debate about how to tell apart Blackthorn (*Prunus spinosa*) from Cherry Plum (*P. cerasifera*). And what about *P. x fruticans*, the hybrid between Blackthorn and Wild Plum (*P. domestica*)?

Really, you know, there's no end to it; and so, in a year's time we'll likely decide to hold another one of these training workshops, and TWIGGLE will no doubt raise its ugly head once more. Lifelong learning, I think they call it.



Blackthorn – probably! – flowering nicely a couple of weeks after our 'day of twigs'. Photo © Simon Leach

Saturday 11th March 2023, Vegetative Plant Identification Workshop, Shapwick (VC6)

Leaders: John Poland & Helena Crouch

Report: Helena Crouch



SRPG members studiously identifying specimens using *The Vegetative Key to the British Flora*. Photo © Karen Andrews

For our March meeting, we were privileged to welcome John Poland, one of the authors of *The Vegetative Key to the British Flora*, to lead a Vegetative Key Workshop at Shapwick Pavilion. This popular event attracted 34 members and began with coffee and lashings of home-made cake, kindly supplied by several participants.

Once the large class was seated, and the first specimens were dished out, John began with a serious test of observation: which is the upper surface of a Montbretia (*Crocasmia x crocosmiiflora*) leaf? This was a trick question of course, as we all now know that *Crocasmia*, like *Iris*, has **equitant** leaves. They are folded down the middle and fused, so that both outer sides are actually the underside of the leaf, whilst the upper surface is hidden inside.

Specimens of Box (*Buxus sempervirens*) were handed out, and as these were keyed out, John explained many terms used in the book. **Pruinose** and **glaucous** both describe a blue tinge, but pruinose is used when the bluish-white tinge can be rubbed off. **Indistinct** veins are faint, but **obscure** veins cannot be seen at all. **Aromatic** is used for a pleasant scent, **fetid** for a horrid one, and **odorous** for a smell which is neither nice nor horrid. The location of **stomata** is a useful feature (although it is in fact the guard cells around the stomata which are visible), so time was spent ensuring that everyone could recognise these. On Box they are distinctive white dots on the underside of the leaf, particularly evident near the midrib.



Box (*Buxus sempervirens*) with shiny dark green opposite leaves with indistinct veins, pruinose above when young, hairless, odorous, with stomata below only, visible near the midrib.

Photo © Karen Andrews

Next, we puzzled over how to tell whether leaves in a rosette are **opposite** or **alternate**, studying specimens of Shining Crane's-bill (*Geranium lucidum*). Some species, for example Devil's-bit Scabious (*Succisa pratensis*), have obviously opposite basal leaves, each one of a pair identical, but John explained that if the rosette is "messy" or the leaves all have petioles of different lengths, or are different sizes, this indicates that the leaves are alternate.

A feature which is much used in the Vegetative Key is the presence and type of hairs. Most hairs are **simple** and composed of one cell; some are **septate**, or multi-cellular, the divisions between cells visible under a lens. **Stellate** hairs look like flat starfish. **Hispid** hairs are piercingly sharp. Portions of a Mullein (*Verbascum*) leaf

were handed out so that everyone could marvel at the **dendritic** (multi-branched candelabra) hairs. The presence of **hooked** hairs is not always obvious, as John proceeded to demonstrate with a soft felty leaf of Soft Comfrey (*Symphytum orientale*) which astonishingly stuck to his jumper! It must therefore have hooked hairs.



John Poland demonstrating how hooked hairs can be detected if wearing a woollen jumper! Photo © Karen Andrews

Specimens of Hybrid Oleaster (*Eleagnus x submacrophylla*) were distributed so that everyone could examine the **peltate scales** on the underside of the leaves. These are an adaptation to prevent desiccation of the leaf.

More terminology was learned by keying out a sedge specimen. The ligules of sedges are **adnate** to the blades, a term used when two different organs are fused together. John explained how to measure the **ligule length**, a feature used in the *Vegetative Key*.

If the term **hairy** is used to describe a leaf, the leaf is hairy all over the surface, whereas **ciliate** means that there are hairs along the edges. Some sedges are characterised by having **false stems**, which are actually tightly rolled leaves and sheaths. These species have no leaves at ground level; in most sedges, all the leaves arise from ground level.



Measuring the ligule length of a sedge: Peel back the leaf and measure the vertical length along the leaf from where the ligule joins the leaf margin to the tip of the ligule.

Photo © Karen Andrews

With fortification from more tea and cake, we learned the difference between **prickles** (sharp outgrowths of the epidermis), **spines** (modified stipules) and **thorns** (modified branches). We learned to recognise an **interpetiolar ridge**: a horizontal ridge on a twig which connects two opposite leaf bases. We looked at conifers, learning how to view resin glands, the shape of which is useful. We spent the whole day keying out specimens, learning terminology, and eating cake!



SRPG members engrossed in vegetative characters, watched over by our tutor John Poland (Right). Photo © Steve Parker

It was a brilliant day, later rated by members as “a great event”, “superb”, “really useful and enjoyable”, “absolutely brilliant”, “really good”, “a super training day”, with the ultimate success measure being a comment: “I feel much more confident using *The Vegetative Key* now”!

Sunday 2nd April 2023, Buncombe Wood, Quantock Hills (VC5)

Leader: Steve Parker

Report: Josh Butterworth

On a bright April Sunday, 12 of us ventured into the Quantock Hills to take advantage of the early flowering woodland flora.



The team knee-high in Ramsons (*Allium ursinum*).
Photo © Steve Parker

The visit began at Cothelstone Hill car park, where, typically, our group pondered over the car park flora before moving on, which included a potentially planted Wild Service Tree (*Sorbus torminalis*).

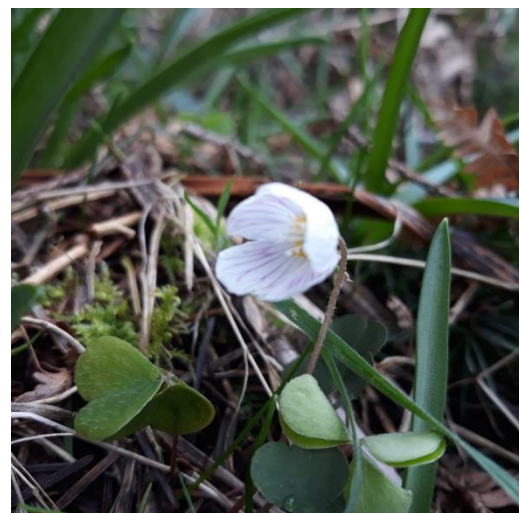
Making our way into the woodland, we passed non-native introductions, including lesser periwinkle (*Vinca minor*) and native shrub species Elder (*Sambucus nigra*), Blackthorn (*Prunus spinosa*), and Hazel (*Corylus avellana*). As we looked up, we were dismayed by the winter effect – *no leaves*. Instead, we turned our heads to the ground and with handfuls of leaves Steve pointed out the differences between the auricles of English Oak (*Quercus robur*) and the tapered bases of Sessile Oak (*Quercus petraea*) highlighting the need, due to their variability, for large samples of 20 or more leaves to acquire some degree of certainty in identification.

At this point, the first target species was found, Moschatel (*Adoxa moschatellina*) also known as Town Hall Clock, derived from the four faces present on its flowers. This formed large carpets under the native Ash (*Fraxinus excelsior*) and Oak canopy.

The semi-natural woodland unfortunately did not extend far, shortly progressing east, we entered a large area of conifer plantation. Although not native, the team jumped at the opportunity to brush-up on their conifer identification, where we found the distinctive cones and remnant plugs on the twigs of Douglas Fir (*Pseudotsuga menziesii*), the sharp, stiff blue needles pegged to the stems of Sitka Spruce (*Picea sitchensis*) as well as non-native Pine species (*Pinus* sp.) and even deciduous conifers, Larch species (*Larix* sp.).

We eventually emerged from the plantation into a large open area that appeared to have been the focus of an ambitious native tree planting scheme (unfortunately invaded by saplings from the adjacent plantation). Here we found Heath Bedstraw (*Galium saxatile*), Broom (*Cytisus scoparius*), Gorse (*Ulex europaeus*) and Rosebay Willowherb (*Chamerion angustifolium*) as well as grasses such as Common Bent (*Agrostis capillaris*).

Hunger struck and we decided to find a spot for lunch. We walked further east, bordering a plantation, which transitioned between Beech trees (*Fagus sylvatica*) and conifers. As we walked a path adjacent to these plantations, we found an early flowering Wood Sorrel (*Oxalis acetosella*), an indicator perhaps of times past when the landscape may have appeared drastically different, covered in semi-natural broadleaved ancient woodland. Eventually, we reached a clearing, an area of flattened Bracken (*Pteridium aquilinum*) where we stopped for lunch.



Wood Sorrel (*Oxalis acetosella*) flowering along the path bordering an area of plantation woodland. Photo © Linda Everton

After lunch we continued east, further down the sloping woodland, until we reached two strips of semi-natural ancient woodland comprising predominantly Ash and Oak, retained by the Forestry Commission either side of

Buncombe Hill Road. On the western side we found species such as Hairy Wood-rush (*Luzula pilosa*), Barren Strawberry (*Potentilla sterilis*) and Hart's-tongue Fern (*Asplenium scolopendrium*). On the eastern side of the road, Ramsons (*Allium ursinum*) dominated alongside swathes of Dog's-Mercury (*Mercurialis perennis*). In amongst these stands of vegetation sedges became more apparent, with Pendulous Sedge (*Carex pendula*), Wood Sedge (*Carex sylvatica*) and Remote Sedge (*Carex remota*).

We began our ascent back towards the car park. However, before exiting the retained woodland, while pondering over the many leaves of Sweet Chestnut (*Castanea sativa*) covering the ground, Laura Daniells spotted the star of the show, Herb Paris (*Paris quadrifolia*), adjacent to a stand of Western Hemlock (*Tsuga heterophylla*) encroaching from the surrounding plantation. This was a first and excellent record for the site.



Herb Paris (*Paris quadrifolia*) forming a 2m x 2m patch east of Buncombe Hill Road. Photo © Linda Everton

As we continued our ascent back towards the cars, walking along roadside hedge banks we found an abundance of another remnant of the historical ancient woodland, Sanicle (*Sanicula europaea*), lining the feet of the hedge banks.

Reaching the cars, we gathered around a small patch of grassland to reflect on the day's findings, inevitably this patch of grassland was where our final species for the day was found, Pignut (*Conopodium majus*).

Although fewer than historically recorded at this site, a total of 113 species records was not a bad result considering the early timing of the meeting.

Sunday 16th April 2023, Nunney Combe (VC6)

Leaders: Gill Read & Ellen McDouall

Report: Gill Read

On the evening of Saturday 15th April, I had a message from Helena in the A&E Department of Bath Royal Infirmary to say that she had fallen and had broken her arm. This was the evening before the meeting that she was to lead with me as "tail-end Charlie" along the Nunney Brook. Panic set in and I contacted Ellen as I had no paperwork. Ellen happily had already talked to Helena and was ready to help. I was very grateful to Ellen, but was still unhappy about the following day, partly because botanising on the Friday in wind and rain I had managed to lose a hearing aid, meaning I could hear very little. Also, when we had done a recce eight days before, the path was very muddy and slippery, and I was concerned about people falling.

However, Sunday arrived with no rain and eleven people, a lively mix of old friends and new members, turned up well-booted to face the mud!

I had decided to record in one monad, so it was not a problem getting out of the car park. A short walk brought us to a gate into a large grass field that seemed to yield little but a few dandelions. It took almost an hour to cross that field, looking closely at grasses. Bare patches delayed us further, counting stamens in *Cardamine* spp. Two of the six stamens in Wavy Bittercress (*Cardamine flexuosa*) can often be hiding below the other four making it difficult to distinguish it from the sturdier Hairy Bittercress (*Cardamine hirsuta*) with four stamens. Parsley-piert (*Aphanes arvensis*) and Red Dead-nettle (*Lamium purpureum*) also enjoyed those bare patches.

At last, to the edge of the brook and mud! Pick-a-back Plant (*Tolmiea menziesii*) was found growing on the bank, a garden escape getting this one of many colloquial names from the habit of producing plantlets out of the top of leaf petioles, giving the look of young plants riding on the back of mature leaves – and contributing to its ability to spread easily. The more traditional plants of Somerset woods, Thin-spiked Wood-sedge (*Carex strigosa*) and Wood-sedge (*Carex sylvatica*) were found next.



Waterside plants including Thin-spiked Wood-sedge (*Carex strigosa*). Photo © Karen Andrews

It took a while to see the clumps of leaves of Star-of-Bethlehem (*Ornithogalum umbellatum*) which were one of our targets for the day. The fading leaves of Snowdrops (*Galanthus nivalis*) which confused our search for *Ornithogalum* also tumbled profusely down the cliff side above us, mixed with Wood Anemones (*Anemone nemorosa*) and Bluebells (*Hyacinthoides non-scripta*) which were just showing blue.

Soft Shield-fern (*Polystichum setiferum*) and Hard Shield-fern (*Polystichum aculeatum*) were good for further discussion. The feathery leaves of Pignut (*Conopodium majus*) were spotted peeping through the Ramsons (*Allium ursinum*), and we were able to brush up on the differences between the just emerging leaves of Hazel (*Corylus avellana*) and Wych Elm (*Ulmus glabra*).

We stopped for lunch by the brook sitting on Tuberous Comfrey (*Symphytum tuberosum*) which was growing in profusion, and we were entertained by two Grey Wagtails dipping above the water.

We retraced our steps and found a few new leaves of Giant Hogweed (*Heracleum mantegazzianum*). This plant in previous years had invaded the brook side but has now almost been eradicated. Two handsome bushes of Japanese Snowball-bush (*Viburnum plicatum*) were almost bursting into flower. Maybe these had been washed downstream from the village or were relics of long-lost gardens.

Monk's-hood (*Aconitum napellus*) was to have been our star plant to end the day, but it could not be found. The water had been very high, and it might have been washed away. The last record for that spot was in 2014.



Where the Monk's-hood wasn't... Photo © Karen Andrews

To our surprise Jim, Helena's husband, had driven Helena with her arm in a sling to meet us. They joined the group as we walked back through the lovely village with a tour around the 14th century castle completing the day.

Congratulations to everyone in negotiating the mud with no falls! And a big thank you to Ellen and John Poingdestre for their support.

Saturday 29th April 2023, Thurlbear Wood and Quarrylands (VC5)

Leader & Report: Simon Leach

The third in our series of springtime woodland meetings but, unlike the other two, this was an afternoon affair, starting at 2 pm. It was also being held as a joint meeting with the Natural History Section of the Somerset Archaeological & Natural History Society.

The turnout is excellent: there are 19 of us in all, including members of both SRPG and SANHS along with several friends and family. And the weather gods treat us kindly too: an overcast morning has given way to a warm, sunny afternoon.

The meeting has been billed as a woodland walk concentrating on 'first flowerings', spring woodland flora, butterflies and birdsong. Botanically, this is an opportunity to re-acquaint ourselves with a whole range of common and not-so-common species after a long winter stuck indoors. It's definitely *not* a day for square-bashing.



'Peak Bluebell' at Thurlbear Wood. Photo © Simon Leach

We gather in the lane, then enter the wood through a kissing gate, and immediately grind to a halt to admire the Wood Melick (*Melica uniflora*), which began flowering here just 10 days ago, and then Dog's Mercury (*Mercurialis perennis*), that's been in flower since the last week of January. We mention the fact that Dog's Mercury is dioecious, having male and female flowers on separate plants. And then we turn our attention to the Bluebells (*Hyacinthoides non-scripta*), and we note the differences between 'proper job' native Bluebells, Spanish Bluebells (*H. hispanica*) and the hybrid between the two (*H. x massartiana*). Our timing couldn't be better: the Bluebells are looking spectacular and, for Thurlbear at least, this is the week of 'peak Bluebell'.

Our snail's pace continues as we notice Lesser Celandines (*Ficaria verna*), which have been flowering since almost the start of the year; and then we see that some of the Dog's Mercury is being galled by 'Mercury Rust' (*Melampsora populnea*).

And look! Here's Goldilocks Buttercup (*Ranunculus auricomus*), with its characteristically variable but rather scruffy unequal-petalled flowers. We talk about how there are actually more than 50 named species of Goldilocks Buttercup species in Britain, and probably several hundred more still to be named if only someone

could resolve to make this their life's work. We wonder, if someone *did* get round to naming them all, would Thurlbear Wood have its very own species? And what might they call it? Perhaps it could celebrate the memory of Ernest Neal, the Taunton schoolmaster who wrote the famous New Naturalist monograph on badgers (1948), who was deeply involved in the early days of the Somerset Wildlife Trust, and we suspect also the declaration of this wood as an SWT Nature Reserve in the 1970s. He used to bring his students here on field trips – one of them is even in our party today – and Thurlbear Wood features prominently in his classic introductory text on 'Woodland Ecology', first published by Heinemann in the 1953. How would he react to having such a woodland buttercup named in his honour?

We slowly inch our way along the path. We see plenty of Early Dog-violet (*Viola reichenbachiana*), flowering since 20th February and already going over; but there's Common Dog-violet (*V. riviniana*) too, much later into flower, this spring beginning on 3rd April. Let's also note the way in which the footpath here is fringed with Sweet Woodruff (*Galium odoratum*) and Wood-sedge (*Carex sylvatica*), both flowering nicely, and the early shoots of Enchanter's-nightshade (*Circaea lutetiana*), one of the latest woodland herbs to come into bloom, maybe not until late May or early June.



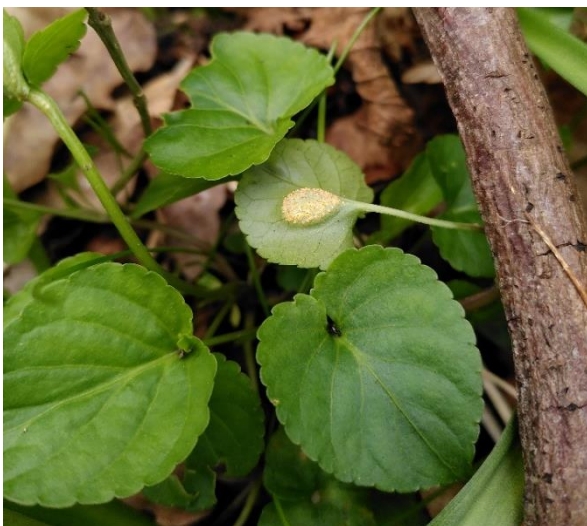
First-flowering Yellow Archangel. Photo © Simon Leach

And now here's Pendulous Sedge (*Carex pendula*), and we talk about how this kind of woodland is exactly the right sort of habitat for this species, but how it's also spread

into other places from gardens, meaning that the 'native/alien' status of many records is uncertain. What about these Spindle (*Euonymus europaeus*) bushes? They've only been in leaf for a couple of weeks, yet are already sporting leaf-roll galls caused by the mite *Stenacis euonymi* (= *Eriophyes convolvens*). And then at our feet we notice first-flowering Yellow Archangel (*Lamiaeum galeobdolon* subsp. *montanum*) – not to be confused with the garden version with whitish blotches on the leaves called subsp. *argentatum*, which you tend to find in scrappier woods, often those close to human habitation, or along woodland edges and lane banks where it grows in place of the native subspecies.

Come on, let's walk on a bit! But then again, let's not! Instead, we are distracted by a Stinking Iris (*Iris foetidissima*) and its rust, *Puccinia iridis*. Why does each plant seem to have its own rust? Even the Dog-violets have one, called – yes, you've guessed it – *Puccinia violae*. And if a plant escapes being 'rusted' or 'galled' then its leaves may well have been 'mined', like the Holly (*Ilex aquifolium*) just there, next to the Spindle, which has been attacked by a little fly called, appropriately enough, the Holly Leaf Miner (*Phytomyza ilicis*).

And then we see Bush-vetch (*Vicia sepium*) just coming into flower, and Wood Speedwell (*Veronica montana*) not quite flowering yet, and Pignut (*Conopodium majus*) still maybe two to three weeks away.



Puccinia violae on a Dog-violet leaf. Photo © Simon Leach

Right, come on then! So we press on a few paces where we spot some flowering Barren Strawberry (*Potentilla sterilis*), and consider how we might tell it apart from Wild Strawberry (*Fragaria vesca*). And then we marvel at Wood-spurge (*Euphorbia amygdaloides*) which began flowering on the same day as Bluebell this year – see those gorgeous lemon-yellow flowers! And in amongst the Ivy (*Hedera helix*) there's a patch of Wood Anemones (*Anemone nemorosa*) and note the Wood Millet (*Milium effusum*) too! All these plants with 'wood' in their names, and we wonder which ones might be the best indicators of 'ancient woodland'. Certainly not Wood Dock (*Rumex sanguineus*) which turns up in all sorts of habitats.

Would you believe it? We've been on the trail for nearly an hour and have advanced into the wood by maybe a couple of hundred metres. How time flies: but our leader is starting to get just a touch agitated, worrying that we might not be moving quite fast enough. But there's such a lot to see! If there's a problem, then maybe it's not so much about the pace we're walking at but the unrealistic length of the intended route?

And so, we dawdle purposefully on, before cutting through to 'The Quarrylands', where we learn a little about the history of the place and how it nearly became the site of a 'borstal' for young offenders. Fortunately, the plan was shelved, and so we still have this precious outlier of limestone grassland and scrub to enjoy – an important site for butterflies as well as plants, and managed for a while as a nature reserve by Butterfly Conservation.

At this point the leader can't stop himself, and he starts rambling on about dandelions. We see *Taraxacum amicum*, a recently described species that, so far, only seems to occur in Somerset. In the short calcareous grassland we also see a couple of tiny Erythrosperms, *T. argutum* and *T. oxoniense*. And then, in passing, we note Common Rock-rose (*Helianthemum nummularium*), Ploughman's Spikenard (*Inula conyzia*), Heath Speedwell (*Veronica officinalis*), Hairy Violet (*Viola hirta*), Bugle (*Ajuga reptans*), and abundant Stemless Thistle (*Cirsium acaule*). And much else besides.

We search unsuccessfully for Early Gentian (*Gentianella amarella* subsp. *anglica*), a plant that some of us had seen in this very spot a year ago on another SANHS walk. But farther along the path we make up for the lack of gentians by finding another dandelion, this time a really special one called *Taraxacum lambinonii* – a mainland European species that was recorded for the first time in Britain, here at Thurlbear, in 2021. Jeanne Webb subsequently had it at a second locality in the west of the county, while Tim Rich found it in an old quarry in Sussex. Just the three

sites, so far, in Britain, but the Quarrylands plants were the first!



Taraxacum amicum. Photo © Simon Leach



Bugle (*Ajuga reptans*). Photo © Simon Leach

We are running out of time. A few of the party have gone ahead, back into the wood, in the hope of seeing Wild Service Tree (*Sorbus torminalis*), but the rest of us are so far behind we decide to cut our losses and track back across the Quarrylands to the cars.

Had we progressed more quickly we could have seen St George's Mushrooms (*Calocybe gambosa*) in the ant-hill glade; learnt how to tell the difference between the two woodrushes, Hairy (*Luzula pilosa*) and Southern (*Luzula forsteri*), and between the songs of Blackcap and Garden Warbler; and maybe we'd have notched up a hornets' nest and some Early-purple Orchids (*Orchis mascula*) and False Oxlips (*Primula x polyantha*). And goodness knows what else.

But surely, when all said and done, isn't it better to get somewhere slowly than nowhere fast?

Saturday 6th May 2023, Ebbor Gorge (VC6)

Leaders: Helena Crouch & Ellen McDouall

Report: Helena Crouch

After months of intensive planning, Ebbor Day (aka Coronation Day) dawned alarmingly wet. Undaunted, eighteen brave botanists assembled under the convenient shelter by the car park at Ebbor Gorge NNR. We made a few records from the comfort of our dry sanctuary, including Cuckooflower (*Cardamine pratensis*) which was surprisingly new to the monad, and our first patch of Goldilocks Buttercup (*Ranunculus auricomus*). After copious warnings about slippery rocky paths from an uncharacteristically cautious leader, we ventured forth.

Ebbor Gorge NNR was designated as an SSSI in 1952, is owned by the National Trust, and is managed by Natural England. The site consists of a steep-sided ravine cut into the Carboniferous Limestone of the Mendips, with glorious ancient woodland, rock outcrops, calcareous grassland and a small area of limestone heath. The path from the car park descends steeply through woodland via about a million steps.



Setting off, recording, in rather grim weather.

Photo © Karen Andrews

Here we saw many Ancient Woodland Indicators, including two grasses, Wood Melick (*Melica uniflora*) and Wood Millet (*Milium effusum*), Wood Anemone (*Anemone nemorosa*), Woodruff (*Galium odoratum*), Wood-sorrel (*Oxalis acetosella*) and also Bluebell (*Hyacinthoides non-scripta*), Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*)

and Yellow Archangel (*Lamiastrum galeobdolon* subsp. *montanum*). We studied the emerging ferns, finding Male-fern (*Dryopteris filix-mas*), Golden Scaly Male-fern (*D. affinis*), Borrer's Scaly Male-fern (*D. borrieri*) Broad Buckler-fern (*D. dilatata*), Lady-fern (*Athyrium filix-femina*), Soft Shield-fern (*Polystichum setiferum*), Hart's-tongue (*Asplenium scolopendrium*) and Intermediate Polypody (*Polypodium interjectum*).



Ellen, Josh and Kurt share ID skills as rain eases.

Photo © Karen Andrews

At the bottom of the slope there are two meadows, with Bracken (*Pteridium aquilinum*) already tall, and much Meadowsweet (*Filipendula ulmaria*). We admired Marsh Marigolds (*Caltha palustris*) from afar, followed the path over the stream, and marvelled at the circle of handsome mature Hornbeams (*Carpinus betulus*) guarded by a fearsome bear. The path continues downhill, then turns left and leads uphill to the gorge. By the time we reached the gorge, the rain had stopped.

After admiring patches of Southern Polypody (*Polypodium cambricum*) on rocks at the entrance to the gorge, the ascent began: fortunately, there was plenty of interest to necessitate frequent pauses! We were pleased to find several plants of Hairy Rock-creep (*Arabis hirsuta*) in flower on the path, the first record for this species at Ebbor Gorge since 2009. This is a Rare Plant Register species, being Near Threatened on the England Red List.

A large patch of ivy by the path, with large shallowly-lobed leaves, was found to be Atlantic Ivy (*Hedera*

hibernica), with the stellate hairs appressed to the surface of the young leaves (like flattened spiders). A single underwhelming vegetative plant of Nettle-leaved Bellflower (*Campanula trachelium*) was growing from the rocks; later a more splendid plant was found. This species is also included in the Somerset RPR, because it is Rare in VC5.

Once we emerged from the top of the gorge, all minds were focused on lunch. A short stroll brought us to the Viewpoint, an amusing misnomer on this occasion due to dense cloud. Surprisingly we had the whole place to ourselves as we sat watching an ever-changing scene, with little sectors of the view appearing then vanishing in the cloud.

Refreshed, we found that despite its scuffed appearance, the grassland at the viewpoint still had many species of calcareous grassland, including Thyme (*Thymus drucei*), Common Rock-rose (*Helianthemum nummularium*), Upright Brome (*Bromopsis erecta*), Parsley-piert (*Aphanes arvensis*), Crested Hair-grass (*Koeleria macrantha*) and Ploughman's-spikenard (*Inula conyzae*).

