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Dear Flora Group member

The Flora Group committee hope that you have enjoyed botanising during 2023 and we hope to see you at some of the forthcoming events in 2024. Please note that booking is essential for the Flora Group events advertised in this edition of *Flora News*. Thank you.

This edition of *Flora News* provides details of events scheduled between February and August 2024. Field trips will include an opportunity for joint visits with the Sussex Botanical Recording Society and the Dorset Flora Group, plus a visit to heathlands in the Aldershot area with the aim of attracting people from Hampshire and Surrey. Tristan Norton has organised a couple of evening visits in the Otterbourne area and Tony Mundell has arranged visits to Micheldever Spoil Heaps Site of Special Scientific Interest (SSSI) to explore this location at different times of the year. By popular demand, Martin Rand will be hosting a two-day introduction to sedges. Other events that Martin will be leading include an early season field meeting to study *Crocus* and *Galanthus* (snowdrops), a trip to Boscombe to see the intriguing mix of native and naturalised coastal plants growing on the soft cliffs and suburban fringes of eastern Bournemouth, a spring woodland visit and a late summer trip to Holt Heath in Dorset.

We are very grateful to Tony Mundell, Martin Rand, Tristan Norton, Isobel Girvan and Clive Chatters who have kindly arranged these field meetings. Help with organising and/or leading future Flora Group events would be greatly appreciated. If you are willing to help, or would like to find out about what is involved, please get in touch with any of the current Committee members: Catherine Chatters, Clive Chatters, Andy Cross, Isobel Girvan, Gareth Knass, Tony Mundell, John Norton, Tristan Norton, Martin Rand, Neil Sanderson and Cathy Wilson.

We welcome your suggestions for future Flora Group activities and encourage you to raise your ideas with the committee.

Would you like to share transport to Flora Group events? Rob Still has set up a WhatsApp group so that people can contact each other and arrange lifts to Flora Group events. If you would like to participate, please send a text to Rob on 07702 737456 saying you wish to join the HFG WhatsApp group.

We are pleased to include articles/reports by Tristan Norton, Martin Rand and John Norton in this edition of *Flora News*. As always, we would like to encourage more people to provide contributions on relevant botanical topics. If you have enjoyed any Flora Group event and would like to write a report, we would be very pleased to receive it. Please send your articles, notes or reports to Catherine Chatters (contact details at the end of this newsletter).

At the end of 2023 Martin Rand stepped down as South Hampshire Vice-county Recorder for the Botanical Society of Britain and Ireland, a role which he had held for the past 20 years. The Flora Group committee would like to thank Martin for all his help and for the hard work, enthusiasm and time that he has given over the past two decades. As VC11 Recorder, Martin has inspired so many people to take an interest in plants and extend their botanical understanding. He has organised and led numerous field meetings and hosted lots of workshops to enable people to improve their identification skills; we've benefitted so much from Martin's skills as a very patient teacher and his desire to share his deep and extensive knowledge. Last year Tristan Norton was confirmed as a joint Recorder and has now taken over Martin's responsibilities as Vice-county Recorder. We are very grateful to Tristan for agreeing to take on this important role.

Edited and produced by Catherine Chatters (Flora Group Secretary) and John Norton

Forthcoming Events

The events listed here will only take place if they are compatible with relevant Government guidance and Hampshire & Isle of Wight Wildlife Trust (HIWWT) advice regarding COVID-19. You must register with the leader in advance and provide contact details in case of late cancellation.

Bring a packed lunch for full day events, plenty to drink and suitable footwear to all field meetings. Bring waterproofs if it is likely to be wet.

Saturday 24 February 2024, 10am–12.30pm

Visit to Bishops Waltham and Shedfield churchyards

Leader: Martin Rand

This is a visit to look at *Crocus* and *Galanthus* (snowdrops), which are increasingly found as escapes or deliberate introductions in the wild. This meeting is a chance to get familiar with features of the genera and, hopefully, to see at least seven of the commoner species/hybrids. Booking is required. To book your place please contact Martin Rand who will then provide full details.

Contact: Martin Rand martin.rand@hantsplants.net, mobile 07531 461442

Sunday 28 April 2024, 2.30pm–5.30pm

Visit to Valley Park woodlands

Leader: Martin Rand

Valley Park, lying west of Chandler's Ford and east of North Baddesley, is a major housing development of recent decades but has preserved its 'necklace' of six ancient woodlands. These woods are now under the care of the Woodland Trust or Test Valley Borough Council (as a Local Nature Reserve). The range of woodland habitats includes heathy open areas, mature Beech/Holly woods, species-rich Oak/Ash/Hazel woods and boggy stream courses. Notable plants include Wild Daffodil (which we must expect to have finished flowering), wild Lily-of-the-valley and some spectacular Bluebell patches as well as a wide range of the typical woodland flowers of Hampshire.

We shall do a circular walk taking in four of the woodlands, meeting at the Knightwood Leisure Centre where there is free car parking (unfortunately, no weekend bus service, but a 1-mile walk from the rail station and regular Southampton/Winchester buses). There should be interest for everyone, but botanical beginners and newcomers to the Flora Group are especially welcome, and there will be a chance to get together at the nearby Cleveland Bay pub afterwards. Booking is required. To book your place please contact Martin Rand.

Contact: Martin Rand martin.rand@hantsplants.net, mobile 07531 461442

Friday 3 May 2024, 5pm – 7pm

Otterbourne Hill Reservoir – spring annuals of acid grassland

Leader: Tristan Norton

Short evening meeting to a rich acid grassland site to look for late spring annuals. Target species include Upright Chickweed *Moenchia erecta*, Bird's-foot *Ornithopus perpusillus* and early legumes such as Subterranean Clover *Trifolium subterraneum*, Bird's-foot Clover *Trifolium ornithopodioides* and Slender Trefoil *Trifolium micranthum*.

The site is very small and, apart from a couple of slopes, no lengthy or strenuous walking is required. Full/ further details will be provided to attendees.

Booking is required. To book your place please contact Tristan Norton.

Contact: Tristan Norton tristan.norton@hantsplants.net

Saturday 11 May 2024, 10.30am–4.30pm

Visit to Boscombe, Bournemouth

Leaders: Martin Rand and Robert Sharp

This is a joint meeting with Dorset Flora Group to look at the urban, grassland and soft cliff flora of eastern Bournemouth, which includes many alien species that are now spreading elsewhere in the county. Also of interest should be a wide selection of spring-flowering clovers and some early-flowering grasses. Beginners and improvers wanting to extend their repertoire are particularly welcome. Booking is essential. To book your place please contact Martin Rand who will then provide full details.

Contact: Martin Rand martin.rand@hantsplants.net, mobile 07531 461442

Saturday 18 May 2024, 10.30am–4.30pm

Visit to South Holt: Hampshire/West Sussex border

Leader: Clive Chatters

We have been invited to join the Sussex Botanical Recording Society in a visit to South Holt, a private estate which straddles the county boundary and which is centred on grid reference SU 746 130. The estate includes significant areas of ancient woodland recently cleared of conifers, semi-natural ancient woodlands including steep slopes of Beech/Yew with Lime, chalk grassland, parkland and reverting arable. The soils range from chalk to heavy clay with extensive screes of flint cobbles.

The size of the estate means that participants will need to be able to walk for much of the day as cars will be left in the estate yard. Expect some of the ground to be steep and uneven so stout footwear will be needed. Be prepared for any weather; there are few places without some tree cover.

To enable us to manage the day, please book a place with Clive Chatters on Clive.Chatters@hiwwt.org.uk (making sure you put 'South Holt' in the topic line) and you will be sent joining instructions.

Contact: Clive Chatters Clive.Chatters@hiwwt.org.uk

Saturday and Sunday 1 and 2 June 2024, 10am–4pm

Sedges Workshop

Leader: Martin Rand

This workshop will introduce you to the sedge family (Cyperaceae), covering many of the genera found in southern England but concentrating particularly on *Carex*. Salient features of the family will be examined, along with the main divisions of the *Carex* genus based on their inflorescences and flowering/fruitlet parts.

The first day will be spent at Testwood Lakes Education Centre, Totton, looking at a wide variety of plant material at the bench. The second day will be spent at a sedge-rich site in the New Forest, seeing plants in their native habitats.

Booking is essential and there will be a fee of £8 per person. Please contact Martin Rand to book your place. You will need to commit to both days.

Contact: Martin Rand martin.rand@hantsplants.net, mobile 07531 461442

Friday 7 June 2024, 6pm–8.30pm

Otterbourne Hill Reservoir and Hiltingbury Recreation Ground – acid grassland notables

Leader: Tristan Norton

A short evening visit to two sites to look for scarce acid grassland species. The Otterbourne site will yield Clustered Clover *Trifolium glomeratum*, Knotted Clover *T. striatum*, Birds-foot Clover *T. ornithopodioides*, Subterranean Clover *T. subterraneum*, Slender Trefoil *T. micranthum* and hopefully Hairy Bird's-foot Trefoil *Lotus subbiflorus* and Slender Bird's-foot Trefoil *L. angustissimus*. Also present are Wall Bedstraw *Galium parisiense*, Common Cudweed *Filago germanica*, Bugloss *Anchusa officinalis* and Sand-spurrey *Spergularia rubra*.

We will also visit the nearby Hiltingbury Recreation Ground, where we will see Suffocated Clover *Trifolium suffocatum* and Annual Knawel *Scleranthus annuus*.

The sites require no lengthy or strenuous walking. Full/further details will be provided to attendees. Booking is required. To book your place please contact Tristan Norton.

Contact: Tristan Norton tristan.norton@hantsplants.net

Saturday 8 June 2024, 10.30am–4pm
Visit to Micheldever Spoil Heaps SSSI – early visit
Leader: Tony Mundell

Micheldever Spoil Heaps Site of Special Scientific Interest (SSSI) is so rich botanically that two visits are planned this year, an 'early visit' and a 'late visit', in order to maximise the number of species seen. You can book for either or both visits. The habitat is unusual as it comprises huge heaps of bare chalk spoil. This spoil arose in the nineteenth century during construction of the railway, when deep cuttings and a tunnel were excavated in 1838-1839.

We have been invited by the landowner and will record the plants found on both the east and west sides of the railway. During this early visit we will see huge numbers of the very attractive Spring Cinquefoil *Potentilla verna* (still called *P. tabernaemontani* in some books). We should also find a few Fly Orchids *Ophrys insectifera* and hopefully the last one or two Lesser Butterfly-orchids *Platanthera bifolia* surviving in North Hampshire. Moonwort *Botrychium lunaria*, Fine-leaved Sandwort *Sabulina tenuifolia* and Mat-grass Fescue *Vulpia unilateralis* are also possible as they have been recorded there in the past. Apart from the rarities we will see a good selection of plants typical of calcareous grassland, making the visit also suitable for relative beginners to botany, as all the plants found will be pointed out.

There is ample parking and details of where to park will be sent to those who book a place. The total distance to be walked is very moderate, only about 1½ miles (2½ km) but with some very steep slopes and dense scrub to push through in places. So, we will potter slowly all day.

Numbers will be limited. Please book your place by contacting Tony Mundell.

Contact: Tony Mundell VC12recorder@hantsplants.net

Saturday 6 July 2024, 10.30am–4pm
Visit to Aldershot heathland at Long Bottom and Caesar's Camp
Leaders: Tony Mundell & Isobel Girvan

This meeting aims to attract people interested in wild flowers from both Hampshire and Surrey, as the route will be partly in North Hampshire (VC12) and partly in Surrey (VC17). The habitat is a mixture of dry sandy heathland and some wetter boggy places giving a good range of plants that require acidic conditions. We last had a HFG visit here on 23 July 2017 and recorded over 200 species then, including Lesser Centaury *Centaureum pulchellum*, Dodder *Cuscuta epithymum*, Oblong-leaved Sundew *Drosera intermedia*, Round-leaved Sundew *D. rotundifolia*, Bog Asphodel *Narthecium ossifragum*, Fringed Water-lily *Nymphoides peltata*, Trailing Tormentil *Potentilla anglica*, White Beak-sedge *Rhynchospora alba*, Lesser skullcap *Scutellaria minor*, Goldenrod *Solidago virgaurea* and Marsh Speedwell *Veronica scutellata*. I particularly want to see if we can refind Marsh Clubmoss *Lycopodiella inundata* and Ivy-leaved Bellflower *Wahlenbergia hederacea* as both are in steep decline in North Hampshire.

People of all botanical knowledge from complete beginners to seasoned experts will be very welcome and very common species as well as the more unusual ones will be pointed out. Note that it will be quite a long walk of about 4 miles (6½ km) round trip with some steep slopes.

Meet and park in the car park at SU 8534 5113 by the Wellington Statue. **Note that** there is no access to the car park directly off the A325. Instead, access is via the junction on Bourley Road at SU 8486 5109.

Numbers will be limited. Please book your place by contacting Tony Mundell.

Contact: Tony Mundell VC12recorder@hantsplants.net

Saturday 3 August 2024, 10.30am–4pm**Visit to Micheldever Spoil Heaps SSSI – late visit****Leader: Tony Mundell**

This is the second of two visits to this area at the invitation of the landowner (see p.5), and we will again record any plants seen on the chalk spoil heaps on both sides of the railway. The rarities we expect to find at this season are Red Hemp-nettle *Galeopsis angustifolia*, Cut-leaved Germander *Teucrium botrys* and hopefully Yellow Bird's-nest *Hypopitys monotropa*.

As for the 'early visit', apart from the rarities, we will also see a good selection of plants typical of calcareous grassland, making the visit also suitable for relative beginners to botany, as all the plants found will be pointed out.

There is ample parking and details of where to park will be sent to those who book a place. The total distance to be walked is very moderate, only about 1½ miles (2½ km) but with some very steep slopes and dense scrub to push through in places. So, we will potter slowly all day.

Numbers will be limited. Please book your place by contacting Tony Mundell.

Contact: Tony Mundell VC12recorder@hantsplants.net

Saturday 24 August 2024, 10.30am–4pm**Visit to Holt Heath, Dorset****Leader: Martin Rand**

Holt Heath National Nature Reserve lies to the west of the Avon Valley a few miles from Ringwood. At nearly 5 square kilometres, I think it is the largest continuous stretch of heathland in Dorset outside Purbeck. For several years now it has had a grazing regime to bring it back into better condition. The site has heathland, valley mires, ponds and rough grazing overlying Tertiary sands and silty clays. I suspect the site will not be known to many Flora Group members and this meeting will be an opportunity to make comparisons with the New Forest.

This is another meeting to be held jointly with the Dorset Flora Group. Booking is essential. Please book your place by contacting Martin Rand who will then provide full details.

Contact: Martin Rand martin.rand@hantsplants.net, mobile 07531 461442

Reports of Recent Events

Seville's Meadow and Keeping Copse, Beaulieu – Saturday 9 September 2023

A report by Martin Rand

The little run of very hot sunny weather which the tail end of summer gave us in compensation for the rest of the season was still in full swing at this meeting, and as we met in the shade of Keeping Copse we wondered how we would fare during the day. The party included a couple of new faces, and we soon set off bravely towards the coast, pausing on the way to appreciate a good variety of common ferns on the ride sides and to point out their features to the less experienced. They included several Male/Buckler ferns *Dryopteris* spp., Soft Shield-fern *Polystichum setiferum*, Lady Fern *Athyrium filix-femina*, Hard Fern *Blechnum spicant* and Hart's-tongue *Asplenium scolopendrium*.

We arrived in the Bailey's Hard yacht park by the estuary, where we were detained for a while by a nice piece of nineteenth-century industrial archaeology. The round down-draft brick kiln in its heyday could apparently produce 40,000 high-quality bricks at a firing, specialising in the 'Beaulieu Buff' which appeared in neighbouring villages and in Victorian parts of Southampton. An interesting article about its history appears on the web on the 'New Forest Knowledge' website: nfknowledge.org/contributions/beaulieu-brick-kiln.

But we were soon tempted out of the welcome shade into Seville's Meadow and the adjoining saltmarsh along the Beaulieu River estuary. I had been particularly keen to visit this part of the Beaulieu Estate (which is not generally accessible to the public) given the superb plant list from the 1980s and 1990s, and it did not disappoint. A highly attractive stretch of rough grazing extends from dry acid-to-neutral grassland on the highest ground through flushed Purple Moor-grass *Molinia* communities into brackish vegetation and full saltmarsh. The field is grazed by a few ponies who took an extremely friendly interest in us and especially in our rucksacks, no doubt deducing their contents correctly.

But before we started to bake ourselves in the full sun we diverted to the spot of coast where the woodland came down to the shore, with a good fringe of Sea Couch-grass *Elymus athericus* and Sea Club-rush *Bolboschoenus maritimus*. This is the habitat for one of our rarest oraches, Long-stalked Orache *Atriplex longipes*. There are only five previous records for the county, all on the Beaulieu River estuary, although its hybrid with the common



Bailey's Hard brick kiln. Martin Rand



Recording at Bailey's Hard in full swing. Tony Mundell

Spear-leaved Orache *A. prostrata* is more widespread. I had last seen it in 2007 with the late Barry Goater a little lower down the coast, when we found only one plant. Sure enough, today after a brief search among the hybrid we found quite a strong little population of the real thing; the English name refers to the long stalks of the fruit with their distinctive narrow triangular bracts, as seen in the photos opposite. Particularly pleasing was that this extended its distribution into a new hectad.

After this triumph we spent some more time on the saltmarsh where we looked at a range of common saltmarsh and shore species including Grass-leaved Orache *Atriplex littoralis*, Common Orache *A. patula*, Sea-purslane *A. portulacoides*, Sea-beet *Beta vulgaris* subsp. *maritima*, Annual Sea-blite *Suaeda maritima* and three glasswort species *Salicornia ramosissima*, *S. dolichostachya* and *S. fragilis*: in all, quite a good introduction to the goosefoot family *Amaranthaceae*, to which we were able to add Common Amaranth *Amaranthus retroflexus* and Fat-hen *Chenopodium album* in the afternoon. Other saltmarsh species duly examined and put on record included Sea-milkwort *Glaux maritima*, Saltmarsh and Sea Rushes *Juncus gerardii* and *J. maritimus*, Common Sea-lavender *Limonium vulgare*, Sea Plantain *Plantago maritima* and Sea Aster *Tripolium pannonicum*.

We now set off under an ever-strengthening sun into the main stretch of pasture. The drier areas had a spectacular amount of Dyer's Greenweed *Genista tinctoria* and large quantities of Trailing Tormentil *Potentilla anglica*. We didn't rediscover Greater Broomrape *Orobanche rapum-genistae*, and I suspect this was recorded from an adjoining more acid field. Heading down towards the shore again, we found the area becoming increasingly damp along a flush line, with increasing amounts of Purple Moor-grass. Typical plants of this habitat appeared, including Sneezewort *Achillea*



Long-stalked Orache *Atriplex longipes* in fruit. Martin Rand (top); Tony Mundell (bottom).

ptarmica, Carnation Sedge *Carex panicea*, Meadow Thistle *Cirsium dissectum*, Devil's-bit Scabious *Succisa pratensis* and several rush species *Juncus*, but sadly we didn't refind Saw-wort *Serratula tinctoria* which is previously recorded here and survives elsewhere nearby. As we reached a line of brackish marsh we were able to compare the flower and seed characteristics of two sea-spurries *Spergularia marina* and *S. media*, also the fruiting umbels and fruit shapes of Corky-fruited Water-dropwort *Oenanthe pimpinelloides* (found farther back) and Parsley Water-dropwort *O. lachenalii*.

By this time, we were getting well toasted and were glad to retreat to the partial shade by the river for lunch and welcome refreshment. Returning to where we had parked the cars in the woodland, we admired the leaves of Narrow-leaved Lungwort *Pulmonaria longifolia* and a great show of native Goldenrod *Solidago virgaurea*. I became quite excited about a hawkweed that I thought might be a rarity having a second flowering and was rather mortified to have it identified as *Hieracium sabaudum*, one of our commonest late-summer species – which I thought I knew too well to mistake and have even seen several times in this wood!

On reaching the cars several people decided that they had had enough 'good weather' for one day, but a band of stalwarts carried on through a part of Keeping Copse which is not publicly accessible and is considerably more appealing than the area crossed by the public footpath to Buckler's Hard. (To the estate's credit, they are now removing much coniferous planting and restoring native hardwoods.) We were quickly rewarded by a spectacular glade full of Devil's-bit Scabious, and in the ride there was a good scattering of Lesser Centaury *Centaureum pulchellum* still well in flower.

The woodland here is attractive and has a varied but mostly unremarkable acid-soil flora, and in fact most of the surprises came in the rides. We failed to refind Heath Cudweed *Omalothea sylvatica*, and I begin to despair of ever seeing it again in South Hampshire. What we did see was some Bristle Club-rush *Isolepis setacea*, a stand of the hybrid between Water and Corn Mints *Mentha* × *verticillata*, and an intriguing selection of non-natives that included Cockspur *Echinochloa crus-galli*, Shaggy Soldier *Galinsoga quadriradiata*, Jersey Cudweed *Laphangium luteoalbum*, Yellow Bristle-grass *Setaria pumila* and the aforementioned Common Amaranth; also Sharp-leaved Fluellen *Kickxia elatine*. No doubt at least some of these came in transported by pheasant food.

By now we were all flagging and the afternoon was well-advanced; so, rather than continuing farther and returning by another stretch of the coastal woodland, we decided to retrace our steps in the shade and call it a day. Despite the heat it had been very enjoyable and productive of good records. Our thanks go to Beaulieu Estate and its head keeper for arranging access and providing parking, and to the Beaulieu River harbourmaster for clearing our route to the coast through the site security at Bailey's Hard.



Parsley Water-dropwort *Oenanthe lachenalii*,
Tony Mundell



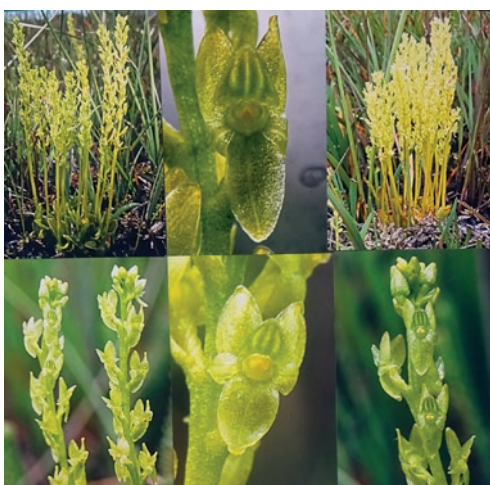
Goldenrod *Solidago virgaurea*. Tony Mundell

Flora Group/BSBI Exhibition Meeting – Saturday 2 December 2023

A report by Catherine Chatters

Thirty people met at Testwood Lakes Education Centre on the edge of Totton for our traditional winter get-together; most stayed all day whilst others came for the morning session or for the AGM and talks in the afternoon. As usual, it was a great opportunity to chat to fellow botanists, share news, view recent publications, peruse herbarium specimens and purchase books to raise funds for the Flora Group.

Rosemary Webb and Nigel Johnson had collated an impressive display of their photographs. Nigel's selection featured images of Bog Orchid *Hammarbya paludosa* growing in the New Forest, whilst Rosemary had chosen to illustrate the great diversity of colour and growth forms exhibited by Fly Orchids *Ophrys insectifera*. Until seeing Rosemary's photographs, I had no idea that some Fly Orchids are ginger, deep crimson or entirely yellow whilst others have a yellow edge or a brown tinge to the margins. I was fascinated to see the photograph that Rosemary had taken in West Sussex of the hybrid between a Fly Orchid and a Bee Orchid *Ophrys apifera*; she suspects the hybrid might be growing somewhere in Hampshire and is always hopeful of making the discovery. I was interested to learn from Nigel that Bog Orchids reproduce when tiny bulbils formed along the edge of the leaves fall off and are either carried downstream or develop *in situ* to form dense colonies, as shown in some of his photographs.



Rosemary Webb and Nigel Johnson by their impressive display of photographs of Bog Orchid *Hammarbya paludosa* (left) and Fly Orchid *Ophrys insectifera* (right).
Catherine Chatters

Eric Clement had brought along a selection of pressed specimens of alien plants for people to view and kindly donated the proceeds from the sale of his second-hand books to Flora Group funds.

During 2023 most of Tony Mundell's botanising was related to two separate projects, one being the Threatened Plants Project (TPP). Tony had undertaken a 'ridiculous' number of TPP surveys in North Hampshire (VC12) usually accompanied by one or two other Flora Group members. He is working his way through his notes to complete all the TPP forms; by 1 December he had completed 43 forms but still had 37 more to do and had put the completed forms in a folder for people to look through.

The other project that Tony had undertaken in 2023 related to the botanical interest of Eelmoor Marsh Site of Special Scientific Interest (SSSI), an area not accessible to the public. This project aimed to find and plot the locations of many uncommon plant species. The site managers have contracted a botanist, Richard Bullock, to monitor a list of 56 plant species of conservation concern and assess the increase or decrease in their populations. Tony wanted 14 additional species included in the regular monitoring and offered to supply his own 2023 records so that Richard would know where to search for them in the future. Tony brought along his folder (titled 'Spot the Dots') of distribution maps showing records gathered by him and Cathy Wilson in 2023 as well as records made by Richard during 2021 and 2022 (see his further comments on p.54). Tony is grateful to Cathy for helping him with this task.



John Poland's specimen of a 'native Hampshire plant' which kept us all guessing – see p. 15 to find out the identity of the species. Catherine Chatters

John Poland kept us entertained by encouraging people to identify plant material, including a rather mysterious tuft of vegetation which, at first sight, appeared to resemble the remains of a dead hairy mammal! We were all baffled by it until John revealed its identity at the end of the day.

Following a bring-and-share buffet lunch we held our AGM, ably chaired by Cathy Wilson. Cathy explained that since Sarah Ball stepped down from the Flora Group committee after many years as Chairman, the committee meetings are chaired on rotation until someone is willing to take on the Chairman's role.

The committee members were elected. During the 'open forum' people were encouraged to consider leading or co-leading Flora Group field meetings or assisting with the administrative arrangements; please have a think about this and if you would like to help or are keen to find out more about what is involved, do have a chat with one of the committee members.

At the end of the AGM Cathy presented Martin Rand with a 'thank you' card and gifts on behalf of the Flora Group to acknowledge his twenty years as Vice-county Recorder for VC11 and for all the help he has given to the Flora Group over the past two decades, for example working on the Rare Plant Register with Tony, hosting the website, organising and leading field meetings and running extremely useful workshops on plant identification.

His knowledge, kindness and patience have been appreciated by so many people. Martin thanked everyone for their support and said it had been a 'great experience'.

We then enjoyed photographic presentations by 'the three Essex boys' namely Tristan Norton, Martin Rand and Clive Chatters who, we discovered, had all spent childhood years in the same county before making their home in Hampshire.

Tristan showed us photographs of plants which occur at a couple of local sites which he enjoys visiting to take a 'botany break' during his busy life. The first of these sites, Otterbourne Hill Reservoir, is a species-rich acid grassland with open access to the public. Tristan explained it is 'good for legumes' and showed us a range of species it supports including Clustered Clover *Trifolium glomeratum*, Knotted Clover *Trifolium striatum* and Subterranean Clover *Trifolium subterraneum*. It is also a good place to see Slender Bird's-foot-trefoil *Lotus angustissimus* and Hairy Bird's-foot-trefoil *Lotus subbiflorus*. Tristan explained that Slender Bird's-foot-trefoil can be identified by its 'jumbo hot dog sausage fruits' and the 90 degree 'kink' on its keel; he also pointed out that it has pale lemon-coloured flowers compared to those of Hairy Bird's-foot-trefoil.

We all have ways of remembering certain characteristics to help us identify plants and Tristan thinks of the Bee Gees to help him differentiate between three species of *Lotus* – Common Bird's-foot-trefoil *Lotus corniculatus* 'has a massive head', *Lotus angustissimus* is 'handsome and slender' and *Lotus subbiflorus* is 'hairy'!

Tristan mentioned that Wall Bedstraw *Galium parisiense* was found here by Gareth Knass about 10 years ago.

The other local site that Tristan visits frequently is Hiltingbury Recreation Ground where a 'bit of scruffy amenity grassland' supports Suffocated Clover *Trifolium suffocatum* and Annual Knawel *Scleranthus annuus*. Martin explained that Hiltingbury Recreation Ground was created on the site of a former landfill site where lots of sand and gravel had been brought in during the restoration phase. Lots of Sand Spurrey *Spergularia rubra* and Upright Chickweed *Moenchia erecta* can also be found here.

Tristan will be leading evening field trips to Otterbourne Hill Reservoir and Hiltingbury Recreation Ground this summer; please see pages 3 and 4 of this newsletter for further information.

As Tristan lives in an agricultural area, he has developed an interest in plants associated with arable cultivation. He and Sue Bell have been keeping an eye on Ground-pine *Ajuga chamaepitys* (for details see Tristan's article on page 22) and he has been helping to monitor a population of Pheasant's-eye *Adonis annua* at a site in Hampshire where seed from Cambridgeshire had been sown by Plantlife; this led to some discussion about policies relating to re-introductions but we were all pleased to see that the photograph of the Pheasant's 'eye' site included a large population of Venus's-looking-glass *Legousia hybrida* which had not been sown.

Tristan showed us a photograph of a field that he came across unexpectedly which supports 'an amazing arable flora' including Prickly Poppy *Roemeria argemone*, Venus's-looking-glass, Rough Poppy *Roemeria hispida*, Stinking Chamomile *Anthemis cotula* and Narrow-fruited Cornsalad *Valerianella dentata*, demonstrating what can 'pop up' following a bit of disturbance.

Tristan's most pleasing botanical discoveries of the year were made when he visited a former landfill site along Lee Lane near Nursling and found Mousetail *Myosurus minimus* and Small-flowered Buttercup *Ranunculus parviflorus*. Clive Chatters mentioned that this site used to support Fairy Shrimp *Chirocephalus diaphanus*.

Tristan explained that he ensures his visits to see his parents in his home county of Essex are timed to coincide with the flowering period of Crested Cow-wheat *Melampyrum cristatum* and Sulphur Clover *Trifolium ochroleucon*.



A trio of bird's-foot-trefoils:
Common *Lotus corniculatus* (left),
Slender *L. angustissimus* (centre)
and Hairy *L. subbiflorus* (right)
(and Tristan's identification aide-
mémoire – the Bee Gees).
Tristan Norton

and showed us photographs of these species (flowering in road verges managed by Essex Wildlife Trust) to prove that he sometimes ventures beyond the county boundary of Hampshire!

Martin Rand began his presentation with a promotion for the Threatened Plants Recording project. During the winter of 2022/23 he had visited the vicinity of Butser Hill and Queen Elizabeth Country Park to search for Juniper *Juniperus communis*. Following afforestation of the downland habitats, most of the Juniper plants now occur as isolated individuals. At some of the sites where Juniper had previously been recorded it could no longer be found and although it has regenerated well on the A3 cutting, not many Juniper plants survive on Butser Hill. Martin had visited St Catherine's Hill with Mary Parker to monitor the Juniper population. Most of the Junipers which had been planted as 'mitigation' in connection with the M3 cutting are now dead or dying; however, there is one area where Juniper was planted in an enclosure but is surrounded by many Juniper plants that may be natural regeneration.

During 2023 Martin had visited one of his favourite parts of the Peak District – Cressbrook Dale – where he had enjoyed seeing plants such as Rue-leaved Saxifrage *Saxifraga tridactylites* growing in its natural habitat of rock crevices and screes. *Hutchinsia Hornungia petraea* is very abundant in one part of the valley. Spring Cinquefoil *Potentilla verna* which is a rare plant in Hampshire is quite abundant in the Peak District.

