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Dear Flora Group member

The Flora Group committee hope that you and your family are keeping safe and well during the Covid-19 pandemic. The Committee has continued to adapt to the current situation by using video-conferencing facilities; we held our committee meeting during May 2021 via Zoom which, again proved to be very successful. The Flora Group Annual General Meeting (AGM) was due to be held on Saturday 5 June 2021 but had to be postponed (due to Covid-19 restrictions) and was held remotely via Zoom on Saturday 11 September. We will ensure that future field meetings and other events are held in accordance with relevant guidance aimed at minimising the risk of transmitting the virus. Thank you for your patience while we continue to adapt to the challenges of the situation.

The Committee would like to thank everyone who completed the survey devised by Committee member Cathy Wilson to help us provide a stimulating programme of Flora Group events. Cathy's summary of the survey results can be found on p. 17 of this newsletter.

Following the success of Martin Rand's online workshops (reports of which can be found on pages 6 and 7) Martin has arranged an online training session during November 2021 to help with the recognition of evergreen broadleaved trees and shrubs; this will be followed by a field meeting in the spring. Details of these events can be found on pages 4 and 5.

We hope to hold our winter Exhibition Meeting at Testwood Lakes Education Centre on Saturday 11 December 2021. Our booking of the facilities at Testwood is provisional at this stage (due to Covid-19) so you will need to contact Tony Mundell nearer the time if you wish to attend.

The Committee has started to plan a varied programme of field meetings for 2022, including a chance for some early season botanising on Portsdown Hill and opportunities for people to enhance their identification skills during visits to St Mark's Meadow at Hatch Warren near Basingstoke, and to Southwood Country Park near Farnborough. Obviously, these events will be dependent on relevant Government guidance and advice from HIWWT regarding the pandemic.

In the meantime, Martin Rand has kindly offered to continue his occasional 'open chat sessions' via Zoom for Flora Group members to keep in touch. Further details are given on p. 2.

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 (subject, of course, to relevant guidance aimed at minimising the risk of transmitting Covid-19). 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 grateful to everyone who helps to organise Flora Group events and we welcome your suggestions for future Flora Group activities. We are always keen for you to raise your ideas with any of the Committee members. The current Committee members are: Sarah Ball (Chairman), Catherine Chatters, Clive Chatters, Andy Cross, Isobel Girvan, Gareth Knass, Tony Mundell, John Norton, Martin Rand, Neil Sanderson and Cathy Wilson.

We are pleased to include articles by Margaret Wonham, Tristan Norton and Andrew Powling in this edition of *Flora News* as well as features by our regular contributors. As always, we would like to encourage more people to provide contributions to *Flora News* on relevant botanical topics. If you have enjoyed any Flora Group events 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 (Flora Group Secretary) at Catherine.Chatters@hiwwt.org.uk or to her home address which is given at the end of this newsletter.

Edited and produced by Catherine Chatters (Flora Group Secretary) and John Norton, October 2021

Cover photo: Few-flowered Fumitory *Fumaria vaillantii*, Crawley, July 2020. Tristan Norton
See 'Living on the edge: the simple pleasures of arable margin botany', p. 21.

Keeping in Touch

Flora Group Open Chat Sessions hosted by Martin Rand

Now that autumn is upon us and the opportunities for meeting in person in the open air are diminishing, I would be pleased to resume arrangements for occasional Zoom meetings to help people keep in touch. I host the meetings for a couple of hours in an evening (7 pm–9 pm), and you can drop in (and out again!) whenever you feel like it.

If this interests you, please contact me with your email address for mailings or your smartphone number for SMS messages, stating any days of the week that you won't be able to take part (my contact details are given on the last page of this newsletter). I will then arrange days for the happiness of the greatest number (if necessary switching days in alternate sessions to be as inclusive as possible) and send you an invitation with details of how to log in using your Web browser or the Zoom app a few days before each session. If you don't yet know what Zoom is, how have you managed to avoid it? – but ask me about it when you contact me.

Online Events

Saturday 13 November 2021, 10.00am–12.30pm

Leathery Leaves part 1: an online workshop on recognising evergreen broadleaved trees and shrubs
Leader: Martin Rand

This workshop will look at a selection of the many evergreen broadleaved trees and shrubs that are to be found in amenity plantings or in the wild, looking particularly at those which are having the greatest impact on natural communities and those which are most widely introduced. It will be followed by a 'walkabout' field meeting in early 2022 in the leafy setting of Chandler's Ford.

There will be a fee of £5 for participants and numbers will be limited to 12. Advance booking with Martin is essential. You will be sent further details (including log-on details) a week or two before the meeting.

Contact: Martin Rand (details on back page).

Indoor Meetings

Due to the Covid-19 pandemic the event listed here will only take place if it is compatible with relevant Government guidance and HIWWT advice. You must pre-register with the organiser and provide contact details in case of late cancellation.

Saturday 11 December 2021, 10.30am–4pm

Flora Group/BSBI Exhibition Meeting
Testwood Lakes Education Centre, Totton

After a missed year due to the Covid-19 pandemic, we hope to continue this traditional winter get-together/social event. However, at the time of producing this edition of *Flora News*, we can only make a provisional booking for the facilities at Testwood Lakes Education Centre. If you wish to attend this event, it will be necessary to contact Tony Mundell in advance to find out whether the event will take place and to book a place.

Please bring along cakes and other goodies to eat, or sandwiches for us to share, plus your specimens, photos, material for display boards and any other botanical talking point. This is a splendid informal event for meeting others interested in Hampshire's wildflowers. A digital projector will be available, so please can you bring a few (fewer than 30) photos to show us in PowerPoint format but only British plants and preferably species found in Hampshire. We will aim to start viewing these photos at 1pm.

If you don't wish to talk about your photos, then at least bring a few prints of photos (or pressed specimens) that you can put on the display tables – ideally annotated with where the photo was taken. Failing that, bring a few biscuits, etc. and help us munch them!

Meet at Testwood Lakes Education Centre, Totton SU 3441 1558, Lat./Long. 50.9387 –1.5117. This is reached from Brunel Road, a turning off the A36 at a roundabout between Totton and Ower. After entering Brunel Road, look for a small turning on the left after the block of industrial units. Go along this track, ignoring the first car park and Sea Scouts' building on your right, until the Education Centre comes into view above the lake. There is plenty of parking there.

Contact: Tony Mundell (details on back page).

Forthcoming Field Events

Due to the Covid-19 pandemic the events listed here will only take place if they are compatible with relevant Government guidance and HIWWT advice. You must pre-register with the leader and provide contact details in case of late cancellation.

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

Saturday 19 March 2022, 10.00 am–12.30pm or 2.00 pm–4.30 pm

Leathery Leaves Part 2: a field meeting for evergreen broadleaved trees and shrubs

Leader: Martin Rand

This meeting is contingent on any restrictions and advice concerning the Covid-19 situation at the time. If you want to attend, you must pre-register with Martin and provide contact details in case of late cancellation.

These short field trips are intended as a follow-up to the online workshop run in November 2021, and you will get most out of them if you previously took part in that. Each will be limited to 6 participants to avoid overcrowding the pavements of the leader's neighbourhood, and each will follow the same itinerary. There is no charge for the meeting, but donations to the Wildlife Trust are always welcome. Booking with Martin is essential; please state which session you want to attend. Details will be sent a week or two before the meeting.

Contact: Martin Rand (details on back page)

Sunday 10 April 2022, 10.30 am–4 pm

Early season botanising, Portsdown Hill, north of Portsmouth

Leaders: John Norton & Martin Rand

This meeting is contingent on any restrictions and advice concerning the Covid-19 situation at the time. If you want to attend, you must pre-register with John and provide contact details in case of late cancellation.

We will only have time to visit a small portion of this Portsmouth City Council site, which is notified as a Site of Special Scientific Interest (SSSI) mainly for its chalk grassland, but there is also a good deal of scrub, some rough grassland and disturbed areas resulting from recent scrub clearance. It will be interesting to find out what species are actually in flower on the chalk grassland at this time of year, which is usually at its best in late July and August. We should certainly see Early Dog-violet *Viola reichenbachiana* and Hairy Violet *V. hirta* in flower and hopefully also Sweet Violet *V. odorata*. A rare soil-dwelling fungus visible at this time of year is *Scutellinia barlae*. The disturbed areas should have a reasonable mixture of ruderals and arable weeds coming into flower and hopefully we can add a few species to the list for the site.

Arrangements: We will take lunch back at the cars around 1pm, so people can leave then if they wish or can join for the afternoon only (please arrive by 1.30pm). Booking is essential and numbers will be limited. Please email John Norton (details below) to book, or phone if you are not on email. We will be walking down and up a steep slope so this will be suitable only for the fit and able, though the before-lunch route will be relatively short (<1.5km). Therefore please wear stout shoes or walking boots.

Level: Suitable for all levels of experience. We shouldn't be looking at too many grasses and sedges at this time of year but may resort to vegetative ID of the herbs and shrubs if there is not too much in flower.

Meet at: the car park on the east side of Fort Widley, next to the Churchillian public house, on Widley Walk SU6600 0648, postcode PO6 3LS. There is also parking in the bays by the road. Beware, the turn into the lane opposite the Churchillian is quite tight. If anyone wishes to take public transport there may be the possibility of arranging a pick-up from Cosham railway station or the north entrance of QA Hospital.

Contact: John Norton, john@jnecology.uk; tel. 07982 257746.

Saturday 11 June 2022, 10.30am – 12.30pm
Visit to St Mark's Meadow, Hatch Warren, Basingstoke
Leader: Tony Mundell

This meeting is contingent on any restrictions and advice concerning the Covid-19 situation at the time. If you want to attend, you must pre-register with Tony and provide contact details in case of late cancellation.

Thanks to the work of the Hatch Warren Nature Group, led by Paul Beevers, an area owned by Basingstoke and Deane Borough Council has been turned over many years into an impressive meadow bursting with colourful native perennial plants, many of them uncommon species. This contrasts with the frequently seen patches of sown annual 'wildflowers' loved by councils, that do encourage pollinating insects but contain many non-native plants. Apart from a commercial mix of grass seed, all the seeds sown have been carefully collected from native sites and a few of them nurtured in cultivation prior to planting out as plugs.

This is an opportunity to see how colourful and botanically rich a meadow can be. Those wishing to enhance their identification skills will be shown many different species. With a couple of others, I surveyed the meadow in 2021 and we found about 130 species. Like any sown area, the flora will change with time as each species competes for space, but also depending on factors such as the management. The council has been persuaded to mow the area once a year around early September, with all arisings removed to keep the fertility down. After studying plants in the meadow, we should have time to visit some road verges nearby that have also been similarly sown, including a few additional uncommon species.

Meet at: 10.30am in the Hatch Warren Community Centre car park at SU 6061 4860, Lat./Long. 51.2334 –1.1333. We will walk from there to the meadow at SU 607 488. Note that this meeting is morning only.

Contact: Tony Mundell (details on back page).

Saturday 25 June 2022, 10.30am–4pm
Visit to Southwood Country Park, Farnborough
Leader: Tony Mundell

This meeting is contingent on any restrictions and advice concerning the Covid-19 situation at the time. If you want to attend, you must pre-register with Tony and provide contact details in case of late cancellation.

What is now Southwood Country Park was Southwood Golf Course a few years ago. The area, now a SANG (Suitable Alternative Natural Greenspace) is split into two halves by the A327 and has a range of different habitats. We will explore the part west of the A327 first which is mainly grassy meadows but also with some acidic heathland and woodland. We will return to the car park for lunch. At 1.30 pm we will set off to look at the eastern part that has marshy areas in the floodplain of a stream named Cove Brook. So, this event will be split into separate morning and afternoon sessions.

This meeting is aimed particularly at those wanting to improve their plant identification skills but those with more experience are also very welcome, particularly if they can help with demonstrating and naming plants for others.

