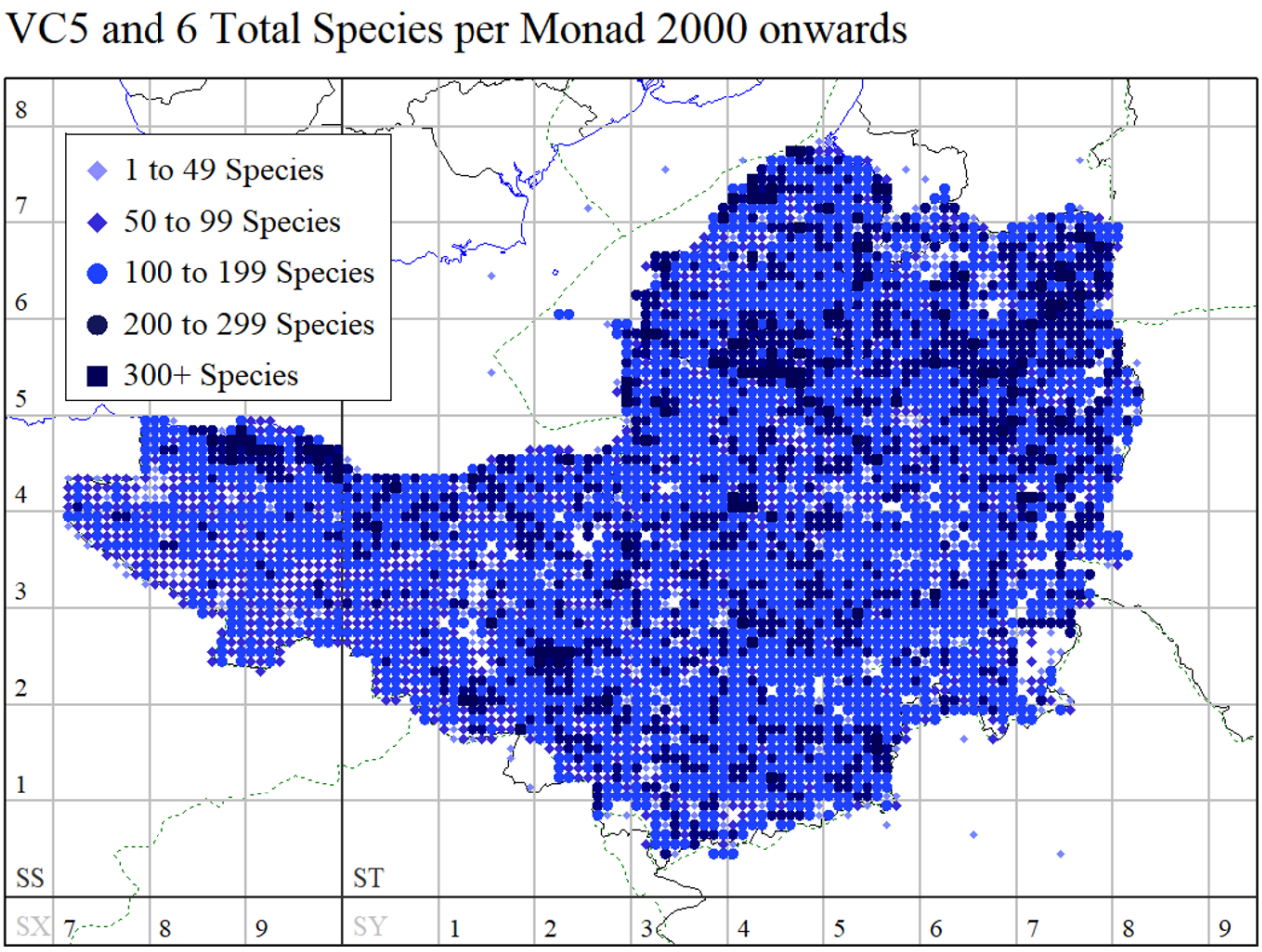
SOMERSET RARE PLANTS GROUP

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

2022 Newsletter – 25th Anniversary Edition **Issue No. 23**



SRPG Members added a huge total of almost 84,000 plant records to the database in 2022. **Source:** MapMate records

Chairman's 2022 Review

Welcome everyone to the 2022 SRPG Newsletter. The group has been recording the Somerset flora for twenty-five years. We are a very active group with over 80 members, our field trips are well-attended and we have recorded in every habitat and nearly every species of plant that is native or found naturalised in the wild in Somerset. In my report of 2021 and following the Covid pandemic, I looked forward to a full programme of site visits across the county of Somerset together with more focused learning events. This programme was duly delivered and I am sure that the membership has enjoyed our varied programme. This year I felt it important to carry out some informal training for new and improving members of the group, with this in mind I ran five half-day sessions in a range of habitats across the county.

Looking back at the 25 years I have many happy memories of being part of such a successful group. It was in 1996 that I first met Liz McDonnell when she came to the English Nature office at Roughmoor Taunton to talk with Simon Leach and myself about forming a new plant recording group in Somerset. We were both very supportive and pledged the support of English Nature for the proposal. The first meeting was at Uphill on 11th June 1997. We supported 6 meetings that year. The first newsletter was edited by Caroline Giddens and was 4 pages in length. By 2002, the group was recording on the Mapmate database. By the end of that year we had 2000 records entered onto the system!

The SRPG involvement with the Taunton herbarium can be traced back to a group visit to Taunton castle in 2005. This was before the major renovation of Taunton Castle, now the Museum of Somerset. The herbarium was then poorly housed and mostly unused. We were keen to see this better curated and made available to the botanical community. The herbarium has found a new home at the Somerset Heritage Centre and volunteers from the SRPG have done an excellent job of conserving and building on this valuable botanical resource.

From its foundation until 2009 the annual meeting which slowly became the AGM was held at the EN offices at Roughmoor. When these offices closed, we moved venues a few times eventually ending up at the Lifelong Learning Centre at the Avalon Marshes site. These meetings have always been very enjoyable despite my incredibly difficult quizzes. My hope is that the 2024 AGM can once again be a face-to-face meeting, with a shared lunch and maybe a quiz.

Occasionally the Group has travelled outside of the county, visiting Ian Green at his new house in Spey Bay, Scotland in 2004 and the Dolomites in 2006 with Margarete Earle as the leader. Members also travelled to Sweden, and a bit closer home to Kent and the Lizard in Cornwall. We should look out for opportunities to travel out of county and meet up with other botanists from different areas.

As the work of organising and running the Group increased more people were invited on to the committee. Clive Lovatt took over from Anne Cole as the Treasurer in 2015. Membership had risen to 73 members by the end of that year. The newsletter was now over 40 pages long and developed to include coloured photographs and cover a wide range of topics rather than just meeting reports.

In 2017, we celebrated the 20th anniversary of the Somerset Rare Plants Group with a very well attended conference. This was a memorable event and, like many good things that happened with the Group, it was driven by Liz McDonnell. Her death in October this year and the very sudden death of Clive in February, have been significant losses to the SRPG and the wider botanical community. I am sure like me that you all miss Liz and Clive.

Liz cutting the cake at the SRPG's 20th anniversary celebration in 2017. Photo © Steve Parker

2022 Newsletter Contents

Part 1: 2022 Meeting Reports

Meeting at the Town Bridge before splitting into two groups to record on either side of the Vice-county boundary. Photo © Simon Leach

Sunday 2nd January 2022
Bridgwater VC5 and VC6

Leaders: Liz McDonnell & Simon Leach

Report: Liz McDonnell & Fred Rumsey

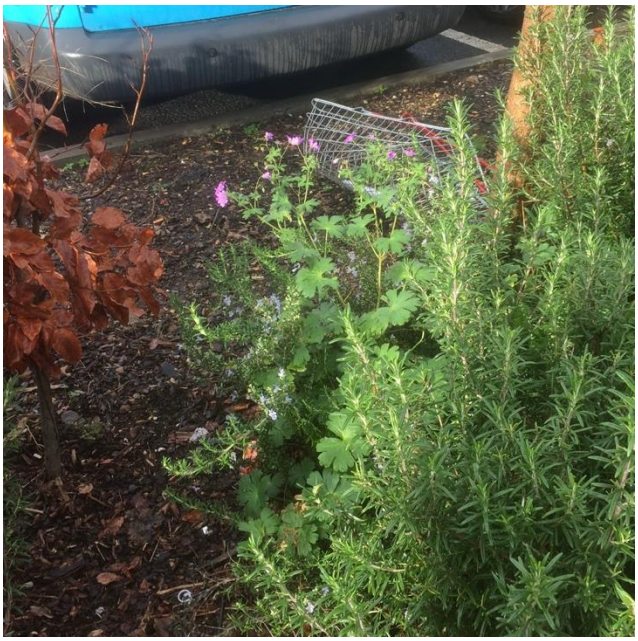
On an overcast damp morning, 11 members and friends met at the Town Bridge in Bridgwater to take part in the annual BSBI New Year Plant Hunt (NYPH), which involves recording plants *in flower* in a three-hour period during any of the first four days of January. The venue was chosen to allow us to divide up into two teams, one recording on the west side of the River Parrett in VC5 (South Somerset), the other on the east side in VC6 (North Somerset). And so the two groups went their separate ways, arranging to meet up at the end of the day to compare notes and brag about what they'd seen!

Liz's VC6 group made their slow way over the Town Bridge, recording the plants on the retaining walls and bridge masonry. This area had been well recorded by SRPG in 2019, but the decision was made to record all the plants that we found, not only those in flower.

Our first flowering species was Ivy-leaved Toadflax (*Cymbalaria muralis*) which seems to flower all year round. We found the dead remains of the long pods of Eastern Rocket (*Sisymbrium orientale*) as we crossed the bridge and then wandered along the pavements and mown grassland beside the river. Here we found other all-year-round flowerers – such as Daisy (*Bellis perennis*), Shepherd's-purse *(Capsella bursa-pastoris*) and Smooth Sow-thistle (*Sonchus oleraceus*). There were a few flat rosettes of Corky-fruited Water-dropwort (*Oenanthe pimpinelloides*), but certainly not flowering, in the municipal grassland. We examined the roadsides and shrubberies amongst the supermarkets and shops and made our way to the churchyard of St John the Baptist church. Here we found Primrose (*Primula vulgaris*) and False Oxlip (*Primula x polyantha*) flowering and both

Creeping Buttercup (*Ranunculus repens*) and Bulbous Buttercup (*R. bulbosus*) in flower too.

We stopped the clock for a short lunch break whilst sheltering from the rain and then carried on along the busy retail-outlet area where Hedgerow Crane's-bill (*Geranium pyrenaicum*) was flowering profusely amongst the rubbish at the edge of a car park.



Hedgerow Crane's-bill thriving in the town. Photo © Liz McDonnell

Our most interesting find was probably Hawkweed Oxtongue (*Picris hieracioides*), several plants of which were found still flowering in a scruffy lane in an industrial lorry area. It had been recorded here in 2019 and seems to be thriving in this rather unpromising habitat. We found Black Horehound (*Ballota nigra*), White Dead-nettle (*Lamium album*) and Field Madder (*Sherardia arvensis*) on the way back to the river along The Drove and East Quay. A count at the end of our allotted time indicated that the VC6 group had found 51 species in flower and we waited to meet up with the VC5 group to find out how they had done...

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Meanwhile, the VC5 group turned their backs on VC6 and the temptations of the riverbank which lay just outside their chosen monad, and headed instead into the jumble of streets where a mix of commercial properties, houses and brownfield sites offered the promise of flowers. Unlike our VC6 counterparts we decided that our target monad, ST2937, had been well worked recently and we therefore largely focussed on species in flower, to good effect as it transpired. We must have looked a very suspicious bunch, furtling in the less salubrious corners of car parks and the yards behind shops.

One of the first plants of note, although past flowering, was the large form of Fern-grass (*Catapodium rigidum* ssp. *majus*) with the remains of its rather striking 3D spiky inflorescences. Nearby, in a car park off Kings Place, a small cluster of the distinctly glandular Sticky Groundsel (*Senecio viscosus*) was our first 'front of card' find. Moving on to Kings Square we had to tackle the NYP Hunter's perennial dilemma - when is a plant cultivated and thus inadmissible? Somewhat arbitrarily, while the Crocuses here weren't counted or entered on the form, as they'd quite clearly been planted, we *did* decide to include Greater Snowdrop (*Galanthus elwesii*), various-sized clumps of which were growing under trees at the edge of the square where it seemed to have become well naturalised. Or maybe we just fancy snowdrops more than crocuses?

Heading back towards the car park where many of us had left our vehicles, a grassy bank revealed a single rosette of Bee Orchid (*Ophrys apifera*). At the interface of lawns and pavements there was Musk Stork's-bill (*Erodium moschatum*) which eventually revealed a few flowers newly opened. This is surely an increasing species in the county?

We then made our way towards the basin of the Bridgwater Docks, the weather worsening, a bleakness added to by the now-vacant jetties. It did however prove productive florally, particularly for the small annual crucifers of shallow soils, a lock-side supplying flowering Whitlow-grass (*Erophila verna*), alongside Thale Cress (*Arabidopsis thaliana*) almost overlooked amongst Shepherd's-purse (*Capsella bursa-pastoris*). Continuing westwards amongst rather derelict buildings the waterside provided a few late fresh flowers on Common Nettles (*Urtica dioica*), while showier blooms of Large Bindweed (*Calystegia sylvatica*) and a hefty Bramble identified by Simon as 'Himalayan Giant' (*Rubus armeniacus*) climbed over wire fencing by a warehouse yard.

Driving rain forced a retreat to cover by the dock basin where we grazed as we stood, having stopped our clock. After lunch, we made our way along the basin side under new apartments where various escapes from hanging baskets flourished, including Garden Pansies (*Viola* x *wittrockiana*) and Bacopa (*Sutera cordata*). Pavement edges in a car park behind Poskitt House were being colonised by Balkan Spurge (*Euphorbia oblongata*), another fast-increasing species, although we failed to find

any in flower. Similarly vegetative was Strawberry Clover (*Trifolium fragiferum*), on a bank by Seaward Drive, a native species that turned out to be new to the monad.

The group then continued out to the northern edge of ST2937 along the riverbank, before cutting across to meet the Western Way as it arcs round. Here flowering Hazel (*Corylus avellana*) was seen, with some relief. A brief foray to allotment edges and verges on the west side of the road netted Simon a few more flowers including Common Ramping-fumitory (*Fumaria muralis* ssp. *boraei*). The new estate east of the road was not hugely productive, although a few weeds that we had expected to find earlier tin the day, such as Water Bent aka 'Teddy Bear grass' (*Polypogon viridis*), did finally materialise.

Mindful that time was ticking away and with the other group to re-join, we were forced to resort to aerial photography on Cath's phone to escape the maze of dreary streets with botanically promising names and seemingly endless cul-de-sacs. Competitive to the last, the discovery of Henbit Dead-nettle (*Lamium amplexicaule*), just out of time, just out of our square, and probably only in bud, was the source of much angst. We however took great delight in announcing our score of 90 to those of the VC6 contingent who had so patiently awaited our late arrival. This total was to prove the fourth largest nationally.

Saturday 26th February 2022
Winter Twigs Meeting, Taunton (VC5)

Leaders: Simon Leach & Steve Parker

Report: Simon Leach

This meeting should have happened on 19th February, but it was postponed due to a tree-battering storm named Eunice, one of the fiercest to hit these islands since the 'Great Storm' of 1987. A wind speed of 122 mph was logged on the Isle of Wight – the strongest gust ever recorded in England. Unfortunately, several folk who were down to come the previous week couldn't make the new date, but there were still nine of us, including several from far-flung corners of the county – from Paulton to Porlock – and even one from Wiltshire!

The purpose of the day was to become familiar with the winter twigs of a range of common trees and shrubs, including both native and introduced species. In the two weeks leading up to this training day, Simon had posted daily pictures of twigs on the SRPG WhatsApp Group for people to have a go at identifying. The idea, really, was mainly to have a bit of fun, but some useful learning took place too – not least for Simon, who began this whole exercise as an out-and-out twig 'novice', but ended up being, if not an 'expert', then at least a twig *enthusiast*. Yes, twigs really *can* be fun! And one pleasure is discovering that, with a bit of effort and close observation, you can still put names to trees and shrubs even when they seem to be doing their utmost to remain incognito.

At the start of the day, in the Silk Mills Park-and-Ride car park, we quickly went through some of the basics of twig identification and the various terms used to describe a twig's form and behaviour, its arrangement of buds, the difference between thorns, spines and prickles, the importance of bud scales and lenticels, leaf scars and bundle scars, woody spurs, etc. Simon had hurriedly drawn a not very helpful sketch to illustrate a few key points, while in the boot of his car there was assembled a large reference collection of twigs which helped to highlight how different and distinctive so many twigs could be – as well as indicating the scale of the challenge ahead of us...

Simon's "not very helpful sketch". Image © Simon Leach

To set the ball rolling, we passed round some twigs of a tree species that all of us were confident we knew: Ash (*Fraxinus excelsior*). The twigs, with those lovely big black buds arranged in opposite pairs, were unmistakeable. Yet, apart from those buds, few of us could have reeled

off many of the other characteristics of an Ash twig: not just the buds, arranged in *opposite* and *decussate* pairs and with striking *black or chocolate-brown bud scales*, but also the lack of an *interpetiolar ridge*, the greyish-olive green coloration to the bark, the crescent-shaped *leaf scars*, the numerous *bundle scars*, etc. Steve and Helena took us through the key in John Poland's *Field Key to Winter Twigs* and it quickly became clear that there's far more to an Ash twig than meets the eye!

The mobile 'library' of twigs in the boot of Simon's car.
Photo © Simon Leach

Having cut our teeth, so to speak, on Ash, we made our way at snail's pace through the car park, picking up Field Maple (*Acer campestre*) along the way, followed by Common Lime (*Tilia* x *europaea*), Hawthorn (*Crataegus monogyna*), planted Red-osier Dogwood (*Cornus sericea*) and Smoke-tree (*Cotinus coggygria*). The last of these had even the gardeners amongst us stumped – but it was convincingly identified (with the aid of Poland's key) by the strange arrangement of buds, the colour and *stickiness* of the bark, the *orange* lenticels, and the *orange* pith that (eyes shut and with a little imagination) smelled of soap.

Poland's guide proved to be enormously helpful but also, just occasionally, deeply frustrating. Using the keys, you sometimes find yourself at tricky forks in the road, where either way looks equally im/plausible: while one option suggests that your twigs could be '*usually hairy*', the other indicates that they might be better described as '*frequently hairless*'. And so, you hover between these two alternatives, unsure which way to jump. Occasionally we resorted to working backwards through the key, starting where we'd expected to finish, and eventually, after much head-scratching, discovering where it was that we must have gone wrong!

'Poland' covers a huge range of species, so the keys are quite complex in places, and the descriptions are very full. His guide includes more Maples (*Acer* spp.) than you could reasonably expect to find in a medium-sized botanic garden, let alone a patch of typically English countryside on the edge of a typically English town. So, a few times we chose to use the more straightforward Field Studies Council guides to twigs, with their much smaller number of (mainly commonly encountered) species.

Anyway, after our minor triumph with *Cotinus*, we headed along the edge of Silk Mills Road, noting blossoming Cherry-plum (*Prunus cerasifera*) and discussing how best to distinguish it from Blackthorn (*Prunus spinosa*). Onto the back lane to Bishop's Hull we keyed out twigs of Rowan (*Sorbus aucuparia*), and noted some fine corky-barked English Elm (*Ulmus procera*), close to some equally corky Field Maple. Telling the two apart could be tricky – each one as corky as the other – except that, helpfully, Elm buds are *alternate*, whereas Field Maple buds are *opposite*. Easy once you know, less easy when you don't!

We saw roadside/streamside Hazel (*Corylus avellana*) too, and Steve pointed out some 'big bud galls' caused by the gall mite *Phytoptus avellanae*. With its zig-zag branching and alternate buds, we might have toyed for a moment with the notion that this could have been something like a Wych Elm (*Ulmus glabra*), but the sight of that gall – screaming "HAZEL!" – would have quickly changed our minds. (The catkins would have been a bit of a giveaway too!)

We then progressed into Netherclay Wood, a 'local nature reserve' comprising mainly field hedgerows and blocks of woodland planted about twenty years ago on former agricultural land. We were immediately faced with an array of new species, including no fewer than four common opposite-budded shrubs: Common Dogwood (*Cornus sanguinea*), Spindle (*Euonymus europaeus*), Guelder-rose (*Viburnum opulus*), and Wayfaring-tree (*V. lantana*). Having successfully worked the *Viburnum* species through the keys we decided it was lunchtime.

In Netherclay Wood, working through the keys...
Photo © Steve Parker

The grand old native Black Poplar, beside the River Tone at Netherclay. Photo © Steve Parker

After the break, Jeanne and Graham made their way back to the cars, while the rest of us headed for the riverbank, noticing Silver Birch (*Betula pendula*), Wild Cherry (*Prunus avium*), and (nicely galled) Pedunculate Oak (*Quercus robur*) along the way. We also examined a cluster of newly planted – and helpfully labelled! – Apples. Beside the river we spent time with Elder (*Sambucus nigra*) and Crack-willow (*Salix* x *fragilis*), before keying out some twigs of Aspen (*Populus tremula*). Further along, we noted a young Small-leaved Lime (*Tilia cordata*), before one final drum roll had us admiring a particularly fine old riverbank Black-poplar (*Populus nigra* subsp. *betulifolia*), the last survivor of a group of three such trees – the other two having fallen down some years ago.

On our way back to the car park we learnt how to distinguish between the twigs of native ssp *betulifolia* and introduced Lombardy-poplar (*P. nigra* 'Italica'), Plantier's Poplar (*P. nigra* 'Plantierensis') and Hybrid Black-poplar (*P.* x *canadensis*). And, just as we thought we were finished, we came across the much-planted *yellow* variant of the usually red *Cornus sericea*, called 'Flaviramea' – the third and last Dogwood of the day.

Our day of twigs was a welcome distraction, for a while, from the awfulness of the war in Ukraine. The Russian invasion had begun just two days before we met. Several members had posted 'good luck' messages on the SRPG WhatsApp group, expressing the hope that our twigs day would go well. One of these messages was from Clive: "Have a twigging good day", he wrote. Now, as we cobble together this report less than a week later, it's hard to come to terms with the fact that Clive is no longer with us. He was a dear man, kind-hearted, gentle, patient, generous, and incredibly knowledgeable. And his wisdom, always lightly worn, would more than likely be served up with a hint of mischief and fun.

So yes, we did indeed have a "twigging good day" – but tinged now with a much sharper sense of loss and sadness.

References

May, A. & Panter, J. (2012/16), *A guide to the identification of deciduous broad-leaved trees and shrubs in winter.* FSC Publications.

Poland, J. (2018), *The Field Key to Winter Twigs*, privately publ. in association with BSBI.

Price, D. & Bersweden, L. (2013), *Winter Trees: a photographic guide to common trees and shrubs,* FSC Publications.

Saturday 26th March 2022

Recording and Mapping meeting
The Pavilion, Shapwick

Report: Talk reports by the speakers, compiled by Ellen McDouall

Oh my! The daring! The difference! Our FIRST indoor meeting since the first Covid 19 lockdown, two whole years previously.

Yes, this was a momentous day and care had gone into the planning. Liz McDonnell had found us a new venue in the Shapwick Cricket Club pavilion, just down the road from our old, but too small, room at the Avalon Marshes Centre. The pavilion was excellent. Very new, spacious, well-equipped – and lots of windows to open. With this encouragement around twenty members attended to learn all that is needed to become the perfect recorder.

Unfortunately, all the care in the world could not prevent illness and amongst others two of the speakers, Steve Parker and Liz McDonnell, could not attend. Grateful thanks go to Simon Leach who delivered Steve's talk.

General principles of recording

Simon presented Steve Parker's introduction to everything a botanical recorder needs to know. He gave a run-through of all the principles and basic skills including the differences between recording specific sites and monads, the use of maps, how to read a grid reference, the use of centroids, and SSSI and LWS boundaries. Having covered the technical side, he went on to outline some of a recorder's responsibilities – code of conduct, access etc. and suggested some helpful tools such as GPS and phone for accurate grid references.

BSBI referees and herbaria

Graham Lavender took us through further stages that may be needed when recording flora: when extra detail is needed on the recording card, when and if voucher specimens should be collected, when to consult a referee and when to deposit a specimen in the herbarium. He challenged us with worked examples, some taken from the Taunton herbarium, which also served to illustrate the hugely valuable resource that this and all herbaria provide in holding lectotype specimens that define a species, validating records and giving historical perspective to species distributions.

We were encouraged to approach the BSBI referees, including a beginners' referee, with our problem identifications. This resource is properly only available to BSBI members, but the relevant VC recorders and other SRPG members also belong to BSBI and can help.

Special thanks were given to Somerset Archaeological and Natural History Society for its support of Taunton Herbarium. Also, thanks to SRPG volunteers without whom Taunton herbarium would not exist.

Computer applications supporting ID and recording

Val presented a quick summary of the sort of computer applications (apps in the modern jargon) that can help to identify plants and support the entry and sharing of biological records.

Val Graham's slide on 21st century plant identification.

Several plant ID apps were brought before us for consideration. These attempt to identify plants based on photographs, typically using a smartphone. They use sophisticated machine-learning techniques to suggest possible identifications, based on thousands of previous successful identifications.

They can work very well, but equally they can mislead the unwary.

Google Lens – available on all Android smartphones – attempts to identify anything at all that you photograph, including plants, and does seem to come up with reasonable answers most of the time.

iNaturalist was developed in California. A UK version was released last year in partnership with the Biological Records Centre and the NBN Trust. It is aimed at the general public who have an interest in identifying plants and animals. It can be used to record sightings and it will

offer suggestions for identifications based on photographs. There is a related, simplified, variant called Seek which is being aimed at the relatively inexperienced with competitions and games. The latter is being promoted by SWT as part of their Wilder Somerset campaign as a way to draw the wider public into identifying and sharing wildlife sightings.

The bottom line with identification apps is:

1) they can certainly help with unfamiliar plants and/or a brain freeze

2) they are likely to get better and better as they will have more and more data to work with and improved learning algorithms

3) they are not perfect so always check the identification in the traditional way.

Having been brought into the 21st century for identification, Val did the same for recording. Is the familiar recording card destined to be just a memory? He took us through iRecord and iNaturalistUK, showing how the process works from field observation to validated record. iRecord is designed to be the standard application for all biological recording, was designed in consultation with many national recording schemes, including BSBI, and will ultimately replace MapMate.