Martin mentioned that he will be leading some half-day Flora Group events during 2024 to areas which are easy to visit and which will be ideal for people 'setting out on their botanical journey'. The first of these will be to the Valley Park woodlands (see page 3 for details) where we can expect to see lots of Bluebells *Hyacinthoides non-scripta* and a good range of woodland plants including Lily-of-the-valley *Convallaria majalis* which Martin is fairly sure is native here as it occurs in other woods towards Southampton and is 'shy' to flower which is typical of genuinely wild specimens.

Mary Parker also helped Martin with surveys for the Threatened Plants Recording project when they visited Beaulieu Heath to monitor the population of Green-winged Orchid *Anacamptis morio*. I was pleased to hear that the work undertaken on behalf of the New Forest Non-Native Plants Project (a partnership project hosted by HIWWT) to control Cotoneaster has benefited the Green-winged Orchids; Martin mentioned that in one area where Cotoneaster had been controlled, he and Mary found a patch of 80 or 90 flowering spikes. Beaulieu Heath supports lots of other interesting plants including huge quantities of Pale Dog-violet *Viola lactea* and Heath Dog-violet *Viola canina*.

Mary also accompanied Martin on a Threatened Plants Recording visit to Broughton Down to hunt for Field Fleawort *Tephrosia integrifolia* which they found in old hollow-ways at the western end of the site. They also found lots of Bastard-toadflax *Thesium humifusum* including some very large, robust plants which had been attacked by a rust fungus called *Puccinia thesii* – a first vice-county record for this species of rust fungus.

During May 2023 Flora Group members had enjoyed a visit to Sims Wood and Spearbed Copse on the Beaulieu Estate. Martin tested our identification skills with a photograph of young Butcher's-broom *Ruscus aculeatus* which had grown up after being swiped and which looked like spears of Asparagus.

During early May Martin had photographed the Meadow Saxifrage *Saxifraga granulata* in Chilcomb churchyard where Anna Stewart has encouraged good management to be undertaken by those responsible for its stewardship. Other plants which Martin had been pleased to see during 2023 included White Sedge *Carex canescens* growing near Hedge End on Wildern Local Nature Reserve where it had been recorded by Phil Budd a few years ago and it was satisfying for Martin to have refound 'quite a good population' of Herb Paris *Paris quadrifolia* growing amongst Dog's Mercury *Mercurialis perennis* in Ash *Fraxinus excelsior* woodland on a privately-owned site.

Martin had visited Wilverley Plain and Markway in the New Forest with Nick Aston to monitor the Lesser Butterfly-orchid *Platanthera bifolia* population for the Threatened Plants Recording project. They were delighted to have found 'thousands', even though they didn't cover the entire area, and were pleased to have found a new site for Moonwort *Botrychium lunaria*.

Martin showed us photographs of Yellow Dodder *Cuscuta campestris* growing on Fryern Recreation Ground in Chandler's Ford where it had infested a 'wildflower mix' sown by the Council into an existing area of MG5 grassland previously supporting a fine floral display including Knapweed *Centaurea nigra* and Oxeye Daisy

Leucanthemum vulgare. The flowers of Yellow Dodder are pearly white but the twining parts of the plant are yellow, turning orange as they age. Yellow Dodder is a non-native species which has not yet become established in the UK but could become a pest in the future. Martin has seen it growing on the continent where it had 'trashed' a carrot crop. He suspects the seed sown by the Council on Fryern Recreation Ground had probably been purchased from a continental supplier. Sue Parish mentioned that she had seen *Heuchera* plants grown by Hilliers infested with Yellow Dodder.

As mentioned in the report on page 7 of this newsletter Martin led a Flora Group field meeting to Seville's Meadow and Keeping Copse near Beaulieu on an extremely hot day in September. Martin described the 'lovely text-book example' of the habitat transition from dry neutral to acid grassland, through upper saltmarsh and mudflats which he described as 'a perfect ecological cline'. Martin was really pleased to find Long-stalked Orache *Atriplex longipes* during this visit; about twelve years ago he had only found one plant of this species growing along this stretch of the Beaulieu River so he was delighted to find a whole colony in a different spot.

During a visit to Anglesey in 2023 Martin attempted (at the request of Pete Stroh) to count the populations of Field Fleawort but the steep terrain of the cliffs proved to be rather a challenge. In the circumstances Martin had to do an estimate through binoculars and was able to conclude that this species is 'doing well' there. Fortunately, for us, Martin found a Field Fleawort plant growing conveniently close to the coastal footpath so he was able to show us a photograph and we were treated to a photograph of Spring Squill *Scilla verna* which Martin had also taken on Anglesey.

To complete the trio of 'Essex Boys', Clive Chatters (who was born in Colchester) shared some of the highlights of his botanical year in the New Forest. He began by showing us a photograph of a 'Christmas Green Oak' which he wittily referred to as a 'quirky oak' (!) as it has leaves out-of-season during the winter. Coral-necklace *Illecebrum verticillatum* and Marsh Gentian *Gentiana pneumonanthe* both had a 'good year'. Clive encouraged people to look for 'blisters' on Marsh Gentian plants which are evidence of the mining activities of the larvae of a micro plume moth. The hard-grazed, scuffed areas where the hooves of cattle have cut slots in the heathland vegetation are the places to look for Marsh Clubmoss *Lycopodiella inundata*, often found here growing in association with Round-leaved Sundew *Drosera rotundifolia*. Clive was pleased to have refound Dorset Heath *Erica ciliaris* near Burley but is not sure whether it is native here. It is known to have been planted by Forestry Commission Keepers around flight ponds elsewhere and although there are flight ponds near Burley, the Dorset Heath is not associated with these particular ponds. Another plant that Clive had photographed near Burley was Pale Butterwort *Pinguicula lusitanica* which, although so abundant in the New Forest, is restricted in its distribution elsewhere in the UK.



A fresh sprig of 'Christmas Green Oak' leaves on Old Christmas Day (6 January). Clive Chatters

Clive was grateful to Martin for showing him New Forest Bladderwort *Utricularia bremii* which is 'chunky', more luxuriant and with wider leaves than Lesser Bladderwort *Utricularia minor*. Alison Bolton had found a new site for Intermediate Bladderwort *Utricularia intermedia* where Clive reported it is 'doing extremely well'.

Clive had spent some time as a volunteer for the New Forest Non-Native Plants Project during Autumn 2023 monitoring *Cotoneaster* species including *C. horizontalis* and *C. simonsii* following work to control these non-native species which have invaded the former WWII Airfields at Stoney Cross and Beaulieu Heath. He showed photographs taken on 5 November 2023 when monitoring at Beaulieu Heath was hampered by the extremely wet conditions encountered where, in places, the water along the perimeter road was too deep even for wellingtons and the *Cotoneaster* plants were growing submerged under the water.

Clive ended his presentation with a photograph to test our identification skills. He revealed it to be a picture of Starfruit *Damasonium alisma* leaves in an advanced state of decay, revealing their characteristic 'boxy' venation.

The afternoon session ended with John revealing the mystery vegetation which had foxed us all (shown in the photo on page 11) to be Great Wood-rush *Luzula sylvatica*.

Thanks to everyone who helped to make the day so informative and enjoyable and to Pat Mundell and Clare Rand who served the refreshments.

Notes and Features

Introducing Tristan Norton as Vice-county Recorder for South Hampshire

As mentioned previously in this edition of *Flora News*, Tristan Norton has now taken on the role of Vice-county Recorder for South Hampshire (VC11) since Martin Rand stepped down at the end of last year. Tristan is a member of the Flora Group committee and has arranged some evening field meetings for 2024, details of which are pages 3 and 4 of this edition of *Flora News*. If you would like to get in touch with Tristan, his contact details are provided on the last page of this newsletter.



Tristan Norton (left) and Martin Rand (right) photographed during the Flora Group/BSBI Exhibition Meeting at Testwood Lakes on 2 December 2023.
Catherine Chatters

Charlotte Yonge's parishes

An article by Martin Rand

Charlotte Yonge's life

Charlotte Mary Yonge was a novelist, biographer, children's writer and social campaigner who was hugely popular in her time and much admired well into the 20th century by many other authors; although probably less familiar to the adult reading public more recently, she has continued to receive the attention of critics and academics. She was born in 1823 and lived her entire life in Otterbourne, Hampshire. She was brought up in a 'high church' Anglican family and schooled at home by her father well into her twenties. This was not an unusual arrangement for girls of her class at the time.

Her devotion to the Anglo-Catholic Oxford Movement is apparent in her writings and public life, and she taught Sunday school in Otterbourne for many decades. John Keble, a leader of the Oxford Movement and vicar of neighbouring Hursley from 1835 to 1866, was a strong influence on her. (He was also responsible for building the new church at the foot of Otterbourne Hill, replacing the old church close to the Itchen near Brambridge which was remote from the growing village.) In 1898, just three years before her death, Yonge wrote *John Keble's Parishes* (that is, Hursley and Otterbourne); perhaps more of a memoir than a rigorous history, but with much of interest about her own times.



Charlotte Yonge, aged 35

John Keble's Parishes: the book

The natural history meat of the book is in the last three chapters, which present a topographic account of the two central parishes and all their neighbours, some notes on local dialect and phrases, and inventories of birds and 'Flowers', although ferns also get a mention. She is best known among naturalists as a conchologist. I am not sure that she was an outstanding botanist, and she often seems to rely on the reports of others, but it is useful and fascinating to have this information for a limited region brought together in one place.

A conspectus of the area

The best is to be found in the chapter 'A Survey', where a rapid tour of the countryside is accompanied by quite extensive notes on plants. Yonge mentions Bastard Balm *Melittis melissophyllum* in Ampfield Woods, first noted by Bromfield in the 1840s and recorded up until 1988. Frequent searching since has failed to refind it. Bromfield also supplies the record of Lily-of-the-valley *Convallaria majalis* at Parnholt Woods which persists in one now isolated tract of woodland. Herb-Paris *Paris quadrifolia* has not been recorded here since 1914. It was collected in 1876 by the local botanist Frederick Isaac Warner, and a specimen is in the herbarium of the South London Botanical Institute. Following coniferisation of much of this woodland, there is much less suitable habitat.

To the east, around Farley Mount and Crab Wood, orchids are the main theme. Sadly the slopes between South Lynch, Pitt Down and the monument, where 'bee orchis (*Ophrys apifera*) swarm', is now all arable or reseeded pasture. Elsewhere in this area, she mentions Fly Orchid (*Ophrys muscifera*), still present today but diminished. She also lists Butterfly Orchid (*Habenaria*), but without saying which: both used to occur, but *Platanthera bifolia* has not been refound recently and *P. chlorantha* has had a decline. 'Listera Nidus-avis, birds'nest orchis' has only been seen very sporadically since, with the last record being in 1999. I remember finding just one spike on the banks of Burrow Road in the mid-1990s. A mention of 'man' (*Orchis anthropophora*) is surprising, as I have not been able to find any other records for this part of the county. 'Dwarf' is the then accepted vernacular name for Burnt Orchid *Neotinea* (formerly *Orchis*) *ustulata* with the locality 'Downs by South Lynch' in the catalogue later in the book.

'White helleborine' *Cephalanthera damasonium* still flourishes in parts of the beech-dominated woodland around Pitt Down. Yellow Bird's-nest *Hypopitys monotropa* gets a mention; first reported by Frederick Warner

around Winchester in an unpublished list of plants passed to Frederick Townsend during preparation of his *Flora of Hampshire*, it still has a large population in one sector of Farley Mount woodland.

I am going to quote at length from her account of North Baddesley, southern Ampfield and Chandler's Ford, since it conjures a picture of the extensive landscapes and their plants that we have lost over so much of lowland Britain and now yearn to recreate. Her description covers several miles of my 'home territory', and she captures it just at the time when it is being destroyed.

"The whole tract is an extension of the New Forest land, almost all heather and bog, undulating and, in the drier spots, growing bushes of glistening holly. It is forest scenery without the trees, excepting the plantations of fir made by a former generation, but presenting grand golden fields of gorse in the spring, and of red and purple heather in early autumn... here we have the growth of the black peaty bog, the great broomrape, brown and leafless, growing on the roots of the gorse; the curious dodder spreading a tangled red skein of thread over it gemmed with little round white balls, the rare marsh cinquefoil, the brilliant yellow asphodel, the delicate, exquisite bog pimpernel, the blue skullcap, the two weird and curious sun-dews, and even in former times the beautiful dark blue Gentiana Pneumonanthe, as well as the two pinguiculas – Vulgaris, like a violet, and the rarer Lusitanica.

But alas! The giant called 'High Farming' is an enemy to the botanists, and had starved out many of the choicest of these, even before the building of villas at Chandler's Ford put a total end to most of them."

A few of these plants survive in the wonderful but beleaguered Wildlife Trust reserve at Emer Bog and Baddesley Common, of just 50 hectares; even Marsh Gentian actually hung on until 1999. Elsewhere, a handful of the commoner species of heath and mire leave faint traces of the vanished countryside on roadside verges and wood margins or in damp corners of reseeded pastures.

One could continue at length with descriptions of all the other localities that Yonge describes but this would make for a very long article, so I will concentrate on a few that are still notable.

On Otterbourne Common: *"The Cranbury side of the road has the village cricket ground on it, though burrowed under by the concentric brick-work circles of the Southampton Company's water works, which are entered by a little staircase tower, cemented over so as to be rather ornamental than otherwise... gorse, heather and honeysuckle flourish... Perhaps loaded wagons drop some of their seeds, for on those cuttings through the gravel on the road-side have sprung up the dainty little stonecrop, Sedum acre, and the Stork's bill, Erodium moschatum. These are plentifully spread over the cutting; but the Trifolium arvense, which came for a few years, seems to have vanished again."*

The road cutting is now totally over-shaded and would not support any of these. The Stork's-bill record I suspect is an error, since Musk Stork's-bill was extremely rare in the county right up to the 1990s, and at the time was only known at Chewton on the south-western coast. Townsend publishes the record in the second edition of his *Flora of Hampshire* but notes 'I have not seen specimens.' Given its rapid recent spread, often clearly by human agency, her speculation cannot be entirely ruled out. However, Common Stork's-bill *Erodium cicutarium* grows on the common itself around the waterworks, as do the Hare's-foot Clover *Trifolium arvense* and Bird's-foot *Ornithopus perpusillus* which she lists in a later chapter. The many other notable plants of seasonally parched grassland for which the site is now known get no mention, and one wonders whether they are later imports with material used in the maintenance and expansion of the reservoir.



Burnt Orchid *Neotinea ustulata* – a plant long lost from Hursley parish.
Martin Rand



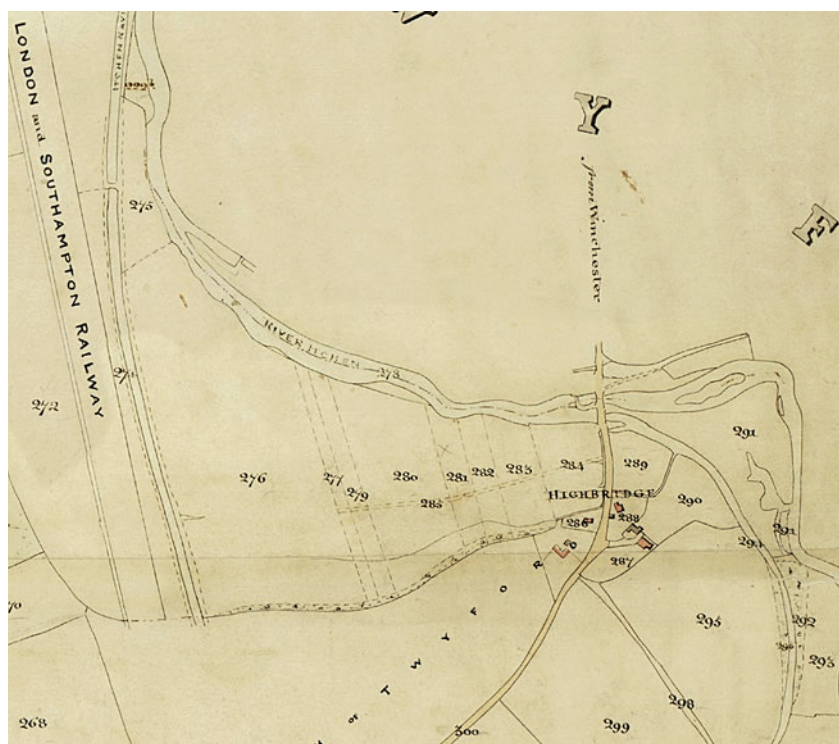
Hare's-foot Clover *Trifolium arvense* – a species Yonge thought lost from Otterbourne Common but now surviving. Martin Rand

My last extract from this chapter deals with the Itchen valley on the eastern side of Otterbourne, “the peaty marshes on the opposite side of the district, belonging to an alluvial soil, washed down from the chalk hills. The great reed-mace adorns the Itchen, and... the curious balls of the bur-reed... Also meadow-sweet, meadow-rue, and comfrey of every shade of purple [curiously, no mention of white], the water avens and forget-me-not, also that loveliest plant the bog-bean, with trefoil leaves and feathery blossoms. *Orchis latifolia* [probably Southern Marsh-orchid *Dactylorhiza praetermissa* is intended, but the shifts in Marsh-orchid taxonomy over the last 150 years make it hard to be certain] is in plenty, and also *Orchis incarnata* [Early Marsh-orchid]... Of late years the *mimulus* has gilded the bank of one of the ditches. Is it compensation for the *Pinguicula vulgaris*, which has been drained away...? Higher up the course of the river, *Orchis conopsea*, long-spurred and very sweet, the compact *Orchis pyramidalis* and the rare *Epipactis palustris* are to be found...”

Many of these are still to be found frequently in this stretch of the valley. Bogbean *Menyanthes trifoliata* is now limited to one small area south of Brambridge, where much of its habitat is overrun with reed and other coarse fen vegetation. The Butterwort (*Pinguicula*) record is especially interesting given the rarity of the plant in South Hampshire; it was accepted by Townsend for the first (1883) edition of the *Flora of Hampshire*, along with a record from the 1799 *Annual Hampshire Repository* and an herbarium specimen from Mrs. Delmé Radcliffe, both in the vicinity. The latter was marked by Townsend in the *Flora of Hampshire* as having been seen by him – probably the specimen, rather than the site.

There are modern records of Southern Marsh-orchid along most of the Itchen Valley from Southampton to Winchester and beyond, but in the Otterbourne area only from Highbridge. Early Marsh-orchid has always been much more localised, but again modern records in this stretch are only from Highbridge. There was a small Roman Catholic chapel at Highbridge in which Charlotte took an interest, so it is possible that these were populations that she knew. Townsend records the former species but not the latter.

Particularly exciting is the mention of Marsh Helleborine, for which there are only a couple of known sites along the Itchen below Winchester; it appears in Townsend as ‘Otterbourne in plenty’. I would like to think that this is on a stretch of the main Itchen river on the right (west) bank at the northern extremity of Highbridge; at any rate they were still there when I saw them in the early 1980s. Unfortunately, at that time I was not submitting records, and I now need to do some office archaeology to dig out notebooks from the era. In any case, a later chapter simply gives ‘chalk pit’ as a locality, which would not fit and sounds more like ground near the railway and water pumping station at Otterbourne that provided one of the *Pinguicula* records.



In talking of the valley grasslands between Otterbourne and Highbridge, Yonge mentions ‘Common Mead’. This is identified in the 1839 Tithe Awards as a roughly triangular area between Brambridge, Allbrook and Highbridge which is recorded as liable to flood. It does not appear to have been a managed water meadow, and the map and awards show that there were parallel allotments (some narrow) to several landowners. The pattern suggests that this was perhaps managed as a ‘lammas land’, cut for hay at the end of summer and grazed thereafter. It is now broken up into larger compartments: some are willow scrub, while much of the area has gone down to reed swamp and tall-herb fen despite some cattle grazing. Marsh Helleborine *Epipactis palustris* survived at the northern end close to the Itchen into the 1980s, although this seems unlikely to have been the spot where Yonge knew it.

It would also be nice to think that Charlotte's 'Orchis conopsea' was what we now would call *Gymnadenia densiflora*, Marsh Fragrant-orchid. It would be the only record from the Itchen catchment, and suitable habitat would have existed (and in odd places still does). 'Long-spurred' and 'very fragrant' are tempting pointers, but she would not have distinguished the different Fragrant-orchids and in the absence of a specimen it is impossible to know how she would have evaluated those features. It also does not help that she mentions the plant in the same sentence as one species with which it would readily cohabit and another with which the likely associate would be *G. conopsea* sensu stricto. Townsend comments on the distinguishing features of *G. densiflora* in his *Flora of Hampshire* in connection with Charles Baron Clarke's record from Bransbury Common (well attested by later records), published in 1866 in *A list of the flowering plants, ferns, and mosses collected in the immediate neighbourhood of Andover*, although Townsend makes a slip about flowering times in his commentary which contradicts the actual record.

The plant catalogue

The final chapter of the book is devoted to inventories of birds and flowers. It is certainly not the exhaustive list of localities one would expect of a local Flora, and I shall limit extracts and comments to a few topics.

It would be very hard now to imagine what the Cuckoo Bushes area of Chandler's Ford was like before suburbanisation, which was finally completed by the redevelopment of Leigh House and its grounds in the early years of this century. The small area of green space remaining is an unimpressive series of tiny damp pastures along a minor tributary of the Monk's Brook. Yonge mentions *Viola lactea*, *Drosera rotundifolia*, *D. intermedia*, *Hypericum elodes*, *Genista anglica*, *Hydrocotyle vulgaris*, *Galium palustre* and *Lysimachia tenella*. The only species which she gives that survives is Climbing Corydalis *Ceratocarpus claviculata*, which is still in vegetation on the side of Cuckoo Bushes Lane.

As might be expected, plants of arable land have fared badly since Yonge's time. Many are listed without locations, which might suggest that they were too common to merit them, but one should be cautious about jumping to conclusions. Corn Buttercup *Ranunculus arvensis* was last seen in 1975 east of Hursley village, in fields that still support other uncommon species. Small-flowered Catchfly *Silene gallica* ('*Silene anglica*') was also last recorded in 1975 in or near Ampfield. Corn Cockle *Agrostemma githago* is said to 'adorn the paths through wheat and barley fields everywhere'. This is a telling comment as it suggests that it was being extirpated from the crops themselves. There are no modern records other than deliberate sowings (see below).

Knawel *Scleranthus annuus* is noted from Hursley; at the time of the record this would still have encompassed some of Hiltingbury which, Yonge notes elsewhere in the book, had been recently transferred to the new parish of Chandler's Ford, and which has more suitable geology than the rest of Hursley parish. If so, the recent records on the recreation ground at Hiltingbury may represent a survival. There are also records up to 1991 from Otterbourne Hill.

Field Madder *Sherardia arvensis* remains quite widespread, and still occurs at Otterbourne Hill which is the only site Yonge mentions. Corn Marigold *Glebionis segetum* survived in farmland at Ampfield and North Baddesley into the present century but is now only seen in deliberate sowings.

Weasel's Snout *Misopates orontium* ('Lesser Snapdragon') is noted as 'occasionally in gardens', which since the recent destruction of the horticultural Ganger Farm at Ampfield for housing is much the case today. There are notable and persistent populations in gardens at Purkess Close in Chandler's Ford and at Highbridge Community Farm. Nowadays it often favours allotments, and it would be worth investigating those in Chandler's Ford and Otterbourne. Bugloss *Lycopsis arvensis* is another casualty of the Ganger Farm housing development but can still be found at Otterbourne Hill; Yonge lists only a sand-pit in Boyatt Lane. Sharp-leaved Fluellen *Kickxia elatine* is yet another but persists in scattered locations. Round-leaved Fluellen *K. spuria* has been seen in even fewer locations recently, mostly around Hursley. These are all cited simply as 'in stubble-fields', which might imply that they were widespread.

Among the arable species with no modern records in the area (apart from recent sowings of the typical municipal 'wildflower mix') are Corn-cockle *Agrostemma githago*, Shepherd's-needle *Scandix pecten-veneris*, Cornflower *Centaurea cyanus* and Basil-thyme *Clinopodium acinos* ('*Calamintha vulgaris*').

As may be apparent by now, there are problems with the interpretation of some of Charlotte Yonge's records, for several reasons. Yonge claims that the records are 'mostly well known, and verified by Mr. Townsend's *Flora of Hampshire*', but this is hard to establish in some cases. Then there are questions of taxonomy: anyone who finds the recent state of flux in scientific nomenclature upsetting should go back to the second half of the 19th century, when there were three serious botanical handbooks in use, each with its own views on classification and naming – the best among them (Babington's *Manual of British Botany*, first published in 1843 with numerous later revisions) probably the least used by the general naturalist because of its severely technical nature, and arguably the worst (Bentham's *Handbook of the British Flora*, first published in 1858 and also frequently revised) the most popular, no doubt because it had pictures! And this is not to mention the less formal guides aimed at the general public, of which the most popular (Johns' *Flowers of the Field*, first published in 1851) is incomplete in its coverage even by the standards of the day. To this can be added that we have to reconcile names with modern taxonomy, usually in the absence of specimens; and that, whatever books Yonge was able to resort to, she could be decidedly odd, to put it politely, in her use of both scientific and popular names – and in bringing them together. It is hard or impossible to pin down some of her usages in any of the better-known reference works of her era.

When a plant name is listed without commentary or locations in her catalogue, it is not clear whether this is because she is taking it from another source and has not seen it herself, or she considers it so common as not to need any comment. Finally, some of her records simply seem wrong, even given the most generous interpretation.

I think it appropriate to list those deserving of comment below, for future reference.

***Ranunculus hederaceus* (Ivy-leaved Crowfoot).** Yonge says: 'The ivy-shaped leaves float above, the long fibrous ones go below.' This cannot be *R. hederaceus*, which has only laminar leaves. This is clearly stated in all the main guides of the time. Townsend does not give her Boyatt Lane record but does accept one at Ampfield from Frederick Warner.

'Dog V[iolet]. (V[iola]. *canina*)'. 'In every wood, rich and handsome.' Yonge then goes on to give single localities for *V. riviniana* and *V. reichenbachiana*, commenting 'The three last [ed: the third is *V. hirta*] are very probably only sports of *canina*'. This smacks of the treatment in Bentham, but he does not even mention *V. reichenbachiana* and certainly does not include *V. hirta* in the complex. In any case, we would not accept this under the current species definitions and understanding of their habitat requirements.

***Polygala vulgaris* (Common Milkwort).** 'Small and blue on Otterbourne Hill... but larger, blue, pink or white in the water-meadows beside the Itchen...' This strongly suggests that Yonge is dealing with two species which we would now call *P. serpyllifolia* and *P. vulgaris*. In the books of her time they were treated either as varieties of one species or as separate species, with *P. serpyllifolia* going under the names 'depressa' or 'serpyllacea'.

'Lesser Stitchwort (*Moenchia erecta*)'. As Yonge deals with *S. graminea* separately (under the general heading of 'Chickweed') and describes this accurately, we have to assume that *Moenchia* was intended, and the English name, which is not sanctioned in other works, was a slip. No localities are given.

'Dwarf M[allow]. (M[alva]. *rotundifolia*)'. This would now be known as *Malva pusilla* if one takes Stace at face value, but in fact the Linnaeus naming is now rejected for this and similar species found in Britain, and it is clear from the descriptions in works of Yonge's time that *M. neglecta* was intended. Townsend does not cite her record but it was (still?) present in Otterbourne in the 1990s.

'Dove's-foot Crane's-bill (*Geranium Columbinum*)'. We would know this as 'Long-stalked Crane's-bill' and Yonge lists *G. molle* separately below, so one might assume that *columbinum* is what she intended here, especially as she would have known what the Latin name (erroneously) suggests; but as she cites only one location for *G. molle* and reports 'roadsides' for *G. columbinum* as if it were widespread, one wonders whether she has swapped scientific names.

'Bloody C[rane's-bill] (*G. phaeum*)'. Townsend paradoxically includes details of this record (which comes from another recorder) in his 'Excluded Species' list for the family, under the accepted vernacular name 'Dusky Crane's-bill'.

‘Stork’s-bill (*Erodium moschatum*)’. This has been discussed earlier.

‘Burnet (*Sanguisorba officinalis*)’. The location and the description of this plant that Yonge gives is surely *Poterium sanguisorba*, which is how it is given in the main books of her time.

‘R[ubus]. leucostratus’. This is not a published name and ‘R. leucostachys’ may well have been intended: this name was applied at the time to the widespread *R. vestitus* Weihe, as well as the much more localised taxon now known as *R. leucostachys* Schleicher ex Sm.

‘Lady’s Mantle (*Alchemilla arvensis*)’. This is credible (presumably on disturbed ground at the location given), as *Aphanes arvensis* agg. went under the names of ‘*Alchemilla arvensis*’ and ‘Field Lady’s Mantle’ at the time.

‘*Apargia hispida*’. We now know this as *Leontodon hispidus*, but Yonge’s ‘In cornfields’ is surprising.

‘Broomrape (*Orobanche repens*)’. It is hard to know what Yonge is intending here. It is not a recognised name. As *O rapum-genistae* has been mentioned in the earlier chapter and is not among the three she lists, it would be the obvious candidate – except that she fails to include the area where it was previously mentioned (she may have thought it too far outside her core catalogue area) and gives a new (but plausible) locality. The generally accepted name for this species at the time was *O. major*, and Townsend lists a specimen under this name from R.S. Hill’s herbarium ‘near Otterbourne’, which would encompass Yonge’s description of ‘Mallibar roadway’, then a track across heathland and part of Otterbourne parish, and now the suburban Malibres Road.

‘Bastard Toadflax (*Thesium linophyllum*)’. This seems improbable for Crab Wood, unless a neighbouring stretch of downland was intended.

‘Bogrush (*L[u]zula. campestris*)’. This is an unreasonable vernacular name for the species, and probably a slip for ‘Woodrush’. Its placement next to *L. pilosa* in the catalogue suggests that the scientific name is correct, but no localities are given that would corroborate this.

‘J[uncus]. squamosus’. This is presumably an error for *J. squarrosus* and I am trying to find out from the original publication whether it is a transcription error in more recent reprints. If *J. squarrosus* was intended, it is a surprising species to find in the Itchen water-meadows.

‘Beakrush (*Rhynchospora fusca*)’. This is listed without locality. Townsend gives no sites outside the New Forest and Avon Valley.

‘C[arex]. acuta’. This appears twice, with ‘Copses’ against the first entry, which seems unlikely. The second entry is also rather problematic – ‘a lovely black and yellow fringe to the Itchen Canal’. Townsend accepts a record ‘Itchen banks above Bishopstoke’ without attribution, and there are records beside the main Itchen in 1978 and a population in the Winchester College nature reserve just off the Itchen at Winchester in 2022, but nowhere can it be found lining the Navigation or likely to have done so. This seems most likely to be *Carex riparia*, since she lists *C. acutiformis* separately as ‘*Carex paludosa*’, and there is no *C. riparia* listing for this area. (The mention of ‘black and yellow’ would suggest this species with its male flowers out, too.) *C. riparia* is listed elsewhere in the sedges list for ‘Dell Copse’, which does not seem very plausible. *C. elata* is a long shot and has occurred in a few spots along the Itchen Navigation, but mostly as individual tussocks and not forming a continuous fringe. Books of the time were not always very helpful in sorting out the *C. nigra* group or the Pond-sedges.

‘Star Sedge (*C[arex]. stellulata*)’. We know this as *C. echinata*. Again, ‘copses’ seems unlikely as a habitat.

‘Melick (*Melica caerulea*)’. Probably *Molinia caerulea* is intended.