Leaving the Viewpoint, we headed east (and uphill again) to visit the area of limestone heath at the edge of the NNR. Beside the path, we found four shoots of Common Gromwell (*Lithospermum officinale*), new to the monad. Common Gorse (*Ulex europaeus*) and Bracken indicated the area of heath, however brambles precluded easy access. Making our way around the scrub, we reached some glorious limestone rock outcrops, with abundant Common Stork's-bill (*Erodium cicutarium*), a patch of Rue-leaved Saxifrage (*Saxifraga tridactylites*), tufts of Silver Hair-grass (*Aira caryophyllea*), Spring Cinquefoil (*Potentilla verna*) and a tiny patch of Knotted Clover (*Trifolium striatum*) which was new to the monad. Beside the rock outcrops was a patch of Heather (*Calluna vulgaris*), Wood Sage (*Teucrium scorodonia*) and Betony (*Betonica officinalis*), but sadly no sign of the Heath Dog-violets seen here in 2016. Some splendid Early-purple Orchids (*Orchis mascula*) were admired before we retraced our steps through the brambles and back towards the Viewpoint to begin a long descent down another million steps.



Examining tiny plants on the rock outcrops. Photo © Val Graham

Some respite was provided by a detour to the strip of calcareous grassland above the side of the gorge, where we searched unsuccessfully for Cheddar Bedstraw (*Galium fleurotii*), still currently recorded as Slender Bedstraw (*Galium pumilum*) but now known to be distinct from this. None was found, but we did add Small Scabious (*Scabiosa columbaria*) and Greater Knapweed (*Centaurea scabiosa*) to our list, and far below us in the gorge we spotted my daughter and her dog Cassie, who came to join us as we continued down the endless steps.

Beside the return path to the car park (uphill again), we stopped to admire a large Wild Service-tree (*Sorbus torminalis*). Thankfully eighteen botanists returned, probably drier than they set out. We recorded 197 species and added 18 species to the records for the NNR, updating records for several RPR species.

Leader & Report: Simon Leach



Admiring Green-winged Orchids in Three-cornered Field. Photo © Simon Leach

Nine of us assembled for this evening meeting, held in glorious sunshine on the cusp – as it turned out – of a prolonged period of dry, sunny weather lasting well into June. The purpose of the meeting was twofold: first, the serious bit, was to monitor (or at least to marvel at) the populations of Green-winged Orchids (*Anacamptis morio*) for which the NNR is renowned; second, the icing on the cake, to hear nightingales singing – this being one of very few remaining sites in VC5 where the species has bred in recent years.

Barrington Hill NNR comprises four hay-meadows – ‘Hilly Field’, ‘Three-cornered Field’, ‘Clover Ground’, and ‘Shed Ground’ – overlying calcareous clays close to the northern edge of the Blackdown Hills, roughly midway between Ashill and Curland. The NNR totals 16.1 ha, with each field contributing approximately one-quarter of this area.

For the serious bit (the orchids) the leader had optimistically worked out random number co-ordinates for 5x5m plots in each field, 20 plots per field. The idea, though probably not a very good one, was that we might be able to extrapolate from the numbers of orchids counted in the plots to produce a rough estimate for the population in each field and across the site as a whole.

So, we set to our task in ‘Hilly Field’, one of us pacing out the randomly located plots, the rest of us splitting

into 4 pairs, each pair counting the number of flowering ‘Green-wings’ in five of the plots. The plan worked – after a fashion – and we progressed slowly across the field, zigzagging up and down the slope to locate our plots; but by the end the leader, at least, was knackered! Anyway, we counted a total of 554 flowering spikes in the plots, an average of 27.7 flowering spikes/plot, but the range was huge: three of the plots had zero orchids, while one had more than 100! Yet 1.1 spikes/square metre seemed to be entirely plausible. And with the field previously estimated to measure very roughly 220 x 150 paces, and assuming one ‘pace’ equates to approximately one metre, this would give a ballpark estimate of 36,300 flowering spikes for the field as a whole. We could have debated the accuracy of this estimate long into the night – but at least we were able to agree that there were a lot of orchids...

So, we moved on to the second field, ‘Three-cornered field’, and there were ‘Green-wings’ *everywhere*, a great purple haze of orchids. Enough orchids to make you dizzy at the thought of having to count them... And here it was that we decided, reluctantly, to adopt a change of tactic. We lay in the grass for a while, ate our packed teas, and chattered away while listening out (unsuccessfully) for nightingales – and then resolved that for the rest of the evening we would concentrate on *marvelling* rather than *monitoring*.



The NNR is notable for its huge population of Green-winged Orchids. Photo © Simon Leach

Thus, we shifted into 'square-bashing mode', aware that the four fields also (would you believe it?) straddled four 1-km squares (monads). This at least allowed us to spend some time appreciating the flora more generally, rather than being overly fixated on the orchids.

The meadows are for the most part a classic MG5 *Cynosurus cristatus*-*Centaurea nigra* grassland, probably MG5a (*Lathyrus pratensis* sub-community); they are all fairly species rich – 'Shed Ground' is the least rich, although much nicer now than it was thirty years ago – with an abundance of mostly common broad-leaved herbs but also a sprinkling of quality species like Pepper-saxifrage (*Silene silaus*), Adder's-tongue Fern (*Ophioglossum vulgatum*) and, in 'Clover Ground', several large patches of Dyer's Greenweed (*Genista tinctoria*).

The star plant, though, would have to be French Oat-grass (*Gaudinia fragilis*), for which Somerset is a key stronghold. Nationally Scarce and arguably native in Britain, it is an important constituent of the sward at Barrington Hill and was a major factor behind the site's declaration as an NNR in 1987.

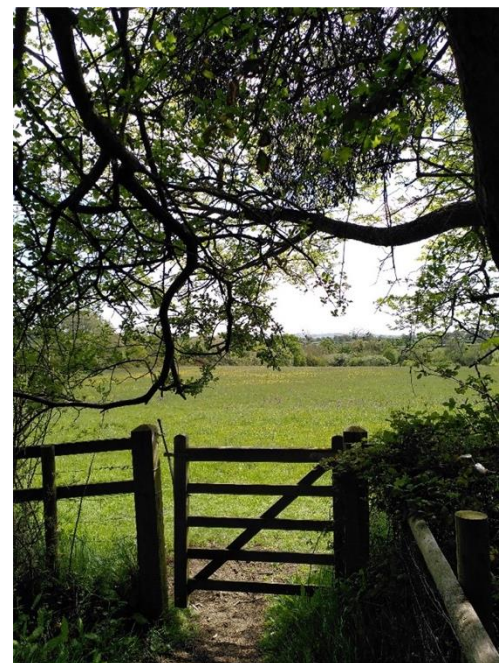
Despite the close attention these fields have received from botanists over the years, we still conjured up a few new species in each monad. In ST3017, for instance, we added nine species to those recorded on MapMate, including Common Spotted-orchid (*Dactylorhiza fuchsii*), Lesser Hawkbit (*Leontodon saxatilis*), Water Mint (*Mentha aquatica*) and Meadow Fescue (*Schedonorus pratensis*).

In all four monads we also recorded, for the first time, the dandelion *Taraxacum nordstedtii*, a rather attractive and not uncommon species of usually dampish grassland, its capitula (flower-heads) with erect/appressed involucre bracts and striking puce-coloured ligule stripes.



Adder's-tongue Fern (*Ophioglossum vulgatum*) was seen in all the fields but was especially abundant in Clover Ground. Photo © Simon Leach

We completed our circumnavigation of the NNR just as the sun dipped below the horizon. Still no nightingales, unfortunately – just blackbirds, blackcaps, and robins. But we certainly saw plenty of Green-winged Orchids – although how many exactly, we can't honestly say!



Barrington Hill NNR. Photo © Simon Leach

[Regarding the nightingales: later in the summer we were told that nightingales had apparently failed to return to Barrington Hill this year, and there's a real worry now that they might have gone from the site, just as eight to ten years ago they vanished from Thurlbear Wood.]

Thursday 15th June 2023, Berrow Dunes (VC6)

Leader & Report: Helena Crouch



SRPG members on the beach at Berrow Dunes. Photo © Helena Crouch

After a scorching hot day, sixteen members met for this evening meeting to see some of the botanical treasures of Berrow Dunes SSSI. This large sand dune system is the site of Burnham & Berrow Golf Course and is carefully managed under Higher Level Stewardship. Unfortunately, the Course Manager was unable to join us after all, which meant we needed to stick to the footpath, not explore the further reaches of the golf course, and the leader would need to be on High Golfer Alert. In fact, we started by waiting at the edge of the course for three golfers to take their shots, after which one came to ask what we were doing, was interested, and told us to make sure we saw all the orchids. We didn't see any other golfers all evening, but we did see four species of orchid.

Immediately after crossing that first fairway, we paused to look at a bank of mature dune grassland (the leader still on high alert!). Here we found Hare's-foot Clover (*Trifolium arvense*), Hop Trefoil (*T. campestre*) and a small dead brown circle of Suffocated Clover (*T. suffocatum*) which is GB Scarce and a Somerset Rare Plant Register (RPR) species. Nearby were some disintegrating plants of Bulbous Meadow-grass (*Poa bulbosa*), another RPR species.



Bulbous Meadow-grass (*Poa bulbosa*) Photo © Simon Leach

Thankfully other species were more impressive! We soon found two more RPR grasses: cute plants of Sand Cat's-tail (*Phleum arenarium*) and attractive swathes of silky Purple Fescue (*Vulpia ciliata* subsp. *ambigua*), another GB Scarce species. Both have restricted distributions in Somerset.

In longer grass, across the path, there were scattered Pyramidal Orchids (*Anacamptis pyramidalis*) and the first Lizard Orchid (*Himantoglossum hircinum*) was spotted: Berrow Dunes is the only site for this orchid in Somerset. We found Bugloss (*Lycopsis arvensis*) and Bur Chervil (*Anthriscus caucalis*), which both have a largely coastal

distribution in VC6, and a few plants of Hound's-tongue (*Cynoglossum officinale*) which is Near Threatened on the GB and England Red Lists, and thus a RPR species.



Hound's-tongue (*Cynoglossum officinale*) Photo © Karen Andrews

At the edge of the next fairway, attention returned to the frazzled vegetation, as a massive population of Bulbous Meadow-grass was admired, together with a carpet of circular corpses of Suffocated Clover. In grassland north of the path, a smart Bee Orchid (*Ophrys apifera*) was still in flower. We studied some Eyebrights: the small flowers, leaf shape, lack of glandular hairs and the fact that the first flowers were at node 10 or above all led us to conclude that they were Common Eyebright (*Euphrasia nemorosa*), another RPR species. Yellow Oat-grass (*Trisetum flavescens*) and Silver Hair-grass (*Aira caryophyllea*) were flowering abundantly, catching the evening sun, and nearby we spotted another rare coastal grass, Dune Fescue (*Vulpia fasciculata*). Like Purple Fescue, this is GB Scarce and a RPR species.

Leaving the dunes, a boardwalk leads seawards across a large reed bed. This added some wetland species to our list, including Sea Clubrush (*Bolboschoenus maritimus*), Cyperus Sedge (*Carex pseudocyperus*), Marsh Bedstraw (*Galium palustre*), Lesser Water-parsnip (*Berula erecta*), Gypsywort (*Lycopus europaeus*), Skullcap (*Scutellaria galericulata*) and some smart Southern Marsh-orchids (*Dactylorhiza praetermissa*).

We emerged onto the beach between large patches of blue-leaved Lyme-grass (*Leymus arenarius*), a RPR species because it is Scarce in VC5. By the path was a patch of Sea Sandwort (*Honckenya peploides*), exactly where some of us had recorded it previously, although not since 2014. This is another RPR species, being Scarce in VC5 and VC6.



SRPG members striding out to the beach. Photo © Karen Andrews

At the top of the beach, we found three species typical of sandy foreshores: Prickly Saltwort (*Salsola kali*), Frosted Orache (*Atriplex laciniata*) and Sea Rocket (*Cakile maritima*). All of these are included in the Somerset Rare Plant Register (RPR): all are rare or scarce in VC5 due to lack of suitable habitat and Prickly Saltwort is also Vulnerable on the GB Red List.



Sea Rocket (*Cakile maritima*) on the beach Photo © Karen Andrews

Originally, upon learning that we would need to stick to the footpath across the golf course, the ambitious leader had planned a 1km march up the beach, returning by the parallel path to the north. In fact, there had been so much to see just beside the footpath that by the time we reached the beach, the sun was about to set over the sea! The happy band of beach botanists played in the sand, gazed at the sunset, then retraced their steps.



Nicky, Margaret and Jane at Berrow Dunes.

Photo © Helena Crouch

As we returned to the golf course, we were greeted by a magical display of large yellow flowers: the Fragrant Evening-primrose (*Oenothera stricta*) flowers had all opened! This species is native to Chile, but now found almost worldwide.



Fragrant Evening-primrose flowering at sunset.

Photo © Helena Crouch

Although we had seen several Lizard Orchids earlier, the most splendid one was seen on our return, and everyone ascended the dune beside the path to examine the spire of long-tailed lizards and to check whether they really do smell of goats.



Lizard Orchid (*Himantoglossum hircinum*) Photo © Helena Crouch

We had seen some Common Broomrape (*Orobancha minor*) earlier, but on our return we spotted some tall narrow (brown, dry and dead!) spikes just south of the footpath. These were identified as *O. minor* subsp. *minor* var. *compositarum*, which we have found here before, on two previous SRPG meetings, the first in 2009. This variety, as its name suggests, is particularly found on members of the Asteraceae, especially Smooth Hawk's-beard (*Crepis capillaris*). The corollas are held sub-erect rather than horizontal, which is why the flowering spikes appear tall and narrow.

Altogether we recorded 156 species, just along our small transect of the Berrow Dunes SSSI. This included 14 RPR species; there are at least ten further RPR species in other parts of the dunes. It is a very special site and we are grateful to the Course Manager for encouraging SRPG to visit.

Thursday 22nd June 2023, Sand Bay (VC6)

Leaders: Helena Crouch & Margaret Webster

Report: Helena Crouch



SRPG members and strandline colonists at Sand Bay. Photo © Helena Crouch

The weather was perfect for a day at the beach, dry and sunny with a refreshing breeze, as nine members and guests met in the middle car park at Sand Bay. Margaret and I had explored the southern end of the bay the previous week, finding a depressing number of invasive aliens, so we set off northwards instead, to see a better range of native coastal plants. On the bank opposite the car park was a large patch of Compact Brome (*Anisantha madritensis*) which appears to be spreading in the north of Somerset. We headed to the beach, where there was a marked linear strip of strandline colonists: Prickly Saltwort (*Salsola kali*), Frosted Orache (*Atriplex laciniata*), Grass-leaved Orache (*Atriplex littoralis*) and Sea Rocket (*Cakile maritima*). All of these are included in the Somerset Rare Plant Register (RPR): all are rare or scarce in VC5 due to lack of suitable habitat and Prickly Saltwort is also Vulnerable on the GB Red List.

On the fore-dunes we saw Sea Spurge (*Euphorbia paralias*) and Marram (*Ammophila arenaria*), both widespread coastal plants, but both also RPR species in Somerset, because they are scarce in VC5.



Pam, Margaret and Maria studying Marram (*Ammophila arenaria*).
Photo © Helena Crouch

At the top of the beach was a large patch of Sea Sandwort (*Honckenya peploides*), yet another RPR species, scarce in both vice-counties. We studied the tiny green flowers at the tips of shoots. Like Prickly Saltwort, this species can

re-grow when inundated with sand, aiding the stabilisation of fore-dunes.



Sea Sandwort (*Honckenya peploides*) in flower.
Photo © Helena Crouch

The seaward side of the dunes was dominated by Sand Sedge (*Carex arenaria*), Sand Couch (*Elymus junceiformis*), Sea Couch (*Elymus atherica*) and also the large blue-leaved Lyme Grass (*Leymus arenarius*), another RPR species because it is scarce in VC5. These all have extensive root systems and creeping rhizomes which aid dune stabilisation. A study of the Sea Couch left us uneasy about its identification following suggestions that much of it may in fact be *Elymus x drucei*, the hybrid with Common Couch. [An investigation to be continued ...]

We stopped for lunch at the northern edge of the beach, before venturing onto the extensive saltmarsh. Long-bracted Sedge (*Carex extensa*) was immediately found, yet another species which is rare in VC5 (but not in VC6) and thus included in the RPR. Sea-milkwort (*Lysimachia maritima*) was flowering abundantly.



Sea-milkwort (*Lysimachia maritima*). Photo © Helena Crouch

Saltmarsh Rush (*Juncus gerardii*) was also just flowering, with glistening stigmas, variously likened to pink pipe-cleaners, or coral.



Pink stigmas of Saltmarsh Rush (*Juncus gerardii*).
Photo © Fred Rumsey

Thrift (*Armeria maritima*) was occasional on the saltmarsh, as was Common Sea-lavender (*Limonium vulgare*), which is Near Threatened on the England Red List, and thus yet another RPR species. There were great patches of a Glasswort (*Salicornia* sp.), not yet flowering, hence unidentifiable, but absolutely delicious (and another RPR taxon, whichever species).

Towards the back of the saltmarsh, there were yet more RPR species. Several clumps of Sea Rush (*Juncus maritimus*) were just beginning to flower, whilst in a damp area beside some alders, there are now too many Marsh-mallow (*Althaea officinalis*) plants to count! Distant Sedge (*Carex distans*) was found here too, and a patch of Strawberry Clover (*Trifolium fragiferum*) was spotted at the edge of the path.

On the path, we found some small curved Hard-grass (*Parapholis*) plants, not quite in flower, very close to a former site of the rarer species, Curved Hard-grass (*Parapholis incurva*). A specimen, taken home and put in a vase, produced anthers a week later; however, these were 2mm long, too large to be *Parapholis incurva*. The plants were thus curved specimens of the common Hard-grass (*Parapholis strigosa*): a return visit is needed.



Markedly curved Hard-grass (*Parapholis strigosa*), not Curved Hard-grass (*P. incurva*). Photo © Helena Crouch

We had greater success with Bird's-foot Clover (*Trifolium ornithopodioides*), first found here in 2022. After finding a few dead brown rosettes on the path, we spotted some large lush flowering plants at the path edge. This species is scarce in VC6, thus is included in the RPR. It was growing with Hop Trefoil (*T. campestre*) and Hare's-foot Clover (*T. arvense*).



The toothed leaves and tiny pink flower of Bird's-foot Clover (*Trifolium ornithopodioides*). Photo © Helena Crouch

Nearby on the path, Margaret identified the remains of Bulbous Meadow-grass (*Poa bulbosa*), exactly where she first found it in 2014. This diminutive early-flowering grass is scarce in both VC5 and VC6, and thus another RPR species. Two broomrape species were spotted almost simultaneously: on ivy at the back of the dunes were spikes of Ivy Broomrape (*Orobancha hederæ*), whilst on the dunes we saw Common Broomrape (*O. minor*), both confirmed by Fred Rumsey, the former a RPR species.

The large Spanish-dagger (*Yucca gloriosa*), known here since 2011, had clearly flowered, but has not spread, unlike Japanese Rose (*Rosa rugosa*) and Sea Buckthorn (*Hippophae rhamnoides*) which have swamped vast tracts of the dunes, particularly at the south end of the bay, suppressing the native flora of this SSSI. Another species which has spread astonishingly is the rather cute grass, Hare's-tail (*Lagurus ovatus*). This is likely to be having a deleterious impact on small native grasses, such as Sand Cat's-tail (*Phleum arenarium*) which is Near Threatened on the England Red List, and a RPR species. In places, this grows abundantly on the mature dunes.



Sand Cat's-tail (*Phleum arenarium*). Photo © Fred Rumsey

By now we were in sight of the tea rooms: as arranged, I phoned ahead to alert them to our imminent arrival. It still took another half an hour to get there! At the back of the dunes, we recorded two more RPR species: Wild Clary (*Salvia verbenaca*) and Hound's-tongue (*Cynoglossum officinale*), both Near Threatened on the England Red List. Eventually we were rewarded with tea or ice creams. It had been an excellent day. We recorded 125 species in just a short stretch of beach, dunes and saltmarsh, 21 of which are included in the Somerset Rare Plant Register.

Saturday 24th June 2023, Wellington Monument and Wellington Castle Fields (VC5)

Leaders & Report: Linda Everton & Karen Turvey

The meeting was prompted by a desire to re-find Moonwort (*Botrychium lunaria*) in the grassland just south of the Monument, its last recorded site on the Blackdown Hills. As reported in the *Atlas Flora*, just six specimens were found here in 1993, it otherwise having been unseen at the site since 1896.

Eleven of us met at the National Trust car park on what turned out to be a very hot day with local temperatures reaching 28°C. We were a good mix of old and young, experts, learners, and budding hat designers.



Sunhats essential. Photo © Anna Mullet

The Monument, which is a recently restored landmark on the edge of the Blackdown Hills, was built as a tribute to the Duke of Wellington for his victory at Waterloo in 1815. The original proposal was to create a triangular pillar supported on a plinth and surmounted by a massive cast iron statue of the Duke, but the statue was never commissioned, and the original plan was transformed into what is now the tallest 3-sided obelisk in the world.

Walking up through the relative cool of the tree-lined approach to the Monument we soon came into the open area in front of the Monument which was our key area of search for the elusive Moonwort. After stopping to admire the always popular Common Spotted-orchids (*Dactylorhiza fuchsii*) which are abundant at the site, we formed a “police type” line to search for the tiny fern. Guided by a map produced by those who had seen it before, we focussed on the area to the right (east) of the central grassy path leading to the Monument. Despite the efforts of 11 pairs of eyes criss-crossing the search area we were unsuccessful in finding the target species.



The search for Moonwort (*Botrychium lunaria*).
Photo © Steve Parker

Another species of interest previously recorded from the Monument site is Common Dodder (*Cuscuta epithymum*), something of a rarity within the Somerset part of the Blackdowns and ‘Vulnerable’ on the GB and England Red Lists. The most recent record here was from 2004 (albeit at a slightly questionable grid reference) and was believed to be slightly west of the Moonwort site. The group split into two smaller groups so that some could search for the Dodder whilst others walked down the hill to start recording within the Somerset Wildlife Trust’s Castle Fields reserve.

The group who remained at the top continued to record species within the grassland and then into the edge of the wooded area, making their way towards where the Dodder had previously been seen. It was noted that many of the areas between the scattered trees on the edge of the woodland which had previously been open had become dominated by Bracken (*Pteridium aquilinum*) or areas of Bramble (*Rubus fruticosus* agg.). This was the case for the area where the Dodder had been recorded and, despite a further search, we could find no sign of it. We had been joined on the day by the National Trust ranger for the Blackdowns and discussions were had

about how the management of the area could be changed to increase the species diversity amongst the trees.

Despite being unsuccessful with our target species the Monument site still supports some species-rich areas. Species from the England 'Near Threatened' list found within the mosaic of habitats included Quaking-grass (*Briza media*), Heather (*Calluna vulgaris*), Bell Heather (*Erica cinerea*), Tormential (*Potentilla erecta*) and Devil's-bit Scabious (*Succisa pratensis*).

Meanwhile the second group moved down the steep and somewhat uneven steps into SWT's Castle Fields reserve. Castle Fields is approximately 11 hectares on the north-facing slope of the Blackdowns Hills. The site, which is managed mainly through grazing cattle, is predominantly unimproved grassland with areas of woodland, some bracken and scrub. Due to a spring line crossing the site some of the site can be very wet.

The Wellington Monument site along with the western part of the SWT reserve fall within the 1km square ST1317. It was decided to walk through the first part of the reserve and start recording in the adjacent 1km square, ST1417, just beyond the gateway between the two open grassland areas. Due to the wet nature of the site, areas of the grassland here are dominated by rushes, including Sharp-flowered Rush (*Juncus acutiflorus*).



Looking across the eastern field of SWT's Castle Fields Reserve.
Photo © Val Graham

The team who had initially remained up by the Monument caught up with the reserve team to find they had retreated to the cool of a shaded bank along the reserve's southern boundary for lunch. This was a chance to share findings and have a much-appreciated break from the heat of the day with an opportunity to admire the views out over Wellington to the Brendon Hills beyond.



Overheated botanists enjoying a shady lunch. Photo © Steve Parker

After lunch, recording progressed within the grassland area, moving gradually towards the eastern end of the reserve. One of the highlights in this area was Narrow Buckler-fern (*Dryopteris carthusiana*), being new to the site, with just a few plants located in a small area. Another species of interest was a *Potentilla* that led to lively discussions eventually resulting in an agreement that the hybrid of Trailing Tormential (*Potentilla anglica*) and Creeping Cinquefoil (*Potentilla reptans*), *P x mixta*, was present at the site as well as both parent species.



Admiring the view towards the Brendon Hills. Photo © Steve Parker

After such an intense discussion some took the opportunity of an area of shorter sward to sit and admire

the view whilst others continued the close scrutiny of further species.

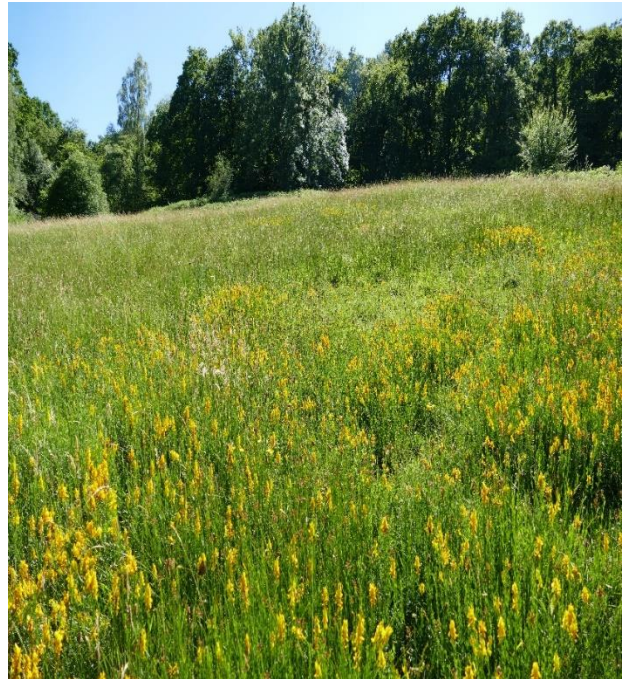


Two young botanists still hard at work. Photo © Steve Parker

The heat of the day got to some attendees who used the remainder of their energy to climb back to the shade of the Monument whilst others returned to the western part of the reserve to record within the ST1317 area they had passed through earlier. They were rewarded with a stunning display of Dyer's Greenweed (*Genista tinctoria*) ('Vulnerable' on the England Red List) which seemed to be more plentiful than in previous years of recording. Also of note in this area was Flea Sedge (*Carex pulicaris*), another England 'Near Threatened' species.

Further 'England Red-listed' species recorded in the SWT reserve included Marsh Ragwort (*Jacobaea aquatica*), Corn Mint (*Mentha arvensis*), Lesser Spearwort (*Ranunculus flammula*) and Ragged-Robin (*Silene flos-cuculi*). In addition to Narrow Buckler-fern, a second species of interest new to the site was Pale Sedge (*Carex pallescens*). Also noteworthy was a fine

display of Betony (*Betonica officinalis*), just beginning to flower. Other 'first-flowerers' recorded included Sneezewort (*Achillea ptarmica*) and Square-stalked St. John's-wort (*Hypericum tetrapterum*).



Dyer's Greenweed (*Genista tinctoria*). Photo © Steve Parker



Betony (*Betonica officinalis*). Photo © Simon Leach

In all we recorded 182 plant taxa and made 256 records. Butterflies noted during the day included Small Heath, plus 'first-of-the-year' Large Skippers and Silver-washed Fritillaries. Thanks very much to everyone who joined in the day. We hope it was enjoyed by all.

Saturday 2nd July 2023, Beacon Hill and Weacombe, near West Quantoxhead (VC5)

Leaders: Steve Parker & Helena Crouch

Report: Fred Rumsey



SRPG on the Quantocks. Photo © Val Graham

A large group assembled at the Staple Plain car park for this, the first of two planned visits to investigate mire vegetation in this part of the Quantocks.