Pros: direct entry to the app removes the need to enter records later either by the observer or the VCR, spreading the load of data entry. There would also be no need to re-format spreadsheet data into the form needed for MapMate. Younger "digital natives" wouldn't want to do it any other way!

Cons: Disruption to well-established ways of working. Reliable and timely data transfer appears problematical with a backlog of 20,000 plant records awaiting verification in April 2021. There is also a possible loss of contextual information.

BSBI Distribution Database (DDb)

After lunch which we were able to enjoy outdoors, gently botanising over the disturbed ground around the new pavilion building, Helena took us through the DDb. For those of us (including me) who are very familiar with the initials but only a very hazy idea of their meaning, this was illuminating.

Helena gave a simple introduction to the BSBI's Distribution Database (DDb), after explaining the numerous sources and destinations of plant records in Somerset. In many cases, it is still best to ask the Somerset Vice-County Recorders (VCRs) for details of records, but in some cases a look at the DDb may be sufficient. Distribution maps for all species are freely available to anyone at tetrad level (eventually to be at monad level for Somerset and some other areas); Helena showed members how to search for a map and zoom in to see the local distribution. Another feature available to all is a list of species recorded in a tetrad, which can be ordered by date-class to see a list of species not seen since, say, 2000. A preview of how maps and such lists will look at monad level was demonstrated. Finally, it was stressed that any recorder who contributes records regularly is welcome to ask their local VCR to support an application for full access to the DDb. Helena finished by reminding members that all the Rare Plant Register (RPR) accounts which she has written (over 200 species) are freely available on our own SRPG website and many of these contain detailed records too.

Highlights of South Somerset recording in 2021

Graham took to PowerPoint again to give us the annual update of recording in VC5. Top of the list and new to VC5 was *Equisetum variegatum* followed by *Hieracium eustomon* last seen in the location in 1908, though seeing the rock it was living on, perhaps this is not so surprising.

Intrepid botanical recording with Dave Gibbs.
Photo © Graham Lavender

Next was *Groenlandia densa*, another nationally threatened and VC5 rarity, though not scarce on the Levels of VC6. A cluster of hybrids included *Sagina* x *micrantha* (*S. subulata* x *procumbens*), found with both its parents at the North Hill meeting in June and *Heracleum sphondylium* x *H. mantegazzianum* found in Minehead and identified by its intermediate characters. Even Graham, a dedicated collector of voucher specimens,

declined to collect this one. Another voucherless specimen was the tiny and single plant of *Arenaria serpyllifolia* ssp. *lloydii*, on the Somerset Rare Plant Register and believed to be rare if not lost, having not been seen since at least 1968.

Having done his duty to the wider flora of VC5, Graham enthusiastically moved on to dandelions with no fewer than four new species for Somerset found in 2021: *Taraxacum inopinatum*, *T. subnaevosum*, *T. lambinonii* and *T. wallonicum.*

Chief *Taraxacum* recorders were, you will not be surprised to learn, Jeanne Webb, Simon Leach and Graham Lavender. There is room for other enthusiasts to make yet more new records in this large and absorbing group.

Seven non-natives of interest were shown and finally a cluster of six subspecies including *Urtica dioica* subsp. *subinermis* and *Hypochaeris radicata* subsp. *ericetorum*.

Highlights of North Somerset recording in 2021

Helena began by alerting members to the shocking discovery that there may be more than one species of Rootless Duckweed (*Wolffia*) in Somerset! Richard Lansdown recorded *W. columbiana* in VC6 in 2021 and expects it to be more widespread. A considerably prettier discovery was Night-flowering Catchfly (*Silene noctiflora*) which appeared in a garden border, the first record for Somerset since 1991. At Chew Valley Lake, its only site, Mudwort (*Limosella aquatica*) was found in a new monad. Members of Somerset Botany Group found Lesser Skullcap (*Scutellaria minor*) at Street Heath, which turned out to be the first record for the Peat Moors since 1822! This species is no longer a RPR species. At Rodney Stoke NNR, Andrew and Georgina found Rough Mallow (*Malva setigera*), a Schedule 8 species, new to the Mendip Hills. As always, in 2021 a few alien plants were found new to VC6, or indeed Somerset. Moroccan Eryngo (*Eryngium variifolium*) was recorded during the SRPG meeting at Weston-super-Mare and the dainty pink Cowherb (*Vaccaria hispanica*) was recorded on a soil heap in a field, both new to Somerset. After briefly mentioning the SWT Wilder Churches surveys which several members had been involved in, Helena finished with the latest "blue map" (and some earlier ones for comparison), showing the impressive increase in density of species recorded per monad across Somerset.

A Dandelion update

The meeting concluded in high spirits with Simon giving an entertaining talk**,** of which I can only give brief outline, and presentation of the Dandelion Cup.

Dandelion clock and blue skies. Photo: © Jeanne Webb

Recording dandelions is an absorbing activity for those who indulge in it. Work on this group over the years has increased the number of recognised species from 132 in 1972 (Watsonia) to 235 in 1997 (BSBI handbook Dandelions of GB & Ireland) and reaching 244 in 2021 with the publication of the Field Handbook to British and Irish Dandelions.

In Somerset, the number of species recorded has shown a substantial increase since identification training was given in 2016 during the BSBI Dandelion Workshop. The number of species in Somerset has risen from 35 in 1981 to 170 in 2021, although recording efforts in VC5 have contributed most to this increase, with 157 species recorded in VC5 by 2021. By comparison, the number of species recorded in VC6 has pretty much flat-lined since the 2016 surge, with the total having reached 93 in 2021, although this is a great improvement on the pre-workshop level.

Simon referred back to Graham's account of notable species recently found in Somerset adding *Taraxacum speciosiflorum* to the list, going on to remind us just how easy dandelions are to find and the diversity that is under our noses. By way of illustration, Simon had three species in his tarmac drive, seven on his concrete front path and twenty-five in the back garden. There is a checklist of dandelions on the SRPG website and an excellent (and expanding) reference collection in the Somerset Herbarium in Taunton. 146 species are represented there

with at least fifteen more waiting to be added from a 2020-2021 backlog.

The meeting concluded with the presentation of the Dandelion Cup for dandelion recording in 2021. The scoring system was explained and is based on numbers of species found that are either new to science, new to England/Great Britain, Somerset, the VC or hectad with weighting given to each level. "New to Science" gets 500 points while "new to hectad" gets just 5.

There were three contenders, Simon (185) Jeanne (225) and Graham (385) and so Graham was duly awarded the cup with all our congratulations.

The Dandelion Cup was presented to Graham Lavender.
Photo © Simon Leach

Thanks were given to all the speakers for leading us so well through the recording process and illustrating the value of all our efforts.

Saturday 10th April 2022, Orchard Wood (VC5)

Leaders: Ann Fells & Ellen McDouall

Report: Ellen McDouall

First, this is an object lesson in how not to report on a meeting. My excuses? I'd only attended two meetings since 2019 and the pleasure of being out in an unlimited group of friends must have put some of my leader responsibilities out of my head. I managed the health & safety, who was coming and so on, but as for making notes about the highlights – no.

So far, an awful lot about me and not a lot about Orchard Wood.

This was to be the first of two SRPG visits in 2022 to this corner of the Blackdown Hills, and it was one of the meetings included in the 2020 programme that had to be shelved because of the COVID-19 lockdown.

Orchard Wood is a Local Wildlife Site and Ancient Woodland near Corfe in VC5. Although well known to several SRPG members, the site has not been recorded in a systematic way and Ann Fells, the SERC Ecologist, asked SRPG if they could help. So the objective of the day was to complete a Local Wildlife Site survey, requiring a complete species list with species abundances and a map of the habitats.

After an early frost, we had a dry, mainly sunny day for our first field meeting of the spring.

The wood covers a steep hill, converted to a hill fort in the Iron Age and lies across four monads, so the twelve of us split into three groups to achieve the day's aims. Here grateful thanks are due to Simon, who took one group to record the east half in ST2520 and this report relies heavily on his exemplary account of his part. I went with a second group to record the west half and Ann took the third to map the whole site.

The mappers were trying to identify habitat variations such as different dominant tree, understorey and ground flora species or clear differences in structure:

- were all the areas about the same age or did any parts seem to be managed differently?
- Was there a well-defined understorey or not and were there open spaces?

Simon's account of his group's day is as follows:

My group, the one recording the eastern flank of the wood, stayed mainly in ST2520, apart from a short stint in the NW corner of ST2519 at the start of the day. Beneath a mixed oak-ash-hazel canopy in which the abundance of Small-leaved Lime (*Tilia cordata*) is a notable feature, we saw a good range of woodland herbs including Ramsons (*Allium ursinum*), Wood Anemone (*Anemone nemorosa*), Wood Spurge (*Euphorbia amygdaloides*), Woodruff (*Galium odoratum*), Bluebell (*Hyacinthoides non-scripta*), Yellow Archangel (*Lamiastrum galeobdolon* subsp. *montanum*), Southern Woodrush (*Luzula forsteri*), Hairy Woodrush (*L. pilosa*), Wood Melick (*Melica uniflora*), Dog's-mercury (*Mercurialis perennis*) and Wood Speedwell (*Veronica montana*). Beside one of the main forest tracks we also saw a good colony of Bitter-vetch (*Lathyrus linifolius*), while close to the edge of the wood

where the track joins the 'herepath' we noted several clumps of False Oxlip (*Primula vulgaris* x *veris*).

We struggled to find just one solitary Early Purple-orchid (*Orchis mascula*) while, very curiously, there was no sign at all of Goldilocks Buttercup (*Ranunculus auricomus*), Sanicle (*Sanicula europaea*), Red Campion (*Silene dioica*) or Pignut (*Conopodium majus*) – all of these being frequent components of the ground flora in nearby Thurlbear and/or Adcombe Woods. Less surprisingly, perhaps, there was also no Herb Paris (*Paris quadrifolia*), which is one of the star plants of Adcombe Wood. But we did see several Spurge-laurels (*Daphne laureola*), a plant that seems to be especially frequent close to the 'herepath' that runs along the wood's eastern edge. Here, too, we noted plenty of Wayfaring-tree (*Viburnum lantana*), Spindle (*Euonymus europaeus*) and Wild Madder (*Rubia peregrina*), along with some nice grassland species such as Betony (*Betonica officinalis*), Zigzag Clover (*Trifolium medium*) and Salad Burnet (*Poterium sanguisorba* subsp. *sanguisorba*).

In our main monad, ST2520, we recorded 130 species – a good haul, we thought, for so early in the season. The tiny patch of Orchard Wood lying within ST2519 produced a list of 53 species.

Meanwhile, the west side group quickly collected a nice selection of woodland ground flora species in ST2419 including Wood Spurge (*Euphorbia amygdaloides*) and Woodruff (*Galium odoratum*) along with Spurge Laurel (*Daphne laureola*) and Wild Service-tree (*Sorbus torminalis*). The latter found, not by our expert winter twig identification, but from some remaining fallen leaves. Just as we had fairly settled into an expectation of a calcareous bias to the site, we found Southern Wood-rush (*Luzula forsteri*), Bitter-vetch (*Lathyrus linifolius*) and Slender St John's- wort (*Hypericum pulchrum*), all more indicative of acid soils. So all options open. We zig-zagged our way up and down the side of the hill, making a good collection of woodland grasses: Wood Melick (*Melica uniflora*), Wood Meadow-grass (*Poa nemoralis*) and Wood Millet (*Milium effusum*). In a visit to the bottom of the hill we made our best find of the day, a good colony of Thin-spiked Wood-sedge (*Carex strigosa*) on an old track (why is it so often found on wood tracks – does anyone have an idea?).

A near-vertical scramble from bottom to top took us over the ramparts to the level centre of the hill fort and here we found the abundant Ramsons (*Allium ursinum*) and Bluebells (*Hyacinthoides non-scripta*) not seen on the sides.

Our totals for the day were 51 species in ST2419 and 82 in ST2420, 133 in all.

The mapping group admiring a coppiced Lime tree. Photo © Ann Fells

Although the west side of the hill was sunnier and warmer than the east, the species lists for both were remarkably similar, as were Simon's observations of the plants that were unexpectedly rare or absent. The grassland herbs we found suggest a more open mosaic of habitats in the past.

So that was the meeting as far as I remember it and I hope others vaguely recognise the event they attended!

Saturday 23rd April 2022, Beginners and Improvers Course, Avalon Marshes

Leader: Steve Parker

Report: Chris Lampshire

It was a grey Saturday morning as I left to for the course, and I felt a twinge of trepidation. Would I be able to identify anything? Would anybody laugh or tut or roll their eyes? Even though I'd had some prior experience, the past two years had restricted movement and time spent outdoors. I felt rusty and second guessing myself trying to identify plants on my own.

I needn't have worried as I pulled up at Avalon Marshes new facilities and met my fellow beginners. We were a mixed bunch of people with varying backgrounds and experience, and we all felt the same. Our tutor for the day, Steve Parker, was very knowledgeable and understanding and he was able to quickly find a level for

the group. We were soon passing around specimens of common plants such as Cow Parsley (*Anthriscus sylvestris*), Changing Forget- me-not (*Myosotis discolor*) with a bit of Thale Cress (*Arabidopsis thaliana*) thrown in for good measure. Everybody was soon delving into Francis Rose's *The Wild Flower Key*, getting to grips with the terms, and finding the features using jeweller's loupes. The more experienced members helped the absolute beginners and Cath Mowat from Natural England's field unit was also on hand to help and pass on her knowledge.

Beginners and improvers listening attentively inside the Avalon Marshes Centre. Photos© Steve Parker

After lunch the sun had come out on the Somerset Levels and Steve led us on a walk out on the Shapwick Heath Natural Nature Reserve and shared some of his 30 years of knowledge of the plants, the creatures, and the history of this amazing place. Everybody was feeling a little more confident after the morning session and the "hive brain" motivated people to identify the plants we saw as we walked along.

At Shapwick Heath National Nature Reserve, enjoying the sun and learning the diverse species. Photo © Steve Parker

The sun was still shining when we returned to Avalon Marshes and everybody was keen to do more and attend further SRPG meetings, so I hope to see of a few of you over the summer.

Saturday 7th May 2022,
Cross Quarry, Axbridge (VC6)

Leaders: Ellen McDouall & Andrew Robinson

Report: Andrew Robinson

There's just something about an old quarry. On a warm, dry May morning, 12 members gathered for a survey of Cross Quarry near Axbridge.

Unfortunately, Liz McDonnell was unable to lead the group as advertised, but Ellen McDouall had kindly agreed to be a co-leader, much to my relief. After a slight delay in assembling (blame Ellen's alarm clock!), we set off up the path from Cross village.

This would be a first visit to this site for several of us. Although it lies within the Crook Peak to Shute Shelve Hill SSSI, and The Mendip Limestone Grasslands SAC, the small quarry is tucked away at the bottom of a steep slope, completely invisible to the many walkers who use the West Mendip Way along the ridgeline throughout the year. The hard limestone quarried here seems to have been used mainly for local housing and as roadstone, and extraction had finished by the early twentieth century, leaving a quiet oasis populated only by wary rabbits and the occasional goat.

Ellen quickly took charge of a small group of less experienced members, while the rest of us scattered and took up the 'botanical position' – on hands and knees, with noses to the ground and cursing the widespread Picnic Thistle (*Cirsium acaule*)! Ann Burman had bravely volunteered to fill in a recording card, and she was soon being bombarded from all directions, as both botanical and English species names echoed off the quarry walls. The very short turf and bare ground of the quarry floor provided habitat for an intricate mosaic of species, many of them extremely small, including such delights as Early Forget-me-not (*Myosotis ramosissima*), Spring Sedge (*Carex caryophyllea*), Western Eyebright (*Euphrasia tetraquetra*), and Dropwort (*Filipendula vulgaris*). Some ash left by a small fire set by the local youth had been colonised by several patches of Sea Stork's-bill (*Erodium maritimum*) with the leaves distinctly different in shape and colour to the Common Stork's-bill (*E. cicutarium*) flowering occasionally in the surrounding sward.

Sea Stork's-bill (*Erodium maritimum*) Photo © Georgina Shuckburgh

Such a small-scale habitat required close inspection, and often more species were found by staying in one spot than by moving around. Pam Millman and Ann Burman provided a perfect demonstration of this when they sat down to examine a rosette of a Pyramidal Orchid (*Anacamptis pyramidalis*). A few centimetres away was a smaller rosette – Autumn Lady's-tresses (*Spiranthes spiralis*). As others walked across to check their finds, another rosette was found nearby, this time a rather chewed Bee Orchid (*Ophrys apifera*). The site also provided the opportunity to compare very similar species in close proximity. The different sizes and colours of the flowers of Lesser Trefoil (*Trifolium dubium*), Slender Trefoil (*T. micranthum*), Hop Trefoil (*T. campestre*), and Black Medick (*Medicago lupulina*), were easy to appreciate when the species were all together in an area of a few square metres.

A recce trip a fortnight earlier had found large clumps of Spring Cinquefoil (*Potentilla verna*) beautifully in flower on the quarry face, but the continuing drought meant that we only saw a handful of remaining flowers on this visit. The yellow flowers now visible in the same location were mainly Common Rock-rose (*Helianthemum nummularium*). The dry conditions had also ensured that many of the small annuals were well over, with species such as Little Mouse-ear (*Cerastium semidecandrum*) reduced to tiny bleached husks. Even so, we sat down to lunch well satisfied with the morning's haul, despite having moved less than seventy metres from the quarry entrance.

A well-earned lunch in the quarry. Photo © Georgina Shuckburgh

A couple of members had to leave early, and a couple more chose to explore the even smaller western quarry, so it was a reduced group that headed out after lunch up the steep slopes onto the Cross Plain ridge. The environment here was even more extreme, with very shallow stony soils and bare rock completely exposed to the sun and wind. The occasional patches of Common Cudweed (*Filago germanica*) were so grey and shrivelled that they looked more like a crispy *Cladonia* than vascular plants, but we climbed gamely on. The hardy few who reached the summit of the ridge were rewarded with some nice flowering clumps of Honewort (*Trinia glauca*), together with a pair of Wall Brown (*Lasiommata megra*) butterflies, and spectacular views to the south and west.

Returning down the slope, the hunt was on for one of the main targets of the day - the West Mendip speciality Somerset Hair-grass (*Koeleria vallesiana*).

Honewort (*Trinia glauca*) on Cross Plain.
Photo © Georgina Shuckburgh

Sunday 22nd May 2022
Wick Moor, Stolford (VC5)

Leaders: Ro FitzGerald & Graham Lavender

Report: Ro FitzGerald

Meetings are always governed by uncertainty, notably weather conditions, but this one seemed to have an unfair ration of worries leading up to it! As it really was planned as a workshop to look at small details of very small plants in the field, it was necessary to limit numbers so that everyone could see properly. This meant we had to disappoint quite a few late applicants which is always horrid. The weather was key as well, not just in case it was bad on the day but because by late May the Somerset coast was becoming extremely parched after the unusually dry spring. Annual clovers are in their main growth in this period and may become very shrivelled or abort altogether (as many annuals can, relying on their seed bank for the next year).

We had to hold onto the knowledge that this is a superb site, so something would be interesting whatever happened! And we were lucky – the clovers were struggling but identifiable, and we managed to see almost the full list of the *Trifolium* species known here. Wick Moor is an excellent example of sub-maritime grassland, a habitat which is becoming frighteningly rare, threatened by drainage, development, and modern agricultural 'improvement'. Here the area of grassland lies slightly lower than the shingle bar and is divided by rhynes. Some compartments are sporadically grazed by sheep or cattle. It is a notable site for the specialist grass Bulbous Foxtail (*Alopecurus bulbosus*) whose 'bulbs' can survive total immersion in sea water if floods are occasional. The hybrid with *A. geniculatus* (*A.* x *plettkei*) has been seen here. 22nd May is peak flowering for Bulbous Foxtail and although rather stunted in this dry year with careful looking many heads with their pale brownish anthers could be seen.

The clovers in their droughted state had to be searched for, but with 13 pairs of sharp eyes enough were located. In the first few yards after walking from the car park we could settle to a common but quite difficult puzzle – telling Rough Clover (*Trifolium scabru*m) from Knotted Clover (*T. striatum*). When both are in good condition and flowering this is relatively easy, *T. scabrum* is always procumbent and mat-like, close to the ground, its flowers always white - the ovoid head of calyces becoming almost prickly as it matures. *T. striatum* is a softer plant, rather more sprawling, often growing a little tangled among other plants. The heads are more oblong with usually pinkish flowers (more like a pale, miniature Red Clover). But in drought conditions with absolute minimum growth the split needed close attention! Stipules (always useful in clover ID) were carefully examined, and the leaflet veins are key as those of *T. scabrum* are thickened at the ends – this shows up with a lens and the leaf held up against the light.

Getting down to work. Photo © Ro FitzGerald

Plenty of the scarce coastal species Sea Clover (*T. squamosum*) was found, mostly on the banks sloping from the shingle bar down into the grassland, and tiny plants of Bird's-foot Clover (*T. ornithopodioides*) occurred in several places up on the trackway. This was flourishing on this poor and battered substrate, and we could see plenty of the minute single florets, often barely 5mm long. In the grassland, enjoying rather damper conditions, Strawberry Clover (*T. fragiferum*) was abundant, its leaves quite like those of White Clover (*T. repens*), but always without any 'watermark' on the leaflet, and often a glaucous green. Again, when in doubt, it's useful to look at both stipules and leaflet veins.

Clover hunting requires close attention to the ground, so it was very pleasant to find a gorgeous display of a much more visible plant Hairy Buttercup (*Ranunculus sardous*) which has notably shiny petals. This is another specialist in its typical habitat – the plants were growing thickly along a winter-wet hollow where the water must have prevented grass growth long enough for the buttercups, which like bare or disturbed habitat, to become well established. Sub-maritime grazing fields are ideal for this species as they often have wet hollows in winter. The batrachian Brackish Water-crowfoot (*R.*

baudotii) was also seen although in the dry weather plants were in poor condition.

Hairy Buttercup (*Ranunculus sardous*). Photo © Val Graham

Altogether this was a very enjoyable meeting. Enough of the clovers were seen to make the identification exercise worthwhile and the abundance of the Hairy Buttercup and Bulbous Foxtail (which had plenty of its common relative Marsh Foxtail (*A. geniculatus*) with its characteristic 'kneeling' habit to compare it with) was exhilarating. There was some interest in the rhynes even though it was early in the season for aquatics, and on the shingle bar popular seaside plants such as Yellow-horned Poppy (*Glaucium flavum*) and Rock Samphire (*Crithmum maritimum*) were present. A Sea-lavender (*Limonium procerum*) was seen in flower, and another nose-down-with-lens session confirmed Sea Mouse-ear (*Cerastium diffusum*). The leaders felt that keeping to a small group in a site where it was easy to carry books (flat going, near the car park) worked as intended; the weather was ideal; and this part of the coast is remarkable as we were botanising almost under the shadow of Hinkley Point Power Station while looking at a long-traditional land use which, with the maritime influence, has produced a rich and unusual plant community – a remarkable coincidence of Old and New!

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Sunday 29th May, Langford Heathfield (VC5)

Leaders: Linda Everton & Christine Loudon

Report: Christine Loudon

Langford Heathfield is about 80 hectares, one of the Somerset Wildlife Trust's largest reserves. It covers parts of three monads and is mostly woodland, of which significant parts are designated Ancient Woodland. There are also large lowland heath areas, grazed by ponies.

The members who attended the meeting were a good SRPG mix of experts, beginners, and everything in between. We decided to divide into two mixed recording groups to visit the small clearings and boardwalks that make up the southern part of the reserve. Are you surprised that this took longer than expected? We noted Zigzag Clover (*Trifolium medium*), lots of Yellow Rattle (*Rhinanthus minor*) in open areas with Common Spotted-orchid (*Dactylorhiza fuchsia*) and Common Twayblade (*Neottia ovata*) among the rich flora. Lemon-scented Fern (*Oreopteris limbosperma*) was also recorded beside one of the boardwalks through the woodland, which was a new hectad record.

In the largest area of grazed heathland one group stayed to look at unusual heathland species while others went to visit the Ancient Woodland, which had been their recent focus. Though it was late in the year for some typical AW species, they found a lot of Sanicle (*Sanicula europaea*), Pignut (*Conopodium majus*) and Wood Sorrel (*Oxalis acetosella*).

Stand of Meadow Thistle (*Cirsium dissectum*) in damp grassland at Langford Heathfield. Photo © Christine Loudon

Saw-wort (*Serratula tinctoria*). Photo © Christine Loudon

The heathland group had some difficulty with a few orchids which seemed unlike the many Heath Spotted-orchid (*Dactylorhiza maculata*) which were present. Discussion ended with records of the hybrid between the two spotted orchids (*D.* x *transiens*), and also the Southern Marsh-orchid (*Dactylorhiza praetermissa*). Other species seen in this area were Saw-wort (*Serratula tinctoria*) and Sneezewort (*Achillea ptarmica*).

This grazed heathland is an unusual Somerset habitat and contains species which contribute to Langford Heathfield's SSSI status. One is Petty Whin (*Genista anglica*) which was readily spotted in flower in the grazed compartment north of Carrier's Lane, but not the one to the south where it had been seen some years ago. Later, twenty-one clumps were counted in the central damp part of this northerly compartment, so it is doing well.

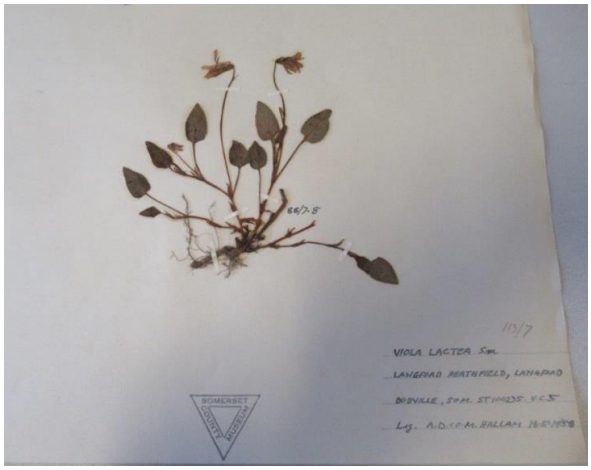
Sneezewort (*Achillea ptarmica*). Photo © Christine Loudon

Petty Whin (*Genista anglica*). Photo © Christine Loudon

The other important species is the Pale Dog-Violet (*Viola lactea*). This is a great success story. This may well be the only Somerset site for this species now. (Thanks to Graham Lavender for this idea.) The species was found, as was its hybrid with the Common Dog-Violet (*Viola riviniana*) which grows plentifully here. Both species and their hybrids were identified on both sides of Carrier's Lane, one in a grazed area and one in an area which cannot be grazed at the moment, but which gets an autumn cut.