‘L[athraea]. Thalipteris [sic]’. This is now *Thelypteris palustris*, Marsh Fern. The location at Cranbury seems unlikely and is not given in Townsend. The nearest record is at Winnall where it became extinct in the latter years of the 19th century.

This list may give a false impression of the reliability of the rest of the account, but it is a very small portion of the whole, which retains its interest and contains yet more lines for enquiry. It should also be noted that I have had to work from a modern reprint, and all such (together with downloadable electronic copies) seem to have been derived from a single OCR scan that certainly includes some errors not cleaned up in post-editing. That

may be responsible for some of the puzzles here. Unfortunately copies of the original book are very hard to come by; at the time of writing I can find only one on the market, in New York, at a cost of £100.

Works mentioned in this article

- Babington, C.C. (1843): *Manual of British Botany*, Gurney & Jackson; with 7 further editions to 1881.
 Bentham, G. (1851): *Handbook of the British Flora*, Reeve & Co.; with 3 further editions to 1886.
 Bromfield, Dr W.A. (1848-50): 'Catalogue of the Plants growing wild in Hampshire, with occasional Notes and Observations on some of the more remarkable Species' (in three parts), in *The Phytologist* journal.
 Garnier, Rev. T. & Poulter, Rev. E. (1799): papers on botany in *The Annual Hampshire Repository*, vol. i, Robbins of Winchester.
 Johns, Rev. C.A. (1851): *Flowers of the Field*, 1st edn., SPCK. With many subsequent editions and reissues.
 Townsend, F. (1883): *Flora of Hampshire*, 1st edn., Reeve & Co.
 Townsend, F. (1904): *Flora of Hampshire*, 2nd edn., Reeve & Co.
 Yonge, C.M. (1898): *John Keble's Parishes*, MacMillan, London.

An uncertain future for Ground-pine *Ajuga chamaepitys* in Hampshire

An article by Tristan Norton

Ground-pine *Ajuga chamaepitys* might arguably be Hampshire's most at-risk plant. On current knowledge there is only a single site for this delightful species left in the county, and the small population here is at very real risk of disappearing altogether. This is a species on the very brink in Hampshire. A glimmer of hope lies in the fact that this seems to be a plant which doesn't give up easily: it can patiently sit-out periods of unsuitable conditions due to extended seed dormancy and viability, and we have clear evidence that appropriate management can yield results quickly. Yet with a tiny population restricted to a few tens of metres of vulnerable transitional habitat, might we be witnessing the last throes of Ground-pine in Hampshire?

This article provides an overview of the species in Hampshire, a description of its last extant site and the challenges the species faces there, and an assessment of its chances of remaining a valued component of the Hampshire flora.

Ground-pine is a member of the dead-nettle family, Lamiaceae, and has been recorded in Britain since the mid sixteenth century. It is an annual or short-lived perennial found on sparse, drought-prone calcareous soils where competition from other more vigorous species is limited. Its vernacular name is apt, and non-flowering plants do indeed at first glance resemble, and smell like, a tiny pine seedling. However, the greyish-green three-lobed leaves are very obviously softly hairy, and the stem and leaves tend to turn reddish as the plant ages. The flowers are a delight but provided sparingly: I have never seen more than two flowers on a plant at one time. Flowering can occur between May and October.

As with all Lamiaceae the flower is zygomorphic, with a large, rich dark yellow labellum with variable red/black dotting (Figure 1). Interestingly, in August 2023 I found a very attractive plant exhibiting a labellum with a thick cream-coloured border (see Figure 2).

Ground-pine can self-pollinate (Ruiz de Clavijo, 1997), an apparently unusual occurrence in the Lamiaceae. Presumably pollination normally occurs through flying insects, with self-pollination as a handy back-up. Seeds are usually dispersed by ants.

The species is more or less confined in Britain to southern England (Figure 3), with the counties of Hampshire, Surrey and Kent holding the largest and most persistent modern populations. There are incredible records of over one thousand plants, covering some three hectares of stony chalk in Kent (Marren 1999). Introductions,



Figure 1. Ground-pine *Ajuga chamaepitys*, Freefolk, nr Micheldever (VC12), July 2023.
 Tristan Norton

planned and otherwise, have occurred in Wiltshire, Somerset, West Sussex, Bedfordshire, Norfolk and Lancashire, and a small native population persisted in the Suffolk Brecks between the late 1930s and mid-1980s. There are other historic records scattered across the chalk of south-eastern England, many relating to short-lived populations. Beyond the UK, Ground-pine occurs across Europe, North Africa, and the Near East. The species has declined significantly since the 1950s but has shown some stabilisation in distribution since then (Stroh et al. 2023).



Figure 2. Ground-pine with unusual cream fringe to labellum. Freefolk, August 2023. Tristan Norton

Status in Hampshire

The species in Hampshire appears to have always been restricted to an arc eastward around Winchester, from Andover in the north-west to the chalk of Portsdown Hill in the south-east (Figure 4). The first record in Hampshire dates to c.1760 from Longwood Warren near Morestead just south-east of Winchester (Brewis et al. 1996), which at the time must have supported an abundance of the thin chalky soils with ample bare ground required by this exacting plant. It seems to have persisted in this area until the very late 19th century. There are a total of 153 records from Hampshire on the BSBI database, from that late 18th century observation right up to summer 2023: this is clearly a species that has quite rightly attracted the attention of botanists for the last two and a half centuries.

Notable concentrations of records, with plants evidently present from the late 19th century until at least the mid-20th century, come from the Sutton Scotney/Bullington area (VC12), Itchen Abbas/Abbotstone (VC12), Dean village near Bishop's Waltham (VC11), and around Farlington Redoubt high up on Portsdown Hill (VC11), which after its construction in the 1860s must have supported abundant bare chalky soils. One can only wonder if Ground-pine once flourished on the banks of the Iron Age hill forts dotted across the Hampshire high chalk.

As ever, field notes preserved from earlier times can elicit profound pangs of melancholy, as with R Evelyn's comments from 1930: *'in the poor chalky furrows which the plough barely scratched in the thin soil in the field just west of Farlington Redoubt on Portsdown Hill... It grew just to the west of the hedge round the Redoubt (now a Gas Board Depot)'* followed in the late 1940s by: *'I last saw... during the 1939–1945 War [then ploughed], but cannot recall exactly which year – probably 1945'*. We in the 21st century, bombarded with doom-laden messages of habitat destruction and imminent ecological collapse, think that we live in a time of unprecedented landscape change and biodiversity loss, but the changes wrought during and after the Second World War must have seemed equally monumental to those paying attention to such things at the time. For Ground-pine, by the late 20th century we were down to just two sites.

Augurs Hill Copse, nr Wherwell (SU3842, VC12)

Lying c.1km north of Wherwell at the western edge of Harewood Forest, the Augurs Hill Copse site comprises a narrow, cultivated field margin at the edge of dense plantation woodland where Ground-pine was recorded between 1933 and 2000, although there are records from the wider Cow Down area dating back to the 1860s ('from Cowdown to Watkin's house', wherever Watkin's House was [Townsend 1883, Brewis et al. 1996]). Even accounting for the paucity of descriptive detail and accurate counts in the early records (a habit that persists into the modern era!), it would appear that throughout the periods of greatest attention from the 1980s onwards, numbers were always relatively low here, with a peak count of twelve plants noted in 1996. The last record on the books – a null count – is from 2000 and where field notes explain: '8 in '99, 1 in '98, 8 in '97 and 12 in '96'. It seems that this long-standing population finally petered out at the dawn of the 21st century. I am not aware that any botanists regularly visit this site to search for the *Ajuga*, although the Cut-leaved Germander *Teucrium botrys* still attracts visitors. Ground-pine is not always easy to locate, so further detailed searching may pay dividends. Please note that this is a private site and access will need to be with landowner permission.

The plants here were accompanied by a rich arable flora including *Teucrium botrys* (still present in 2023), Field Woundwort *Stachys arvensis* (again, still present locally, and in numbers), Dwarf Spurge *Euphorbia exigua*, Stinking Chamomile *Anthemis cotula* and Red Hemp-nettle *Galeopsis angustifolia* (last recorded 1999). It is unclear what management currently occurs here, but with the continued presence of the *Teucrium* there must remain some hope that a full cultivation might expose a sleeping seed bank and the *Ajuga* might once again appear.

Freefolk, nr Micheldever (SU5043, VC12)

On current knowledge, this is the last remaining Hampshire site. Records for the general area (Freefolk, Bramdown, Micheldever Station, Roundwood) stretch back to the early 1940s and it is tempting to assume that the plant must have been present in the area for much longer and just not noticed by botanists.

The main site, with the most persistent population, is a narrow headland at the northern and eastern edges of a large arable field. Again, this is a private site and landowner permission is needed to visit. There was an incredible peak count of at least 244 plants here in 2015 following deep ploughing of the northern headland (see Figure 5). However, this is by some way an outlier in terms of plant numbers, and the second highest count was 46 in 2009, again following deep cultivation of the headland over the previous winter. Subsequent counts have not often reached double figures.

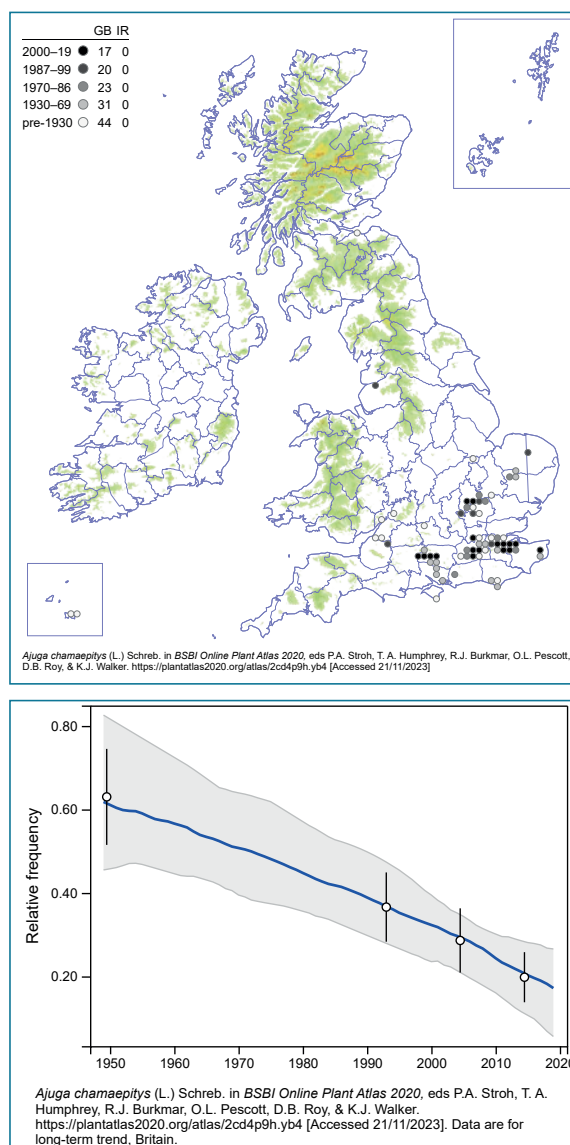


Figure 3. Distribution map and post-1930 trend from Plant Atlas 2020 (Stroh et al. 2023).

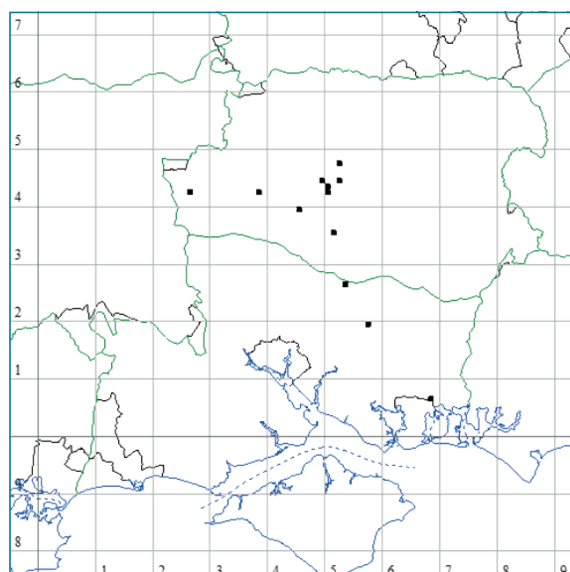


Figure 4 Ground-pine Hampshire distribution.

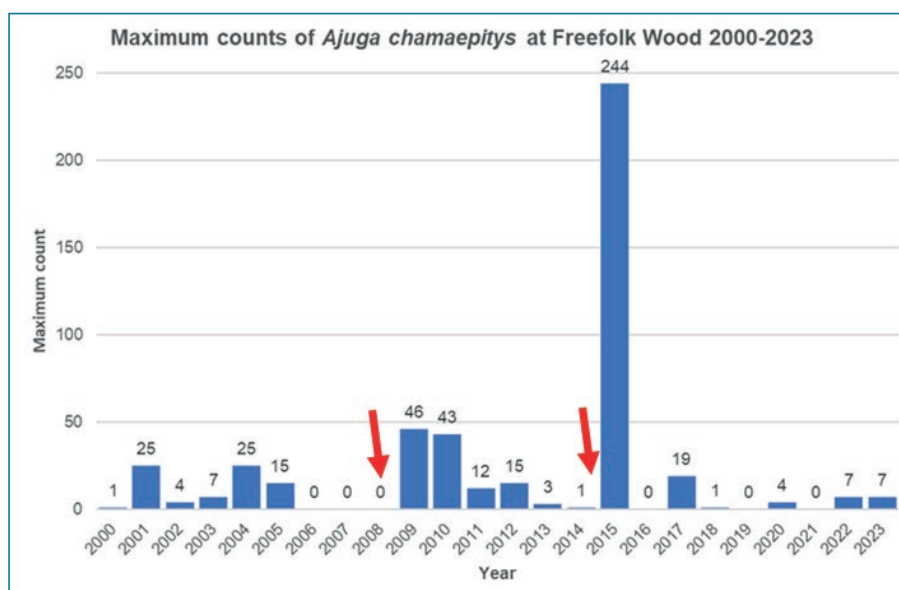


Figure 5. Maximum counts of Ground-pine at Freefolk 2022–2023 (red arrows indicate full cultivation of headland).

With landowner permission, I have visited the site each year since 2020, when four plants were found, and recorded a peak of seven plants in 2022 and again in 2023. Sue Bell has also visited regularly for the last few years, and it was Sue's diligent searching that highlighted the seven specimens last year. Sue's detailed and persistent recording in 2022 was an eye-opener, as I had only visited the site just prior to Sue and could only find a couple of specimens: I had certainly missed plants that Sue later found. As with any botanical hunting, with repeated practice you get your eye in, and you get a knack for spotting the intended target.

For the last two years the plants have been found exclusively on extremely bare, thin soils at the very edge of the field (Figure 6). These areas have not been subject to any extensive cultivation for several years, and the bare conditions appear to have been maintained solely by the actions of grazing Rabbits and possibly excavating ants. The plants are all very small (maximum c.8cm height) and often very spindly. Interestingly, the first plants I ever saw at this site in September 2020 were very robust (c. 15cm height) and bushy but were growing within the crop edge on soils that had been cultivated. In 2022 and 2023 the plants have exclusively been recorded outside the cultivated field edges on little ledges or slopes.

During a July 2023 site visit I found a tiny plant that had been partially nibbled-off (presumably by a Rabbit or small mammal) and was able to salvage a fresh stem. Once at home I potted the plant in ordinary garden compost and left it on the windowsill with occasional watering before moving it on to the patio. Incredibly, by early September it had started to flower. The plant is now within a dedicated arable 'weed' bed in my garden and appears to be very content. I hope that 2024 will bring seedlings that one day can be replanted back at their wild site.

The margin is currently subject to irregular light cultivation, and subsequently exhibits a dense carpet of vigorous grasses and herb species plus encroachment of scrub from adjacent woodland. Abundant herbaceous species include Long-stalked Crane's-bill *Geranium columbinum* and Common Toadflax *Linaria vulgaris*, with frequent Bramble *Rubus fruticosus* agg. and Wild Privet *Ligustrum vulgare* moving in from the woodland edge. The edges of the regularly cultivated field exhibit a very rich flora, with species such as Venus's Looking-glass *Legousia hybrida*, Small Toadflax *Chaenorhinum minus*, Henbit Dead-nettle *Lamium amplexicaule* and Dense-flowered Fumitory *Fumaria densiflora*. Other notable species found here include Thyme-leaved Sandwort *Arenaria serpyllifolia*, Fern-grass *Catapodium rigidum* and Wall Bedstraw *Galium parisiense*, making for a very interesting flora. In small areas where the margin has been purposefully disturbed there has been a flush of Narrow-fruited Cornsalad *Valerianella dentata* but alas no *Ajuga*. I feel that the *Ajuga* would be much happier within the cultivated field.



Figure 6. Ground-pine habitat at Freefolk, October 2023 (arrowed): a narrow crumbling bank between woodland and arable headland. Tristan Norton

The future

The future of Ground-pine in Hampshire now rests on its persistence at a single site. From a review of maximum count data over the last two decades (Figure 5) it is clear that this population exhibits cyclical peaks of relative abundance followed by periods of very low numbers: it looks as though we are currently in a trough period.

Based on the distribution of plants at the site in the last few years it is apparent that it is only through the provision of bare soils that the population will persist. The potential remedy is clear: cultivation of the main headland. Where this has occurred most recently – in 2008/9 and 2014/15 as indicated by the red arrows in Figure 5 – the plants have responded extremely well, and numbers have rocketed: it is only when numbers are high that a long-lasting seed bank can be built up. Investigation of records of the BSBI database reveals numerous anecdotes about plants (re)appearing after soil disturbance or deliberate clearance of vegetation on chalk sites – soil disturbance is the absolute key factor for this plant.

Whilst the species' future in Hampshire seems precarious, it should be noted that this is not an easy plant to locate: it can be extremely small and when not flowering can be very tricky to spot amongst other vegetation (I've walked past plants many times, and it can at a glance look very much like Common Toadflax and potentially dismissed or not noticed). I would like to think that somewhere out there, in a field margin in the 'Ajuga Triangle' between Andover, Basingstoke and Winchester there are other Ground-pine plants hanging on, unnoticed. In the meantime, the species will hopefully cling on at its last remaining site.

Acknowledgements

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References

- Brewis, A., Rose, F. & Bowman, P. 1996. *The Flora of Hampshire*. Harley Books, Colchester.
- Marren, P. 1999. *Britain's Rare Flowers*. T & A D Poyser, London.
- Ruiz de Clavijo, E. 1997. A comparative study of the reproductive biology of two *Ajuga* species (Lamiaceae) in the southwest of the Iberian Peninsula. *International Journal of Plant Sciences* 158(3): 282–291.
- Stroh, P.A., Walker, K.J., Humphrey, T.A., Pescott, O.L. & Burkmar, R.J. 2023. *Plant Atlas 2020: mapping changes in the distribution of the British and Irish flora*. Princeton University Press. plantatlas2020.org
- Plantlife 2023. Ground-pine *Ajuga chamaepitys*. Back from the Brink Species Information Sheet.
- Townsend, F. 1883. *Flora of Hampshire including the Isle of Wight*. L. Reeve & Co., London.

Revised acid grassland indicator list and a census of acid grassland species in Gosport

An article by John Norton



Acid grassland at Browndown Ranges, with Sheep's Sorrel *Rumex acetosella* and Viper's-bugloss *Echium vulgare*, 9 June 2019. John Norton

Introduction

In *Flora News* 57 (Norton 2019) I published a proposed list of acid grassland indicator (AGI) species of lowland dry acid grassland, a Priority Habitat. The list was developed and tested in conjunction with a census of acid grassland species on selected sites within my home town of Gosport, which I began soon after I moved to the area in 2002. This article describes the results of this study and includes some suggestions as to how the AGI list could be used to help assess the nature conservation importance of sites.

To recap, the AGI list comprises 100 species of vascular plants which are native and reasonably widespread in the UK, but in addition there are lists of 'bonus' species and rare taxa which can also be taken into account when evaluating acid grassland. The AGI list was based on the one originally drawn up by Neil Sanderson in his review of lowland acid grassland in England (Sanderson 1998).

Since publishing my original list I have made several changes: Crested Hair-grass *Koeleria macrantha*, Hoary Plantain *Plantago media*, Pale Flax *Linum bienne* and Burnet-saxifrage *Pimpinella saxifraga* have been moved from the main list to the calcareous grassland bonus group and in their place are Goldenrod *Solidago virgaurea*, Devil's-bit Scabious *Succisa pratensis*, Bitter-vetch *Lathyrus linifolius* and Wood Sage *Teucrium scorodonia*. The first three of these were promoted from the heathy acid grassland bonus group to give a better balance to the scoring for more strongly acidic sites. Knotted Hedge-parsley *Torilis nodosa* has been moved from the main list to the arable and dry habitats bonus group and replaced with Spreading Meadow-grass *Poa humilis*. Saw-wort *Serratula tinctoria* has been added to the heathy grassland bonus group, even though it is mainly a species of damper habitats, and Dwarf Gorse *Ulex minor* has been removed from this group (I decided not to include any shrubs or dwarf shrubs of heathland habitats). Wild Strawberry *Fragaria vesca* has been added to the calcareous grassland bonus group (it could equally have been put into the arable and dry habitats group). One further small change is that Grape-hyacinth *Muscari neglectum* has been removed from the list of rare species, since according to Plant Atlas 2020 it is now classed as a neophyte throughout the UK (previously considered native to Breckland).

The updated AGI list is included in **Table 1**. Species names now follow the online Plant Atlas 2020 (plantatlas2020.org). Please contact me if you would like a copy of the updated recording sheet (email at end of this article), which includes the bonus and rare species.

Sites selected and survey methodology

When the study began about a dozen of the more botanically interesting acid grassland sites in Gosport borough (which includes Lee-on-the-Solent) were selected, to which a few more have been added in recent years, making a total of 15 sites (**Figure 1**). The methodology essentially consisted of making normal plant recording visits to these at various times of the year from which the records of the acid grassland species were extracted and entered into a database. The survey was carried out by me and Debbie Allan, who also helped considerably by doing most of the data entry into MapMate. In later years we visited under-recorded sites to look for acid grassland species and searched for potential 'missing' species which were likely to occur at each



Figure 1. Location of acid grassland sites in Gosport

site. Most sites have been regularly visited and well recorded over the 20 or so years, but a few have only been visited on a small number of occasions, which may affect their AGI scores.

Mapping

Discrete areas (parcels) of acid grassland were mapped as accurately as possible so that the total area of acid grassland on each site could be calculated. Digitising was done using QGIS (an open source GIS application) making use of freely available Ordnance Survey mapping and Google Earth satellite imagery to map site boundaries and the acid grassland areas. The grassland was mapped according to three broad categories:

- **‘Core’ types of lowland dry acid grassland**, which in Gosport mostly correspond with NVC type U1 (*Festuca ovina*-*Agrostis capillaris*-*Rumex acetosella* grassland). For a description of acid grassland types see my article in *Flora News* 62 (Norton 2022). Some examples of U3 (*Agrostis curtisii* grassland) were not mapped where they formed mosaics with dry heath (e.g. on Browndown Ranges). The core category does also include some areas of degraded, species poor acid grassland such as those occurring on short mown and/or heavily trampled sites and which would probably not qualify as Priority Habitat in their own right.
- **Other types of acid grassland**, indeterminate or not straightforwardly applicable to the NVC, including clover-rich coastal grassland. These also fall outside the current definition of lowland dry acid grassland Priority Habitat.
- **Mesic grassland** (i.e. grassland that is moister in winter and less parched in summer), but is still at least weakly acidic and supports some acid grassland species. This category includes some examples of ‘*Geranium molle* grassland’ which I mentioned in *Flora News* 57 (Norton 2019) though have yet to fully write up. Most of this grassland is also non-Priority Habitat.

Results

Representation of AGI species across Gosport sites

In total, 95 of the 100 taxa (or aggregate groups of taxa) included on the AGI list have been recorded in Gosport since at least 2002 and 88 on the selected study sites (**Table 1**). For the purposes of this article it was not possible to include the whole table showing species presence for each site but I hope to put a longer version of the article (with photographs and more detailed maps of each site) on my website (jnecology.uk) in due course. The five missing species from Gosport are Carlina Thistle *Carlina vulgaris*, Field Mouse-ear *Cerastium arvense*, Bitter-vetch *Lathyrus linifolius*, Hoary Cinquefoil *Potentilla argentea* and Annual Knawel *Scleranthus annuus*. In addition, four rare species have been recorded in the borough: Lesser Soft-brome *Bromus hordeaceus* subsp. *thominei*, Slender Bird’s-foot-trefoil *Lotus angustissimus*, Hairy Bird’s-foot-trefoil *L. subbiflorus* and Nottingham Catchfly *Silene nutans*. The seven additional species recorded in Gosport but not from any of the 15 selected acid grassland sites are Betony *Betonica officinalis*, Harebell *Campanula rotundifolia*, Eyebright *Euphrasia* agg., Common Cudweed *Filago germanica*, Slender St John’s-wort *Hypericum pulchrum*, Rue-leaved Saxifrage *Saxifraga granulata* and Devil’s-bit Scabious. Of these, one of the most interesting is Harebell which occurs only in two unimproved front garden lawns, one in Alverstoke and the other in Stokes Bay. Common Cudweed only occurs as a recent colonist of paved driveways, though is rather rare (Jersey Cudweed *Laphangium luteoalbum* has recently colonised this habitat and is now locally abundant over parts of the borough).

Three species have been recorded from all 15 sites: Dove’s-foot Crane’s-bill *Geranium molle*, Lesser Trefoil *Trifolium dubium* and Subterranean Clover *T. subterraneum*, and a further five have been recorded from 14 sites. The absence of Daisy *Bellis perennis* from one site (Clay Pigeon shooting club) is likely to be due to the lack of any recent visits to that site since this species was added to the list. A further seven species have been recorded from 13 sites.

Ten taxa occur (or have occurred) at only a single site: Brown/Velvet Bent *Agrostis vinealis/canina* (Browndown Common, though the identification not fully confirmed), Wavy Hair-grass *Avenella flexuosa* (Gilkicker Point), Pignut *Conopodium majus* (Browndown Ranges), Blue Fleabane *Erigeron acris* (Browndown Ranges), Smooth Cat’s-ear *Hypochaeris glabra* (Browndown Ranges), Heath Woodrush *Luzula multiflora* (Browndown Common), Tormentil *Potentilla erecta* (Browndown Common), Burnet Rose *Rosa spinosissima* (Browndown Ranges), Goldenrod (Browndown Common) and Large Thyme *Thymus pulegioides* (Haslar Cemetery). Of these, Wavy Hair-grass was restricted to a few tussocks at Gilkicker Point but may now have been lost from there. It has

Table 1. Updated main list of acid grassland indicator species (AGI) with their England Red List status and number of study sites recorded (out of a total of 15 sites).

Key

All Gosport: Y = recorded anywhere in Gosport including other sites.

England Red List (ERL) threat categories (see Stroh et al. 2014): NT = Near threatened; VU = Vulnerable; EN = Endangered (Least Concern omitted).

Taxon	English name	ERL	All Gosport	No of sites	Species rank
<i>Agrostis curtisii</i>	Bristle Bent		Y	5	41
<i>Agrostis vinealis</i> (or <i>canina</i>)	Brown Bent		Y	1	79
<i>Aira caryophyllea</i>	Silver Hair-grass		Y	6	37
<i>Aira praecox</i>	Early Hair-grass		Y	14	4
<i>Aphanes australis</i> (or agg.)	Slender Parsley-piert		Y	11	21
<i>Arenaria serpyllifolia</i> s.l.	Thyme-leaved Sandwort		Y	2	67
<i>Avenella flexuosa</i>	Wavy Hair-grass		Y	1	79
<i>Bellis perennis</i>	Daisy		Y	14	4
<i>Betonica officinalis</i>	Betony		Y	0	89
<i>Campanula rotundifolia</i>	Harebell	NT	Y	0	89
<i>Carex arenaria</i>	Sand Sedge		Y	2	67
<i>Carex caryophyllea</i>	Spring Sedge		Y	2	67
<i>Carex muricata</i> subsp. <i>pairae</i>	Prickly Sedge		Y	7	32
<i>Carex pilulifera</i>	Pill Sedge		Y	3	52
<i>Carlina vulgaris</i>	Carlina Thistle	NT		0	89
<i>Centaureum erythraea</i>	Common Centaury		Y	10	24
<i>Cerastium arvense</i>	Field Mouse-ear	NT		0	89
<i>Cerastium diffusum</i>	Sea Mouse-ear		Y	13	9
<i>Cerastium semidecandrum</i>	Little Mouse-ear		Y	8	28
<i>Chamaemelum nobile</i>	Chamomile	VU	Y	6	37
<i>Conopodium majus</i>	Pignut		Y	1	79
<i>Crassula tillaea</i>	Mossy Stonecrop		Y	3	52
<i>Cuscuta epithymum</i>	Dodder	VU	Y	2	67
<i>Danthonia decumbens</i>	Heath-grass		Y	5	41
<i>Echium vulgare</i>	Viper's Bugloss		Y	5	41
<i>Erigeron acris</i>	Blue Fleabane		Y	1	79
<i>Erodium cicutarium</i>	Common Stork's-bill		Y	9	25
<i>Euphrasia</i> agg.	Eyebright		Y	0	89
<i>Festuca filiformis</i>	Fine-leaved Sheep's-fescue		Y	7	32
<i>Filago germanica</i>	Common Cudweed	NT	Y	0	89
<i>Galium saxatile</i>	Heath Bedstraw		Y	5	41
<i>Galium verum</i>	Lady's Bedstraw		Y	3	52
<i>Geranium molle</i>	Dove's-foot Crane's-bill		Y	15	1
<i>Geranium pusillum</i>	Small-flowered Crane's-bill		Y	3	52
<i>Hypericum humifusum</i>	Trailing St John's-wort		Y	3	52
<i>Hypericum pulchrum</i>	Slender St John's-wort		Y	0	89
<i>Hypochaeris glabra</i>	Smooth Cat's-ear	VU	Y	1	79
<i>Hypochaeris radicata</i>	Cat's-ear		Y	14	4
<i>Jasione montana</i>	Sheep's-bit	VU	Y	3	52
<i>Lathyrus linifolius</i>	Bitter-vetch	NT		0	89
<i>Leontodon hispidus</i>	Rough Hawkbit		Y	3	52
<i>Leontodon saxatilis</i>	Lesser Hawkbit		Y	11	21
<i>Lepidium heterophyllum</i>	Smith's Pepperwort		Y	5	41
<i>Logfia minima</i>	Small Cudweed	NT	Y	3	52
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil		Y	13	9
<i>Luzula campestris</i>	Field Wood-rush		Y	12	16
<i>Luzula multiflora</i>	Heath Wood-rush		Y	1	79
<i>Medicago polymorpha</i>	Toothed Medick		Y	2	67
<i>Moenchia erecta</i>	Upright Chickweed	VU	Y	12	16

Table 1 (cont).