Meet at: either 10.30am or 1.30pm in the free car park off the A327 at SU 8525 5491, Lat./ Long. 51.2869 –0.7788. This is about 200m north of a roundabout with a replica of the first jet aircraft to fly in Britain.

Contact: Tony Mundell (details on back page).

Reports of Recent Events

Online Conifers Workshop Saturday 20 February 2021

A report by Andy Cross

The Hampshire Flora Group's online Conifers Workshop was taught by Martin Rand on 20 February 2021. The aims of the workshop were to look at the distinctive features of conifers in general; their place in the evolutionary tree; the major families as recently reclassified; and identification of conifer species found in our area outside parks and gardens.

The reason for the online workshop was that it was unsafe to meet in person because of the ongoing Covid-19 pandemic. 'Lockdown' measures (including having to stay at home for most of the time, restricted travel outside the home and limited opportunities to meet people and then having to maintain a distance of 2m from each other, etc.) were in place with considerable restrictions on movement and meeting people. The workshop, in addition to learning about conifers, provided a very welcome escape from the lockdown world and a forum to spend some time with other botanists.

Martin ran the workshop via the online platform Zoom allowing him to give a live, rather than recorded, presentation and for the participants to discuss with Martin and each other the various topics as they arose. The arrangements for joining the Zoom sessions could not have been easier thanks to Martin. The workshop was sub-divided into two sessions – 10.30 am to 12.30 pm and 1.30 pm to 3 pm – allowing for lunch and some time away from the computer screen. Time was made for informal discussions during the lunch break and at the end of the course. The workshop itself was a mixture of Martin introducing us to the world of conifers based on prepared notes in conjunction with video demonstrations of material collected for the workshop. Participants had been encouraged to collect their own material where possible to look at relevant features when being discussed/demonstrated by Martin – this examination of conifers in your own home was a very helpful, connecting element of the workshop.

The key document for this workshop was an updated edition of Martin Rand's Conifer Notes available at www.hantsplants.uk/assets/documents/guides/Conifer%20Workshop%20notes.pdf.

These notes include an introduction to conifers; a discussion about what a conifer is (as well as touching on the terms conifers and gymnosperms – '*conifers are not the only Gymnosperms*' being important to remember); a key to the genera of conifers; and then a description for each genus with a key, and allied notes, to the species. There is for each species a brief guide, often with a map, as to where they can be found in Hampshire. These Notes are an excellent source of information on where to find conifers in Hampshire and how to identify them. I recommend highly these Notes for anyone interested in learning about conifers and especially so for the locations for where to see some of these remarkable and fascinating trees in Hampshire.

In addition to the material covered in the Conifer Notes, topics covered in the workshop included the classification of conifers as set out in Stace (2019) and elements of conifer anatomy.



The recurved bud scales of Maritime Pine *Pinus pinaster*.
Andy Cross

Of the places listed in the Notes to see conifers, one place in particular stands out: the Sir Harold Hillier Gardens (www.hants.gov.uk/thingstodo/hilliergardens). This remarkable place has many conifer species, hybrids and forms/cultivars gathered from around the world for us to see and enjoy. We are very lucky to have such a collection on our doorstep with plenty to discover – on my last visit there I found Mountain Celery-pine *Phyllocladus alpinus* whose native habitat are the mountains in New Zealand and, for me, a small glimpse into another world. The names of other gardens, arboreta, plantations and wild places are also given in the Notes. The latter are very interesting in showing how many of the conifers are becoming part of our wild landscapes.

Another useful aspect of the Notes is the set of references to resources about Conifers. Thanks to the workshop I have enjoyed going to the Gymnosperm database (www.conifers.org) where Christopher Earle has set out a trove of information about these plants.

Martin's carefully prepared and very well-presented workshops do give you skills to see the world of conifers and, importantly, the tools to identify species. The Pine keys in the Notes helped me separate two similar looking long-needled pines: Maritime Pine *Pinus pinaster* and Corsican Pine *P. nigra* subsp. *laricio*. The Notes directed me to look at the bud scales: recurved for the former and not downcurved for the latter as given in Couplet 3 of the Pine Key in the Conifer Notes.

I hope to keep exploring the world of conifers and the workshop has been very helpful in learning about them. Though the workshop itself has been and gone, I recommend highly the Conifer Notes available for free at the Hants Plants website and I recommend highly attending Martin Rand's workshops.

Online Workshops: Learning Plant Families

Part 2 (Saturday 17 April 2021) and Part 3 (Saturday 24 July 2021)

A report by Sarah Ball

These two workshops were both held via Zoom following the format established very effectively by Martin Rand in July 2020 for the first of this series of four. Their full titles were as follows:

Workshop 2 – Monocots and Minor Core Eudicots covering Acorales and Alismatales (and arguments about lumping them together); Dioscorales, Liliales and Asparagales; Arecales, Commelinales and Poales; and minor core Eudicots the Caryophyllales and Santalales.

Workshop 3 – Asterids (excluding Asteraceae) covering Ericales, Gentianales, Boraginales, Lamiales and Apiales.

Martin reported on the first one in *Flora News* Spring 2021 describing how he has set up his office with microscopes and digital camera linked to the conference screen so that we could all share in live demonstrations of plant features in detail. He also mentions detailed notes for the participants to read in preparation for the workshops (NB available on the Hants Plants website for everyone). These notes deserve greater acclaim; they must have been a prodigious amount of work by Martin. They start with where the plant families fit into the pattern of plant evolution and what this means when trying to place them into broad groupings as a first stage in identification and then go on to cover broad family traits and the inevitable exceptions to the rules!

The notes include synoptic keys, which are extremely useful as anyone who has had the benefit of Martin's *Epilobium* or other keys will agree. The one-page keys work by narrowing down from high level characters to increasingly detailed ones to reach a result with very little effort (a family in the case of the workshops, or a species in the case of specific genera keys) and Martin has included characters from his own observations that are more helpful than some in the current standard floras.

Martin provided in advance a list of examples of plant specimens we could collect to represent the families featured in each workshop. It was not actually necessary to collect as he demonstrated examples by screen-sharing, including microscopic details but I certainly found it beneficial to peer at my own live specimens for characters that are often overlooked, especially on common plants that are easily identified at the macro level.

The workshops gave an astounding overview of a vast number of plant families and equipped the participants with sufficient information to, in future, ask the right questions when encountering unknown plants by using

the notes and synoptic keys but of course it is important to review the notes and refer to them periodically to retain the information and make best use of what we have learned. Those who did not attend the workshops, never fear, you will find the notes on the website.

Workshop Part 4, scheduled to be held in September 2021, has been deferred to 2022. It will cover the type family of the Asterids, the daisies, etc. (Asteraceae) and two other core Eudicot families – the Knotweeds (Polygonaceae) and the Goosefoots (Amaranthaceae).

Coastal Plants, Exotics and Aliens in Boscombe, Bournemouth – Saturday 8 May 2021

Martin Rand and Phil Collier were due to lead this event but unfortunately it had to be cancelled due to the Covid-19 situation.

Visit to Itchen Stoke Mill – Saturday 5 June 2021

A report by Robin Garnett

What could be better on a beautiful summer's day than to wander along the Itchen River and its water meadows looking at plants with a group of congenial Hampshire Flora Group members? We were led by Tony Mundell on a survey expedition on land owned and managed for conservation by Roger Harrison.

Roger's family have lived at Itchen Stoke Mill since 1951. His land includes 50 acres of water meadows that, until the 1940s, were intensively managed by men called 'drowners'. Roger described how the drowners used to channel the river water with furrows and ditches from November to February to control for frost and promote growth in the pasture. Their goal was to produce nine inches of grass by 1 March each year. Roger still uses sluice gates to flood parts of his property. In fact, his meadow is thought to be one of the oldest continually drowned meadows in the country.



View over the water meadows. Phil Collier

Roger warmly welcomed us and showed great interest in the plants we discovered. Highlights for the day were Whorl-grass *Catabrosa aquatica*, Bogbean *Menyanthes trifoliata* and Marsh Valerian *Valeriana dioica*. Early Marsh-orchid, *Dactylorhiza incarnata* subsp. *incarnata* and Southern Marsh-orchid *Dactylorhiza praetermissa* were a bonus. As usual Martin Rand was searching for any sedges in the area, finding nine species, including Brown Sedge *Carex disticha*.

There were also some interesting hybrids such as Broad Buckler x Narrow Buckler *Dryopteris x deweveri* = *D. carthusiana* x *D. dilatata*, Water x Wood Avens, *Geum x intermedium* = *G. rivale* x *G. urbanum*. Tony collected a specimen of a willow in order to press it, and later send it off to the relevant BSBI Referee for expert identification. It had the characteristic in-rolled leaf edges of Osier *Salix viminalis* but the leaves were too broad to be that species. Almost certainly it was either the hybrid *S. viminalis* x *cinerea* or *S. viminalis* x *caprea*. Tony explained that there has been much confusion between those two hybrids because *S. viminalis* x *cinerea* was originally named as *S. x smithiana* but that same name is now used for *S. viminalis* x *caprea*! A large poplar supporting a



Early Marsh Orchid *Dactylorhiza incarnata* subsp. *incarnata* and the hybrid of Water Avens and Wood Avens *Geum x intermedium*. Phil Collier

Mistletoe *Viscum album* near the mill was the subject of much speculation about possible identification. Finally, Gareth jumped a barbed wire fence, and dodged the scrub, to be rewarded by... *Populus x canadensis* (and not the scarce native Black Poplar *Populus nigra* subsp. *betulifolia* as some had speculated.)

The beginners amongst us benefited from coaching in plant identification from others. Tony compared the leaves of Fool's-water-cress *Helosciadium* (formerly *Apium*) *nodiflorum* and Lesser Water-parsnip *Berula erecta*; the latter has deeper leaf serrations and a noticeable collar on the leaf petiole. He also demonstrated a simple way to separate the Field Horsetail *Equisetum arvense* from the Marsh Horsetail *E. palustre*. (Take the bottom whorl of leaf spikes and pull off all segments except the basal ones. Stretch the basal segments up



Tony pointing out *Salix* species along a branch of the Itchen River. Robin Garnett

the stem to see whether they are longer than the spiky collar just above it. Use the mnemonic 'ALPS' to help remember that [A] *arvense* has [L] longer basal segments than the spiky collar and [P] *palustre* has [S] shorter segments than the collar.) Martin helped with the identification of small duckweeds. Hold the floating disc up to the light and Common Duckweed *Lemna minor* has small cells like sandpaper while Fat Duckweed *Lemna gibba* has larger cells like polystyrene.

It was impressive to see large stretches of Water Avens *Geum rivale* and Yellow Irises *Iris pseudacorus* in one of the water meadows.

Altogether we were able to give Roger a list of about 200 species of plants to add to his list of 31 mammals and over 100 different birds. We ended the afternoon having tea on Roger's lawn, with Trout and Grayling in the mill stream that flows under his Heritage-listed house and a Barn Owl flying to and fro across the marshes: a delightful end to a fruitful day.



Roger Harrison showing us Trout and Grayling near his house. Robin Garnett

Visit to St Clair's Meadow, Soberton – Wednesday 23 June 2021

A report by Clive Chatters

By mid-summer, Covid restrictions had lifted sufficiently to allowed us to meet at St Clair's meadow on the Meon at Soberton, to survey this newly acquired nature reserve. It was a delight to meet with fellow botanists again, suitably socially isolated, with Martin Rand taking us through the rudiments of identifying meadow grasses.

The grasslands at St Clair's are naturally fertile with a tendency to low species diversity, a natural condition that appears to have been acerbated by artificial fertilisers sometime in the past. The herb content was therefore very poor throughout. Interestingly, Meadowsweet *Filipendula ulmaria*, Common Meadow-rue *Thalictrum flavum* and some of the taller wetland sedges were growing along the fenceline to the east – so there is material that can recolonise.