One group went with Steve to explore the woodland and slopes around Staple Plantation in the monad ST1141, while Helena led our group uphill into ST1240. Our primary goal was to check on Cowberry (*Vaccinium vitis-idaea*) at its only Somerset site, where first discovered in 1917, but we were also keen to check on the survival of a suite of species associated with the small seepages and rills in Weacombe.

Striding up the track from the car park, we almost immediately came upon impressive stands of the holoparasite Common Dodder (*Cuscuta epithymum*) forming pink twined masses over Western Gorse (*Ulex gallii*) and Bell Heather (*Erica cinerea*) bushes on both sides of the track. The knots of clustered pink star-like flowers of this declining vulnerable (VU)* species provided a real spectacle. (*See the introduction of the RPR on the website for definitions).

As we climbed higher the view back westwards became ever more impressive and the dominance of Bracken all the more ominously obvious.



Common Dodder (*Cuscuta epithymum*). Photo © Fred Rumsey



Bell heather, bracken encroachment and a grand vista.
Photo © Val Graham

Glorious purple patches of the England Near Threatened (NT) Bell Heather still studded some of the upper slopes, set in an agitated tide of the metallic-sheened flower heads of the fine blue-grey tussocky grass Bristle Bent (*Agrostis curtisii*). Together these locally dominated the drier banks of the gravelly-sandy, well-worn track, the grassy green central stripe of which yielded up several small treasures, such as Sand Spurrey (*Spergularia rubra*).



Sand Spurrey (*Spargularia rubra*). Photo © Fred Rumsey

The parched grassy track edges also had the tough unpalatable Mat Grass (*Nardus stricta*), a common indicator of over-grazing in upland Britain, but a Near Threatened and declining species in the under-grazed, nutrient-soaked lowlands. Both it and the *Agrostis* are Not Scarce in VC5 but lack suitable habitat and are Scarce and Rare respectively in VC6.

Heading northwards off the path towards the head of Herridge and Gay's House Combes, we were fortunate that John Poingdestre was with us, as he had been the last to make a record of our target here, the Cowberry (*Vaccinium vitis-idaea*), some five years previously.

Fortunately, his memory of the landscape and vegetation features were good. Amongst the locally dominant Bilberry (*Vaccinium myrtillus*), we soon began to find patches of the Cowberry with its leathery obtuse leaves and reddish-maroon ripening fruit.



Cowberry (*Vaccinium vitis-idaea*) in fruit.
Photo © Fred Rumsey

That mission completed, we made our way back over into the head of Weacombe to look for some of the local treasures of open mire and poached acid-ground habitats. Some records had been made in the monad on an SRPG meeting in 2015 but we lacked more recent finds of RPR species such as the Nationally Scarce Cornish Moneywort (*Sibthorpia europaea*), particularly in the adjacent monad which was to be the target of a return visit in September (see the Meeting Report by Simon).



John leading us to berried treasure. Photo © Fred Rumsey

This seemed like a good place to take lunch before we attempted to map the extent of the *Vaccinium*'s spread – although the writer at least chose an unfortunately Tick-rich tussock to perch on. Try as we might we could not find the plant beyond the confines of a single 100m



Cornish Moneywort (*Sibthorpia europaea*).
Photo © Fred Rumsey

The very small pockets of mire vegetation associated with seepage lines had to be hunted down through head-high Bracken. Every opportunity had to be taken to get down to the small streams and runnels in the valley bottom, the fringing vegetation of which, where less dense, gave us the best chance to locate our target species. In the end four records were made of *Sibthorpia*, mostly in areas where it had also been seen in 2015, but it was only in very small quantity and easily missed.

Other Rare Plant Register species seen in the poached muddy mires included Lousewort (*Pedicularis sylvatica*) and Lesser Spearwort (*Ranunculus flammula*), both Vulnerable on the England Red List and the Near Threatened Star Sedge (*Carex echinata*), one of nine sedges seen, Cross-leaved Heath (*Erica tetralix*) and Marsh Pennywort (*Hydrocotyle vulgaris*). The last was often found closely associated with the *Sibthorpia*, posing a challenge to differentiate the pennies from the money. The Leafy Rush (*Juncus foliosus*), characteristic of this habitat and perhaps still overlooked in the county, was also a nice find.

Despite much hopeful searching on this occasion no Sundew (*Drosera*) was seen, although it is known just to the east in Sheppards Combe. Indeed, no carnivorous plants were found. The lower portion of Weacombe had once supported the last known Common Butterwort (*Pinguicula vulgaris*) plants in Somerset, but 50 years on there seemed little hope of its survival. We however hoped that our September return might be rewarded, if not with that but with

other RPR species. The extent of the area of mire is now very restricted and we believed had declined since our last visit eight years before. The dominance of Bracken on the slopes and bramble-covered scrub by the stream margins cries out for more active management if the local botanical interest is to be maintained.

Descending the combe, we were mindful of the approaching monad boundary. The Bracken-induced depression was heightened by the realisation of just how steep the track was to get back up to the cars!

The top finally, and breathlessly, attained, we could catch up with the remainder of the Plantation group and report back to Steve on our findings. It was certainly a day of highs – and lows. A great time was had by all and we looked forward to the return visit.



Bristle Bent (*Agrostis curtisii*). Photo © Fred Rumsey

Sunday 9th July 2023, Aquatic Plants Workshop, Southlake Moor (VC6)

Leaders: Nick Stewart & Helena Crouch

Report: Val Graham



Nick Stewart explaining Charophytes at Southlake Moor. Photo © Helena Crouch

This workshop was an opportunity to learn about the aquatic plants in the exceptionally rich ditches of Southlake Moor. This is a closed reserve managed by Natural England and part of the new Somerset Wetlands NNR.

While we waited for everyone to arrive in the car park, wondering if the rain was going to hold off, two beautifully restored 1930s saloons drove in, followed later by several more. These were members of the Austin 10 Drivers Club out for a Sunday run. Some time was spent re-arranging the cars so that the old bangers, and the Austins, were able to park.

By the time we left the car park the weather had improved and it was to get steadily better as the day progressed.

Our tutor for the day, Nick Stewart, gave us an initial introduction to his approach to identifying aquatic plants vegetatively by growth form, which is more effective than attempting to place into families or by looking at flowers, which are often obscure or absent.

Southlake is a stronghold of Greater Water-parsnip (*Sium latifolium*) and of Marsh-mallow (*Althaea officinalis*) which we hoped to see during the day. Two fully aquatic plants that Nick hoped to find were Flat-stalked Pondweed (*Potamogeton friesii*) and Great Tassel Stonewort (*Tolypella prolifera*). These were last recorded, by Nick, in 1995 and 2006 respectively.



Our first ditch showing a good variety of submerged, floating, and emergent aquatic plants. Photo © Val Graham

Our first dip in the rhyme beside the main track yielded Nuttall's Waterweed (*Elodea nuttallii*), Curled Pondweed (*Potamogeton crispus*), and Frogbit (*Hydrocharis morsus-ranae*). A second dip produced Canadian Pondweed (*Elodea canadensis*), allowing us to compare the two North American *Elodea*. The leaves of Nuttall's are more sharply pointed, and more strongly curled back to the stem. It is now the more common of the two on the Levels although it arrived later.

A number of duckweeds were found. The noticeably larger Greater Duckweed (*Spirodela polyrrhiza*) was identified by its multiple roots and red or purple underside. Ivy-leaved Duckweed (*Lemna trisulca*) could be seen floating just below the surface with its distinctive chains of fronds. Fat Duckweed (*Lemna gibba*) was identified by its large cells which swell up later in the summer giving it its name. The shiny green Common Duckweed (*Lemna minor*), and the small, greyish, somewhat elongated, Least Duckweed (*Lemna minuta*) were also present.



Frogbit (*Hydrocharis morsus-ranae*) in flower with several Duckweeds. Photo © Cath Shellswell

Tubular Water-dropwort (*Oenanthe fistulosa*) was growing in the rhyme topped by a small umbel of white flowers. Beside this were the simple upright, hollow stems of Water Horsetail (*Equisetum fluviatile*).

Many of the plants in the rhynes were in flower including Frogbit (*Hydrocharis morsus-ranae*), Water-plantain (*Alisma plantago-aquatica*), Flowering-rush (*Butomus umbellatus*), and Arrowhead (*Sagittaria sagittifolia*). Branched Bur-reed (*Sparganium erectum*) lined the rhynes and in one place was joined by Unbranched Bur-reed (*Sparganium emersum*) in full flower. Water-violet (*Hottonia palustris*) had almost finished flowering, but we could see the distinctive green, pinnately divided, flattened leaves.



Unbranched Bur-reed in flower. Photo © Val Graham

At our next stop we were puzzled by long red strings in the water. The suggestion that it was a new aquatic form of dodder was firmly rejected. After some investigation we hesitantly decided it might be stolons from the nearby Yellow Loosestrife (*Lysimachia vulgaris*).

Although we did not find Flat-stalked Pondweed, we did find the much more common Hairlike Pondweed (*Potamogeton trichoides*).



Mysterious red strings. Photo © Val Graham

We were pleased to see Marsh-mallow growing well, with several large plants in flower along the edge of the track.



Marsh-mallow. Photo © Alastair Stevenson

Nick led us through his key to identify Common Water-starwort (*Callitriche stagnalis*) which is only possible with close examination of the fruit.

The rhynes here were so rich in aquatic plants that we were still in sight of the car park when we stopped for lunch. A search for Tufted-sedge (*Carex elata*) previously seen here in 2015 was unsuccessful.

After lunch Nick showed us some of the underwater leaves of familiar species, which can be quite different to the emergent leaves. Those of Water-plantain are D-shaped in cross-section, with one flat edge, while those of Arrowhead are ribbon-like. Bur-reeds have strap-shaped underwater leaves with a flattened triangular cross-section.

Next, we tackled Stoneworts (*Charophytes*). These are some of the most complex green algae and have a common ancestor with land plants. The key provided by Nick allowed us to identify Common Stonewort (*Chara vulgaris*). Nick then presented us with another Stonewort

which did not have the characteristic stripy stem of *Chara* species. It had dense masses of fertile branches which give it its common name Great Tassel Stonewort (*Tolypella prolifera*). It prefers newly cleared ditches and can persist as spores for years while waiting for suitable conditions. This is a rare species nationally and was one of the target species for the day.

Finally, we walked a few hundred metres to the Greater Water-parsnip ditches. On the way, one part of the group was delayed while admiring Whorled Water-milfoil (*Myriophyllum verticillatum*) with its emergent flowering spikes.



Whorled Water-milfoil. Photo © Helena Crouch



Greater Water-parsnip. Photo © Helena Crouch

The Greater Water-Parsnip was flourishing along a hundred-metre stretch, on both sides of the track. Its smaller and more common cousin, Lesser Water-parsnip (*Berula erecta*), was nearby for comparison.

Overall, it was a very successful day, and we were able to see the huge variety of aquatic plants at their best. We were delighted to re-find Great Tassel Stonewort after so many years.

Many thanks are due to Nick for sharing his extensive experience of aquatic plants and to Natural England for permission to visit the site.

Further information on aquatic plant identification can be found on the BSBI website under the Aquatic Plants Project. There are also links to Nick's webinar videos, his vegetative keys, and many other resources.

Sunday 16th July 2023, Pawlett Hams (VC6)

Leaders: John Poingdestre & Helena Crouch

Report: Helena Crouch



A lone botanist amid the vast flat expanse of Pawlett Hams. Photo © Helena Crouch

Pawlett Hams is part of the Bridgwater Bay SSSI, a roughly circular peninsula within a loop of the tidal River Parrett. With the threat of strong winds and heavy showers, fourteen members assembled in fine weather at the east end of White House Road, which leads west across Pawlett Hams to the estuary. We set off briskly, slowing to a halt when we reached our first target monad, just where three horses were tethered (or not, in one case!). The wide verges were well-grazed, and not particularly species rich. We recorded several umbellifers, including Upright Hedge-parsley (*Torilis japonica*), Corky-fruited Water-dropwort (*Oenanthe pimpinelloides*), Hogweed (*Heracleum sphondylium*), Hemlock (*Conium maculatum*), Cow Parsley (*Anthriscus sylvestris*), Hemlock Water-dropwort (*O. crocata*), and Stone Parsley (*Sison amomum*).

Entering a field, we found abundant Grass Vetchling (*Lathyrus nissolia*) in seed, and Common Fleabane (*Pulicaria dysenterica*). We explored our first ditch, perpendicular to the road, finding Brookweed (*Samolus valerandi*) and Tufted Forget-me-not (*Myosotis laxa* subsp. *caespitosa*) at the edge. The dominant emergent was Common Reed (*Phragmites australis*), but we also found Sea Club-rush (*Bolboschoenus maritimus*) and Grey Club-rush (*Schoenoplectus tabernaemontani*).



Nigel and Val marvel at Reed rhizome length. Photo © Helena Crouch

Within the ditch, Nick Stewart showed members Hairlike Pondweed (*Potamogeton trichoides*), Rigid Hornwort (*Ceratophyllum demersum*) and three common duckweeds: Ivy-leaved Duckweed (*Lemna trisulca*), Fat Duckweed (*L. gibba*) and Greater Duckweed (*Spirodela polyrrhiza*). We found no Common Duckweed (*L. minor*) all day, but we did record three Schedule 9 species in this first ditch: Nuttall's Waterweed (*Elodea nuttallii*), Curly Waterweed (*Lagarosiphon major*) and the very invasive Water-primrose (*Ludwigia grandiflora* subsp. *hexapetala*), which we removed.

At the southern edge of the field, we were surprised to find Agrimony (*Agrimonia eupatoria*), the first record for this species on Pawlett Hams since the *Atlas Flora*! Beside White House Rhyne (alongside the road) we added another umbellifer to our list: Wild Celery (*Apium graveolens*).

The hedgerows alongside the road are dominated by Blackthorn (*Prunus spinosa*) and Hawthorn (*Crataegus monogyna*), with brambles, attracting many butterflies, particularly Gatekeepers. A highlight of the day was a Wall butterfly.



Wall butterfly by White House Road. Photo © Helena Crouch

In a broad ditch to the south of the road, we found more umbellifers. John showed us Tubular Water-dropwort (*Oenanthe fistulosa*) which he discovered new to Pawlett Hams in 2014. This species is Vulnerable on the GB and England Red Lists. We examined Lesser Water-parsnip (*Berula erecta*), with a ring on the petiole and flowers at the tops of shoots, and compared it with Fool's Water-cress (*Helosciadium nodosum*), with umbels in the nodes of shoots. Knotted Hedge-parsley (*Torilis nodosa*) was growing all along an adjacent bank, together with Strawberry Clover (*Trifolium fragiferum*). The rain had held off, skylarks were singing overhead, and we were within a short dash of a mobile bird hide if necessary, so the low banks seemed a perfect place for lunch!

Refreshed, we continued along the road, seeing beautiful Flowering-rush (*Butomus umbellatus*) in the ditch south of the road. Further along this ditch, we recorded many flowering plants of Parsley Water-dropwort (*Oenanthe lachenalii*), another Rare Plant Register (RPR) species. Beside the ditch were large angular plants of Corn Parsley (*Sison segetum*).



Fruits of Strawberry Clover (*Trifolium fragiferum*) and Knotted Hedge-parsley (*Torilis nodosa*) on a low bank. Photos © Liz Downey



Parsley Water-dropwort (*Oenanthe lachenalii*).
Photo © Fred Rumsey

Combwich looked colourful and bright ahead, but the Quantocks suddenly became dark and disappeared as rain swept towards us! Lesser Bulrush (*Typha angustifolia*) and the common Bulrush (*T. latifolia*) grew together for ease of comparison. We persevered in driving rain, while Nick continued to sample the ditch, finding Fennel Pondweed (*Stuckenia pectinata*).



Attentive audience watching Nick ditch dabbling.
Photo © Helena Crouch

Now drenched, we reached the end of the road, where amazingly, we were invited for tea in a boat by the owners of White House Farm. Refreshed, and slightly drier, we explored the area of saltmarsh they own, which, unlike adjacent areas, was not yet grazed. Here we recorded Sea Plantain (*Plantago maritima*), Sea-milkwort (*Lysimachia maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Saltmarsh Rush (*Juncus gerardii*), Sea Beet (*Beta vulgaris* subsp. *maritima*), a Glasswort (*Salicornia europaea* agg.), Annual Sea-blite (*Suaeda maritima*) and Greater Sea-spurrey (*Spergularia media*).



Flower of Greater Sea-spurrey with petals exceeding sepals ...



... and seeds with clear winged borders. Photos © Liz Downey

Excitingly, we also found several patches of Sea Barley (*Hordeum marinum*). The annual grass is Vulnerable on the GB and England Red Lists, GB Scarce and a Schedule 41 species: it is thus another RPR species.



Sea Barley (*Hordeum marinum*). Photo © Helena Crouch

On the sea wall above the saltmarsh, we found Fern-grass (*Catapodium rigidum*), many more plants of Corn Parsley, and a splendid Wild Carrot (*Daucus carota* subsp. *carota*).

Leaving White House Farm, we headed south along the England Coast Path, hoping to find Bulbous Foxtail (*Alopecurus bulbosus*) in the field behind the sea wall. Sadly, it eluded us, but we added three more Rare Plant Register (RPR) species to our records. A tiny patch of Common Sea-lavender (*Limonium vulgare*) was new to the monad; this species is Near Threatened on the England Red List. At the estuary edge was a small patch of Sea Clover (*Trifolium squamosum*), with prickly fruiting heads. This is GB Scarce. In a ditch behind the sea wall, Nick found several plants of Marsh Dock (*Rumex palustris*), a RPR species because it is Scarce in VC5.

A weary band of botanists marched the 2km back along the road, in increasingly fine weather. We had recorded around 130 species in each of two monads, including fifteen species of Apiaceae.

Sunday 23rd July 2023, Otterhead Lakes Local Nature Reserve (VC5 & VC3)

Leader: Steve Parker

Report: Simon Leach



House Lake, Otterhead Lakes Local Nature Reserve. Photo © Karen Andrews

The heatwave in Europe continued, and wildfires raged across great swathes of the Mediterranean, but closer to home the extraordinarily dry and sunny late spring/early summer had fizzled away – thanks to a shift in the jet stream – to something much damper and less hot.

So while the day dawned fine and sunny, by mid-morning it had settled into a hotchpotch of sunshine and showers. At least we weren't in Manchester, where the final day of the crucial 4th Test against the Australians was completely washed out, the match doomed to end in a sodden draw.

Anyway, doing our best to push the cricket to the backs of our minds, nine of us gathered at Otterhead Lakes, in the car park beside the lodge. Here we were introduced to John Godsmark, a member of the Otterhead Estate Trust which leases the Local Nature Reserve area from Wessex Water. John briefly explained the history and management of the site, then joined us for the rest of the morning as we slowly made our way around the 'House Lake' – heading down the main drive to the little bridge at the southern end of the lake, then across a flat terrace on the side of the lake where Otterhead House used to stand – a grand residence of which now almost nothing remains.

In its heyday the estate included a flight of seven lakes and a complex network of leats, weirs, and pumps. Just two lakes survive, House Lake and, at the southern end of the site, Royston Lake. Today, the reserve holds an interesting range of habitats: there's the River Otter itself – here little more than a swift-flowing stream – the two lakes, a varied mixture of marginal swamp vegetation, alder-willow carr, wet woodland, and one or two small pockets of bracken and unimproved grassland. Adjoining the reserve there are also blocks of mainly coniferous valley-side woodland on land leased to, and managed by, the Forestry Commission.

Keeping a list of what we found on the reserve wasn't straightforward. While our recording was helpfully confined to a single monad, ST2213, we realised that both the monad and the site inconveniently straddled two vice-counties, VC5 (South Somerset) and VC3 (South Devon) – with the course of the River Otter here marking the old boundary between Somerset and Devon. So, for purposes of botanical recording, we would have to keep two lists rather than one.

Botanical highlights of the stroll around House Lake included Hard Shield-fern (*Polystichum aculeatum*) in VC5 and a single large clump of Royal Fern (*Osmunda regalis*) in VC3. There were lowlights too, the main one being New Zealand Pigmyweed (*Crassula helmsii*) which seemed to be dominating large areas of the lake on both sides of the vice-county boundary. Steve, using a grapnel, also hauled in some Nuttall's Pondweed (*Elodea nuttallii*), just inside Devon, but surely on the Somerset side of the border too.



Karen admiring the Royal Fern. Photo © Simon Leach

Around the site of the 'big house' we recorded various now-wild garden relics including 'Irish' Yew (*Taxus baccata*), Mock-orange (*Philadelphus coronarius*), and

Elecampane (*Inula helenium*). Beside the lake a small stand of Japanese Knotweed turned out on closer inspection to be the (probably under-recorded) hybrid between 'Japanese' and 'Giant', *Reynoutria x bohemica* – having much larger leaves than *R. japonica*, and with truncate rather than the markedly cordate leaf bases of *R. sachalinensis*.



Elecampane (*Inula helenium*) close to the site of the former Otterhead House. Photo © Karen Andrews

We stopped for lunch overlooking the northern end of the lake, before heading into an area of swampy carr-woodland where we saw what we thought was evidence of beaver activity, the site having been colonised in the last few years by beavers moving upstream from introduction sites further down the Otter in Devon. This was also where we saw the Royal Fern.



Evidence of beaver activity? What looked like a dam near the southern end of House Lake. Photo © Simon Leach



Lasioptera carophila galls on Hemlock Water-dropwort. Photo © Simon Leach

Non-botanical highlights included abundant ‘mop-head’ galls on *Dryopteris filix-mas* and *dilatata* caused by the midge *Chirosia betuleti*, a Golden-ringed Dragonfly (*Cordulegaster boltonii*), and amongst a wide range of butterflies a single Fritillary, probably Silver-washed (*Argynnis paphia*). We saw Common Red Soldier Beetle (*Rhagonycha fulva*) too, which is also

known – for good reason – as the ‘hogweed bonking beetle’.

In the afternoon we walked along the streamside path down to Royston Lake, then up the slope and back through stands of conifers and the mainly bracken-covered Lower Cleeve. Beside the bottom path in patches of soggy ground we spotted lots of Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*), as well as several plants of Smooth-stalked Sedge (*Carex laevigata*) which, along with Marsh Violet (*Viola palustris*), seemed to be new for the monad; we also saw lots of froglets (*Rana temporaria*) crawling through Toad Rush (*Juncus bufonius*), newly emerged summer-generation Brimstones (*Gonepteryx rhamni*), and strange swellings in the umbels of Hemlock Water-dropwort (*Oenanthe crocata*) caused by the midge *Lasioptera carophila* – just the fourth record for this gall in Somerset, and the first on *Oenanthe*, the others being on Wild Carrot (*Daucus carota*). And let’s not forget the leaf galls on Greater Stitchwort (*Stellaria holostea*) caused by the aphid *Brachycolus stellariae*.

In all, we recorded 104 vascular plant species in the VC5 portion of the monad, and more than 150 across the border in VC3, including many that were seemingly new for the square. So it proved to be a very worthwhile day’s recording, and a splendid way to keep one’s mind off the weather in Manchester.

Our thanks to John Godsmark for acting as our host, and to Steve for leading on the day.

Saturday 29th July 2023, Cadbury Castle, South Cadbury (VC5)

Leader & Report: Steve Parker



A view from Cadbury Castle. Photo © Steve Parker

On a bright sunny day, the group gathered in the small car park at South Cadbury to walk to Cadbury Castle. This Iron Age hill fort had been visited before by the group. The steep ramparts are known to be home to a range of interesting plants including our target for the day, Hybrid Self-heal (*Prunella x intermedia*). Today we planned to map this plant's distribution.

Once the group had climbed up to the castle the search began. We knew roughly where a single plant had been discovered by Ellen McDouall back in 2014. The ramparts have a rich calcareous flora, they are very steep and hard to clamber across. After a few minutes came a cry "found it". The grid reference was recorded. Then came a second shout and then a third, this rare hybrid was more common than we first thought. For the rest of the day the plant was found in multiple locations, nearly all on the thin soils of the ramparts with others on small outcrops within the interior of the



Hybrid Self-heal. Photo © Steve Parker

monument. During the day over 40 individuals of the hybrid were found and recorded in seven locations. This site supports the largest population in VC5.



Recording the ramparts of the castle. Photo © Steve Parker

Moving around the site some taller vegetation was visited. Here a large patch of Cotton Thistle (*Onopordum acanthium*) was mixed with scattered plants of Twiggy Mullein (*Verbascum virgatum*) and Hound's-tongue (*Cynoglossum officinale*). Insects were also recorded, including a very friendly Greyling (*Hipparchia semele*) which settled on the VC5 recorder's leg!



Grayling butterfly making friends with Steve Parker's leg.
Photo © Steve Parker

After lunch we continued our botanical survey of the site, recording nearly 130 plant species during the trip.

The wooded sides of the hill fort have a few veteran Oak (*Quercus robur*) but access to this woodland was impossible. As we were about to leave the fort another Hybrid Self-heal was found growing by the site entrance. A great trip on an interesting site.



The middle of South Cadbury Hill Fort. Photo © Steve Parker



SRPG members admiring a veteran oak. Photo © Steve Parker

Sunday 6th August 2023, Wall Common (VC5)

Leader: Steve Parker

Report: David Gibbs



Admiring the colony of Slender Hare's-ear (*Bupleurum tenuissimum*). Photo © Simon Leach

Wall Common is an extensive area of saltmarsh, shingle bank and grazing marshes between Bridgwater Bay and the Steart Marshes Nature Reserve. The SRPG have visited Wall Common five times since it was formed (meetings in 2000, 2005, 2009, 2012 (with BSBI/ WFS) and 2018). Together with casual records from SRPG members, 851 records have been amassed, the earliest from September 1965. Despite this the monad has only 215 taxa recorded since 2000 (in total 232 since 1900), but only half of the monad is dry land (S. Parker pers.comm.)!

Seven SRPG members gathered in the small car park at Wall Common. Conditions were dry but rather windy and with some threatening dark clouds across the bay. We set off west along a gravel track just behind the sea wall. It was not long before we came across Slender Hare's-ear (*Bupleurum tenuissimum*) growing along the edge of the track at the base of the sea wall. The colony proved to be very extensive with hundreds of plants, the best showing those that knew the site could remember.



Slender Hare's-ear (*Bupleurum tenuissimum*).
Photo © Simon Leach

Even more cryptic was Hard-grass (*Parapholis strigosa*), growing on the track itself along with Lesser Sea-spurrey (*Spergularia marina*) and a tiny patch of Annual Pearlwort (*Sagina apetala*). The ditch on the landward side of the

track was dominated by Sea Club-rush (*Bolboschoenus maritimus*) amongst which was growing a good colony of Parsley Water-dropwort (*Oenanthe lachenalii*), Sea-milkwort (*Lysimachia maritima* formerly *Glaux maritima*) and some very robust examples of Saltmarsh Rush (*Juncus gerardii*). A large patch of Common Fleabane (*Pulicaria dysenterica*) in the ditch proved very attractive to a couple of Brown Argus butterflies (*Aricia agestis*). A little further on both Long-bracted Sedge (*Carex extensa*) and Distant Sedge (*Carex distans*) were found growing on the grassy bank of the sea wall and Sea Barley (*Hordeum marinum*) beside the track.

At lunchtime we found a little shelter in a dry drain, where we hoped to find Bulbous Foxtail (*Alopecurus bulbosus*). Unfortunately, none could be found but the hybrid with Marsh Foxtail (*Alopecurus geniculatus* x *bulbosus* = *A. x plettkei*), last seen in 2012, was discovered by Simon in the bottom of the ditch.

After lunch we stopped to admire a couple of large patches of Strawberry Clover (*Trifolium fragiferum*) and compare the leaf veins with those of White Clover (*Trifolium repens*).