Taxon	English name	ERL	All Gosport	No of sites	Species rank
<i>Montia fontana</i>	Blinks		Y	12	16
<i>Myosotis discolor</i>	Changing Forget-me-not		Y	7	32
<i>Myosotis ramosissima</i>	Early Forget-me-not		Y	3	52
<i>Ononis repens</i>	Common Restharrow		Y	7	32
<i>Ornithopus perpusillus</i>	Bird's-foot		Y	9	25
<i>Pilosella officinarum</i>	Mouse-ear Hawkweed		Y	9	25
<i>Plantago coronopus</i>	Buck's-horn Plantain		Y	14	4
<i>Poa bulbosa</i>	Bulbous Meadow-grass		Y	3	52
<i>Poa humilis</i>	Spreading Meadow-grass		Y	12	16
<i>Polygala serpyllifolia/vulgaris</i>	Heath Milkwort	NT	Y	3	52
<i>Potentilla anglica</i>	Trailing Tormentil		Y	4	47
<i>Potentilla argentea</i>	Hoary Cinquefoil	NT		0	89
<i>Potentilla erecta</i>	Tormentil	NT	Y	1	79
<i>Rosa spinosissima</i>	Burnet Rose		Y	1	79
<i>Rumex acetosella</i>	Sheep's Sorrel		Y	14	4
<i>Rumex pulcher</i>	Fiddle Dock		Y	3	52
<i>Sagina subulata</i>	Heath Pearlwort	NT	Y	2	67
<i>Saxifraga tridactylites</i>	Rue-leaved Saxifrage		Y	0	89
<i>Scleranthus annuus</i>	Annual Knawel	EN		0	89
<i>Sedum acre</i>	Biting Stonecrop		Y	4	47
<i>Sedum anglicum</i>	English Stonecrop		Y	2	67
<i>Senecio sylvaticus</i>	Heath Groundsel		Y	4	47
<i>Sherardia arvensis</i>	Field Madder		Y	6	37
<i>Solidago virgaurea</i>	Goldenrod	NT	Y	1	79
<i>Spergularia rubra</i>	Sand Spurrey		Y	5	41
<i>Spiranthes spiralis</i>	Autumn Lady's-tresses	NT	Y	4	47
<i>Stellaria pallida</i>	Lesser Chickweed		Y	13	9
<i>Succisa pratensis</i>	Devil's-bit Scabious	NT	Y	0	89
<i>Taraxacum</i> Sect. <i>Erythrosperma</i>	'Lesser' Dandelion		Y	13	9
<i>Teesdalia nudicaulis</i>	Shepherd's Cress	NT	Y	2	67
<i>Teucrium scorodonia</i>	Wood Sage		Y	4	47
<i>Thymus drucei</i>	Wild Thyme		Y	3	52
<i>Thymus pulegioides</i>	Large Thyme		Y	1	79
<i>Trifolium arvense</i>	Hare's-foot Clover		Y	2	67
<i>Trifolium campestre</i>	Hop Trefoil		Y	8	28
<i>Trifolium dubium</i>	Lesser Trefoil		Y	15	1
<i>Trifolium glomeratum</i>	Clustered Clover		Y	3	52
<i>Trifolium micranthum</i>	Slender Trefoil		Y	12	16
<i>Trifolium ornithopodioides</i>	Bird's-foot Clover		Y	13	9
<i>Trifolium scabrum</i>	Rough Clover		Y	7	32
<i>Trifolium striatum</i>	Knotted Clover		Y	11	21
<i>Trifolium subterraneum</i>	Subterranean Clover		Y	15	1
<i>Trifolium suffocatum</i>	Suffocated Clover		Y	8	28
<i>Veronica arvensis</i>	Wall Speedwell		Y	13	9
<i>Veronica chamaedrys</i>	Germander Speedwell		Y	6	37
<i>Veronica officinalis</i>	Heath Speedwell	NT	Y	2	67
<i>Vicia lathyroides</i>	Spring Vetch		Y	2	67
<i>Vicia sativa</i> subsp. <i>nigra</i>	Common Vetch	WL	Y	8	28
<i>Viola canina</i>	Heath Dog-violet	VU	Y	2	67
<i>Viola riviniana</i>	Common Dog-violet		Y	3	52
<i>Vulpia bromoides</i>	Squirrel-tail Fescue		Y	13	9
Total species in Gosport/on sites			95	88	

also been recorded from Priddy's Hard, but is likely to have gone from there also, due to a recent housing development. The only site for Large Thyme in Gosport is at Haslar Cemetery, where it is restricted to a single patch covering less than a couple of square metres.

Total area of acid grassland in Gosport

A useful outcome of the study is that it has been possible to estimate the total area of acid grassland in Gosport borough as a whole. The combined area for the 15 sites amounts to 18.5 ha, of which 'core' acid grassland (mostly of Priority Habitat quality) is 8.2 ha (44.3% of the total), 'other' is 9.9 ha (53.6%) and 'mesic' 0.4 ha (2.1%) (**Table 2**). However, some small areas of acid grassland which form mosaics with the heathland and other habitats within the selected sites have not been mapped, as have some areas which occur outside these main sites, especially along the coast between Lee-on-the-Solent and Stokes Bay and in some other cemeteries. In addition there is much more grassland in the mesic category on road verges. These unmapped areas probably make up another 2-3 ha, totalling 22 ha over the borough as a whole. The land area of Gosport borough is 2,750 ha, so acid grassland in all categories is about 0.8% of this (perhaps as much as 1%). It is worth noting that Gosport also supports significant areas of unimproved neutral grassland (especially on one of the MoD bases), which in total probably exceeds the area of acid grassland, although the total area of high quality species rich neutral grassland is relatively small.

Sites with the most amount of acid grassland (of all types combined) are Gosport Park and Browndown Ranges (both c.3.8 ha), Haslar Cemetery (3.3 ha) Gilkicker Point (1.4 ha) and Browndown Common (1.1 ha). All other sites have less than 1 ha of acid grassland.

Table 2 also shows that the 18.5 ha of acid grassland on the selected sites amounts to 11.8% of the total area of those sites. The sites with proportionately the largest amount of acid grassland are Browndown Camp and verge (80%) and Haslar Cemetery (60%). Browndown Ranges only supports about 6% acid grassland, though this will be a slight underestimate because of the small unmapped areas within the heathland, as noted above. This site has the largest area of core acid grassland in the borough, at 1.6 ha.

It is interesting to note that the Priority Habitats Inventory for England published by Natural England gives a similar total of 18.3 ha of acid grassland in Gosport; however, most of this actually relates to dry heath on Browndown Common and an adjacent area of rough neutral grassland and scrub which was a former landfill site. Otherwise, there is only a 1.3 ha area mapped at the western end of Browndown Ranges. The inventory is known to be based on datasets that are often out of date and of variable quality, and this is clearly borne out by these figures.

Table 2. Total areas of acid grassland by category for the selected sites and proportion of total site area

Site	Site area (ha)	Acid grassland category (m ²)			Total acid grassland (ha)	Site rank	Acid grassland as % of site area
		core	other	mesic			
Browndown Camp	2.94	9353			0.94	7	31.8
Browndown Camp bank and verge	0.31	2120		356	0.25	13	79.9
Browndown Common	21.63	11146			1.11	5	5.2
Browndown Ranges	63.97	15926	21930		3.79	2	5.9
Clay pigeon shooting club	2.60	8030			0.80	8	30.9
Elmore bank	0.18	735	611		0.13	15	73.2
Ewer Common	0.65	2755		246	0.30	12	46.5
Ferry Gardens	0.98		1115	1177	0.23	14	23.5
Gilkicker Point	9.82	11747	2212		1.40	4	14.2
Gosport Park	9.77	8582	29545		3.81	1	39.0
Haslar Cemetery	5.43		32876		3.29	3	60.5
Haslar Hospital	23.41	3352	450		0.38	10	1.6
Stokes Bay east	4.74	3444	4132		0.76	9	16.0
Stokes Bay Road	2.06	2214	5107	2099	0.94	6	45.7
West of the River	8.40	2404	1061		0.35	11	4.1
Total area (ha)	156.88	8.18 (44.3%)	9.90 (53.6%)	0.39 (2.1%)	18.47		11.8

Species richness

Table 3 gives the total number of AGI species recorded for each site. Unsurprisingly, Browndown Ranges has the highest total of 71 species, followed by Gilkicker Point (56), Browndown Common (50), Browndown Camp (44) and Haslar Cemetery (40). The site with the fewest species is Ewer Common with 19 species. These results are plotted in **Figure 2**, which broadly reflects the expected trend of more species for larger areas, at least for sites of less than 1 ha compared with sites greater than 1 ha (**Table 4**). For the smaller sites of under 1 ha there is a lot of variation in the number of species recorded and probably no real correlation with the two size classes (<0.5 ha and 0.5-1 ha). It is of course likely that other factors come into play in determining the AGI score for any size of site, particularly the type of substrate, the presence of complimentary habitats such as heathland and the amount of disturbance through management or other factors which helps maintain areas of short, open vegetation and bare substrate for the all-important annuals.

Table 3. Total number of AGI species per site and per hectare of acid grassland on each site.

Site	Acid grassland area (ha)	AGI	Rank	AGI per ha	Rank
Browndown Camp	0.94	44	4	47.0	7
Browndown Camp bank and verge	0.25	40	5	161.6	2
Browndown Common	1.11	50	3	44.9	8
Browndown Ranges	3.79	71	1	18.8	13
Clay pigeon shooting club	0.80	22	14	27.4	12
Elmore bank	0.13	29	11	215.5	1
Ewer Common	0.30	19	15	63.3	6
Ferry Gardens	0.23	24	13	104.7	3
Gilkicker Point	1.40	56	2	40.1	10
Gosport Park	3.81	37	7	9.7	15
Haslar Cemetery	3.29	40	5	12.2	14
Haslar Hospital	0.38	27	12	71.0	5
Stokes Bay east	0.76	31	9	40.9	9
Stokes Bay Road	0.94	30	10	31.8	11
West of the River	0.35	35	8	101.0	4

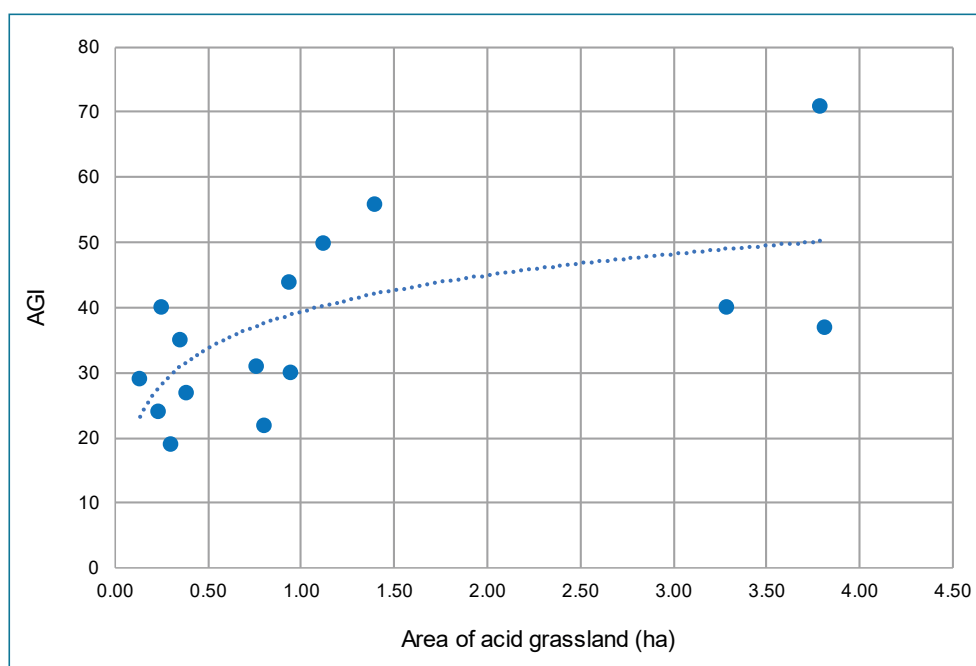


Figure 2. Data plot showing relationship between total area of acid grassland on each site and number of AGI species (from Table 3).

Table 4: Average AGI scores grouped by site area classes

Acid grassland site area	No of sites	Maximum AGI score	Average AGI score
<0.5 ha	6	40	29.0
0.5–1 ha	4	31	27.7
1–2 ha	2	56	53.0
>2 ha	3	71	49.3

Site protection and representation of threatened species

Table 5 summarises the current nature conservation protection status of the 15 sites and shows the total number of species on each site in the threat categories of the England vascular plant Red List (Stroh et al. 2014) (see **Table 1**). Nine of the sites are wholly or partly within a Hampshire County Council SINC (Site of Importance for Nature Conservation), one of which (West of the River) is also designated as a Local Nature Reserve. Browndown Ranges is the only Site of Special Scientific Interest (SSSI). Six sites currently have no protection status, of which Browndown Camp and the Clay Pigeon shooting club support the most significant areas of acid grassland and relatively high numbers of AGI species.

Of 22 threatened species on the AGI list 17 are present in Gosport and 14 occur on one or more of the selected sites, six of which are classed as Vulnerable (VU) and eight as Near Threatened (NT) (**Table 1**). Annual Knawel, which does not occur in Gosport, is the only species classed as Endangered (EN). Of the VU species Upright Chickweed *Moenchia erecta* is widespread and locally frequent, occurring on 12 sites, and Chamomile *Chamaemelum nobile* is scattered to locally abundant, recorded from six sites. The most frequent NT species are Autumn Lady's-tresses *Spiranthes spiralis* (four sites), Small Cudweed *Logfia minima* (three sites) and Heath/Common Milkwort *Polygala* spp. (three sites). Browndown Ranges has the greatest number of threatened or near threatened AGI species (10), followed by Gilkicker Point (7), Browndown Common (5) and Haslar Cemetery (5). Two of the rare species on the AGI recording form, Slender Bird's-foot-trefoil and Nottingham Catchfly, also occur at Browndown Ranges, whilst Nottingham Catchfly is also at Gilkicker.

Table 5. Protection status of Gosport acid grassland sites and number of Red List AGI species in each site

Site	Protection status	Acid grassland area (ha)	NT	VU	Total
Browndown Camp	–	0.94	1	0	1
Browndown Camp bank and verge	SINC	0.25	0	1	1
Browndown Common	SINC	1.11	3	2	5
Browndown Ranges	SSSI (part) / SINC (part)	3.79	5	5	10
Clay pigeon shooting club	–	0.80	0	1	1
Elmore bank	–	0.13	0	1	1
Ewer Common	–	0.30	0	1	1
Ferry Gardens	–	0.23	0	1	1
Gilkicker Point	SINC	1.40	3	4	7
Gosport Park	SINC	3.81	1	2	3
Haslar Cemetery	SINC	3.29	3	2	5
Haslar Hospital	SINC (part)	0.38	1	0	1
Stokes Bay east	SINC	0.76	0	3	3
Stokes Bay Road	–	0.94	0	2	2
West of the River	SINC (also LNR)	0.35	1	1	2

Site Summary

The results of the study are further summarised below on a site by site basis. This article is not really concerned with describing the habitats and populations of species present at each site, but a few comments have been given to help put the results into context. During the course of the study summary reports with species lists have been compiled for several sites and sent to the Hampshire Biodiversity Information Centre (HBIC) to help with designation of SINC. Some comments on current management and threats have also been included below.

Browndown Camp was sold by the MoD several years ago and is now privately owned. Access to the site was only possible in 2023 as part of an ecological appraisal survey. This recorded 44 AGI species in only two site visits, making it the fourth best site in Gosport, but the true figure is likely to be slightly higher. It supports 0.94 ha of good quality acid grassland and about 0.5 ha of species poor acidic to neutral grassland not included in the figures. There are some additional areas which were formerly acid grassland, but have developed into gorse and bramble scrub through lack of management. Some of the existing areas of grassland are kept mown by a dog training group who use part of the site. It is likely that the site will be developed at some stage in the future, which could result in the loss of some of the acid grassland, though there is good potential to retain and increase the total area on the site.

Browndown Camp bank and verge (SINC) is a 300m long steep grassy bank bordering the north and east side of Browndown Camp, and also includes an adjacent road verge. Although it is only a relatively small area of acid grassland (0.25 ha), it supports 40 AGI species, making it the fifth equal best site in Gosport and second in terms of AGI per ha. The verge and lower half of the bank are regularly mown, but in recent years the upper half of the bank has been left alone so has become quite rank and species poor, dominated in places by Ivy *Hedera helix* and bramble *Rubus fruticosus*. Evergreen Oak *Quercus ilex* is also developing along the fenceline at the top of the bank.



Browndown Camp bank and verge, 16 May 2019. John Norton

Browndown Common (SINC) (also known as 'north Browndown') is an area of dry heathland (including gorse scrub and bracken), acid grassland, secondary woodland and willow carr/fen. The acid grassland is restricted to fire breaks which are maintained through the gorse and small areas at track junctions and along track edges. The fire breaks are rather species poor, consisting of U3 acid grassland dominated by Bristle Bent *Agrostis curtisii* and Fine-leaved Sheep's-fescue *Festuca filiformis*. The total of 1.11 ha of acid grassland supports 50 AGI species, making it the third richest site. It is owned by the MoD, but open to and well used by members of the public. It lies close to the Cherque Way housing estates which were developed on the west side of the Alver Valley during the early years of the study and which considerably increased the human population of Lee-on-the-Solent. This has led to greatly increased trampling and dog-fouling on the site and is starting to impact the acid grassland along the main tracks. In the last few years the MoD have cut back some areas of gorse, possibly to enhance the heathland for butterflies (there is a large population of Grayling). These areas have quickly recolonised with gorse, but if regular management continues the area of acid grassland could increase slightly.

Browndown Ranges (SSSI/SINC) (Browndown south) as defined here includes the shingle area and ridge line making up most of Browndown SSSI, plus a plateau strip (SINC) lying above the ridge, extending northwards

to the coastal road, and partly bordering Browndown Camp. The site is important not only for acid grassland and its associated flora but also for dry heath, sparsely vegetated shingle (which supports unusual dwarf oak forest) and other species groups, especially lichens, beetles, bugs and spiders. It has an impressive score of 71 AGI species in 3.8 ha of acid grassland (though as noted above this is probably an underestimate of the acid grassland area). It also supports three of the four rare species of plants mentioned in the introduction, including huge populations of Nottingham Catchfly and two patches of Slender Bird's-foot-trefoil. Other noteworthy species include Smooth Cat's-ear *Hypochaeris glabra* (scattered over the eastern half of the site with no other sites in Gosport), Burnet Rose (the only site in Gosport and probably the largest Hampshire population), White Stonecrop *Sedum anglicum* (locally abundant), Sheep's-bit *Jasione montana* (local on the site; only one small patch found during a recent search), Spring Vetch *Vicia lathyroides*, Heath Dog-violet *Viola canina*, Shepherd's Cress *Teesdalia nudicaulis* (a single thriving population) and Heath Pearlwort *Sagina subulata*.

The clay pigeon shooting club site lies on the west side of the River Alver and supports 0.8 ha of core acid grassland on gravelly soil with 22 AGI species. The site appears to be well managed by regular mowing and is probably not under threat provided it continues to be used by the club. It was only visited three times in the early part of the study prior to it being completely closed off to the general public.

Elmore bank is a coastal bank situated at the eastern end of the Lee-on-the-Solent coastal strip. It borders part of the western boundary of Browndown Ranges. As the smallest site (0.13 ha) with 29 AGI species it ranks top in terms of AGI per ha. The middle and upper part of the bank has patches of dry, gravelly soil which parch off in summer and support most of the interesting acid grassland species, including coastal clovers and the main Gosport population of Toothed Medick *Medicago polymorpha*, as well as part of a now increasing population of the non-native Early Medick *M. praecox*.

Ewer Common is a small area of public open space, most of which is core acid grassland, with a small amount of mesic (0.30 ha total). It lies at the western end of Gosport Park, but is separated from it by a road. The total of 19 AGI is the lowest for the selected sites. The grass is maintained at short to medium height and provides a flowering display of Sheep's Sorrel and Bulbous Buttercup *Ranunculus bulbosus* in spring but the site does not parch off due partly to trees surrounding it on all four sides and is hardly walked over by people, so there is very little bare ground. In recent years the local residents have also planted more trees and shrubs along the southern edge, reducing the size of the site slightly. No future threats are likely.

Ferry Gardens is a small area of regularly mown amenity grassland and flower beds at the Gosport ferry terminal, with some other similar areas adjacent to the promenade to the south. It includes some *Geranium molle* grassland and clover-rich coastal grassland totalling only 0.23 ha, but has 24 AGI species recorded. The site is to be redeveloped in the next few years to make way for a new bus station and visitor hub, so most of the richer areas of grassland will be lost.

Gilkicker Point (SINC) as defined here is the promontory at the southern tip of Gosport, on the west side of the mouth of Portsmouth Harbour. It supports a range of botanically interesting semi-natural habitats including acid grassland, dry heath and gorse scrub, saltmarsh, willow carr and wet grassland. There are also two saline lagoons which for the purposes of this study were excluded from the site area. The acid grassland area of 1.4 ha occurs on compacted shingle behind the beach to the north-west of the fort, and on areas adjacent to north and east of the fort. It has the second highest AGI score of 56. Most of the grassland was mapped in the core category (1.2 ha), with the rest comprising clover-rich areas of coastal grassland.

The site is very popular with local people and has always suffered from erosion and degradation during the summer months due to the large number of daily visitors; however, this has not seriously affected the acid grassland plants until the last 5-6 years when people pressure has visibly increased, partly through the general population increase in Gosport and also more recently due to the Covid pandemic. There have been development plans to turn the fort into prestige accommodation for many years and in 2023 work on the fort actually began. Prior to this areas of vegetation around the fort were scraped off in 2018 to create acid grassland habitat for the endangered Gilkicker Weevil *Pachytichius haematocephalus*, but this was not supervised or subsequently monitored by an ecologist. It resulted in the loss of small areas of acid grassland and the extinction of Common Thyme *Thymus drucei*, Heath Dog-violet and Shepherd's Cress from the site, as well as most of a colony of Autumn Lady's-tresses. Two important species on the site which are now suffering badly from visitor pressure are Sheep's-bit and Small-flowered Catchfly *Silene gallica* (the latter being a dry ground bonus species). Although

one of the scraped off areas was regenerating quite well, some of the vegetation was removed again in 2023 for a site construction compound. It is likely that after construction is completed that further increases in visitor pressure will result in the loss or severe deterioration of the remaining areas of acid grassland.

Gosport Park (SINC) is a large recreation ground lying next to Stoke Lake, one of main coastal creeks. The grassland is mostly rather degraded due to heavy use by people and regular short-mowing, but some of the better quality turf is used for sports pitches and seems to survive quite well. The grassland was difficult to map and categorise, but the estimates are 0.9 ha of core and 2.9 ha of other acid grassland, making 3.8 ha in total. The AGI score is 37. It supports large populations of the coastal clovers and Bird's-foot *Ornithopus perpusillus*, with a good variety of other species, including Upright Chickweed and Autumn Lady's-tresses. There are also tiny patches of heathy soil with species such as Bristle Bent and Pill Sedge *Carex pilulifera*.

Haslar Cemetery (SINC) is a large Royal Navy cemetery situated on the south side of Stoke Lake, opposite Gosport Park. Like several other of the selected sites it sits on freely draining soils derived from river terrace gravels, which give rise to dry acid grassland. Here, however, the grassland has a more neutral or even slightly calcareous character, with species such as Spring Sedge *Carex caryophyllea* and Autumn Lady's-tresses being abundant, and there is also a large population of Green-winged Orchid *Anacamptis morio*. Large Thyme, Dwarf Thistle *Cirsium acaule* and Lady's Bedstraw *Galium verum* occur in small colonies. It has therefore been mapped in the indeterminate category, totalling 3.3 ha (the largest contiguous area of acid grassland on any of the sites). The AGI score of 40 also makes it the fifth equal best site for acid grassland species. It is also the most important site in Gosport for grassland fungi, particularly waxcaps, which number about 15 species.

The grassland is constantly kept short by regular mowing. In April some of the Green-winged Orchid colonies are left unmown. The main potential threat to the site would be a change in management or episodes of inappropriate management. Some reseedling of areas has been carried out historically and several years ago all the high spots around the site were scraped off and reseeded with grass seed, presumably to help with mowing. The site has many mature trees which also support interesting fungi, but there is perhaps a danger that future additional tree planting could shade out more of the grassland.

Haslar Hospital (part SINC) currently only supports about 1.6% acid grassland (0.4 ha) and has an AGI score of 27 species. The site was only visited in the early part of the study and is now being redeveloped, mainly for housing, so is no longer accessible; the mapping is therefore somewhat approximate. Small areas of waxcap rich acid grassland in and around the hospital buildings were removed some time ago, so are not included in the figures. A grass verge lying outside the hospital, next to the sea embankment, is included within the site boundary as it supports a strip of clover-rich coastal grassland. In the last few years some of the best areas of acid grassland have been scraped off from along the southern edge of the former hospital grounds as part of the redevelopment, so unfortunately it is unlikely that any good quality acid grassland will survive at this site, apart from the small area on the verge.

Stokes Bay east (SINC) is a large triangle of amenity grassland lying at the eastern end of Stokes Bay seafront and north of the Gilkicker car park. Much of the grassland is semi-improved to improved in nature and relatively damp, but dry acid grassland occurs towards the coastal edge and on a series of shallow mounds (0.76 ha total). The more improved parts of the site were not counted as acid grassland for the purposes of the study, though they do support some large patches of Chamomile. The AGI score is 31. All of the grassland is mown short throughout the year and the acid grassland areas usually parch off quickly by late spring and then suffer from trampling and erosion. The acid grassland plants therefore seldom have the chance to flower, apart from the smaller species and annuals such as Upright Chickweed, which is frequent. A small colony of Sheep's-bit persists on the mounds but never flowers due to the regular mowing. Wild Thyme occurs within the coastal edge, although the main colony was removed many years ago to create a shrub bed. Deterioration of the site from trampling has got worse in the last few years with the general increase in visitors and also due to the installation of a barbecue area with seating within the main acid grassland area. The site is also used for public events in the summer, including vehicle rallies and music concerts. The main threats in the future will therefore be further damage and degradation from increased public use. There is also the possibility that the council may attempt to regrade and reseed the mounds. However, the site has recently been notified as a SINC, so hopefully this will not happen.

Stokes Bay Road comprises three relatively small areas of acid grassland lying either side of Stokes Bay Road. All three areas are regularly mown and the area to the south of the road receives moderate trampling. All three categories of grassland are represented, with an area of clover rich coastal grassland (mapped in the 'other' category) on the south side of the road, next to the promenade, an area of more neutral grassland with frequent Chamomile opposite this on the north side of the road, and an area to the east of here which is more acidic in nature, though relatively species poor. The total combined area is 0.94 ha, with an AGI score of 30 species. Bulbous Meadow-grass *Poa bulbosa* was first found here as new to Gosport by Eric Clement in 2004, but after 2006 was not seen again until the Flora Group meeting in April 2023. It also recently turned up and is spreading at Browndown Ranges and Stokes Bay east. No future threats to the grassland are likely, although the eastern area is part of a strip of land that is used for tennis and crazy golf, so may be similarly developed in the future.

West of the River (SINC, LNR) lies on the west side of the River Alver. It was the site of a sand and gravel processing works which had come into disuse by at least 2000, leaving large areas of bare sandy substrate on which acid grassland developed. An area of about 1.5 ha of acid grassland has since been lost to the natural succession of scrub and secondary woodland, mostly in the northern half of the site. Only about 0.35 ha of acid grassland still remains, mainly in one open area and as thin strips along paths. This supports 35 AGI species, though annual colonist species such as Small Cudweed (recorded once in 2000) and Early Hair-grass *Aira caryophyllea* (last record 2007) are rare or scarce. In addition to the loss of acid grassland, areas of species rich marsh have also been lost due to the development of willow carr, and a large colony of Southern Marsh-orchid *Dactylorhiza praetermissa* has nearly disappeared. However, in the last few years some scalloping of scrub next to the paths has been carried out and new paths created, which has started to increase the area of acid grassland slightly.

Discussion

Using indicator lists for assessing habitat quality and nature conservation importance of sites

Indicator lists can be designed for slightly different purposes, but one of the main uses is to help assess the habitat quality or ecological 'value' of sites (see Norton 2019). This is because the species on such lists are usually selected from the more specialist 'habitat-faithful' species, including those that have poor powers of dispersal, so can be used to identify sites that are more likely to be 'nature conservation worthy' (such sites may also hold rare or scarce species in addition to the indicators themselves).

Indicator lists can thus be used to identify sites of better quality which might be worthy of protection (e.g. as county wildlife sites/SINCs) and if necessary to help choose the 'best' representative sites to designate for nature conservation purposes (e.g. as SSSIs).

As noted in the introduction, my AGI list was based on Neil Sanderson's lowland grassland review list (Sanderson 1998) but also takes into account the results of the census of the Gosport sites presented here. One of the reasons for carrying out the study was to develop a list of acid grassland indicators that could be used for any type of dry acid grassland throughout lowland Britain, either to help identify sites worthy of nature conservation protection or simply as a checklist for botanical surveyors to use when out in the field in acid grassland habitat. My list should be reasonably balanced across all types of lowland dry acid grassland, though it can also be used to record the more mesic types of grassland which do not qualify as Priority Habitat, including *Geranium molle* grassland (which tends to occur in urban areas on mown road verges and amenity grassland sites). However, there may be a slight coastal bias in the AGI list due to the relatively large number of annual clovers and other annual/ephemeral species which have been included.

Based on the results of my study I would therefore suggest that if using the AGI list a site of SINC quality (i.e. of county 'value') should support at least 15 AGI species, or 18 if the site is on or near the coast. The bar is set relatively high (in contrast to the HBIC list – see below) because of the inclusion of some common and widespread species on the AGI list which should occur on most sites. All the Gosport sites in my study meet the 18 AGI threshold and of the six which currently have no SINC status at least five would be worthy of designation. The exception would be Ferry Gardens, because even though it has 24 AGI species recorded, it does not support any core acid grassland and is relatively small and fragmented (0.23 ha of acid grassland in 0.98 ha total site area). In suggesting these thresholds I have also taken into account the fact that the AGI scores for

many of the Gosport sites were amassed from numerous botanical recording visits and will be higher than would be typically achieved through a normal level of survey effort. For sites larger than 1 ha it may be useful to stipulate higher targets, e.g. 25 species (or 30 near the coast) for a site of county value.

Sites with an AGI score of more than 50 are likely to be of regional or national importance and hence SSSI designation. In this study, this would apply to Browndown Common (50 AGI) and Gilkicker Point (56 AGI). Both would be likely to qualify as SSSIs based not only on the presence of acid grassland, but also for representation of other semi-natural habitats and for their invertebrate fauna. The score of 71 AGI for Browndown Ranges is clearly exceptional in a national context and this site clearly warrants its current SSSI status.

Comparison with the HBIC acid grassland indicator list

HBIC recently published an update to their SINC selection criteria (Wilson 2021) which includes appendices of indicator species to be used in the selection process. The list for lowland dry acid grassland comprises 48 species, of which 34 correspond to my main list of AGI species. A further eight are in the bonus groups, and one is a rare species (43 in total). To be eligible for selection as a SINC sites must have at least four of the 48 indicators present. The guidelines state that the grassland should correspond to NVC types U1, U4 or SD10 (the latter being a sand dune type), but that U2 and U3 may be better included within heathland SINC. The minimum size for selection is 0.25 ha unless the site is of exceptional value.

The five species on the HBIC list but not on the AGI list comprise Parsley-piert *Aphanes arvensis* (combined with *A. australis* on the AGI list), Common Rock-rose *Helianthemum nummularium* (really only a calcicole in our region), Heather *Calluna vulgaris*, Purple Moor-grass *Molinia caerulea*, Bilberry *Vaccinium myrtillus* and 'Cladonia spp.' However, of the 66 species on the AGI list which do not feature on the HBIC list a large number are annual and short-lived perennial species, including several which have a strong coastal bias (all ten clovers are omitted). Perhaps, therefore, there was a desire that SINC designation should favour the more permanent, heathy acid grassland sites rather than those on more mesic and coastal habitats. However, it is very surprising that so many characteristic acid grassland species have been left off the HBIC list, including (for example) Smooth Cat's-ear, Small Cudweed, Upright Chickweed, Heath Pearlwort and Sand Spurrey *Spergularia rubra*.