Part of the Flora Group party enjoying evening sunshine at St Clair's Meadow HIWWT reserve. John Norton

Whilst species-poor, the grassland element was semi-natural, suggesting the likelihood that it has not been reseeded or subject to broad-spectrum herbicides. The range of meadow grasses included most of the common species that one might expect. The 'classiest' finds were a Fescue/Ryegrass hybrid X *Festulolium* – which is characteristic of chalk valley grasslands, together with Bristle Club-rush *Isolepis setacea* – which is a really positive sign that the cattle are making headway in breaking up the formerly rank turf.

The nature reserve was acquired as it is a fine reach of chalk stream, one of the best on the Meon. The flora was as-to-be-expected with beds of Stream Water-crowfoot *Ranunculus penicillatus* with Willow Moss *Fontinalis antipyretica*, Water-starwort *Callitriche obtusangula* and Lesser Water-parsnip *Berula erecta*.

The suite of species encountered offered many opportunities to explore the ever-changing nature of scientific nomenclature, with more to look forward to – especially as geneticists get to grips with complex taxa such as the Water-crowfoots.



Common Meadow-rue *Thalictrum flavum*. John Norton

Survey of Barton Meadows Nature Reserve – Saturday 10 July 2021

A report by Tony Mundell

The Hampshire Flora Group was originally asked to survey Barton Meadows by Hampshire & Isle of Wight Wildlife Trust back in 2019. A survey was scheduled for July 2020 but that had to be postponed for a year due to the Covid-19 pandemic.

The site is an arable reversion, with the two sown meadows not accessible to the public, other than on permissive paths around the outside of the meadows. The land, owned by Cala Homes, was reserved in compensation for the loss of habitat associated with a large estate being developed nearby. Cala Homes are due to lease the site to Winchester City Council and the plan is for HIWWT to manage the site as tenants under a service level agreement

After the last arable crop was harvested, the two large fields were sprayed with herbicide. They were then prepared and drilled with mixed wildflower seed four years ago. A hay cut is taken each year on part of the site, leaving some areas as refuges, and a mix of sheep and/or cattle are then used for aftermath grazing.

HIWWT wanted a full plant survey with an indication of the abundance of each species. This can then be used as a baseline to compare with future surveys. It is typical that areas sown with wildflower seed change significantly as the years roll on, depending on the original seed mix, seed that survived in the seed bank and the subsequent management. The Reserve Manager, Nick Reed-Beale, confirmed this, telling me earlier that the first year saw a proliferation of poppies, while the second and third years were dominated by Oxeye Daisies.

Nine people had booked a place to join me, and I had forewarned them that the survey was likely to involve walking through tall, wet vegetation. As the weather was so poor only five members turned up to help me, but luckily all of us were equipped with leggings and suitable rain gear. We recorded 63 species in the re-seeded areas. None of these were dominant, so we allocated each an abundance of either Frequent, Occasional or Rare. Hedge Bedstraw *Galium album*, and Lady's Bedstraw *Galium verum* were Frequent from the original seed mix, so I was hoping to find the hybrid between them, *Galium x pomeranicum*, and indeed we did in the afternoon. We also found some Rye Brome *Bromus secalinus* near the margins of the re-seeded areas. Presumably it had been a weed in the arable crop and had survived as buried seed.



Hybrid Bedstraw *Galium x pomeranicum* between its parents. Tony Mundell



Pyramidal Orchids *Anacamptis pyramidalis*. Anna Stewart

In addition, we made a separate survey of the areas within the reserve but outside the two re-seeded fields, finding 88 species. This included some splendid spikes of Pyramidal Orchid *Anacamptis pyramidalis* and several patches of Common Broomrape *Orobanche minor*. There was also a curious patch of White Clover *Trifolium repens* where nearly all the flowers were replaced with a proliferation of tiny leaflets.



Mutant form of White Clover *Trifolium repens* (with normal inflorescence in centre). Tony Mundell



Smooth Hawk's-beard *Crepis capillaris* var. *glandulosa* (left) and var. *capillaris* (right), with intermediate (middle). Tony Mundell

The weather improved and a few of us finished by surveying another separate field within the reserve, known as the Education Area, which had a completely different flora. During the day I spent some time digressing by closely examining very common plants of Smooth Hawk's-beard *Crepis capillaris*. Cathy Wilson had earlier pointed out to me that this plant has two varieties: var. *capillaris* (with no glands) and var. *glandulosa* (with dark glandular hairs on the phyllaries). Cathy had noticed that whilst both occurred in Hampshire, the latter seems far more common. This is despite Stace 4th edition saying that it is commonest in the north, especially Scotland. Ever since Cathy mentioned this, I have been looking at Smooth Hawk's-beard at many different sites and var. *glandulosa* is much more frequent than var. *capillaris*. Very rarely it is possible to find an intermediate version with just one or two dark glandular hairs, and I found one plant like that at Barton Meadows.

A walk over Wilverley Plain, New Forest – scheduled for Saturday 17 July 2021

A note by Clive Chatters

Due to Covid restrictions on organised groups, it was not possible to hold our walk over Wilverley Plain that I had offered to lead to look at bits of the New Forest that have been grossly disturbed over the last century. As a substitute, I provided the prospective attendees with a self-guided trail so they could cover the ground, even if we could not enjoy the flora together. In these notes I invited group members to look out for Marsh Clubmoss *Lycopodiella inundata* in the former plantations of Markway Inclosure (planted in the 1960s on heath and subject to clearance some 40 years later). In my judgement the habitats were beginning to look good for the Clubmoss but I had yet to find it there. Well done to Phil Collier and Robin Garnett for taking up the challenge and finding a healthy population in the mirey heath that not long ago was suppressed by the darkest conifer cover imaginable.

Marsh Clubmoss is listed in the English Red Data book as Endangered, due to the 65% decline in its extent of occurrence since 1930. Unlike elsewhere in England, it is still widespread in the New Forest, where it can reappear after long periods of its peatland habitats being suppressed under plantations. The remedial works simply require the removal of trees and the immediate reinstatement of the land to grazing by the livestock of the Open Forest. At the time of the COP26 climate conference it is good to see the indigenous carbon-fixing landscapes of the Forest recovering their natural functions and helping to address the twin crises of climate change and the loss of the world's biodiversity.

Visit to Edenbrook Country Park – Saturday 7 August 2021

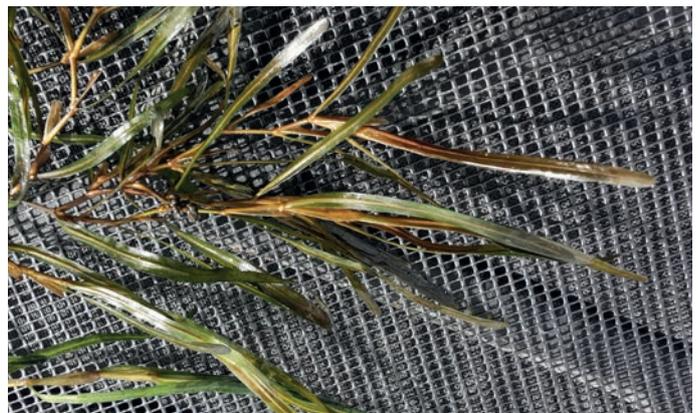
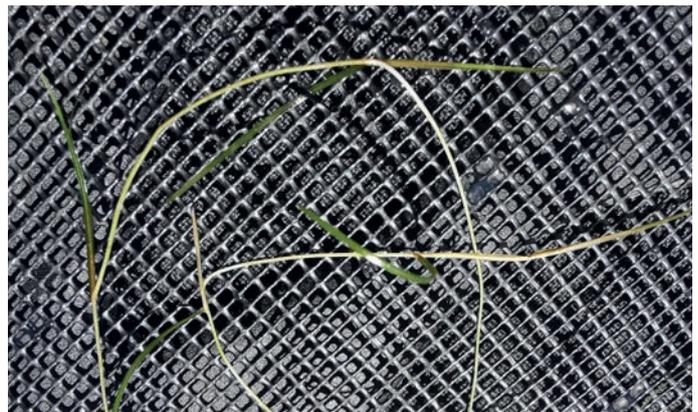
A report by Robin Garnett and Phil Collier

Edenbrook Country Park, near Fleet, was developed from arable land in conjunction with a large housing development and was opened to the public in September 2019. Its 82 acres include meadows, wetlands and woodlands along the flood plain of the Hart River. It is managed by Hart District Council which provides public amenities, such as allotments and a BMX track as well as a large, varied area for conservation. The Council employs a ranger who oversees the conservation management and leads community walks and volunteer activities.

Tony Mundell has been recording plants regularly at Edenbrook Country Park this year. On 7 August, a group of eight Hampshire Flora Group members were fortunate to look over Tony's shoulder at some of the botanical highlights from these surveys. As usual, Tony was meticulously prepared with a list of 27 waypoints to visit, some with multiple species of interest to share with the group. As always, when the Hampshire botany experts gather, there were many lessons and tips on offer, especially for teasing out the identity of some of the more difficult groups of local plants.

A group of plants that are easy to overlook are the pondweeds *Potamogeton* spp. Tony led us on a fishing expedition, highlighting three different species: Curled Pondweed *P. crispus*, which has linear-oblong leaves with distinctive wavy edged leaves, Lesser Pondweed *P. pusillus*, from a much more difficult subgroup (which fortunately Tony had identified previously by looking at a cross section of its stipule under a microscope) and Blunt-leaved Pondweed *P. obtusifolius*, which has much broader, reddish-brown leaves when compared to *P. pusillus*.

Several large specimens of Greater Burdock *Arctium lappa* prompted a discussion about why it is relatively scarce in VC12 and how it differs from Lesser Burdock *A. minus*. The flowers of *A. lappa* form a corymb, with relatively long peduncles especially on the outer flowers. We all know (of course!) that *A. lappa* plants have solid petioles on their lower leaves, not hollow ones as in *A. minus*. Having these differences now settled in our minds, later in the day we came across plants of *A. minus* subsp. *pubens* that required revisions to our rule book. *A. minus* subsp. *pubens* has hollow stems



Top to bottom: Curled Pondweed *Potamogeton crispus*, Lesser Pondweed *P. pusillus* and Blunt-leaved Pondweed *P. obtusifolius*; Tony fishing *P. crispus* with an improvised rod of *Phragmites australis*. Phil Collier



Top: Lesser Burdock *Arctium minus* subsp. *pubens* with its lax raceme and moderate length peduncles. Bottom: Greater Burdock *Arctium lappa* with a corymb of flowers terminating the branch and elongated peduncles. Phil Collier

and flowers in a raceme – though with longer flower stalks than *A. minus* subsp. *minus*, which is the familiar *A. minus*. Stace lists the hybrid *A. x nothum* separately from *A. minus* subsp. *pubens* but notes that they may be one and the same.