It's great to think that one may be the ancestor of the other, though they weren't found at exactly the same grid reference. A challenge for next year - go back and find one at exactly the same grid reference as the herbarium specimen!

Pale Dog-violet (*Viola lactea*). Photo © Simon Leach



Viola lactea collected at Langford Heathfield in 1958, Somerset Heritage Centre, Taunton. Photo © Graham Lavender

Pale Dog-violet hybrid with Common Dog-violet (*Viola riviniana* x *lactea*). Photo © Fred Rumsey

By this time lunch had been taken and the groups reunited, so that everyone got a chance to see the two species of violets and potential hybrids. There were also many other heathland species to catch up on such as the spires of Heath Speedwell (*Veronica officinalis*) and also Heath Milkwort (*Polygala serpyllifolia*) and Lesser Skullcap (*Scutellaria minor*).

The large number of records in three monads were only part of what made a successful day. The rain held off until some people were starting for home, so those who were keenest got wettest, but hopefully they felt it was all worth it.

Saturday 18th June 2022, Backwell (VC6)

Leaders: Helena Crouch & Ellen McDouall

Report: Helena Crouch

Common Gromwell (*Lithospermum officinale*).
Photo © Helena Crouch

Nine members met by the church in Backwell to explore two nature reserves owned and managed by the Backwell Environmental Trust, on either side of Cheston Combe. We ascended the hill to Jubilee Stone Wood, where we were welcomed by two BET volunteers, who kindly suggested our best route. A series of glades are maintained as species-rich grassland. We soon found Bird's-foot Trefoil (*Lotus corniculatus*), Lady's Bedstraw (*Galium verum*), Common Rock-rose (*Helianthemum nummularium*) and Glaucous Sedge (*Carex flacca*), all species typical of calcareous grassland. We also saw a Slow-worm. The Coupe Meadow, by contrast, is an area of limestone heath. Here we were pleased to find both Heather (*Calluna vulgaris*) and Bell Heather (*Erica cinerea*), Western Gorse (*Ulex gallii*), Pill Sedge (*Carex pilulifera*), and Flea Sedge (*C. pulicaris*). At the edge of the grassland, we counted ten plants of Common Gromwell (*Lithospermum officinale*).

After lunch on a log, we finally found the Jubilee Stone, a monument erected to celebrate the Diamond Jubilee of Queen Victoria in 1897. Nearby, we visited the remains of the Warrener's Cottage, which have been excavated by the BET. Several ferns were recorded here: Wall-rue (*Asplenium ruta-muraria*), Maidenhair Spleenwort (*A. trichomanes*) and Soft Shield-fern (*Polystichum setiferum*).

Emerging onto the road, we followed this down the combe and crossed to Badgers Wood, our numbers diminishing to six. Viper's-bugloss (*Echium vulgare*) was noted by two who left early. We explored more species-rich grassland above the disused quarry, accompanied by Marbled Whites.

Marbled White on Common Spotted Orchid (*Dactylorhiza fuchsii*).
Photo © Helena Crouch

Fairy Flax (*Linum catharticum*) and Common Eyebright (*Euphrasia nemorosa*) were found here, and a small patch of Smooth Tare (*Ervum tetraspermum*), and Quaking-grass (*Briza media*).

Returning to the main path, a signposted "Fern Way" was irresistible! It was indeed pteridophytic, with splendid Soft Shield-ferns (*Polystichum setiferum*) and a few Hard Shield-ferns (*P. aculeatum*), allowing comparison of these two species. One plant proved puzzling, not quite right for either and thus a good candidate for the hybrid. A frond was collected, and our tentative identification was later confirmed by Fred Rumsey as *Polystichum* x *bicknellii.*

Almost more exciting than the ferns, was the remarkable area of limestone pavement. This was discovered in 2018

and a large expanse has been exposed by the BET volunteers as a feature of interest for visitors.

Limestone pavement in Badgers Wood. Photo © Helena Crouch

As we reached the lower end of the wood, the threatened rain arrived, and we returned swiftly to the church. It had been an interesting day, exploring these two varied and well managed nature reserves.

Saturday 26th June 2022
Searching for Large Thyme, Ham Hill (VC5)

Leader: Steve Parker

Report: Steve Parker

Large Thyme (*Thymus pulegioides*) is a relatively uncommon species in Somerset. There have been very few records of this plant in VC5 since 2000. The aim of this meeting was to search for a tetrad where the plant had last been reported in the *Atlas Flora of Somerset*.

Searching for Large Thyme (*Thymus pulegioides*).
Photo © Steve Parker

Six members of the group met up at Ham Hill Country Park, our aim was to search suitable habitat in the tetrad. Looking at aerial photographs and the Ordnance Survey map, it appeared that there were only a few locations where the Large Thyme may grow. From the Country Park we walked to the first likely area just to the east of Ham Hill Fort. Although the geology would have supported nice species-rich, calcareous grassland, the grassland sward was rather species-poor with only small areas supporting interesting grassland. Moving on to a second location the habitat was similarly species-poor. Sadly, we did not find Large Thyme at either location.

After lunch it was decided to return to the Country Park and record in the quarry and the ramparts of the hill fort. Here the flora is very species-rich. Bee orchids (*Ophrys apifera*) were scattered through areas of disturbed ground, while on the sloping banks within the quarry Rough Clover (*Trifolium scabrum*) was found. This was the first record for this plant in this tetrad since the *Atlas Flora of Somerset*. This small clover is relatively common on the Somerset coast but only occurs at a few locations inland.

Ham Hill is still an active quarry and is also a Site of Special Scientific Interest for its nationally important geology. In some places the vegetation appeared to have been sprayed with herbicide, presumably this was in preparation for quarrying of the Ham Stone. Nonetheless, other parts of the site do support a rich calcareous flora including Quaking-grass (*Briza media*), Field Scabious (*Knautia arvensis*) and Small Scabious (*Scabiosa columbaria*). This rich flora supports a good butterfly population and we saw many Marbled White butterflies (*Melanargia galathea*) feeding on the flowers.

Examining the flora of Ham Hill. Photo © Steve Parker

Making our way back to the cars a large patch of Fragrant Agrimony (*Agrimonia procera*) was seen on the edge of the quarry.

Despite not finding Large Thyme, this was a good meeting that updated many old records from Ham Hill and was enjoyed by all.

Fragrant Agrimony *(Agrimonia procera)*. Photo © Steve Parker

However, there is a postscript to the meeting report. A few days later Fred Rumsey emailed me to say that he had photographed a very tall thistle. The photograph had been sent to Dr Kevin Walker, Head of Science at BSBI, and Kevin agreed with Fred that the thistle was the hybrid between *Carduus crispus* and *C. nutans C.* x *stangii*. A rare hybrid in Somerset and the first record in VC5 since 1969.

Carduus x *stangii.* Photo © Fred Rumsey

Sunday 3rd July 2022 at Simonsbath (VC5) (plus additional days 1st and 2nd July)

Leader: Graham Lavender

Report: Graham Lavender

The SRPG programme listed an Exmoor meeting on the Sunday but given the distance, some of the participants elected to arrive on the Friday and stay in Simonsbath for a couple of nights. Gill Read, Helena Crouch and Fred Rumsey joined me on the Friday at Kitnor Heath to search the old site for Stag's-horn Clubmoss (*Lycopodium clavatum*), look for Cranberry (*Vaccinium oxycoccos*) at a location first recorded by Captain Roe some forty years ago, and also descend into the Quarme valley and see how the Oak Fern (*Gymnocarpium dryopteris*) was doing.

Not the best of starts, the *Lycopodium clavatum* could not be found and given the repeated searches of the site it is at present presumed to be extinct on Kitnor Heath.

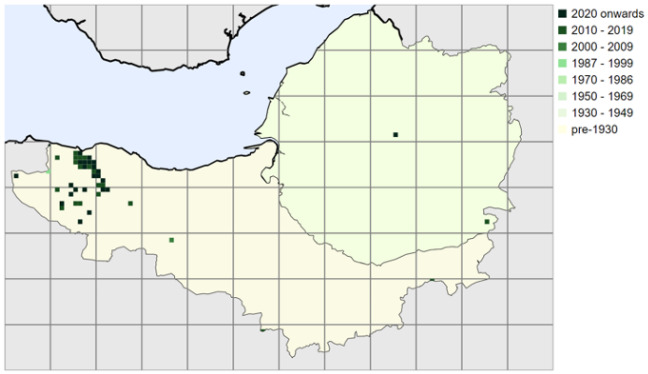
Cranberry (*Vaccinium oxycoccos*). Photo© Fred Rumsey

We had more luck with Cranberry (*V. oxycoccos*), doing well in a slightly sunken boggy area on mounds of sphagnum. It was also delightful to refind Pale Butterwort (*Pinguicula lusitanica*) which is possibly declining on Exmoor.

The other highlight was Narrow Scaly Male-fern (*Dryopteris cambrensis*) which is probably very much under-recorded on Exmoor. *The Atlas Flora of Somerset* (AFS)[1] has no records for *Dryopteris cambrensis*; the species only being sorted out in the publication on the *Dryopteris affinis* complex by Ken Trewren[2] in 2014. That may be an oversimplification as many others have

contributed to our current knowledge of the *D. affinis* complex, but for me Ken Trewren's work is the clearest guide that has yet been published on this difficult group. Prior to this, much recording was simply as *D. affinis* agg.

Distribution of Scaly Male-fern (*Dryopteris cambrensis*)



The distribution map for *Dryopteris cambrensis* shows the limited recording for the taxon particularly in the south and west of Exmoor. **Source**: BSBI's Distribution Database

In the first monad at Kitnor Heath, we not only updated old records but added another 41 species to the monad total, a fantastic achievement for a monad that had received considerable attention in the past.

Onwards to the River Quarme and the site of the Oak Fern (*Gymnocarpium dryopteris*) which was first recorded by Ian Green in 1994. The site is perhaps a little more overgrown with willows than when I have visited it in the past making determination of numbers difficult, but we recorded 400+ plants and would suggest that numbers, if anything, have increased slightly.

Oak Fern (*Gymnocarpium dryopteris*). Photo © Fred Rumsey

On day two we planned a trip to Pinkery Activity Centre to park the cars and walk up to Pinkery pond then onward to Ruckham Combe. The first target was Moonwort (*Botrychium lunaria*) recorded just south and north of Pinkery Farm as it was then, before changing to today's activity centre. Ian Green was again the recorder back in 1994 and his records were sufficiently detailed that we were fairly certain we were able to cover the exact locations where he had found Moonwort (*Botrychium*), yet our searches yielded nothing. This is disappointing as currently we have only one extant site for Moonwort (*Botrychium*) in VC5 although in fairness it's probable that not all old sites have been surveyed. Continuing on to Pinkery Pond, recording all the way, we were very pleased to find Stag's-horn Clubmoss (*Lycopodium clavatum*) another declining species in VC5 and with the added bonus of strobili present as can be seen from the photograph.

Stag's-horn Clubmoss (*Lycopodium clavatum*).
Photo © Graham Lavender

Noting how hard the clubmoss is to spot without the strobili (the creeping rhizomes can only just be seen in the picture) it is almost certainly worth checking some of the old "lost" sites again.

Stag's-horn Clubmoss (*Lycopodium clavatum*).
Photo © Graham Lavender

It is much easier to spot the *Lycopodium* over a barer patch of ground, as in the second photograph.

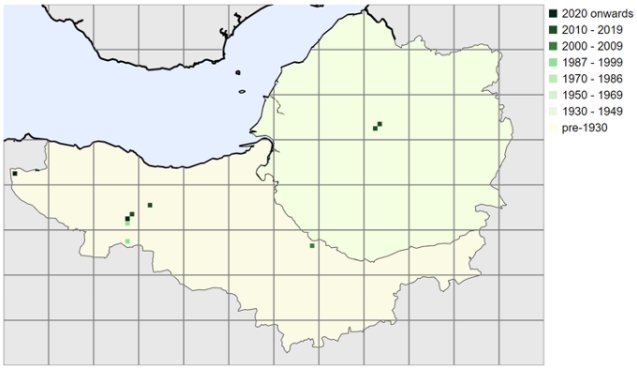
At this point, just being on the Rare Plant Register (RPR) for Somerset does not get you a mention; there are so many RPR taxa at Pinkery Pond so here are just a few photographs of the *crème de la crème*.

Blunt-fruited Water-starwort (*Callitriche brutia* ssp. *brutia*). Photo© Fred Rumsey

In third place I have chosen this picture of *Callitriche brutia ssp. brutia* as a highlight from the pond itself. Selected due to the quality of the picture by Fred, but also due to the rarity of the taxon as can be seen from the distribution map in Somerset.

Interesting to note the paler green dots from pre-2000 records and wonder if in fact the sites have been checked post-2000?

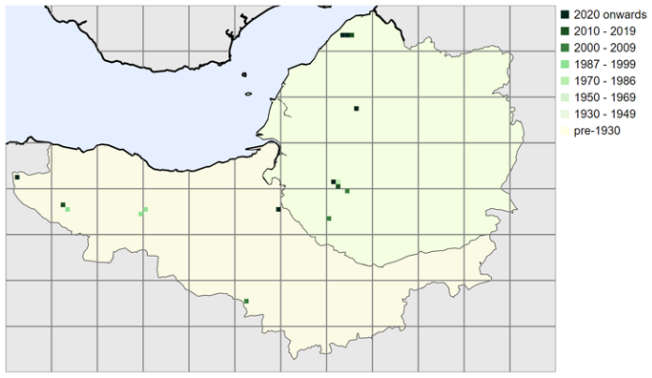
Distribution of Pedunculate Water-starwort (*Callitriche brutia* subsp. *brutia*)



Source: BSBI's Distribution Database

In second place I have chosen Floating Club-rush (*Eleogiton fluitans*). Again, the quality of the photograph weighed heavily on the choice but also it's worth noting that it might be under-recorded and worth visiting some of the old pre-2000 sites in VC5.

Distribution of Floating Club-rush (*Eleogiton fluitans*)



Source: BSBI's Distribution Database

Floating Club-rush (*Eleogiton fluitans*). Photo © Fred Rumsey

If anyone is without database access and wants co-ordinates of these or indeed any other records to target, please contact Steve Parker, Simon Leach, or me for VC5.

First prize from Pinkery Pond, at least in my book, goes to Least Bur-reed (*Sparganium natans*) at its only extant site in Somerset. The history of this plant at Pinkery is possibly incomplete. Pinkery Pond was built around 1830 and it does not appear as a record for Pinkery in Murray's *Flora of Somerset*[3] published in 1896 except for a few records on the peat moors. A similar picture is painted by Captain Roe in *The Flora of Somerset*[4] (1981). MapMate has an anonymous record in 1985 for *Sparganium natans* at Pinkery Pond so my brief search has not identified the first recorder.

Least Bur-reed (*Sparganium natans*). Photo © Fred Rumsey

Yet again, thanks to Fred for this wonderful photograph and if you are wondering why nearly all the photos are by Fred, well he was the one who went waist-deep into the pond to take them so apart from excellent photos it was felt he deserved recognition for going the extra mile. It was nearly the end of the second day, but Helena and Fred decided to make the supreme effort of enduring further uphill travel through waist-high *Molinia* to reach Ruckham Combe while Gill and I called time. Helena and Fred were rewarded with Fir Clubmoss (*Huperzia selago*) at its old site in Ruckham, but I am told in much reduced numbers. Indeed, currently I believe of the four extant sites in VC5 two only have a single spike, this being one of them.

Fir Clubmoss (*Huperzia selago*). Photo © Fred Rumsey

The official SRPG meeting finally arrived on the Sunday with arrival of Steve Parker and Maria Slade for a day's recording at Simonsbath. Meeting at Ashcombe Car Park, the six of us decided to record the two monads upstream of Simonsbath. Before we set off there was time to enjoy the Brittle Bladder Fern (*Cystopteris fragilis*) on the wall adjacent to the men's loos.

Brittle Bladder Fern (*Cystopteris fragilis*). Photo © Graham Lavender

Ian Green recorded it here in 1995. I'm not sure if that was the first record, but it was very pleasing to find it still in evidence.

Across the river and upstream are some very species-rich boggy areas particularly rich in sedges. Totting up the figures, we increased the records for the first monad, which includes Simonsbath, to a phenomenal 294 taxa and the second monad from 140 records to 203.

For the grand finale of the meeting, we had a peek in a third monad upstream which has recently been found to have *Huperzia* in it as a result of a search of old Exmoor National Park records.

Huperzia selago. Photo © Fred Rumsey

I know that I have already included a picture of *Huperzia* at Ruckham, but you really cannot have too many pictures of *Huperzia*!

The final find of the day just down the flush with the *Huperzia* was a new site for Cranberry (*Vaccinium oxycoccos*). Given the increased altitude from the find on Kitnor Heath, it was not surprising to find it still in flower and justifying another photograph.

Vaccinium oxycoccos. Photo © Fred Rumsey

Just one more photograph, I simply cannot resist the photograph Fred took of the hybrid between Southern Marsh-orchid and Heath Spotted-orchid (*Dactylorhiza* x *hallii*).

Dactylorhiza x *hallii.* Photo © Fred Rumsey.

My final act is to thank Gill, Maria, Helena, Fred, and Steve for the most wonderful of meetings and note that in total we made 842 records of which a very good percentage were on the rare plant register.

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2. Trewren, Ken (2014), *Some Taxa within the Dryopteris affinis complex*. Special Publication No. 13. British Pteridological Society https://ebps.org.uk/wp-content/uploads/2019/12/SP13-E1.pdf
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Saturday 9th July 2022
Witch Lodge Fields, Taunton (VC5)

Leaders: Ellen McDouall and Ann Fells

Report: Ann Fells and Simon Leach

Witch Lodge Fields was first listed as a Local Wildlife Site in 1994, partly in recognition of a population of Duke of Burgundy fritillaries (*Hamearis lucina)* that had been present on the site – they became extinct in the 1980s followed by an unsuccessful re-introduction attempt.

The site is owned by the Forestry Commission, part of a larger area of FC land including Orchard Wood to the west which was visited by SRPG in April 2022. Even though not particularly large, the site manages to straddle three monads: the NE corner of ST2419, the NW corner of ST2519 and the SW corner of ST2520. Soils are slightly base-rich to the south, more neutral to the north.

The site has a rather varied history over the past two centuries. In the 1820s woodland and arable occupied the southern part of the site, with orchard and meadow in the north but by the 1940s the arable and woodland had been replaced by more meadows. More recently trees were planted in small blocks but most of these were cleared in the early 2000s.

Broughton Brook runs south to north through the site, fed by a smaller watercourse crossing the fields east to west. It is flanked by broadleaved woodland and tufa deposits have been recorded here.

The field visit focussed on four grassland fields: the large 'nursery field' in the west of the site which was an arable field when visited by Liz McDonnell in 1986, more recently purportedly used as a tree nursery then developing in to an impenetrable bramble thicket; two fields in the south and east of the site which have a longer history as grassland although with some areas of plantation, both broadleaved and coniferous; and a long narrow field along the east side of the site which was largely planted with larch in the 1980s but since cleared.

Much of the area which is now grassland was excluded from the original LWS boundary due to the low biodiversity interest of the arable and plantation areas, so part of the aim of the visit was to decide if the LWS boundary should be re-drawn.

The day of the visit was warm and sunny, one of many such days in what turned out to be the driest July on record in southern England. Undeterred by the heat, Team One headed off to the 'nursery field' which, through more recent sympathetic management, has developed into a mosaic of rough grassland, scattered trees and patches of brambly scrub.

The grassland of the 'nursery' has a mildly calcareous 'feel' to it. The soils, presumably calcareous clays of some sort, are for the most part prone to summer drought, but there are also one or two damper, shadier spots close to the stream, and towards the northern (narrow) end where water seeps from the eastern flank of Orchard Wood. Here you can find Meadowsweet (*Filipendula ulmaria*), Square-stalked St John's-wort (*Hypericum tetrapterum*), False Fox-sedge (*Carex otrubae*) and Hard Rush (*Juncus inflexus*). Elsewhere the grassland is much 'drier' in nature, supporting a wide range of summer-flowering herbs such as Stone Parsley (*Sison amonum*), Hairy St John's-wort (*H. hirsutum*), Hoary Ragwort (*Jacobea erucifolia*), Wild Carrot (*Daucus carota* subsp. *carota*) and Upright Hedge-parsley (*Torilis japonica*).

Team 1 was treated to both the pale pink Common Centaury (*Centaurium erythraea)* and its tiny, darker-flowered (and not so common) cousin Lesser Centaury (*C. pulchellum*), amongst a list of highlights that also included Spiked Sedge (*Carex spicata*), a single dinner-plate-sized patch of Dyer's Greenweed (*Genista tinctoria*), several large and imposing (although not yet flowering) plants of Woolly Thistle (*Cirsium eriophorum*), plus (harder-to-spot) Fairy Flax (*Linum catharticum*), Grass-leaved Vetchling (*Lathyrus nissolia*) and Smooth Tare (*Ervum tetraspermum*).

Common Centaury *(Centaurium erythraea*). Photo © Ann Fells

On the herepath along the west edge of the site several species not seen elsewhere were recorded such as Zigzag Clover (*Trifolium medium*), Quaking Grass (*Briza media*) and Betony (*Betonica officinalis*). The hedgerow along the site's western rim is species-rich, with 11 woody species recorded along a single 30-metre length, including a notable abundance of Wayfaring-tree (*Viburnum lantana*), the leaves of which were occasionally covered in a smattering of 'pouch galls' caused by a gall-midge *Eriophyes viburni*.

Zigzag Clover (*Trifolium medium*). Photo ©Simon Leach

Team Two took off up the east side of the site. The southernmost meadow was moderately species-rich and fairly uniform until reaching the north end where the vegetation became more herb-rich and species-rich, predominantly a fairly dry, slightly calcareous vegetation with Lady's Bedstraw (*Galium verum*), Agrimony (*Agrimonia eupatoria*), Glaucous Sedge (*Carex flacca*) and Meadow Vetchling (*Lathyrus pratensis*). Within this was a damper area with abundant Hard Rush (*Juncus inflexus*) and a variety of herbs of damp soils at lower frequency such as Meadowsweet and Brooklime (*Veronica beccabunga*) – this area is actually the highest point of the meadow.

Whilst on lunch break, we encountered two women in hazmat suits who were recording butterflies – who knew butterfly recording could be so dangerous! There were undoubtedly a lot of butterflies about with no less than 10 species recorded, including large numbers of Marbled Whites (*Melanargia galathea*) and Ringlets (*Aphantopus hyperantus*), newly emerged Gatekeepers (*Pyronia tithonus*) and Small Skippers (*Thymelicus silvestris*), and several Silver-washed Fritillaries (*Argynnis paphia*) patrolling the woodland edge. As you'd expect, there were Six-spot Burnet moths (*Zygaena filipendulae*), and Team One enjoyed testing their hearing with the high-pitched electrical buzz of Roesel's Bush-crickets (*Metrioptera roeselii*). Brown Hairstreaks (*Thecla betulae*) have been seen here too, later in the summer.

Middle meadow, west Witch Lodge Fields.
Photo © Ann Fells

After lunch, Team Two moved to the middle meadow, a beautiful sight with Pyramidal Orchid (*Anacamptis pyramidalis*), Bee Orchid (*Ophrys apifera*) and Common Spotted-orchid (*Dactylorhiza fuchsii*) – these are expanding through the site recently. Also indicative of the base-rich soils here were Fairy Flax, Yellow-wort (*Blackstonia perfoliata*), Rough Hawkbit (*Leontodon hispidus*), Lesser Hawkbit (*L. saxatilis*) and Wild Basil (*Clinopodium vulgare*). Lesser Centaury (*C. pulchellum*) and Dyer's Greenweed (*Genista tinctoria*) were also recorded here.

Bee Orchid (*Ophrys apifera*) at Witch Lodge Fields shortly before the meeting. Photo ©Simon Leach

Moving north through this meadow the vegetation became more dominated by coarse-leaved grasses and less species-rich – in particular in the loss of species associated with base-rich grassland. By now the shadows were starting to lengthen so the third (northern) meadow was a bit more of a whistle-stop tour but we had already seen the best – the plantation history of this field, actually a series of small fenced units, is still evident in a paucity of herb-diversity but it will be interesting to see how it develops in the future.

Other species known to be present on the site include Small-flowered Buttercup (*Ranunculus parviflorus*), recorded in the driest patches of grassland in the spring. Its absence, and that of Brown Hairstreaks, served to emphasize the fact that you can't easily appreciate the full value of a place on the strength of one visit alone.

Wednesday 20th July 2022, Bridgwater and Taunton Canal and Northmoor SSSI (VC5)

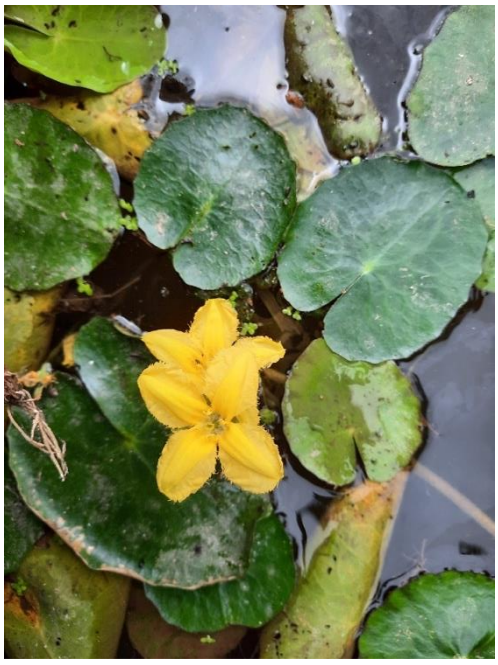
Leader: Steve Parker

Report: Steve Parker

This meeting was originally planned for 2021, however, due to very high temperatures the leader decided to cancel the meeting on health and safety grounds. Since planning the meeting, the area of Northmoor SSSI has been purchased by Natural England and will become part of the new super National Nature Reserve on the Somerset Levels.

The meeting took place on a Wednesday. This may have been the reason why only the leader and John Poingdestre attended. One target for the meeting was to search the Bridgwater to Taunton Canal for aquatic macrophytes.

Once the canal supported a rich aquatic flora. There are records from the early 2000s for Short-leaved Water-starwort (*Callitriche truncata*). However, the canal has changed. The water quality now appears to be very poor. The canal is full of silt which is frequently disturbed with canal boats and other small craft.



Fringed Water-lily (*Nymphoides peltata*).
Photo © Steve Parker

Only a very few plants can be found in the water, most notable is Fringed Water-lily (*Nymphoides peltata*). This plant is a non-native in Somerset but has been recorded in the canal since 1984 when it was recorded by John Poingdestre.