Strawberry Clover (*Trifolium fragiferum*).
Photo © David Gibbs



White Clover (*Trifolium repens*) (below left) and Strawberry Clover (*Trifolium fragiferum*) (upper right). Photo © David Gibbs

With the day warming up and the sun occasionally appearing, we were distracted for a while by a very large of colony Bee Wolf (*Philanthus triangulum*) digging their tunnels in the sandy soil and even watched some coming in with captured Honeybees. As recently as the 1980s, this species was only known to have permanent colonies on the Isle of Wight (Falk 1991). Subsequently, in response to the warming climate, it has spread north as far as Yorkshire (Bees, Wasps and Ants Recording Scheme (BWARS)).



Female Bee Wolf (*Philanthus triangulum*). Photo © Simon Leach

Towards the western edge of the monad was a colony of White Horehound (*Marrubium vulgare*). Numerous plants were counted, most past their prime but with a few flowers remaining. Hiding deep inside some of these flowers were tiny black beetles which proved to be the pollen beetle *Meligethes nanus*, a very rare species with few British records, and as far as I can find out only otherwise recorded in Somerset when I came across it on Wavering Down in 2001.

At one spot the Lady's Bedstraw (*Galium verum*) had been extensively galled. These proved to have been caused by a tiny mite *Aceria galiobia*.



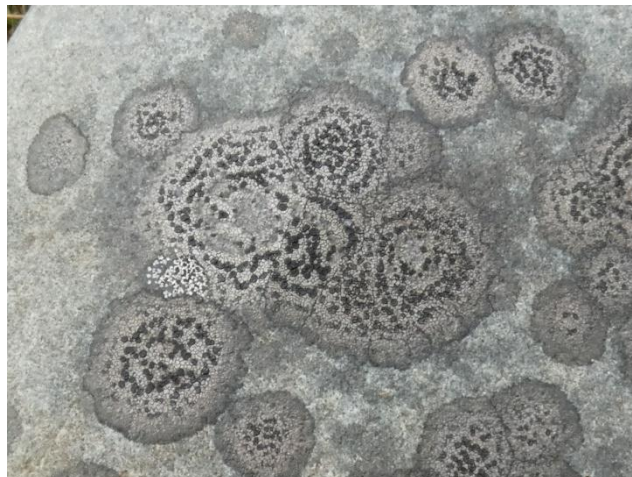
Aceria galiobia galls on Lady's Bedstraw (*Galium verum*). Photo © David Gibbs

Arriving at the beach several plants of Yellow Horned-poppy (*Glaucium flavum*) were found, unfortunately no longer in flower. Also here were two small, non-flowering plants of Hairy Buttercup (*Ranunculus sardous*).



Hairy Buttercup (*Ranunculus sardous*).
Photo © Nicky Davies

At the top of the beach we noticed that many of the cobbles were very attractively patterned by lichen. This proved to be (*Rhizocarpon reductum*).



Rhizocarpon reductum. Photo © David Gibbs

We made our way back across the fields without once getting rained on, apparently the downpours stayed in Weston-super-Mare!

Sunday 13th August 2023, Urban Botany, Yeovil (VC5)

Leaders: Steve Parker & Simon Leach

Report: Steve Parker

Not everyone enjoys urban botany but for this recording session in Yeovil town centre a large group from the SRPG, including some new members, gathered at the Ninesprings Country Park to walk into the main shopping area of the town. As you would expect, many of the plants recorded were non-natives, there is always the puzzle as to whether they are planted or self-seeded.

For once we didn't spend too long in the busy car park but crossed the road to Penn Hill, an area of rough grassland planted with non-native trees. While debating the identity of a grove of alien trees, Simon was recording the plant galls helped by a few members using phone plant apps. This area was mainly species-poor grassland. A local group have dug a small pond, the surface of which was covered by Fat Duckweed (*Lemna gibba*) with a small and obviously planted clump of Yellow Iris (*Iris pseudacorus*).

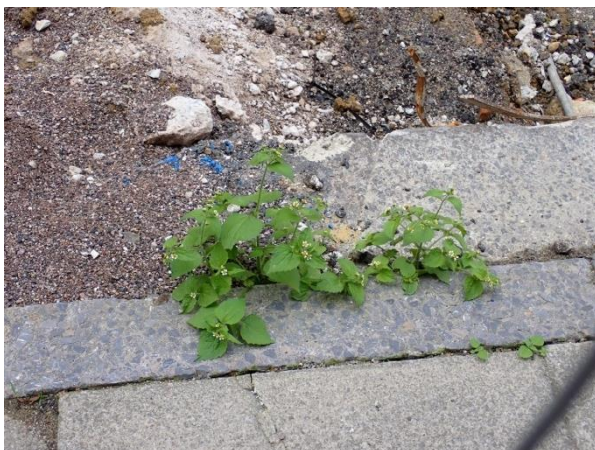


Community wildlife garden. Photo © Steve Parker



A botanist getting down to business in the street.
Photo © Steve Parker

From Penn Hill we headed into the main shopping area, recording common street weeds such as Guernsey Fleabane (*Erigeron sumatrensis*) and Pineappleweed (*Matricaria discoidea*). Road work fencing along South Street had protected a small colony of Shaggy Soldier (*Galinsoga quadriradiata*), This was admired through the safety fencing, attracting some curious looks from local shoppers.



Shaggy Soldier in the main shopping street. Photo © Steve Parker



Sussex Yellow-sorrel (*Oxalis dillenii*). Photo © Steve Parker

Fencing around a car-sales forecourt was home to a small population of Sticky Groundsel (*Senecio viscosus*). While at the back of this was a private car park with Small Teasel (*Dipsacus pilosus*) and, growing nearby, Compact Brome (*Anisantha madritensis*).



Strange place for a rare plant. Photo © Steve Parker

Then came the discovery of an unusual plant, growing in the pavement cracks was Sussex Yellow-sorrel (*Oxalis dillenii*). Initially identified by the leader as Procumbent Yellow-sorrel (*Oxalis corniculata*). However, Helena Crouch suggested the plant's true identity. This identification was confirmed after the meeting by Simon and was a new species for VC5. We suspect now that the plant is more common in VC5, where it may sometimes have been confused with Upright Yellow-sorrel (*O. stricta*).



Compact Brome (*Anisantha madritensis*) at base of fence.
Photo © Steve Parker



Indian Balsam (*Impatiens glandulifera*). Photo © Steve Parker

Along the stream a range of native and alien trees and shrubs had been planted. As we re-entered the country park, Indian Balsam (*Impatiens glandulifera*) dominated the banks of the small watercourse.

The day ended with much needed refreshments at the small café in the park. I think everyone enjoyed their urban plant safari.

Saturday 2nd September 2023, Weacombe, near West Quantoxhead (VC5)

Leader: Steve Parker

Report: Simon Leach



Those still standing at the end of the day... Photo © Simon Leach

What a day! Hill fog in the morning, burning off to a sunny and scorching afternoon. And what a turn-out! A total of 19 members and friends, including two special visitors from further afield: Olga Krylova, VC Recorder

from neighbouring Gloucestershire, and Pete Stroh, BSBI England Officer and lead editor of the recently published 2-volume *Plant Atlas 2020*.

The object of this meeting was to compile a list of plants growing in Weacombe Combe, a deep, steep-sided valley on the western edge of the Quantock Hills, as well as investigating a tiny, much shallower and apparently unnamed combe a little to the south. Our route would conveniently keep us within a single monad, ST1140, although by the end of the day, with all the ups and downs, it would feel as if this was possibly one of the larger monads in the county!

We descended into the combe from the National Trust car park at Staple Plain, ignoring everything as best we could until Steve told us we had entered our target square. After that, things slowed down as we began recording – our progress hampered partly due to the list-keeper having forgotten his reading glasses.

Anyway, as the names were called out we instigated a rule that each species should be called in both English and 'Latin', so that those of us preferring one language had the opportunity to brush up on the other, as it were. And then we discovered that for some species Daniela could give us the names in German, while Olga was able to provide the Russian! So, when someone shouted "*Rumex acetosa*" someone else would rightly call out "Common Sorrel", but then Olga would chip in with "Schavel", and Daniela with "Sauerampfer". Anyone passing us on the path must have wondered what the hell was going on...

On the way down we spotted quite a few of the widespread/common heathland species that are listed as 'Near Threatened' on the England Red List: Tormentil (*Potentilla erecta*), Bell Heather (*Erica cinerea*), Heather (*Calluna vulgaris*), and Heath Speedwell (*Veronica officinalis*), to name but four.

Once in the bottom of the combe, we started to see many more England Red-listed taxa in and around the little seepages and 'pocket mires' beside the path and close to the stream. These included Star Sedge (*Carex echinata*), Marsh Pennywort (*Hydrocotyle vulgaris*), Bog Pimpernel (*Lysimachia tenella*), and Lesser Spearwort (*Ranunculus flammula*). The mires were tiny – hence 'pocket mires' – but were packed with good species. Alongside the stream we saw Smooth-stalked Sedge (*Carex laevigata*), a 'first' for the monad, while we also located two tiny patches of Cornish Moneywort (*Sibthorpia europaea*) – a very scarce species in Somerset.



Leaves of Cornish Moneywort (*Sibthorpia europaea*).
Photo © Simon Leach

Walking downstream, we slowly added to our list, including *Dryopteris paleaceolobata* which was shown to us by Helena and Fred – a new monad for this taxon within the 'affinis complex', which is now turning up quite frequently in the extreme west of the county. Another case of how, once people learn how to tell something from its near-lookalikes, it starts to pop up all over the place.



Helena with a fine specimen of *Dryopteris paleaceolobata*.
Photo © Simon Leach

Much of the woodland in Weacombe Combe is planted, and we recorded several conifer species, including Giant Fir (*Abies grandis*), Douglas Fir (*Pseudotsuga menziesii*), Corsican Pine (*Pinus nigra*), and a stand of Japanese Red-cedar (*Cryptomeria japonica*).

Near houses on the edge of the hamlet of Weacombe we added a few unexpected plants such as Sowbread (*Cyclamen hederifolium*) and Druce's Crane's-bill (*Geranium x oxonianum*).

On we climbed, across into the 'unnamed combe', which lacked a stream and was really just a v-shaped notch in the side of the hill. The footpath was in the bottom of the notch, and was damp in places, with a few tiny seepages here and there, and a muddy puddle or two towards the bottom of the slope. Here we were delighted to see Ivy-leaved Crowfoot (*Ranunculus hederaceus*), new for the monad and another scarce species in Somerset.

About halfway up the combe we found more path-side *Sibthorpia*, and then came the find of the day when Olga spotted a single tiny plant of Chaffweed (*Lysimachia minima*). Diligent searching produced two more plants nearby, a fitting climax to a thoroughly good day. We stopped for a well-earned breather at the top of the combe, taking in the fine view to the west, towards Minehead, North Hill and Exmoor.



On top of the world. Photo © Simon Leach

Then there was the small matter of getting back to where we started, which involved another descent into the depths of Weacombe Combe, and then a steep climb back up to Staple Plain.

Our total was 183 species, of which about 25 were new for the monad. Not bad, even for the biggest 1-km square in Somerset!

Saturday 9th September 2023

Fern Workshop at Horner Wood, Exmoor (VC5)

Leader & Report: Fred Rumsey



Dryopteris cambrensis. Photo © Fred Rumsey

On a splendidly sunny Exmoor morning, fifteen members assembled in the NT car park at Horner Wood for the Fern Workshop. By way of an introduction the walls as we left the site immediately gave us an array of *Aspleniums*: Maidenhair Spleenwort (*A. trichomanes* subsp. *quadrivalens*), Wall Rue (*A. ruta-muraria*) and Black Spleenwort (*A. adiantum-nigrum*), together the commonest of our wall fern species. David Gibbs, intrepidly exploring behind the loos, found an impressive stand of Rusty-back fern (*Asplenium ceterach*), otherwise only seen as a single individual on the front wall of the nearby tea-rooms. As we entered the woodland and approached the bridge over the stream the distinctive entire fronds of Hart's-tongue fern (*Asplenium scolopendrium*) were found – more base-loving, it is uncommon in these acidic woodlands. Interestingly these areas closer to habitation were almost the only sites for the common Male Fern (*Dryopteris filix-mas*), which in many areas is perhaps the most frequent woodland fern.

It is true that entering the woodlands here the chief delights and also trickiest difficulties are provided by the genus *Dryopteris*, many species, variants, and hybrids of which abound and which the leader admitted still left him often baffled!



Dryopteris paleaceolobata showing the characteristic crimping of the pinnules. Photo © Fred Rumsey



The fronds of *D. cambrensis* and *D. paleaceolobata* show many similarities – the former with more ladder like pinnae, somewhat U shaped in cross section. Photo © Fred Rumsey

The greatest difficulty lay in differentiating Greater Scaly Male-fern (*Dryopteris paleaceolobata* = *D. affinis* subsp. *paleaceolobata*) from Welsh Scaly Male-fern (*D. cambrensis*), which was a particular problem as both occur here and rather more frequently than in much of the rest of the county. The definitive method is by measuring spores, or the length of stomatal guard cells, as these are significantly smaller in the diploid *paleaceolobata* than in the triploid *cambrensis*. The rachis scales subtly differ in colour but in *cambrensis* vary much more in size and shape. The indusia, always a good character to consult when trying to identify

these Male-ferns, are actually quite similar in this pair. Characters which sound so clear-cut and foolproof in field-guides all too often are difficult to demonstrate in real plants which have clearly never read the books! Because of the apomictic nature of the scaly-male ferns, differences and evolution tend to occur through mutation. In this way new distinct forms may develop, the novel plants produced then able to create copies of themselves both locally, but also, because of the dispersibility of spores, further afield.

Over most of the county the two commonest scaly- male ferns are the big, very scaly, winter-green diploid Golden-scaled Male-fern (*D. affinis*) and the more slender-stalked, less scaly triploid Borrer's Scaly Male-fern (*D. borrieri*), whose fronds are a little more frost hardy than those of the common Male fern (*D. filix-mas*). We could recognise exemplars of both these species, but each seemed to exist chiefly as local forms which differed somewhat from text-book typical. The more impressed veins on glossier pinnules, thicker more persistent indusia and scaller thicker stipes discriminated *affinis*, while the thinner-textured often square-ended pinnules on less even length pinnae, less persistent upswept indusia and narrower, less scaly stipes signalled *borrieri*.

David Gibbs was able to show us some associated organisms including a fern smut affecting the sporangia.



Fern Smut (*Psychoides filicivora*) on *Dryopteris borrieri*.
Photo © David Gibbs

One fern plant stood out because of its considerable size, always a useful pointer to hybridity. An earlier recce had established that the spores being produced by this plant were largely misshapen and abortive. Although surrounded by plants of *borrieri* the general appearance of this plant led to the belief that it was a hybrid between

D. filix-mas and *D. affinis* (= *D. x complexa*), although neither parent was closely adjacent.



Fred overtopped by a large *Dryopteris x complexa* showing typical hybrid vigour. Photo © Cath Mowat



Hay-Scented Buckler-fern (*Dryopteris aemula*).
Photo © Fred Rumsey

For me though the fern highlight of Horner is another *Dryopteris*, Hay-Scented Buckler-fern (*D. aemula*). This too poses identification challenges for those not yet familiar with its characteristic crinkle and colours. A speciality of the warmer parts of the wet west, with outliers in the Weald, this attractive, crisped-fronded fern is, like the Bluebell, something of a British and Irish

treasure. Here in Horner, one doesn't have to venture too far along the paths into the wood to start to find stands of this plant on the steep trackside banks by and cresting rocks in runnels in the swampy areas.



Handsome Woolly-wort (*Trichocolea tomentella*).
Photo © David Gibbs

While in the swamp, a brief diversion from the fern theme was made to show the group the splendid leafy liverwort *Trichocolea tomentella* in a typical habitat.

Time was also taken to enjoy some of the other acid-loving plants which are more frequent in the west and then found again on the Greensands of the far east. Among these were the declining hemiparasite Common Cow-wheat (*Melampyrum pratense*), in the more usual pale-flowered form and not the golden-yellow, smaller-flowered var. *hians* which can be a feature of oceanic oak woodlands, as at Watersmeet.



Common Cow-wheat (*Melampyrum pratense*). Photo © Fred Rumsey

Trackside banks also had Trailing St. John's-wort (*Hypericum humifusum*), growing as it so often does with its congener Slender St. John's-wort (*Hypericum pulchrum*). This hadn't been recorded in the tetrad since before 2000.



Trailing St. John's-wort (*Hypericum humifusum*).
Photo © Fred Rumsey

The group eventually reached a rather splendid bank above the track upon which we could finally admire the Lemon-scented Fern (*Oreopteris limbosperma*). This fern of damp acidic soils is not uncommon on Exmoor, the Quantocks, and the Blackdowns, but in VC6 it has a very restricted distribution and is Scarce, found on the acidic parts of the Mendips and on the Lower Greensand of the far eastern edge. While still a common species in upland Britain it has declined tremendously in lowland England.

Time had run out before we could get to the site where Graham had found Killarney Fern (*Trichomanes speciosum*) gametophytes in 2020; this was the only fern previously recorded that we failed to see.



Lemon-scented Fern (*Oreopteris limbosperma*) characterised by the yellowish rachis, progressively smaller pinnae to the frond base and the apparently naked sori close to the pinnule margins. Photo © Fred Rumsey

The day was concluded with the remaining members taking well-deserved tea and cake at one of the two tea-rooms adjacent to the car park which was still serving. The lateness of the hour was a testament to the protracted efforts of the group. Our last goodbyes were made following conversations over the identity of a very fine tree in the NT car park with pleasantly aromatic fruit. This was later confirmed as Black walnut (*Juglans nigra*).

During the day, we had seen 20 species of fern and one hybrid, the latter new to the tetrad. Rather fewer than on our 2022 workshop at Priddy but still a creditable haul.



Hard Fern (*Blechnum spicant*). Photo © Fred Rumsey

Report: Karen Andrews



The SRPG's 25th Anniversary was celebrated at the Autumn Conference by some 65 attendees. Botanists seated on two sides of West Monkton Hall. Photos © Karen Andrews

The long-awaited 25th Anniversary Conference was a highlight of the SRPG's busy botanical year. Autumn 2023 provided the best opportunity to celebrate the anniversary that officially took place in 2022. There was a buzz of excitement in West Monkton Hall. The event that the conference committee had spent many months discussing and planning had finally arrived. All the expert speakers on the day were drawn from the Group's own membership.

Some 65 enthusiastic botanists attended the conference, including recorders and members from Somerset's neighbouring counties and further afield. In addition to Somerset's Vice County and Emeritus Recorders, there were VCRs and Emeritus Recorders from Gloucestershire, Wexford, Moray, North Devon and Dorset and Wiltshire. Paul and Ian Green, two of the authors of *The Atlas Flora of Somerset* (1997), were in attendance, having respectively travelled all the way from Ireland and Scotland.

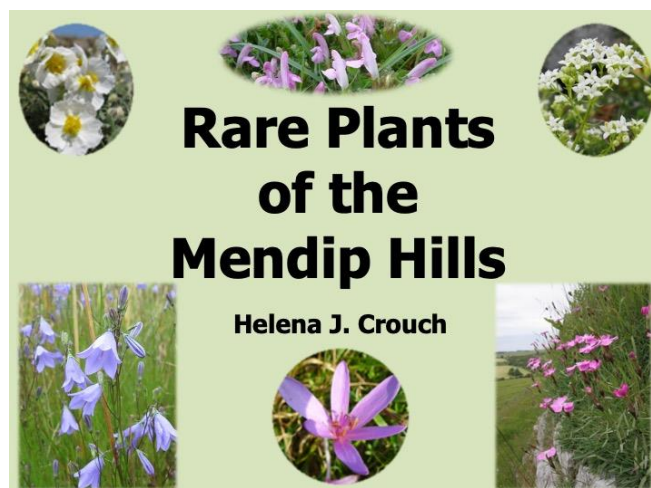
Liz Biron greeted and registered all attendees at the door on arrival. Since it has been decreed that wherever there are botanists there should always be cake, there was no shortage of cake to accompany the welcoming tea and coffee served to new arrivals.

Steve Parker welcomed everyone to the conference. Officially, the SRPG has been in existence for 26 years. However, the celebration had been delayed for a year, due to the sad losses of Liz McDonnell and Clive Lovatt. Steve dutifully thanked all the cake-makers first, before extending thanks to the conference subcommittee and

everyone who had donated books. His introduction then stressed that the climate emergency makes botanical recording in Somerset as important and, indeed, more important than it has ever been. Above all, he urged everyone to 'enjoy the day'.

Rare Plants of the Mendip Hills

Helena Crouch was our first presenter of the day. She took the audience of botanists seated in front of her on a whistlestop tour of the *Rare Plants of the Mendip Hills*. Helena remembered how fond Liz was of the Mendips and that she had visited many of its sites with Liz.



Helena's opening slide with many of the Mendips' rarities. Top left is the White Rock-rose that featured on the conference invitations.

Somerset is split into 2 vice-counties: VC5 in the south and VC6 in the north. VC6 is bisected by the Mendip Hills. Helena began her guided tour at Brean Down, a large

limestone ridge that projects into the sea. Here on the south-facing slope the Somerset rarity White Rock-rose, (*Helianthemum apenninum*), can be found. Helena also drew our attention to the hybrid *H. x sulphureum* which is a pale yellow, half-way in colour between its two parents.

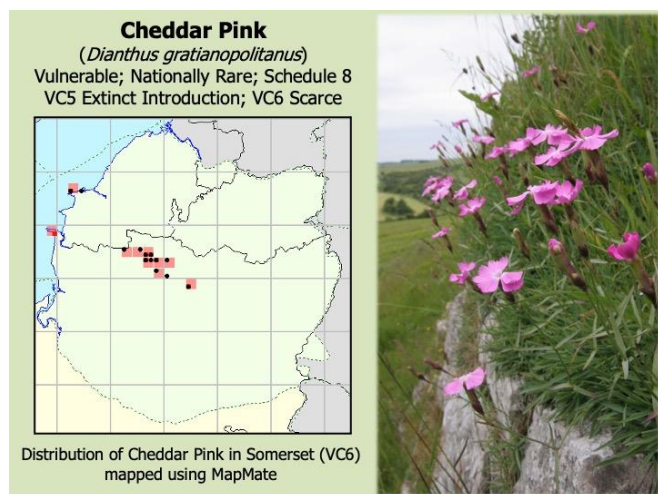
The next botanical highlight was Basil Thyme (*Clinopodium acinos*). This plant is at home on the Mendips' friable, baked soils. While not yet scarce in VC6, it is probably declining in Somerset.

Meanwhile, Somerset Hair-grass (*Koeleria vallesiana*) is nationally rare. It only grows in VC6 and is at the northern edge of its distribution here. It appears further inland at Crook Peak and Cross Plain. This Somerset rarity was introduced at Goblin Coombe where it persists to this day.

Moving from Brean Down to Uphill, Helena's spotlight next fell on Goldilocks Aster (*Galatella linosyris*). This species is considered Vulnerable in Britain and Nationally Rare and Endangered in England, where it is known at only 3 sites. It has not been seen at another former site since 2007.

Helena described her next plant as resembling untidy long-haired guinea pigs with tiny paintbrush flowers. Dwarf Sedge (*Carex humilis*) is a rare plant in Somerset, by contrast with its stronghold in Wiltshire.

The nationally Near Threatened Western Eyebright (*Euphrasia tetraquetra*) is not scarce in VC6 and can be found on the rocky coast at Brean. It also comes inland on the Mendips to just past Cheddar.



Cheddar Pink distribution and photo at Ram's Cliff from Helena's presentation.

No review of the Mendip Hills flora would be complete without a mention of the Cheddar Pink (*Dianthus gratianopolitanus*). This special rare flower was chosen to feature on the 25th anniversary cake as well as in Helena's presentation. Helena mentioned her Rare Plant Survey of 2016, following on from that of Ro and Liz in 1991. To see the Cheddar Pink in Cheddar a certain amount of rock-climbing is required. Nationally, it is a Vulnerable Schedule 8 species. Its scarce VC6 distribution is restricted to Cheddar Gorge with some outlying populations, e.g. at Shute Shelve that are genetically the same. Introductions at Brean Down unfortunately died out. In the 1950s, the University of Bristol introduced the Cheddar Pink to Sand Point where it survives to this day. In fact, its location here is more accessible than those at Cheddar Gorge. Otherwise, the Cheddar Pink or *Dianthus gratianopolitanus* (with its epithet referring to Grenoble) has a central European distribution.

Helena took pity on the Cheddar Bedstraw. It has had something of an identity crisis at the hands of taxonomists, oscillating between *Galium fleurotii* and *G. pumilum*. DNA analysis has now shown that Cheddar Bedstraw is *Galium fleurotii*, occurring only in the Mendip Hills and France.

Cheddar Gorge is also the only native site in Southern England for Mossy Saxifrage (*Saxifraga hypnoides*). It is just hanging on at the southern edge of its range.

Cheddar's scree slopes can be difficult to climb. However, such a climb may be rewarded with sightings of the nationally rare Limestone Fern (*Gymnocarpium robertianum*). Helena also highlighted the Mendip Hills' distribution of Brittle Bladder-fern (*Cystopteris fragilis*).

No tour of Cheddar Gorge would be complete without mention of its endemic Whitebeams (*Sorbus*) and honorary member Libby Houston's close ties with them.



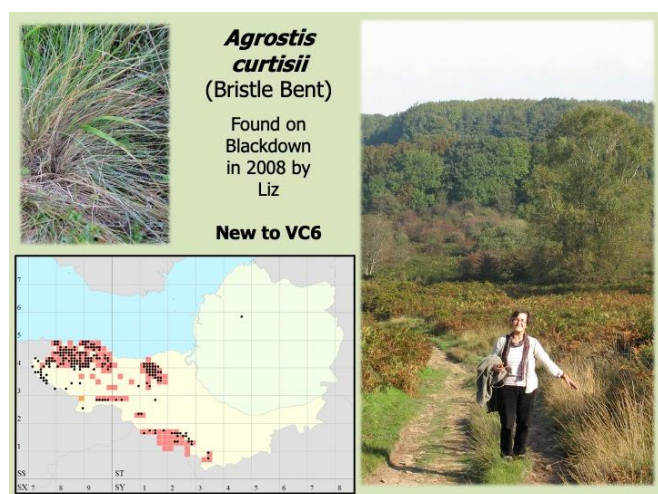
Honorary SRPG member Libby Houston with *Sorbus* species

Helena explained that she first saw another species endemic to the Gorge at Black Rock with Liz. With Tim Rich, she counted 59 plants of Cheddar Hawkweed (*Hieracium stenolepiforme*). 13 plants high above Horseshoe bend required the use of binoculars. At last count, there were also 12 plants of the Endangered and Nationally Scarce Schmidt's Hawkweed (*Hieracium schmidtii*).

The Endangered and Nationally Rare Red-tinted Hawkweed (*Hieracium angustisquamum*) and Chalice Hawkweed (*H. cyathis*) led us from Cheddar Gorge to Ubley Warren. The latter location is a former lead-mining site. The landscape still contains the remains of Victorian flues at Blackmoor. The remarkable Alpine Penny-cress (*Noccaea caerulescens*) tolerates lead by accumulating it. Helena warned us not to eat it!

Next, Helena highlighted more lead-tolerant species, including Spring Sandwort (*Sabulina verna*) and the usually coastal Sea Campion (*Silene uniflora*), before moving on the rarest plant in Somerset: Mountain Everlasting (*Antennaria dioica*). Helena showed how conservationists tried to provide it with some roped-off protection.