Common Knapweed *Centaurea nigra* was growing in the drier areas, where we were treated to a masterclass about the differences from Slender or Chalk Knapweed *C. debeauxii*. The secret is to look at the ‘equator’ of the involucre, which is especially prominent in the globose flower head of *C. nigra*. If the upper part of the involucre bracts, or phyllaries, are broad and completely cover the green parts behind, the plant is *C. nigra*. If the upper parts of the bracts are narrower and the underlying green is showing through, then we have *C.*

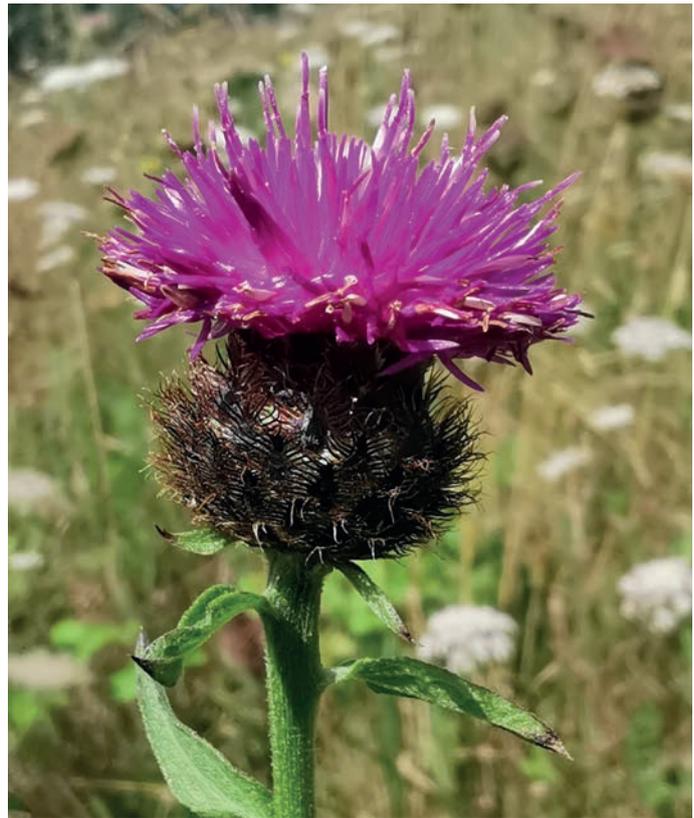
debeauxii. However, there are many plants that are ambiguous on this character, which can be safely labelled *C. nigra* agg, without investing too much emotional energy in finding a definitive answer.

Amongst the plants that favour damp sites were Marsh Yellow-cress *Rorippa palustris*, with its tiny yellow flowers and swollen curved fruits with short protruding style, Water Chickweed *Stellaria aquatica* (formerly *Myosoton aquaticum*) and Sneezewort *Achillea ptarmica* which is unusually common in the area. We were also alerted to the preferred natural habitat of the two local *Polypogon* species, Water Bent *P. viridis* and Annual Beard-grass *P. monspeliensis*. Both of these can be seen around town, especially Water bent that is commonly seen beside urban roads and pavements. Both species were seen growing in shallow water at Edenbrook; there are times when the common name is worthy of more serious attention.

There had been a lot of earthworks during the creation of the Park, including a BMX track that seemed to be constructed mostly of sand. Tony took us to a sunny bank on the edge of it, where we saw the abundant Cat's-ear *Hypochaeris radicata*, uncommon Smooth Cat's-ear *H. glabra* and their rare hybrid *H. x intermedia*. The dwarf *H. glabra* plants with very narrow capitula were nearly over, and the hybrids were much more robust plants with branched flower stems, but still with the narrow capitula of *H. glabra*. Also on the sandy bank were many plants of the inconspicuous Annual Knawel *Scleranthus annuus*, unfortunately mostly dead, and abundant Small Cudweed *Logfia* (formerly *Filago*) *minima*.

As always, earthworks can be responsible for accidental plant introductions and the sale of nearby houses can be responsible for deliberate introductions, aka 'landscaping'. On the edge of Edenbrook lakes there are several groups of Glaucous Bulrush *Schoenoplectus tabernaemontani*, a species more commonly seen at the coast. Tony also showed us plants of Treacle-mustard *Erysimum cheiranthoides*, with its square stem and narrow-elliptical leaves, which is scarce in Hampshire but was apparently colonising the bank of a recently remodelled wet area.

We ended the day just before heavy rain set in, with our heads buzzing with botanical information and with a favourable impression of the plant diversity that can be generated when arable fields are converted to well-managed parkland.



Common Knapweed *Centaurea nigra* with the black tips of the phyllaries completely obscuring the background at the 'equator' of the involucre. Phil Collier



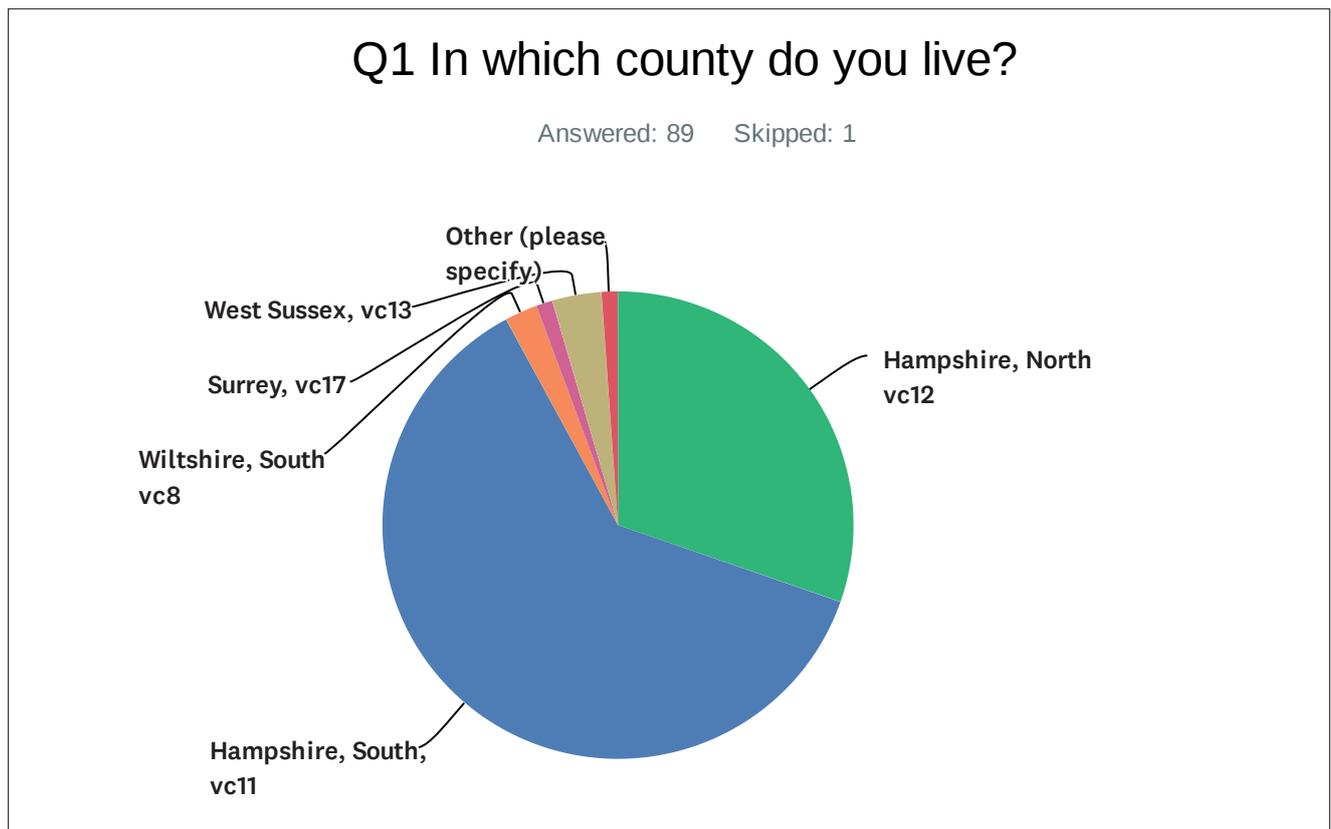
Treacle-mustard *Erysimum cheiranthoides*. Phil Collier

Notes and Features

Flora Group Survey
An analysis by Cathy Wilson

Back in the depths of winter lockdown, we asked what you wanted from Hampshire & Isle of Wight Wildlife Trust’s Flora Group. Over 90 of you took the trouble to respond. Thank you all for your time and helpful ideas. Some of the results of the survey are summarised on the following pages.

It was interesting to see where you are and how much you think you know. Only 30% of you are in North Hampshire (VC12), the rest mostly in South Hampshire (VC11). Around 8% of replies were from botanists in neighbouring counties.



On skills, 30% of you feel you are beginners or have only basic identifying skills; over 60% have reasonable to good skills and 8% are at the highest levels. Many of you asked for more training and field meetings to focus on identifying skills and plant families. Some people would also like training on habitat classification and plant communities by habitat. We’ll try to cover these ideas in future meetings and courses.

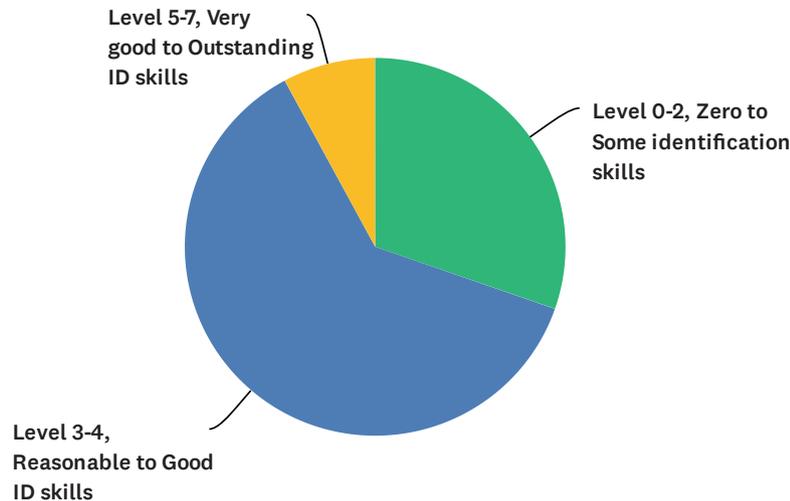
There were pleas for more field meetings in the north and east of the county. Tony Mundell would love this to happen but would need someone else to help organise and lead additional meetings, as he can’t take on much more than he’s already doing. If you’d like to volunteer, please contact Tony directly (his contact details are on the last page of this newsletter).

People with impaired mobility asked for more information in advance about terrain at field meetings and we’ll aim to provide this in future. Some of you also have transport difficulties; we normally run a car-sharing group, which might help some of you, but inevitably we’ve been unable to do this in recent times.

Some people asked for half-day field meetings, or options to attend for only half the day, and we’ll take this into account too.

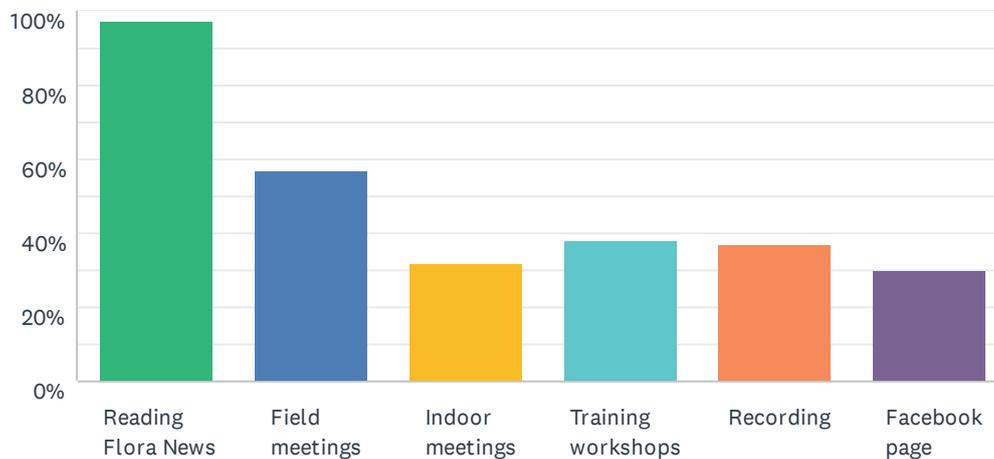
Q2 Using the Botanical Society of Britain & Ireland's (BSBI) Field Skills Pyramid (if using a phone you may need to scroll down) how would you rate your level of botanical experience?

Answered: 89 Skipped: 1



Q5 Which Hampshire Flora Group activities do you take part in?