As John and I discussed the poor condition of the canal a weed boat came by. The driver of the boat chatted to us. He told us that the canalside vegetation is frequently flailed and the aquatic plants are regularly cut. This operation appeared to create large clouds of silt in the boat's wake. Aquatic plants would be stressed and more probably killed by these operations.

Canal with very poor water quality. Photo © Steve Parker

Leaving the canal, we paid a brief visit to Northmoor SSSI. Since its purchase by Natural England, botanical surveys have been carried out by Natural England staff, SRPG and RoAM volunteers and so the vegetation is now better known that it was a few years ago. Lesser Water-plantain (*Baldellia ranunculoides*) has been known on Northmoor since 1987 and John had recorded it as recently as July 2020. We searched for the plant but for some unknown reason it could not be refound on this visit.

Thanks to John for sharing his knowledge of this area of Somerset.

Saturday 6th August 2022, Middle Hope (VC6)

Leaders: Adrian Woodhall & Helena Crouch

Report: Helena Crouch

The parched grasslands of Middle Hope SSSI. Photo © Karen Andrews

On a scorching hot day, a large group of seventeen members assembled at Hucker's Bow car park for a day at the seaside. We began with an introduction to saltmarsh plants, beside the estuary of the River Banwell. The glorious carpets of Common Sea- lavender (*Limonium vulgare*) were past their best, but a few plants were still in flower, delighting botanists and attracting a Brown Argus butterfly (*Aricia agestis*).

Brown Argus (*Aricia agestis*) on Common Sea-lavender. Photo © Karen Andrews

An exciting discovery was a single clump of Long-bracted Sedge (*Carex extensa*) on the path edge, new to the monad. This species is included in the Somerset Rare Plant Register because it is rare in VC5; it is not scarce in VC6 and has been spreading recently at Sand Bay. Other species on the saltmarsh included Annual Sea-blite (*Suaeda maritima*), Sea Arrowgrass (*Triglochin maritima*), Sea Aster (*Tripolium pannonicum*), Sea-milkwort (*Lysimachia maritima*), Greater Sea-spurrey (*Spergularia media*) and Purple Glasswort (*Salicornia ramosissima*).

Greater Sea-spurrey (*Spergularia media*). Photo © Sam Brain

Leaving the saltmarsh (much of which is now fenced off and not accessible), we ascended the hill to explore the parched grassland. Clutching at straws (literally!) we managed to find Crested Hair-grass (*Koeleria macrantha*), Quaking-grass (*Briza media*) and Sweet Vernal-grass (*Anthoxanthum odoratum*), and shrivelled patches of Common Rock-rose (*Helianthemum nummularium*) and Wild Thyme (*Thymus drucei*).

We had lunch in the shade of some trees, overlooking the Severn Estuary, beside plants of Slender Thistle (*Carduus tenuiflorus*). It became a Working Lunch, as we compared specimens of Slender Thistle and Creeping Thistle (*Cirsium arvense*).

Slender Thistle (Left) with dense clusters of narrow capitula with relatively few long-pointed, outwardly-curved involucral bracts; and Creeping Thistle (Right) with fewer, more ovoid capitula with numerous appressed involucral bracts with small spreading spiny tips. Photo © Sam Braine

Spear Thistle (*Cirsium vulgare*). Photo © John Roberts

After lunch, we headed west along Middle Hope, finding Spear Thistle (*Cirsium vulgare*) and Musk Thistle (*Carduus nutans*).

We explored various rock outcrops, recording the crisped remains of Rough Clover (*Trifolium scabrum*), Sea Fern-grass (*Catapodium marinum*), Silver Hair-grass (*Aira caryophyllea*), and tiny plants of Western Eyebright (*Euphrasia tetraquetra*).

SRPG members exploring rock outcrops. Photo © Karen Andrews

We were relieved to find one of our target plants of the day, Cheddar Pink (*Dianthus gratianopolitanus*), still thriving despite the severe desiccation. First recorded here in 2013, it is not known whether this was a deliberate introduction or a self-sown arrival, spread from the long-established introduction on Sand Point: the former seems more likely.

Cheddar Pink (*Dianthus gratianopolitanus*).
Photo © Helena Crouch

Our next target was Henbane (*Hyoscyamus niger*), known in the Kewstoke area since 1856, and on a particular bank at Middle Hope for many years. We were pleased to find 58 plants, some diminutive and most in fruit, but one with a single flower. Henbane is Vulnerable on the GB and England Red Lists and is Scarce in both VC5 and VC6.

Flower of Henbane (*Hyoscyamus niger*). Photo © Fred Rumsey

Carline Thistle (*Carlina vulgaris*). Photo © Fred Rumsey

Nearby we saw further swathes of Slender Thistle. During the day we had a veritable Thistle Fest, also finding Creeping Thistle (*Cirsium arvense*), Spear Thistle (*C. vulgare*), Stemless Thistle (*C. acaule*), Musk Thistle (*Carduus nutans*) and Carline Thistle (*Carlina vulgaris*).

For a final mission, we headed west along Middle Hope in search of Autumn Lady's-tresses (*Spiranthes spiralis*): we were rewarded with a single plant in bud and turned back.

Returning to the car park, we crossed the sluice at the end of the Sand Rhyne and spotted a Club-rush in the ditch. Fred adventurously descended the steep bank to grab a specimen, and made two more good records on the way: Wild Celery (*Apium graveolens*) and Corn Parsley (*Sison segetum*). The collected nutlets were duly sliced later and confirmed as Sea Club-rush (*Bolboschoenus maritimus*).

Leaf of Corn Parsley (*Sison segetum*) with forward-curving (antrorse) cartilaginous points. Photo © Sam Braine

Despite the searing heat, which had reduced many plants (and botanists) to withering scraps, it was a most enjoyable and productive day. We recorded 149 species in our main monad and updated records for several Rare Plant Register species.

Sunday 27th August 2022, Backwell Lake and Nailsea (VC6)

Leaders: Helena Crouch & Ellen McDouall

Report: Fred Rumsey & Helena Crouch

Backwell Lake. Photo © Helena Crouch

On a finer day than had been forecast, 21 attendees assembled at Backwell Lake, including members of SRPG and Bristol Naturalists' Society and guests. This Wessex Water site, built as a balancing pond in the 1970s, has been a Local Nature Reserve since 1990. The lake is circumnavigated by an easy and level 0.8km path, although this took the group rather longer to complete than the 10 minutes suggested by the website!

At the lake margin, participants were introduced to Sweet Flag (*Acorus calamus*) distinguished by its distinctively transversely wrinkled leaves. The pond surface, where it was accessible, was well covered by particularly robust Greater Duckweed (*Spirodela polyrhiza*). Attempts to sample the submerged plants were disappointingly thwarted by inquisitive cygnets: the only species retrieved was Rigid Hornwort (*Ceratophyllum demersum*). The vegetative shoots of Amphibious Bistort (*Persicaria amphibia*) were frequent around the margins of the lake; we were pleased to see it flowering as a floating aquatic.

Amphibious Bistort (*Persicaria amphibia*). Photo © Helena Crouch

Most of the lake shore is inaccessible due to dense vegetation, but even from a distance it was possible to see the difference between the two native species of Reedmace (*Typha latifolia* and *T. angustifolia*). At one accessible area of shore, we found a patch of Marsh Horsetail (*Equisetum palustre*) and a few plants of Marsh Ragwort (*Jacobaea aquatica*), a Rare Plant Register species as it is Near Threatened on the England Red List. We also heard a Water Rail, squealing like a piglet!

Many of the trees and shrubs were obviously planted, but this gave the opportunity to study identification features of various native species and their alien relatives. Both native Alder (*Alnus glutinosa*) and the introduced Grey Alder (*Alnus incana*) were heavily infested with Alder Leaf Beetle (*Agelastica alni*). Purple Willow (*Salix purpurea*), with its near opposite leaves, was almost certainly planted, but there was some debate over whether a large bush of Alder Buckthorn (*Frangula alnus*) by the lakeside might be a natural occurrence.

The grasslands fringing the circular path were surprisingly species-rich and had impressively large examples of the root-parasite Red Bartsia (*Odontites vernus*). Two plants of Broad-leaved Helleborine (*Epipactis helleborine*) were found, both past their best, as well as the mortal remains of now indeterminable Dactylorchids. A colourful patch of Fleabane (*Pulicaria dysenterica*) was attracting several butterflies, including Small Copper, Common Blue and Brown Argus. In a damp area, a tiny patch of Bristle Club-rush (*Isolepis setacea*) was a new species for several people; it was the first record of this species in the hectad (ST46) since 1998.

By lunchtime, we had still not made it round the lake. Participants rebelled and sat down in the shade for much-needed refreshment. Upon our return to the car park, we bid farewell to many of the group. The remaining stalwarts had been promised one of Somerset's rarest plants, Copse Bindweed (*Fallopia dumetorum*), and set off on a lengthy expedition along The Nailsea Round, making many interesting records on the way.

Rough Hawk's-beard (*Crepis biennis*), by Nailsea and Backwell station. Photo © Fred Rumsey

A target at Nailsea and Backwell Railway Station was Rough Hawk's-beard (*Crepis biennis*), an uncommon species in Somerset, known here since 1900 when it was found by Miss Roper on a "Railway embankment near Nailsea". An increasingly giggly group of botanists explored the Pick-up Point and disappeared behind the bike sheds, and were finally rewarded with some plants still in flower on the steep bank beside the path to the platform.

Following the track beside the railway, we recorded more garden escapes and some common woodland ferns, then headed northwest across a damp rushy field. The footpath crossed a small brook, where we recorded Brooklime (*Veronica beccabunga*) and Stream Water-crowfoot (*Ranunculus penicillatus*) and compared Water-cress (*Nasturtium officinale*) and Fool's-water-cress (*Helosciadium nodiflorum*). Entering some paddocks, time was spent examining a *Potentilla* with a mixture of 4- and 5-petalled flowers: the lack of well-developed achenes indicated that it was the hybrid, *P.* x *mixta*. By a soil heap, we found a single plant of Small-flowered Cranes-bill (*Geranium pusillum*).

Leaving our target monad, we continued along The Nailsea Round, marching uphill and along a track bordering playing fields and housing, amongst a sea of Bracken (*Pteridium aquilinum*). Finally, we reached our destination and found six plants of Copse Bindweed (*Fallopia dumetorum*).

Copse Bindweed *(Fallopia dumetorum)* sprawling over Bracken. Photo © Helena Crouch

This Vulnerable species was first found here in 2016 by Liz McDonnell and Clive Lovatt. It had only ever been found once before in Somerset, near Keynsham in 1836, so this was an amazing discovery. Surprisingly it

has persisted at this site amongst dense waist-high bracken: this annual twining member of the dock family usually germinates in response to disturbance, for example by coppicing or tree-fall.

The satisfied weary botanists took the most direct route back to the original monad and resumed recording, indulging in some extreme urban botany, examining front lawns and pavement edges. We recorded Musk Stork's-bill (*Erodium moschatum*), which seems to be increasing in this roadside lawn habitat, and found the smallest flowering Butterfly-bush (*Buddleja davidii*) that anyone had ever seen, emerging between paving and less than 5cm tall!

The smallest flowering Butterfly-bush (*Buddleja davidii*) in the world, on a kerb edge in The Perrings, Nailsea.
Photo © Helena Crouch

Four-leaved Allseed (*Polycarpon tetraphyllum*).
Photo © Helena Crouch

Close by, tinier still, and also emerging from between paving slabs was possibly the find of the day, Four-leaved Allseed (*Polycarpon tetraphyllum*).

Long known as a native near Portland and in Cornwall, this Mediterranean species is rapidly increasing in urban areas elsewhere in southern England. In Somerset it was first discovered in the Weston-super-Mare area by Rupert Higgins in 1997, and has recently also been found in Bath.

We descended the grassy slope below The Perrings, re-finding Common Restharrow (*Ononis repens*) which Liz and Clive had previously recorded here. An attractive large Oak tree was much admired. It resembled the more commonly planted Red Oak (*Quercus rubra*), but was clearly not that species. It was later identified as a Pin Oak (*Quercus palustris*), a fast-growing and pollution-tolerant tree.

Pin Oak (*Quercus palustris*). Photo © Fred Rumsey

An exhausted but happy group finally returned to Backwell Lake along a shady path, past a small patch of Wood Melick (*Melica uniflora*), adding a few more species to the card. We had recorded 274 species in a single monad, taking the total for that square to an impressive 450 species, which is currently the highest monad total in VC6.

Saturday 17th September 2022, Clevedon Moor (VC6)

Leaders: Dee Holladay & Pam Millman

Report: Dee Holladay & Helena Crouch

Ditch-dabbling on Clevedon Moor. Photo © Helena Crouch

On a sunny September morning, thirteen botanists gathered at Clevedon Craft Centre to investigate the rhynes of Clevedon Moor. We set out along Cook's Lane, a quiet road bordered by our first rhyne of the day. David was immediately in action with his boathook, fishing out Nuttall's Waterweed (*Elodea nuttallii*), Greater Duckweed (*Spirodela polyrhiza*) and some spectacularly swollen Fat Duckweed (*Lemna gibba*), accompanied by the invasive Water Fern (*Azolla filiculoides*), complete with an Azolla Weevil (*Stenopelmus rufinasus*)! Like its host plant, this weevil is a native of North America.

At the edges of the rhyne, we recorded Fool's-water-cress (*Helosciadium nodiflorum*), later comparing this with Lesser Water-parsnip (*Berula erecta*), with its distinctive ring on the petiole; we also found Common Spike-rush (*Eleocharis palustris*) and Marsh Horsetail (*Equisetum palustre*) and a single flowering plant of Brookweed (*Samolus valerandi*), new to the monad. On the bank, several plants of Common Comfrey (*Symphytum officinale*) had creamy white flowers which, when measured, were found to be consistently shorter than 16mm and thus keyed out as *Symphytum officinale* subsp. *bohemicum*, a taxon only recently recorded in Somerset.

Symphytum officinale subsp. *bohemicum.* Photo © Helena Crouch

In a gateway beside Cook's Lane, we were delighted to find a few plants of Dwarf Mallow (*Malva neglecta*).

Dwarf Mallow (*Malva neglecta*). Photo © Fred Rumsey

Crossing this minor rhyne, we headed south alongside a larger drain (The Yearling Ditch) which links the Land Yeo to the Blind Yeo, ultimately emptying into the Severn Estuary at Clevedon Pill. Despite the fact that dredging had taken place around three weeks previously, lifting out large amounts of vegetation (and snails), we could immediately see Fringed Water-lily (*Nymphoides peltata*) and Frogbit (*Hydrocharis morsus-ranae*) on the surface.

Fringed Water-lily (*Nymphoides peltata*) in the Yearling Ditch. Photo © Kurt Vickery

The bank profile of the Yearling Ditch, with several good "drinkers", allowed access to the water's edge in many places. With our various grapnels and hook it was possible to sample the submerged vegetation. Disappointingly, this was mostly Rigid Hornwort (*Ceratophyllum demersum*) or Nuttall's Waterweed, with occasional fruitless Water Starwort (*Callitriche* sp.), although we were pleased to find a patch of Broad-leaved Pondweed (*Potamogeton natans*) and examined its flexible hinged petiole.

Pam and others investigating a tray of aquatics. Photo © Helena Crouch

Bryologists, David and Fred, showed us the tangled masses of Floating Crystalwort (*Riccia fluitans*), a strange skeletal liverwort found in slow-moving ditches and ponds.

Marginal species included Yellow Iris (*Iris pseudacorus*), Reed Sweet-grass (*Glyceria maxima*), and Branched Bur-reed (*Sparganium erectum*), with its distinctive fruits. We also saw Water Mint (*Mentha aquatica*) and Water Dock (*Rumex hydrolapathum*).

Branched Bur-reed *(Sparganium erectum).* Photo © Kurt Vickery

There was much excitement at seeing a few plants of Arrowhead (*Sagittaria sagittifolia*). We examined long linear floating leaves of this species, and of Unbranched

Bur-reed (*Sparganium emersum*), which had been seen here in flower a few weeks previously.

After a sunny lunch taken on a raised bank with a good view of the drain and a Kestrel flying above the field opposite, we retraced our steps and explored the northern part of the square. We recorded Many-seeded Goosefoot (*Lipandra polysperma*) and Black Mustard (*Brassica nigra*) at the edge of a maize field.

Crossing the Yearling Ditch (noting Roach swimming by the sluice gate), we were delighted to find a veritable forest of Arrowhead (*Sagittaria sagittifolia*) in the Middle Yeo. This rhyne had not been dredged. More action with boat hook and grapnels ensued, yielding two further species of *Potamogeton*: Fennel Pondweed (*P. pectinatus*), with leaf sheaths which open when pulled, and Hairlike Pondweed (*P. trichoides*) with a prominent midrib occupying up to 70% of the width of the leaf. Fringed Water-lily was flowering in this ditch.

Fringed Water-lily (*Nymphoides peltata*).
Photo © Helena Crouch

We also saw Water Plantain (*Alisma plantago-aquatica*) and David fished out Common Stonewort (*Chara vulgaris*). We were distracted by Sticklebacks and a Whirlygig Gig – a host of shiny little beetles gyrating on the water surface. Meanwhile we were being observed by a herd of young steers, gathered as close to us as they could be, mercifully on the other side of the rhyne! A deer was also spotted, sprinting across a distant field. We also found huge balls of Floating Crystalwort in this ditch.

Floating Crystalwort (*Riccia fluitans*). Photo © Fred Rumsey

In the field edges, we recorded Wild Carrot (*Daucus carota*) and Upright Hedge-parsley (*Torilis japonica*), but the dominant plant was Stone Parsley (*Sison amomum*) which formed a red haze right along the edge of the hayfield.

Stone Parsley (*Sison amomum*) glowing red along the edge of a field on Clevedon Moor. Photo © Margaret Webster

The stalwarts carried on along the rhyne and across more hayfields to the eastern edge of the square and then retraced their steps to the café at Clevedon Craft Centre for a convivial cup of tea and delicious cakes!

Sunday 18th September 2022 Tintinhull (VC5)

Leader: Steve Parker

Report: Steve Parker

The Church of St Margaret's, Tintinhull. Photo © Steve Parker

On a bright and sunny day five members of the Somerset Rare Plants Group gathered by the entrance to the National Trust gardens in Tintinhull for a day recording in and around this small village.

The recording target for the meeting was to focus on updating records for ST4919; this monad had previously been recorded in August 2017 by John Poingdestre.

Since 2000 over 200 taxa have been recorded in the 1km square, so it was sure to have a wide range of fascinating plants to find.

Our first interesting plants were found by the community tennis courts. Here under planted trees, there was a small patch of Lesser Caucasian-stonecrop (*Phedimus stoloniferus*). This is an uncommon garden

Lesser Caucasian-stonecrop (*Phedimus stoloniferus*) growing under trees. Photo © Fred Rumsey

escape in Somerset and on entering the data on to Mapmate after the meeting this was found to be the 5th record for VC5.

Moving from the sports fields and play areas we followed a footpath to the church, where along the narrow path there was a well-established population of Yellow-flowered Strawberry (*Potentilla indica*).

Yellow-flowered Strawberry (*Potentilla indica*) fruit by footpath to the church. Photo © Fred Rumsey

The path then led us into the grounds of St Margaret's. The churchyard had some interesting neutral grassland with Hoary Plantain (*Plantago media*), Rough Hawkbit (*Leontodon hispidus*), Oxeye Daisy (*Leucanthemum vulgare*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Burnet-saxifrage (*Pimpinella saxifraga*). Diligent searching by Ellen resulted in the discovery of Spreading Meadow-grass (*Poa humilis*).

Helena and Ellen in the churchyard. Photo © Steve Parker

Sowbread (*Cyclamen hederifolium*) was well naturalised around the graves, while over the wall a few plants of Argentinian Vervain (*Verbena bonariensis*) were flowering along the road edge. This garden plant is frequently naturalised in villages and towns.

Leaving the village, the party followed that footpath past Tintinhull Court then along the field margins of a series of arable fields, here and there were a few spikes of Meadow Brome (*Bromus commutatus*). The corner of one field that had recently been cropped supported a large patch of Corn Mint (*Mentha arvensis*) with a few remnants of a previous year's potato crop (*Solanum tuberosum*) and heads of Alsike Clover (*Trifolium hybridum*).

Hoary Plantain (*Plantago media*) in the churchyard. Photo © Fred Rumsey

Corn Mint (*Mentha arvensis*) corner of arable field. Photo © Helena Crouch

Overhanging the footpath along the edge of a maize field there were about forty or so large and mature Small-leaved Elm (*Ulmus minor*). This species had not been previously recorded from this 10km square.

Large Elm trees (*Ulmus minor*) beside the footpath.
Photo © Steve Parker

We headed towards a large White Willow (*Salix alba*) thinking this could be a good spot to sit down and enjoy lunch. Sitting by the path we watched as two Clouded Yellow butterflies (*Colias croceus*) enjoyed the late summer sun.

A shorth length of ditch on the OS map promised the possibility of a few wetland species. Peering over the fringing vegetation it was quickly evident that the watercourse was completely covered in Parrot's-feather (*Myriophyllum aquaticum*), an invasive non-native species. This also turned out to be a less welcome new 10km record.

What open water could be seen also had Common Duckweed (*Lemna minor*) and a few plants of Square-stalked St John's-wort (*Hypericum tetrapterum*). Helena scrambled along the edge of the pond and found a large specimen of Red-osier Dogwood (*Cornus sericea*) which had been planted by the ditch.

Continuing to follow the public footpath, and with advice of some local residents, we made our way to road leading back to the village. Planted along this road were some youngish specimens of Small-leaved Lime (*Tilia cordata*). Close to the end of the walk we navigated our way through a modern housing estate. A single specimen of Silver Ragwort (*Jacobaea maritima*) was growing as a pavement weed and close to this Helena and Fred identified the hybrid with Common Ragwort (*J. vulgaris*).

Jacobaea maritima x *vulgaris* (*J.* x *albescens*).
Photo © Fred Rumsey

Roads in the housing estate had a few interesting alien species such as New Zealand Wind-grass (*Anemanthele lessoniana*) and in the gutter there were many seedlings of Butterfly-bush (*Buddleja davidii*). The last plant of the day was Druce's Crane's-bill (*Geranium* x *oxonianum*) which was growing in the car parking space by the church.

At the end of the meeting, a very nice pub just down the road from the gardens was able to provide us with a much-needed and refreshing cup of tea. When tallied up, a total of 80 new species were added to the monad, taking the total number of taxa recorded to 282 species.

Sunday 1st October 2022, Saltford Meeting (VC6)

Leaders: Helena Crouch & Fred Rumsey

Report: Fred Rumsey & Helena Crouch

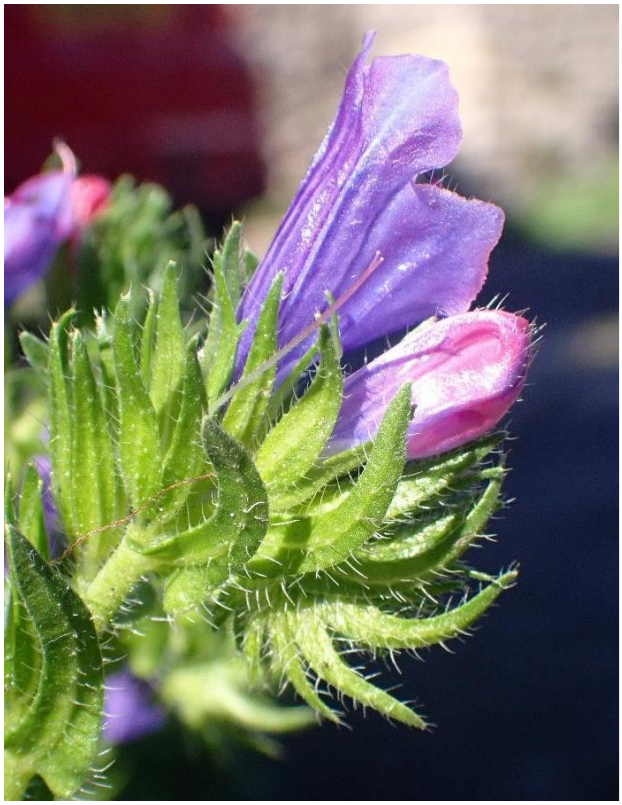
Saltford Weir. Photo © Karen Andrews

Despite the forecast for heavy rain, we were blessed with a fine day for our penultimate meeting of the year. Parking proved stressful as the planned parking areas were already filled by water sports enthusiasts. Following dispersal to far-flung roads in the village, the group of nine finally convened. The focus for the day was riverside plants, updating records for several Rare Plant Register (RPR) species. Our route would take us through three monads, heading east along the southern bank of the Avon, but we initially made a short diversion west to some dense nettle patches by the river, to see a speciality of the River Avon, the Nationally Scarce Greater Dodder (*Cuscuta europaea*). The colourful threads of this rootless parasitic plant, with their bobbles of pale-pink flowers, were eventually located, twining untidily over their nettle hosts and other vegetation. This was the only Greater Dodder we saw all day.

Greater Dodder (*Cuscuta europaea*). Photo © Fred Rumsey

Initially progress was slow as we recorded along the riverside, on verges and in gutters of the road. A quick fish in the river across the road from the car park yielded Spiked Water-milfoil (*Myriophyllum spicatum*) and a few metres further along we found our second

promised target of the day, Small Teasel (*Dipsacus pilosus*). We discussed the identity of various planted trees, including an alien Whitebeam: Tim Rich later suggested (from photos) that this could be *Sorbus austriaca*, now increasingly planted as an amenity tree. The edges of the road yielded a plethora of garden escapes, including Atlas Poppy (*Papaver atlanticum*) and a splendid plant of Purple Viper's-bugloss (*Echium plantagineum*), both new to the hectad. Long known as an arable weed in the far Southwest, this species is now turning up increasingly as a casual adventive as it is often included in "wildflower" seed mixes.



Purple Viper's-bugloss (*Echium plantagineum*).
Photo © Fred Rumsey

The footpath back to the riverside afforded us a view of the private moorings of Mill Island, where we spotted one of the day's most exciting finds, the huge leaves of Water Dock (*Rumex hydrolapathum*). Although recorded recently at several points along the Kennet & Avon Canal in Bath, this species had not been recorded from the River Avon itself since 1998, when it was also seen near Saltford. Beside the weir there were impressive stands of Common Club-rush (*Schoenoplectus lacustris*). Yellow Water-lily (*Nuphar lutea*) grew in the river, which otherwise appeared to be disappointingly free of vegetation, perhaps due to the amount of river traffic.