Threats to acid grassland sites

I have touched on the main threats to Gosport sites in the site summaries above. These include direct habitat loss from development, succession to scrub (which may be reversible) and degradation through heavy public pressure. Ultimately, however, the main threat to acid grassland sites is ignorance as to their importance, so it is essential that HBIC and others be made aware of the presence of acid grassland habitat so that sites can be properly surveyed and where appropriate designated as SINC. In my view many of the more mesic examples of acid grassland, including clover-rich coastal grassland and the *Geranium molle* grassland of urban habitats are just as interesting and important as the core types of acid grassland found on heathland sites. I would urge Flora Group members to record their local acid grassland sites and inform HBIC about any botanically rich sites (with 15 or more AGI species) if not already notified as SINC. Regular monitoring of existing acid grassland designated sites through botanical recording is of course also very important.

Please contact me (john@jnecology.uk) if you would like a copy of the AGI recording sheet or just want to get in touch to discuss acid grasslands.

References

- Norton, J.[A.] 2019. A proposed new vascular plant indicator list for lowland dry acid grassland. *Flora News* No. 57 (September 2019). Hampshire & Isle of Wight Wildlife Trust.
- Norton, J.[A.] 2022. A field guide to the NVC – Part 6: lowland dry acid grassland. *Flora News* 62 (February 2022): 40–51. Hampshire & Isle of Wight Wildlife Trust.
- Sanderson, N.A. 1998. A review of the extent, conservation interest and management of lowland acid grassland in England. Volumes I and II. *English Nature Research Report 259*. English Nature, Peterborough.
- Stroh, P.A., Leach, S.J., August, T.A., Walker, K.J., Pearman, D.A., Rumsey, F.J., Harrower, C.A., Fay, M.F., Martin, J.P., Pankhurst, T., Preston, C.D. & Taylor, I. 2014. *A Vascular Plant Red List for England*. Botanical Society of Britain and Ireland, Bristol.
- Wilson, P. 2021. *Criteria for the Selection of Sites of Importance for Nature Conservation (SINC) in Hampshire*. Hampshire Biodiversity Information Centre, Winchester.

Recording

Bryophyte report December 2023

John Norton

This is the first report for the winter 2023/24 bryophyte recording season and includes brief write-ups of two field meetings that took place in October and November and a recording visit to the Isle of Wight in December 2023. I will include the roundup of new county and vice-county records and more photos in the next report. Please note that I have now moved the Hampshire and Isle of Wight Bryophytes website to its own domain: hantswightbryology.net and have added a new page which has downloadable pdfs of these *Flora News* reports.

Recent meetings

A joint meeting of the Southern and Wessex groups was held at Janesmoor Plain, south of Fritham in the New Forest on the inaugural National Moss Day on 21 October 2023, organised and led by Andrew Branson. Fifteen eager people attended. I have posted his report of the meeting on the meetings page of the website which includes links to a downloadable spreadsheet of records and a species list. The total list for the day was a very respectful 104 taxa.

In the morning we looked at the area where a main runway of a former WWII airfield had been removed (SU244133), where there are mixtures of calcareous and acidic turf, patches of bare ground and a tarmac road. An impressive list of calcicoles was found, including *Aloina ambigua*, *Campylium chrysophyllum*, *C. protensum*, *Ctenidium molluscum*, *Dicranella varia* (and/or *D. howei*), *Fissidens dubius*, *Homalothecium lutescens*, *Microbryum davallianum*, *Trichostomum brachydontium* and *T. crispulum*. A confusing small moss with fine leaves turned out to be *Campylopus subulatus*, the second recent record since being originally found in the New Forest by Jean Paton in the 1950s. This was surpassed by two unexpected vice-county firsts, *Plagiomnium cuspidatum*, found by Robert Sharp and *Didymodon icmadophilus* (a recent 'split' from *D. acutus*), identified later by Sharon Pilkington.

In the afternoon we moved on to look at some boggy flushes associated with the head of a small stream to the south of North Bentley Inclosure (SU241129). These also proved to be species rich and interesting, with a large patch of the liverwort *Blasia pusilla* found by Sharon (5th VC record following a different patch found by Andrew during his recce), bog liverworts including *Calypogeia sphagnicola*, and in a base rich flush some *Campylium stellatum*, *Scorpidium cossonii* and *Sarmentypnum exannulatum*. In a small area of willow scrub both *Ulotia crispula* and *U. intermedia* (the recent splits from *U. crispa*) were recorded, bringing the total taxa new to the hectad (SU21) to seven. Unfortunately rain had stopped play by mid-afternoon.

Jonathan Sleath organised and led a meeting to the Surrey Wildlife Trust's Barossa nature reserve at Wishmoor Bottom on the Hampshire/Surrey border on 25 November 2023. The meeting took place entirely within the Surrey portion of the reserve so I will not include a full write-up here, but Jonathan has written a short summary which is on the meetings page of the website. Bryologising in the boggy areas was made difficult due to freezing conditions, but the participants did manage to record nine *Sphagnum* species, including *S. medium* (formerly *S. magellanicum*) which was only the second recent record for Surrey.

Isle of Wight recording

Just before Christmas I met up with George Greiff to do some recording on the Isle of Wight for a few days (our first trip of more than a day since 2019). We revisited some sites in the east of the Island and explored some new ones, including the Wildlife Trust's farm estates at Little Duxmore and Nunwell. The latter proved to be a little disappointing as currently the arable areas with highest potential for bryophytes have been allowed to grass over (while the Trust considers what will be the best management for the future). On the first morning, before meeting up with George, I looked at a campsite within the Lower Hyde Holiday Park at Shanklin to look for *Riccia crystallina*, which I found fairly easily, and is new to the vice-county. We found more later at Nodes Point Holiday Park at the eastern end of the Island. We visited the site of *Crossidium squamiferum* at Culver Cliff (the second British and Isle of Wight locality for this Mediterranean species – see *Flora News* 64, p.28).

In fading light we found a few small patches growing on crumbly, dry calcareous soil with *Aloina* spp. There is quite a bit of similar habitat here in at least a 50m × 50m area below the cliff face, so a further visit is still needed to carry out a more detailed survey. We also found *Tortula atrovirens* here, a 'debracketer' (species not recorded since 1970) – the only other VC10 record was in 1930. Unfortunately, it appeared that the large colony of the nationally rare *Acaulon triquetrum* that we previously recorded here around a rabbit warren at the top of the cliff, had disappeared, having slipped off over the edge.

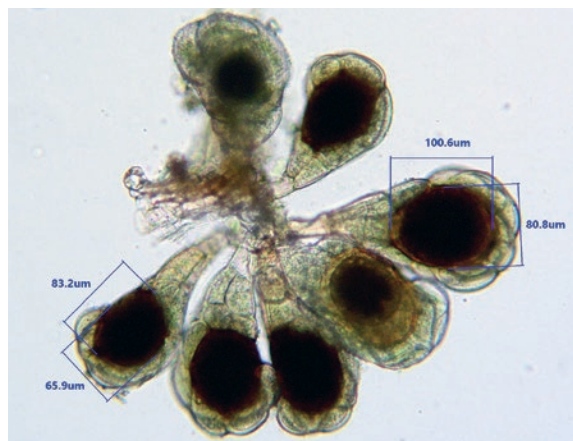
We also visited some interesting chalk quarries during the trip and whilst checking out one of these next to Rowlands Lane, George spotted the minute shoots of *Ephemerum recurvifolium*, another debracketer, last recorded in 1926.

Another species on our radar which was still needed for VC10 was *Bryum gemmilucens*. We had parked up at the end of Commonwood Lane (SZ636867) at Hillway (between Brading and Bembridge) to look at an adjacent holiday park, but decided to investigate the road itself, as it had a good covering of tarmac-loving mosses along the edges. In addition to all the usual species we did manage to find some *B. gemmilucens*, including plants with their distinctive bud like shoots with clusters of orange tubers in the leaf axils – or so I thought until I checked the specimens under the microscope after I returned home. It turned out that most of them were something different, with what appeared to be stipitate (stalked) ovoid gemmae rather than bulbils in the leaf axils. After unsuccessfully trying to key this out I eventually noticed a photograph of the same plant in David Holyoak's *European Bryaceae* under the account for *Bryum dichotomum* (a ubiquitous and abundant species). This form with orange gemmae is very unusual, having been originally found by David in East Cornwall and subsequently in West Cornwall. It has otherwise only been recorded from a locality in the Netherlands (and possibly from Scilly). Following its discovery in 2007 David published a paper in 2009 reporting it as *B. apiculatum*, a tropical and subtropical species not previously recorded from Europe; however, molecular sequencing later showed it to fall under *B. bicolor* in the *B. dichotomum* species complex (but further investigation may be needed). I have passed a specimen on to Jonathan Sleath to attempt to grow *in vitro*. Later the same day we did find more *B. gemmilucens* at Nodes Point Holiday Park, near St Helens, a specimen of which was accepted as a suitable VC10 voucher.

All in all it was a very successful visit, but a lot more recording needs to be carried out on the Island to fill geographical gaps in coverage and look at under-recorded commonplace habitats, including arable farmland and woodland.



Crossidium squamiferum growing on calcareous soil, Culver Cliff, Isle of Wight, with *Aloina* spp. Note the very obvious long, coarse white hair-points (the leaves are hardly visible in this photo). John Norton



Specimen of unusual form of *Bryum dichotomum* with clusters of orange gemmae in the leaf axils, Commonwood Lane, Isle of Wight. John Norton

VC11 notes and records

Compiled by Martin Rand and Tristan Norton

Roundup and explanatory notes (Martin Rand)

There have been some remarkable sightings again this year, but it's also the case that many of the records below are for quite widespread things in places where they've not been recorded before, or not for some time. So never feel diffident about submitting records, as you may well be the only person who's thought to do so from a site in decades, or possibly ever! This is an especially useful exercise for the rarer species on the Hampshire Notables list and for those that we suspect of being in decline even if not rare; also for those non-natives which are expanding their range rapidly in the county and are worth tracking for invasiveness. A good example of the latter is Jersey Cudweed *Laphangium luteoalbum* which you will see below is now turning up all over the place, not only as an urban weed but in forestry rides and field margins. It's worth also looking out for the usually more robust Cape Cudweed *Pseudognaphalium undulatum*, which has leaves green on the upper side and decurrent onto the stem and involucral bracts with some green on them. It is thoroughly naturalised on the Channel Islands and neighbouring parts of France and may become more established here.

Amongst the natives, it was particularly gratifying to record Long-stalked Orache *Atriplex longipes* on a new site along the Beaulieu River estuary during a Flora Group meeting (see meeting report, p. 7). In the last two decades I have seen only one plant of it, 16 years ago, although Sam Thomas managed to refind it nearby last year – something I wasn't able to repeat in 2023. This year's record is in a new hectad and there were several good plants of it, accompanied as usual by its hybrid *A. × gustafssoniana*. The hybrid is widespread, if not often recorded, and I find it hard to believe that the species is entirely confined to the Beaulieu River.

Credit for one of the most striking records of the year goes to Bob Wardell for finding Slender Hare's-ear *Bupleurum tenuissimum* on top of Portsdown! Although we think of it as almost entirely coastal in Britain, it occurs inland on open dry sandy grassland on the continent often in association with Knawel *Scleranthus annuus*, although declining there in many places. The eastern slopes of the Malverns in Worcestershire have been its classic inland locale in Britain. The roadsides of Portsdown don't fit this habitat, and presumably it is a fairly recent arrival here. Bob continues his mission to record every square metre of Portsea and Hayling Islands and their hinterland, which are now some of the best-recorded parts of the county in recent years.

Also looking in on the same part of the world was Paul Stanley, who managed to record Slender Oat *Avena barbata* at several places in the Portsmouth area. I have speculated about this turning up ever since Summer-cypress *Bassia scoparia* started its short-lived spread along our motorways, as it has the same provenance, and I have often looked at Oats whizzing by on the main road network and wondered. It flowers exceptionally early for an Oat, so an Oat in full flower in May or early June could well be this. Other 'firsts' for the vice-county that Paul has notched up this year include Whorled Coralroot *Cardamine quinquefolia* and Greek Sea-spurrey *Spergularia bocconeii*; the latter native on the Channel Islands and in the south-west and already naturalised on the Isle of Wight. Meanwhile, Ian and Paul Green picked up first records of feral *Salvia hispanica*, a plant we may well see more of given its fashion status as a foodstuff (Chia).

In addition to the two records listed for Eastleigh Borough this year, Yellow Dodder *Cuscuta campestris* was reported in Fareham Borough, but we haven't received a detailed record for that yet. In all cases it was clearly a contaminant in 'wildflower meadow' mixes of, er, arable annuals deliberately sown into cultivated holes in amenity grasslands. This is not a species one would wish to see lots of, given its ability to be a serious horticultural nuisance.

It seems to have been a bumper year for Mousetail *Myosurus minimus*, and we were fortunate to have Margaret Wonham undertake a series of detailed population and site assessments in the Meon Valley. By the time you are reading this, her meticulously recorded and drafted Threatened Plants survey sheets should have appeared on the Hants Plants website along with others from her and from other participants in the project. We have about 40 sheets filled in with varying levels of detail for South Hampshire this year, and I know Tony has twice this number for North Hampshire. This project will continue in 2024, and if you would like to take part either independently or by joining one of our informal field trips, please get in touch.

There have been some good arable plant records this year, which Tristan is always adding to, but I think the star for both of us will have been the Few-flowered Fumitory *Fumaria vaillantii* found on the Flora Group meeting at Broughton Down Farm. This is only the third confirmed record in South Hampshire, all in the area round Broughton, and fortunately occurring with a host of other notables on land being managed in their interest.

Finally, we'd like to record our thanks to that band of stalwarts who carry on the business of systematically recording across the county even after the end of *Atlas 2020*, keeping the records up to date and making fresh finds. The identity of many of them will be obvious from the listings that follow, which also prove that one never knows where and when you might find something unexpected – even if like me, but unlike Eric Clement and Andrew Powling, you might well overlook a hybrid *Agrostis* new to the county. Keep up the good work!

The codings at the front of each plant are:

*** = Hampshire notable (** = British or English Red List).** I list these whenever I have a record for a tetrad that is either new, or the first for a long time (usually taken as 20-25 years, but for species 'on the brink' it can be shorter). However, the account would be long and tedious in the case of some plants now on the English Red List that are widespread in Hampshire, so I summarise tetrads for these unless the record is a significant extension to the known range. First records for a long time then have the last recorded year in brackets; new tetrads are simply listed.

NA = Native or Archaeophyte. I list these if they are new vice-county records, new to a hectad or the first for a long time.

IN = Invasive, or Potentially Invasive, Non-native. I use the IUCN's three-pronged definition of 'Invasive', so that a plant like *Artemisia ambrosiifolia* (Ragweed), which hasn't actually invaded anywhere in Hampshire yet but will pose a health hazard if it does, are included. I also list these for new tetrads, but when you are recording I would like as precise a grid reference and as many supporting details as possible.

NN = other Neophyte Non-native. Defining Neophyte (arrived after 1500) or Archaeophyte (arrived by 1500) in a local context is beset with difficulty, but I use this category if the plant in the given location is outside its generally agreed native range and can reasonably be inferred to have got there recently by human agency whether intentional or not. That includes plants that are native elsewhere in Britain, or even nearby in other habitats. I list these if they are new vice-county records, new to a hectad or the first for a long time. For some, I simply list new hectads. I exclude patently planted trees and shrubs occurring in gardens, municipal parks and cemeteries unless they are also self-establishing or very likely to do so. However, I keep records for them on the database, so such records are welcome provided you state that they are 'Planted' if the only individuals clearly are planted, or 'Introduced' or 'Established' if they are spreading naturally from original plantings.

Abbreviations for recorders and determiners are:

AEB=Alison Bolton, AHP=Andrew Powling, ALe=Andrew Leonard, ARGM=Tony Mundell, ASt=Anna Stewart, ATh=Alan Thurbon, CC=Clive Chatters, DL=David Leadbetter, DSt=Dave Stewart, EJC=Eric Clement, FAW=Felicity Woodhead, GCo=Ginnie Copsey, HFG=Hampshire Flora Group (field meeting), IG=Ian Green, JAN=John Norton, JDy=Jonathan Dye, JMill=Joel Miller, JNe=J Newman, JTM=Jez T Martin, MaW=Margaret Wonham, MPa=Mary Parker, MR=Martin Rand, MWR=Mike Rowe, NRJ=Nigel Jones, NWA=Nick Aston, PG=Paul Green, PS=Paul Stanley, PhSm=Phil Smith, RCR=Clare Rand, RHWa=Robert H Wardell, RR=Rachel Remnant, RVHL=Richard Lansdown, RWe=Rosemary Webb, TCGR=Tim Rich, TN=Tristan Norton.

Records

NN *Abies alba* (European Silver-fir): Petersfield east, SU7623; 21 Feb 2023; AHP, EJC. Planted. **1st for SU72.**

NN *Acanthus mollis* (Bear's-breech): Chilling (Thatcher's Copse), SU5203; 06 Jan 2023; AHP, EJC. **1st for SU50.**

NN *Acer palmatum* (Smooth Japanese-maple): Branksome Chine, SZ0631 8977; 22 Aug 2023; MWR. By footpath, wood, with *Cotoneaster franchetii*. **1st for SZ08.**

****NA *Adonis annua* (Pheasant's-eye):** Holmsley Bridge junction (Verge to W of A35 and E of Holmsley), SU2317 0058;

24 May 2023; TN. Recently completed verge: compacted hoggins and sparse vegetation cover. Six plants noted, all flowering. Local resident sowed seed mix of unknown origin in 2022. **1st for SU20.**

NN *Aegonychon purpureocaeruleum Hilsea Lines - Compartment 1 (Lido) - West Curtain, SU6529 0431; 03 Oct 2023; RHWa. **1st for SU60M since 1990s.**

***NA *Agrimonia procera* (Fragrant Agrimony):** Ridge SW area, SU3311 1767; 20 Jul 2023; MWR. Hypanthium typical. Roadside, Romsey Road (A3090). **1st for SU31I.** Near Kentford House Farm, SU3226 1974; 04 Sep 2023; MWR.



Pheasant's-eye *Adonis annua*, Holmsley Bridge, 24 May 2023. Tristan Norton

Frequent along roadside, Ryedown Lane. **1st for SU31J.** Westwood LNR, Netley, SU4569 0962; 01 Jul 2023; DL. **1st for SU40P.** Little Posbrook, SU5395 0479; 21 Jun 2023; AHP, EJC. **1st for SU50H.**

***NA *Agrostemma githago* (Corncockle):** Rockbourne (S side), SU1184 1742; 13 Jul 2023; MWR. Sown by Marsh Farm (road), with *Glebionis segetum*, *Centaurea cyanus* and *Cota austriaca*. **1st for SU11D.**

NA *Agrostis capillaris* × *stolonifera* = *A.* × *murbeckii* Buriton north-east, SU7420; 28 Sep 2023; AHP, EJC. **1st for VC.**

***NA *Agrostis curtisii* (Bristle Bent):** Latchmore Bottom area, SU1812; 25 May 2023; MWR. **1st for SU11W since 1980s.**

NA *Allium ampeloprasum* var. *babingtonii* (Babington's Leek): Gilkicker recreation area, SZ601 982; 23 Apr 2023; JAN, HFG. E bank of road to IRB station. **1st for SZ69.**

NN *Allium hollandicum* S of pond, Fisherman's Walk, Southbourne, SZ1298 9140; 06 Jun 2023; DL. Several 'Purple Sensation'. **1st for VC.**

IN *Allium triquetrum* (Three-cornered Garlic): Marine Parade East - Southern toilet block, SZ5669 9982; 02 May 2023; RHWa, JAN. Elmore Triangle, SZ5692 9964; 02 May 2023; RHWa, JAN. Stokes Bay Recreation Ground East, SZ5985 9849; 23 Apr 2023; RHWa. **1st for SZ59.**

NA *Allium vineale* var. *compactum* Down Farm area, near Rockbourne, SU0919; 23 Jun 2023; MWR. **1st for SU01.**

NN *Alnus cordata* (Italian Alder): NW of Rockbourne, SU0949 2078; 06 Aug 2023; MWR. Roadside hedge, Rockbourne Road. **1st for SU02.**

NN *Amaranthus hybridus* (Green Amaranth): Little Brownich Lane area, SU5204; 01 Sep 2023; AHP, EJC. **1st for SU50.**

IN *Amelanchier lamarckii* (Juneberry): Cowplain east, SU7011; 16 May 2023; AHP, EJC. **1st for SU71.** Meyrick Park (E side), SZ0859 9250; 25 Jul 2023; MWR. Wood with *Ilex* × *altacelerensis*. **1st for SZ09.** Avon Common area, SZ1316 9874; 28 May 2023; MWR. By footpath, wood. **1st for SZ19 since 1990s.**

NN *Amsinckia micrantha* (Common Fiddleneck): Petersfield east, SU7604 2319; 25 May 2023; AHP, EJC. Small group of plants in grassy road verge. **1st for SU72.**

NN *Anemanthele lessoniana* (Pheasant's-tail): Boscombe Overcliff Drive, SZ1264 9140; 06 Jun 2023; DL. Established. **1st for SZ19.**

IN *Anisantha diandra* (Great Brome): NW of Rockbourne, SU0948 2079; 06 Aug 2023; MWR. Lower glume 16, 18, 18mm; upper glume 22, 23, 24mm; lemma 25, 25, 26mm. Roadside, Rockbourne Road. **1st for SU02.** Gallows Hill area, near Downton, SU1388 2137; 29 Jul 2023; MWR. Lower glume 15, 15, 16mm; upper glume 20, 21, 23mm; lemma 24, 25, 26mm. Edge of barley crop. S of Wick, SU1619 2001; 25 Aug 2023; MWR. Lower glume 16, 19, 20mm; upper glume 22, 24, 27mm; lemma 24, 24, 27mm. Field edge. **1st for SU12.** Fareham Cams Hall area, SU5805; 21 Jul 2023; AHP, EJC. **1st for SU50 since 1990s.** Milford

on Sea (NW), SZ2841 9223; 21 Jun 2023; MWR. Lower glume 18, 18, 19mm; upper glume 25, 26, 28mm; lemma 23, 23, 27mm. Several plants, roadside, Sharvells Road. **1st for SZ29.**

***NN *Anisantha madritensis* (Compact Brome):** Bournemouth East Cliff, SZ1003 9106; 06 Jun 2023; DL. **1st for SZ19A.**

NA *Arrhenatherum elatius* var. *bulbosum* Copythorne Common area, SU3015; 11 Jul 2023; MWR. **1st for SU31.** Near Kentford House Farm, SU3219; 04 Sep 2023; MWR. **1st for SU31.** Spearbed Copse, SU4059 0161; 14 May 2023; HFG. **1st for SU40.**

NA *Atriplex littoralis* (Grass-leaved Orache): Seville's Meadow, SU3901; 09 Sep 2023; MR, HFG det. MR. **1st for SU30 since 1990s.**

***NA *Atriplex longipes* (Long-stalked Orache):** Bailey's Hard, SU3955 0146; 09 Sep 2023; MR, HFG det. MR. Plants with *A. × gustafssoniana*, in *Elymus athericus/Bolboschoenus maritimus* at shaded top edge of saltmarsh. **1st for SU30.**

NA *Atriplex longipes* × *prostrata* = *A. × gustafssoniana* (Kattegat Orache): Bailey's Hard, SU3955 0146; 09 Sep 2023; MR, HFG det. MR. With *A. longipes* in shaded rear of saltmarsh. **1st for SU30.**

NN *Avena barbata* (Slender Oat): Tipner, Portsmouth, SU641 031; 22 May 2023; PS. By park and ride. M275 J2, SU643 020; 22 May 2023; PS. J12 M27/M275, SU645 044; 22 May 2023; PS. A3(M) J3, Waterlooville, SU695 089; 22 May 2023; PS. **1st for VC.**

NN *Berberis wilsoniae* (Mrs Wilson's Barberry): Portsdown Hill - Grazing compartment 3, SU6373 0666; 15 Feb 2023; RHWa conf. MR. Red var. **1st for SU60.**

NN *Brachyglottis* × *jubar* (Shrub Ragwort): The D-day Story ramparts, SZ6424 9815; 29 Apr 2023; RHWa. **1st for SZ69.**

***NA *Brachypodium rupestre* (Tor-grass):** Queen Elizabeth Country Park (Butser Hill upper part.), SU7120; 29 May 2023; AHP, EJC. **1st for SU72.**

***?? *Brassica nigra* (Black Mustard):** Ashley Manor Farm area, SZ2517 9446; 04 Jul 2023; MWR. Fruits checked. 3 large plants, new roadside, off Caird Avenue. **1st for SZ29M.**

***NA *Briza media* (Quaking-grass):** Longcross Plain, SU2464 1591; 03 Jun 2023; MWR. Roadside, Forest Road. **1st for SU21M since 1960s.**

NA *Bromus racemosus* (Smooth Brome): Hill Street, SU3424 1636; 10 Jun 2023; MWR. **1st for SU31 since 1970s.** Ridge, SU3477 1856; 31 May 2023; MWR. **1st for SU31 since 1970s.**

***NA *Bromus secalinus* (Rye Brome):** Rockbourne, SU1122 1781; 13 Jul 2023; MWR. Bare soil, edge of wheat crop. 6 clumps. **1st for SU11D.** Rockbourne, SU1221 1760; 14 Jun 2023; MWR. By barley crop by footpath. Rockbourne, SU1227 1757; 14 Jun 2023; MWR. Edge of barley crop by footpath. Plant 153cm tall. **1st for SU11I.** Near Charford Down Farm, SU1619 2003; 25 Aug 2023; MWR. Edge of field. *Anisantha diandra* and *Medicago sativa* subsp. *sativa* nearby. **1st for SU12Q.** Purbrook 1km west, SU6608; 13 Oct 2023; AHP. **1st for SU60U.**

***NA *Bupleurum rotundifolium* (Thorow-wax):** Holmsley Bridge junction (Verge to W of A35 and E of Holmsley), SU2317 0058; 24 May 2023; TN. Recently completed verge: compacted hoggins and sparse vegetation cover. Single flowering plant noted. Local resident sowed seed mix of unknown origin in 2022. **1st for SU20.** Mudeford Quay area, SZ1824 9112; 25 Jun 2023; MWR. Fruits checked. 1 plant on dunes, clearly sown (with 1 plant of *Centaurea cyanus*). **1st for SZ19.**



Thorow-wax *Bupleurum rotundifolium*, Holmsley Bridge, 24 May 2023. Tristan Norton

****NA *Bupleurum tenuissimum* (Slender Hare's-ear):** Hilsea Lines - Compartment 2 (West Moat) - Ports Creek, SU6581 0449; 06 Oct 2023; RHWa. 2 plants 20m apart on creek wall. **1st for SU60M since 1990s.** Portsdown Hill Road N verge E of George Inn, SU6688 0641; 22 Sep 2023; RHWa. **1st for SU60T.**



Slender Hare's-ear *Bupleurum tenuissimum*, Portsdown Hill, 22 September 2023. Bob Wardell

NA *Callitriche brutia* subsp. *brutia Latchmore Bottom area, SU1813 1232; 25 May 2023; MWR. Fruits abundant, mostly sessile but others with pedicel 1, 2, 3, 3, 6, 7mm. Subsp. *brutia*, wet ditch by track, Abbots Well Road with *Ranunculus hederaceus*. **1st for SU11W.** Sway (Durns Town), SZ2863 9870; 20 May 2023; MWR. Fruits frequent, with narrow wing, style appressed, several with pedicel 1mm. Very abundant, pond. **1st for SZ29Z.**

NA *Calystegia sepium* × *silvatica* = *C. × lucana* Hill Head west, SU5302; 28 Jul 2023; AHP, EJC. **1st for SU50.**

NN *Campanula persicifolia* (Peach-leaved Bellflower): Fareham Cams Hall area, SU5805; 21 Jul 2023; AHP, EJC. **1st for SU50.**

***NA *Campanula trachelium* (Nettle-leaved Bellflower):** Finchdean 1km north-west, SU7313; 28 Jun 2023; AHP, EJC. **1st for SU71G since 1990s.**

NN *Capsella rubella* (Pink Shepherd's-purse): Tatchbury area, SU3359 1423; 18 May 2023; MWR. Roadside. Tatchbury area, SU3381 1446; 18 May 2023; MWR. Abundant, roadside, Calmore Road. **1st for SU31.** Sinah Common - Ferry Road car park to Hayling Ferry Sailing Club, SZ6887 9959; 16 Apr 2023; RHWa. 'Near to' - unusual large swathe with 1000s of plants. **1st for SZ69.**

NN *Cardamine quinquefolia* (Whorled Coralroot): A27, Harefield, SU467 139; 18 Mar 2023; PS. Large patch on W verge of A27 West End. **1st for VC.**

***NA *Carex montana* (Soft-leaved Sedge):** Beaulieu Aerodrome, Stockley, SU3450 0151; 10 May 2023; MR, MPa det. MR. **1st for SU30K.**

***NA *Carex punctata* (Dotted Sedge):** Warblington Meadow SSSI S, SU7294 0507; 10 Jun 2023; RHWa. **1st for SU70H since 1960s.**

IN *Carpobrotus edulis* var. *chrysophthalmus* Cliff E of Branksome Dene Chine, SZ0708 9000; 06 Jun 2023; DL. 1 in flower low down. **1st for SZ09.**

***NA *Catabrosa aquatica* (Whorl-grass):** River Meon - Mill Lane, Droxford (Central Section), SU608 184; 06 Jun 2023; JMill. River Meon - Mill Lane, Droxford (Northern Section), SU609 185; 06 Jun 2023; JMill. **1st for SU61E since 1990s.**

NA *Catapodium marinum* (Sea Fern-grass): Holmsley (Verge to E of A35 and N of Holmsley Bridge), SU2336 0082; 24 May 2023; TN. Two plants noted at base of crash barrier. **1st for SU20.**

NN *Ceanothus thyrsiflorus* Boscombe Overcliff Drive, SZ1264 9140; 06 Jun 2023; DL. Established: 'El Dorado'. **1st for VC.**

***NA *Centaureum pulchellum* (Lesser Centaury):** Keeping Copse, Beaulieu, SU394 010; 09 Sep 2023; MR, HFG. **1st for SU30V since 1960s.** Farley Mount Country Park, SU4168 2919; 16 Sep 2023; TN. Single flowering plant noted. **1st for SU42E.**

***NA *Cerastium arvense* (Field Mouse-ear):** Portal Road (Front lawn), SU487 288; 21 Oct 2023; RR. **1st for SU42Z.**

***NA *Cerastium diffusum* (Sea Mouse-ear):** High Corner Inn area, SU1980 1004; 07 May 2023; MWR. Short grass, roadside. **1st for SU11V since 1990s.** Hallickshole Hill, SU2003 1211; 07 May 2023; MR. Track verge. **1st for**

SU21B since 1990s. Janesmoor Plain, SU2423 1387; 21 May 2023; MWR. Short grass, roadside. **1st for SU21L since 1990s.** Longcross Plain, SU2402 1590; 03 Jun 2023; MWR. Short grass, roadside, Roger Penny Way. **1st for SU21M since 1990s.**

***NA *Chamaemelum nobile* (Chamomile):** Marine Parade East - Southern toilet block, SZ5668 9985; 02 May 2023; RHWa, JAN. **1st for SZ59U.**