Answered: 84 Skipped: 6



There were a few requests for family-friendly events. We're not equipped to organise these, given child protection and safeguarding issues, but Hampshire & Isle of Wight Wildlife Trust runs many events for children and families, including plant-focused sessions.

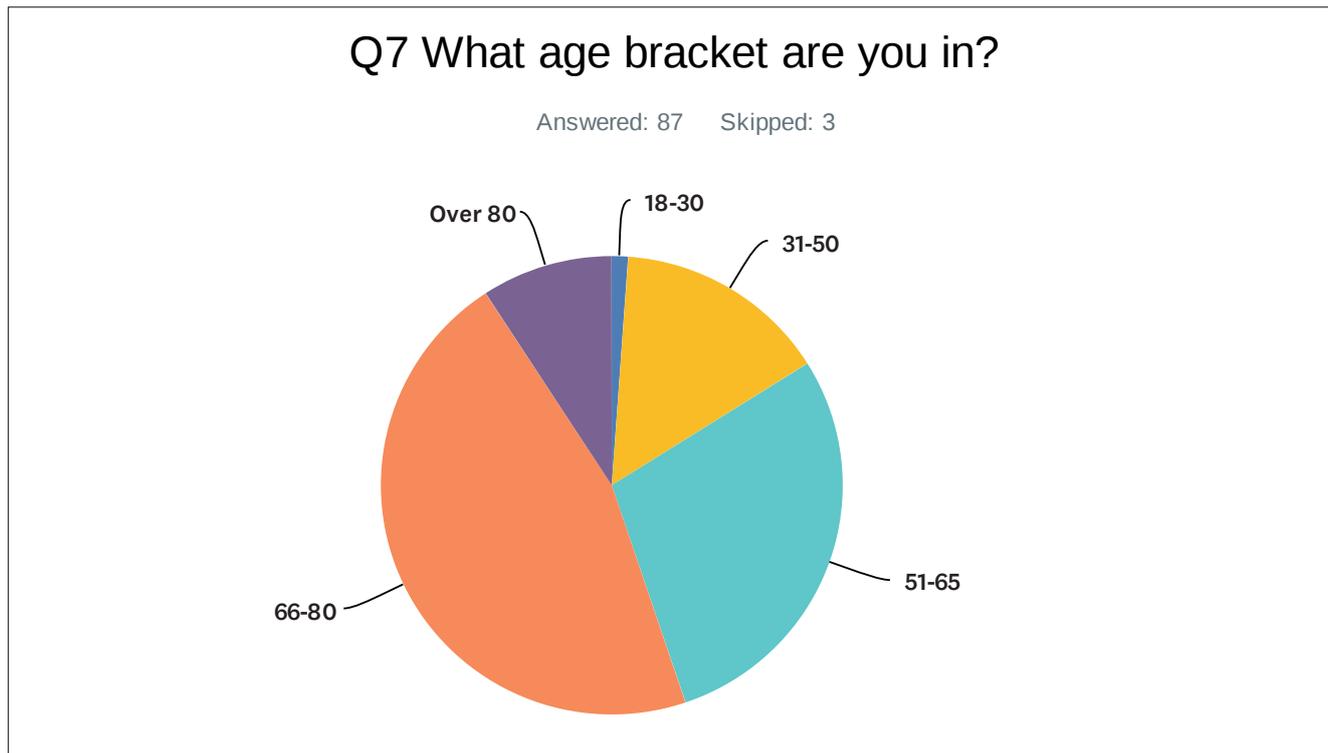
There was a lot of enthusiasm for online training sessions so we'll continue these, alongside 'in person' events once we can reliably meet indoors again.

The survey results for ethnicity were stark: the Flora Group membership is all white. We worry about this. If interest in nature – including botany – is to thrive, we need people from all backgrounds to get involved. Ideally our membership should reflect Hampshire's population, of whom about 10% are from Black and Minority Ethnic

backgrounds (BAME). There's much evidence that people from BAME backgrounds feel unwelcome in the countryside and nature groups. The Flora Group is too small to have much impact on this problem but please make sure your BAME friends and neighbours know they'll get a warm welcome, good training and plenty of fun when they join us.

The breakdown by age showed a strong skew towards the over 50s. We recognise younger adults are busy with careers and families and we are glad to have a good number of younger members, even if they're in a minority. Please encourage more to come along when they can, as we all learn so much from each other regardless of age or experience.

Overall, there were many lovely comments about what the Flora Group provides. Answers to the survey will help us make it even better. Thank you for your contributions.



Update on Tony's unidentified *Crepis*

A note by John Norton

Following Tony Mundell's note in the last issue of *Flora News* (No. 60, p. 38), concerning an unidentified *Crepis* (thought possibly to be *C. nicaeensis*), Eric Clement commented that it was more likely to be *Crepis biennis* and remarked that Stace's key is misleading for this genus. Tony emailed me to say he has now changed the record to *C. biennis* – though some doubt must remain. He returned to the locality on 12 August 2021 but the plant was no longer present.

Test and Itchen Invasive Non-native Species Project: volunteers sought

A note by Martin Rand

Following in the footsteps of the project to tackle invasive non-native species on the New Forest, which has made great strides in controlling some of the troublesome aliens that have been introduced there, a new initiative has been launched to carry out similar monitoring and control work in the main river catchments of the county. This is being led by the Wessex Rivers Trust, with the Environment Agency, district and borough councils and the Wildlife Trust as partners. With my BSBI hat on, I am also collaborating on surveying and

information gathering and dissemination. Test and Itchen catchments are being handled as a single large project, but work will start with the Itchen catchment, using Eastleigh Borough as a pilot.

There are twelve non-native species currently on the list; I have asked for a thirteenth (Red-osier Dogwood, *Cornus sericea*) to be added because of its prevalence in both catchments, and this has now happened. Volunteer botanists are invited to join in the monitoring work, and this is an opportunity to visit some waterside habitats that are normally off limits for the public at large. At the same time it would be useful to monitor some rare and declining native aquatic species, so I have drawn up a list of 13 species in the catchments for which it would be particularly valuable to get up-to-date records. Five of them are of particular interest and they are not hard to identify; I shall be preparing data sheets for these.

The project is still in its early stages and there won't be much happening for volunteers until 2022, but if you are interested in the data it is currently working with, you can see interactive maps at this website: <https://wessexrt.maps.arcgis.com/home/webmap/viewer.html?webmap=00af115fa031458eb3668a2f06c884cc>.

While there is a reasonably complete picture for Eastleigh, you will notice that many other parts of the catchments are rather sketchily covered. The project is being brought up to date with the latest BSBI information, but if you know of other sites for the species given, the records will be welcome. There will be an app for entering records directly into the project; meanwhile you can enter records onto Living Record or send them to me by email (please don't use iRecord for this at present, as it will introduce delays in getting them available to the project). Please contact me if you would like to help with the monitoring effort going on from now.

The Reverend Wilkinson of Bisterne

A note by Clive Chatters

Henry Marlow Wilkinson (1827-1908) was born in Godshill (Isle of Wight) and, like his father, took holy Orders after matriculating at Worcester College (Oxon). Having been ordained in 1853, Wilkinson served short curacies in York and Leeds before he was appointed officiating curate at St Paul's in Bisterne, where he served for over 20 years.

At that time Bisterne was part of the parish of Ringwood where the main landowners, the Mills family, had recently established a chapel of ease and school by the main road to Christchurch. Wilkinson was a curate-naturalist who explored the commons of the New Forest as well as his home ground in the lower Avon Valley where the heaths of the Forest run down to the floodplain of the Hampshire Avon, by way of terraces of wind-blown sands.

It was Wilkinson who contributed most of the botanical records to John Wise's 1862 *The New Forest: its History and its Scenery*, the book which first popularised the natural riches of the Forest. Wilkinson's records were arranged by Wise so that we can separate those made in the Avon Valley from the heartlands of the Forest's commons. Some records are localised to Bisterne itself such as Small Fleabane *Pulicaria vulgaris*, Cut-grass *Leersia oryzoides* and Subterranean Clover *Trifolium subterraneum* 'from gravelly pastures'.

There are three letters from Wilkinson that survive in the correspondence of Charles Darwin; unfortunately, all we have is Wilkinson's side of the exchange. In July 1874 Wilkinson wrote to Darwin offering his services in the investigation of insectivorous plants. The following letters of August 1874 and September 1875 are reports of experiments requested by Darwin on the Bladderworts that grew near Bisterne's parsonage; these plants have been variously assigned to *Utricularia neglecta*, *U. vulgaris* and *U. australis*. There are interesting coincidental details in the reports to the effect that the Bladderworts grew amongst Frogbit *Hydrocharis morsus-ranae* in clear water over a muddy substrate. The last records we have for Bladderworts in this part of the Avon are from Sopley in 1983. Cut-grass has not been seen since 1867 but both Subterranean Clover and Small Fleabane can still be found, the latter rediscovered only last year (*Flora News* February 2021).

In 1887 Wilkinson left Bisterne to take on the parish of Milford-on-Sea, where he served as vicar until his death in 1908.

Darwin's correspondence is available on www.darwinproject.ac.uk.

Living on the Edge: the simple pleasures of Arable Margin Botany

An article by Tristan Norton

I will admit to arriving at 'serious' botany rather late. That's not to say that I haven't always been interested in plants, just that other aspects of the natural world (chiefly birds) had always taken precedence. I now shudder to think of the countless times I must have walked past exceptionally good plant-hunting areas whilst pursuing streaky brown birds. Anyway, in the last decade I've found myself father to two boisterous boys and it has to be said that kids and 'serious' birding don't really mix that well. I can still take my binoculars out and about for some opportunistic birding, but those days of quietly sitting in hides or leisurely wandering the countryside are gone for now. I have found that botany has allowed me at least the illusion of being a freewheeling field naturalist and so my move towards botany has been part-necessity, part-pragmatism and part-acceptance of changing priorities. At least plants aren't scared off by shouting...

I have to say that I am enjoying my newly-found passion of plants more than I ever enjoyed birding. I'd go so far as to describe my ongoing botanical conversion as an epiphany. The simplest of activities have brought me immense joy, especially during the last year when the bounds of life have become restricted so profoundly. In this most extraordinary of years the one activity that has brought me the most enjoyment and mental stimulation is hunting for plants in arable fields. Yes, I know, living on the edge.

In the tiny village of Crawley, set within a fold of the downs north-west of Winchester, I'm in the midst of what many might justifiably describe as an archetypal agricultural desert: plenty of huge fields of cereals, legumes or maize with patchy hedgerows flailed to within an inch of viability. However, look a little closer (as one is forced to do during lockdown) and there are treasures to be found.

The one good thing about this arable-dominated landscape is that the soils here are seriously poor: some fields are literally nothing but a thin smear of soil over baked chalk and flint shards. This all makes for an exciting substrate, a land pre-charged for botanical interest.

Searching for arable plants is probably the easiest botanical method I know: find footpath by field edge, walk in a straight line, stare down at the ground left and right. Of course, some of the best places to look are the field corners (a tip I learnt from Phil Wilson on an arable plant ID course) as these are often the places most likely to escape the ravages of the spray boom.

In a year of intensive arable-edge trawling I've learnt to home-in on areas that offer potential for out-of-the-ordinary plants. I've found that the productive bits are not always in the field corners (although these are invariably good) but can be bafflingly random in distribution. I've wondered why this might be – why is this nondescript 10m stretch of an otherwise uniform margin suddenly full of interesting species? Did the spray boom get turned off? Did a rut in the field mean the spray missed? Who knows? In practice it means that literally anything can turn up in any place and that's pretty exciting.