The final mention of an interesting plant at Ubley Warren went to Soft-leaved Sedge (*Carex montana*) before Helena moved on to explain a change of habitat on top of the Mendip Hills. Where limestone has worn away, the older Devonian sandstone is exposed, giving rise to acidic habitats. Thus, VC6 has a new site of Bristle Bent (*Agrostis curtisii*) that is more commonly found in VC5. Calcifuges generally lack suitable habitats in VC6. Cotton Grass and Bog Asphodel are thus rare plants in VC6.



Note the single dot for Bristle Bent in VC6.

Helena moved on to discuss some of the wonderful woodland at the eastern end of the Mendips. Here quarries have dramatically changed the landscape. Much rock has gone. Ash dieback will change our woodlands further. While Wood Sorrel (*Oxalis acetosella*) is not currently scarce in VC5 and VC6, it is regarded as Near Threatened in England generally.

Velvet Bottom provides the best site to see the Near Threatened ancient woodland indicator Meadow Saffron (*Colchicum autumnale*).

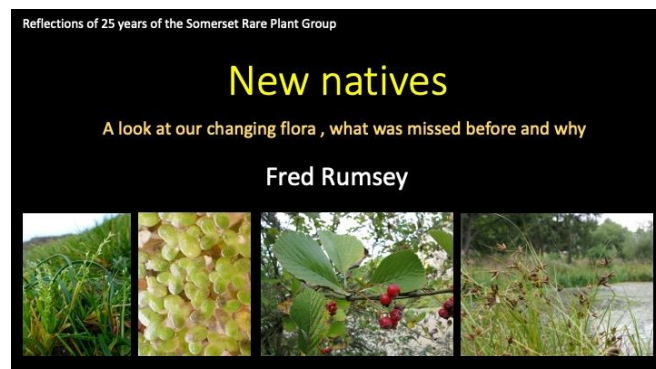
Helena ended her presentation with Yellow Star of Bethlehem (*Gagea lutea*). It brought back memories of her first-ever SRPG meeting led by Ian. It is known at just four sites in Somerset.

In her final slide, Helena could not resist displaying photos of some of the wonderful Somerset plants that she had felt obliged to leave out of her Mendip botanical tour.

A member of the audience asked if Mendip populations were generally declining or stable. The reply came that some were in decline and some were stable. Helena mentioned that she had recently attended the launch of the new [Mendip National Nature Reserve](#). She had been heartened by Lord Bath's reference to the Mendips' rare plants. Much more work is needed on plant conservation. The gravelly edge of the gorge has been lost. Nitrogen deposition is a threat. It is a challenge to get the right levels of grazing and scrub clearance.

New Natives

Our second presenter of the day was new Somerset native Fred Rumsey. His *New Natives* presentation was a reflection on the 25 years of the SRPG. Fred cast an eye over the changes since Paul and Ian Green's *The Atlas Flora of Somerset* (1997). He explained what is new in our area, and what was missed before and why.



Fred Rumsey's opening presentation slide.

Based on SRPG newsletter records, Fred revealed the following:

- Circa 161 neophyte taxa and escaped cultivars new to Somerset
- Circa 18 new native species (excluding *Taraxacum*, *Sorbus* and apomictic *Dryopteris* spp.)
- 8 new infraspecies and 22 new hybrids.

With reference to new escapes, Fred stressed that the BSBI and SRPG have improved recording at urban fringes. In the past, botanists were disparaging about garden weeds and did not bother recording them.

Fred explained that his focus would be on the lost and found in our native and archeophyte flora. What have we lost and why? What is on the cusp of disappearing? In some cases, we have gained a new ability to find and record. Some changes relate to natural arrivals; others are due to changes in taxonomic changes. Novel or new natives fall into three categories:

- The overlooked
- Recent arrivals
- The downright difficult!

Losses

There are a lot of losses to cry over in the past 25 years. Fred presented a long list of so-called 'selected' upsets.



Just a few of Fred's 'selected' losses: arable Red Hemp-nettle (*Galeopsis angustifolia*), mire/wetland Lesser Tussock-sedge (*Carex diandra*) and chalk downland Field Fleawort (*Tephrosia integrifolia*).

Many arable plants have declined, leading to concerns about their long-term survival. Loss of habitats are an issue across the land not just in Somerset. Many plants in the [Somerset Rare Plant Register](#) are at the edge of their range. There is a particular issue in coastal habitats where there are both more people and more

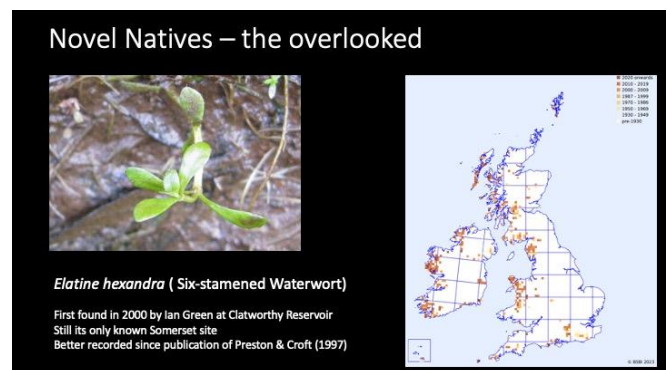
uncontrolled, invasive species. We are also losing plant communities that thrive in nutrient-poor mires and wetlands due to nitrogen run-off and pollutants. Chalk downland threats also account for losses, although naturally we have very little chalk grassland in Somerset...

Rediscoveries

It is not all doom and gloom as highlighted by Liz and Clive's significant 2016 rediscovery in Nailsea: Copse Bindweed (*Fallopia dumetorum*). The only previous record was in Keynsham in 1836! The SRPG was delighted to record its continued presence at a Nailsea meeting in 2022. There have been further significant rediscoveries after 30, 40 and 50 years of apparent loss.

The Overlooked

Some new natives are easy to overlook. Fred gave the example of Six-stamened Waterwort (*Elatine hexandra*). It is often growing under a foot of water. It was first found at Clatworthy Reservoir by Ian Green in 2000. This remains its only known Somerset site. Still the species has been better recorded nationally since Preston and Croft's 1997 publication *Aquatic plants in Britain and Ireland*. The book gave recorders a better idea of what to look for.



Six-stamened Waterwort (*Elatine hexandra*) is an example of an easily overlooked species.

Red Duckweed (*Lemna turionifera*) has a controversial status. It is difficult to say whether it is truly native or if its arrival is due to the horticultural trade. As it is easily mistaken for other species and likes a good habitat with other species, the suggestion is that it is an overlooked native. The best time to look is when it is a grubby brown colour with red dots around the root.

The gametophyte of the Killarney Fern had been completely overlooked since the 1980s. It has taken 10 years to overturn that. Generally, there is not much suitable acid rock in South Somerset. The stage in its life cycle hardly makes it stand out either. In addition, you need a torch to find it in its somewhat odd habitat.

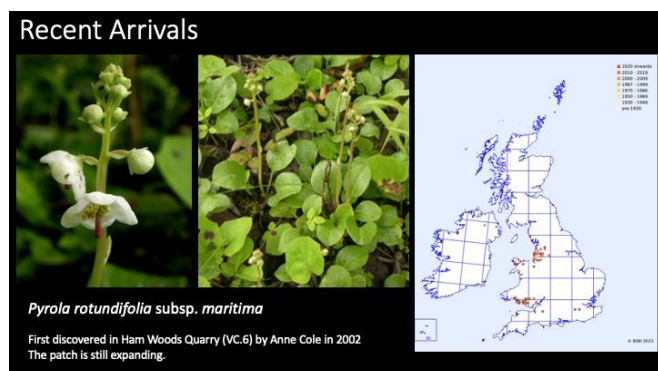
Then there are plant groups that botanists find difficult to identify. Many struggle with sedges. You need to catch them in flower. Downy-fruited Sedge (*Carex filiformis*) was first found by Liz on Cheddar Moor in 2003.

The first finding of Northern Yellow-cress (*Rorippa islandica*) was by Paul and Ian Green at Clatworthy in 2001. While it was separated from Marsh Yellow-cress (*R. palustris*) in 1968, theirs was the first record in England. Its prevalence is now probably increasing. It is no longer scarce in VC6.

Inland Club-rush (*Bolboschoenus laticarpus*) has a hot spot in Somerset yet was only separated from Sea Club-rush (*B. maritimus*) in 2004. The first record came in 2010. It is a feature of the Somerset Levels where it has been known since the 1850s and verified by old herbarium records. Basically, it was overlooked as so similar to the other species.

Recent arrivals

Anne Cole's discovery of *Pyrola rotundifolia* subsp. *maritima* in Ham Woods Quarry in 2002 was Fred's first example of a recent arrival in Somerset. He speculated whether it had blown in from dune systems in South Wales. The smaller Common Wintergreen (*P. minor*) had been lost from the county over 100 years ago.



Did Round-leaved Wintergreen (*Pyrola rotundifolia* subsp. *maritima*) blow in on winds from South Wales?

Whereas Round-leaved Wintergreen (*P. rotundifolia* subsp. *maritima*) remains in a single patch, Early Meadow-grass (*Poa infirma*) now seems to be everywhere since its first Somerset sightings. It is more easily seen when indulging in mince pies in winter. It was first found at Weston-super-Mare by Paul Green in 2004 and later by Paul Stanley in 2007. In 2012, it turned up in a typical Clive Lovatt habitat: Sedgemoor Services! A combination of our better understanding and a huge influx due to continental haulage explains this arrival.

Wall Bedstraw (*Galium pariense*) was regarded as a dubious Victorian record until it was found in a garden in Wells in 1999 by B. G. Wanford. Of course, if you wait long enough everything seems to eventually turn up in Taunton! Thus, Simon found it on new roadside edges in 2012. Now it appears in both of Taunton's park-and-ride car parks.

Other new arrivals are obvious garden escapes. Two such examples are the very rare native Scaly Buckler-fern (*Dryopteris remota*) found at a tip entrance, or Sticky Catchfly (*Silene viscaria*) in Charlton Adam.

The Downright Difficult!

Fred's final category were those species regarded as downright difficult. Into this treacherous category fell the following:

- *Dryopteris affinis* aggregate (Scaly Male-ferns) with 5 (6) new species and 2 new hybrids
- *Sorbus* (Whitebeams, Rowans & Service Trees) with 7 new species and 2 new hybrids
- *Hieracium* (Hawkweeds) with 2 new native species plus other neophytes
- *Taraxacum* (Dandelions) with 115+ new species both native and neophyte.

We are still struggling with the Scaly Male ferns as a group. However, there has been some exciting developments in the last couple of years. Specialists have been enticed down to Somerset to work with us. The upshot has been a better eye for recording them.



Inviting experts to Somerset has resulted in a better eye for recording tricky Scaly Male-ferns.

Meanwhile Tim Rich's studies into *Sorbus* are ongoing. Arguably, all these new species are derived from hybridisation. Only an astute study of morphology leads to a recognition of differences. Most of us cannot tell them apart by ourselves. Another stumbling block is that

you need to be good at climbing cliffs like Libby Houston. Fred described shaking with dread at the mere prospect.

There has been a major advance from the 45 Dandelion species recorded in the *Atlas Flora of Somerset*. John Richards' Somerset workshop in 2016 marked a transition from muddling along to getting to grips with Dandelion recording in the county. The SRPG's work on Dandelion flora in the Taunton Herbarium has been outstanding. The herbarium now houses 150 pressed specimens of the 170 species identified in Somerset. There have been some exciting finds – some new to the county and country. Two have even been new to science!

Paul and Ian Green covered hybrids well for a county flora in 1997. They set a high bar for us to move on from. Since that time, we have improved at looking at plants critically. There have been a few new discoveries of hybrids. For example, increased interest in Eyebrights with a more engaged referee has resulted in seven new species, including one new to science.

Fred concluded that in the last 25 years Somerset's natural vegetation has continued to be degraded through development, neglect, poor management and the effects of wider climatic and environmental issues. Neophytes, some of which may be invasive, are escaping in greater numbers. However, the SRPG's abilities to record have also increased. We now have a larger membership with a broader skills base and are documenting our findings more clearly. Finally, Fred thanked those who are sadly no longer with us, but who did so much with others to get us where we are today.



Long-standing member Chris Loudon and Membership Coordinator Ellen McDouall enjoy catching up at the conference.
Photo: © Karen Andrews

After Fred's presentation, there was a break for lunch. As well as tempting cakes at every turn, there were seeds and plants for members to take away. Members leafed through Liz's SRPG photo collection and carefully pressed specimens. A wide selection of books was on display, and some were exchanged. For the most part, members simply enjoyed being in each other's company at the end of the botanical season.



Members catch up with Paul and Ian Green, authors with Geraldine Crouch of the 1997 *Atlas Flora of Somerset* at the conference.
Photo: © Karen Andrews

The Herbarium

At first sight, the opening slide of Simon, Ian and Jeanne's presentation about the Taunton Herbarium seemed off topic. The children's book cover of *Little Beaver and the Echo* appeared on screen as everyone settled back into their seats after lunch. All would soon be revealed...

Simon explained that they were going to tell a story. Little Beaver had no friends. The Herbarium in Taunton didn't use to have friends either, but (like Little Beaver) it has lots of friends now! These days a team of SRPG members curate, organise and press new plant material.

The official title of the talk was *TTN: A collection of plants between Bangkok and Florida*. A herbarium is a collection of pressed plants. There are 3,000 herbaria on the world register. The Taunton Herbarium with the code TTN appears in alphabetical order between herbaria in Bangkok and Florida on the official list.

Having set us flying between Bangkok and Florida, Simon grounded us with a photo of the actual entrance of the Herbarium in the Somerset Heritage Centre in Norton Fitzwarren. It had previously resided in Taunton's castle and had a number of different names:

- Somerset County (Museum) Herbarium
- Taunton Herbarium
- SANHS (Somerset Archaeological and Natural History Society) Herbarium
- Walter Watson Herbarium

Simon described the natural history storeroom as an Aladdin's cave with an array of rocks, fossils, boxes and cabinets. It is labelled and carefully ordered chaos!. Precision is important in a herbarium. The entrance after a long corridor is marked with a big 'G'. The herbarium houses some 18-20,000 specimens. This places it between Bath and Bristol herbaria in size – i.e. bigger than Bath, smaller than Bristol. By contrast, Kew's Herbarium has 7 million specimens.

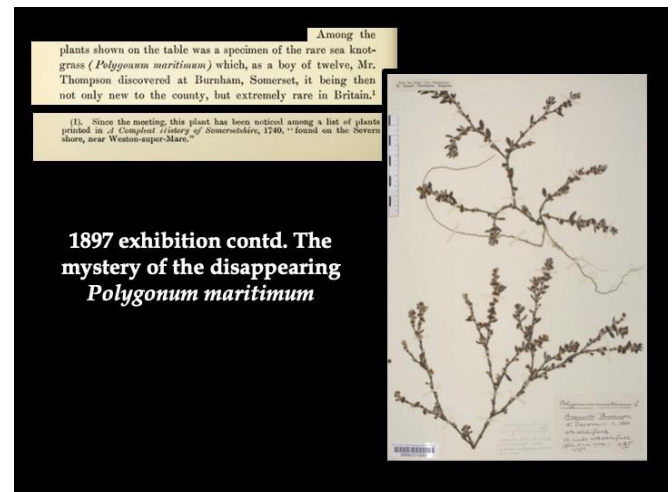
From 1849, in its earliest times, the museum housed pressed specimens of some of the rarer Somerset plants from the collections of the little-known Reverends Dymock and Parish. 370 of the latter's specimens formed the initial basis of the Taunton herbarium.

While there are no year-on-year records, there are occasional mentions in the SANHS Proceedings down the decades. William Sanford reported in 1860 that the herbarium was in good order but lamented that it only contained 700 out of 1600 British flowering plants. Non-flowering plants were not represented at all. The intention at that time was to have a complete British collection.

From 1867 that ambition was curtailed. The focus would now mainly be on Somerset plants. People had been too keen to make deposits!

Early annual SANHS meetings took place in a different town each time with herbarium displays. In 1897, the meeting was held at the Town Hall in Bridgwater. There was an exhibition of largely local plants from the 1,600-specimen herbarium of Harold S. Thompson (then aged 27). When he died in 1940, a collection of 8,000 specimens was donated to Birmingham University. This collection is now available online.

Thomas Clark (1773-1864) was another of Somerset's early botanists. TTN has c. 150 of his specimens, with many more having found their way to the University of Birmingham herbarium.



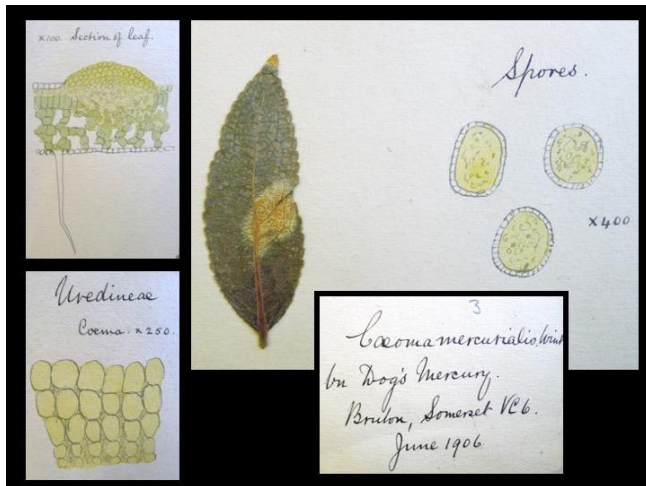
The 1897 exhibition included a specimen of the rare Sea Knotgrass (*Polygonum maritimum*) that H. S. Thompson discovered at Burnham at the age of 12. This is the only confirmed record in Somerset. The above specimen was collected by H. S. Thompson from Braunton Burrows. The whereabouts of his Somerset specimen is unfortunately unknown, or regrettably may no longer exist.

There are also over 400 well-presented specimens by E. J. Hamlin in the Taunton collection. Any herbarium specimen is only as good as its label. An illegible label negates the value.



Example of E. J. Hamlin's well-presented specimens.

The next notable botanist was Simon's hero Walter Watson (1872-1960). It seems that they share the dual obsession of botany and cricket! Born in 1872, he taught science at Sexeys Bruton and Taunton School. He was the botanical recorder for SANHS until 1952. He was fascinated by First Flowering Dates (FFDs). His organization of the herbarium meant that it is often referred to as the Walter Watson Herbarium. There is a good card index of his botanical records. He had a passion for rusts. He was as much an artist as a botanist, using a microscope to draw the details of bryophytes and lichens.



An example of Walter Watson's detailed rust drawings.



Ian, Ro, Liz and Jeanne reorganizing and databasing the herbarium from 2017

Other treasures in the Taunton Herbarium include:

- Francis Rose's 1970s Somerset lichen collections
- Isabella Gifford's collection of marine algae
- H. H. Slater's diaries and notebooks

The SRPG has been involved with the Taunton Herbarium since 2015, but the preparations probably started 10 years earlier. The collection used to be neglected and cluttered in files and boxes. Specimens are now kept tidily in cabinets. Liz fully appreciated the value of carefully pressed and properly labelled specimens. The whole collection was photographed, databased and reorganized according to Stace 3. The project was just completed when Stace 4 arrived. (No plans to change again!)



Ian and Liz digitizing the herbarium collection

There was laughter from the audience when Simon enthusiastically described the Dandelion workshop in 2016 as a game-changer that had brought the herbarium to life. Without the decision to establish a Dandelion reference collection, the Taunton Herbarium would have never been noticed. This inspiration has mushroomed and cross-fertilised into other difficult taxa leading to engaging visits from specialists and referees.

Simon ended the talk with many mentions of more recent herbarium activities. He appealed for more helpers on Mondays and more specimens to add to the collection. There is no need to be an expert to join in.

Questions from the audience centered around the ongoing value of herbaria and codes of conduct about when to collect and how to press. Fred stressed that you cannot go back to a photo to get more precise details, whereas you can go back to a physical specimen if something needs to be redetermined. Photos often get lost. Voucher specimens of important records must be kept. Helena referred everyone to the [BSBI's website for advice on collecting and pressing specimens](#).

The View from Natural England

Cath Mowat, both a member of the SRPG and of Natural England's Field Unit, gave the fourth presentation of the day. Having spent a few years working locally, she now works nationally for NE. She explained that she had been asked to consider what the SRPG could do for NE and vice versa.



Cath Mowat's opening slide with a view.

Cath opened with a big thank you from NE to the SRPG. She observed that SRPG members do not praise themselves enough. The membership contains skilled people who are generous with their time. She stressed the laughter, goodwill, inclusion and generosity of going out with the SRPG.

Her next slide shared an early photo at Roughmoor with some recognizable and familiar faces in the late 1990s. At the time Steve and Simon were working for English Nature (EN), later to become Natural England (NE). Liz did not yet work for NE. The Roughmoor office was shared as a base for the SRPG. Steve and Simon were the main links between EN and SRPG. With Steve's recent retirement, it is important to discuss how to continue that strong link. It needs to become more formalised to ensure that knowledge remains shared.



Early days of the SRPG at EN Roughmoor. Who do you recognise?

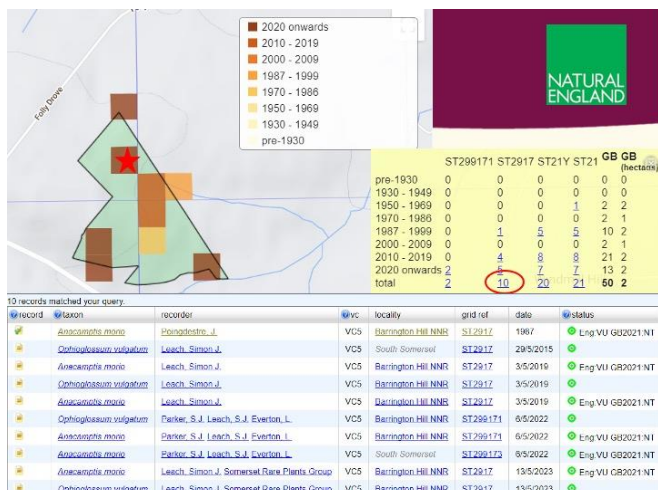
It has been a huge benefit that the SRPG has ex-NE/EN staff who know the SSSIs well, understand NE monitoring procedures and have been recording in Somerset for decades. Cath then stressed how good SRPG members are at finding plants, even the miniscule Chaffweed!



SRPG members are brilliant at finding tiny plants

Cath then gave an example of the NE and SRPG working together to achieve population counts of a single species. Ellenborough Park West SSSI, a relic of a former sand dune system supports two rare plant species – one listed on Schedule 8, the other a Red Data Book species: Branched Horsetail (*Equisetum ramosissimum*) and Smooth Rupturewort (*Herniaria glabra*). When NE consults the BSBI database, useful records largely by SRPG members appear. SRPG records can be trusted to be relatively up-to-date, whereas in some other parts of the country records can take years to be updated. All the other records for these species are in East Anglia, making their continued survival in the West Country of increased importance. Steve was able to advise two NE staff how to recognise and find the species at the site.

Natural England can also use SRPG records to find out what has been recorded in a particular field parcel and when. The data from different years can reveal what is happening with the site management. NE like to work with suites of species. In future, it might be helpful to NE if the SRPG could consider recording up to 10 species in pre-agreed locations in addition to the more usual monad recording. For example, orchids can be positive indicators that reveal site condition.



NE database queries use current and historical SRPG records

Alternatively, some SSSIs have a protected suite of rarer species known as a 'Vascular Plant Assemblage'. The SRPG might also be interested in searching for these – and indeed, have done so in the past. As part of the working arrangement, NE would need to supply data of past records and good site maps to help the SRPG with their search. It might be possible to trial this approach with background support in future.

There is also great potential for SRPG members to provide more general feedback about site condition to NE. The SRPG may be more aware of how sites have changed over time due to the frequency of visits over the years. Due to personnel changes, NE may be less aware of these changes. Sites can change, for example due to bracken encroachment or eutrophication.



Bracken encroachment on a previously species-rich grassland site on Blackdown.

Cath gave the example of a Blackdown site where bracken had gradually crept over the site, shading out the species-rich grassland. If you were unaware that the site had no bracken 30 years ago, you might not appreciate the issue. Due to resourcing pressures, many years may pass between NE visits to some sites. An alert from an SRPG member can be of real value to NE staff flagging that they need to take a look at the site management. Feedback about good site management is equally appreciated!

Many NE staff already take advantage of the informal botanical training that is offered on SRPG outings. It might be possible for the SRPG to offer bespoke training to NE staff as Steve did at Ellenborough Park. Steve and Simon have been the glue in a good working relationship over the past 25 years. We need to find the best way for that relationship to continue for the next 25 years.

In reply to an audience question, Helena advised that BSBI members can access the BSBI's Distribution Database themselves. They can apply for full access with support from their local VC Recorder.

Ro FitzGerald asked who members should contact if they have concerns about management at any NE site. Cath advised that she would provide a list of contacts in a follow-up after the conference. Something needs to be drafted on how to notify NE. She advised that NE staff often know what is occurring but given the burden of existing casework public pressure can be helpful to ensure a site gets more attention. There is a Defra target to assess the condition of all sites by 2028.

Somerset Wetlands – A Conservation Success Story?



Steve Parker's opening presentation slide

Steve Parker's presentation was the final talk of an informative day and continued the topic of conservation. It was rich with stunning photos of the wetlands that we all know and love. He stressed that we can't stand by and watch plants go extinct. He had worked on the Somerset wetlands for over 20 years. During that time, he witnessed lots of conservation schemes. Everyone did their best, but conservation is not easy.

Steve shared two photos. The first was of the coastal levels from Brean; the second of inland moors at Southlake. He suspected that the scenes would look very different in 100 years' time. The sea will take back the coastal levels. The inland site around Burrow Mump was drained in 1800. The water levels are maintained by man with largely straight ditches.

In the past, farmers milked their cows in the fields and the farmer took the churn back on a horse and cart. Now farmers drive tractors. Dairy has turned to the beef industry now. There are fewer cattle. Ditches are used as wet fences. Saline water at the bottom of ditches influences the plants that will grow there – such as Fennel Pondweed (*Stuckenia pectinata*).

From King Sedgemoor Drain to Bridgwater Bay there are large pumping stations that control the flow of water into the area. Meadowsweet (*Filipendula ulmaria*) and Hemlock (*Conium maculatum*) thrive along the ditches. Hemlock is definitely on the increase. It is dominant on the watercourses on the Levels. There is also more Hemlock Water-dropwort (*Oenanthe crocata*).



Spreading as far as the eye can see, *Brassica rapa* subsp. *campestris* at Northmoor.

High nutrient levels are changing the flora. Stinging Nettles (*Urtica dioica*) are more abundant as a result. Wild Turnip or Bargeman's Cabbage (*Brassica rapa*

subsp. *campestris*) which is similar to Oilseed Rape (*Brassica rapa* subsp. *oleifera*) seems to have spread hugely. The seed floats.

There is a good population of Marsh-mallow (*Althaea officinalis*) at Southlake moor. It likes flooding and is popping up in new locations. Steve recounted a sad story in VC5 where a single rare plant of Marsh-mallow survived in Bridgwater Bay. The reed bed took over.

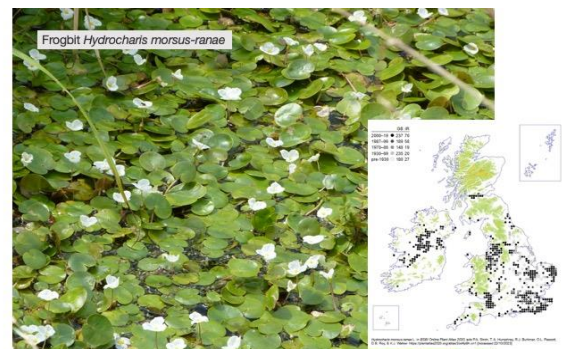
In 1999, there was an outing to find Mousetail (*Myosurus minimus*) at West Sedgemoor. Young Master Leach is now apparently a primary school teacher. Teach them young! This rare plant is now increasing and can be found at Wet Moor.