NN *Chenopodium strictum* (Striped Goosefoot): Near Richmond Hill, Bournemouth, SZ0881 9149; 21 Sep 2023; DL. Flower bed. **1st for SZ09.**

NA *Chrysosplenium oppositifolium* (Opposite-leaved Golden-saxifrage): River Meon - Mill Lane, Droxford (Southern Section), SU608 182; 06 Jun 2023; JMill. **1st for SU61.**

****NA *Cichorium intybus* (Chicory):** Ridge SW area, SU3341 1728; 20 Jul 2023; MWR. 1 plant, edge of maize crop. **1st for SU31I.** Little Brownich Lane area, SU5204; 01 Sep 2023; AHP, EJC. **1st for SU50H.** Winchester Road, Bishops Waltham, SU5318; 10 Nov 2023; AHP, EJC. **1st for SU51J.**

***NA *Cirsium dissectum* (Meadow Thistle):** Seville's Meadow, SU3901; 09 Sep 2023; MR, HFG. **1st for SU30V since 1990s.**

***NA *Cirsium eriophorum* (Woolly Thistle):** Yew Hill Reserve, SU4551 2650; 01 Sep 2023; MPa, GCo. ...one plant. On the main path up through the grassland bit of the reserve. **1st for SU42N.**

NN *Cistus monspeliensis* Bournemouth Overcliff Drive, SZ1258 9140; 06 Jun 2023; DL. **1st for VC.**

***NA *Clinopodium ascendens* (Common Calamint):** Winchester Cathedral, Paddock, SU4821 2931; 30 Sep 2023; Ast. **1st for SU42Z.**

***NA *Cochlearia anglica* (English Scurvygrass):** Sims Wood, Otterwood, SU406 011; 14 May 2023; HFG. Upper and middle saltmarsh. **1st for SU40A since 1990s.** Lifeboat Station Saltmarsh SINC, SZ7503 9857; 04 Jun 2023; RHWa. **1st for SZ79P.**

NN *Coreopsis tinctoria* (Garden Tickseed): Long Curtain, King's Bastion and Spur Redoubt S.A.M., SZ6320 9916; 05 Sep 2023; RHWa. Council 'wild flower' seeding. **1st for SZ69.**

NN *Corylus colurna* (Turkish Hazel): Hursley (IBM park), SU4229 2501; 29 Jul 2023; Ast. Photos of distinctive fruits and leaves, planted. **1st for SU42.**

NN *Cota austriaca* (Austrian Chamomile): Rockbourne (S side), SU1184 1742; 13 Jul 2023; MWR. Sown by Marsh Farm (road) with *Glebionis segetum*, *Centaurea cyanus* and *Agrostemma githago*. **1st for SU11.**

NN *Cotoneaster franchetii* (Franchet's Cotoneaster): Cowplain east, SU7011; 16 May 2023; AHP, EJC. **1st for SU71.** Branksome Chine, SZ0631 8977; 22 Aug 2023; MWR. 3m bush by footpath in wood with *Acer palmatum*. **1st for SZ08.**

NN *Cotoneaster frigidus* (Tree Cotoneaster): Hilsea Lines - Compartment 1 (Lido) - West Curtain, SU6528 0434; 03 Oct 2023; RHWa. Probably planted. Hilsea Lines - Compartment

1 (Lido) - Bus depot, SU6544 0435; 03 Oct 2023; RHWa. Probably planted. **1st for SU60.**

IN *Cotoneaster integrifolius* (Entire-leaved Cotoneaster): Sandy Point Spit - Western Foreshore, SZ7504 9864; 06 Jun 2023; RHWa. **1st for SZ79.**

NN *Cotoneaster salicifolius* (Willow-leaved Cotoneaster): Stubbington 1km north-west, SU5404; 06 Jul 2023; AHP, EJC. **1st for SU50.** Lifeboat Station Overflow Car Park, SZ7499 9856; 04 Jun 2023; RHWa. **1st for SZ79.**

***NA *Crassula tillaea* (Mossy Stonecrop):** Beaulieu Motor Museum car park, SU384 031; 22 May 2023; PS. **1st for SU30W.**

NN *Crataegus crus-galli* × *pubescens* = *C. × lavalleyi* (Hybrid Cockspurthorn): Thornbury Road, Southbourne, SZ1511 9196; 02 Sep 2023; MWR. Street tree. **1st for SZ19.**

***NA *Crataegus laevigata* (Midland Hawthorn):** Earnley Triangle - Boatyard Patch SINC, SZ7472 9887; 28 May 2023; RHWa. **1st for SZ79.**

NN *Crocasmia aurea* × *masoniorum* × *pottsii* Fareham Cams Hall area, SU5805; 21 Jul 2023; AHP, EJC. **1st for SU50.**

NN *Cupressus macrocarpa* (Monterey Cypress): Chilling (Thatcher's Copse), SU5203; 06 Jan 2023; AHP, EJC. **1st for SU50.** Rowlands Castle north west, SU7211; 13 Jul 2023; AHP, EJC. **1st for SU71.**

NN *Cupressus nootkatensis* Fritham (S side), SU2363 1388; 21 May 2023; MWR. Hedge by footpath. **1st for SU21. Cadnam Green area, SU2962 1429; 03 May 2023; MWR. Hedge. **1st for SU21.****

NN *Cuscuta campestris* (Yellow Dodder): Fryern Hill, Chandler's Ford, SU439 208; 16 Jul 2023; MR. On sown annuals of 'wildflower meadow' on recreation ground. Hiltingbury Recreation Ground (Sown 'wildflower' bed), SU4294 2227; 17 Jul 2023; TN. Very extensive growth over c.200m². **1st for SU42.**



Yellow Dodder *Cuscuta campestris*, Chandler's Ford, 16 July 2023. Martin Rand

****NA *Cuscuta epithymum* (Dodder):** Burton Common, SZ1957 9530; 06 Jul 2023; MWR. On *Calluna vulgaris*, edge of track on heath. **1st for SZ19X since 1990s.**

NN *Cynoglossum amabile* (Chinese Hound's-tongue): Great Salterns Farm - Portsmouth Kennels - planted strip, SU6701 0213; 16 Aug 2023; RHWa. **1st for VC.**

***NA *Cynoglossum officinale* (Hound's-tongue):** Upper Wick Farm area, near Downton, SU1470 2120; 29 Jul 2023; MWR. 1 plant, waste ground by barley crop. **1st for SU12K since 1980s.**

NN *Cyperus eragrostis* (Pale Galingale): Curdridge north west, SU5214; 16 Aug 2023; AHP, EJC. Probably garden escape. **1st for SU51 since 1990s.**

NN *Cyrtomium fortunei* (Fortune's Holly-fern): Markwells Wood (Public footpath), SU7502 1403; 25 Feb 2023; AL. **1st for SU71.**

NA *Dactylorhiza maculata* × *praetermissa* = *D. × hallii* Wildern Nature Park - Main Meadow, SU4813; 12 Jun 2023; MR. **1st for SU41 since 1960s.**

NN *Darmera peltata* (Indian-rhubarb): Upper Gardens, Bournemouth, SZ0748 9173; 02 May 2023; DL. A few near Water Tower. **1st for SZ09.**

IN *Datura stramonium* (Thorn-apple): South Hayling, Hayling Island, SZ725 988; 25 Sep 2023; RWe. **1st for SZ79.**

***NN *Digitaria ischaemum* (Smooth Finger-grass):** Hilsea Lines - Holdenby Court, SU6714 0397; 14 Oct 2023; RHWa. **1st for SU60R.**

NA *Echium plantagineum* (Purple Viper's-bugloss): Little Brownwich Lane area, SU5204; 01 Sep 2023; AHP, EJC. **1st for SU50.**

NN *Elaeagnus macrophylla* × *pungens* = *E. × submacrophylla* (Ebbinge's Oleaster): Stokes Bay Recreation Ground East, SZ5993 9818; 23 Apr 2023; RHWa. **1st for SZ59.**

NA *Elymus repens* f. *aristatus* (Common Couch): Redbrook/Stuckton area, SU1513; 01 Sep 2023; MWR. Lemma with awn 6, 7, 7mm. **1st for SU11 since 1960s.** Wick area, SZ1591; 02 Sep 2023; MWR. **1st for SZ19.**

***NA *Epilobium lanceolatum* (Spear-leaved Willowherb):** Haskells car park and forecourt, Gaters Mill, SU454 153; 18 Mar 2023; PS. Approximate grid reference. **1st for SU41M.**

***NA *Epilobium roseum* (Pale Willowherb):** Brickhill area, SU1249 1571; 08 Sep 2023; MWR. Roadside near garden, Rockbourne Road. **1st for SU11H.**

***NA *Epipactis helleborine* (Broad-leaved Helleborine):** Lawn Copse, Farley Mount, SU4154 3075; 08 Jun 2023; MR, MPa. **1st for SU43A.**

NN *Eranthis hyemalis* (Winter Aconite): Buriton, SU7320; 03 Feb 2023; AHP, EJC. In churchyard, flowering. **1st for SU72 since 1980s.**

***NA *Erica ciliaris* (Dorset Heath):** Scrape Bottom, SU2353 0169; 15 Aug 2023; CC. Multiple stems, possibly just 1 plant c.45cm × 75cm and 20cm high. Blooming well. Intermixed in a low Molinia tussock with a little Deergrass and Cross-leaved Heath set within a matrix of closely grazed sedge lawn. **1st for SU20F since 1990s.**

***NA *Erica tetralix* (Cross-leaved Heath):** Sims Wood, Beaulieu: main N-S ride, SU4001; 14 May 2023; HFG. Ride SU407011 to SU409015. **1st for SU40A since 1960s.**

****NA *Eriophorum angustifolium* (Common Cottongrass):** Cowplain east, SU7011; 16 May 2023; AHP, EJC. In Hazleton Common NR. **1st for SU71A.**

***NA *Erodium moschatum* (Musk Stork's-bill):** Nr Sole Hill Farm, Sherfield English, SU288 229; 23 Mar 2023; MR, MPa. Abundant in grassy farm track on W side of Church Copse. S of Church Copse, Sherfield English, SU289 228; 23 Mar 2023; MR, MPa. Near recently installed bench seat in disturbed grassland. **1st for SU22W.** Titchfield north-east, SU5406; 27 Mar 2023; AHP, EJC. **1st for SU50N.** Portsdown Hill Road N verge E of George Inn, SU6687 0641; 22 Sep 2023; RHWa. Farlington Naval Estate - Hoylake Road, SU6723 0641; 14 Sep 2023; RHWa. **1st for SU60T since 1990s.** Waterlooville east, SU6909; 11 May 2023; AHP, EJC. **1st for SU60Z.** Sopley, SZ1503 9786; 20 Apr 2023; MWR. Mericarp pits glandular. Roadside, junction of Ringwood Road (B3347) and Avon Causeway. **1st for SZ19N.**

NN *Eryngium planum* (Blue Eryngo): North of Kendalls Wharf - SU6703, SU6740 0336; 27 Jun 2023; RHWa. **1st for SU60.**

***NN *Euphorbia cyparissias* (Cypress Spurge):** Clayhall Haslar Royal Naval (RN) Cemetery, SZ6090 9865; 02 May 2023; RHWa. **1st for SZ69.**

NN *Euphorbia cyparissias* × *esula* = *E. × pseudoesula* Terrington Avenue, Highcliffe, SZ2022 9428; 22 Jun 2023; DL. A few in pavement. **1st for VC.**

***NA *Euphorbia paralias* (Sea Spurge):** Shingle Foreshore: no.2 Battery to Gilkicker, SZ5975 9831; 23 Apr 2023; RHWa. **1st for SZ59Z.**

***NA *Euphorbia platyphyllos* (Broad-leaved Spurge):** E of Rockbourne, SU1211 1815; 14 Jun 2023; MWR. Plant 49cm tall. Fruits checked. 1 plant in wheat crop by footpath. **1st for SU11.**

***NA *Euphrasia micrantha* (Slender Eyebright):** Sluifers Pond, New Forest, SU2221 0957; 09 Aug 2023; MR, MPa. **1st for SU20J since 1980s.** Yew Tree Heath, New Forest, SU36667 06165; 14 Sep 2023; DL. Small patch, near road. **1st for SU30T.**

NA *Euphrasia nemorosa* × *pseudokernerii* Land to the South of Portsdown Hill Road SINC, SU6678 0639; 22 Sep 2023; RHWa det. MR. **1st for SU60.**

NN *Fagus sylvatica* 'Purpurea' (Copper Beech): N of Little Toyd Farm, SU0996 2217; 02 Jul 2023; MWR. **1st for SU02.** Black Hill area, SU1049 2287; 02 Jul 2023; MWR. Hedge by footpath. **1st for SU12.**

NN *Ficus carica* (Fig): Knox Road, SU7084 0641; 05 Oct 2023; RHWa. **1st for SU70.**

NN *Fraxinus angustifolia* (Narrow-leaved Ash): Bransbury Park - Old Groundsman's Cottage, SZ6671 9939; 29 Aug 2023; RHWa. **1st for SZ69.**

***NN *Fritillaria meleagris* (Fritillary):** Langstone Village substation copse, SU7247 0997; 19 Apr 2023; RHWa. Large patch of over 100 plants probably originally planted but now well naturalised. **1st for SU70.**

****NA *Fumaria vaillantii* (Few-flowered Fumitory):** Broughton Down Farm, SU294 336; 11 Jun 2023; ARGM, HFG conf. TCGR. TN holds macro photos. **1st for SU23W.**



Few-flowered Fumitory *Fumaria vaillantii*, Broughton Down, 11 June 2023. Tristan Norton

NN *Galanthus woronowii* (Green Snowdrop): Lymington (centre), SZ3217 9533; 14 Feb 2023; MWR. Leaves bright shiny green, 17mm wide. C 30 plants in flower in line among grass by car park, clearly planted. **1st for SZ39.**

NN *Galinsoga parviflora* (Gallant Soldier): Ashley Heath East, SU126 059; 12 Aug 2023; PhSm. **1st for SU10 since 1960s.**

NN *Geranium endressii* × *versicolor* = *G. × oxonianum* (Druce's Crane's-bill): Fareham Cams Hall area, SU5805; 21 Jul 2023; AHP, EJC. **1st for SU50.**

NN *Geranium nodosum* (Knotted Crane's-bill): By entrance to Cliff Top Gardens, SZ1153 9133; 06 Jun 2023; DL. Possibly escaped but looking naturalised. **1st for SZ19.** Hordle (E side), SZ2757 9580; 21 Aug 2023; MWR. Roadside opposite garden, Woodcock Lane. **1st for SZ29.**

NA *Geranium pusillum* (Small-flowered Crane's-bill): NW of Rockbourne, SU0927 2005; 06 Aug 2023; MWR. Edge of flax crop. **1st for SU02 since 1990s.**

***NA *Glaucium flavum* (Yellow Horned-poppay):** Milton Common, SU6775 0045; 23 Aug 2023; RHWa. **1st for SU60Q.**

***NA *Glebionis segetum* (Corn Marigold):** NW of Rockbourne, SU0974 2045; 06 Aug 2023; MWR. 1 plant, roadside, Rockbourne Road. **1st for SU02V since 1960s.** Rockbourne (S side), SU1184 1742; 13 Jul 2023; MWR. Abundantly sown by Marsh Farm (road) with *Centaurea cyanus*, *Agrostemma githago* and *Cota austriaca*. **1st for SU11D.** Redbrook/Stuckton area, SU1508 1383; 01 Sep 2023; MWR. 1 plant, roadside, A338. **1st for SU11L since 1960s.** South of Kendalls Wharf, SU6748 0323; 27 Jun 2023; RHWa. **1st for SU60R.**

NN *Griselinia littoralis* (New Zealand Broadleaf): Brickhill area, SU1248 1550; 08 Sep 2023; MWR. Roadside hedge near garden, Rockbourne Road. **1st for SU11.** Shelley Common area, SU3190 1871; 02 May 2023; MWR. Planted, roadside hedge. **1st for SU31.**

NA *Hedera hibernica* (Atlantic Ivy): Nr Agamemnon Boat Yard, Bucklers Hard, SU406 003; 02 May 2023; MR. **1st for SU40.**

NN *Helianthus pauciflorus* × *tuberosus* = *H. × laetiflorus* (Perennial Sunflower): Breamore, SU1578 1804; 04 Oct 2023; DL. **1st for SU11.**

****NA *Helosciadium inundatum* (Lesser Marshwort):** North Pond, Kingston North Common, SU1468 0321; 11 Sep 2023; MR, RVHL, CC. Kingston North Common, SU1494 0280, SU1500 0315; 11 Sep 2023; MR, RVHL, CC. **1st for SU10L since 1990s.**

NN *Hemerocallis fulva* (Orange Day-lily): Idsworth north west., SU7314; 05 Jun 2023; AHP, EJC. **1st for SU71.**

***NA *Herniaria glabra* (Smooth Rupturewort):** Titchfield east, SU5407 0596; 22 Mar 2023; AHP, EJC. On pavement at base of lamppost. **1st for SU50.**

***?? *Hieracium spilophaeum* (Spotted Hawkweed):** Old Winchester Hill, SU644 206, SU644 207; 12 Jun 2023; MR, MPa, JDy det. MR. **1st for SU62K.**

NA *Hieracium umbellatum* (Umbellate Hawkweed): Near Kentford House Farm, SU3271 1984; 04 Sep 2023; MWR. 2 plants, roadside, Ryedown Lane. **1st for SU31 since 1990s.**

NN *Hyacinthus orientalis* (Hyacinth): Hythe (central), SU4247 0790; 21 Mar 2023; MWR. 1 plant, churchyard. **1st for SU40.**

NN *Hydrangea macrophylla* (Hydrangea): Branksome Chine, SZ0643 8972; 22 Aug 2023; MWR. Edge of wood by footpath with *Lonicera pileata* and *Pseudosasa japonica*. **1st for SZ08.**

***NA *Hydrocotyle vulgaris* (Marsh Pennywort):** Burton Common, SZ1995; 06 Jul 2023; MWR. **1st for SZ19X since 1960s.**

***NA *Hypericum elodes* (Marsh St John's-wort):** Burton Common, SZ1995; 06 Jul 2023; MWR. **1st for SZ19X.**

NN *Hypericum hircinum* subsp. *majus* Copythorne Common area, SU3023 1568; 11 Jul 2023; MWR. Leaves scented, large (e.g. 83 × 33mm), acute styles 17, 17, 19mm. By footpath. Rownhams (S side), SU3883 1640; 28 Jun 2023; MWR. 2 plants, fence/track junction. **1st for SU31.** Branksome Chine, SZ0636 8971; 22 Aug 2023; MWR. Leaves 57 × 27, 57 × 29, 58 × 31mm, scented. 1 plant, E bank of stream. **1st for SZ08.** Alum Chine area, SZ0704 9075; 01 Aug 2023; MWR. Leaves apiculate, 58 × 21, 61 × 23, 69 × 24mm, scented; sepals lost in fruit. 1 plant, bank by footpath, Alum Chine. **1st for SZ09.** Mount Pleasant Farm area, SZ3153 9722; 19 Aug 2023; MWR. Leaves 68 × 25, 70 × 28, 74 × 26mm; scent strong. Small plant, roadside, Mount Pleasant Lane. **1st for SZ39.**

NA *Hypochaeris radicata* subsp. *ericetorum* Burton Common, SZ1961 9532; 06 Jul 2023; MWR. **1st for SZ19.**

NN *Iberis sempervirens* (Perennial Candytuft): Buriton, SU7320; 03 Feb 2023; AHP, EJC. **1st for VC.**

****NA *Illecebrum verticillatum* (Coral-necklace):** Ashley Heath East, SU126 059; 12 Aug 2023; PhSm. With small pockets of heathland. **1st for SU10H.**

NN *Impatiens parviflora* (Small Balsam): Kingston North Common, SU149 033; 11 Sep 2023; MR, RVHL, CC. **1st for SU10.**

NN *Iris orientalis* (Turkish Iris): Earnley Triangle - Boatyard Patch SINC, SZ7470 9882; 28 May 2023; RHWa. **1st for SZ79.**

NA *Isolepis setacea* (Bristle Club-rush): Church Path Meadow, SU7352 0541; 10 Jun 2023; RHWa. **1st for SU70 since 1980s.**

***NA *Jacobaea aquatica* (Marsh Ragwort):** Burton Common, SZ1995; 06 Jul 2023; MWR. **1st for SZ19X.** Sandy Point LNR SE, SZ7501 9829; 11 Apr 2023; RHWa. **1st for SZ79P.**

NN *Jasminum officinale* (Summer Jasmine): Portsmouth Golf Course West - Wayfarers Walk FP, SU6728 0643; 26 Sep 2023; RHWa. **1st for SU60.**

***NA *Knautia arvensis* (Field Scabious):** Hill Head west, SU5302; 28 Jul 2023; AHP, EJC. **1st for SU50G since 1960s.** Hilsea Lines - Cpt 4 (Brackish Moat) - Portcreek embankment, SU6672 0414; 14 Oct 2023; RHWa. Hilsea Lines - Boughton Court, SU6716 0402; 14 Oct 2023; RHWa. **1st for SU60S.**

***NA *Lactuca virosa* (Great Lettuce):** Stubbington 1km north west, SU5404; 06 Jul 2023; AHP, EJC. **1st for SU50M since 1990s.** Earnley Triangle - Boatyard Patch SINC, SZ7473 9888; 28 May 2023; RHWa. **1st for SZ79.**

***NA *Lamium hybridum* (Cut-leaved Dead-nettle):** Butser Ancient Farm (Chalky bank in NE of site), SU7202 1650; 05 Feb 2023; TN. Single flowering plant noted. **1st for SU71I.**

NN *Laphangium luteoalbum Keeping Copse, Beaulieu, SU3942 0104; 09 Sep 2023; MR. Keeping Copse, Beaulieu, SU3972 0093; 09 Sep 2023; MR, HFG. **1st for SU30V.** Beaulieu Motor Museum car park, SU384 031; 22 May 2023; PS. Many hundreds. **1st for SU30W.** Keeping Copse, Beaulieu, SU402 009; 07 Sep 2023; MR. S verge of public path. **1st for SU40A.** Southampton, SU415 112; 30 Sep 2023; IG. Edge of flowerbed on north side of Herbert Walker Ave, in front of the Holiday Inn. One plant. **1st for SU41A.** Kings Close, Chandlers Ford, SU435 210; 10 Aug 2023; MR. In street gutter. **1st for SU42F.** Nr Cheesefoot Head, SU5291 2750; 14 Aug 2023; MPa conf. MR. In a field margin. **1st for SU52I.** Purbrook 2 km west, SU6524 0801; 17 Oct 2023; AHP, EJC. **1st for SU60P.** Tangier Park - Stag Woods, SU6688 0150; 15 Aug 2023; RHWa. N side of road pavement weed. **1st for SU60Q.** Nicholson Way, Havant, SU71333 07086; 07 Nov 2023; TN. A few tens of plants scattered along kerb edges and driveways. **1st for SU70D.** Warblington, SU73356 05300; 13 Nov 2023; TN. **1st for SU70H.** Petersfield, SU7423; 01 Oct 2023; IG, PG. Street weed fairly near the Waitrose. **1st for SU72.** Portmore (B3054), SZ3375 9722; 28 Jul 2023; MWR. 1 plant. **1st for SZ39I.**

***NA *Lathyrus linifolius* (Bitter-vetch):** Keeping Copse, Beaulieu, SU399 010; 02 May 2023; MR. **1st for SU30V since 1990s.**

***NA *Lepidium heterophyllum* (Smith's Pepperwort):** Bournemouth Airport (Merritown area), SZ1195 9745; 16 May 2023; MWR. Roadside, Hurn Court Lane. **1st for SZ19D since 1960s.**

***NA *Limonium* × *neumanii*:** North of Kendalls Wharf foreshore, SU6736 0356; 27 Jun 2023; RHWa redet. MR. **1st for SU60 since 1980s.**

NN *Limonium procerum* (Tall Sea-lavender): The Hotwalls, SZ6306 9924; 05 Sep 2023; RHWa. Subsp. *procerum*, all along lower parapet and base of wall. Long Curtain, King's Bastion and Spur Redoubt S.A.M., SZ6325 9913; 05 Sep 2023; RHWa. Subsp. *procerum* 100s of plants along wall bases and on roof of one feature. **1st for SZ69.**

NN *Linum grandiflorum* (Crimson Flax): Long Curtain, King's Bastion and Spur Redoubt S.A.M., SZ6331 9912; 05 Sep 2023; RHWa. Council 'wild flower' seeding. **1st for SZ69.**

***NA *Logfia minima* (Small Cudweed):** Cadham Common, SU28899 15709; 29 Jul 2023; MR. **1st for SU21X.**

NN *Lolium multiflorum* (Italian Rye-grass): Rockbourne (S side), SU1170 1738; 13 Jul 2023; MWR. Roadside, Rockbourne Road. Brickhill area, SU1221 1504; 08 Sep 2023; MWR. Roadside, Court Hill. **1st for SU11.**

NA *Lolium multiflorum* × *perenne* = *L.* × *boucheanum* (Hybrid Rye-Grass): Curdridge north-west, SU5214; 16 Aug 2023; AHP, EJC. **1st for SU51 since 1990s.**

NN *Lonicera fragrantissima* × *standishii* = *L.* × *purpusii* (Winter Honeysuckle): Hayling Station Theatre CP and Furniss Rd units, SZ7093 9976; 26 Feb 2023; RHWa. Possibly bird seeded or contaminant in original hedge planting. **1st for SZ79.**

NN *Lonicera pileata* (Box-leaved Honeysuckle): Branksome Chine, SZ0643 8972; 22 Aug 2023; MWR. Edge of wood by footpath with *Hydrangea macrophylla* and *Pseudosasa japonica*. **1st for SZ08.**

NN *Lonicera tatarica* (Tartarian Honeysuckle): Sinah Gun Site, SZ6989 9947; 28 May 2023; RHWa. **1st for SZ69.**

NN *Lotus corniculatus* var. *sativus* Bournemouth Airport (Merritown area), SZ1186 9726; 16 May 2023; MWR. Roadside, Parley Lane (B3073). **1st for SZ19.** Lower Buckland, Undershore, Walhampton, SZ3295 9684; 01 Jul 2023; MWR. Var. *sativus*, footpath, with *Trifolium hybridum*. **1st for SZ39.**

NN *Lysichiton camtschatcensis* (Asian Skunk-cabbage): Upper Gardens, Bournemouth, SZ0752 9174; 02 May 2023; DL. **1st for SZ09.**

***NA *Lysimachia vulgaris* (Yellow Loosestrife):** Burton Common, SZ1977 9530; 06 Jul 2023; MWR. **1st for SZ19X since 1960s.**

***NA *Lythrum portula* (Water-purslane):** Ditch End area, SU1813 1405; 06 Jun 2023; MWR. Bare mud in hollow, heath. **1st for SU11X since 1960s.**

NN *Mahonia* × *media* N end of Bournemouth Central Gardens, SZ07378 91747; 21 Sep 2023; DL. Several very tall, established bushes. **1st for SZ09.**

NN *Malus baccata* × *prunifolia* = *M.* × *robusta* (Cherry Crab): Hill Head west, SU5302; 28 Jul 2023; AHP, EJC. **1st for SU50.**

NN *Melica altissima* L. cv. *Purpurea*: By Wick Tea Gardens, Christchurch, SZ1501 9219; 25 Jul 2023; FAW det. EJC. **1st for VC.**

***NA *Mentha arvensis* (Corn Mint):** Black Gutter Bottom area, SU2081 1668; 06 Sep 2023; MWR. 1 plant, roadside ditch, Roger Penny Way (B3078). **1st for SU21D since 1960s.** Ridge SW area, SU3353 1770; 20 Jul 2023; MWR. Edge of fallow field. **1st for SU31I since 1960s.**

NN *Mentha* × *villosa* var. *alopecuroides* Hill Head west, SU5302; 28 Jul 2023; AHP, EJC. **1st for SU50.**

NN *Miscanthus sinensis* (Chinese Silver-grass): Baffins Pond, SU6647 0122; 11 Aug 2023; RHWa. Planted variegated form. **1st for SU60.**

***NA *Misopates orontium* (Weasel's-snout):** Straight Mile, Romsey, SU383 225; 26 Aug 2023; NRJ. **1st for SU32W.**

****NA *Moenchia erecta* (Upright Chickweed):** Hatchet Pond, SU368 013; 04 May 2023; AEB. Edge of pond. Little Hatchet, SU3687 0124; 04 May 2023; AEB. Hatchet Triangle, SU3690 0125, SU369 013, SU369 014, SU3696 0128; 04 May 2023; AEB. **1st for SU30Q since 1990s.**

NA *Montia fontana* subsp. *chondrosperma Latchmore Bottom area, SU1809 1255; 25 May 2023; MWR. Seeds checked. By track, Abbots Well Road. **1st for SU11W.** Longcross Plain, SU2437 1513; 03 Jun 2023; MWR. Seeds checked. Shallow roadside ditch, Forest Road. **1st for SU21M.** Bramshaw (NW side), SU2694 1619; 09 Apr 2023; MWR. Seeds checked. Grassy roadside. **1st for SU21T.**

NN *Muscari neglectum* (Grape-hyacinth): Lee-on-the-Solent W, SU555 013; 25 Apr 2023; MR. Bank behind promenade, presumably introduced. **1st for SU50.**

****NA *Myosurus minimus* (Mousetail):** Lee Lane, Lee (HCC ex-landfill site to N of Lee Lane), SU3630 1660; 18 May 2023; TN. Three plants noted, each with flowers and fruits. **1st for SU31T.** Titchfield Haven NNR Cpt 34 S, SU5390 0417; 16 May 2023; MaW. **1st for SU50H since 1960s.** Titchfield Haven access track, SU5416 0287; 05 May 2023; MaW. Cuckoo Lane Field, Stubbington, SU5485 0395; 13 May 2023; MaW. **1st for SU50L since 1970s.**

***NA *Myriophyllum alterniflorum* (Alternate Water-milfoil):** Woodfidley Passage, SU346 050; 25 Sep 2023; MR, TN et al. **1st for SU30M since 1990s.**

IN *Myriophyllum aquaticum* (Parrot's-feather): Waterlooville east, SU6909; 11 May 2023; AHP, EJC. **1st for SU60 since 1990s.**

NN *Narcissus cyclamineus* × *tazetta* = *N.* × *cyclazetta* (Head-to-head Daffodil): Totton (centre), SU3588 1348; 30 Mar 2023; MWR. Mass planted, roadside, Salisbury Road (A36). **1st for SU31.** Titchfield east, SU5405; 15 Mar 2023; AHP, EJC. Tete a tete. **1st for SU50.**

****NA *Neottia nidus-avis* (Bird's-nest Orchid):** Old Winchester Hill, SU6428 2091; 31 May 2023; NWA. Beech woodland, close to boundary fence. **1st for SU62K since 1960s.**

****NA *Nepeta cataria* (Cat-mint):** Butser Ancient Farm (E of site, earth mound by new hut.), SU7202 1650; 24 Sep 2023; TN. Chalky spoil bank, now well vegetated. Single large plant, flowering. **1st for SU71.**

***NA *Oenanthe lachenalii* (Parsley Water-dropwort):** Seville's Meadow, SU395 016; 09 Sep 2023; MR, HFG det. MR. **1st for SU30V since 1990s.**

***NA *Oenanthe pimpinelloides* (Corky-fruited Water-dropwort):** Kingston North Common, SU1494 0279; 11 Sep 2023; MR, RVHL, CC. **1st for SU10L.** Mudeford Quay area, SZ1844 9197; 25 Jun 2023; MWR. Roadside, Chichester Way. **1st for SZ19V.**