My best finds were from that most challenging of groups, the fumitories. My season started off very well with regular encounters with Dense-flowered *Fumaria densiflora*, a species that I've found to be quite frequent around the parish. It is readily recognisable by its huge white sepals and black-tipped deep scarlet corolla. At our regular 'secret' local lockdown spot, a field gateway on a seldom-trod footpath, I stumbled across a fabulous patch



Dense-flowered Fumitory *Fumaria densiflora*.
Tristan Norton

of *Fumaria* in a south-facing field corner. Alongside the usual *officinalis* and the odd *densiflora* I found a white example: surely this must be something interesting? Indeed it was and I was thrilled to set eyes on the very scarce Fine-leaved fumitory *Fumaria parviflora*. The plant was last recorded in this location by none other than Paul Bowman in 1977, when I was three years old!

By far the best find was in late July when during a lunchtime jaunt along the nearest arable field to home I spotted a very pale pink and diminutive *Fumaria*. I had a feeling that this was something different and my mind immediately turned to Few-flowered *F. vaillantii* (see photo on front cover) but thought that I couldn't be *that* lucky. Having taken a sample and diligently measured the sepals and corolla and checked available keys I was pretty confident. I managed to get contact details for Tim Rich, BSBI *Fumaria* referee, and he was able to confirm that my putative ID was correct. This was the icing on the cake for me. On reflection, when faced with a small pink fumitory with miniscule sepals (c.1mm) there are essentially only two potential options: *vaillantii* and *officinalis* subsp. *wirtgenii*.

There are some plants that I always keep an eye out for as they more often than not hint that something interesting will turn up. Chief amongst these is Henbit Dead-nettle *Lamium amplexicaule* and I think of this as the prime indicator of potentially rich sites: I can't think of a site where I've found the really scarce stuff that didn't have this species as well. The other two indicators are Small Toadflax *Chaenorhinum minus* and Dwarf Spurge *Euphorbia exigua*: again, these species are invariably present when rarer species occur and both are relatively common around Crawley, which bodes well for further scarcities. To a lesser extent the two *Kickxia* species (Fluellens) are good indicators also but I've found them absent at some of the better locations I've found locally.

Besides the rare fumitories I also managed to find a decent population of the lovely Night-flowering Catchfly *Silene noctiflora* growing not ten minutes from my front door. I found eight plants in total growing in a sown pollinator/winter bird cover crop comprising mostly non-native species such as Buckwheat, Sunflower and *Phacelia tanacetifolia*. It was a great pleasure to take the kids out at dusk to see the open flowers and to smell the heady scent. Hopefully some plants will appear in 2021. I 'borrowed' some seed from these plants so I may have them on tap in my garden too. I've also recorded all three of the scarcer Poppy species – Rough Poppy *Roemeria hispida* (formerly *Papaver hybridum*), Prickly Poppy *Roemeria argemone* (formerly *Papaver argemone*) and Long-headed Poppy *Papaver dubium*.

Despite the awful situation in 2020, I feel that I made the most of my local environs and thoroughly enjoyed finding, photographing and (importantly) recording plants. 2020 opened my eyes to the rich potential of those few inches of forgotten biodiversity at the edge of otherwise uninteresting fields and the tough, opportunistic plants surviving there. I shall seek them out in 2021 with renewed purpose. Dare I dream of *Adonis annua* or *Ajuga chamaepitys*?



Left to right: Fine-leaved Fumitory *Fumaria parviflora*, Night-flowering Catchfly *Silene noctiflora*, Prickly Poppy *Roemeria argemone*. Tristan Norton

Corylus and the Ice Age

An article by Andrew Powling

We start with a question: How did Hazel (*Corylus avellana*) colonise the British Isles after the last ice age? The generally accepted explanation is that the species arrived when nuts were washed into the sea off the coast of western Europe, then floated northwards with winds and currents to make landfall on the coasts of western Britain and southern Ireland. This would have happened shortly before 9,500 years ago (Birks 1989). An alternative explanation has been offered by some authors, namely that the nuts were brought to Britain at that time by Mesolithic people, who valued the species as an easily transportable and storable food item. Maybe they also valued it as a source of flexible shoots for building shelters and boats.

The last great advance of glaciers over much of the British Isles reached its greatest extent, the last glacial maximum, at 22,000 years before the present (BP). Any *Corylus* that might have been growing in Britain would have been wiped out at this time. There followed a gradual warming and retreat of the glaciers, leading to a warm interlude starting at about 15,000 BP. This interlude is known in Britain as the Windermere interstadial. It lasted until ca. 12,800 BP and was followed by a return to freezing glacial conditions. This final millennium-long glacial winter ended abruptly at ca. 11,700 BP. It was probably caused by fresh water from melting glaciers flowing into the north Atlantic and shutting down the Gulf Stream – something we have reason to fear might happen again in the near future. It is known in Britain as the Loch Lomond stadial, but is more widely called the Younger Dryas stadial, due to the presence of pollen from *Dryas octopetala* in sediments from this time in European bogs. After this last throw of the ice age the climate warmed and entered the present interglacial period, the Holocene.

Palaeolithic people of the Magdalenian culture and other groups occupied Britain during the warmer Windermere interstadial. There is no evidence of permanent occupation during the Younger Dryas, although maybe bands of hunters sometimes visited Britain during summer months.

We can gain knowledge of which plant species grew where and when by extracting cores from peat bogs in which pollen grains have been preserved. The grains can sometimes be identified to species, but often only to genus or family level. Radiocarbon dating of the sedimentary layers allows accurate times to be given for the occurrences of the taxa.

Recent publications (Simmonds et al. 2021, and other references therein), have now shown that neither of the explanations, as stated above for the arrival of *Corylus* in the Holocene, are correct. Simmonds and co-workers present results from two inland, lowland, bogs in western Surrey near NE Hampshire, which contain sediments from the Younger Dryas and the following Holocene. Since the bogs are more than 20 km apart yet show many similar features the authors consider that they provide a good picture of the vegetation history of inland SE England during those time periods.

The pollen analysis suggests a landscape during the Younger Dryas of a tundra type, with marshes and open pools together with dryer open ground nearby. Woody species were present, chiefly *Juniperus*, *Betula* and *Salix*. The authors suggest these included the dwarf species *B. nana* and *S. herbacea*, although this was not established. Probably *Salix* grew near water while *Juniperus* and *Betula* were on the dryer ground. Other woody plants present at one or both sites were members of the Ericaceae, including *Calluna vulgaris* and *Empetrum nigrum*. Pollen and spores of herbaceous taxa were found as well. Plants such as *Sphagnum*, *Equisetum*, *Typha latifolia* and Cyperaceae grew in or near bogs and pools, with *Potamogeton* and *Myriophyllum* in more open water. On dryer land plants of Poaceae, Caryophyllaceae, *Rumex*, *Artemisia*, *Filipendula* and 'Ranunculus type' were present.

A surprising result of the work is that pollen grains of the more warmth-loving tree genera *Pinus*, *Corylus* (at both bogs) and *Alnus* (at one of the bogs) were also found in the Younger Dryas sediments. This suggests that the climate in SE England was not as severely cold as in northern Britain (which has also been suggested by molluscan remains) and that these species found refugia in SE England with warmer microclimates and brown earth soils. A possible objection to the evidence for the presence of *Alnus*, *Corylus* and *Pinus* is that the pollen of these trees could have arrived after long-distance transport from far away sites, presumably in what is now continental Europe. The authors think such long-distance transport is an unlikely explanation for the presence

of *Alnus* and *Corylus* pollen, although it might be an explanation for some of the *Pinus* pollen found. Remains of the tissues of the plants themselves (macrofossils) would put the matter beyond doubt but were not found.

In fact, pollen of *Corylus* and *Alnus* has recently been found in either Windermere interstadial or Younger Dryas sediments at four other sites in SE England (references given in Simmonds et al., 2021). Other woody species already reported to be present during the interstadial include *Betula*, *Salix*, *Pinus* and *Populus* (probably *Populus tremula*).

So, evidence for the presence of *Corylus* in Britain before the start of the Holocene is very persuasive. It seems probable that the genus entered Britain during the Windermere interstadial and was established by about 14,000 BP. It persisted through the Younger Dryas and was later to flourish in the warmer Holocene.

This now leaves us with a revised question: How did *Corylus* reach Britain during the Windermere interstadial?

References

- Birks, H.J.B. 1989. *Journal of Biogeography* 16: 503–540.
 Simmonds, M. et al. 2021. *Review of Palaeobotany and Palynology* 287: 1–22.

Who is Eric Garcia? The pros and cons of recording plant names on a smartphone

An article by John Norton

During the pandemic I've been making use of the dictation feature on my smartphone to record the names of plants recorded during my local walks and cycle rides. I use the ViewRanger app to record GPS waypoints, but rather than write these down in a notebook as I've always done in the past, I'm now dictating the name of the plant straight into the device in order to be saved as part of the waypoint name (which also automatically includes the date and time). This is very convenient for making incidental records of species when I don't have a notebook to hand or am too lazy to use one. The files can be copied onto my computer, where I can extract the information later.

The dictation feature on my Android smartphone uses Google speech recognition software to record my voice and transcribe it into written script. This works surprisingly well, even for many long scientific names which it can reproduce if spoken slowly and clearly. Unfortunately, however, it often falls down on this last step because it tries to match words to its inbuilt English dictionary where possible. This can lead to some weird and sometimes hilarious results, some of which can be quite hard to figure out when looking at the files later. I've listed a top 20 of the more 'interesting' examples below. Some, such as 'pillow seller', should be obvious. Unfortunately, some of the funniest ones were rather rude, so I had to leave those out!

Despite the shortcomings, I think this is a useful method for recording incidental records and short lists of plants when out in the field. For longer lists using a notepad-type app and dictating into that would be better, and of course there are proper wildlife recording apps available. To make it easier for Google I use English names if I can remember them and if they are short; or otherwise I try the scientific name or an abbreviated version of it. How many of the following can you figure out?

- | | | |
|--------------------------|--------------------------|------------------------|
| 1. Aaron Akram | 8. katsia | 15. Ramsdens |
| 2. acrimonious | 9. Lyneham by any | 16. RM Mac |
| 3. Duran rot | 10. Napoleon Lucia album | 17. Sebastian |
| 4. Eric Garcia | 11. naughtier | 18. selectum Flavin |
| 5. frag nighties | 12. naval words | 19. sparkle area media |
| 6. Harry offering | 13. pillow seller | 20. trakker pogue on |
| 7. horror banky header l | 14. Priscilla tilia | |

Answers:

1. *Arrhenatherum*, 2. *Agrimonia*, 3. 'Geran rot' *Geranium rotundifolium*, 4. *Aira caryophyllea*, 5. *Phragmites*, 6. *Eriophorum*, 7. *Orobanche hederaceae*, 8. Cat's-ear, 9. *Linum bienne*, 10. *Gnaphalium luteoalbum*, 11. *Knautia*, 12. Navelwort, 13. *Pilosella*, 14. *Crassula tillaea*, 15. *Ramsons*, 16. *Arum mac* (*Arum maculatum*), 17. *Cerastium*, 18. *Thalictrum flavum*, 19. *Spergularia media*, 20. *Tragopogon*.

A beginner's view of plant names (particularly about pronunciation)

An article by Margaret Wonham

You don't have to know the name to enjoy a plant but naming things is what humans do and if you want to talk to others about a plant, or read about it, you have to have a name. People have named plants for thousands of years, to talk about them as food, medicines, tools and building materials. And for warning others of harmful plants. They have named plants in their first language, whatever that might be. Over 200 years ago, the botanist Linnaeus devised a system of naming plants which would be common throughout the known world at the time and he based it on his knowledge of Ancient Latin and Greek. This led to the botanic or scientific Latin we use today.

Many fine botanists and naturalists prefer to use the English name (and translate into the scientific as appropriate) and so standard texts like Stace's *New Flora of the British Isles* (4th edn, 2019) are accessible to all, referring to both languages. English names change with region and so you can never be absolutely sure you are talking about the same plant, and scientific names change with increasing knowledge. Stace supports this by indexing past names as well as current names.