Crossing the entrance to the marina via a footbridge, we entered our third monad as we reached the Saltford Rowing Centre: the starving leader cheekily negotiated the use of their bench for a lunch stop!

The river edge here is flanked by several long floating pontoons, giving easy access to the river. Refreshed, we explored, finding more Spiked Water-milfoil, Ivy- leaved Duckweed (*Lemna trisulca*) and most excitingly, a small patch of Loddon Pondweed (*Potamogeton nodosus*) in flower.

Steve and Sam studying Loddon Pondweed (*Potamogeton nodosus*). Photo © Karen Andrews

This Nationally Rare and Vulnerable species has been known from the River Avon at Saltford since 1916 but was a "new" species for several members.

Loddon Pondweed (*Potamogeton nodosus*) showing the distinctive venation of submerged leaves. Photo © Fred Rumsey

Between a boat and a wooden mooring, were the distinctive emergent leaves of the Narrow-leaved Water-plantain (*Alisma lanceolatum*), its identification confirmed by close examination of its achenes. On the decaying wood of the moorings was a single plant of Orange Balsam (*Impatiens capensis*) and two plants of Beggarticks (*Bidens frondosa*), an alien which closely

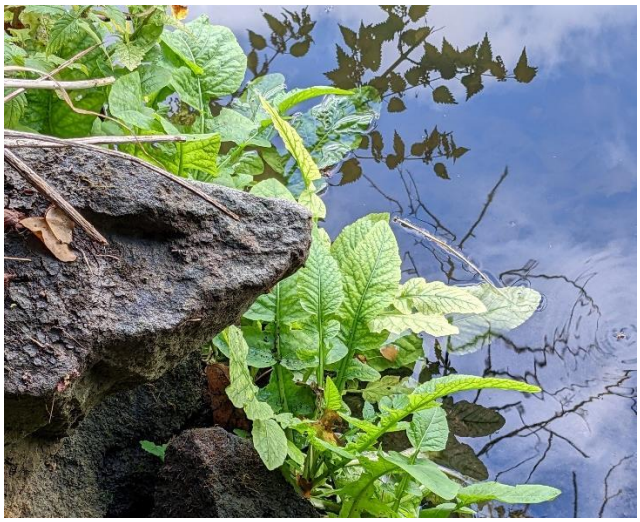
resembles the native Trifid Bur-marigold (*B. tripartita*). The diagnostic character separating these two species is the direction of hairs on the achenes: both have backward-pointing barbs on the apical bristles, but hairs on the edges of the achenes are forward-pointing in *B. frondosa* and backward-pointing in *B. tripartita*. This was only the second record for *B. frondosa* beside the River Avon in Somerset, although it has also been found recently by the Kennet & Avon Canal in Bath.

Detail of Beggarticks seed with bristles backward-pointing on the barb and forward-pointing on the body of the achene. (*Bidens frondosa*). Photo © Sam Braine

SRPG members walking away from the contentious poplar. Photo © Helena Crouch, with (insert) a spiral gall. Photo © Fred Rumsey

On the riverbank beside the pontoons, we puzzled over a majestic, somewhat fastigiate Poplar. Its leaf petioles were heavily galled by the aphid *Pemphigus spyrothecae,* on the basis of which it had previously been recorded as a "native" Black Poplar (*Populus nigra*) by the leaders; however, the tree is not a typical shape, and its terminal buds were larger than usual for the species leading to much (continuing) debate over its identity!

Continuing eastwards, we found a small patch of Great Yellow-cress (*Rorippa amphibia*) lodged at the base of the wooded river bank.



Great Yellow-cress (*Rorippa amphibia*) in the River Avon. Photo © Helena Crouch

We also passed many more groups of Small Teasel, so abundant on the railway bank that the group rapidly became blasé about it.

Small Teasel (*Dipsacus pilosus*) with seedheads prettily backlit. Photo © Fred Rumsey

Following a brief exploration around a railway arch, where we found Spotted Hawkweed (*Hieracium spilophaeum*) on the stonework and Crosswort (*Cruciata laevipes*) on a bank, we turned back. The remaining stalwarts were treated to ice-creams at a convenient hostelry, before tracking down their disparate vehicles. Although the riverine vegetation was sparse, we did find all suggested targets and made excellent records in the three monads traversed, including updating records for several RPR species. A very enjoyable day was had by all in what ultimately proved to be remarkably good weather.

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Sunday 23rd October 2022, Bath (VC6)

Leader: Helena Crouch

Report: Helena Crouch

Kennet & Avon Canal, Bathwick. Photo © Helena Crouch

After a stormy night, a forecast for torrential rain, and with more than half the booked participants dropping out at the last minute, a despondent leader arrived in Bath in full waterproofs. The three remaining brave explorers assembled by the river in glorious sunshine, and waterproofs were soon discarded. This walk had originally been planned for the following weekend, searching for plants in flower, contributing to a Last Week Hunt for Wild Flower Society members; however, the date had to change due to other commitments. We could not help noticing the large number of species still in flower though. On the edge of the riverside path, by railings, we saw several plants of Musk Stork's-bill (*Erodium moschatum*) still flowering. This species was included on the Somerset Rare Plant Register for a while but has spread dramatically on verges in urban situations and has now dropped off the list.

Musk Stork's-bill (*Erodium moschatum*) in flower by the River Avon. Photo © Helena Crouch

We set off alongside the river, heading east towards the bus station, soon crossing the river and descending to the relatively quiet path along the south bank. Here we studied Oxford Ragwort (*Senecio squalidus*), which has hairless leaves and bright yellow flowers, with all involucral bracts conspicuously black-tipped.

Involucral bracts of Oxford Ragwort (*Senecio squalidus*). Photo © Karen Andrews

For a long stretch, the riverbanks were lined with sheet metal piling, so there was almost no riverine vegetation. At Widcombe Lock, we left the river and followed the Kennet & Avon Canal instead. We admired the hanging gardens on the lock gates of Bath Deep Lock (the second deepest lock in the country), recording Skullcap (*Scutellaria galericulata*) and Mexican Fleabane (*Erigeron karvinskianus*) here.

On stonework at the edge of the canal, we saw the almost unrecognisable remains of Orange Balsam (*Impatiens capensis*), recorded here earlier in the year, and also the last few flowers of Beggarticks (*Bidens frondosa*). We examined the achenes to check the direction of bristles: those on the awns point backwards, but those on the body of the achene are directed forwards.

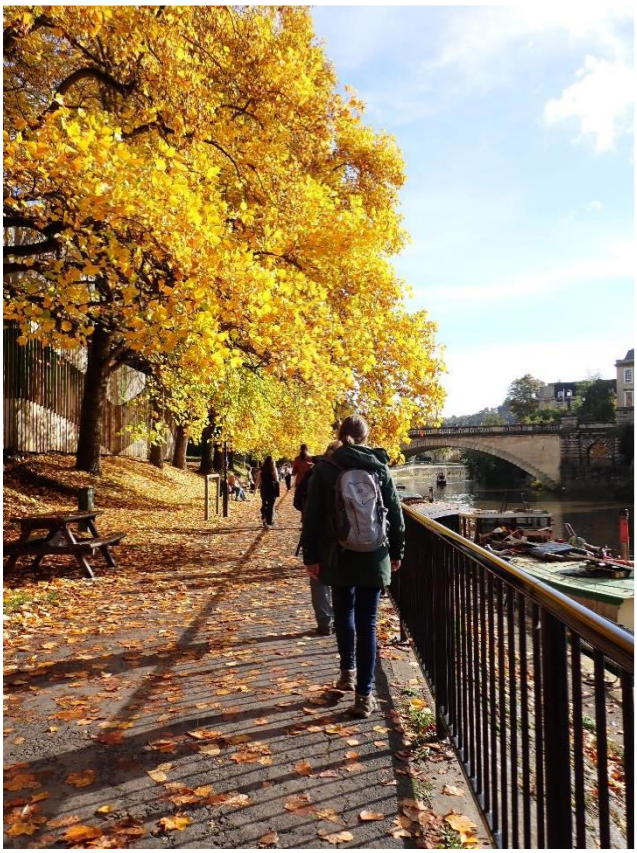
Further along, we admired a single clump of a fine-leaved sedge growing at the edge of the canal. This was found by Alex Lockton in 2021 and confirmed as *Carex* x *boenninghausiana*, the hybrid between Remote Sedge (*C. remota*) and Greater Tussock-sedge (*C. paniculata*), the only known clump in VC6. A swan immediately arrived and began to peck at the precious sedge – we distracted him with grass!

Carex x *boenninghausiana* and a greedy swan. Photo © Helena Crouch

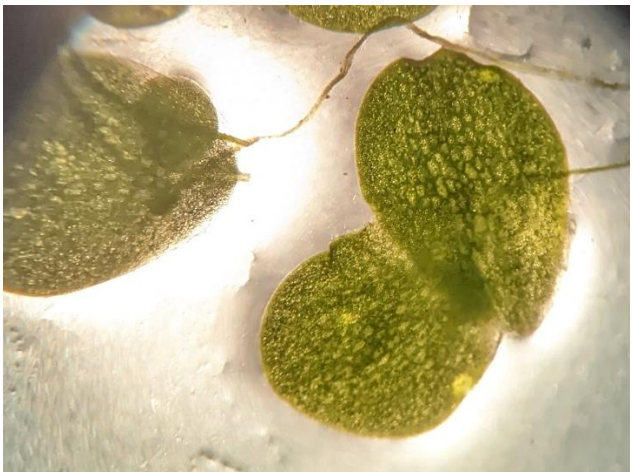
We followed the towpath past Sydney Wharf, disappointed by the absence of aquatic plants, which is the result of the busy boat traffic. The canal passes through a tunnel beneath Cleveland House, an impressive Georgian building astride a bridge. The tunnel roof is adorned with festooning Maidenhair Fern (*Adiantum capillus-veneris*). Further plants grow outside the tunnel, on the stonework of the bridge.

The planned destination for lunch was Sydney Gardens, where we came upon Morris dancers, donkey rides and a stilt-walker! Lunch was partaken to the accompaniment of a string trio on the lawns. Refreshed, we left the canal and walked along Great Pulteney Street towards the river. In Laura Place, we checked on Ribbon Fern (*Pteris cretica*) in a basement: this alien fern has been known here sporadically since 2007. A single large plant was present.

The small dock at the river's edge near Pulteney Weir was filled with nettles, but alas no Greater Dodder was seen. We admired the planted row of Tulip Trees (*Liriodendron tulipifera*), in beautiful autumn colours.



Botanists and Tulip Trees (*Liriodendron tulipifera*) by the River Avon. Photo © Karen Andrews



Fronds of flat Fat Duckweed (*Lemna gibba*) from the River Avon showing the large air spaces in the centre and typical frond shape. Photo © Helena Crouch

The river continued to be disappointingly devoid of aquatics, but eventually we spotted some duckweeds. The grapnel was immediately put into operation and duckweeds were duly caught. The flat fronds were identified as Fat Duckweed (*Lemna gibba*) from the frond shape – widest near the apex – and the presence of large air spaces in the centre of the frond.

On a grass verge, we were surprised to find a substantial patch of Sweet Violet (*Viola odorata*) with several plants in flower.

Sweet Violet (*Viola odorata*) in flower in Bath. Photo © Helena Crouch

Nearby was a large rosette of Great Lettuce (*Lactuca virosa*). Like Musk Stork's-bill, this species was formerly on the Somerset Rare Plant Register but has spread very dramatically in the last fifteen years and no longer qualifies for inclusion. Across the river, on the steep bank below the station car park, a large self-sown Fig (*Ficus carica*) was aglow, with bright yellow autumn colours.

Tansy (*Tanacetum vulgare*) by the River Avon in Bath. Photo © Karen Andrews

Returning to our start point, opposite Camden Mill, there was time for a sortie west along the riverbank. A single plant of Corky-fruited Water-dropwort (*Oenanthe pimpinelloides*) was spotted on a verge and in a damp depression we found our first rush of the day, Hard Rush (*Juncus inflexus*), with Amphibious Bistort (*Persicaria amphibia*) and Tansy (*Tanacetum vulgare*), still providing a sunny splash of colour.

Now reduced to a party of two, we continued along the riverside walk, recording a self-sown Nasturtium (*Tropaeolum majus*) in flower, seemingly new to Bath, and a row of seedlings of Shaggy Soldier (*Galinsoga quadriradiata*). This is another species which has spread considerably in VC6 since 2000, particularly in towns.

The final target for the day was a patch of Toothed Medick (*Medicago polymorpha*), first found here in 2000 by Rob Randall on a bank by the riverside path. This annual of open sandy habitats by the coast is regarded as a casual when found inland and mapped as an alien in Bath. In the past, this species often arose from wool shoddy, which explains its appearance in 2008 at the Morlands sheepskin factory site in Glastonbury. Its origin in Bath, however, is unknown; having persisted for 22 years on this small bank though, it can hardly be considered a "casual". We found several young plants, some just beginning to flower. Like many annuals, they had probably germinated in response to the arrival of rain following the dry summer, then thrived during the unseasonably high temperatures this autumn.

We had also benefitted from the unexpectedly warm, dry weather, but as we studied our final plant, rain arrived. Considering the forecast, we had been incredibly lucky. We had seen many species in flower, some interesting Bath aliens, and several Rare Plant Register species.

Part 2: Articles

25th Anniversary of Somerset Rare Plants Group

June 2022 marked the 25th anniversary of the Somerset Rare Plants Group. Liz McDonnell contacted Somerset botanists in her efforts to form a plant recording group in Somerset. She approached Steve Parker and Simon Leach then of English Nature, Ian and Paul Green the authors of the *Flora of Somerset* and the Somerset Enviromental Records Centre (SERC). The SRPG committee proposes to formally celebrate the anniversary with a conference in October 2023, just as Liz organised a conference for the SRPG's 20th anniversary. In the meantime, take a look at the following gallery photos and recall the numerous indoor and outdoor events over the years.

Liz McDonnell prepares to cut a suitably floral cake at the SRPG's 20th anniversary celebration. Photo © Ro FitzGerald

Clive Lovatt botanising at a winter meeting on the coast between Dunster and Blue Anchor. Photo © Simon Leach

Liz McDonnell and Simon Leach working in the herbarium in Taunton. Photo © Ro FitzGerald

Memorable SRPG Indoor Meetings

Steve Parker presents a specially commissioned painting to Liz McDonnell in recognition of all her hard work for the SRPG, not least her spell as editor of the Group's newsletter. Photo © Ro FitzGerald

Cath Shellswell and Steve Parker watch grass expert Liz McDonnell at an indoor SPRG meeting. Photo © Simon Leach

Liz McDonnell using a key with Ian Salmon. Photo © Simon Leach

Spot any Familiar Faces?

SRPG at Porlock Weir on 20th September 2014. **Back row:** Alastair Stevenson, Steve Parker, Clive Lovatt;
Front row: Paul Bowyer, Heather Colls and Buddy, Liz McDonnell, Ian Salmon,
Graham Lavender, Kasia Howell, Fred Rumsey. Photo © Helena Crouch

Gill Read (foreground) and Wild Flower Society member Stephen Clarkson (background) at an SRPG meeting at Pinkery.
Photo © Steve Parker

Ian Salmon, John Poingdestre, Gill Read and Liz McDonnell at Nunney in 2014. Photo © Steve Parker

Memorable Field Meetings

Simon Leach leads joint SRPG and SANHS walk at Great Breach and Copley Wood in 2015. Photo © Steve Parker

SRPG picnic lunch at Bleadon Hill in 2010. Photo © Steve Parker

Ian Salmon and Jeanne Webb in the sea at Bridgwater Bay in 2018. This was the day that Sea Grass was rediscovered after 60 years. Photo © Steve Parker

Car park botany in East Harptree Woods in 2013. This was one of the SRPG's largest-ever meetings. Photo © Steve Parker

Liz McDonnell leads an SRPG meeting at The Hawn, Dunster Beach in spring 2013. Photo © Simon Leach

Karen Pollock, Anne Bodley, Ellen McDouall, Helena Crouch, Ro FitzGerald and Margarete Earle at Street Heath. Photo © Steve Parker

Clive Lovatt with hand lens and alien species at Alien workshop. Photo © Steve Parker

Libby Houston with the Sorbus named after her, Houston's Whitebeam (*Sorbus* x *houstoniae*) in 2010. Photo © Steve Parker

Pam Millman on her 90th birthday with Dee Holladay at Tyntesfield in 2019. Photo © Steve Parker

Margaret Webster at Lytes Cary in 2011. Photo © Steve Parker

Botanists at Work, Rest and Play

Simon Leach and Jeanne Webb at SRPG's *Epilobium* workshop in 2015. Photo © Steve Parker

Margarete Earle and Gill Read at SRPG's Conifer workshop in 2011. Photo © Steve Parker

SRPG botanists in the classic pose at Dunster Beach in 2013. Photo © Steve Parker

SRPG members sheltering from the weather against a wall at Porlock Marsh in 2012. Photo © Steve Parker

Car park botany with Simon Leach and Liz McDonnell at Fairfield House in 2018. Photo © Steve Parker

Steve Parker, David Reid, John Burrell and Mary White resting while on a field meeting near Kingston St Mary in 2012. Photo © Simon Leach

A Tale of Two Bindweeds

By Fred Rumsey

One of the most remarkable finds made by our late and much missed friends, Clive Lovatt and Liz McDonnell, was surely Copse Bindweed (*Fallopia dumetorum*). As Helena mentioned in her recent tribute to them and the Somerset plants they loved [British & Irish Botanical Conference 2022 – Botanical Society of Britain & Ireland (bsbi.org)], the rediscovery of this as a Somerset plant, 180 years after its last sighting, was frankly amazing. Some members had the chance to see this at the Nailsea site, where Liz and Clive found it, on one of our field meetings in Autumn 2022.

While ultimately it can become a very extensive twining, climbing plant, much bigger than its relative, the arable weed Black Bindweed (*Fallopia convolvulus*), the character which is often used to distinguish *F. dumetorum* is the wide silvery, hyaline wing to the elegant pear-shaped pendent fruits.

The broadly winged fruit of *F. dumetorum* – Nailsea. Photo © Fred Rumsey

Care should be taken, however, when using this character. While the typical form of *F. convolvulus* has the outer tepals unwinged in fruit, there is a variety, var. subalatum (Lej. & Courtois) D.H. Kent, which also has distinctly winged tepals. The latter has often been mistaken for the rarer species and curiously several of its sites are in areas where *F. dumetorum* also occurs. I was recently reminded of this plant when I came across it on a disturbed acid bank at the edge of a flower bed overlooking the lower lake at Forde Abbey, just in Dorset, but only by 124m! Initially I wondered whether it might be *F. dumetorum,* but the leaves were a little more cordate, the tepal wings a bit narrower and the pedicels shorter than the usual 3mm+ of the rarer species. Had there been ripe achenes, their size (4mm+ in F. convolvulus vs 3mm or less in *F. dumetorum)* and their dullness (*F. dumetorum* seeds are glossy black) would have quickly settled the matter.

The narrowly but still distinctly winged fruit of *F. convolvulus* var. *subalatum* - Forde Abbey, October 2022. Photo © Fred Rumsey

My initial disappointment that this was not *F. dumetorum* quickly became tempered following perusal of the BSBI database (DDb). The variety var. *subulatum* only had 40 records since 2000, mostly made by one particular recorder but in multiple vice-counties (often a sign that something is being overlooked by others!) To my surprise, there were none listed for Dorset (VC9), or indeed any for Somerset (VCs 5&6). It is always worth remembering the DDb is, however, not a complete database and is often severely lacking in historical, literature-based records. Consulting Good (1948) and Humphry Bowen's (2000) most recent county Flora of Dorset, I saw that there were several sites given,

although most are on the south coast. Closer to home, as I am sure Clive would instantly have pointed out, Murray (1896), in his Flora of Somerset, also gives a number of sites (and in both vice-counties) under the name var. *pseudo-dumetorum* H.C. Watson, although the more recent floras (Roe, 1981; Green et al. 1997; Green et al. 2000) have apparently not considered it worth a mention.

I have a recollection of seeing it climbing a roadside fence on the Levels some years ago, but can't recall exactly where – perhaps near Street Heath; many of Murray's sites were in cultivated ground on the Levels.

F. convolvulus var. *subalatum* at Forde Abbey, Dorset in October 2022. Photo © Fred Rumsey

I think it is certainly worth recognition and hope that following this note, its Somerset distribution can be captured.

Reference

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Scaly Male-ferns (*Dryopteris affinis* agg.) in Somerset

By Fred Rumsey

The Scaly Male-ferns are frequent woodland and upland plants, distinguished from the ubiquitous Common Male-fern by their more wintergreen fronds, scalier frond-stalks and with their tell-tale blackish splodges at the pinna/rachis junction. They are also perhaps the most challenging group of British and Irish ferns to accurately identify. The reasons for this are several, as I hope to explain below, but the root cause of the difficulties lies in the manner in which these plants reproduce.

The Scaly Male-ferns are apomicts, like Dandelions, Hawkweeds, Brambles and many of our other critical groups. While they look like normal sexual species and still retain most of the same mechanisms, e.g. they still produce spores for dispersal, these form through a modified process and give rise to a new fern plant without sex. They thus produce plants that are +/- exact genetic copies of the parent. This is only part of the story though, as while the process means female sexual function is effectively circumvented and disabled, these plants still produce functional sperm (antherozoids). This means they can fertilise sexual species, such as Common Male-fern (*Dryopteris filix-mas*). The hybrids which arise may themselves be able to reproduce, as they inherit the apomictic capability.

The apomixis of the Scaly-male ferns confers some reproductive advantages, but producing genetically identical clones can lead to susceptibility to disease and an inability to adapt to changing environments. Anyone who has looked at these ferns though will tell you they are far from identical and therein lies our identification problem. While some of this is down to the fact that we actually have several similar species that have been lumped together, there are also other factors to consider: from environmental effects on appearance, to age-related changes in morphology. We must also realise that there is opportunity for the generation of novel forms through mutations. Any such change can then be perpetuated and identical plants spread as a consequence of the apomictic reproductive system.

Both Scaly and Common Male-ferns have evolved through several different past hybridisation events, but we believe they actually share many of the same genomes (see below). Unsurprisingly, as a consequence they all end up looking quite similar. Once these similar

things start hybridising, which produces intermediates, the subtle distinctions become even more blurred and our identification problems become more acute.

I think it is fair to say that we are all still struggling to make sense of these ferns, but we have been very fortunate this summer to have briefly hosted two of the country's most active and informed Scaly Male-fern experts: Roger Golding and Alison Evans, both of whom are building on the work of Christopher Fraser-Jenkins and the late Ken Trewren (Trewren, 2014). Alison, a past president of the British Pteridological Society, is working on the *Dryopteris affinis* complex for her PhD project and readers might like to see accounts of her studies presented to the BSBI Irish Autumn Meeting and the British & Irish Botanical Conference (see references).

A further difficulty facing anyone trying to understand and accurately record these ferns is what we call them, as our usual taxonomic guides treat the different entities within this complex in different ways. Thankfully most authors recognise the same taxa, they just disagree as to the taxonomic rank they should occupy.

It is perhaps best to think of the Scaly Male-ferns as essentially a triumvirate, which we can neatly call the "ABC" based on the first letters of their specific names: *affinis*, *borreri* and *cambrensis*. However, each of these has local, or sometimes even more widely distributed, distinctive forms which because of their apomixis can be regarded as species in their own right. The more frequent of these are described below.

We speculate that the three main taxa differ in their genomic make-up. This can be represented as follows, where each letter corresponds to a genome from a sexual species which has been acquired through past hybridisation events (W – from an ancestor of *D. wallichiana* - an Asiatic species, C – from *D. caucasica* – also Asiatic and a parent of *D. filix-mas* and O- from *D. oreades* – Mountain Male-fern, a British native which is the other parent of *D. filix-mas*)

D. affinis	WO	(diploid)
D. *borreri*	WOC	(triploid)
D. cambrensis	WOO	(triploid)

By contrast the sexual Common Male-fern would be represented

D. filix-mas	OOCC	(tetraploid)

It seems probable that the peculiar forms we also find (only some of which have been given specific names, e.g. *D. kerryensis*, *D. paleaceolobata*, *D. lacunosa*) represent mutations of these and not novel combinations of different ancestral genomes. There is however at least one other very rare plant in this group, which we could think of as "D" in our scheme, where this may not be true.

D. pseudodisjuncta is another triploid taxon, but it differs in its level of fertility and chemical constituents and so may be of a different origin, its exact parentage unclear. Following Alison and Roger's visit we now know that *D. pseudodisjuncta* is present in Somerset, although currently only as a single plant in a recent plantation on the Stourhead estate. First published as British from a site in Dumfriesshire in 2008, It later became apparent that this species had been known at a site in the South W Lakes, where it still persists, since the 1980s. It has subsequently been found in Kirkcudbrightshire in 2010, Arran in 2014 and more recently in Co. Waterford. This year, in addition to its Somerset discovery, a single plant has also been found at Heathercombe on Dartmoor. The total known British & Irish population is still fewer than 20 individuals and it therefore continues to be, as Trewren suggested, one of our rarest ferns.

The distinguishing features of this plant are the long, narrow and tapering pinnules which +/- lack lobes or teeth, the indusia which mature to give a darker centre and the distinctive nature of hairiness/scaliness of the rachis and pinnae midribs. Both the Somerset and Devon plants had particularly long acroscopic (upward pointing) and basiscopic (downward pointing) basal pinnules to each pinna, noticeably exceeding those adjacent.