***NA *Onobrychis viciifolia* (Sainfoin):** Upper Wick Farm area, near Downton, SU1483 2102; 29 Jul 2023; MWR. Grassy field edge, probably sown (with *Lotus corniculatus* var. *sativus*). **1st for SU12K.** Little Brownwich Lane area, SU5204; 01 Sep 2023; AHP, EJC. **1st for SU50H.**

***NA *Osmunda regalis* (Royal Fern):** Winchester Cathedral, Lower Dean's Garden, SU4838 2913; 26 Sep 2023; ASt. Growing next to tributary of Itchen. **1st for SU42Z.** St Catherine's, SZ1474 9547; 03 Nov 2023; JTM. **1st for SZ19M.**

NN *Oxalis exilis* (Least Yellow-sorrel): Hill Head west, SU5302; 28 Jul 2023; AHP, EJC. **1st for SU50.**

****NA *Oxybasis glauca* (Oak-leaved Goosefoot):** Walhampton (Field by B3054), SZ3296 9667; 01 Jul 2023; MWR. Manure heap. 1 plant, with many plants of *O. rubra*. **1st for SZ39I.**

NN *Papaver atlanticum* (Atlas Poppy): Stubbington 1km north-west, SU5404; 06 Jul 2023; AHP, EJC. **1st for SU50.**

***NA *Parapholis incurva* (Curved Hard-grass):** North of Kendalls Wharf foreshore, SU6737 0367; 27 Jun 2023; RHWa. **1st for SU60R.**

***NA *Parentucellia viscosa* (Yellow Bartsia):** Parley Common, SZ0965 9920; 18 Jul 2023; MWR. Rough grass by footpath. 2 plants. **1st for SZ09Z.**

****NA *Pedicularis palustris* (Marsh Lousewort):** Milkham Inclosure, SU209 095; 26 Sep 2023; MR, RCR det. MR. In area now unfenced. **1st for SU20E.**

NA *Persicaria amphibia* (Amphibious Bistort): Long Curtain, King's Bastion and Spur Redoubt S.A.M., SZ6341 9909; 05 Sep 2023; RHWa. **1st for SZ69 since 1990s.**

NN *Phalaris arundinacea* var. *picta* (Gardener's Garters): N end of Nea Meadows by path, SZ2022 9402; 22 Jun 2023; DL. A few. **1st for SZ29.**

NN *Phalaris paradoxa* (Awned Canary-grass): Purbrook 1km west, SU6608; 11 Oct 2023; AHP, EJC. **1st for SU60.**

NN *Philadelphus coronarius* (Mock-orange): Hilsea Lines - Compartment 1 (Lido) - Bus depot, SU6541 0434; 03 Oct 2023; RHWa. Probably planted. **1st for SU60.**

IN *Pinus nigra* subsp. *nigra* (Austrian Pine): Tenantry Farm, NW of Rockbourne, SU1018 2932; 20 Aug 2023; MWR. Planted, hedge by footpath. **1st for SU12.**

NN *Pinus wallichiana* (Bhutan Pine): Branksome Chine, SZ0633 8972; 22 Aug 2023; MWR. Edge of wood near stream. **1st for SZ08.**

NN *Pittosporum tenuifolium* (Kohuhu): Meyrick Park (E side), SZ0896 9283; 25 Jul 2023; MWR. Hedge, cemetery. **1st for SZ09.**

***NA *Poa bulbosa* (Bulbous Meadow-grass):** Hollands Wood, SU304 044; 15 Sep 2023; PS. **1st for SU30C.** Lodge Heath, Ladycross, SU332 020; 15 Sep 2023; PS. **1st for SU30G.** Beaulieu Motor Museum car park, SU384 030; 22 May 2023; PS. **1st for SU30W.** Holmsley, SZ219 994; 15 Sep 2023; PS. **1st for SZ29E.** Southsea Common, SZ6383 9861; 29 Apr 2023; RHWa. **1st for SZ69J.**

***NA *Poa infirma* (Early Meadow-grass):** Waterlooville east, SU6909; 11 May 2023; AHP, EJC. **1st for SU60Z.**

***NA *Polycarpon tetraphyllum* (Four-leaved Allseed):** Titchfield east, SU5405; 15 Mar 2023; AHP, EJC. **1st for SU50M.** Talbot Woods (Carrbridge Road), SZ0756 9313; 09 Aug 2023; MWR. Pavement in urban area. Carrbridge Road, and from there along the pavement a short distance into Carrbridge Close, abundant (171 plants counted). **1st for SZ09R.** Mudeford, SZ1868 9198; 25 Jun 2023; MWR. Wall/road junction, by sea. **1st for SZ19V.**

NA *Polycarpon tetraphyllum* var. *diphyllum* Hill Head west, SU5358 0239; 28 Jul 2023; AHP, EJC. On grassy bank between garden and road. **1st for SU50.**

***NA *Polygala serpyllifolia* (Heath Milkwort):** Keeping Copse, Beaulieu, SU3901; 09 Sep 2023; MR. **1st for SU30V since 1960s.** Spearbed Copse, SU4001; 14 May 2023; HFG. **1st for SU40A.**

***NA *Polygonatum multiflorum* (Solomon's-seal):** Finchdean 2km north west, SU7213; 28 Jun 2023; AHP, EJC. Finchdean 1km north west, SU7313; 28 Jun 2023; AHP, EJC. **1st for SU71G since 1990s.**

NN *Polygonum arenarium* (Lesser Red-knotgrass): Little Brownwich Lane area, SU5204; 01 Sep 2023; AHP, EJC. **1st for SU50.**

***NA *Polypogon monspeliensis* (Annual Beard-grass):** Applemore (Tesco Superstore. SE edge of petrol forecourt), SU4002 0734; 16 Jun 2023; TN. Single large clump noted. **1st for SU40D.** Winchester (Castle Hill. Block paving to N of Law Courts), SU4781 2954; 13 Jul 2023; TN. Single plant noted, in seed. **1st for SU42U.** Stubbington 1km north west, SU5404; 06 Jul 2023; AHP, EJC. **1st for SU50M.** Warblington Road, SU7407 0539; 23 Jun 2023; RHWa. **1st for SU70M.** Talbot Village, SZ0799 9411; 09 Aug 2023; MWR. 1 plant, roadside, Boundary Road (A347), E side, with *Persicaria lapathifolia*. **1st for SZ09S.** St Catherine's Hill area, SZ1417 9511; 08 Jun 2023; MWR. 1 plant, roadside gutter, Hillside Drive. **1st for SZ19M.** Bracklesham Road, SZ7490 9861; 06 Jun 2023; RHWa. **1st for SZ79P.**

NN *Polystichum munitum* (Western Sword-fern): Swanwick Lakes NR, SU50966 10064; 05 Sep 2023; AHP, EJC. Voucher specimen in herbarium EJC. **1st for VC.**

***NA *Potamogeton obtusifolius* (Blunt-leaved Pondweed):** Sims Wood, Beaulieu, SU409 014; 14 May 2023; HFG. Pond in woodland. Specimen bench checked by MR. **1st for SU40A.**

NN *Prunus cerasifera* var. *pissardii* (Cherry Plum): Coldeast, Sarisbury, SU504 082; 16 Mar 2023; MR. **1st for SU50.**

IN *Prunus serotina* (Rum Cherry): Hiltingbury Lakes, SU440 215; 03 Jun 2023; MR. **1st for SU42.**

IN *Pseudosasa japonica* (Arrow Bamboo): Shelley Common area, SU3190 1872; 02 May 2023; MWR. Planted, roadside hedge. **1st for SU31.**

***NA *Puccinellia distans* (Reflexed Saltmarsh-grass):** Fareham Cams Hall area, SU5805; 21 Jul 2023; AHP, EJC. **1st for SU50X since 1960s.** Hilsea Lines - Cmpt 3 (East Moat) - Ports Creek sea wall, SU6596 0446; 11 Oct 2023; RHWa. **1st for SU60M since 1990s.** North of Kendalls Wharf foreshore, SU6738 0375; 27 Jun 2023; RHWa. **1st for SU60R since 1990s.**

***NA *Puccinellia fasciculata* (Borrer's Saltmarsh-grass):** Conigar Point Meadow, SU7360 0506; 10 Jun 2023; RHWa. **1st for SU70H since 1960s.**

***NA *Ranunculus baudotii* (Brackish Water-crowfoot):** Titchfield Haven NNR cpt 3, SU537 027; 12 May 2023; MaW. **1st for SU50G since 1990s.**

***NA *Ranunculus sardous* (Hairy Buttercup):** Netley Marsh (NE end), SU3375 1231; 20 Jun 2023; MWR. Achenes checked. Many plants, grass field. **1st for SU31G.** Stubbington 1km north-west, SU5404; 06 Jul 2023; AHP, EJC. **1st for SU50M.** Traffic Island S of George Inn, SU6668 0636; 22 Sep 2023; RHWa. **1st for SU60T.**

NN *Raphanus sativus* (Garden Radish): Brownwich Beach area, SU5103; 02 May 2023; AHP, EJC. **1st for SU50.**

IN *Reynoutria japonica* × *sachalinensis* = *R. × bohemica* (Bohemian Knotweed): St Catherine's Hill area, SZ1488 9539; 08 Jun 2023; MWR. Leaf 188 × 128mm, base rounded, with abundant short papillae on secondary veins beneath. Roadside hedge, Dudmoor Farm Road. **1st for SZ19.**

IN *Rosa 'Hollandica'* (Dutch Rose): Fareham Cams Hall area, SU5805; 21 Jul 2023; AHP, EJC. **1st for SU50.**

NA *Rosa canina* × *stylosa* = *R. × andegavensis* Rownhams (S side), SU3871 1662; 28 Jun 2023; MWR. Leaflets dark, broad for *R. stylosa*, uniserrate, hairy on veins beneath hips eglandular styles not in column sepals reflexed pedicels 24, 25, 25mm, sparsely glandular. Roadside hedge, Rownhams Road North. **1st for SU31 since 1980s.**

NN *Rosa multiflora* (Many-flowered Rose): Titchfield east, SU5405; 21 Jun 2023; AHP, EJC. Canal, canal path. **1st for SU50.**

***NA *Rosa spinosissima* (Burnet Rose):** Otterbourne (NHS grounds), SU4684 2345; 20 Sep 2023; ASt, DSt. Planted. **1st for SU42R.**

***?? *Rosa squarrosa* (Glandular Dog-rose):** Broughton Down Farm, SU293 337; 11 Jun 2023; TN, HFG. **1st for SU23W.**

***NA *Rosa stylosa* (Short-styled Field-rose):** Andrew's Copse, near Sande Heath, SU1187 1475; 28 Aug 2023; MWR. Leaflets regularly uniserrate, hairy beneath, especially on veins, basal pair strongly reflexed; hips ovoid to obovoid, eglandular; sepals reflexed or 0; disc conical; styler column disarticulating; pedicels 23, 36, 40mm, sparsely glandular. By footpath at edge of wood. **1st for SU11C since 1960s.** Monks Brook, Chandler's Ford, SU42733 21069; 17 Oct 2023; MR. **1st for SU42F.** Little Brownwich Lane area,

SU5204; 01 Sep 2023; AHP, EJC. **1st for SU50H.** Durley Mill area, SU5215; 16 Aug 2023; AHP, EJC. Riverside, lanes. **1st for SU51H since 1990s.** Purbrook 2 km west, SU6508; 31 Oct 2023; AHP, EJC. **1st for SU60P since 1990s.** Purbrook 1km west, SU6608; 13 Oct 2023; AHP. **1st for SU60U.** Waterlooville east, SU6909; 15 Nov 2023; AHP, EJC. **1st for SU60Z.**

***NA *Rosa tomentella* (Round-leaved Dog-rose):** Throop (E side), SZ1163 9545; 17 Jun 2023; MWR. Leaflets dark green, broad, neat, multiserrate, hairy beneath; petiole and rachis densely hairy; sepals reflexed, with conspicuous lobed lobes; pedicels short, eglandular. Roadside hedge, Throop Road. **1st for SZ19C.**

***NA *Rosa tomentosa* (Harsh Downy-rose):** Rowlands Castle north-west, SU7252 1130; 13 Jul 2023; AHP, EJC. **1st for SU71F.**

NN *Rosa virginiana* (Virginian Rose): Near path S of Cliff Top Gardens, SZ1138 9130; 06 Jun 2023; DL. **1st for SZ19.**

***NA *Sagina subulata* (Heath Pearlwort):** Above Watergreen Bottom, SU205 123; 07 May 2023; MR. At junction of tracks. **1st for SU21B.**

***NA *Salicornia dolichostachya* (Long-spiked Glasswort):** Fareham Cams Hall area, SU5805; 21 Jul 2023; AHP, EJC. **1st for SU50X since 1980s.**

***NA *Salicornia emerici* (Shiny Glasswort):** Pylewell, SZ363 952; 25 Sep 2023; MR, TN et al. **1st for SZ39S.**

***NA *Salicornia fragilis* (Yellow Glasswort):** Seville's Meadow, SU3901; 09 Sep 2023; MR, HFG det. MR. **1st for SU30V since 1990s.** Pylewell, SZ363 952; 25 Sep 2023; MR, TN et al. **1st for SZ39S.**

NN *Salix alba* × *babylonica* = *S. × sepulcralis* (Weeping Willow): Branksome Chine, SZ0633 8972; 22 Aug 2023; MWR. By footpath near stream. **1st for SZ08 since 1990s.**

NA *Salix triandra* (Almond Willow): Hilsea Lines - Compartment 2 (West Moat) - West Bastion, SU6574 0443; 06 Oct 2023; RHWa. **1st for SU60 since 1960s.**

NN *Salvia hispanica* (Chia): Southampton, SU415 112; 30 Sep 2023; IG. Petersfield, SU7423; 01 Oct 2023; IG, PG. **1st for VC.**

***NA *Sambucus ebulus* (Dwarf Elder):** Milton Common, SU6709 0095; 24 Jul 2023; ATh det. MR. Easily seen from the cycle path next to Eastern Road on Milton Common. **1st for SU60Q.**

NN *Santolina chamaecyparissus* (Lavender-cotton): Farlington Naval Estate - Hoylake Road, SU6748 0638; 14 Sep 2023; RHWa. **1st for SU60.** Sandy Point spit - eastern foreshore, SZ7507 9878; 04 Jun 2023; RHWa. **1st for SZ79.**

NA *Saponaria officinalis* (Soapwort): Hale, SU1845 1852; 04 Oct 2023; DL. Patch, grassland near houses. **1st for SU11 since 1980s.**

NN *Senecio inaequidens* (Narrow-leaved Ragwort): Redbrook/Stuckton area, SU1542 1378; 01 Sep 2023; MWR. 1 plant by footpath, near Fordingbridge Pumpkin Pastures. **1st for SU11.**

NN *Sequoia sempervirens* (Coastal Redwood): Buriton 1km north, SU7321; 02 Mar 2023; AHP, EJC. **1st for SU72**

since 1970s. Branksome Chine, SZ0633 8972; 22 Aug 2023; MWR. Edge of wood near stream. **1st for SZ08.**

***NA *Silene flos-cuculi* River Meon - Mill Lane, Droxford (Northern Section), SU609 185; 06 Jun 2023; JMill. 1st for SU61E since 1960s.** Burton Common, SZ1937 9511; 06 Jul 2023; MWR. 1 plant by stream. **1st for SZ19X since 1960s.**

***NA *Silene gallica* (Small-flowered Catchfly):** Little Brownwich Lane area, SU5204; 01 Sep 2023; AHP, EJC. White flowered form. **1st for SU50.**

***NA *Silene nutans* (Nottingham Catchfly):** Long Curtain, King's Bastion and Spur Redoubt S.A.M., SZ6330 9903; 05 Sep 2023; RHWa. Planted new soft landscaping. **1st for SZ69J.**

NA *Sinapis arvensis* (Charlock): Keeping Copse, Beaulieu, SU3901; 09 Sep 2023; MR. **1st for SU30 since 1990s.**

***IN *Smyrniolus olusatrum* (Alexanders):** Titchfield north-east, SU5406; 27 Mar 2023; AHP, EJC. **1st for SU50N.** Wick area, SZ1598 9121; 02 Sep 2023; MWR. **1st for SZ19K.** Hengistbury Head, SZ1803 9064; 25 Jun 2023; MWR. 1 plant by track. **1st for SZ19V.**

NN *Solidago gigantea* (Early Goldenrod): Petersfield south-east, SU764 228; 15 Feb 2023; AHP, EJC. Large patch in meadow, soon to be built on. **1st for SU72.**

***NA *Solidago virgaurea* (Goldenrod):** Duncombe Lodge, SU121 064; 26 Aug 2023; PhSm. **1st for SU10I since 1960s.** Fort Purbrook - Wayfarers Walk FP, SU6787 0657; 26 Sep 2023; RHWa. **1st for SU60T.**

***NA *Sorbus aria* (Common Whitebeam):** Chilling (Thatcher's Copse), SU5203; 06 Jan 2023; AHP, EJC. **1st for SU50G.** Stubbington 1km north-west, SU5404; 06 Jul 2023; AHP, EJC. **1st for SU50M.** Muscliffe (N side), SZ0975 9615; 26 Jul 2023; MWR. Planted, edge of scrub. **1st for SZ09Y.**

NN *Sorbus mougeotii* (Mougeot's Whitebeam): Meadow West of Farlington Avenue, SU6718 0630; 14 Sep 2023; RHWa. Id based on number of veins 10+. Farlington Naval Estate - Farlington Avenue, SU6727 0635; 09 Sep 2023; RHWa. Id based on number of veins 10+ probably planted. Portsmouth Golf Course West - Wayfarers Walk FP, SU6748 0641; 26 Sep 2023; RHWa. Another mature fruiting specimen on golf course land - probably originally planted as *Sorbus intermedia* but a contaminated batch. **1st for VC.**

NA *Sorbus torminalis* (Wild Service-tree): Purbrook 2 km west, SU6508; 17 Oct 2023; AHP, EJC. Planted. **1st for SU60 since 1990s.**

****NA *Spergula arvensis* (Corn Spurrey):** Little Brownwich Lane area, SU5204; 01 Sep 2023; AHP, EJC. **1st for SU50H since 1990s.** Stubbington 1km north-west, SU5404; 06 Jul 2023; AHP, EJC. **1st for SU50M since 1960s.** Purbrook 2 km west, SU6508; 17 Oct 2023; AHP, EJC. **1st for SU60P since 1990s.**

NN *Spergularia bocconeii* (Greek Sea-spurrey): Mudeford, SZ184 918; 15 Sep 2023; PS. 4 car park spaces N of white hut. **1st for VC.**

***NA *Stachys arvensis* (Field Woundwort):** Purbrook 2 km west, SU6523 0807; 17 Oct 2023; AHP, EJC. **1st for SU60P since 1960s.** Milford on Sea, SZ2929 9143; 03 Aug 2023;

MWR. 1 plant, roadside, Island View Close, with *Geranium pusillum*. **1st for SZ29V since 1990s.**

***NA *Stuckenia pectinata* Hilsea Lines - Cmpt 3 (East Moat) - E. Centre Curtain, SU6664 0414; 11 Oct 2023; RHWa. 1st for SU60S.**

***NA *Succisa pratensis* (Devil's-bit Scabious):** Coldeast, Sarisbury, SU504 083; 16 Mar 2023; MR. In Coldeast Meadow. **1st for SU50E since 1980s.** Land to the South of Portsdown Hill Road SINC, SU6677 0637; 22 Sep 2023; RHWa. **1st for SU60T.**

NN *Symphotrichum lanceolatum* (Narrow-leaved Michaelmas Daisy): Breamore, SU1610 1762; 04 Oct 2023; DL. Large patch. **1st for SU11.**

NN *Symphytum orientale* (White Comfrey): Stokes Bay Tennis Courts, SZ5946 9858; 23 Apr 2023; RHWa. **1st for SZ59.**

NN *Symphytum* × *hidcotense* 'Hidcote Blue' Tatchbury area, SU3384 1485; 18 May 2023; MWR. Roadside by garden, Loperwood. **1st for SU31.**

NN *Tagetes patula* (French Marigold): Long Curtain, King's Bastion and Spur Redoubt S.A.M., SZ6331 9912; 05 Sep 2023; RHWa. Council 'wild flower' seeding. **1st for SZ69.**

***NA *Torilis nodosa* (Knotted Hedge-parsley):** Titchfield north-east, SU5406; 27 Mar 2023; AHP, EJC. **1st for SU50N.** Rowlands Castle, SU7310; 10 Feb 2023; AHP, EJC. **1st for SU71.** Christchurch (Barrack Road (A35)), SZ1552 9293; 19 Apr 2023; MWR. Christchurch (Christchurch Priory), SZ1599 9255; 19 Apr 2023; MWR. Churchyard. Among grass. **1st for SZ19L.**

***NA *Trifolium micranthum* (Slender Trefoil):** Near Bartley (Bourne Farm area), SU3311; 19 May 2023; MWR. **1st for SU31F since 1980s.** Conigar Point Meadow, SU7348 0502; 10 Jun 2023; RHWa. **1st for SU70H.**

***NA *Trifolium ornithopodioides* (Bird's-foot Clover):** Fritham (S side), SU2316 1394; 21 May 2023; MWR. Short grass, roadside. **1st for SU21G since 1990s.**

***NA *Trifolium striatum* (Knotted Clover):** Lee-on-the-Solent (Broom Way/B3334 roundabout), SU5724 0259; 24 Mar 2023; TN. New verge with developing herbaceous flora. Frequent non-flowering plants noted, including anthocyanin-rich examples. **1st for SU50R.**

***NA *Trifolium suffocatum* (Suffocated Clover):** Southsea Common E, SZ6403 9836; 29 Apr 2023; RHWa. **1st for SZ69P.**

NN *Tulipa gesneriana* (Garden Tulip): Eling, SU3670 1242; 06 Apr 2023; MWR. Churchyard, with *Narcissus hispanicus*. **1st for SU31.**

NA *Ulmus glabra* × *minor* = *U. × vegeta* (Huntingdon Elm): Finchdean 2km north west, SU7213; 28 Jun 2023; AHP, EJC. **1st for SU71.**

***NA *Valeriana officinalis* (Common Valerian):** MizMaze Hill, SU142 202; 18 Apr 2023; MR, MPa det. MR. **1st for SU12K since 1960s.**

***NA *Verbascum nigrum* (Dark Mullein):** Rockbourne (S side), SU1155 1787; 13 Jul 2023; MWR. 1 plant by road. **1st for SU11D since 1990s.**

***NA *Verbena officinalis* (Vervain):** Woodgreen, SU1698 1760; 04 Oct 2023; DL. **1st for SU11T since 1990s.** Great Salterns Farm - waste heaps, SU6713 0213; 16 Aug 2023; RHWa. **1st for SU60R.** Tanners Lane, SZ3640 9552; 04 Jun 2023; MWR. 1 plant, field gateway, Tanners Lane. **1st for SZ39S.**

NN *Veronica cymbalaria* (Pale Speedwell): Southampton (Gaters Mill area), SU454 153; 18 Mar 2023; PS. On access road to West End hand car wash just to the left of the main entrance To Haskins Garden Centre. **1st for VC.**

***NA *Veronica scutellata* (Marsh Speedwell):** Ditch End area, SU1896 1449; 06 Jun 2023; MWR. Plant glabrous. Var. *scutellata*, by stream. **1st for SU11X.**

NA *Veronica scutellata* var. *villosa* (Marsh Speedwell): Black Gutter Bottom area, SU2085 1670; 06 Sep 2023; MWR. Plant hairy. Roadside ditch, Roger Penny Way. **1st for SU21.**

NN *Viburnum tinus* (Laurustinus): S. of Ashford, SU1333 1385; 18 Apr 2023; MWR. 1m plant, roadside hedgebank opposite garden, Ashford Road. Brickhill area, SU1246 1594; 08 Sep 2023; MWR. Hedge by track, opposite garden. **1st for SU11 since 1990s.** Cosham, SU65887 06003; 01 Jan 2023; JNe. Great Salterns Recreation Ground NW, SU6677 0228; 05 Feb 2023; RHWa. Small mature row probably originally planted. Farlington Naval Estate - Farlington Avenue, SU6734 0629; 09 Sep 2023; RHWa. Hedgerow. **1st for SU60 since 1990s.**

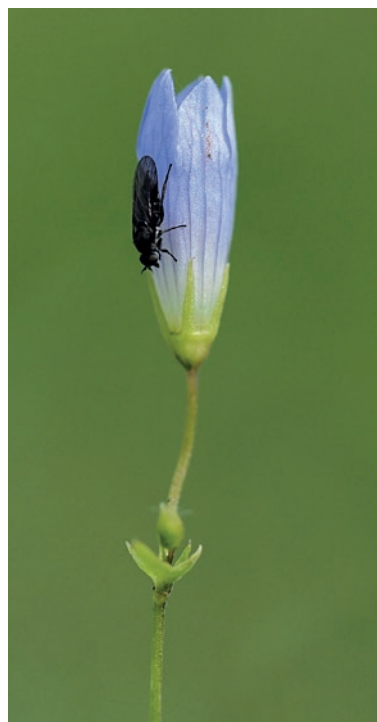
****NA *Viola canina* (Heath Dog-violet):** Whitefield Moor near Brockenhurst, SU2808 0249; 16 May 2023; DL. Frequent. **1st for SU20W since 1960s.**

NA *Viola canina* × *lactea Beaulieu Aerodrome, SU3421 0085; 10 May 2023; MR, MPa det. MR. **1st for SU30K since 1990s.**

***NA *Viola palustris* (Marsh Violet):** Milkham Inclosure, SU209 095; 26 Sep 2023; MR, RCR det. MR. In area now unfenced. **1st for SU20E.**

NA *Vulpia myuros* (Rat's-tail Fescue): Down Farm area, near Rockbourne, SU0901 1963; 23 Jun 2023; MWR. Edge of rape field by footpath. **1st for SU01 since 1960s.**

***NA *Wahlenbergia hederacea* (Ivy-leaved Bellflower):** Half Moon Common (Tussocky flush to S of public car park), SU2969 1758; 21 Jun 2023; TN. Patch of plants c.2m² on SE edge of tussocky flush. Flowering. **1st for SU21Y.**



Ivy-leaved Bellflower *Wahlenbergia hederacea*, Half Moon Common, 21 June 2023. Tristan Norton

VC12 records

Compiled by Tony Mundell

This report covers records for 26 July 2023 to 4 November 2023. A few people continue to send me records, mainly by entering them onto Living Record, but the number of contributors has declined recently, so I have been forced to include more of my own records. This year I have been involved in two separate projects that have kept me busy out surveying with one or two other people on two or three days each week from April to September. One of those projects is the Threatened Plants Project (TPP) but I collected so many hand-written notes each day that I still need to catch up with preparing many of the resulting detailed TPP recording forms and entering the records onto my database.

At least I have kept up with analysis and record-entering for my other main project. That has involved very detailed surveys of a set of 14 chosen target species at Eelmoor Marsh, Farnborough, with the help of Cathy Wilson. I have a special relationship with Eelmoor Marsh after first finding it in 1975, ensuring that it was notified as an SSSI, and continuing involvement with its 'winter-works' management by Marwell Zoo over the last 28 years. Eelmoor Marsh is a 'mini New Forest' but has no public access as it is within the security fence that surrounds Farnborough Airfield and QinetiQ.

The aim was to generate a 'baseline' by mapping the presence of the target species in every separate 10m × 10m grid square within the site, with an indication of abundance in each grid square. In recent years I, and

many others, have been recording an increasing proportion of plants using more precise 8-figure grid references that specify an area of 10m × 10m (sometimes entering the record at a site defined with only a 6-figure grid reference but adding more detailed 8-figure locations in a 'comment' within the record). This makes it far easier to refind particular plant colonies at a later date and to assess decline.

Detailed maps showing presence in 10m squares at Eelmoor Marsh have now been prepared for many species and several TPP forms have also been completed for Eelmoor. This baseline will guide future management. As examples here are the number of 10m dots on Eelmoor maps for some species:

Many-stalked Spike-rush *Eleocharis multicaulis*: 225
Common Cottongrass *Eriophorum angustifolium*: 114
Petty Whin *Genista anglica*: 19
Bog Asphodel *Narthecium ossifragum*: 14
Lousewort *Pedicularis sylvatica*: 199
Pale Butterwort *Pinguicula lusitanica*: 129
Pale Dog-violet *Viola lactea*: 31.

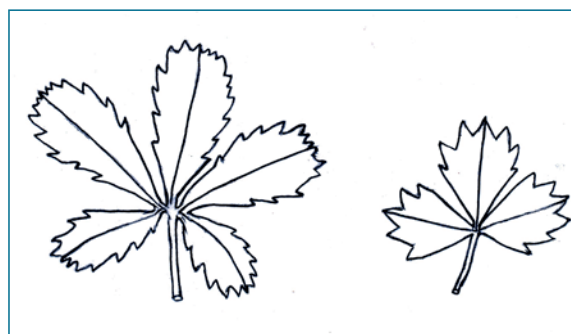
Another plant that Cathy Wilson was helping me to search for at Eelmoor was Trailing Tormentil *Potentilla anglica*. There were very few former records for it and eventually on 11 August we found a likely candidate growing close to an abundance of Creeping Cinquefoil *Potentilla reptans*. I knew that we needed to find viable seed forming to rule out the possibility of a hybrid, and I was aware that the number of leaflets was important, but it was Cathy who pointed out the distinctive 'jizz' of *P. anglica* that separates it from *P. reptans*. It is difficult to put 'jizz' into words, but the sketch I have made of typical stem leaves of these two species may help.

The most obvious character is that most stem (not basal) leaves of *P. anglica* have only 3 leaflets compared to 5 on *P. reptans*. The leaves of *P. anglica* also tend to be significantly smaller and have fewer teeth, making the teeth appear larger in proportion to the leaflets. The leaflets of *P. reptans* are a narrower, and more curved, overall shape than the rather angular and broad leaflets of *P. anglica*. In fact, *P. anglica* leaflets are basically made of a few relatively straight lines, unlike those of *P. reptans*.

P. anglica can have 4 or 5 petals on its flowers and like *P. reptans* (but not Tormentil *P. erecta*) it often produces roots at the stem nodes. I suspect that *P. anglica* is woefully under-recorded in VC12 and that I have often missed it, dismissing plants as the very common *P. reptans* without looking closely enough. Certainly, on the following day, 12 August, I soon found more *P. anglica* at another site and more followed as shown in the records below. Within the month Cathy and I had found it in 23 different 10m grid squares at Eelmoor.

In the records below I am delighted that the rare Orange Foxtail *Alopecurus aequalis* has reappeared at its former site at Hogmoor Inclosure. In a brief note in *Flora News* 58 for Spring 2020, pages 5-6, I wrote about how a German bomb had to be exploded in-situ at this site, and I had assumed that the Orange Foxtail there had been lost. Not only has it returned from the seed-bank, but the even better news is that the tall alien grass *Calamagrostis × acutiflora* that had been planted all round the pond where the Orange Foxtail grew did not survive the bulldozing associated with the controlled explosion. As the *Calamagrostis* grows vigorously to 1.8m tall it would have probably ousted the Orange Foxtail.

Amongst the alien plants note the garden plant *Astrantia* *Astrantia major* found at Noar Hill. I think I have probably



Comparison of stem leaves of Creeping Cinquefoil *Potentilla reptans* (left) and Trailing Tormentil *P. anglica* (right). Tony Mundell



Trailing Tormentil *Potentilla anglica*, Eelmoor. Tony Mundell

complained before in *Flora News* about people introducing undesirable plants onto nature reserves, presumably to 'pretty them up'. Noar Hill has certainly been a target for this in the past, including introductions of species that are native elsewhere in Hampshire, like Meadow Saffron *Colchicum autumnale* and Round-headed Rampion *Phyteuma orbiculare*. Of course, Noar Hill is an SSSI, so introductions there are not only messing up natural plant distributions and competing with the existing flora but are also illegal.