I think we need both – the English name is an important part of our cultural heritage and an important part of local knowledge of plants and the scientific name ensures that we are all speaking of the same plant.

So, the challenge for a beginner is to have a lexicon (mental list of plant names) in both languages, but for many, they don't have Linnaeus' background knowledge of Ancient Latin and Greek. Step one is to pronounce the name comfortably – this makes it easier to learn – otherwise the brain is constantly confused.

Here is Jane Sterndale-Bennett's advice from *Hillier's Plant Names Explained* (2007 edition): '*Courage is the best principle: just have a go. There is often no wrong of right way: ask three taxonomists and you may well get three different versions.*'

Some tips:

1. Generally, the stress is on the second or third syllable, so you would say *Cot-ō-neaster* rather than *Coton - easter*.

2. Pronunciation generally follows the English language rules.

Vowels change some letter sounds (like g and c)

ge, gi, gy are pronounced like 'j' – gem-stone

ce, ci, cy are pronounced like 's' – cell

y within a word is pronounced like byte (ī)

or at the end of a word is pronounced like happy (ē)

Here are some vowels combinations:

ae is pronounced as in mēat (ē)

oe is also pronounced as ē

ei is pronounced as in heīght (ī)

Consonants ch together are often pronounced k like in school.

As I said, I am a beginner so here is one I found testing: *Molinia caerulea*. This is what I've settled on:

Molinia is easy – pronounce each vowel (ia and ea at the end flow best as ee -a)

caerulea – 'see -rul- ee -a'

No doubt the 'picky' kind of person could criticise my precise pronunciation of many plants but my aim is communication and as there is only one *Molinia* listed in Stace (apart from subspecies), any intelligent and knowledgeable listener will twig which plant I mean.

3. The second part of the scientific name often gives interesting clues about:

where it was first named in the world (*californicus*, California)

habitat (*pratensis*, meadow)

the person who plant-hunted it (*douglasii*, David Douglas)

what the colour is (*caerulea*, *coeruleus*, blue)

what the leaf shape is (*angustifolius*, narrow- leaved)

The Hillier Plant Names Explained lists many other attributes and is a good read; very accessible to a beginner.

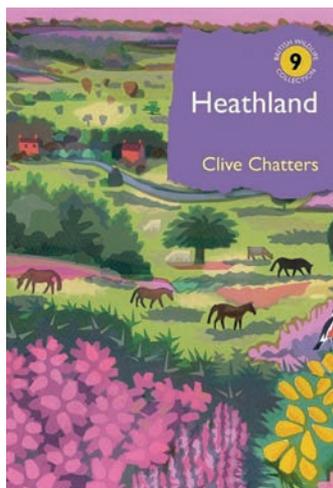
And finally, in the cosmic order of things, as long as you can be understood, it doesn't matter how it sounds when you say it. Of course if you want to look it up on the internet, you have to spell it correctly in either language.

Book Review

Heathland by Clive Chatters

British Wildlife Collection 9, Bloomsbury Publishing, 2021

A review by Martin Rand



'When reading the anatomy of a heath, it is important to consider the whole heath and to look beyond the heathers. The individuality of each heathland's natural history is determined by the interplay of people, nature and time.'

This summation, at the end of Part One of Clive Chatters' latest book, nicely encapsulates the approach to describing our natural environment that will be familiar to readers of his previous books. In this case it comes with particular cogency and depth, which is not surprising given Clive's long-standing study and championship of the habitat. Having set out a definition for heathland and established the special place of our British heaths in the world, he moves on to present the evidence that heathland is not simply a human artefact of forest clearance but has a much older history governed by the physical environment and large wild herbivores, only coming to be dependent to a significant degree on human activities in the Bronze Age. Our present-day tendency to view heathland as a rather exceptional component of our landscape is challenged in the second chapter by a look at two lowland areas (Birmingham and the Isle of Wight) where the historic record shows its former pervasiveness and its occurrence over a wide range of geology and soils. The last of these introductory chapters surveys the diverse habitats and vegetation communities found in extensive and functioning heathlands, the uses to which they are put, and the tell-tale signs in the landscape that reveal their fate over recent centuries.

Part Two takes us on a tour of selected heathland landscapes from the northernmost islands of Scotland to the far south-west. These vivid accounts present us with a great diversity of natural environments and an equal variety in the ways in which humans have made use of them. In western Scotland and elsewhere on the fringes of hill country, readers can reflect on the rather arbitrary division between lowland and upland heath. Coming to the more agriculturally developed and urbanised lowlands, we are brought face to face with the huge losses of heathland to agricultural enclosure, dereliction and destruction. I expect some readers will be surprised to learn of some of the historic heathland landscapes scattered through the east of England, each with its own distinctiveness, that are now largely or totally lost to view. For instance, the loessic Coversands heaths of Lincolnshire and Nottinghamshire have been reduced from an estimated 48,000+ hectares in the 18th century (25% larger than the present New Forest perambulation) to 600 hectares at the present day. Continuing this theme, the next chapter commemorates a selection of heaths that have been utterly lost save for a few plant relics in hedgerows and amenity grasslands.

The final part of the book takes off with historical and present attitudes to heathland, dealing amongst other topics with the debates around enclosure, 19th-century romanticisation of heathland and its appropriation for artistic purposes, and the narrowed definition of heathland in 20th-century ecological literature that still has baleful effects on policy. The last chapter sets out a vision which is clear-eyed about the difficulties of conserving and re-establishing our heathland landscapes, but ultimately optimistic given the will and resources to act.

The high production standards of the *British Wildlife Collection* are maintained in this volume, and the copious photographs (many by the author) provide food for thought as well as delight for the eye. In a brief review it is hard to convey the range and wealth of detail: the only possible remedy is, of course, to obtain and read a copy. As most readers of this article will have an interest in wildlife conservation and live not far from some of the most important heathlands in lowland England, they should perhaps consider it their duty, but they will find it an immense pleasure.

Photo Spot



An impressive display of Pyramidal Orchids *Anacamptis pyramidalis* at Gordleton Farm, near Sway (VC 11), 1 July 2021. Catherine Chatters

Recording

Bryophytes Report for 2020–21

An article by John Norton

Meetings, website update and Notable bryophytes register

My last report was in January 2020 (*Flora News* 58) and of course shortly after that the coronavirus pandemic struck and so bryophyte recording was severely impacted during the following winter. We did, however, manage to hold a joint meeting of the Southern and Wessex groups in the Bramshaw Wood area of the New Forest on 25 October 2020, where we were limited to two parties of six socially-distanced bryologists recording two separate areas. We crossed paths at the end of the day to look at Sharon Pilkington's recently discovered



The newly discovered site of *Sphagnum pulchrum* in the New Forest and close-up of the orange-coloured heads (mixed with dark heads ones of *S. medium*). John Norton

colony of *Sphagnum pulchrum* in a mire to the north of the wood, the first record for Hampshire, which was only a stone's throw from the Wiltshire border. It was also nice to see *Hypnum imponens* there.

Even though restrictions were less severe by early spring this year, I was too busy to organise any meetings and didn't do any bryologising myself apart from limited recording in my local area of Gosport. Instead, I used my free time to update my Hampshire & Isle of Wight Bryophytes website (www.jnecology.uk/bryophytes/index.html). This now includes detailed accounts of bryophytes in VC10 and VC11, illustrated with photographs of species and habitats. I will add an account for VC12 in due course and I hope to develop the site further in the future. The accounts also went up on the new BBS website (www.britishebryologicalsociety.org.uk) which was launched in March after a complete redesign. On my website I also updated the Isle of Wight 5km square maps to include all the records collected by George Greiff and myself up to September 2019 and recompiled the Hampshire hectad maps, though these are still based on old data.

The website work meant that I had to delay finalising my Hampshire Rare and Notable Bryophytes Register that I mentioned in *Flora News* 58. However, I have finally completed this and have published Issue 2, which by the time you read this should be downloadable from the website. It now incorporates name changes given in the new checklist of British and Irish bryophytes (Blockeel et al. 2021; see *next article below*) and the recently published European Red List statuses (Hodgetts et al. 2019).

This coming winter I will be concentrating on continuing to sort out a backlog of records for submission to the BBS and updating the Hampshire hectad maps, so unfortunately I have decided not to organise any further official field meetings, though I may still invite people along to one or two informal surveys. There is, however, the usual joint New Forest meeting with the Wessex Bryology Group, which will be held at Hinchleslea Bog on Sunday 31st October. Further details are on the website. Please contact me if you are interested in going, as places are limited.

New Vice-county Census Catalogue and change of bracketing date

Following the publication of the new British and Irish checklist, a new Vice-county Census Catalogue (VCCC) will also be published shortly (probably at the end of this year) incorporating records up to 2020. This implements a change in the cut-off date that taxa become 'bracketed' from 1960 to 1970, or 50 years before the date the catalogue was compiled ('bracketed' taxa are those not recorded since those dates). All new vice-county records and all new records of previously bracketed taxa require vouchers to be sent to the national recorders (currently Nick Hodgetts for liverworts and Sharon Pilkington for mosses). If confirmed these are then sent on to the national BBS herbarium at Cardiff (BBSUK). For further information see: www.britishecologicalsociety.org.uk/recording/submitted-new-vice-county-records. The change in bracketing date means that any taxon last recorded between 1960 and 1969 but not since becomes bracketed in the new VCCC. The following taxa will therefore become bracketed on the new census catalogue (if anyone has definitely recorded any of these, please contact me).

VC10: *Dialytrichia mucronata*, *Encalypta vulgaris*, *Entosthodon obtusus*, *Leptodontium gemmascens*, *Scapania undulata*, *Thuidium assimile*, *Tortella inflexa*, *Tortula lindbergii* (*T. lanceola*), *Weissia brachycarpa* var. *brachycarpa*, *Weissia controversa* var. *crispata*.

VC11: *Drepanocladus sendtneri*, *Leptodontium flexifolium*, *Lophozia bicrenata*, *Marchantia polymorpha* subsp. *polymorpha*, *Nardia geoscyphus*, *Neckera pumila*, *Philonotis caespitosa*, *Tortula lindbergii* (*T. lanceola*), *Tortula subulata*.

VC12: *Bryum algovicum*, *Campylostelium saxicola*, *Cladopodiella francisci*, *Dicranella cerviculata*, *Entosthodon mouretii*, *Entosthodon obtusus*, *Fossombronia foveolata*, *Physcomitrium patens* (*Aphanorrhagma patens*), *Racomitrium lanuginosum*, *Scleropodium touretii*, *Seligeria recurvata*, *Sphagnum subsecundum*.

New vice-county records and other noteworthy records

This round-up covers the period January 2020 to September 2021. As mentioned above one of the most exciting discoveries was of a population of *Sphagnum pulchrum* in the north-west of the New Forest by Sharon Pilkington during her reconnaissance visit for the Bramshaw meeting in June 2020. Although well known in Dorset this species had never been found in Hampshire previously, despite the New Forest mires being well covered by bryologists in the past.

Another important discovery was made by Alison Bolton during a botanical outing to Withycombe Shade (SU 348 074) on 8 September 2020. This is an area of wet alder carr lying along a stretch of the Beaulieu River to the west of Decoy Pond Farm. Here she found a sizeable population of the European Red List Vulnerable liverwort *Pallavicinia lyellii*. This species was the subject of a Hampshire-wide survey in 2019 by bryologist Des Callaghan, who confirmed it is still doing well at Cadnam Common, but was only present in small quantity at two other New Forest sites, Matley Wood (which is only 1.5km to the west of Withycombe Shade) and Wood Crates. During subsequent visits Alison counted about 15 colonies, mostly around tree bases (and I saw at least eight colonies during a brief look; the largest almost completely encircling the base of one tree). All the plants were female.