D. pseudodisjuncta - Stourhead Estate, VC6.
Photo © Fred Rumsey

D. pseudodisjuncta - Stourhead Estate, VC6. Photo © Fred Rumsey

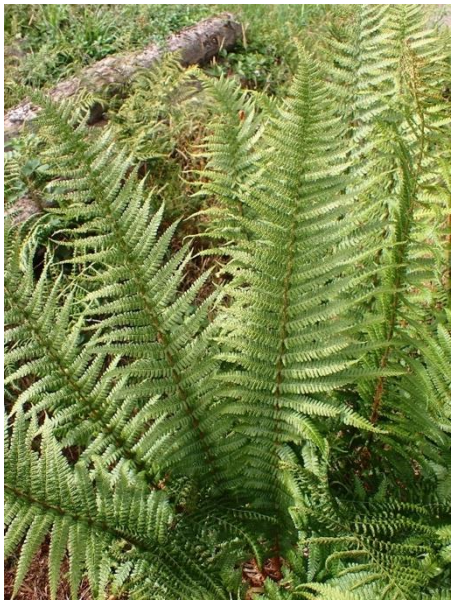
Nationally *D. affinis* and *D. borreri* are both frequent, have shown no decline and are thus considered LC – Least Concern in the GB and England Red-Lists. Within Somerset this is true too and so they are not included on the RPR. While *D. cambrensis* is also nationally LC, within Somerset while Not Scarce in VC5, it is Rare in VC6. The first plant discovered has now been lost and the next four records made by myself and Helena for the species have all subsequently proved to be *D. paleaceolobata,* which is very similar in many regards. Currently only a single clump of *D. cambrensis* is known in VC6, at Stockhill. Graham Lavender is showing it to be a more frequent plant on Exmoor, where altitude, rainfall and acidic soils are more conducive to its survival. Its unfortunate doppelganger *D. paleaceolobata* has also been previously overlooked, but recent finds and a better understanding following Alison & Roger's visit means that this too will prove to be Not Scarce in both vice-counties. This, like *D. affinis*, is a diploid plant and in cases of doubt over identity for those with a microscope its mean stomatal length can be measured. These, at c.45µm, contrast with those of *D. cambrensis,* which as a triploid are significantly larger at c. 50µm. It has a broader frond base, more lobed lower pinnules and the scales are all narrow and reddish-brown. In *D. cambrensis* the scales, some of which are broader, are twisted and have a dark brownish base and the narrow frond tapers to its base more.

D. cambrensis on Exmoor. Photo © Fred Rumsey

D. paleaceolobata in North Somerset
Photo © Fred Rumsey

Another diploid and to my eye one more closely allied to *D. affinis,* is *D. kerryensis*. When described, this smaller, neater dark-scaled plant with more congested pinnae and pinnules was thought to be Endemic to South West Ireland, but it was subsequently found by Roger at a number of sites in the South West Lake District and then as a single plant on the Lawers range in Perthshire. This suggested that rainfall and not a mild winter temperature may be the limiting factor to its distribution and it could occur elsewhere. The discovery of a clump at Stockhill, when Roger and Alison visited that site with Helena, was still extremely unexpected!

The plant identified as *D. kerryensis* at Stockhill Plantation, near Priddy VC6. Photo © Fred Rumsey



The plant identified as *D. kerryensis* at Stockhill Plantation, near Priddy VC6. Photo © Fred Rumsey

The plant identified as *D. kerryensis* at Stockhill Plantation, near Priddy VC6. Photo © Fred Rumsey

The *D. borreri* group has given rise to the greatest variety of forms in our area, only a few of which have formally been given valid names. The typical form of *D. borreri* is quite easily recognised, with its often rather square-cut pinnules, these untidily of differing lengths along a pinna and with the cat's-claw type teeth at their apices. It is less scaly than the other apomicts and with a slenderer stalk and a broader, truncate frond base. The indusia are flimsier and not tucked under at the margins as in *D. affinis,* finally lifting to a chanterelle-like form. Sadly, less than half of the plants we find neatly show all of these distinguishing features. Often one has to resort to ruling out the A's and the C's which has to leave us with a form of B (or you take James Merryweather's advice and WOB… "Walk on by")! Of the forms allied to *borreri* which have been given a name perhaps the first to mention is *D. lacunosa*. This was described from Germany in 2011 and is still somewhat controversial as it may be the same as a plant previously informally known by British workers as "*insolens*". It is a

gappy thing with a distinct space between the rachis and the first pinnules on each pinna and characteristic "j-" or "dolphin"-shaped gaps between pinnules, the pinnules having some double-teeth and distinct deep, narrow notches (the lacunae of its name).

D. lacunosa from Tweseldown, VC12.
Photo © Fred Rumsey

D. lacunosa found near Clevedon, VC6
(the first VC record). Photo © Fred Rumsey

Another rather frequently found large and foliose form was often referred to as "robusta" but Ken Trewren realised that it was not the same as Von Tavel's plant of that name (so it is incorrectly called *D. robusta* in Sell & Murrell). Trewren coined the working name "*rhombidentata*" for it, on account of its rather obvious and angular lobing. Because of its stature and more round-ended pinnules it superficially can resemble *D. affinis.* It differs in its indusia, greater lobing to the pinnule margins and less leathery/glossy foliage. It is also likely to be mistaken for the hybrid between *D. affinis* and *D. filix-mas* (*D.* × *complexa*). That extremely vigorous hybrid differs in its greater sterility and only rather indistinct black splodge. Hybrids occur between all of the named apomictic species and the Common Male-fern, although the most frequent nationally does appear to be *D.* × *complexa.* Graham Lavender has recently found the hybrid between *D. borreri* and *D. filix-mas* (*D.* × *critica*) in VC5 and as we become more familiar with all of these plants we should expect to find more of the hybrids and in more places.

We hope to run more fern workshops as a group over the next few years and these fascinating and vexatious plants are sure to be one of our main focuses.

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Mountain Pansy on Exmoor

By Ian Green

Mountain Pansy (*Viola lutea*) found on Exmoor site. Photo © Ian Green

Mountain Pansy (*Viola lutea*) is found at its most southern sites in the UK on Exmoor, with the nearest site being in South Wales. The first written record from Exmoor was in 1901 by A. Lyons south-east of Exford Church, with several more sightings from the Exford and Winsford area up until 1921. It was not recorded again until 1948 when Dr Francis Rose found it in some quantity in hill pasture south of the B3224 near Exford. It was thought extinct or possibly misidentified by later botanists.

On the 5th May 1990, Geraldine Crouch and I were recording for *The Atlas Flora of Somerset* in tetrad SS93V. While walking along the road on Rugg's Hill SS9831 we noticed the field between this road and Ditch Farm looked like species-rich rough pasture. There were no public footpaths through the field but the track to Ditch Farm went across this field and the next field, so we decided to walk down the track recording as we went. After a while we decided it would be better to wander around the field itself as it seemed very species rich. We soon came across several beautiful Field Pansies (*Viola arvensis*) with large yellow flowers growing in grassland. It wasn't until we thought that this was an unusual habitat for this pansy that we realised we were probably looking at Mountain Pansy instead. This was a species that neither of us had seen before. We visited the site again on the 28th May to collect some specimens to send off, and had it confirmed by Desmond Meikle and Capt. Robert Roe.

On the 10th June 1990 we decided we would go and see if we could re-discover any of the old sites. One record said, 'Hilly ground about 1½ miles north of Winsford, Rev. E.S. Marshall' and another record said 'Near Winsford on a grassy knoll at 950ft, W.D. Miller', both records were from 1917. So, we decided the grassy knoll that was partly in SS9037 and SS9036 seemed to match the description well. We thought the best place to park might be somewhere along Oldery Lane SS9037, as we pulled off the road onto the grass on the west side of the lane we could see the Mountain Pansy from the car, we searched the area and found thirteen flowers. This site is at around 950ft, so most likely W.D. Miller's site. Wish it was always this easy to rediscover old records! As we drove down Oldery Lane we came across a large flowering patch of the pansy on the south bank of the lane as well, you could touch this patch out of the car window! Hopefully the Pansy is still at this site, but the area has changed somewhat with hedges now planted around all the fields, but the grassland hasn't been improved but is grazed by horses, so hopefully the pansy is still to be found at this site.

With no records for Exmoor since 1999 and on the Somerset Rare Plant Register Mountain Pansy was classed as 'Lost' from VC5 Exmoor. I thought it would be worth having a look at the site at Rugg's Hill especially as the aerial photos of the site showed it hadn't changed since the pansy was first found. On the 26th April 2022 I thought I would visit the site even though I thought it might be a little early for the pansy to be flowering but luckily there were a few plants in flower, great to find it was still doing well at this site.

Dandelion Update 2022

By Simon Leach (SJL), Jeanne Webb (JW) & Graham Lavender (GEL)

Taraxacum pseudomarklundii, one of the dandelions new to Somerset in 2022. Photo © Graham Lavender

Once again, the dandelions beckoned and we couldn't resist! And this meant that, for the sixth spring on the trot, our lengthening days would be spent carefully collecting, photographing, measuring, describing, pressing and drying dandelions for later examination by the national expert and BSBI *Taraxacum* referee John Richards (AJR).

But the rather frantic 'scatter gun' approach of earlier years is subtly changing: as our familiarity with the more frequently occurring species in Somerset has grown, so we have become more 'targeted' in our collecting. Increasingly we find ourselves homing in on plants that look *interesting* or, at any rate, *different* from those we are accustomed to seeing. With AJR's permission, we are now even starting to record a few of the more distinctive and easily-recognised species (e.g. *T. pulchrifolium, T. sellandii, T. boekmanii, T. amicorum, T. faeroense*) without always having to collect them. And, thanks to the excellent *Field Handbook* (Richards 2021), our identification 'success rate' for those we *do* collect seems to be improving too.

As in previous years, recording in 2022 was chiefly in VC5, although one of us (SJL) did also make a brief and productive foray into foreign territory (VC6), to visit a brother near Castle Cary. It turned out that amongst the 100-plus plants we collected there were three species new to VC5 and Somerset as a whole (*T. latens, T. pseudomarklundii, T. sagittipotens*), and two that were new to VC5 only (*T. porrigens, T. subhuelphersianum*). Full details of these are given at the end of this note.

We also made new hectad-level records for a further 28 species; these included second county records for *T. acutifidum* (JW), *T. macrolobum* (SJL), *T. obliquilobum* (JW) and *T. pachymerum* (GEL), plus second and third VC5 records for *T. hesperium* (GEL), and second VC6 records for *T. amicorum* and *T. necessarium* (SJL).

You may be wondering how long it takes to sort out exactly which dandelions inhabit your local patch. Well, much longer than you might imagine! JW, for example, has been studying dandelions in the Old Cleeve/Watchet/Blue Anchor area since the early noughties, yet in 2022 she *still* managed to add eight species to the list of those occurring in her 'home' hectad (ST04) – while SJL, in the Taunton area, also added eight to his (ST22). So, if you enjoy staying put, or dislike having to rush about in search of new species, then the humble dandelion could be right up your street. Literally.

On a gloomier note, one lesson learnt the hard way in 2022 was to '*never presume that a parcel will always arrive at its intended destination*'. Quite late in the year it emerged that GEL's precious package of specimens had disappeared *en route* to AJR. What a calamity! Without physical specimens this meant that any determinations would have to rely entirely on GEL's photographic images of the plants in a fresh state. In fact, AJR still managed to put names to a surprisingly large number of GEL's dandelions, although inevitably the lack of pressed specimens meant that many had to be assessed as 'indet' (i.e. unidentifiable), or else tentatively identified with multiple question-marks pending further collections in the future.

Apart from those of GEL's 'missing in action', voucher specimens of all the more significant records in 2022 are being lodged in the SANHS/Somerset Herbarium (**TTN**). Amongst these, as already mentioned, are the following new county/VC5 records:

Taraxacum latens – Taunton, Creech Castle (ST24952562), on W verge of Bridgwater Road (A38), 22 Mar, SJL, conf. AJR; first record for VC5 and Somerset, and apparently the first record for SW England of this rare, rather attractive and possibly native species (see map in Richards 2021). [See Fig. 1 over the page]

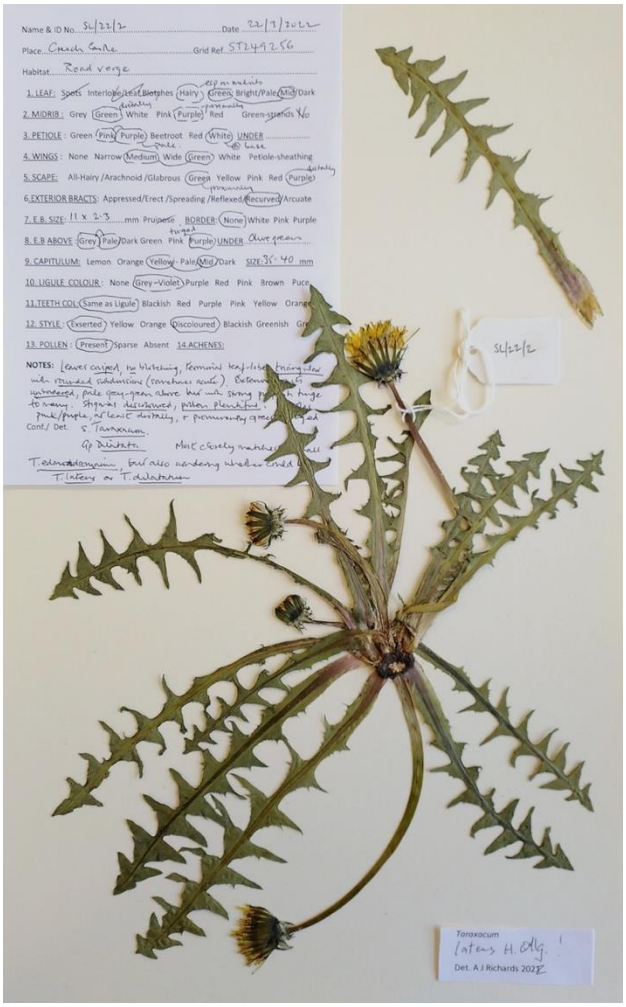

Fig. 1: *Taraxacum latens*. Photo © Simon Leach

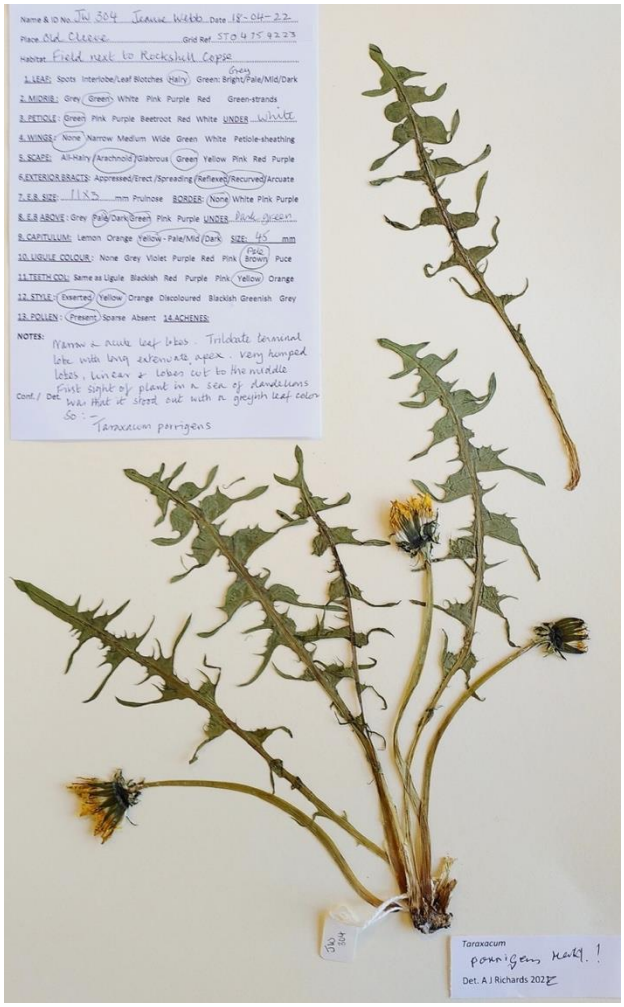

Fig. 2: *Taraxacum porrigens*. Photo © Simon Leach

Taraxacum porrigens – Old Cleeve (ST04754223), field next to Rockshill Copse, standing out from other dandelions as its leaves were greyish and distinctively lobed, 18 Apr, JW, conf. AJR; first record for VC5, third for Somerset but VC6 records are all pre-2000. These appear to be the only records of this alien species in SW England (see map in Richards 2021). [Fig. 2]

Taraxacum pseudomarklundii – Kendle Farm (SS93903399), on sunny south-facing bank, 12 Mar, GEL, det. AJR from photos; first record for VC5 and Somerset, and the first for Britain outside South Devon (Day & Richards 2020, Richards 2021). Copies of photos are to be deposited in **TTN** in lieu of a physical specimen.

Taraxacum sagittipotens – Chargot Wood, Luxborough (SS97503546), in grass border of car-park beside B3224, 8 May, JW, conf. AJR; first confirmed record for VC5 and Somerset of this native species, the only previous record (Taunton, in 2017) considered doubtful.

Taraxacum subhuelphersianum – Old Cleeve (ST04224181), sandstone bank of sunken lane, 3 Apr, JW, conf. AJR; a rare species nationally, this is the first record for VC5, and the second for Somerset.

A revised and updated 'Checklist of Somerset Dandelions' can be found on the SRPG website https://www.somersetrareplantsgroup.org.uk/dandelions/).

The Somerset list now stands at 171 species, excluding two (*T. maculosum* and *T. palustre*) based on old records that are now considered by AJR to be errors. That's not to say they don't occur in Somerset – they may well do – but their presence is yet to be proven.

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New husband and wife SRPG members John and Val Roberts describe their botanical experiences:

Botanical Beginnings

By John Roberts

Aged four I can just recall eating Hawthorn berries on the way to school in Woodmansterne, Surrey, which was probably not a botanical dawn. My family quickly removed to North Wales for WW2 (Dad was in a 'reserved occupation') and I spent five years at Rhos-on-Sea, near Colwyn Bay. I lived an unfettered, idyllic childhood, exploring country and coast with friends. We climbed trees, fell in rivers, tobogganed, fished from the pier, swam from a sandy beach, threw stones at everything, in fact continuously enjoyed umpteen, blameless, formative adventures. We went home hungry, tired and dirty. Often my primary years are regarded as a regrettably vanished way of life!

So I walked everywhere with my parents at weekends. Named Violet Daisy, Mum loved flowers, especially trees, but I have no memory of her naming anything. She almost invariably wore green. I showed interest in both the cultivated and uninvited plants in Dad's Dig for Victory allotment, and picked Cowslips in an adjoining field for Mum's birthday. We all gathered Blackberries and Rose hips. Sadder memories linger of bashing white-blossoming plants bigger than me with a large stick. I imagined these to be Nazi invaders; hopefully they were Cow parsley and Hogweed. Our most splendid, local haunt was Bryn Euryn, its rich, carboniferous limestone grassland now a SSSI and Nature Reserve, presently set in an explosion of houses. I felt truly afraid here for the first time, when Mum and I were nearly cut off by a scrub fire near its 430' summit - I might have been six? The long-term outcome of my childhood was a basic love of walking outdoors.

Botany proper emerged unexpectedly decades later, on Tuesday, 6th August 1969, again in Wales. Val and I with our two youngsters were spending a family holiday at a farm between the Rhinog Mountains east of Harlech. Miles from tarmac, we hiked. On the third day, some way up the Roman Steps, our first-born, eight-year-old Katie, refused to clamber up any more hills. She protested she wanted to do what normal children did and go to the beach. We capitulated and descended to Mochras, Shell Island.

Roman Steps, Snowdonia. Val and I retraced our steps to celebrate the 21st anniversary of our initiation into botany.
Photo © John Roberts

Tiring rapidly of sand and sea, I abandoned my wife and children for a decent walk in the dune slacks. Downcast eyes discovered a glorious and bewildering diversity of flowering plants. My becoming-interested fingers collected a few dozen, different flowers. I could barely name a single plant. That afternoon I bought a book in Llanbedr, and my epiphany turned out to be much deeper and even more fascinating than I could ever have guessed. Botany hooked me for the rest of my life. Mochras later became a part of Morfa Dyffryn National Nature Reserve, and my identification book was the *Collins Pocket Guide to Wild Flowers* by McClintock and Fitter.

This freshly discovered passion, however, immediately turned out to be threatened by human environmental degradation and destruction. And Climate Change was already underway! Val and I absolutely agreed our new hobby and our new concern, and we joined Warwick Natural History Society to deepen our knowledge and Warwickshire Nature Conservation Trust to do something about the seemingly terminal illness of our enthusiasm. We went on to play major roles in both groups, luckily being founder members of the Trust. We also vigorously joined many other like-minded groups: BSBI, Plantlife (founder members again), British Mycological Society, Warwickshire Fungus Survey, Butterfly Conservation, British Dragonfly Society, RSPB and the National Trust for its Neptune Coastline Campaign. We debated, we lectured, we wrote, we worked with others, we joined endless committees and other enterprises, but despite broadcasting and strengthening nature conservation locally, people in the UK generally and around the world have alas not positively changed or even significantly ameliorated the massive devastation they have created.

Despite these gloomy failures to change social values sufficiently, botany continues to provide us endless fun and always remains personally fulfilling. We celebrated 21 years in Botany by revisiting Morfa Dyffryn in 1990, finding amongst much else, the glorious Marsh helleborine and Moonwort, showing how worthwhile our journey was proving. Moving to the Southwest after fifty-five years in the Midlands, further presents the reliable and delightful invigoration of new habitats, new sites, new species and new botanists. Brilliant!

Marsh Helleborine (*Epipactis palustris*).
Photo © John Roberts

Moonwort (*Botrychium lunaria*). Photo © John Roberts

Expect the Unexpected

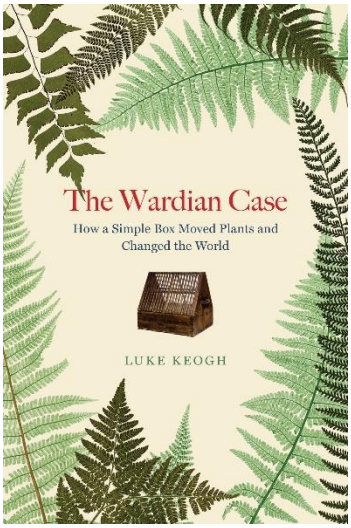
By Val Roberts

As new Bristolians, the time arrived for John and I to cast a first, local vote in early May. Living in Hotwell Road, we prospected the designated station at Create, the Bristol Archives building. As we approached the adjoining car park, I noticed a grass roof over the cycle shed from above. Ten spikes of Green-winged Orchid, *Anacamptis morio* thrived here, calmly enjoying the sunshine on their small patch: ST569721. You really can go nowhere in a new region without a notebook and a camera!

Green-winged Orchids (*Anacamptis morio*) can turn up in unexpected places. Photo © Val Roberts

***The Wardian Case: How a Simple Box Moved Plants and Changed the World*,**
by Luke Keogh, 2020. University of Chicago Press.

Book Review by Nigel Chaffey



The Wardian Case by Luke Keogh does what its subtitle claims and tells the extraordinary tale of "how a simple box moved plants and changed the world". This is an important book that's well worth a read.

For hundreds of years, so-called voyages of discovery – primarily made by countries such as Portugal, Spain, the Netherlands, and England/Great Britain from the 15th century – opened up the world by visiting countries previously unknown to Europeans. In reaching those far-flung, and frequently tropical, lands the intrepid travellers experienced new plants. Indeed, some of those voyages deliberately set out to find the fabled Spice Islands to secure a source of those exotic flavourings for the nation funding the voyage. In that way, these highly-prized 'food additives' could be shipped direct to the mother country. Not only would this cut-out expensive spice-vending middlemen, but ideally would also lead to a monopoly over their supply – and sale! – to other nations. The money that could be made from procuring profitable plant products encouraged many a nation state to risk men and men-of-war in its pursuit.

But, spices were generally dried plant products that would survive the lengthy sea voyages back home. Sadly, this was not the case for whole plants that were also encountered by these voyagers. And many of those newly-found plants had economic potential and were therefore valuable commodities to be possessed, and traded by those who discovered them. However, trying to transport those profitable botanics back to the home nation or to its colonies around the globe was fraught with problems. In most instances tender tropical vegetation did not survive the ocean journey – which often took many months, over several thousand miles, and crossed several different climatic zones.

During those long-distance journeys the plants were frequently buffeted by wind, pounded by rain and drenched by sea water – all, or any, of which can be a death sentence to plants. Not only were these precious cargoes at the mercy of such environmental insults, they also had to compete with the crew for the limited ship-borne reserves of life-sustaining fresh-water [more than a nod in the direction of the breadfruit-inspired mutiny on the Bounty]. Little wonder, then, that global translocation of economically-interesting plants met with limited success. Nevertheless, the potential rewards of successfully establishing such plants in specially-created hot-houses such as Great Britain's Palm House at Kew, or in its colonial plantations were sufficiently seductive that efforts continued. What if a way could be found to enable the large-scale movement of plants in safety? That would surely be a game-changer.

A method was found, and one which was so successful that it changed massively the fortunes of the nations that adopted it. That method was the Wardian case, a glazed box of wooden construction that could be closed to prevent entry of the atmosphere. Within that sealed environment plants rooted in soil were able to survive for long periods without watering [no doubt, much to the relief of the crew], and could withstand the climatic rigours of long-distance transport.

The Wardian case – which box was perfected by Englishman Nathaniel Ward in the early years of Queen Victoria's reign – documents the travails that led to its widespread use in global plant translocation, by Great Britain in particular, into the 20th century. Amongst this box's accomplishments – often of dubious legality – were: transport of 20,000 tea plants from Shanghai to India; shipping of rubber trees from Brazil to Malaya (via Kew), thereby establishing the British colonial rubber industry; and transfer of Cinchona trees (the source of malaria-medicine quinine) from South America to British and Dutch colonies in India and Java, respectively. Behind each of those attention-grabbing 'sound bites', are human stories, which are well-told by Keogh in his highly readable style.

But, the story of this simple box that moved plants and changed the world is not an open-and-shut case. In many respects, Ward's box is a double-edged sword. On the one hand it enabled peoples around the world to share the botanical riches that nature had unequally distributed. On the other, it facilitated the wide-scale plunder of botanical resources by colonizing powers. In so doing, the plant-related intellectual property rights, which rightly belong to the indigenous peoples of the plant's native land, have been denied. This is yet another example of the outcomes of the expansionist programmes practised by European powers in the 19th century whose legacy we are still debating in the 21st century. Keogh recognises these unintended(?) consequences***** of what one might term 'Wardianism', and they are given a good airing within this book.

The Wardian Case is abundantly illustrated, meticulously-researched and evidence-based – over 30 pages of detailed notes supplement the text – and engagingly-written. Keogh is to be congratulated on bringing the story of this humble, but world-changing, box to greater prominence and to the attention of all, and adding to the debate about Europe's colonial past.

Further book reviews by Nigel Chaffey can be found on Botany One: https://botany.one/author/nigelchaffey/

***** *Talking of unintended consequences, having submitted this review I was asked by the newsletter's editor if it was possible for me to add a comment about the effect of the plant introductions facilitated by Wardian cases on British native wildflowers. Although I have no expertise in that area, I'm happy to offer the following addendum to my appraisal of Keogh's book.*

The Wardian case, a Somerset connection…

In *The Wardian case*, Keogh specifically mentions the example of Japanese honeysuckle (*Lonicera japonica*) and one George Rogers Hall. Hall was a medical doctor turned plant collector who gathered many Japanese plants in his garden in Yokohama. Using Wardian cases, several plants from his Japanese collection were transferred to the USA in the 1860s for sale and subsequent distribution to the gardens of that country. Understandably, these exotic plants caused quite a sensation amongst the discerning gardening fraternity of the United States. In particular, the Japanese honeysuckle became very popular among gardeners on both sides of the Atlantic for its fragrant flowers. Interestingly, and somewhat presciently, the editor of the *Horticulturalist* wrote about Hall's collection: "*Let us hope that the splendid collection … will … mark a new era in our history*" (p. 135).