***Adiantum capillus-veneris* (Maidenhair Fern)** Tylney Hall SU7094 5516, a patch of young plants growing as weeds on a damp exterior brick wall at the base of a greenhouse, Tony Mundell 14 Sep 2023.



Maidenhair Fern *Adiantum capillus-veneris*, Tylney Hall. Tony Mundell

***Agrostis canina* (Velvet Bent)** Eelmoor Marsh SU8421 5351, a few plants in this 10m square in a seasonally flooded area, Tony Mundell & Cathy Wilson 25 Aug 2023.

***Ajuga chamaepitys* (Ground-pine)** South of Freefolk Wood SU5041 4391, SU5039 4391, SU5038 4391, SU5046 4386 and SU5048 4380, Sue Bell 18 Aug 2023. S of Freefolk Wood SU5048 4381, two plants on E field margin. Both small, one flowering, other in seed. On bare soil low bank. SU5037 4391, five plants in total along c.20m of N field edge, all on low bare bank kept clear of vegetation by rabbits, Tristan Norton 15 Sep 2023.

***Alisma lanceolatum* (Narrow-leaved Water-plantain)** Fleet Pond, one flowering plant at SU8212 5524 plus another at SU8213 5524, growing within many *A. plantago-aquatica* in the reed bed, Tony Mundell 30 Aug 2023.

***Alopecurus aequalis* (Orange Foxtail)** Hogmoor Inclosure SU7862 3524, at least six plants growing on wet area, previously a pond before being blown up when a bomb was found!, Dave Pearson, Tony Mundell & Helen Boyce 29 Aug 2023.

***Amaranthus blitoides* (Prostrate Pigweed)** Cow Down SU3798 4347, three plants noted, flowering, Tristan Norton 22 Sep 2023.

***Amaranthus hybridus* (Green Amaranth)** Cow Down SU3805 4334, frequent throughout both triangular margins. Specimen identified by Martin Rand, Tristan Norton 22 Sep 2023.

***Amaranthus retroflexus* (Common Amaranth)** Cow Down SU3805 4334, numerous plants throughout both triangular margins. Specimen identified by Martin Rand, Tristan Norton 22 Sep 2023.

***Arabis hirsuta* (Hairy Rock-cress)** Micheldever Spoil Heaps, east of railway SU5206 4450, dozens of plants in the former reserve car park area, Tony Mundell & Sue Bell 21 Aug 2023.

***Artemisia verlotiorum* (Chinese Mugwort)** Malta Barracks (disused), occupying a huge area of about 45 square metres in a triangular area between SU85837 52547, SU85843 52538 and SU85836 52534, stems well over a metre tall but no flowers yet, Tony Mundell & Mike Marshall 5 Sep 2023

***Asperula cynanchica* (Squinancywort)** Micheldever Spoil Heaps, east of railway SU5196 4442, many plants, Tony Mundell & Sue Bell 21 Aug 2023. Stockbridge Down SSSI Unit 1 SU3810 3507, Anna Stewart, Dave Stewart et al, 4 Sep 2023.

***Astrantia major* (Astrantia)** Noar Hill SU7427 3187, several plants in an area recently cleared of scrub, Nigel Johnson & Rosemary Webb 2 Sep 2023.

***Atropa belladonna* (Deadly Nightshade)** Roundwood Farm SU5172 4407, one plant seen, Anna Stewart, Sue Bell, Tristan Norton et al, 3 Sep 2023.

***Blackstonia perfoliata* (Yellow-wort)** Eelmoor Marsh SU8437 5363, a single flowering plant near Foden Track, Tony Mundell & Cathy Wilson 10 Aug 2023. Magdalen Hill Down, extension scrape SU5096 2899, frequent in scrape, Anna Stewart 11 Sep 2023.

***Briza media* (Quaking-grass)** Magdalen Hill Down, Path Field South SU5096 2899, Anna Stewart 27 Aug 2023.

***Bromus secalinus* (Rye Brome)** Roundwood Farm SU50874402, Anna Stewart, Tristan Norton & Sue Bell 3 Sep 2023.

***Bunias orientalis* (Warty-cabbage)** Crondall SU7903 4850, where previously recorded, on a grassy road verge, now in fruit, Paul Sterry 30 Aug 2023.

***Calystegia pulchra* (Hairy Bindweed)** Greywell SU7221 5127, Paul Sterry 20 Aug 2023.

***Campanula glomerata* (Clustered Bellflower)** St John Moore Army Training Centre SU466324, flowering plant identified by Tony Mundell from a photo, David Murdoch 16 Aug 2023. Magdalen Hill Down, Path Field South SU5022 2934, SU5034 2930 and SU5010 2935, Anna Stewart 27 Aug 2023.

***Campanula rotundifolia* (Harebell)** Micheldever Spoil Heaps, east of railway SU5197 4448, a patch of plants. Also, Micheldever Spoil Heaps, west of railway SU5193 4468, a patch 0.5m x 1m, both Tony Mundell & Sue Bell 21 Aug 2023. Magdalen Hill Cemetery SU5136 2929, Anna Stewart 27 Aug 2023. Magdalen Hill Down, Path Field South SU5030

2931, SU5039 2929, Anna Stewart 27 Aug 2023. Stockbridge Down SSSI Unit 1 SU3819 3491, white form, Anna Stewart & Iain McIntosh 4 Sep 2023.

***Carduus nutans* (Musk Thistle)** Stockbridge Down SSSI Unit 1 SU382347, large number of flowering plants, Anna Stewart & Iain McIntosh 4 Sep 2023.

***Carex pulicaris* (Flea Sedge)** Eelmoor Marsh SU8371 5317, a few plants in this 10m square.

***Catabrosa aquatica* (Whorl-grass)** Chilland SU5231 3252, large patch next to river bridge, Dave Pearson 25 Aug 2023.

***Catapodium rigidum* (Fern-grass)** Micheldever Spoil Heaps, east of railway SU5193 4421, Tony Mundell & Sue Bell 21 Aug 2023.

***Centaureum pulchellum* (Lesser Centaury)** Liss Forest SU7896 2970, at least 10 flowering plants growing with *Centaureum erythraea*, Tony Mundell, Andy Cross & Jodie Southgate 23 Aug 2023. Eelmoor Marsh, a large colony of around 300 flowering plants shown to me by Richard Bullock. It is densest in SU8473 5350 but extends for about 40m with scattered plants through SU8474 5350, SU8475 5350, SU8475 5351 and SU8476 5351. In some places is mixed with *C. erythraea*, but the 'Hybrids Flora of the British Isles' book says the hybrid is very rare, Tony Mundell 6 Sep 2023.

***Chaenorhinum minus* (Small Toadflax)** Micheldever Spoil Heaps, west of railway SU5192 4468, a few plants along the sunken slope, Tony Mundell & Sue Bell 21 Aug 2023. Lower Cranbourne Farm SU5059 4346, Sue Bell 27 Aug 2023.

***Chamaemelum nobile* (Chamomile)** Detailed TPP records made at : Aldershot Playing Fields, eight 10m squares within SU857515 and 18 more around SU857518. Also, Fleet Cricket Ground two 10m squares around SU804539. Also, Manor Park Aldershot, five 10m squares around SU869499 plus six around SU870501. Also, Pyestock Playing Fields, in extraordinary abundance within triangle SU8354 5392 to SU8353 5405 to SU8365 5399 and scattered in six 10m squares around SU837541. All Tony Mundell & Mary Parker 28 Jul 2023.

***Cirsium acaule* (Dwarf Thistle)** Magdalen Hill Down, middle tumulus SU5000 2933, Anna Stewart 15 Sep 2023.

***Colchicum autumnale* (Meadow Saffron)** Noar Hill SU7427 3187, two plants in an area recently cleared of scrub, Nigel Johnson & Rosemary Webb 2 Sep 2023.

***Comarum palustre* (Marsh Cinquefoil)** Shortheath Common SU7738 3632, Dave Jewsbury 23 Aug 2023.

***Cota tinctoria* (Yellow Chamomile)** Barnet Side SU7119 2878, Paul Sterry 16 Sep 2023.

***Crataegus × lavalleyi* (Lavallée's Cockspurthorn)** St John's Churchyard SU4869 2942, a large, planted tree with persistent red haws, leaves hairy beneath, oval with distal teeth, no thorns. Specimen identified by Tony Mundell, Anna Stewart 11 Oct 2023.

***Cynoglossum germanicum* (Green Hound's-tongue)** Blandford Woods SU8631 5256, many plants, Tony Mundell & Mike Marshall 5 Sep 2023 (one of dozens of sites for this rarity seen that day for the Threatened Plants Project).

***Datura stramonium* (Thorn-apple)** Basing Lime Pits SU655521, in flower and fruit, Mike Hackston 17 Sep 2023.

***Digitaria ischaemum* (Smooth Finger-grass)** Hogmoor Inclosure SU7891 3498, over 20 plants, Tony Mundell, Helen Boyce & Dave Pearson 29 Aug 2023. The Slab, Bordon, a single plant, Tony Mundell, Dave Pearson & Helen Boyce 27 Sep 2023.

***Dittrichia graveolens* (Stinking Fleabane)** Winnall, M3/A34 roundabout, Martin Rand 22 Aug 2023. Longmoor SU7902 3116, hundreds of fruiting plants beside slip road coming off from A3, mainly near the small roundabout, Tony Mundell 7 Oct 2023.

***Dryopteris carthusiana* (Narrow Buckler-Fern)** Shortheath Common SU7744 3680, 23 Aug 2023.

***Eleocharis acicularis* (Needle Spike-rush)** Newton Valence village pond SU7234 3269, forming a dense sward at the pond edge. We were told that it was introduced by somebody from the South Downs National Park tasked with 'restoring' the pond, Andrew Cleave & Paul Sterry 20 Sep 2023. Newton Valence village pond SU7234 3269, where found recently by Paul Sterry & Andrew Cleave. It is plentiful and emergent plants are flowering well around the north end on the pond, Tony Mundell 24 Sep 2023.



Needle Spike-rush *Eleocharis acicularis*, Newton Valence. Paul Sterry

***Epilobium palustre* (Marsh Willowherb)** Eelmoor Marsh SU8376 5310, one flowering plant in a sea of *Eleocharis multicaulis*. Also, Eelmoor Marsh SU8373 5315, one flowering plant, both Tony Mundell 26 Jul 2023. Eelmoor Marsh SU8429 5361, several plants beside Cove Brook, Tony Mundell & Cathy Wilson 10 Aug 2023.

***Epipactis helleborine* (Broad-leaved Helleborine)** Avington SU5316 3201, one tall plant with red flowers, Chris Prior 27 Jul 2023. Bordon SU792348, at least 13 fine specimens on both sides of a path just east of the re-routed A325, Bill & Chris Wain 27 Jul 2023.

***Epipactis phyllanthos* (Green-flowered Helleborine)** Eelmoor Marsh SU8438 5364, a single spike, 2m south of Foden Track plus five more spikes at SU8439 5362 4m south of Foden Track, Tony Mundell & Cathy Wilson 10 Aug 2023.

***Epipactis purpurata* (Violet Helleborine)** Bradley Hill, a splendid plant at the path junction at SU64677 43418, east of Preston Oak Hills, Rob Still 1 Aug 2023. Noar Hill, photo taken at SU74627 31869, showing a flowering plant with about 8 stems, Clive & Catherine Chatters 13 Aug 2023.



Violet Helleborine *Epipactis purpurata*, Bradley Hill.
Rob Still

***Erigeron acris* (Blue Fleabane)** Upper Bullington, A34/A303 interchange SU463418, Glynne Evans 6 Aug 2023. Winnall SU495303, S verge of Easton Lane SW of M3 interchange, also Winnall, M3/A34 roundabout SU497304 and SU496304, Martin Rand 22 Aug 2023.

***Euphorbia exigua* (Dwarf Spurge)** Roundwood Farm SU5072 4434, Anna Stewart, Tristan Norton & Sue Bell 3 Sep 2023.

***Euphrasia* × *areschougii* (*E. nemorosa* × *micrantha*)** Eelmoor Marsh, several flowering plants in grassy cracks across the concrete hard standing at SU83946 52946 and SU83944 52959, Tony Mundell 26 Jul 2023. Eelmoor Marsh SU8359 5334 and SU8386 5345, the plants here, and in several other places beside Leyland Track, seem to be a hybrid swarm involving *E. nemorosa* and *E. micrantha*. Most are much closer to *E. nemorosa*, but some have the more upright, slender growth habit of *E. micrantha*. All plants in the area have purple flowers, Tony Mundell & Cathy Wilson 25 Aug 2023.

***Fagopyrum esculentum* (Buckwheat)** Roundwood Farm SU5148 4407, Anna Stewart, Tristan Norton & Sue Bell 3 Sep 2023.

***Filago germanica* (Common Cudweed)** Sir Richard's Ride SU7772 5942, beside the ride on the south side, Tony Mundell & Mike Marshall 11 Aug 2023.

***Filipendula vulgaris* (Dropwort)** Magdalen Hill Down, Path Field South SU5025 2932, Anna Stewart 27 Aug 2023. Stockbridge Down SSSI Unit 1 SU3837 3462, Anna Stewart & Iain McIntosh 4 Sep 2023.

***Fumaria parviflora* (Fine-leaved Fumitory)** Roundwood Farm SU5115 4408, one plant, Anna Stewart, Sue Bell & Tristan Norton et al 3 Sep 2023.

***Galeopsis angustifolia* (Red Hemp-nettle)** Old Burghclere lime quarry SU471572, in excess of 200 plants, Graham Dennis 3 Aug 2023. Micheldever Spoil Heaps, east of railway six plants at SU51988 44463, Tony Mundell & Sue Bell 21 Aug 2023. Micheldever Spoil Heaps, west of railway SU5192 4468, 10 plants amongst thousands of *Teucrium botrys* seedlings along the sunken slope, Also, about 6 very tiny plants at base of spoil heap at SU5192 44728 and 15 plants at SU5190 4485 on east-facing slope, the largest only 8cm tall, Tony Mundell & Sue Bell 21 Aug 2023.



Red Hemp-nettle *Galeopsis angustifolia*, Micheldever Spoil Heaps. Tristan Norton

***Galinsoga quadriradiata* (Shaggy Soldier)** Littleton, Hidden Way SU455322, in two spots in a gap between the concrete layers of a garden driveway. Photos include close-ups of the receptacular scales between the fruits, Iain McIntosh 19 Aug 2023.



Shaggy-soldier *Galinsoga quadriradiata*, Littleton.
Iain McIntosh

***Galium* × *pomeranicum* (*G. verum* × *album*)** Stockbridge Down SSSI Unit 1 SU3784 3519, a plant showing characteristics of the hybrid beside the path running north to south. Both parents were present nearby, Dave Pearson 10 Sep 2023.

***Gentianella amarella* (Autumn Gentian)** Magdalen Hill Down, Path Field South, 50 + plants flowering at SU5045 2924 and SU5049 2923, Anna Stewart 29 Aug 2023. Micheldever Spoil Heaps West SU519447, a few flowering plants noted, at low density, Tristan Norton 3 Sep 2023.

***Geranium pratense* (Meadow Crane's-bill)** Magdalen Hill Down, Path Field South SU5054 2921, Anna Stewart 29 Aug 2023.

***Hippocrepis comosa* (Horseshoe Vetch)** Magdalen Hill Down, Original Down SU5029 2925, SU5026 2927, SU5023 2928 & SU5027 2927, Anna Stewart 24 Aug 2023. Magdalen Hill Down, Path Field South SU5054 2921, SU5024 2929, SU5016 2930 & SU5062 2918, Anna Stewart 29 Aug 2023. Stockbridge Down SSSI Unit 1 SU3829 3479 & SU3810 3507, leaves only, Anna Stewart, Dave Stewart & Iain McIntosh 4 Sep 2023.

***Hydrocotyle vulgaris* (Marsh Pennywort)** Cudbury SU7620 6055, 10m west of main track, Tony Mundell & Mike Marshall 11 Aug 2023. Eelmoor Marsh, refound the colony at SU83597 53271, a patch c. 2m x 2m in a damp hollow north of Laffan Track in woodland, very overgrown and deeply shaded by Birch, Alder, Willow etc, Tony Mundell & Cathy Wilson 16 Aug 2023. Eelmoor Marsh, a patch 3m x 2m with some plants extending west into the Myrica gale on a cattle track at SU8393 5292, Tony Mundell & Cathy Wilson 25 Aug 2023.

***Hypericum elodes* (Marsh St John's-wort)** Eelmoor Marsh SU8386 5312 & SU8386 5313, Tony Mundell & Cathy Wilson 7 Aug 2023.

***Hypericum humifusum* (Trailing St John's-wort)** Cudbury, beside tracks at SU7655 6015, SU7643 6041 and SU7615 6067, Tony Mundell & Mike Marshall 11 Aug 2023.

***Illecebrum verticillatum* (Coral-necklace)** Longmoor, Liss Forest, in large quantity at SU7853 2944, Cordelia Newsome 10 Aug 2023. Hogmoor Inclosure SU7891 3498, many plants, Tony Mundell, Helen Boyce & Dave Pearson 29 Aug 2023. Broxhead Common SU8001 3727, spread all over the sandy areas, Bill & Chris Wain 18 Oct 2023.

***Inula conyzae* (Ploughman's-spikenard)** Magdalen Hill Down SU499292, one plant along track by wire fence at top of western compartment, Dave Pearson 11 Aug 2023. Winnall, M3/A34 roundabout SU497305 & SU497304, Martin Rand 22 Aug 2023.

***Impatiens capensis* (Orange Balsam)** Longparish SU4441 4486, Paul Sterry 9 Sep 2023 (see photo on front cover).

***Kickxia elatine* (Sharp-leaved Fluellen)** Sutton Scotney SU464391, Carolyn Doorbar 12 Aug 2023. Roundwood Farm SU5138 4484, Anna Stewart, Tristan Norton & Sue Bell 3 Sep 2023.

***Kickxia spuria* (Round-leaved Fluellen)** Oakley SU589513, in plenty, Paul Sterry 31 Jul 2023. Sutton Scotney SU464391, Carolyn Doorbar 12 Aug 2023.

***Lactuca virosa* (Great Lettuce)** Blackbushe SU794585, a very tall plant on a small roundabout on the A30, Tony Mundell 11 Aug 2023.

***Lamium hybridum* (Cut-leaved Dead-nettle)** Roundwood Farm SU5072 4434, Anna Stewart, Tristan Norton & Sue Bell 3 Sep 2023.

***Linaria repens* (Pale Toadflax)** Lower Cranbourne Farm SU4969 4342, 3 yard strip in hedgerow down the hill to the south, Sue Bell 27 Aug 2023.



Round-leaved Fluellen *Kickxia spuria*, Oakley.
Paul Sterry

***Linum radiola* (Allseed)** Cudbury SU7615 6066, a single surviving plant only where this plant and *Lysimachia minima* used to grow in hundreds a few years ago on a minor path near a pond. The problem is that recently much Birch beneath the power lines has been bulldozed and their roots and branches have been heaped on the former site of the plants. Also, about 120 plants extending for 7m on both sides of the track from SU76550 60155 to SU76553 60161, Tony Mundell & Mike Marshall 11 Aug 2023.

***Logfia minima* (Small Cudweed)** Sir Richard's Ride SU7759 5946 on south side of the ride, Tony Mundell & Mike Marshall 11 Aug 2023. The Slab, Bordon SU7819 3598, locally plentiful, Tony Mundell, Dave Pearson & Helen Boyce 27 Sep 2023.

***Lonicera nitida* (Wilson's Honeysuckle)** Roundwood Farm SU5093 4409, Anna Stewart, Tristan Norton & Sue Bell 3 Sep 2023.

***Lysimachia minima* (Chaffweed)** Cudbury SU7656 6016, about 80 plants on both sides of the track extending for 21m from SU76564 60164 to SU76548 60152. Allseed also grows nearby. Also, Cudbury SU7690 6024, about 90 plants at SU76909 60241 on south side of a gravel track at the foot of a gravel bank. Most plants are within 40 x 30cm but there is a separate patch of a dozen plants only 2m away at SU76906 60242, Tony Mundell & Mike Marshall 11 Aug 2023.



Chaffweed *Lysimachia minima*, Cudbury.
Tony Mundell

***Melampyrum pratense* (Common Cow-wheat)** Dockenfield, Flat Copse SU8258 4032, locally abundant with many clumps in a wet area on either side of the footpath, V Bradfield 3 Aug 2023.

***Menyanthes trifoliata* (Bogbean)** Yateley Country Park SU8212 5962, Dave Jewsbury 15 Aug 2023.

***Myriophyllum aquaticum* (Parrot's-feather)** Tylney Hall SU7111 5507, really abundant in huge quantity in the Bottom Lake, Tony Mundell 14 Sep 2023.

***Nicandra physalodes* (Apple of Peru)** Hook SU727544, two plants in disturbed ground beside Hartletts skate park, Mike Marshall 6 Oct 2023.



Apple-of-Peru *Nicandra physalodes*, Hook.
Mike Marshall

***Omalothea sylvatica* (Heath Cudweed)** Liss Forest, Longmoor, 18 flower spikes and about 20 non-flowering plants on sandy track from SU7951 2995 to SU7952 2996, Cordelia Newsome 10 Aug 2023.

***Orobanche elatior* (Knapweed Broomrape)** Old Burghclere lime quarry SU471572, Graham Dennis 3 Aug 2023.

***Orobanche hederæ* f. *monochroa* (Ivy Broomrape)** Ropley SU655307, we walked to the former site of *Orobanche hederæ* [at SU656305] which was herbicided out a few years ago. It has now appeared just down the road in the verge opposite Chalk Cottage. About 10 spikes in flower but with signs of an earlier flush with more flowers, Clive & Catherine Chatters 17 Sep 2023.

***Osmunda regalis* (Royal Fern)** Eelmoor Marsh SU8375 5316, one tiny seedling 5cm tall, Tony Mundell & Cathy Wilson 7 Aug 2023. Eelmoor Marsh SU8429 5362, one plant on edge of a minor ditch plus a second fruiting plant in a different minor ditch 5-6m away, Tony Mundell & Cathy Wilson 10 Aug 2023.



Ivy Broomrape *Orobanche hederæ* f. *monochroa*, Ropley. Clive & Catherine Chatters

***Persicaria minor* (Small Water-pepper)** Cudbury SU7629 6043, at least 12 plants, now starting to flower, in puddle on the track, Tony Mundell & Mike Marshall 11 Aug 2023.

***Physocarpus opulifolius* (Ninebark)** Bordon SU7853 3609, a fruiting bush on the roadside verge opposite to houses, Tony Mundell, Dave Pearson & Helen Boyce 27 Sep 2023.

***Phyteuma orbiculare* (Round-headed Rampion)** Stockbridge Down SSSI Unit 1 SU3803 3517, a few plants, one flowering. Also, SU3827 3462, good population, flowering and in seed, Anna Stewart, Dave Stewart et al 4 Sep 2023. Stockbridge Down SU3827 3461, at least 20 plants in small clearing north of pull-in on B3049, Dave Pearson 10 Sep 2023.

***Pinguicula lusitanica* (Pale Butterwort)** Eelmoor Marsh SU8396 5309, frequent on wet scrape and old ditch side, over 100 plants within the 10m × 10m square, Tony Mundell 6 Sep 2023.

***Polypodium interjectum* (Intermediate Polypody)** Micheldever Spoil heaps, west, SU5189 4446, growing on Oak, sporangia unripe, 2-3 basal cells, examined microscopically, Anna Stewart 5 Oct 2023.

***Polypodium vulgare* (Polypody)** Micheldever Spoil heaps, west, SU5189 4447, growing on Oak, sporangia ripe, one basal cell, examined microscopically, Anna Stewart 5 Oct 2023.

***Potentilla anglica* (Trailing Tormentil)** Eelmoor Marsh, three plants (two of them small) at SU84384 53627 on south verge of Foden Track. Also, a single smaller plant in middle of Foden Track at SU84382 53624 on the tarmac, Tony Mundell & Cathy Wilson 10 Aug 2023. Cudbury SU7687 6026, on south side of the track, Tony Mundell & Mike Marshall 11 Aug 2023. Liss Forest beside the main track at SU7915 2973, a large patch of many plants with a single plant nearby at SU7914 2972, Tony Mundell, Andy Cross & Jodie Southgate 23 Aug 2023. Cudbury SU7648 6014 on NE side of the main track in two spots, Tony Mundell 28 Aug 2023.

***Potentilla argentea* (Hoary Cinquefoil)** Sir Richard's Ride, a single plant on the south side of the track at SU77773 59408. This is a new site for it. Searched locally but could only find this single plant, Tony Mundell & Mike Marshall 11 Aug 2023. The Slab, Bordon SU7825 3602, over 50 plants, Tony Mundell, Dave Pearson & Helen Boyce 27 Sep 2023.

***Ranunculus penicillatus* subsp. *pseudofluitans* var. *vertumnus* (Stream Water-crowfoot)** Basingstoke Canal, Greywell, specimens collected from two locations, SU7217 5147 and SU7223 5151, to send to a researcher in the Czech Republic, Tony Mundell & John Sutton 17 Aug 2023.

***Reynoutria sachalinensis* (Giant Knotweed)** Froxford SU715281, Paul Sterry 16 Sep 2023.

***Roemeria argemone* (Prickly Poppy)** Roundwood Farm SU5186 4420, Anna Stewart, Tristan Norton & Sue Bell 3 Sep 2023.

***Rosa micrantha* (Small-flowered Sweet-briar)** Stockbridge Down SSSI Unit 1 SU3839 3471 and SU3809 3512, Anna Stewart, Dave Stewart et al 4 Sep 2023. Magdalen Hill Down, Original Down SU5001 2924, Anna Stewart 15 Sep 2023.

***Sagina subulata* (Heath Pearlwort)** Warren Heath, a small area of plants within 1m x 0.2m on east side of the track at SU76783 59703. Sepals 3/4 as long as the white petals and with glandular hairs on sepal undersides. This is a new site for it, Tony Mundell & Mike Marshall 11 Aug 2023.

***Scleranthus annuus* (Annual Knawel)** Huntsmoor Hill SU5327 6246, about 30 plants in an unsown strip, 12m x 2m, in thin stony soil at the top of the field by a stile, Sarah White 7 Aug 2023.

***Senecio viscosus* (Sticky Groundsel)** Micheldever Station, Dove Inn SU5172 4283, Anna Stewart, Sue Bell & Dave Stewart 3 Sep 2023.

***Serratula tinctoria* (Saw-wort)** Eelmoor Marsh SU8397 5292, a few plants behind the field hut, but becoming shaded out by Birch scrub, Tony Mundell & Cathy Wilson 16 Aug 2023.

***Setaria pumila* (Yellow Bristle-grass)** Cow Down SU3805 4334, abundant throughout both triangular margins and adjacent main field edge, Tristan Norton 22 Sep 2023.

***Silene noctiflora* (Night-flowering Catchfly)** Roundwood Estate SU5086 4388, several plants, flowering, along margin, Tristan Norton 3 Sep 2023.

***Spergularia rubra* (Sand Spurrey)** Cudbury, beside track at SU7645 6041 and SU7651 6039, Tony Mundell & Mike Marshall 11 Aug 2023.

***Spiranthes spiralis* (Autumn Lady's-tresses)** Magdalen Hill Down, Tumulus Field SU5000 2929, 23 flowering spikes, Anna Stewart 24 Aug 2023. Blackbushe Airport, disused runway SU8056 5941 16 plants, SU8059 5937 20 plants, SU8059 5938 10 plants, Caroline Reid 27 Aug 2023. Eelmoor Marsh SU8482 5361, dozens of flower spikes (at least 70) scattered over a large area, most going over, shown to me by Richard Bullock, Tony Mundell 6 Sep 2023.

***Stachys arvensis* (Field Woundwort)** Roundwood Estate SU5086 4388, several flowering plants noted, Tristan Norton 3 Sep 2023. Cow Down SU3805 4334, very occasional flowering plants noted along NE edges of both triangular margins, Tristan Norton 22 Sep 2023. Cow Down SU3811 4330, frequent throughout both triangular margins. Having not been visible earlier in summer, now evident that there is a substantial population here, Tristan Norton 14 Oct 2023.

***Teucrium botrys* (Cut-leaved Germander)** Old Burghclere lime quarry SU471572, at least 20 plants around half flowering and the rest small seedlings, Graham Dennis 3 Aug 2023. Micheldever Spoil Heaps, east of railway, several seedlings at SU51988 44463, growing with *Galeopsis angustifolia*, Tony Mundell & Sue Bell 21 Aug 2023. Micheldever Spoil Heaps, west of railway, about 50 small plants at base of spoil heap at SU51915 44719, another 50 tiny seedlings at SU51901 44688, thousands of small seedlings at SU5192 4468 along the sunken slope, in uncountable hundreds at SU5192 4469, but very young non-flowering plants. About 100 tiny seedlings at SU5192 4467 with a few mature plants, one still with flowers, Tony Mundell & Sue Bell 21 Aug 2023.

***Thesium humifusum* (Bastard-toadflax)** Magdalen Hill Down, Tumulus Field SU4995 2928, abundant near path, Anna Stewart 24 Aug 2023. Stockbridge Down SSSI Unit 1 SU3829 3479, sprawling plants, small, but spreading, Anna Stewart, Dave Stewart et al 4 Sep 2023. Magdalen Hill Down, Original Down, at SU4989 2925 and SU5035 2924, Anna Stewart 15 Sep 2023.

***Thlaspi arvense* (Field Penny-cress)** Basing Lime Pits SU655521, now in fruit, Mike Hackston 17 Sep 2023.

***Trifolium resupinatum* (Reversed Clover)** Roundwood estate SU5159 4409, a few plants scattered in field. Possibly sown with *Phacelia*, Anna Stewart 5 Oct 2023.

***Turritis glabra* (Tower Mustard)** Woolmer, Linchborough SU814334, 18 tall seed heads and a few flowers still left at c. SU8140 3344, Bill & Chris Wain 27 Sep 2023. Kingsley, Baker's Corner SU778377, only one plant found, now with seed. Area getting very overgrown with scrub, Bill & Chris Wain 28 Sep 2023.

The Hampshire and Isle of Wight Wildlife Trust's Flora Group aims to monitor status and promote conservation of the flora of the two counties and develop skills of those members interested in flora.

This edition of *Flora News* was put together by Catherine Chatters and John Norton. The views expressed by contributors to *Flora News* are not necessarily those of Hampshire & Isle of Wight Wildlife Trust. Many thanks to everyone who contributed. If you have any comments or would like to submit an article for inclusion in a future issue please contact:

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When submitting photographs or illustrations for articles please include a small (reduced) version of the image in the article above its caption and send larger versions (no more than 5MB) directly to John Norton (john@jnecology.uk). Please include details of each image in its filename.

The Hants Plants website provides news and resources for anyone with an interest in Hampshire botany and acts as a hub for all plant recording activities in the two Hampshire vice-counties. If you would like to send in your plant records, please see the Hants Plants website for further information, including a downloadable form for rare plants for use in the Threatened Plants Project and a link to Living Record for bulk recording, or contact your relevant BSBI Vice-county Recorder:

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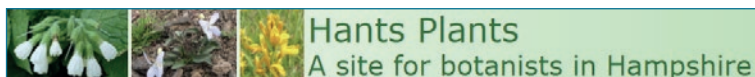
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