Engaging a young child in spotting rare plants

Duckweed is a problem. There is so much change or new species are turning up. Three species of *Wolffia* can now be found. Duckweed has a big impact because it covers watercourses cutting out light for submerged aquatics and invertebrates.

Frogbit (*Hydrocharis morsus-ranae*) seems to be doing well. However, it can cause an issue with clogging if not well-managed. Water Violet is faring satisfactorily. Greater Bladderwort can be found at Grey Lake. The RSPB reservoir was once a carrot field.



Frogbit (*Hydrocharis morsus-ranae*) is spreading but Needs careful management.

Steve continued to describe conservation winners and losers. Fen Pondweed (*Potamogeton coloratus*) is not one of the plants that is doing quite so well, but it can still be found hanging on in Gordano. The plant can be used as a story to speak about conservation.

The Lesser Water-plantain (*Baldellia ranunculoides*) is doing well at West Sedgemoor, in the gutters created for the benefit of breeding waders. At other sites this plant tends to disappear because of ditch succession but is sometimes re-found after the ditch is cleaned out.

If you speak with landowners, they are not that interested in *Wolffia*, but farmers like to have Flowering Rush (*Butomus umbellatus*) on their land. Its flowers are much more interesting to them. Meanwhile, Inland Club-rush (*Bolboschoenus laticarpus*) has a stronghold on the Somerset levels.

Greater Water-parsnip (*Sium latifolium*) offers a good conservation story but without good results. It is a Biodiversity Action Plan or BAP Species. The aim was to restore plants where they had been lost – e.g. on the Avalon Marshes. Seeds were collected and planted at Bristol Zoo. In the second year, delivery was taken of 200 Greater Water-parsnip plants. The first mistake was that planting took place on a cold day. In 2008, plants were dug into a range of habitats. The site caught fire two years later. The next batch was eaten by cattle. At last count this year, only 3 out of 400 plants survived on Catcott Lows.



Mistakenly introducing Greater Water-parsnip (*Sium latifolium*) on a cold day in December 2008.

Steve observed that they simply had not got the conservation process right. Introduced plants need to be recorded over a number of years. Defra and Natural England were happy with the introductions. However, the plant clearly was not happy.

A less sad story can be found in the Gordano Valley. Brown Galingale (*Cyperus fuscus*) has been successfully introduced at a site that is 100m in length. The site has been managed but not gardened. The ground needs to be regularly scraped. Another attempt sank without trace. You simply do not know when an experiment will fail.

30% of Britain's MG8 Wet Grassland is in Somerset. We also have Dry Meadow Grassland. Again, the news is sad. The list of issues is a long one: the plough, drainage, herbicides, etc. What is good for one species is not necessarily good for all. There is a huge focus on birds in Somerset, particularly breeding waders – e.g. Redshank, Lapwing, Snipe, etc. The focus is on managing for birds not for grassland species, although there is not always a conflict with botany.

There are special protection areas for Lapwing. Up to 100,000 birds overwinter here. New birds have arrived. The Great White Egret first bred here. Now it is as 'common as muck' Steve said. Cattle Egrets can now make the Levels look like the Serengeti.

Both habitats and the climate are changing. There is now very little wet woodland, a habitat that is important in terms of carbon storage, as well as for many species, e.g. Marsh Fern (*Thelypteris palustris*) and Royal Fern (*Osmunda regalis*). Watercourses are a huge problem. Water quality is poor. Run-off is causing problems. Phosphate and nitrate loads are increasing. For example, the Sowey River is deluged with blanket weed. Moorlinch is poor due to chemicals.



Blanket weed on the Sowey River

All the SSSIs on the Levels and Moors are designated as unfavourable or declining. Despite work in conservation for decades, sites are declining because of water quality. The root cause is water coming from outside the conservation areas. The problems are not just cows and farming. Litter from roads and housing estates find their way into SSSIs too.

Steve shared his so-called collection of 8 million photos of ditches. He showed us pictures of modern weirs. There is an ongoing fight between conservationists, villagers and landowners about how much the land should be allowed to flood. It is not unusual for this landscape to flood completely. That said, flooding is an issue. A picture of Curry Moor after flooding showed land empty of all vegetation. Following the public outcry to dredge the rivers after the flooding of March 2014, there are now multiple bodies trying to stop the wetlands from getting wet!

Steve discussed invasives that keep coming back despite best efforts to eradicate them: Parrot's-feather (*Myriophyllum aquaticum*), Floating Pennywort (*Hydrocotyle ranunculoides*), Water Fern (*Azolla filiculoides*) and Water-primrose (*Ludwigia grandiflora*).

Moving on to more good news stories, Steve spoke about Somerset Wildlife Trust's (SWT) Great Fen Project. There has been some good restoration at Ashcott. Trees have been cut down and animals have been introduced for grazing. Bog Pimpernel (*Lysimachia tenella*) has recolonized as a result. There are some concerns about rare plants. Peat conservation is a money-driver from Defra. Our records are needed so that they better understand the implications of what they are doing.

The Levels are not just about birds and plants, the Avalon Marshes are important for people too with 100,000 visitors per year. A newly-formed group, Records of the Avalon Marshes (RoAM) is bringing interested naturalists together. It reaches out beyond botany to work together with entomologists and other experts. [Bitten by the Bug](#), a BBC Sounds production that still exists online, captures the spirit of what can be done with more specialists.



Liz McDonnell on Southlake Moor with the BBC production team in 2011.

Pete Stroh

Finally, Steve played a video with a few words to the SRPG membership from Pete Stroh, BSBI's England and Scientific Officer. Unfortunately, he could not join us on the day, but congratulated the Group on reaching 25 years and still going strong.

He complimented the SRPG's exceptionally clear and navigable website. He underlined that the SRPG has had a huge impact on turning around the sorry state of the herbarium and on recording in the county. The Group contributed 150,000 records between 2000 and 2019 for 2,654 taxa for the BSBI's Plant Atlas 2020 launched this year. He called the contribution a stunning achievement. This data will also feed into the next GB Red List. Pete also commented on the incredible online Rare Plant Register (RPR), full of knowledge and effort. It is very much a living piece of work.

In summary, he commented that he found the SRPG to be a knowledgeable, sociable and inclusive group during his visit this year. He described the SRPG as the Gold Standard for other botanical societies to follow and the envy of more far-flung botanists.

Finally, Pete said that he looks forward to the SRPG's 50th anniversary celebrations, to enjoy the day and raise a glass to Liz and Clive.

The Anniversary Cake

Everyone gathered around to celebrate the anniversary with the cutting of Gill Read's creative, skillful and delicious Cheddar Pink cake. Looking forward to the next major anniversary!



The SRPG's 25th anniversary cake was made by talented member Gill Read with a Cheddar Pink at its centre.

NB: Full conference presentations are on the website.

Sunday 29th October 2023, Taunton (VC5)

Leader & Report: Simon Leach



Both ends of the rainbow, and a fitting end to the season. Photo © Fred Rumsey

Nine of us gathered in Taunton for an 'Autumn One Day Hunt', one of several flower-hunting challenges set each year by the Wild Flower Society. This one involves finding as many plants in flower as you can on a single day in the last week of October – one of those vaguely pointless exercises that turns out to be quite a lot of fun. In several recent autumns we've taken part in this challenge, walking much the same as our intended route today, with totals generally in the region of 120 to 150 species. Given the (so far) mild autumn we imagined it would be interesting to see how this year's total compared.

So we met, as we usually do, at Silk Mills park-and-ride car park on the western edge of town. It was a brisk chilly day of sunshine and showers. The ground was soggy from recent rain, not least yesterday afternoon's downpour. You probably know the old joke: "How long does it take a group of botanists to get out of a car park?" Well, yes, let's just say that today was no exception. We were determined to be seriously sluggish and spent nearly two hours exploring the car park's verges and paving cracks and perimeter banks. We realised that Clive Lovatt would have been delighted by our lack of progress: this was just the sort of place in which you'd catch him dragging his heels. So we dragged ours too. By the end of the first hour, we'd already notched up 50 species in flower, including some real gems like Blue Fleabane (*Erigeron acris*), Wall Bedstraw (*Galium parisiense*), Small-flowered Crane's-bill (*Geranium pusillum*), Great Lettuce (*Lactuca virosa*), Small-flowered Buttercup (*Ranunculus parviflorus*), and Stone-parsley (*Sison amomum*).



The assembled group. Fred, on the right, still doing his warm-up exercises while the rest of us try to ignore him.

Photo © Simon Leach

The second hour, following the law of diminishing returns, produced only a further 20 species, so at this point we finally set off along our intended route, with a nod to the old English Nature offices at Roughmoor, past Roughmoor Pond – where we heard Cetti's Warbler and saw a patrolling Emperor dragonfly – and into Longrun Meadow. Here, close to the river, we saw flowering White Dead-nettle (*Lamium album*), Himalayan Balsam (*Impatiens glandulifera*) and a single plant of Wild Radish (*Raphanus raphanistrum* subsp. *raphanistrum* – or 'raph raph' for short, meaning that whoever shouts it out can end up sounding like an excitable Jack Russell).

We didn't find Grass-leaved Vetchling (*Lathyrus nissolia*), but our other target from the furthest flood attenuation lagoon, Hoary Cinquefoil (*Potentilla argentea*), was still flowering nicely and was much admired. It was probably introduced, maybe in 'green hay' or some kind of amenity seed mix brought in

when the meadows were being created on ex-arable land back in the late 'noughties'.



Admiring a fine patch of flowering Hoary Cinquefoil (*Potentilla argentea*). Photo © Fred Rumsey

This was when we decided to divert from our usual route into the middle of town. The clocks had gone back in the middle of the night, which shouldn't have surprised us, but it meant that dusk would be an hour earlier than yesterday. So, we opted for a shorter route, via the footpath by the river, behind the Hospice, then back up onto Silk Mills Road and along the road to Avery's nursery. It was already two o'clock, and we still hadn't stopped for lunch, and people's blood sugar levels were beginning to plummet.



The silvery undersides to the leaves of Hoary Cinquefoil give this species both its English and scientific names.
Photo © Fred Rumsey

The path up to the road produced a nice little clump of Sowbread (*Cyclamen hederifolium*) while in the hedges and grass verges bordering Silk Mills Road we

saw flowering Cut-leaved Crane's-bill (*Geranium dissectum*), Herb-Robert (*G. robertianum*), Greater Celandine (*Chelidonium majus*), and Petty Spurge (*Euphorbia peplus*), to go with the *helioscopia* seen earlier, in the park-and-ride.



Enjoying lunch in the garden at Avery's nursery.
Photo © Simon Leach

Our third hour had produced just 19 new species, so the café at Avery's nursery would be exactly the sort of break we needed: tea and cakes, but also the prospect of a weed or two to keep us keen. And, sure enough, we were able to add flowering Procumbent Yellow-sorrel (*Oxalis corniculata*) and Pale Willowherb (*Epilobium roseum*) to our list. But star of the show – although sadly not flowering – had to be the Corsican Mint (*Mentha requienii*) which was growing in the gravel beneath the displays of plants for sale in the outside nursery area. This is a 'first' for the Taunton area, although there was some discussion, and good-natured disagreement, about whether it was sufficiently 'in the wild' to count as a record.



Corsican Mint (*Mentha requienii*) at Avery's nursery. A few fruiting calyces, but not really in flower. Photo © Fred Rumsey

Back onto Silk Mills Road, and in the short hop back to the park-and-ride we added Cow-parsley (*Anthriscus sylvestris*), Rough Chervil (*Chaerophyllum temulum*), Borage (*Borago officinalis*), Common Mallow (*Malva sylvestris*), Black Medick (*Medicago lupulina*) and Dewberry (*Rubus caesius*).

At this point, Ellen and Liz called it a day while the rest of us opted to drive into town and reconvene in Tesco's carpark on Wellington Road. From there, we did a quick circuit: along Castle Street, through Goodlands Gardens, then back to the cars via Wood Street car park and Tangier Way. We picked up most of the species we were hoping to add to our list, including Flattened Meadow-grass (*Poa compressa*) and Oxford Ragwort (*Senecio squalidus*) on Castle Street; and Henbit Dead-nettle (*Lamium amplexicaule*) and White Melilot (*Melilotus albus*) in Goodlands Gardens close to where the mill stream flows into the River Tone.

Street weeds on North Street and around Wood Street car park included Thale-cress (*Arabidopsis thaliana*), Purple Toadflax (*Linaria purpurea*), 'Teddy bear Grass' (*Polypogon viridis*) and Feverfew (*Tanacetum parthenium*). On an overgrown bank beside Tangier Way, we had still-flowering Hairy Tare (*Ervilia hirsuta*) and Common Vetch (*Vicia sativa* subsp. *segetalis*), while on the cycle path beside Tesco's car park we saw Hedgerow Crane's-bill (*Geranium pyrenaicum*) – our fifth *Geranium* of the day – and Musk Stork's-bill (*Erodium moschatum*).

And that, as they say, was that! Our tally for the day was a commendable 133 species in flower. A few of us stretched the rules by seeing what else we could find as we headed home, before the dark finally descended. I added another 11 on a quick dog walk, several of them we really ought to have picked up earlier in the day, like the two common Bellflowers *Campanula portenschlagiana* and *C. poscharskyana*, and Wall-lettuce (*Mycelis muralis*), and Black Horehound (*Ballota nigra*).



Common Vetch (*Vicia sativa*) on an overgrown bank beside Tangier Way. Photo © Helena Crouch

And how on earth did we manage to NOT see flowering Broad-leaved Willowherb (*Epilobium montanum*)? Or Round-leaved Crane's-bill (*Geranium rotundifolium*)? They're all over the place!

Never mind, there's always next year.

Part 2: Articles

So who, exactly, was H. D. Jordan?

By Ian Salmon

At the SRPG Conference in October, we mentioned that the Somerset County Herbarium (**TTN**) had recently received into its care the 'Taunton School Herbarium', and that this included a large number of pressed plants collected by someone called H. D. Jordan. During the period 1935-39 this person had amassed 420 specimens: some from Somerset, but the majority from further afield – including many from the Isle of Wight. The quality of the sheets, well pressed and presented, suggested the work of a competent or an aspiring botanist. It was therefore surprising that we had never heard of Jordan, nor could we find any reference to the name in lists of British botanists and collectors after 1939.

Following the conference, however, Taunton School's archivist was able to confirm that H. D. Jordan was a boy at the school from 1929 until 1935, when he went on to attend Imperial College in London. The school had no information on him after he left university, but at least we now knew that his specimens were collected while he was at university rather than as a pupil at the school – which means, of course, that he must have continued to visit Somerset (and the school?) during his university years.

Armed with his full name, **Hubert David Jordan**, a Google search revealed that someone had carried out some genealogical research on a related family and this gave further details of Jordan. He was born on 1st March 1917 at Newport on the Isle of Wight. After university in London, he went on to Cambridge University and the Imperial College of Tropical Agriculture in Trinidad. He joined the Colonial Agriculture Service, eventually becoming the head of the West African Rice Research Station in Sierra Leone. He was awarded an OBE in 1960, retired from the Colonial Service in 1965 to become a visiting professor at the University of Nigeria and an independent consultant on rice. He died, in the UK, in 1979.

As well as authoring papers on rice production we know he worked on the local flora in West Africa although we have yet to ascertain the full extent of this. Possibly the most interesting thing we have found so far is the image top right. The Pipewort was collected by Jordan near

Mange, Sierra Leone, in 1951. It was described and published as a new species, *Syngonanthus jordanii*, in 1954, but was later re-determined as *Eriocaulon jordanii* in 1966 by another Somerset botanist then working at Kew, Desmond Meikle!



This Pipewort was collected by Jordan near Mange, Sierra Leone, in 1951. Source: Kew Herbarium, Plants of the World Online

Thus, H. D. Jordan joins a list of distinguished botanists associated with Somerset whose more significant work was conducted overseas, such as William Dampier, William Munro and the aforementioned Desmond Meikle. As an aside, we should note that Desmond himself worked for a while in the 1950s in West Africa, and it is tempting to imagine that he and Jordan may have come across one another in the course of their botanical labours.

Although Jordan's links with Somerset were limited to his early life, he clearly wanted his herbarium sheets from the 1930s to remain in the county, and we are pleased now to be able accommodate them within the main collection in **TTN**.

What's the Craic about the – Grass – Ligule?

By Nigel Chaffey

Nigel considers the microscopic structure of the grass ligule and its function.

Where our story begins...

For his MSc research at the University of Durham, a Michael Lee investigated the transport of radioactive amino acids up the leaf of meadow fescue (*Festuca pratensis*). Longish story short, he found that the compounds travelled all the way from the cut base of the sheath to the tip of the blade *in young leaves*. But, *in older leaves*, their upward transport was progressively restricted at the blade/sheath junction. Although one may ask questions about the relevance of this system to an intact plant, the observed 'block' at the blade/sheath junction was deemed sufficiently intriguing to secure a substantial grant to study grass leaf senescence. The task of undertaking that work fell to me as a Research Assistant at Durham [for those who don't know, in those days a Research Assistant was a member of staff who was paid to do study for a PhD. It really was the best of both worlds getting a salary whilst being a post-graduate 'student' and immersing oneself in a research topic for three years – happy times!].

However, and for reasons that aren't essential to this story, we used *Lolium temulentum* (darnel) [for more on this fascinating grass, see Thomas *et al.* (2016); Thomas (2019)] instead of *F. pratensis*. As for meadow fescue, darnel exhibited the same 'blockage' at the blade/sheath junction. That confirmation concentrated my interest in the anatomy of cells, tissues, and organs at that region*, which, inevitably, led me to take a closer look at the ligule [which is where our story really begins].

What is the grass ligule?

Almost every source will define this structure as a membrane at the junction of the blade and the sheath of the grass leaf**. Ligules of some species may have a variety of hairs or other structures associated with their outer surface or margins. In some grasses it may be reduced to a ring of hairs; in others – e.g. *Echinochloa crus-galli* – it may be absent***. Grass ligule variation is quite surprising, which has considerable value as an aid to ID of grasses – particularly in the absence of flowers (as I'm sure readers will know).

What does the ligule do?

The most widely-held view of ligule function – the one you'll usually find in textbooks and on the 'net – is that it excludes water, dust and spores from entering the interior of the grass plant, and thereby stops the plant becoming water-logged or infected. To my knowledge that proposal has never been tested experimentally. It is a notion that's best described as circumstantial evidence and is primarily based upon the ligule's position on the grass plant.

A deep dive into darnel

The ligule of darnel is not much to look at with the naked eye or even with a hand-lens – it appears to be a whitish membrane-like structure situated at the junction between blade and sheath of a leaf, that's a couple of millimetres high/tall [Fig. 1]. Because the sheath of the leaf to which it's attached is closely pressed against the enclosed leaf or culm of the plant and partially wraps around it, the ligule – as an upward vertical extension of the sheath – also encircles the enclosed leaf or culm.



Fig. 1: When the blade of darnel is bent back the ligule is clearly seen as a translucent membranous structure extending vertically upwards from the sheath. The cognoscenti among you will recognise that this is perennial ryegrass and not darnel, whose image was used because I can't find my pictures of darnel ligules. [Photo: Harry Rose CC via Wikimedia Commons](#)

But, when prepared, sectioned, and examined under the light microscope [LM], it's a revelation. In longitudinal section, the surface of the ligule that is next to the enclosed leaf/culm [and which is designated the adaxial [[referring to the side of an organ facing toward the axis](#)"] which is the enclosed leaf/stem in this case] epidermis because it faces *towards* the stem of the plant] is continuous with the inner [adaxial] epidermis of the sheath. The outward-facing – abaxial – epidermis of the ligule is continuous with the adaxial epidermis of the blade. In transverse section, the ligule has a three-layered [tripartite] structure: both [epidermides](#) are uniseriate [i.e. a layer that is one cell thick], and a mesophyll [so-called because it's the middle layer of a leaf-attached organ] that's one to a few cells wide [widest towards the base of the ligule, thinnest towards

the tip and margins]. Cells of the abaxial epidermis appear quite 'empty' indicating a large vacuole. Cells of the mesophyll and adaxial epidermis are progressively more heavily-stained indicating an increasing amount of cytoplasmic material/decreasing volume of vacuole within them [Fig. 2] (Chaffey, 1985a).

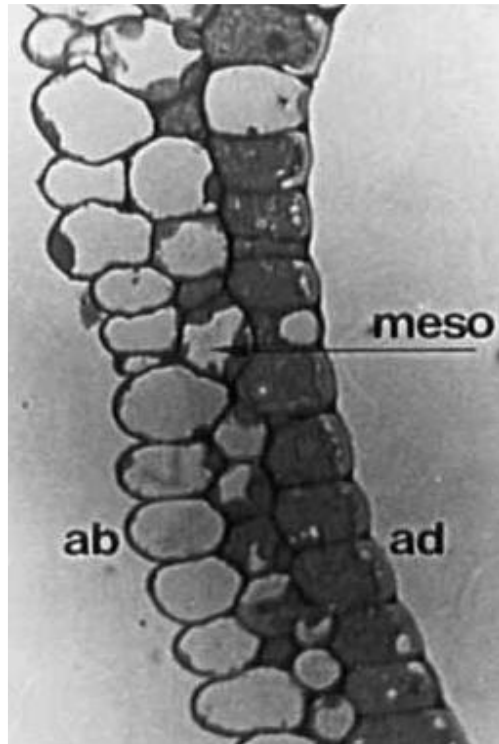


Fig. 2: Transverse section of the membranous ligule of *Lolium perenne* (40 years after the work I can't find one of *L. temulentum*...) after staining for the LM. The main feature to note is the marked increase in staining/reduction in proportion of unstained vacuole from abaxial epidermis (ab) to chloroplast-bearing mesophyll (meso), to the densely-cytoplasmic adaxial (ad) epidermis.

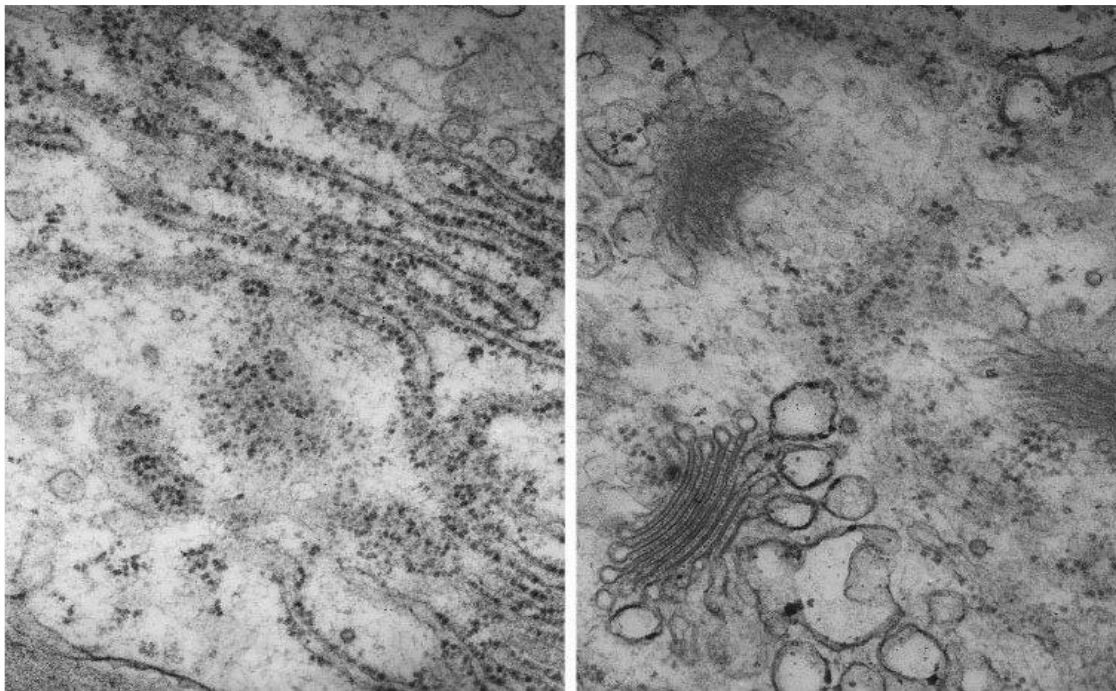


Fig. 3: Two TEM images of the adaxial epidermis of dandelion ligule. Shown at left is the abundance of rough endoplasmic reticulum [RER]; on the right are several Golgi bodies and their empty-looking vesicles.

In the transmission electron microscope [TEM], the view is even more impressive (Chaffey, 1985a) Not only was the degree of vacuolation observed with the LM confirmed, but – and as you should expect from the TEM – important information about type, number and arrangement of organelles was also revealed. The highly-vacuolate cells of the abaxial epidermis had a correspondingly thin cytoplasm layer that contained few organelles (and no noticeable chloroplasts), and there was a thick cuticle over the external cell walls. The moderately-vacuolated mesophyll cells were characterised by prominent populations of chloroplasts. The biggest surprise was the densely-cytoplasmic adaxial epidermal cells which had large numbers of mitochondria, and Golgi bodies, and abundant strands of rough endoplasmic reticulum [RER] [Fig. 3].

A cuticle was present over the outer cell walls of the adaxial epidermal cells, although this was thinner than that of the abaxial epidermis. Also of note was the abundance of plasmodesmata in the walls between cells of the mesophyll and the adaxial epidermis. All of which catalogue of ultrastructure is not bad going for an organ that's effectively written-off as a rather insignificant, small membranous structure. As surprising as it was to find this degree of cellular complexity in the ligule, the puzzle now was to work out what it all meant [I'm a great believer that you don't have structure without function].

At first sight, it looks like this organ is photosynthetic, and has an energy-requiring synthesis of something in the adaxial layer which involves the Golgi and/or RER: But, what?

That 'light-bulb moment'

And this is where serendipity [which I once saw defined as 'looking for earthworms and finding gold'] comes into play. I'd read somewhere about use of optical brighteners to reveal cell walls in the fluorescence microscope. This sounded like a nice and quick way to view cell arrangements and numbers of cell layers in thick-sections without all the fuss and time it took to cut semi-thin sections for light microscopy. It was. Using 1-2 mm thick discs of material removed with a razor blade just above the blade/sheath junction showed the ligule in transverse section and held in place between the base of its own leaf-blade and the enclosed leaf/stem.

Readers of a certain age are probably familiar with optical brighteners because they were [still are..?] added to washing powders to give that brilliant blue-white appearance to washed clothing when held up against the daylight. This occurs because the brighteners bind to

cellulose fibres – e.g. from cotton and linen – in the clothing and emit a bright whitish fluorescent light when exposed to ultraviolet wavelengths. Which is why these compounds are particularly good at 'staining' the cellulose-rich walls of plants. An example of the information this technique can give is shown in Fig. 4.

Apart from the speed of preparation, a bonus of this procedure is that it avoids cellular collapse – especially of the highly-vacuolate abaxial epidermal cells – that often accompanies the aggressive fixation, etc. necessary for light and electron microscopy, i.e. the cell shapes are much more life-like (Chaffey, 1994).

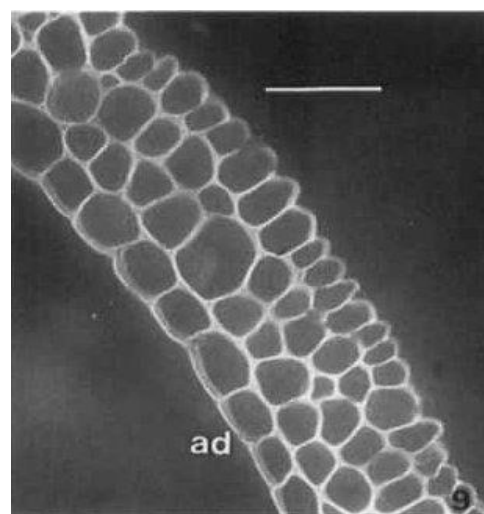


Fig. 4: Transverse section of ligule of *Milium effusum* with optical brightener, which outlines the cells by 'staining' their walls [seem as white lines and curves], and shows their undeformed shapes. Note the relatively smooth outlines of the outer walls of the adaxial (ad) epidermal cells compared to the more 'corrugated' surface of the abaxial epidermis, which is likely to ensure a tighter seal between ligule and enclosed leaf/stem [scale bar = 50 μ m].