Indeed they did, especially the Japanese honeysuckle which spread throughout woodlands across the eastern United States; and is apparently one of the most invasive species in North America. And there's a British connection because the varieties of the honeysuckle that Hall had collected spread rapidly with the nursery trade, not only in North America but also across Britain and Europe. This phytological translocation and transplantation was so successful that Japanese honeysuckle has apparently become established on every continent on the planet except Antarctica. It is therefore just one example – of the many – invasive plants that have been spread in the Wardian case as a result of the nursery trade.

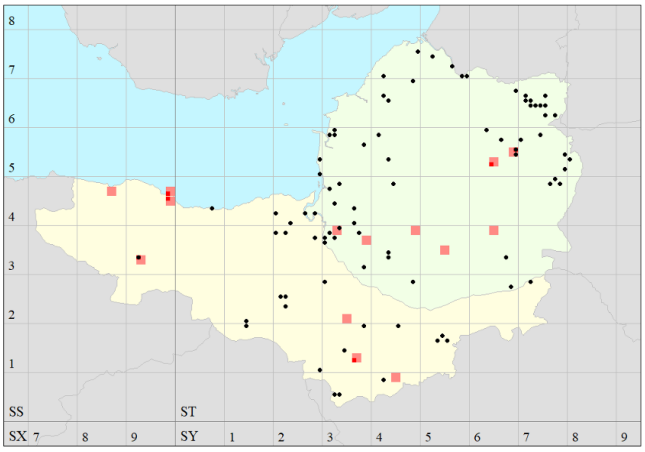
According to CABI [Centre for Agriculture and Bioscience International]'s Invasive species compendium[1]:

"*L. japonica is an aggressive vine which develops into a smothering mass of belowground runners and aboveground intertwined stems that cover extensive areas of the ground or climb up trees for many metres. It interferes with forestry operations and orchards and smothers native vegetation, preventing natural successional processes by killing or weakening young trees and preventing seedling regeneration. The fleshy fruit are spread by birds and animals, and runners go for long distances underground. It cannot be controlled simply by hand, but herbicides are moderately effective*". Furthermore, *"L. japonica is considered a major pest in the United States, Australia, and New Zealand as well as in many countries in Europe and South America due to its ability to escape from cultivation and invade both disturbed and natural areas. It has a smothering habit and can engulf small shrubs and trees that it climbs. It seriously alters the understory and herbaceous layers of native plant communities such as prairies, barrens, glades, flatwoods, savannas, floodplain, wet forests, woodlands, and montane forest. It also may alter understory bird populations in forest communities. Vegetative runners are most prolific in the open sun and will re-sprout where touching the soil, forming mats of new plants*". That's quite a catalogue of unintended consequences.

My further research reveals that in the UK today *L. japonica* is categorised as an invasive, non-native plant (per the RHS site[2]) and it is an offence to plant this species or cause it to grow in the wild in Northern Ireland. And, according to Steve Ott, citing The GB Non-Native Species Secretariat (NNSS)[3], Japanese honeysuckle appears on both the Schedule 9 (of the Wildlife and Countryside Act

1981 lists of plants[4], and the Natural England Horizon Scanning list[5] (where it is listed as a "critical-ranked terrestrial taxon")[6]. This honeysuckle is certainly 'one to keep an eye on'…

And, for even more local relevance – in view of the newsletter being for the *Somerset* Rare Plants Group – I note that on page 183 of Paul Green *et al*'s 1997 *The Atlas Flora of Somerset*, *Lonicera japonica* is recorded in several sites in the area as being a "*very rare introduction*" found in hedges, verges, waste ground, and walls. It is interesting to note its present-day distribution in Vice-Counties 5 and 6 in the map below:



Distribution of Japanese Honeysuckle (*Lonicera japonica*) in Somerset, mapped using MapMate.
Red squares are pre-2000 records; black dots are 2000- records.

This map shows the considerable increase in this species since publication of *The Atlas Flora of Somerset.*

If only people just left plants where nature intended them to be: Discuss…

A Wardian Case. Photo © Kim Unertl via Flickr

References

1. CABI (2014): *Lonicera japonica (Japanese Honeysuckle)* https://www.cabidigitallibrary.org/doi/10.1079/cabicompendium.31191
2. RHS (2023): *Invasive non-native plants.* https://www.rhs.org.uk/prevention-protection/invasive-non-native-plants
3. NNSS (2022): *About* https://www.nonnativespecies.org/about/
4. Legislation.gov.uk: *Wildlife and Countryside Act 1981* https://www.legislation.gov.uk/ukpga/1981/69/schedule/9
5. Natural England (2011): *Horizon Scanning for invasive non-native plants in Great Britain (NECR053)* http://publications.naturalengland.org.uk/publication/40015
6. Ott, Steve (2017): *Is everything in your garden rosy?* Kitchen Garden Magazine. 28 March 2017 https://www.kitchengarden.co.uk/is-everything-in-your-garden-rosy-4be2ygb/

Some suggestions for further reading…

For more on the invasive nature of Japanese honeysuckle, Kristina Schierenbeck's article *Japanese Honeysuckle (Lonicera japonica) as an Invasive Species: History, Ecology, and Context* (*Critical Reviews in Plant Sciences* **23(5):** 391–400, 2004) is available at: https://web.archive.org/web/20170811210741id_/http://teachersites.schoolworld.com/webpages/EKatoa/files/j.honeysuckle.pdf.

For more about plant-lover George Roger Hall, James Howe's article *George Rogers Hall, Lover of Plants* (*Journal of the Arnold Arboretum* **4(2):** 91–98, 1923) can be read at https://www.jstor.org/stable/pdf/43780354.pdf.

Clive Martin Lovatt (1955–2022)

The following obituary was originally published in BSBI News and appears here in adapted form with the kind permission of its editors, John Norton and Chris Preston.

By Clare and Mark Kitchen

Clive Lovatt, SRPG's Treasurer and friend died suddenly in the field on 1 March 2022, aged 67. Photo © Liz McDonnell

Clive was born on 15 February 1955 in Coventry, where his father was a bank manager, whilst his mother later ran an antiques shop in Tewkesbury. His older sister, Wendy, became a general medical practitioner. Clive's father was a keen walker and naturalist and encouraged Clive's interest from an early age. Clive attended primary school in Kenilworth and then Warwick School, despite having a fight with a friend on the entrance exam day and not completing the afternoon's paper. At school he also enjoyed dancing which led to a keen interest in Morris dancing and folk music. He was a squeeze box player and owned a large collection of melodeons. He belonged for a time to a Morris group in Shepton Mallet.

Clive obtained a place at Sidney Sussex College, Cambridge to read chemical engineering but transferred to botany in his second year. On graduation he moved to Bristol University in 1977 to work for a PhD under Dr Lewis Frost. His thesis *The history, ecology and status of the rare plants and the vegetation of the Avon Gorge, Bristol* (1982) ran to two volumes and 722 pages. Dr Frost, he later wrote 'in his own way, let me get on with my historical researches even though some were regarded as peripheral' (Nature in Avon 67: 57, 2007). Whilst undertaking his research he joined Bristol Naturalists' Society and we first met him on their field meetings. The most memorable occasion was a meeting Clive was leading in the Gorge on 25 April 1981 when he turned up late, having rescued a woman who was in imminent danger of drowning in the nearby Bristol Docks. For this feat he received a Royal Humane Society award and certificate.

Shortly after the completion of his thesis he married Pam. At the age of 26 Clive became a teacher at Wells Cathedral School, teaching science and enjoying Saturday rugby. This was the last year teaching was allowed without a diploma. After a short time he changed career to train as an accountant with David Pearman's old firm in Shepton Mallet, eventually being employed by Deloittes in Kenya. His move to Africa meant leaving behind many botanical books with friends for safe custody. He spent 25 years there, mainly in Malawi where he kept a large number of Alsatian dogs. Before returning to Britain he maintained his correspondence with local botanists and he agreed in 2004 to write the annual 'Bristol Botany' report for Bristol Naturalists' Society following the retirement of Professor Willis.

Clive returned to Britain in 2010 and after his divorce he briefly lived in the South Wales valleys at Mountain Ash before buying a house in Shirehampton, close to his beloved Avon Gorge. In 2011 he joined the staff of BSBI as part-time Administrative Officer, working from home. His role included administering the contracts with the country conservation agencies and keeping the books for the Honorary Treasurers. He was present during the tortuous change from an unincorporated charity to a charitable company, becoming Company Secretary after the transition. On inheriting money from his mother and an aunt he was able in 2016 to retire gracefully from these posts that he had found increasingly uncongenial. He was also able to buy a town house in Stroud which was large enough to accommodate his botanical library and gave him views over Rodborough Common.

From almost the moment he arrived in Bristol Clive was wedded to the Avon Gorge and its unique flora. He pursued botany with increasing enthusiasm. We remember that in April 1985 whilst square bashing for the *Flora of the Bristol Region* on Worlebury Hill, Weston-super-Mare with Liz McDonnell and Captain Roe, author of the 1981 *Flora of Somerset* and who was probably on one of his last field meetings, Clive announced that we had to record absolutely everything as we may never return to that locality again. Clive would often carry on botanising long after the rest of the party had worn themselves out and returned home or gone to the pub. His botanising would continue until the arrival of dusk. If the botany at a site was good Clive could become completely engrossed in his pursuit and he would lose all sense of time. This is best illustrated when a quick stop at a motorway Services revealed some fine arable weeds. This quick stop turned into a three-hour stay resulting in a fixed penalty parking fine.

Clive Lovatt could often be seen carrying on botanising after the rest of the Group had packed up for the day.
Photo © Simon Leach

Once back in England Clive had resumed more active botany with the Bristol Naturalists' Society and became the President of the Botanical Section and chaired the library committee; he was also the honorary archivist. Over the years he contributed many well-researched and erudite historical articles for the society's monthly newsletter. He also joined the Gloucestershire Naturalists' Society, eventually becoming a joint author of the annual county botanical report in *The Gloucestershire Naturalist*. At about the same time Clive joined the Somerset Rare Plants Group (SRPG) and recently became treasurer. He led many immensely enjoyable field meetings and workshops for these societies. He was in the process of writing an 'Historical Flora of the Avon Gorge' at the time of his death.

In 2014 the BSBI approached him to become the vice-county botanical recorder for West Gloucestershire following our retirement. He gladly accepted this role and recorded many first county and vice-county records during his botanical exploration. Lately he had been assisting in the county wildlife trusts Habimap Project.

Clive was a prolific collector of botanical books which occupied several floors of his town house. He particularly enjoyed his collection of annotated county floras which included multiple copies of J.W. White's *The Flora of Bristol* (1912) and the *Flora of Gloucestershire* by Riddelsdell *et al*. Latterly he would spend hours trawling eBay and whenever a copy of White's *Flora* was offered for sale either with annotations or even just with signature of a notable botanist on the fly leaf he would snap it up. He collected all manner of botanical ephemera and announced one day with great glee that he had secured several medicine bottles from the pharmacy of one of his botanical heroes, G.C. Druce of Oxford. He kindly shared the hoard with his friends. Whenever he saw a painting of the Avon Gorge, usually in watercolour, Clive would snap it up eagerly and these covered the walls of his home. These views of the Gorge together with his large herbarium of pressed plants contained in three cabinets originally owned by J.W. White have been donated to Bristol Museum, as has the bryophyte herbarium of R.M. Payne which Clive had custody of.

Clive was very active in his final days, leading a Bristol Naturalists' meeting at Portishead, delivering our joint county botanical report for 2021 for publication and he spent his final day studying *Sphagnum* species in the Forest of Dean with three friends.

We make no apology in selecting quotes, with some slight adaptation, from Clive's botanical hero James Walter White's *Flora of the Bristol Region*, his favourite historical flora, and incorporating our own words. Clive strove to emulate the standards of this botanist and his publication throughout his own botanical research and field work. In the words of White:

He endeavoured to make botany more interesting to those with a love for wild flowers, who were willing to learn more, respecting the natural riches that surround them. He was a very patient teacher. With friends he enjoyed many delightful experiences that fall to the lot of a field botanist wherever he may bend his steps. If there be any lesson to learn or advantage to gain from studying the doings of people of botany it must be the same that is taught or conferred by his example as the mark he has left upon the world. Namely we should emulate his diligence and that the desire to rank with him in good repute should be stimulated and strengthened. In any case it is surely fitting that we should sometimes pause and turn aside from the occupations of today, thankfully to remember and acknowledge what Clive has done for us.

Clive Lovatt with James McGill in Minehead in 2014.
Photo © Simon Leach

We have lost our treasured and valued great friend of more than 40 years. He was our go to botanist, someone we could share our plant identification doubts with, someone who would appreciate and share our great botanical moments and finds with and he shared his doubts and triumphs with us. In travelling around the county there is nowhere that either we have fond memories of botanising with our kind friend or that we wished to take him and show him some botanical treasure. He is sorely missed.

Elizabeth Jane McDonnell "Liz" (1946-2022)

By Ro FitzGerald

Liz McDonnell's warm smile will remain with us. Liz in a boat on Clatworthy Reservoir in 2016. Photo © Graham Lavender

I have written, spoken and contributed to a number of obituaries as a family member, friend, pupil or colleague but nothing has involved me so comprehensively as this tribute to Liz McDonnell, and I know anything I say will resonate with all the members of SRPG who knew her. It feels as if every aspect of my life had Liz in it, and this will continue. We botanised, travelled, discussed art and books, cooked and ate, sent each other photos of little bunches of flowers we both loved for desk or kitchen windowsill, discussed and exchanged garden plants, bird watched, picnicked, laughed and cried. The remarkable width of her interests and the energy and talent she gave to all of them touched everyone she met – I was just lucky to have known her for nearly 40 years so had a wonderful ration of her time and a chance to share many different experiences with her.

Liz's importance to SRPG was of course as a botanist, and she was a guiding force when the Group was founded in 1996, by which time she was already well established in the heart of Somerset botanical recording. She was originally an art school graduate but luckily for us something (I wish I knew what exactly) led her to botany. One of her major passions was recording – both the field collection of rare and common plant records ('square bashing') and the actual processes of lodging this information accurately in county and national databases for future use. She worked in the Somerset Trust for Nature Conservation offices at Broomfield in the 1980s and Hestercombe in the 1990s. David Pearman of BSBI fame credits a visit to her there as a eureka moment in his botanical career when Liz spent a day explaining the methods and value of Phase 1 surveys and establishing and registering Sites of Nature Conservation Interest, starting David's own extensive work in Dorset.

Initially Liz had no long-term job for English Nature because her lack of a relevant degree prevented that, so she operated as a contract worker for various organisations where *relevant experience and knowledge mattered more than paper qualifications*. Important surveys were for Plantlife's 'Back from the Brink' initiative or more directly for English Nature's Species Recovery Programme. One of these, surveying the very rare Shore Dock (*Rumex rupestris*) took about five years, working with Miles King (Plantlife), Rosemary Parslow (BSBI recorder for the Isles of Scilly) and Roger Daniels and others of ITE at Furzebrook. The combined results were published as a definitive paper in *Watsonia* in 1998. Liz and Miles also contributed the Shore Dock account to the 1999 *Red Data Book*, and they wrote an excellent paper in 'Botanical Links in the Atlantic Arc' (a report from a BSBI conference in Camborne in 2003, published in 2006). The latter gives not only the known status of this very threatened species but some excellent ripping yarns of boat trips and even swimming to inaccessible colonies! Another significant one of these surveys was on the elusive Toadflax-leaved St John's-wort (*Hypericum linariifolium*) and for this too she wrote the species account in the 1999 RDB.

Eventually Liz gained more permanent employment with various sections of the government agencies such as Defra and English Nature, often working on the management of grasslands under agri-environmental schemes. A significant phase of such work was when she was linked to EN's 'Botanical Unit' (while based at Roughmoor in Taunton). Here she headed a major project to produce definitive lists of the vascular plant features – individual species and/or assemblages – for which English SSSIs had been notified. From years of field botany with Liz I can see that this must have been an optimum job for her, calling on all her particular skills in identification and assessment of habitats and their condition. She only retired from EN-connected work in 2010.

Any of us who botanised with Liz on her beloved Mendips or Polden Hills were aware of her fierce protectiveness of open grassland and the precious plant communities which can be threatened by the 'decline of pastoralism' as traditional grazing decreases, and of course lately by ignorant tree planting! She was never one to hold back if annoyed by mismanagement. Although informing, persuading and eventually charming many landowners, she could switch into real fighting mode if necessary. Those of us involved with committee work or project planning with her could also get sharp treatment, but it was always directed to *doing the right thing.* Work had no meaning for her unless *useful.* Her mind always went forward from any find of a rare species or special habitat to '*what next?'* – how could proper management for future conservation be established? Simon Leach writes:

I doubt that Liz realised what a botanical tour de force she was. Her knowledge was considerable but just as important was her insistence that knowledge only counted for anything if put to good use. It mattered hugely to her that her botanical records and insights should be used to protect the plants and the places where they grow.

Liz's professional work and achievements can't all be fitted in here, but they are anyway only a part of her essential importance to the Group, and to botanists scattered throughout the UK. Many friends and colleagues have been in touch with me, and their comments give the essence of a wonderfully kind character who shared so much and gave so generously of her energies, teaching and supporting beginners and experts alike. The following quotations give an idea of how widespread her help and inspiration were.

Steve Parker recalls meeting Liz in 1996 *to talk about her ideas for forming a group to monitor the rare plants in the county. Her enthusiasm was catching…She was specially keen that we enabled young and upcoming botanists to learn more.*

Ellen McDouall calls her *a truly fundamental part of SRPG.*

Libby Houston writes of a Cheddar Gorge survey report produced by Liz and myself (very much under Liz' guidance) in 1997, calling it *not just an invaluable reference… but a beautiful book, a model in its composition, particularly the clear pre-digital maps and fine, readable prose* though Libby adds wryly *I was sorry she didn't like Sorbus*!

John Poingdestre recalls one of his first meetings with her, at a grass identification workshop, where he was *struck immediately by her warm-hearted manner as someone I could easily learn from*.

Graham Lavender also credits her helpfulness. His early experience of field meetings had been of *knowledgeable people instantly …shouting out names* while he struggled to hear more detail *but after a few meetings I noticed a figure always at the back of the group with two or three people round her. This was Liz and she was explaining ….*

Graham Lavender and Liz McDonnell discuss an identification at Cannington Park. Photo © Ro FitzGerald

Jeanne Webb writes *Liz was a natural teacher and treasured mentor to many. She had many years of knowledge and experience which she delighted in sharing…Whatever she did was precise, nothing was ever overlooked, nothing was ever too much trouble and always accompanied by a willing smile*.

Sarah Shuttleworth of Plantlife acknowledges Liz's help with a teaching video on grass identification made as part of the National Monitoring Scheme, when Liz made some wonderful models of grass parts out of felt and paper (as she did once with dock fruits for a SRPG workshop - her craft skills were considerable). Sarah mentions how *incredibly kind* Liz was, talking as well as contributing the *amazing props… She was very inspiring for me as a botanist and artist*.

Chris Loudon writes that through Liz she *realised that botanising, recording, was a marvellous, serious, fun, important thing to do*, and mentions *inspiration freely given to beginners, improvers, everyone*.

Just such an opinion comes from a friend of mine Laura Potts who only really met Liz twice, at a field meeting years ago and when she had Liz and Sandy Coppins to stay

with her in York, but these brief contacts gave her the real person. *I learned from Liz to look quietly and thoroughly, to go back to places and look deeply as well as broadly, to appreciate communities and systems not just notice individual plants*.

Dee Holladay *always remembers Liz and her hats – not a cap or floppy sunhat but always a stylish straw with a nice, coloured scarf around it. Somehow I could tell she was an artist*.

All the comments have an overtone of affection, and this adds to her reputation as a professional power in contemporary botany in Somerset and beyond. Within the both vice-counties she contributed countless records to MapMate, and added some spectacular individual finds to the Rare Plant Register list – for instance in 2003 she found Downy-fruited Sedge (*Carex filiformis*) on Cheddar Moor, new to Somerset; and in 2016 she and (our also late-lamented) Clive Lovatt found Copse Bindweed (*Fallopia dumetorum*) near Nailsea. It had been thought extinct at its only other Somerset site for more than a century!

She loved botanical history and dried specimens too and her pivotal work in the Taunton herbarium (**TTN**) has helped it to become an important resource as was made clear in a paper (written with Ian Salmon) which was published in the *Proceedings of the Somerset Archaelogical and Natural History Society* (Vol. 160, 2017).

Liz always gave key encouragement and support to small local recording groups (such as the Mendip Flora Group) which can do so much of the essential monitoring which she believed in. In recent years she contributed as joint BSBI Recorder for VC6 North Somerset, assisting Helena Crouch – always a distinguished and responsible position.

But as well as 'work' she was a memorable *friend.* Sandy Coppins, later a distinguished lichenologist, says that *Liz introduced me to botany* and in spite of their specialisations dividing they *shared fun and sadness, empathy, companionship*. I think Sandy's assessment must be shared by many of us – Liz often filled the 'best friend' place in one's life as well as being the most valued colleague. Her voice and smile will stay with us. In fact while sorting emails for this piece I found one from her, sent while staying with Gill Read in 2005 which has exactly this voice *We have been square bashing in zero monads , very interesting terrain, with lovely banks full of bluebells*. Last week Gill herself wrote to me saying she was *sighing a lot. Each time a thought or picture or something comes up of Liz, there's a sigh*. These echoes will always remain, bringing the good memories into our sense of loss.

Liz McDonnell smiling at Webbers Post, Exmoor in 2010.
Photo © Steve Parker

Friends Ro FitzGerald (author) and Liz McDonnell in the Taunton Herbarium – one of Liz's lasting legacies to Somerset botany.
Photo © Simon Leach

PLANT RECORDS for 2022

Compiled by Helena Crouch

During 2022, over **80,000 records** were made for vascular plants in Somerset, which is a phenomenal achievement. 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 vice-county, and selected other significant records; it does not really do justice to the huge contribution of many of our recorders.

As always, the lists of taxa new to Somerset, or to one Vice-County, are dominated by alien species; however, there are native additions too: three *Dryopteris* taxa new to Somerset, five subspecies recorded new to Somerset or to VC5 or VC6, and two Rare Plant Register (RPR) species found new to VC5. Many other significant records were 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 2022 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:

Cochlearia acaulis. Photo © Rob Randall

AJE	Alison Evans
APR	Andrew Robinson
DCL	David Leadbetter
DEG	Dave Green
DG	Dave Gibbs
DP	Dylan Peters
FJR	Fred Rumsey
GEL	Graham Lavender
GHR	Gill Read
HJC	Helena Crouch
IPG	Ian Green
JP	John Poingdestre
JRA	John Akeroyd
KT	Karen Turvey
LE	Linda Everton
MAW	Margaret Webster
NFS	Nick Stewart
PRG	Paul Green
RDR	Rob Randall
RFitzG	Ro FitzGerald
RG	Roger Golding
SJL	Simon Leach
SJP	Stephen Parker
BSBI	Botanical Society of Britain & Ireland field meeting
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

****Agave americana*** (Centuryplant) – Weston-super-Mare, Weston Woods (ST32596232, ST32656232, ST32726232), 13 Dec, DG, VC6.

****Anemone coronaria*** (Poppy Anemone) – North Petherton (ST28713299), 26 Mar, 1 plant by stream, probably from garden rubbish, SJP, VC5.

****Chenopodium bushianum*** (Soyabean Goosefoot) – Piles Mill (SS90474644), 27 Jul, beside muck heap in corner of field, GEL, conf. JRA, VC5.

****Chenopodium strictum*** (Striped Goosefoot) – Steart (ST27954683), 9 Sep, middle saltmarsh, GEL & SJP, conf. JRA, VC5.

****Cochlearia acaulis*** (Violet Cress) – Bath, The Circus (ST74766532), 31 Jul, 50+ patches in paving, RDR, VC6.

*__Crataegus heterophylla__ (Various-leaved Hawthorn) – Bridgwater (ST293372), 19 Jun, on S side of canal footpath, Wild Flower Society, VC5.

*__Datura ferox__ (Angel's-trumpets) – Congresbury (ST43786410), 27 Aug, 5 plants in flower/fruit on N verge of Smallway, at crossroads with A370, HJC & FJR, VC6.

Datura ferox. Photo © Helena Crouch

*__Dittrichia graveolens__ (Stinking Fleabane) – M5 (ST34), 5 Nov, lots on central reservation of motorway, PRG, VC6.

__Dryopteris kerryensis__ (Irish Male-fern) – Stockhill (ST55715163), 17 Jun, 4-5 crowns on hummock on S side of track to turning circle, sampled for flow cytometry and confirmed as diploid, HJC, AJE & RG, VC6.

__Dryopteris pseudodisjuncta__ – Pen Ridge, Stourhead Estate (ST74883317), 16 Jun, 1 huge plant by junction of old tracks to E of lane, sampled for flow cytometry and confirmed as triploid, HJC, AJE, RG & FJR, VC6.

__Dryopteris__ x __critica__ (*D. filix-mas* x *borreri*) – Simonsbath, Lime Combe (SS76523936), 12 Jul, 1 plant on very damp floor of quarry, GEL, VC5.

*__Epilobium pedunculare__ (Rockery Willowherb) – West Porlock Woods (SS86964673 to SS87014677), 8 May, extending for 20m at base of near vertical very tall bank at edge of footpath, GEL, det. IPG, VC5.

*__Geranium__ x __cantabrigiense__ (*G. macrorrhizum* x *dalmaticum*) (Cambridge Crane's-bill) – Bowlish (ST61334403), 26 May, 2 plants in flower at S edge of lane along N side of stream, to N of A371, HJC, VC6.

*__Iris__ x __hollandica__ (*I. filifolia* x *tingitana*) (Dutch Iris) – Porlock Weir (SS86554782), 8 May, 2 plants in flower on shingle, GEL, det. RFitzG, VC5.

*__Jasminum beesianum__ (Red Jasmine) – Wraxall (ST60083647), 21 Aug, large patch on verge outside garden hedge, HJC & FJR, VC6.

*__Lagenaria siceraria__ (White-flowered Gourd) – Lopen Head (ST42221513), 15 Sep, climbing a dead Elm at edge of overflow car park of curry house, FJR, det. HJC, VC5.