The brightener worked as expected with darnel ligules – in transverse section. However, occasionally bad coverslip technique meant that a ligule came adrift and ended up flattened on the slide. Although that orientation was no use for looking at number of cell layers, it showed an intriguingly-different fluorescence pattern to that seen in transverse sections. Basically, when looking at the adaxial surface of the ligule the fluorescence was confined to the area *between* the cell walls, i.e. the cells appeared as white fluorescing 'lozenges' surrounded by a non-fluorescing boundary that corresponded to the position of the cell wall [Fig. 5].

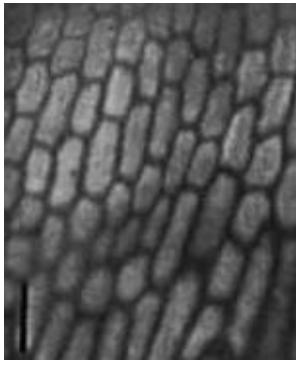


Fig. 5: Adaxial surface of *Lolium temulentum* ligule with optical brightener. In this image the cell walls are 'unstained' and appear as dark boundaries to the cell contents that fluoresce white.

What was causing that? Well, we've had serendipity with the use of brighteners, now came the mini-eureka moment: The brightener appeared to be 'staining' the region between the outside of the cell membrane and the outer wall in the cells of the adaxial epidermis. Which area – the so-called periplasmic space – was a region that had accumulations of circular profiles of membranes and other more fibrous looking material when seen in the TEM [the potential significance of which observation I hadn't previously appreciated, hence its disclosure at this point in the story...]. Whatever the material was it appeared to have much greater affinity for the brightener than cellulose, but presumably had some chemical or physical characteristics in common with that cell wall polysaccharide.

Could the material in the periplasmic space be something that the adaxial cells were synthesizing? If so, presumably it required energy – which might explain the large numbers of mitochondria in the cells. And, presumably also required the involvement of both the numerous Golgi bodies and abundant RER. Relating the carbohydrate-processing ability of the Golgi and the protein synthesis capacity of the RER, maybe the material was a glycoprotein – a molecule that has both a protein and a carbohydrate component?

A new function for the grass ligule?

Rather than the purely observational nature of the work to this point, I now had an hypothesis. Testing that hypothesis led to much more targeted work looking at the connection – both figuratively and quite literally – between the Golgi and the RER, the chemical nature of the accumulated product, and proposing a potential pathway of its synthesis. My best guess was that a glycoprotein-like material, synthesized in co-operation between Golgi and RER, was transported by Golgi vesicles to the periplasmic space [for more, see Chaffey, 1985b; Chaffey, 1995]. But, the material didn't appear to

remain inside the ligule. Gaps in the cuticle of the adaxial epidermal cells could be seen in the TEM with what looked like the material being released through the gaps to coat the outer surface of the cuticle [Fig. 6] – i.e. at the region between the ligule and the enclosed leaf/culm.

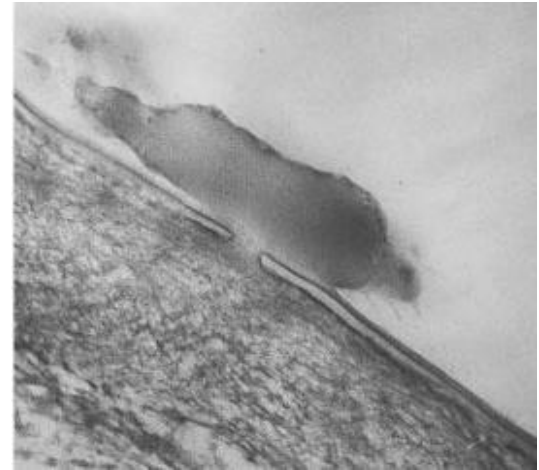


Fig. 6: Transmission electron micrograph of extracellular product in a cuticular gap and on the surface of the cuticle of an adaxial epidermal cell of darnel ligule.

Since a secretory role for the ligule was rather at odds with the prevailing view of what it's supposed to do, I was keen to get more support for this notion and chose to examine darnel's root cap. Famously, this part of the plant produces so-called root-cap slime which is released from the cells and acts as a lubricant for the growth of roots through the soil. In many respects the cytochemistry, optical brightener-staining and assemblage of organelles found in the ligule's adaxial epidermis was similar to that in the root cap cells (Chaffey, 1996). Which was pretty good corroboration – and some sort of precedent – for my view of ligule function.

Not one, but two functions for the ligule

After three years or so of reasonably intensive study, what did I conclude about membranous ligule function? Two things mainly.

First, the ligule of darnel could act passively to exclude water, dust and harmful spores – as has always been proposed. Whilst that was not novel, we now had an explanation of how this might work. When the highly-vacuolate abaxial epidermis cells are fully turgid [as they would be in life, and frequently fail to be after processing for the LM and TEM] this helps the ligule to 'curl' into a crescent shape. In so doing, the outer walls of the adaxial epidermis are closely-appressed against the enclosed leaf/stem to give a pretty tight seal at that region.

Second, it was apparent that the darnel ligule might *also* have a more active role. It looked like it was synthesising and secreting a glycoprotein-like substance to the outside of its adaxial epidermis. Because that is taking place at the blade/sheath region where the enclosing leaf is tightly pressed against the enclosed leaf/culm, you might predict that this presents a restriction to the upwards growth of the enclosed leaf or culm. That constriction could be eased or even overcome – but still retaining the tight seal – if there was some sort of lubricant at that point. By analogy with the root cap, a lubricant role is what was proposed for darnel ligule, which eases the exertion of the enclosed leaf/culm.

Because the lubricant function depends upon the ligule actively doing something – rather than just being in the right place – it looks like the darnel ligule has a dual function, a passive exclusion one, and an active secretory role.

But, is evidence from one species enough? Whilst it's sufficient to challenge the orthodox view of a purely passive ligule function, it is always good to have supporting evidence from more than one taxon. Accordingly, I looked at a range of grasses (Chaffey, 1994). Although I didn't have time to study them as intensively as darnel, I had a look at their ultrastructure, and their behaviour with optical brightener. That study suggested that potentially secretory ligules are also found in seven other species: *Bromus ramosus*, *Festuca pratensis*, *Lolium x hybridum*, *L. multiflorum*, *L. perenne*, *Elytrigia repens* ssp. *repens* [Fig. 7], and *Triticum aestivum*.

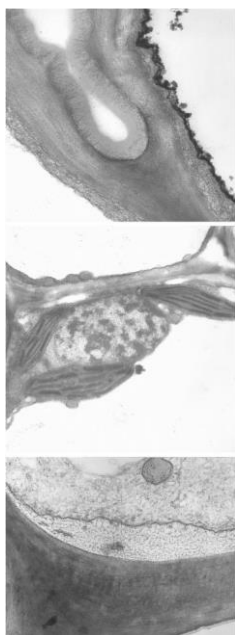


Fig. 7: Transmission electron micrographs of transverse section of the membranous ligule of *Elytrigia repens* ssp. *repens* illustrating its tripartite structure of, from top to bottom of sequence: empty-looking abaxial epidermis (with thick cuticle), chloroplast-bearing mesophyll, and the densely-cytoplasmic adaxial epidermis with fibrillar material in the periplasmic space.

All good things come to an end...

Sadly, that was as far as I was able to get with my own studies of this organ as I moved on to other things. But, this was a great project to work on and gave me an in-depth knowledge of the minutiae of some grass ligules [and, it was nice to find a little gold amongst the earthworms]. Notwithstanding that intimate 'inside knowledge', I'm still not that good at identifying grasses in the field. That's where the awesome ID skills and expertise of my much-more-knowledgeable colleagues of the SRPG comes in – and is much appreciated!

Well, anyway, that is why I find the grass ligule so fascinating, and why I'm always a little disappointed – although, sadly, not surprised – that the work hasn't been followed-up. Certainly, ligule studies continue – e.g. in rice (Mursyidin *et al.*, 2021), the Poaceae generally (Edson-Chaves *et al.*, 2023), and even in the Cyperaceae (Alves-dos-Santos *et al.*, 2023) – but nobody seems to be looking at their *function*. Oh well, that's the way it goes.

Thank you for reading this piece. And, if I've now made you look at grass ligules with a bit more admiration – and maybe even respect, this article has done its job.

PS I could have said right at the start of this article, if you'd like a summary of all of my thoughts on the membranous grass ligule, you could just look at Chaffey (2000), which item is freely-accessible here [<https://nph.onlinelibrary.wiley.com/doi/pdf/10.1046/j.1469-8137.2000.00618.x>], rather than waded through all of the other papers cited above, and detailed below.

* Although much of my time was spent looking at ligules, I never abandoned study of this 'blockage' and did find tyloses at the blade/sheath junction in older leaves of darnel. Tyloses are balloon-like extensions of parenchyma cells that poke into adjacent cells. Here it was suggested that the tyloses might be removing the amino acids from the transpiration stream which could explain the apparent block to further upward movement of these compounds during senescence of the darnel grass leaf [for more, see Chaffey & Pearson, 1985].

** Other ligules exist, e.g. in sedges and rushes (Harper, 2023), and other monocots (Rudall & Buzgo, 2002). The strap-shaped structure on the ray florets of composites is known as a ligule (Toronto Botanic Garden, 2022), as is a feature on the leaves of extant species of the lycophytes *Selaginella* and *Isoetes* (University of Vermont, Undated). And ligules also refer to "bell-shaped structures within the girdle bands" of diatom

frustules (Zuluaga-Astudillo *et al.*, 2013). Which meant that literature searching ‘in the olden days’ by wrestling with weighty, bound volumes of Biological Abstracts was always ‘challenging’ when one was trying to focus on purely grass ligules...

*** For reasons that I now forget, I also looked at the ligule of *Agrostis gigantea*, where I was surprised to find stomata-like structures in the abaxial epidermis (Chaffey, 1982). In the absence of verification that they were actually functional stomata, I erred on the side of caution and called them stomata-like, although they were only seen in association with vascular tissues in this ligule. Yes, you read correctly. Some ligules have vascular tissue [veins] in them, which is continuous with the vascular tissue of the rest of the grass leaf. Which revelation means that some so-called membranous ligules are not simple ‘membranes’. I therefore use the term veined ligule to distinguish those ligules with vascular tissue – such as rice, marram, cock’s foot, Yorkshire fog, creeping bent, or black bent – from ligules that are entirely membranous – like darnel [For more on veined ligules, see Chaffey, 1983; 1985c. – NB, the latter paper complicates matters by identifying heteroligulate species, grasses that bear both membranous *and* veined ligules(!)].

For more of Nigel’s writing about plants read and/or subscribe to his new blog: <http://plantcuttings.uk>

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Steep Holm: a botanical survey

By Helena J. Crouch

The flora of Steep Holm has been well recorded over the centuries. Banks & Lightfoot visited the island in 1773; the Peony had been known there for some years by then. Somerset Rare Plants Group visited Steep Holm in 2006. Liz, Steve and I spent a wet day there in 2014, recording for Natural England. 250 years after the visit by Banks & Lightfoot, Fred Rumsey and I explored the island on a fine summer's day, recording all the plants we could find.

Steep Holm lies within vice-county 6 (North Somerset): the only other land within the hectad is the island of Flat Holm, in VC41 (Glamorganshire). Steep Holm is less than 1km long but sits astride a monad boundary (of course!): the western two-thirds in ST2260, the eastern third in ST2360. In recent years, roughly the same number of species have been recorded in each of the two monads.

A day on Steep Holm begins early, the departure time dictated by the tide. Fast Rigid Inflatable Boats (RIBs) convey excited visitors across the crashing waves from Weston-super-Mare: it is advisable to wear waterproofs for the six-mile journey! Arriving on the beach, most visitors make straight for the Barracks for coffee: botanists take a lot longer to get there! Luckily refreshments are served all day.



Approaching the island, heading for the small beach at the east end, which is the only landing site. Photo © Helena Crouch

During the day, Fred and I tried to explore every reasonably accessible part of the island, descending the steep path to South Landing and the 208 Steps to the Searchlight Post on the north side of the island. At the west end, we braved the exposed old steps down the cliff as far as felt safe – there is no handrail and it was

quite windy! We also re-visited the beach at the east end at low tide, which allowed access around the cliffs of Tower Rock. We walked all the paths on the summit of the island, visiting every ruined building and battery. Altogether we recorded 108 species of higher plant in ST2260 and 118 in ST2360.

We were pleased to find several species which had not been recorded since before 2000, including Sea Campion (*Silene uniflora*), Sea Radish (*Raphanus raphanistrum* subsp. *maritimus*) and Spreading Meadow-grass (*Poa humilis*). We also, surprisingly, added a few species to the records for the island: Holly (*Ilex aquifolium*), Petty Spurge (*Euphorbia peplus*) and a hybrid Dock (*Rumex x pratensis*).

Several rare plants, for which Steep Holm is a stronghold, are thriving. Henbane (*Hyoscyamus niger*), Vulnerable on the England and GB Red Lists, and Hound's-tongue (*Cynoglossum officinale*), Near Threatened on both Red Lists, were both found in abundance in many places, particularly along paths.



Henbane near the Barracks on Steep Holm. Photo © Helena Crouch

The Deadly Nightshade (*Atropa belladonna*), which is Scarce in VC6, has increased considerably since my last visit in 2014: we recorded about 20 plants by the east end of the Barracks and two plants by steps west of the Barracks. This is now the largest population in Somerset and was of great interest to other visitors! Wild Leek (*Allium ampeloprasum*), also Scarce in VC6, was flowering at several sites on the island: we saw 58 towering flowering plants, most of them east of the Barracks.

Steep Holm is the only Somerset site for Golden-samphire (*Limbarda crithmoides*). We recorded four plants on the wall west of the Searchlight Post by South Landing, which is the same number that Liz and I recorded there in 2014. At the west end of the island, we could just pick out a small patch on the south side of Rudder Rock, through binoculars.

Another rarity on Steep Holm is Nettle-leaved Goosefoot (*Chenopodium murale*), which is now Endangered on the England and GB Red Lists. This had not been recorded on the island since the 2006 visit by SRPG, so we were thrilled to find a single clump of plants at the Laboratory Battery, where it was growing decoratively in an upturned cannon!



Nettle-leaved Goosefoot in a cannon planter. Photo © Helena Crouch

A small sample was taken, since the sculpturing on the seeds is the best feature for identification: seeds were examined under a microscope and the identification confirmed. This is the only currently known site for this species in VC6, although in 2022 Rob Randall photographed plants which were plausibly this species at Sand Bay.

Other highlights of our visit included Rock Sea-lavender (*Limonium procerum* subsp. *procerum*) in flower on cliffs above the beach and by South Landing and Rudder Rock; more plants of Dwarf Mallow (*Malva neglecta*) than I have seen anywhere else, growing along paths all over the island; Sea Stork's-bill (*Erodium maritimum*) on the path east of the Barracks and on rocks by the 208 Steps.



Sea Stork's-bill in flower on the edge of a path. Photo © Helena Crouch

Sea Spleenwort (*Asplenium marinum*) was recorded on cliffs above the beach; Wall-rue (*A. ruta-muraria*), Maidenhair Spleenwort (*A. trichomanes* subsp. *quadrivalens*) and Black Spleenwort (*A. adiantum-nigrum*) were seen only once, at Rudder Rock Battery. In the flower bed outside the Barracks, there were hundreds of seedlings of White Ramping-fumitory (*Fumaria capreolata*). We paid homage to two caged Peonies (*Paeonia mascula*), past their best, one by the Priory and one west of the Barracks.

Much of the summit of the island is fairly inaccessible due to brambles and scrub: most interesting plants grow on the paths. Where small areas of scrub clearance have been undertaken beside paths and around the batteries, the flora was more diverse. I saw one Muntjac, but was told that there are several. These eat brambles and scrub, but probably also eat small herbaceous plants. We saw very few dandelions or clover and surprisingly few grasses. Many early annual species had also probably disappeared before our visit due to the hot spell in early summer: we need to go back!

Our thanks to the Kenneth Allsop Trust, to whom records were sent, and to Somerset Archaeological & Natural History Society for enabling us to have a great day on Steep Holm recording the flora.

Dandelion Update 2023

By Simon Leach (SJL) & Jeanne Webb (JW)

In 2023 only two of the three main collectors from previous years could spend much time on dandelions; so our efforts were more restricted than usual. And yet we still managed to add some interesting records, even on our 'home' patches: JW mainly in the Watchet/Old Cleeve area, and SJL in and around Taunton. As always, our specimens were examined, and their identities determined, by the national expert and BSBI *Taraxacum* referee John Richards (AJR), and we are grateful for his continued interest in the dandelions of Somerset.

Our recording was, as usual, biased towards South Somerset (VC5), although SJL did visit 'the North' (VC6) on a couple occasions, collecting four specimens from Walton Hill, near Street, all of which proved to be new hectad records, and including one, *T. falcatum*, which was new to VC6 and Somerset. Also amongst the *circa* 60 specimens this year there were three species new to VC5 and Somerset (*T. atonolobum*, *T. latisectum* and *T. scotiniforme*). Full details of these records are given below. In VC5, in addition to the above, there were new records at hectad level for a further 18 species (nine for JW, nine for SJL), including third VC records for *T. chrysosphaenum*, *T. kernianum* and *T. valens*.

It was unfortunate that possibly the most interesting plant of the lot in 2023 doesn't even have a name. This striking dandelion, thought by SJL to be *T. pectinatifolium*, caused considerable puzzlement for AJR, who said "... it does not resemble any dandelion species recorded from the British Isles so far". He wondered whether it might be a southern European 'sexual' species, and it reminded him of something he'd seen years ago near Branzi in the Orobic Alps (Italy); yet trawling through photos and descriptions online he could find nothing that quite matched it. So for now it goes down as 'indet', with the specimen being retained for possible further investigation in the future. In the meantime SJL will be scouring the road verge where it grew in case more convincing and 'identifiable' material can be found.

It is also worth reporting that a rushed end-of-season visit to Broomfield Hill (near Fyne Court) in mid-May produced records of *T. kernianum*, *T. unguilobum* and *T. chlorofrugale*, all three of them seemingly new for the Quantocks. *T. unguilobum* is widespread in usually damp acidic grassland and heaths in the hills of northern and western Britain, and is already known to JW and Graham Lavender (GEL) in the far west of Somerset, while *T. chlorofrugale* is another of GEL's species now starting to turn up away from its Exmoor stronghold. One wonders what else the Quantocks might hold – *T. berthae* perhaps, or even *T. pietii-oosterveldii*?

A revised and updated checklist of Somerset Dandelions can be found on the SRPG website, but suffice to say here that the county list now stands at 175 species, 160 in VC5 and 94 in VC6. Voucher specimens for all the records mentioned above are being deposited in the SANHS/Somerset County Herbarium (TTN). They include the following new VC/county records:



The 'mystery dandelion' that may be new to Britain, but which for now remains 'indet', i.e. nameless! Photo © Simon Leach

Taraxacum atonolobum – Taunton (ST23502377), South Road, Richard Huish College, by fence near bus stop, 16 Apr, SJL, conf. AJR; first record for VC5 and Somerset. An introduction in Britain, but also a real rarity, with dots for only four hectads on the map in Richards (2021); this appears to be the first record in SW England.

Taraxacum falcatum – Walton Hill, near Street (ST46293525), in calcareous grassland by cattle grid on track to old windmill, 15 Apr, SJL, det. AJR, who commented that the specimen was an "important collection of a poorly understood species in [the] UK"; first record for VC6 and Somerset. A scarce and seldom recorded species in Britain, where it is presumed to be an introduction; said to be native to Sweden.

Taraxacum latisectum – Taunton, on central reservation of A3038 dual carriageway (ST23482504), 30 Mar, SJL, det. AJR; first record for VC5 and Somerset. Only the second record for SW England (see map in Richards 2021).

Taraxacum scotiniforme – Taunton (ST23502440), 15 Trinity Street, in brick paving in back garden, 13 Apr, SJL, conf./det. AJR; first record for VC5 and Somerset. An introduced species with a thin scatter of records across England, Wales and Ireland; a second record for SW England, apparently (see map in Richards 2021).

In 2023 one of us (SJL) attended the BSBI *Taraxacum* training and recording weekend based in Peterborough and visiting sites mainly in Northamptonshire (VC32). Over the weekend as a whole around 90 species of dandelion were recorded, almost two-thirds of which were ‘firsts’ for VC32. These included some really good finds, including *T. akteum* at Castor Flood Meadows SSSI, *T. berthae* at Sudborough Green Lodge Meadows SSSI, *T. tamesense* and *T. melanthoides* at Castor Hanglands NNR, and *T. inopinatum* and *T. scoticum* at Swaddywell Pit nature reserve. But the most exciting find of the weekend was at Castor Flood Meadows SSSI and Orton Mere, on the western side of Peterborough, where an unfamiliar and perplexing dandelion was half-suspected by AJR (and later confirmed by him) to be *T. intermedium* – apparently a first record for Britain of this northern and eastern Central European species!

SJL returned with pressed specimens of several of the more interesting species collected during the weekend – although sadly no *T. intermedium* – and these too will eventually be deposited at **TTN**. They include a specimen of *T. acutifidum* collected on the way up to Peterborough – from a verge in the car park at Gloucester Services!

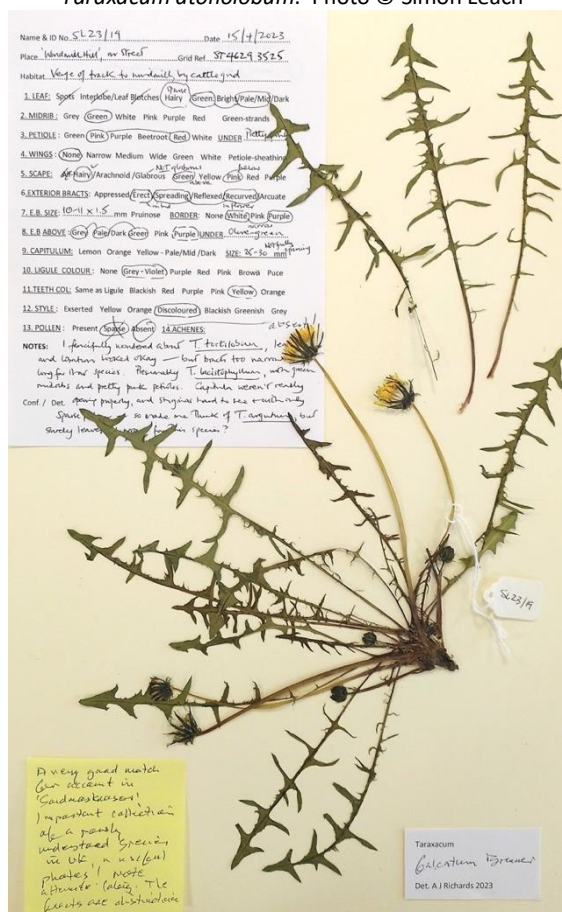
We believe that next year’s BSBI *Taraxacum* training weekend is to be centred on Devizes, Wiltshire – and so will likely cover a similar range of habitats and species to those encountered in Somerset. Like VC32 last year, the two Wiltshire vice-counties (VCs 7 and 8) are currently poorly recorded for dandelions, so this is bound to be another very interesting, enjoyable and productive meeting. If you’re a BSBI member and think you might fancy ‘having a go’ at dandelions, then we would strongly recommend you consider attending this meeting. We certainly hope to go along if we can.

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Richards, A. J. (2021). *Field Handbook to British and Irish Dandelions*. B.S.B.I. Handbook No. 23. Botanical Society of Britain and Ireland, Durham.



Taraxacum atonolobum. Photo © Simon Leach



Taraxacum falcatum. Photo © Simon Leach

Which *Wolffia*? A big, small-flowering mystery

By Fred Rumsey



Wolffia columbiana – Burtle Moor, 2023. Photo © Fred Rumsey

Once life was simple. Our ditches, rhynes, pools, ponds and trickles contained a small array of Duckweeds: Ivy-leaved, Greater, Fat and Common, or most excitingly the minute Rootless *Wolffia* – famously the world's smallest flowering plant. Times have changed, novel aliens have arrived, while we also have come to realise that Fat may be thin and that this is now more common than Common! In the face of all of this uncertainty *Wolffia* seemed like a reassuringly simple problem identification-wise. Once rolled between the fingers its tiny, gritty, bright green "peas" separated it as distinct and there was but one, and it was a treasure of the Somerset levels...

Perhaps the most reduced and certainly smallest of all flowering plants, the cosmopolitan genus *Wolffia* actually consists of 11 currently recognised species, only one of which is Native to Europe. Until very recently only this, *W. arrhiza*, was included in British and European Floras; here in Britain hitherto regarded as Native. With hindsight the very late date of its first discovery here, often given as 1866, but perhaps some 50 years earlier (Pearman, 2017) and its impermanence in its original sites around London, should have led to our questioning its native status. Before we consider that though let us backtrack and look at what has been happening over the last decade elsewhere in Europe and, we now know through the work of Richard Lansdown (Lansdown, Kitchener & Jones, 2022), also here in Britain.

Since 2013, three non-native *Wolffia* species have been recorded in Europe: *W. columbiana* from the

Americas, *W. globosa* from E. Asia and *W. australiana* from Australasia, and it has always been likely that they would appear in the UK. Mindful of this, in September 2021, whilst surveying parts of the Pevensey Levels in East Sussex (VC14), Richard found a population of *Wolffia* in one of the larger drains. Initially thought to be the native *W. arrhiza*, closer inspection revealed a number of characters suggesting that it might, in fact, be one of the alien species. Microscopic examination then confirmed its identity as *W. columbiana*. Subsequent investigation has shown *W. columbiana* to be present throughout the accepted British range of *W. arrhiza*. In addition, *W. globosa* was also thought to possibly be present at a single site in the Gwent Levels (VC35) (Lansdown, Kitchener & Jones, 2022).

To establish whether *W. arrhiza* was still present in Britain, Richard, in collaboration with Helena and Fred in Somerset, has attempted to revisit as many recorded sites as possible in 2023. All, where any *Wolffia* was still present, now support plants which Richard is convinced are *W. columbiana*, with one, a farm pond at Haxted in Surrey, also containing definite *W. globosa*.

The obvious question then becomes "Did we ever have *W. arrhiza* in Britain?" The only way to definitively answer this is by examination of herbarium material, but as you might expect few specimens exist and trying to assess microscopic characters, or do DNA-based studies is challenging.

Undaunted, Richard tried to get to grips with the herbarium material at the Natural History Museum; most proved impossible to assess, but two specimens from the 1860s, amongst the very earliest British finds, proved to actually be *W. columbiana*. Remarkably, one of these was even flowering, a state not previously reported in Britain for *W. arrhiza* but a more commonplace occurrence in *W. columbiana*. The fact that two of the first discoveries of "*W. arrhiza*" are actually *W. columbiana* certainly adds weight to the suggestion that we may never have had *W. arrhiza* in Britain, although I know that locally some still cling to the hope that that may be untrue.

Examining the map in *Plant Atlas 2020* shows that the Somerset Levels are THE *Wolffia* hot spot in Britain, but this was not always so. It was not until W. Watson found it to the east of Taunton in 1911 that the genus became known as a Somerset plant (Marshall, 1914). It seems extremely unlikely that a plant which

typically occurs in ditch-choking abundance would have been long overlooked had it been present earlier. So where did it come from, and how and what was it?

The first records of a *Wolffia* (and we can't be certain which) in western Britain were across the Bristol Channel from us, in two ponds close to the docks in Cardiff, in c. 1876 and 1899. There have been no subsequent finds in Glamorgan, VC41. In the nearby Gwent Levels, VC35, remarkably the first record was by Paul Green in 1983, now only alien species occur here. Is it likely that *W. arrhiza* would have been completely replaced in such a timescale?

In the Somerset levels we potentially have a longer period for *W. arrhiza* to arrive and then be replaced by a later introduction. That this can happen is clearly demonstrated by the two north American waterweeds, *Elodea canadensis* and *E. nuttallii*. The former was widespread in Somerset and was already thought to be declining by the time of Murray's (1896) flora, the latter, which was first recorded in Britain in 1974, was unknown to Roe (1981) but has now largely replaced *E. canadensis*. However, as both still occur, we might therefore expect that if *W. arrhiza* had been present it is likely also to persist? So, while we may never know which species were present and where in the past, that should not stop us from checking the identity of those we now find.

However, telling the species apart is far from easy and really requires some detailed microscopic study for confirmation. The following guidance may help:

W. arrhiza – upper surface intensely green (not transparent), body of plant paler but not obviously apparent as paler margin when viewed from above. Bright pea-green en masse. Usually >30 stomata on upper surface and often >50. Frond almost globose seen from above, sometimes slightly pointed, in cross section broadest near its top, to 1.3mm long.

W. columbiana – upper surface rather transparent, the body of the plant greener, when viewed from above seeming to have a distinct broad margin. Rather pale green en masse. Usually <10 stomata on upper surface (rarely up to 30). Frond globose, in cross section broadest just above its middle, to 1.2mm long.

W. globosa also has a rather transparent upper surface, few stomata and very pale green colour en masse, it differs in its smaller size (fronds always <0.9mm long) and, paradoxically given its name, in not being as globose, i.e. the fronds are narrower ellipses, often twice as long as wide.

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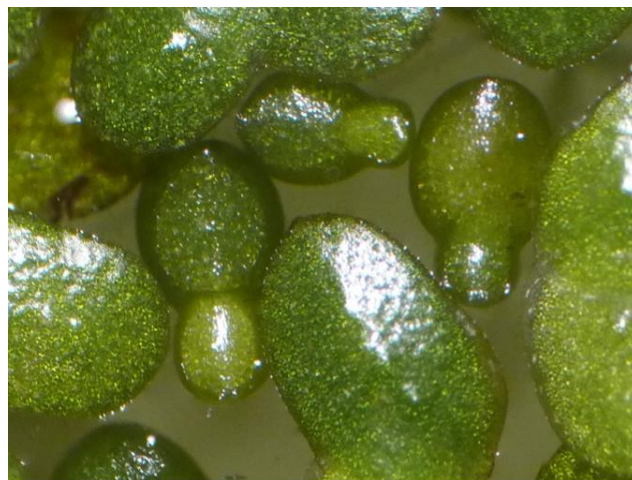
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W. columbiana from ditch by Sand Road, Kewstoke.
Photo © Helena Crouch

PLANT RECORDS for 2023

By Helena Crouch

During 2023, over 58,000 records were made for vascular plants in Somerset. Thank you very much to everyone – members of SRPG and others – who sent any records. All records, even for common species, are valuable, indeed it is important that we monitor any changes in distributions of all species in Somerset. This annual list of plant records shows only the new additions to the county or to either vice-county, and selected other significant records; it does not really do justice to the huge contribution of many of our recorders.

This year the lists of taxa new to Somerset or to VC5 or VC6 consist entirely of aliens. This is not surprising: one of the trends identified by Stroh *et al.* (2023) in ‘Plant Atlas 2020’ was the increasing number of alien species in the British & Irish Flora. Somerset has a well-recorded native flora, but new non-native species are continually introduced into cultivation, subsequently escaping. Although some never become established in the wild, the recording and documentation of these taxa is important to identify and track potentially invasive aliens. Many significant records were, however, made for native taxa, including RPR species, some of which are listed in the third section. *Taraxacum* species new to Somerset or to VC5 or VC6 are listed in a separate note. All records below are for 2023 unless otherwise stated. Those marked with an asterisk are neophytes (recent introductions). Recorders and referees whose names appear more than once have been abbreviated as follows:

APR	Andrew Robinson
DCL	David Leadbetter
DEG	Dave Green
DH	David Hawkins
ELD	Liz Downey
FJR	Fred Rumsey
GEL	Graham Lavender
GHR	Gill Read
HJC	Helena Crouch
IPG	Ian Green
JP	John Poingdestre
JPP	John Poland
MW	Mike Williams
RDR	Rob Randall
RFitzG	Ro FitzGerald
RVL	Richard Lansdown
SJL	Simon Leach
SJP	Stephen Parker
TCGR	Tim Rich

BNS	Bristol Naturalists’ Society
CVWG	Cam Valley Wildlife Group
SRPG	Somerset Rare Plants Group

Where reference is made to the *The Atlas Flora of Somerset* (Green, P.R., Green, I.P. & Crouch, G.A., 1997; Wayford and Yeovil: privately published) this is denoted as *AFS*.

NEW SOMERSET RECORDS

Note: *Cochlearia acaulis* (Violet Cress) in Bath, reported new to Somerset in 2022, was a misidentification and has been re-determined as *Mentha requienii*, see below in the final section.

**Allium trifoliatum* (Hirsute Garlic) – Bath, Twerton (ST72356423), 7 Dec 2018, 2 clumps by path in woodland at top of slope, HJC & DEG, conf. HJC on 25 May 2020 when in flower.

**Ampelodesmos mauritanicus* (Diss) – Dunster Beach (SS997454), 21 May, naturalised at top of beach by chalets, SJP, Steve Little & Hamlyn Jones, det. Mick Crawley, VC5.



Ampelodesmos mauritanicus (Diss) on Dunster Beach.
Photo © Steve Parker

****Antirrhinum molle*** (Dwarf Snapdragon) – Bath, St James Square (ST744656), 7 May, large plants in basement stonework, RDR, det. HJC, VC6.

****Callitriche terrestris*** (Terrestrial Water-starwort) – Brent Knoll, Sanders Garden Centre (ST34444996, ST34454996, ST34474997, ST34504999), 24 Jul, locally abundant between paving blocks, FJR, conf. RVL, VC6.

****Carex buechananii*** (Silver-spiked Sedge) – Bath, Weston (ST72736649), 19 Dec, 1 plant at edge of path leading S from High Street, self-sown from nearby garden, HJC & DEG, VC6.

****Eragrostis minor*** (Small Love-grass) – Somerton, Market Place (ST49072855), 3 Sep, 6 plants at pavement edge, destroyed by weed-killer within two weeks, FJR, VC6.

****Helleborus x hybridus*** (Garden Hellebore) – Pensford, Parsonage Lane (ST61776442), 26 Jan, 1 plant on S verge of Parsonage Lane, opposite The Beacon, HJC & FJR, VC6. [Some records for *Helleborus orientalis* may be this hybrid.]

****Hoheria sexstylosa*** (Long-leaved Lacebark) – West Porlock (SS87074689), 23 Jul, 16 plants adjacent to garden fence (parent plant in garden) and 1 plant on other side of path, GEL, VC5.

****Isotoma axillaris*** (Australian Harebell) – Minehead (SS97034626), 28 Jun, at bottom of wall in High Street, GEL, det. HJC, VC5.

****Lapsana communis*** subsp. *intermedia* (a rare alien subsp. of Nipplewort) – Rose Mills (ST34441507), 9 Oct, 1 tall plant on weedy bank of River Isle at edge of car park, FJR, VC5.

****Lemna valdiviana*** (Valdivia Duckweed) – Catcott North (ST40604121), 11 Jul, many fronds in trough just inside Field N6 by gate, HJC & FJR, conf. RVL, VC6.

****Narcissus bulbocodium*** (Hoop-petticoat Daffodil) – Wayford Woods (ST399065), 24 Apr 2017, ELD, VC5.

****Ostrya carpinifolia*** (Hop Hornbeam) – Bath (ST74866393), 12 Sep, 1 self-sown from street tree, on pavement at junction of Shakespeare Avenue and Byron Road, HJC & FJR, VC6.

****Pittosporum tobira*** (Japanese Pittosporum) – Highbridge (ST312473), 30 Jan, along fence line near the boatyard, APR & Ann Burman, VC6.

****Sarracenia minor*** (Hooded Pitcherplant) – Westhay Moor (ST45344393), 8 Aug, 1 plant on edge of ditch beside track, HJC & FJR, VC6.

****Scrophularia grandiflora*** – South Petherton, Compton Road (ST42781705), 23 Sep, 3 plants at roadside by edge of gardened bank, FJR, VC5.

****Solanum crispum*** (Chilean Potato-vine) – Clevedon, Wellington Terrace (ST40517230), 19 Jun, extensive patch on roadside bank opposite No.16, FJR, VC6.

****Teucrium hircanicum*** (Caucasian Germander) – Dunkerton (ST71095928), 26 Jul, 1 plant on footpath outside garden gate, HJC & CVWG, VC6.

NEW VICE-COUNTY RECORDS

****Achillea filipendulina*** (Fern-leaf Yarrow) – Bath, Shakespeare Avenue (ST74686390), 7 Sep, few plants self-sown on pavement at base of garden wall on N side of road, DCL, VC6.

****Allium trifoliatum*** (Hirsute Garlic) – Dunster Beach (SS99734544), 21 May, bramble scrub by footpath, Steven Little, VC5.

****Capsella rubella*** (Pink Shepherd's-purse) – Yeovil (ST548160), 26 Apr, several plants on grass verge where Grove Avenue meets Preston Road, IPG, VC5.

****Chenopodium strictum*** (Striped Goosefoot) – Weston-super-Mare, Birnbeck Road (ST31246206), 2 Jan, 1 plant in shrubbery on S side of road, HJC & BNS, VC6.

****Daucus carota*** subsp. *sativus* (Carrot) – Frome, Cranmore View (ST76884689), 3 Nov, 1 plant (with big fat orange carrot!) at edge of pavement on N side of road, HJC & GHR, VC6.

****Dittrichia graveolens*** (Stinking Fleabane) – M5 Motorway (ST1017), 8 Jun, on central reservation of M5, SJL, VC5.

****Iris versicolor*** (Purple Iris) – Taunton, Longrun Meadow (ST21382509), 25 May, single patch, seemingly well-established, on S edge of a flood alleviation 'scrape', probably arrived here in flood water as growing close to winter 'tide line', SJL, VC5.

**Isotoma axillaris* (Australian Harebell) – Bath, Vineyards (ST750654), 6 Jul, 1 plant in flower at base of wall of The Star, RDR, det. HJC, VC6.



Isotoma axillaris (Australian Harebell) in Bath. Photo © Rob Randall

**Mahonia japonica* (Japanese Mahonia) – Hawknest Combe (SS86624719), 7 Feb, spreading in woodland setting adjacent to stream where originally introduced in 1926, GEL, VC5.

**Nassella tenuissima* (Argentine Needle-grass) – South Petherton (ST42621710), 15 Jan, 1 clump on open roadside bank, FJR, VC5.

**Nerine bowdenii* (Bowden Lily) – Weston-super-Mare (ST34206067), 16 Nov 2022, 1 plant in flower on edge of wide stony track across disused landfill site, Paul Bowyer, VC6.

**Oxalis dillenii* (Sussex Yellow-sorrel) – Yeovil, Vicarage Street (ST55921596), 13 Aug, pavement weed and in garden by Methodist Church, SRPG, VC5. [Possibly previously overlooked as *O. stricta*].

**Paulownia tomentosa* (Foxglove-tree) – Bath, London Road (ST757660), 19 Jun 2022, numerous seedlings between Hanover Street and Upper East Hayes, RDR, det. HJC, VC6.

**Yucca gloriosa* var. *recurvifolia* (Curved-leaved Spanish-dagger) – Compton Durville, Rydon Farm (ST42081760), 15 Jan, 2 plants persisting as garden cast-outs? in copse at field margin, FJR, VC5.

OTHER INTERESTING RECORDS – Native taxa

Alopecurus x brachystylus (*A. geniculatus* x *pratensis*) – Witham Friary (ST75204155), 29 Jun, on fringe of dried-up boggy patch in species-poor meadow alongside River Frome, Chris Smith, det. Aaron Woods; Midsomer Norton, Wellow Brook Walk (ST66005473), 2 Aug, scattered in 3m stretch of grassland to S of path, HJC & FJR, VC6. Fourth and fifth records for VC6 and first since AFS.

Arum italicum x *maculatum* – Lower Langford (ST46066088), 15 Dec, 2 clumps on footpath by wall, Margaret Webster, Katie Lewis & Zoe Manning, VC6. Third record for VC6.

Atriplex littoralis (Grass-leaved Orache) – verge of A303 (ST3616), 13 Aug, SJL & SJP; (ST3516, ST3716, ST3815, ST3915, ST4015, ST4215, ST4316, ST4416), 25 Aug, SJL, VC5. New inland records for formerly VC5 Scarce species, now no longer qualifying as a RPR species in Somerset.

Chenopodium murale (Nettle-leaved Goosefoot) – Steep Holm (ST23056077), 21 Jul, 1 plant in upturned cannon at Laboratory Battery, HJC & FJR, VC6. First record for VC6 since 2006.

Clinopodium acinos (Basil Thyme) – Bristol Airport (ST50886557), 29 Oct, c. 20 plants growing in gravel area of old car park, IPG, VC6. First record for this Vulnerable species in ST56 since 1988.

Daucus carota subsp. *gummifer* (Sea Carrot) – Brean Down (ST295588), 12 Sep 2020, ELD, VC6. First record for this hectad since 1921 for this subspecies which in Somerset is only known from Brean Down.

Dryopteris lacunosa – Great Breach Wood (ST50303164), 11 Apr, 1 plant in woodland, FJR, VC6. Third record for VC6.

Galium parisiense (Wall Bedstraw) – South Petherton, Whitehall (ST43601682), 24 Aug, in drive splay and on adjacent wall top, FJR, VC5. New hectad record for this species which is Vulnerable on the GB and England Red Lists.

Gymnocarpium robertianum (Limestone Fern) – Bath (ST75326582), 13 Nov, 1 plant down drain, outside 34 Thomas Street, probably self-sown from garden further up the street where it is cultivated, Kevan Horne, VC6. First record of this Scarce species in ST76 since 1949.



Gymnocarpium robertianum (Limestone Fern) in a drain in Thomas Street, Bath. Photo © Helena Crouch.

Juncus ranarius (Frog Rush) – Wall Common (ST26034529), 21 Jul, along short length of track W from car park, c.30m from barrier, GEL & RFitzG, VC5. First record for VC5 since 1998.

Lemna turionifera (Red Duckweed) – Wet Moor (ST46342374), 29 Aug, in rhine at field margin, FJR, VC5. Third record for VC5.

Polycarpon tetraphyllum (Four-leaved Allseed) – Brent Knoll, Sanders Garden Centre (ST34504992), 24 Jul, 1 plant between paving blocks, FJR, VC6. Fifth site for VC6.

Roemeria argemone (Prickly Poppy) – Somerton Moor (ST46563130), 23 May, 15 flowering/fruiting plants in very rich arable field, JP, VC6. First record for VC6 and Somerset since 1992.

Sparganium erectum subsp. ***neglectum*** (a subsp. of Branched Bur-reed) – Witham Friary, Heal Somerset (ST73963981), 29 Sep, in pond on hillside, HJC & FJR; Middle Drove, South Moor (ST50833690), 17 Nov, by ditch, N side of road; HJC, Val Graham & FJR, both conf. FJR from fruits, VC6. First post-2000 records for VC6.

Spergularia rubra (Sand Spurrey) – Popple Bridge, S of (ST53512550), 25 Sep, group of fruiting plants on road chipping piles in yard, JP, VC6. New hectad for this VC6 Rare species and first record for VC6 since 2008.

Viola canina subsp. ***canina*** (Heath Dog-violet) – Draycott Sleights (ST48695145), 13 Apr, c.75 plants in flower on S-facing slope, on E side of path heading N up steep slope, HJC & FJR, VC6. First record for this site and hectad since 1994 for this taxon which is Vulnerable on the England Red List and Rare in VC6.

Viola x intersita (*V. canina* x *riviniana*) – Draycott Sleights (ST48685145), 13 Apr, several plants in flower on S-facing slope, on W side of path leading N up steep slope, HJC & FJR, VC6. First record for VC6 and Somerset since 1999.

OTHER INTERESTING RECORDS – Alien taxa

****Allium trifoliatum*** (Hirsute Garlic) – Coxley, Harter's Hill (ST534428), 8 May 2020, 1 clump by a dead tree, later eaten by cattle, Pat Steele, VC6. Second record for VC6.

****Amaranthus bouchonii*** (Indehiscent Amaranth) – Bath, Belgrave Crescent (ST751659), 23 Sep, well established in paving and gutter, RDR, VC6. Second record for VC6 and Somerset.

****Atriplex hortensis*** (Garden Orache) – Twerton, Bath City Farm (ST725641), 18 Jul 2022, MW, VC6. First record for VC6 and Somerset since 1999.

****Avena sterilis*** (Wild Winter-oat) – Flax Bourton (ST50456974), 14 Sep 2019, occasional at edge of arable crop, Liz McDonnell, det. T.A. Cope, VC6. First record for VC6 since AFS.

****Berberis gagnepainii*** (Gagnepain's Barberry) – Barton St David (ST53823153), 26 May, JPP, VC6. Second record for VC6 and fourth for Somerset.

****Beta vulgaris*** subsp. ***cicla*** var. ***cicla*** (Spinach Beet) – Weston-super-Mare (ST31605917), 5 Sep, 8 plants on waste ground at edge of golf course, HJC & FJR, VC6. Fourth record for this subspecies in VC6 and Somerset.

****Bidens frondosa*** (Beggarticks) – Portishead / Woodhill Bay (ST463772), 26 Aug, 2 plants below sea wall, DH, VC6. Fifth record for VC6.

****Cephalaria gigantea*** (Giant Scabious) – Radstock (ST68125485), 12 Apr, Large clump beside Five Arches bridges, HJC & CVWG, VC6. Fourth record for VC6.

****Chenopodium strictum*** (Striped Goosefoot) – Hayes End, A303 (ST43781616), 24 Aug, on central reservation approaching roundabout, FJR, VC5; East Lambrook (ST43161843), 8 Sep, several plants at field margin by North Mills Brook, FJR, VC5; Weston-super-Mare (ST31605917), 5 Sep, c. 20 plants on waste ground at edge of golf course, HJC & FJR, VC6; Bath, Kensington Meadows (ST75776590), 6 Sep, many plants on piles of garden waste, HJC & DEL (first seen here in 2022 by RDR but identity uncertain); Bath, Lower Bristol Road

(ST745644), 20 Oct, 2 plants at base of wall, RDR, VC6. Second and third records for VC5 and second, third and fourth for VC6.

**Cordyline australis* (Cabbage-palm) – Holywell Lake (ST10852039), 24 Mar, 2 small plants possibly from garden waste in gateway to field, Linda Everton, Chris Loudon, Anna Mullet & SJP, VC5. Fifth record for VC5.

**Cotoneaster dammeri* (Bearberry Cotoneaster) – Yanley (ST542692), 20 Aug, DH, VC6. Second record for VC6 and third for Somerset.

**Cotoneaster lacteus* (Late Cotoneaster) – Bath (ST75316484), 12 Mar, Several plants self-sown on bank alongside riverside path outside Bath Rugby grounds, HJC & JPP, det. JPP, VC6. Fourth record for VC6.

**Crepis setosa* (Bristly Hawk's-beard) – Ditchheat (ST62653547), 26 Aug, 1 plant on edge of driveway at Tunlake, SJL, VC6. Fifth record for VC6.

**Cynara cardunculus* var. *cardunculus* (Cardoon) – Combe Hay (ST72926001), 21 Jun, 1 plant on E side of lane, on verge of bridge over disused railway, HJC & CVWG, VC6. Second record for this species in VC6 and first for this variety.

**Dittrichia graveolens* (Stinking Fleabane) – Durnfield, A303 (ST49782052), 13 Sep, a few plants on central reservation opposite petrol station, FJR; M5 Motorway (ST2626), 28 Oct, lots along the verges and central reservation of M5, IPG & Paul Green, VC5; Loxton, M5 motorway (ST37825562), 23 Aug, many plants on central reservation just W of Crook Peak; Ilchester, A303 (ST52052397 to ST52302426), 13 Sep, abundant on N bank of A303; Ilchester, A303 (ST52412436), frequent on central reservation; Podimore Roundabout, W of (ST53142489), a few plants on central reservation, FJR, VC6. Second and third records for VC5 and third and subsequent records for VC6.

**Eryngium planum* (Blue Eryngo) – Twerton, Bath City Farm (ST725641), 19 Jul 2022, growing 'wild' in car park, MW, VC6. Third record for VC6 and fourth for Somerset.

**Euphorbia maculata* (Spotted Spurge) – Martock, Plants Galore (ST48491981), 10 Sep, 1 plant in car park by greenhouses, FJR, VC5; Brent Knoll, Sanders Garden Centre (ST34494998, ST34514997, ST34524998), 7 Aug, over 60 plants between paving blocks, FJR; Ditchheat (ST62653546), 26 Aug, 8+ plants in stone paving in garden of Tunlake, SJL, VC6. Second record for VC5 and fourth and fifth records for VC6.

**Fumaria reuteri* (Martin's Ramping-fumitory) – Bath, Mulberry Park (ST75556285), 26 Oct, in front garden, N side of Whitaker Road, HJC & DEG, conf. TCGR; (ST75496272), 1 Nov, few plants in shrubbery on N side of Kellaway Lane, HJC; (ST75706294), 16 Nov, masses in front garden, N side of Whitaker Road, HJC & DEG, VC6. Third and subsequent records for VC6 and Somerset.

**Helianthus tuberosus* (Jerusalem Artichoke) – Weston-super-Mare (ST31315913), 5 Sep, few plants on dunes at seaward edge of golf course, HJC & FJR, VC6. Fifth record for VC6.

**Lathraea clandestina* (Purple Toothwort) – Stoodham (ST42772532), 10 Apr, on roots of *Corylus* in small plantation by footpath N of sewage works, FJR, VC5. Fifth site for VC5.

**Lemna valdiviana* (Valdivia Duckweed) – Westhay Moor (ST45744412), 14 Sep, in lake, by boardwalk to hides; Vole (ST36654978), 14 Sep, in ditch on E side of junction, HJC, RVL & FJR, VC6. Second and third records for VC6 and Somerset.

**Lepidium virginicum* (Least Pepperwort) – Wrington (ST468627), Jun, on disturbed soil in churchyard, Pam Millman, conf. TCGR, VC6. Second post-2000 record for VC6.

**Levisticum officinale* (Lovage) – Bath, Bradford Road (ST755623), 12 Sep, 3 plants at base of cottage wall, Alan & Susan Feest, VC6. Fourth record for VC6 and first for VC6 and Somerset since AFS.

**Mahonia japonica* (Japanese Mahonia) – Westcombe (ST67913926), 26 Nov 2021, 1 small plant on verge by phone box, probably self-sown from large plant in adjacent garden, HJC & GHR; Bath, Kennet & Avon Canal towpath (ST75956567), 22 Nov, 1 plant in flower on stonework of railway wall alongside canal, presumably bird-sown, HJC & FJR, VC6. Second and third records for VC6.



Mahonia japonica (Japanese Mahonia) on railway wall at Bathwick. Photo © Helena Crouch.

****Mentha requienii*** (Corsican Mint) – Bath, The Circus (ST74766532), 31 Jul 2022, 50+ patches in paving, RDR, VC6. Second record for VC6. Originally recorded as *Cochlearia acaulis* and reported as new to Somerset but identification corrected by Ian Bennallick.

****Paulownia tomentosa*** (Foxglove-tree) – Wells, Cathedral Green (ST55114592), 16 Aug, 1 plant self-sown at base of wall, FJR, VC6. Second record for VC6 and third for Somerset.

****Perovskia atriplicifolia*** (Russian Sage) – Bath, Chaucer Road (ST74786389), 12 Sep, 1 plant on pavement at base of wall, E side of road, HJC & FJR, VC6. Second record for VC6 and third for Somerset.

****Pontederia cordata*** (Pickerelweed) – East Brent (ST345521), 19 Oct, In roadside rhine on Brent Road, APR, VC6. Second record for VC6 and Somerset.

****Salvia hispanica*** (Chia) – Bristol Airport (ST50716567), 29 Oct, 1 plant on edge of old airport car park, IPG, VC6. Fifth record for VC6 and Somerset.

****Satureja montana*** (Winter Savory) – Bath, Milton Avenue (ST74696373), 12 Sep, 4 plants self-sown onto pavement, at base of garden wall, HJC & FJR, VC6. Second record for VC6 and Somerset.

****Sedum kilmachii*** – Arnos Vale Cemetery (ST60877140), 12 Nov, 3 shoots at base of Ash by steps up to top plateau, HJC & BNS, VC6. Second record for VC6.

****Sedum praealtum*** (Greater Mexican-stonecrop) – Popple Bridge, S of (ST53502548), 25 Sep, 1 sq m patch in flower at edge of chippings in damp area, JP, VC6. Second record for VC6 and Somerset.

****Solanum rostratum*** (Buffalo-bur) – Lilstock (ST16764500), 10 Aug, appeared spontaneously in garden, RFitzG VC5. Fifth record for VC5.

****Sorghum bicolor*** (Great Millet) – Clevedon (ST401716), 15 Sep, amongst group of bird seed ruderals near Clevedon Sailing Club, Dee Holladay, VC6. Fourth record for VC6.

****Teucrium hircanicum*** (Caucasian Germander) – Lower Shepton (ST68293150), 11 Aug, 1 clump on bank of lane opposite Lower Farm, HJC & GHR; Bath, Bear Flat (ST74846388), 12 Sep, 1 clump in alley, probably self-sown, HJC & FJR, VC6. Second and third records for VC6 and Somerset.



Teucrium hircanicum (Caucasian Germander).
Photo © Helena Crouch

****Thalictrum speciosissimum*** (Glaucous-leaved Meadow-rue) – Bath, Kipling Avenue (ST74826384), 6 Sep, 1 clump at side of alley between houses, HJC & DCL, VC6. Second record for VC6 and Somerset.

****Tolmiea menziesii*** (Pick-a-back-plant) – Nunney Combe (ST7346), 16 Apr, by river, SRPG, VC6. Fourth site for VC6.

****Tragopogon pratensis*** subsp. *pratensis* (alien subsp. of Goat's-beard) – Steart Marshes (ST251441), 3 Jun, 20+ plants along edge of trackway, SJP, VC5. First record for VC5 since 1945.

****Verbena rigida*** (Slender Vervain) – Bath, Shakespeare Avenue (ST74756391), 7 Sep, 1 plant in pavement by wall on N side of road, self-sown from garden, DCL, VC6. Second record for VC6 and Somerset.

****Wolffia columbiana*** (Columbian Water-meal) – Vole (ST36634978), 7 Aug, in ditch E side of junction, FJR; Westhay Moor (ST45754412), 8 Aug, in lake by boardwalk to hides, HJC, FJR & Somerset Botany Group, both conf, RVL following visit on 14 Sept, VC6. Fourth and fifth records for VC6 and Somerset.

SRPG Membership and Contacts

Somerset Rare Plants Group annual subscription is £10 from January 2024. Payment can be made directly into the SRPG account as a one-off transfer or by standing order. Please contact Ellen McDouall (see email below) for account details.

Members attend meetings at their own risk. Field meeting leaders carry a list of emergency phone numbers. Please contact Ellen McDouall if you have not completed a membership form, so that she has the telephone numbers of those to contact in case of illness or accident.

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