Lagenaria siceraria. Photo © Fred Rumsey

****Libertia elegans*** (Lesser Chilean-iris) – Sampford Brett (ST08034065), 3 Jun, 1 on bank in lane S of Williton, DCL, VC5.

****Malope trifida*** (Mallow-wort) – Lansdown, Ensleigh (ST739673), 25 Jun, on grass verge by bus stop, RDR, VC6.

****Malus hupehensis*** (Hupeh Crab) – Taunton, Railway Street (ST22582550), 9 Nov, 1 multi-stemmed small tree adjoining fence on edge of railway waste ground, N side of station, apparently self-sown, SJP & SJL, conf. FJR, VC5.

****Muehlenbeckia complexa*** (Wireplant) – Taunton (ST22962392), 24 May, many suckers coming up through tarmac of road running between Vivary Park and Taunton Deane Cricket Club, spreading from plants established in adjacent shrubbery in park, SJL, conf. HJC & SJP, VC5.

****Peltaria alliacea*** (Garlic Cress) – Upper Swainswick (ST758682), 21 May, a colony extending 2m along hedge bank, RDR, VC6.

****Picris hieracioides*** subsp. ***villarsii*** – Taunton, Creech Castle (ST248256, ST249256), 24 Jun, many plants on waste ground and verge of track near motorcycle repair shop and car wash, and at base of wall on W verge of adjoining Bridgwater Rd (A38), SJL, conf. Richard Carter, VC5.

Pilosella officinarum subsp. ***tricholepia*** – Crook Peak (ST38795581), 11 Jun, 1 plant in flower on rocks near summit, with long white hairs on involucral bracts, BSBI, det. Brian Burrow, VC6.

****Primula pulverulenta*** (Mealy Cowslip) – Crowcombe Bridge (ST137365), 9 May, in field which had been under-grazed until a few days prior to visit, Mark Wilson, VC5.

****Sagittaria latifolia*** (Duck-potato) – Penselwood, Combe Bottom (ST76473189), 31 May 2020, 1 plant with *Iris pseudacorus* in small stream, originally recorded as *S. sagittifolia* but re-determined as this alien species on 22 July 2022, HJC & FJR, VC6.

****Saponaria ocymoides*** (Rock Soapwort) – Taunton (ST22762498), 4 May, several plants in rough grass verge next to footpath by River Tone, near Brewhouse Theatre and the cricket ground, presumably escaped from nearby flower border, SJL, VC5.

****Sedum praealtum*** (Greater Mexican-stonecrop) – Portishead Dock (ST47647728), 27 Feb, 2 plants self-sown amongst rocks piled for sea defence along sea front, HJC, Clive Lovatt & Bristol Naturalists' Society, conf. PRG, VC6.

Sedum praealtum. Photo © Helena Crouch

****Silene viscaria*** (Sticky Catchfly) – Charlton Mackrell (ST53322896), 8 May, 2 plants in flower on waste ground N of railway, presumably of garden origin, HJC & FJR, VC6.

Silene viscaria. Photo © Helena Crouch

****Spartium junceum*** (Spanish Broom) – Bathford (ST78526711), 16 Sep, few plants self-sown at edge of road, NW side of roundabout, parent plant in nearby garden, HJC & DEG, VC6.

****Spiraea*** x ***rosalba*** (*S. alba* x *salicifolia*) (Intermediate Bridewort) – Longrun Meadow (ST21042493), 19 Jun, 1 plant growing on grassy bank, on the edge of one of the flood attenuation lagoons, SJL, det. IPG, VC5.

Symphytum officinale subsp. ***bohemicum*** (Common Comfrey) – Westhay Moor (ST45624377), 13 Jul, DP, RDR & BSBI, conf. Bob Leaney, VC6.

NEW VICE-COUNTY RECORDS

****Amaranthus blitum*** (Guernsey Pigweed) – Taunton, Trenchard Way (ST22822536), 30 Oct, 1 plant growing in bark chippings with *Galinsoga quadriradiata*, in recently planted shrubbery by multistorey station car park, SJL, LE, JP & KT, conf. Quentin Groom, VC5.

Arum italicum subsp. ***neglectum*** (Italian Lords-and-Ladies) – Weston-in-Gordano, Charlcombe Bay (ST432749), 22 Apr, 1 plant on coastal path, not far from chalet bungalows but not associated with any garden refuse so may have been bird-sown, RDR, VC6.

****Bidens frondosa*** (Beggarticks) – Minehead (SS97824607), 29 Sep, several plants flowering/fruiting on nearside bank of rhyne, GEL, VC5.

Calystegia sepium subsp. ***roseata*** – Curry Rivel (ST387253), 25 Oct, garden weed in walled garden of Peel Barton, JP, VC5.

****Cardamine occulta*** – Minehead Garden Centre (SS97504571), 22 Apr, in pots in garden centre, GEL, det. IPG, VC5.

****Clematis montana*** (Himalayan Clematis) – Bath, Thomas Street (ST752658), 29 Mar, 2 plants, one self-sown in paving outside each of two houses, Kevan Horne, VC6.

Deschampsia cespitosa subsp. ***parviflora*** (Small-flowered Hair-grass) – Tivington (SS93294531), 11 Sep, one clump on bank very close to large Black Poplar where woodland finishes at road, GEL, conf. Mike Wilcox, VC5.

****Euphorbia maculata*** (Spotted Spurge) – Wellington, Willowbrook Nursery and Garden Centre (ST166213), 26 Jul, 12+ plants with other 'weeds' in paving and gravel paths, SJL, VC5.

****Laphangium luteoalbum*** (Jersey Cudweed) – Minehead (SS97104628), 25 Apr, 1 plant by pavement outside 'Cafe Bar' opposite the Hairy Dog, IPG, VC5.

Lepidium latifolium (Dittander) – Taunton, Creech Castle (ST24802563), 24 Jun, on waste ground, on fence line at edge of parking area near 'BitzaBikes', a motorcycle repair shop, SJL, VC5.

****Notobasis syriaca*** (Syrian Thistle) – Pitminster (ST21621874, ST21571873), 17 Jul, 3 plants in arable (barley) field between Pitminster and Blagdon Hill, SJL, conf. Tim Rayner, David Pearman & Jeanne Webb; (ST21541870, ST21621862), 25 Jul, 2 further plants in same field, SJL & SJP, VC5.

Notobasis syriaca. Photo © Simon Leach

Oxybasis glauca (Oak-leaved Goosefoot) – Taunton (ST22822536), 30 Oct, beside A3087 next to railway station multistorey car park, with *Galinsoga quadriradiata* in bark chippings beneath recently planted shrubs, SJL, LE, JP & KT, conf. HJC & JRA, VC5.

****Ribes odoratum*** (Buffalo Currant) – Winscombe (ST41945754), 22 Apr, several stems with flowers in scrub along Strawberry Line, probably from garden waste, APR, VC6.

****Scutellaria altissima*** (Somerset Skullcap) – Currypool Mills (ST23173830), 21 Jun, self-sown in cracks in concrete beside bridge, RFitzG, Jeanne Webb & S. Austin, VC5.

****Veronica longifolia*** (Garden Speedwell) – St Georges Interchange (ST37806255), 20 Jun, 1 plant in flower on roundabout, DG, VC6.

OTHER INTERESTING RECORDS – Native species

Allium oleraceum (Field Garlic) – Lower Twinhoe (ST75635988), 29 May 2018, few plants in patch extending for 3m along N verge of lane, HJC & DEG, conf. on 11 Jul 2022 by HJC when finally seen in flower; Tucker's Grave, NE of (ST75505546, ST75515545), 7 Jul, 80 flowering spikes at SE corner of arable (maize) field, in E field margin, HJC & DEG, VC6. Two new sites in a new hectad for this GB Vulnerable species.

Arenaria serpyllifolia subsp. ***lloydii*** – Sand Point (ST325660), 12 Jun, several plants on path along ridge, BSBI, conf. Geoffrey Halliday, VC6. First record for VC6 since mapped in Perring, F.H. & Sell, P.D. (1968) *Critical Supplement to the Atlas of the British Flora*.

Arum maculatum x ***italicum*** – Porlock Toll Road (SS87724668), 10 Jan, just below toll road and near bridge by sharp bend, with both parents, GEL; Taunton, Shoreditch Road (ST23792330), 16 Jan, several patches on both sides of road, growing with both parents, SJL, VC5. Fourth and fifth records for VC5.

Carduus x ***stangii*** (*C. crispus* x *nutans*) – Ham Hill (ST44991687), 26 Jun, 1 very tall plant, SRPG, VC5. First record for VC5 since *AFS*.

Comarum palustre (Marsh Cinquefoil) – Gordano Valley NNR (ST43797332), 10 Jun, a small patch of 7 plants, David Horlick & Fran Sheridan, VC6. First record for the North Somerset Levels and a new hectad for this RPR species which is Scarce in VC6.

Dryopteris x ***critica*** (*D. filix-mas* x *borreri*) – Knowle Brake (SS93924438), 22 Jul, 1 plant beside small stream in wooded combe; Hawkcombe Woods (SS87444576), 21 Nov, 1 plant on other side of footpath from stream but still only 3 or 4m from stream; Birchhanger (SS86984694), 3 Dec, edge of path in woodland; Worthy Wood (SS85274751), 4 Dec, edge of footpath near edge of wood, GEL, VC5. Second and subsequent records for VC5 and Somerset.

Euphrasia pseudokerneri (Chalk Eyebright) – Knole, Appledoor Quarry (ST48302603), 28 Jun, *c.*30 plants amongst *Epipactis palustris* in fen vegetation, FJR, VC6. Second record and new hectad for this Vulnerable Nationally Scarce species in VC6 and Somerset. This population is forma *elongate*, new to Somerset.

Fumaria densiflora (Dense-flowered Fumitory) – Lopen, Trading Post Farm Shop (ST42551520), 27 Jan, in a small weedy area next to the car park in front of a shed, FJR, conf. Tim Rich, VC5. First record for VC5 and Somerset since *AFS.*

Galium parisiense (Wall Bedstraw) – Taunton, Trenchard Way (ST23042540), 1 Jun 2021, 100+ plants on little grassy bank on N side of road; Taunton Gateway Park & Ride (ST25972457), 1 Jun, lots of tiny plants in a patch about 30 x 30cm in gravel verge around tree planted in car park, SJL, VC5. Fourth and fifth sites for VC5.

Gentianella amarella subsp. ***anglica*** (Early Gentian) – Thurlbear Quarry Lands (ST27222084), 21 Apr, 1 plant, *c.*15mm tall with a single flower, in closely rabbit-grazed turf, SJL, VC5. First record for this GB Vulnerable species in VC5 since 2006.

Lemna turionifera (Red Duckweed) – Queen's Sedge Moor (ST517414), 10 Jun, in ditch on N side of Long Drove, NFS, det. Richard Lansdown, VC6. Fifth site for VC6.

Logfia minima (Small Cudweed) – Stoke St Gregory, Woodhill (ST35712759), 24 May, in large sandy-gritty field with *Trifolium micranthum*, JP, VC5. New hectad for this VC5 Rare species which is Near Threatened on the England Red List.

Lotus subbiflorus (Hairy Bird's-foot-trefoil) – Taunton (ST22742540), 27 Jun, in gravel area at front of former Great Western Hotel, opposite main entrance to railway station, SJL, VC5. Second site for VC5, close to first which now appears to be lost, and third for Somerset.

Lysimachia foemina (Blue Pimpernel) – Henstridge, Toomer Hill (ST70421961), 9 Jul, 2 plants in flower in field of barley stubble, JP, VC5. New hectad for Nationally Scarce species which is Scarce in VC5.

Medicago polymorpha (Toothed Medick) – Cross (ST412547), 31 May, several plants in seed on grassy road verge; Banwell Hill (ST391583), 11 Jun, at edge of field below scrub, APR & Ann Burman, VC6. New hectad records for this Nationally Scarce species.

Nepeta cataria (Cat-mint) – Charlton Mackrell (ST53252892), 22 Nov, 1 plant between rough tarmac track and railway, *c.*8m NE of end of concrete block ruin, JP, VC6. First record for VC6 and Somerset since *AFS*, a re-find of record in *AFS.*

Persicaria mitis (Tasteless Water-pepper) – West Moor (ST40252170), 23 Sep, 2 plants by the disused canal, FJR, VC5. First record for VC5 since 2009 and for Somerset since 2011 for this Vulnerable and GB Scarce species.

Polycarpon tetraphyllum (Four-leaved Allseed) – Stoke St Gregory (ST34732716), 16 May, 2 compact plants with many flower clusters on pavement edge opposite village pub, JP, VC5; Bath, Brock Street (ST74606532), 23 Jul, a 10cm patch between paving, FJR, VC6; Nailsea, The Perrings (ST47326974), 27 Aug, 4 plants on edge of kerb, S side of road, SRPG, VC6. Third site for VC5 and third and fourth sites for VC6.

Potentilla argentea (Hoary Cinquefoil) – Wellington, Willowbrook Nursery and Garden Centre (ST166213), 26 Jul, 2 flowering plants in gravel with other nursery 'weeds', SJL, VC5. Third site for VC5.

Rosa agrestis x ***stylosa*** (fxm or mxf) – Sand Point (ST32626598), 12 Jun, 1 shrub by path leading up S-facing slope, BSBI, det. RDR, VC6. First record for this hybrid in Somerset since 1995.

Rosa x ***toddiae*** (*R. canina* x *micrantha*) – Crook Peak (ST38975549), 11 Jun, 1 shrub on ridge, to S of path, BSBI, det. RDR, VC6. Fifth record for VC6.

Symphytum officinale subsp. ***bohemicum*** (Common Comfrey) – Shapwick Heath (ST42534091), 13 Jul, DP, RDR & BSBI; Clevedon Moor (ST4270), 17 Sep, occasional beside ditch on S side of Cook's Lane and beside the Yearling Ditch, SRPG; River Avon valley, N of Corston (ST69016663), 2 Oct, 1 plant on river bank, SRPG; Bath, Kennet & Avon Canal (ST76386592), 6 Oct, beside canal, HJC & FJR, VC6. Second and subsequent records for VC6 and Somerset.

Urtica dioica subsp. ***subinermis*** (Stingless Nettle) – Taunton (ST249244), 23 Jul, a single patch under willows close to the Black Brook, S of Thames Drive, SJL, conf. IPG & HJC, VC5. Fifth record for VC5 and second since *AFS.*

Valerianella eriocarpa (Hairy-fruited Cornsalad) – Charlton Mackrell (ST53502908, ST53512908, ST53522909), 8 May, *c.*150 plants in flower on areas of waste ground N of railway disturbed by rabbits, HJC & FJR, VC6. First record since 2000 for this species at its only site in Somerset.

Viola canina subsp. ***canina*** (Heath Dog-violet) – Cothelstone Hill (ST191324), 1 Apr, *c.*10 plants in very short acid grassland, SJP, VC5. Second record for VC5 since *AFS* for this taxon which is Vulnerable on the England Red List.

Viola lutea (Mountain Pansy) – Rugg's Hill, Ditch Farm (SS98543121), 26 Apr, two patches all with yellow flowers, just W of a patch of rushes, IPG, VC5. First record for Somerset since 1999 for this RPR species.

OTHER INTERESTING RECORDS – Alien species

****Adiantum raddianum*** (Delta Maidenhair) – Bath, Abbey Street (ST75106470), 2 Dec, 5 plants in 2 basements on W side of street, HJC, VC6. Second site for VC6 and Somerset.

****Amaranthus albus*** (White Pigweed) – Wraxall Vineyard (ST60333641), 21 Aug, 1 plant on spoil heap beside car park and 1 plant on bare soil by drive, HJC & FJR, VC6. First record for VC6 since 2005.

****Ammi majus*** (Bullwort) – Henstridge, Toomer Farm (ST70561927), 9 Jul, frequent amongst barley stubble, JP, VC5. First record for VC5 since *AFS*.

****Argemone mexicana*** (Mexican Poppy) – Glastonbury, Common Moor (ST50704025), 10 Nov, several leaf rosettes on pavement/verge edge, JP, VC6. Second record for VC6 and third for Somerset.

****Beta vulgaris*** subsp. ***cicla*** var. ***cicla*** (Spinach Beet) – Keynsham, Caernarvon Road (ST64396777), 19 Jan, 1 plant on verge on N side road, HJC & FJR, VC6. Second record for this variety and third for the subspecies in VC6 and Somerset.

****Bidens frondosa*** (Beggarticks) – Bathampton (ST78146623, ST78286615), 29 Sep, 2 plants, each on a duck ramp on E bank of Kennet & Avon Canal, HJC & DEG; Saltford (ST69006672), 2 Oct, 2 plants on sandbags supporting bank of River Avon, under pontoon, SRPG, VC6. Third and fourth records for VC6.

****Cardamine occulta*** – Yeovil, Brimsmore Gardens (ST541178), 23 Apr, weed amongst plants in garden centre, IPG; Yeovil, Palmers Garden Centre (ST532161), 26 Apr, several plants as weeds amongst pots in garden centre, IPG; Wellington, Willowbrook Nursery and Garden Centre (ST166213), 26 Jul, 12+ plants in paving and gravel of pathways and hard standings in garden centre, SJL, VC5. Second, third and fourth records for VC5.

*__Chenopodium probstii__ (Probst's Goosefoot) – Seavington St. Michael (ST41421536), 14 Jul, several plants in field margin by footpath, FJR, VC5. Second record for VC5 and first since 1959.

*__Chenopodium suecicum__ (Swedish Goosefoot) – Wellshead Allotment (SS82844178), 21 Aug, in area planted with game cover crop, possibly contaminant although may have been established in area long time as no herbicide use, GEL, conf. JRA, VC5. Fourth record for VC5 and first since 1914.

*__Clerodendrum trichotomum__ (White Tree-jasmine) – Norton Malreward (ST60206543), 19 Sep, 2 plants on roadside bank outside garden fence (3 more seen on a return visit), MAW, det. FJR & HJC, VC6. Second record for VC6 and Somerset and first since 1997.

*__Coronilla valentina__ subsp. __glauca__ (Shrubby Scorpion-vetch) – Oldmixton, Haywood Gardens (ST335584), 23 May, large shrub, APR, VC6. Second record for VC6 and first since *AFS*.

*__Coriandrum sativum__ (Coriander) – Lopen Head (ST42231510), 15 Sep, a good crop on disturbed bare area of soil close to buildings, FJR, VC5. Second record for VC5 since *AFS*.

*__Cotula coronopifolia__ (Buttonweed) – Durleigh Reservoir (ST260362), 30 Jan, in small pond in new wetland restoration scheme, SJP, VC5. Second record for VC5 and fourth for Somerset.

*__Cucurbita pepo__ (Marrow) – Minehead (SS97754609), 29 Sep, 1 plant with flowers and fruit on small strip of verge alongside hedge screening railway line, GEL, VC5. Fourth record for VC5.

*__Dicksonia antarctica__ (Australian Tree-fern) – Worthy Wood (SS86034759, SS86154771), 17 Dec, 2 plants, 1 on edge of bridleway and 1 on steep bank above bridleway, GEL, VC5. Third site for VC5 and Somerset. (The first record was for a plant which was almost certainly planted, the second was naturalised from adjacent garden, but this site is far from any house.)

*__Dittrichia graveolens__ (Stinking Fleabane) – M5 (ST35G), 5 Nov, lots on central reservation of motorway, PRG, VC6. Second record for VC6 and Somerset.

*__Epilobium pedunculare__ (Rockery Willowherb) – West Porlock Woods (SS87344658), 7 Oct, a 15-20m strip, well separated from previous records but on same N-facing slope, GEL, VC5. Second site for VC5.

*__Erigeron annuus__ (Tall Fleabane) – Upper Swainswick (ST76136831), 10 Jun, many plants in flower on traffic island at junction of layby and A46, RDR, VC6. Second record for VC6 and first since 1942.

*__Eryngium planum__ (Blue Eryngo) – Brent Knoll, Manor Road (ST335504), 22 Jun, escaped onto road verge, parent plants *c*.40m away in garden, APR, VC6. Second record for VC6 and third for Somerset.

*__Galium murale__ (Tiny Bedstraw) – Castle Cary, Hallett Road (ST63843311, ST63883309, ST63893309), 3 Mar, many plants along kerb edge on N side of road, HJC & FJR, VC6. Second site for VC6 and Somerset.

*__Helleborus niger__ (Christmas-rose) – Porlock (SS88544632), 6 Jan, garden escape onto gap between Mill Lane and hedge, GEL, VC5. Second record for VC5 and Somerset.

*__Jasminum officinale__ (Summer Jasmine) – Hawkcombe (SS88464592), 15 Dec, established in poorly mortared wall on edge of lane opposite Sunnyside cottages, GEL, VC5. Second record for VC5.

**__Lonicera henryi__ (Henry's Honeysuckle) – Nunney, Fulwell Lane (ST73804592), 4 Nov, 1 plant in edge of scrub/trees opposite houses, HJC & GHR, VC6. Second record for VC6 and third for Somerset.

*__Malva verticillata__ – Yeovil, The Park (ST55181628), 26 Apr, 1 plant on edge of flowerbed in Sydney Gardens, south side of path, IPG, det. HJC; (ST55211628), 10 Sep, 2 further plants on west edge of flowerbed, IPG, VC5. Second site for VC5 and fifth for Somerset, and first records since *AFS.*

**__Nemesia denticulata__ (Toothed Aloha) – Shepton Mallet, Peter Street (ST61974374), 4 Jan, several plants at edge of pavement against wall of house, self-sown from window box, HJC & FJR, VC6. Second record for VC6 and Somerset.

*__Nonea lutea__ (Yellow Nonea) – Whatley (ST73434752), 1 May, 1 plant at pavement edge by SE wall of Whatley Church, GHR, VC6. Third site for VC6 and fourth for Somerset.

*__Omphalodes verna__ (Blue-eyed-Mary) – Taunton, Mountfields Road (ST2323), 3 May, in pavement and at base of garden wall, escaped from neighbouring garden, SJL, VC5. Second record for VC5 and first since 1982.

*__Oxalis tetraphylla__ (Four-leaved Pink-sorrel) – Bossington, Sea Lane (SS8947), 23 Jul 2016, near turn to Porlock, escape or weed from cottage garden, Caroline Giddens, VC5; Porlock, Parsons Street (SS88594656), 13 Sep, small patch edge of road/wall of house in crack, GEL, VC5; Weston-super-Mare, Weston Woods (ST32596232), 13 Sep, probably a garden throw-out rather than self-sown, DG, VC6. Third and fourth records for VC5 and second for VC6.

*__Phedimus stoloniferus__ (Lesser Caucasian-stonecrop) – Merryfield Airfield (ST3319), 24 Jun 2021, damper edges of tracks, Val Graham, Ann Fells & APR; Tintinhull (ST49951972), 18 Sep, small patch under trees by tennis court, SRPG, VC5. Third and fourth records for VC5.

*__Phormium cookianum__ (Lesser New Zealand Flax) – Weston-super-Mare, Weston Woods (ST32686232), 13 Dec, DG, det. FJR, VC6. Third record for VC6 and Somerset.

*__Portulaca oleracea__ (Common Purslane) – Royal Portbury Docks (ST501768 to ST506761), 14 Sep, frequent along main access road, Rupert Higgins, VC6. Second record for VC6 and first since 1978.

* __Ruta graveolens__ (Rue) – Aller Farm (ST07833970), 3 Jun, 3 plants in lane outside farm, DCL, VC5. Third site for VC5.

*__Salvia hispanica__ (Chia) – Chew Valley Lake (ST572615), 27 Oct, 4 plants by fence of picnic area, where people feed the birds; Winford (ST651649), 24 Nov, 1 plant as a gutter weed on E edge of junction between Chapel Lane and Russell Close, MAW, VC6. Third and fourth sites for VC6 and Somerset.

* __Sedum kimnachii__ – Durleigh Reservoir (ST260362), 30 Jan, on edge of water-course in very recent wetland restoration scheme, SJP; Sampford Brett (ST08034060), 3 Jun, patch in lane, DCL, VC5. Second and third records for VC5.

*__Symphoricarpos orbiculatus__ (Coralberry) – Selworthy (SS9246), 26 Jun, long stretch north side of hedge along track, GEL, VC5. Fourth record for VC5.

*__Tolmiea menziesii__ (Pick-a-back-plant) – Blindmoor, Wheatlands Coppice (ST26671478), 1 Jun 2021, well naturalised, usually along streamsides; Battens Green (ST29041899), 16 Jun, several plants naturalised along shady stream banks, JP, VC5; Woollard (ST63656405), 17 Feb, large patches in alder carr below path along bottom of wood, to S of River Chew, HJC & DEG, VC6. Second and third sites for VC5 and third for VC6.

*__Verbascum nigrum__ (Dark Mullein) – Taunton, Great Western Way (ST20332590), 11 Jul, 1 plant in flower on kerbside, E side of road near pedestrian crossing, SJL, VC5. First record for VC5 since *AFS.*

*__Veronica peregrina__ (American Speedwell) – Wellington, Willowbrook Nursery and Garden Centre (ST166213), 26 Jul, hundreds of plants with other 'weeds' in paving and gravel paths, SJL, VC5. Fifth site for VC5.

*__Wolffia columbiana__ (Columbian Water-meal) – Queen's Sedge Moor (ST517414), 10 Jun, in ditch on N side of Long Drove, NFS; Kewstoke, Sand Road (ST335643), 11 Sep, in ditch alongside road, David Hawkins, Libby Houston, Brian Ottway & DP, VC6. Second and third records for VC6 and Somerset.

SRPG Membership and Contacts

Somerset Rare Plants Group annual subscription is £10 from January 2023. 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.

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Committee Members

Membership: Ellen McDouall **Email:** mcdouallem@gmail.com

Treasurer: Vacant post temporarily covered by Steve Parker

SRPG Chairman and joint Vice-county recorder for South Somerset (VC5):
Steve Parker
Email: stephenjparker1710@gmail.com

Joint Vice-county Recorder for South Somerset (VC5):
Simon Leach
Email: simonleach@phonecoop.coop

Vice-county Recorder for North Somerset (VC6) and Rare Plants Register Editor:
Helena Crouch
Email: helenacrouch@sky.com

Events Programme: Graham Lavender
Email: grahamlavender@hotmail.com

Website: Val Graham
Email: grahamval57@gmail.com

Newsletter Editor: Karen Andrews
Email: BotanyKaren@gmail.com

Photo Competition Organiser:
Fred Rumsey
Email: rumsey2021@outlook.com

New Members' Representatives

Liz Biron

Daniela Dietrich

Aisa Irvine