Colony of *Pallavicinia lyellii* at Withycombe Shade, New Forest and close-up of female thalli.
John Norton

This is probably now the second largest population of *Pallavicinia lyellii* in southern England.

During a tour of the western Isle of Wight in December 2020 George Greiff found *Didymodon acutus* at Lynch Lane chalkpit which was confirmed as being the 'true' species, as distinct from *D. icmadophilus*. Since the recent revision of these taxa this is only the third fully verified UK record (it is also confirmed from Portsdown Hill in VC11). During the same outing he also found *Acaulon muticum*, a tiny ephemeral of disturbed acidic soils which appears in late autumn and winter. These were the first records since 1926, so a debracketer. Earlier, in July, George had also discovered a large population of the ephemeral wetland species *Physcomitrium patens* (*Aphanorhagma patens*) on a reservoir next to Northpark Copse, where there were possibly 'millions' of plants on drying mud.

In January 2021 Jonathan Sleath spotted a small colony of *Grimmia orbicularis* just around the corner from his home, which was new for VC11 and Hampshire. Alerted to this I was pleased to spot a patch of this moss on a church wall at Elson in Gosport a few weeks later, growing amongst the usual *G. pulvinata*. It still remains to be found in VC12 and the Isle of Wight (where incidentally Jonathan previously recorded the only record of *Grimmia ovalis* for our three vice-counties in 2002).

Jonathan also had a specimen of *Dicranella howei* confirmed from a disused quarry at Hursley, VC11 and Magdalen Hill Down, VC12 in March 2021. This Mediterranean taxon had long been known in the UK, but it has only recently been formally added to the British and Irish list following the publication of the new checklist and a review of its status in the November 2020 issue of *Field Bryology* (Blockeel 2020). This concluded that it is probably widespread in England and Wales and could occur in Ireland. I know that George Greiff previously had a specimen identified as *D. howei* from the Isle of Wight but a voucher has not yet been formally submitted for VC10.

The county's small band of bryologists have also been finding more of the recently increasing species which, however, are still very under-recorded in Hampshire. Jonathan Sleath found *Sematophyllum substrumulosum* in Peak Copse, Basingstoke on 2 January 2020, which was new for VC12 and he also found it in VC11 in the Winchester area, in March 2020 (the third record for the vice-county). Another good discovery around the same time was his record of *Platygyrium repens* in VC12, the



Didymodon acutus, Lynch Lane chalkpit, Isle of Wight.
George Greiff



Grimmia orbicularis on a wall top in Winchester; first Hampshire record. Jonathan Sleath



Dicranella howei on chalk. Jonathan Sleath

second for the vice-county. These are both epiphytes and probably increasing in the county, but there is still only one old record for *Platygyrium* in VC11.

Graeme Smith, who is based in Ringwood, found new sites for the thallose liverwort *Reboulia hemisphaerica* on a road bank at Hightown and the moss *Bartramia pomiformis* at Rockford Common (February and March 2021). Both are scarce in the county and have very few recent records, though *Reboulia* still seems to be doing well on lane banks in the Blashford Lakes area just north of Ringwood.

Full details of the new VC records are as follows:

Acaulon muticum, VC10: Tennyson Down and Golden Hill Fort, 21 December 2020, G. Greiff, conf. S.L. Pilkington. VC10 debracketer (first post-1960 record); the previous record was for Freshwater in 1926.

Dicranella howei, VC11: disused chalk quarry, Bunstead Lane, Hursley, SU 4362 2552, 1 March 2021. J. Sleath, conf. S.L. Pilkington. VC12: chalky bank under trees, Magdalen Hill Down, Winchester, SU 5013 2928, 12 March 2021. J. Sleath, conf. S.L. Pilkington.

Didymodon acutus, VC10: Lynch Lane Chalkpit, SZ 4229 8438, 21 December 2020. G.R.L. Greiff, conf. T.L. Blockeel.

Grimmia orbicularis, VC11: on a weathered concrete coping stone of brick pillar, Kingsgate street, Winchester, SU 4766 2892, 29 January 2021. J. Sleath, conf. S.L. Pilkington.

Hennediella macrophylla, VC12: trampled soil under trees, Water Lane, Winchester, SU 4863 2943, 9 March 2021. J. Sleath, conf. S.L. Pilkington.

Physcomitrium patens (*Aphanorrhagma patens*), VC10: Northpark Copse, SZ 436 886, 14 July 2020, on bare mud of seasonally flooded reservoir. Conf. S.L. Pilkington.

Sematophyllum substrumulosum, VC12: Peak Copse, Basingstoke, SU 5910 4743, 2 January 2020. J. Sleath, conf. S.L. Pilkington.

Sphagnum pulchrum, VC11: At upper end of gently sloping grazed mire in patches spread over a c.100 m x 100m area, Nomansland, New Forest SU 262 174, 27 June 2020. S.L. Pilkington.

References

References are included at the end of the next article.

Recent name changes to bryophytes in Hampshire and the Isle of Wight

An article by John Norton

For many years recorders have used a standard list of names of bryophytes in Britain and Ireland, based on those published in the old Vice-County Census Catalogue (Hill et al. 2008). Although minor updates were distributed by BBS over the years only recently has it been fully updated to take account of the numerous recent changes in taxonomy and nomenclature. The new 2020 checklist (Blockeel et al. 2021) includes around 170 name changes, many of which result from recent molecular sequencing work and morphological studies. There have been several lumps and splits to create new species or subspecies and many species have been moved into new genera for which new names have therefore been coined. In addition, there have been some small alterations in spellings and authority names to satisfy international code. Several newly recorded species have also been added to the British and Irish list in recent years and are therefore included on the checklist for the first time.

The nomenclature of the new checklist follows the recently published European Red List (Hodgetts et al. 2019), with a few differences, the main one being that the authors sensibly chose to put all *Bryum* species under one roof, instead of dividing into various disparate genera. Table 1 lists the 63 taxa recorded from Hampshire and the Isle of Wight for which there has been change of name since the 2008 checklist or its recent unpublished revisions. The taxa comprise one newly added species to the British and Irish list (*Dicranella howei*); 14 species affected by nomenclatural changes (e.g. a change back to an older valid genus or species name); seven taxa which are promoted in rank to full species; 25 taxa affected by taxonomic splits where a new genus name has been coined and 16 taxa subject to other taxonomic changes (mostly where the taxon has been moved to a different existing genus). Further notes on some of the changes are given below.

Table 1. Name changes of bryophytes recorded from Hampshire and the Isle of Wight

Old name	New name	Note
<i>Anastrophyllum minutum</i>	<i>Sphenolobus minutus</i>	
<i>Aphanorrhagma patens</i>	<i>Physcomitrium patens</i>	
<i>Barbilophozia attenuata</i>	<i>Orthocaulis attenuates</i>	
<i>Barbula convoluta</i>	<i>Streblotrichum convolutum</i> var. <i>convolutum</i>	
<i>Barbula convoluta</i> var. <i>sardoa</i>	<i>Streblotrichum convolutum</i> var. <i>commutatum</i>	
<i>Campyliadelphus chrysophyllum</i>	<i>Campylium chrysophyllum</i>	
<i>Campyliadelphus elodes</i>	<i>Kandaea elodes</i>	
<i>Campylophyllum calcareum</i>	<i>Campylophyllopsis calcarea</i>	
<i>Cladopodiella fluitans</i>	<i>Odontoschisma fluitans</i>	
<i>Cladopodiella francisci</i>	<i>Odontoschisma francisci</i>	
<i>Cololejeunea minutissima</i>	<i>Myriocoleopsis minutissima</i>	
	<i>Dicranella howei</i>	1
<i>Ditrichum flexicaule</i>	<i>Flexitrichum flexicaule</i>	
<i>Ditrichum gracile</i>	<i>Flexitrichum gracile</i>	
<i>Ephemerum minutissimum</i>	<i>Ephemerum serratum</i>	2
<i>Ephemerum serratum</i>	<i>Ephemerum stoloniferum</i>	2
<i>Ephemerum sessile</i>	<i>Ephemerum crassinervium</i> subsp. <i>sessile</i>	
<i>Gymnocolea inflata</i>	<i>Gymnocolea inflata</i> subsp. <i>inflata</i>	3
<i>Heterocladium heteropterum</i> var. <i>flaccidum</i>	<i>Heterocladium flaccidum</i>	
<i>Leiocolea badensis</i>	<i>Mesoptychia badensis</i>	
<i>Leiocolea turbinata</i>	<i>Mesoptychia turbinata</i>	
<i>Leptodon smithii</i>	<i>Neckera smithii</i>	
<i>Leptophascum leptophyllum</i>	<i>Chenia leptophylla</i>	4
<i>Lophozia bicrenata</i>	<i>Isopaches bicrenatus</i>	
<i>Lophozia capitata</i>	<i>Heterogemma capitata</i>	
<i>Lophozia herzogiana</i>	<i>Protolophozia herzogiana</i>	
<i>Lophozia incisa</i>	<i>Schistochilopsis incisa</i>	
<i>Lophozia perssonii</i>	<i>Oleolophozia perssonii</i>	
<i>Nowellia curvifolia</i>	<i>Cephalozia curvifolia</i>	
<i>Orthotrichum affine</i>	<i>Lewinskya affinis</i>	
<i>Orthotrichum lyellii</i>	<i>Pulviger a lyellii</i>	
<i>Orthotrichum striatum</i>	<i>Lewinskya striata</i>	
<i>Oxyrrhynchium pumilum</i>	<i>Microeurhynchium pumilum</i>	
<i>Phascum cuspidatum</i>	<i>Tortula acaulon</i>	
<i>Phascum cuspidatum</i> var. <i>papillosum</i>	<i>Tortula acaulon</i> var. <i>papillosa</i>	
<i>Phascum cuspidatum</i> var. <i>piliferum</i>	<i>Tortula acaulon</i> var. <i>pilifera</i>	
<i>Philonotis arnellii</i>	<i>Philonotis capillaris</i>	
<i>Platyhypnidium riparioides</i>	<i>Rhynchostegium riparioides</i>	
<i>Pleurochaete squarrosa</i>	<i>Tortella squarrosa</i>	
<i>Polytrichastrum formosum</i>	<i>Polytrichum formosum</i>	
<i>Polytrichastrum longisetum</i>	<i>Polytrichum longisetum</i>	
<i>Polytrichum commune</i> var. <i>perigoniale</i>	<i>Polytrichum perigoniale</i>	
<i>Preissia quadrata</i>	<i>Marchantia quadrata</i>	
<i>Pseudocalliargon lycopodioides</i>	<i>Drepanocladus lycopodioides</i>	
<i>Pterogonium gracile</i>	<i>Nogopterium gracile</i>	
<i>Rhytidiadelphus triquetrus</i>	<i>Hylocomiadelphus triquetrus</i>	
<i>Seligeria recurvata</i>	<i>Blindiadelphus recurvatus</i>	
<i>Solenostoma caespiticium</i>	<i>Endogemma caespiticia</i>	
<i>Sphaerocarpos texanus</i>	<i>Sphaerocarpos europaeus</i>	5
<i>Sphagnum capillifolium</i> subsp. <i>capillifolium</i>	<i>Sphagnum capillifolium</i>	6
<i>Sphagnum capillifolium</i> subsp. <i>rubellum</i>	<i>Sphagnum rubellum</i>	6
<i>Sphagnum denticulatum</i>	<i>Sphagnum auriculatum</i>	7
<i>Sphagnum magellanicum</i>	<i>Sphagnum medium</i>	8
<i>Syntrichia ruralis</i> var. <i>ruraliformis</i>	<i>Syntrichia ruraliformis</i>	
<i>Telaranea murphyae</i>	<i>Tricholepidozia tetradactyla</i>	
<i>Tortula lanceola</i>	<i>Tortula lindbergii</i>	
<i>Tortula modica</i>	<i>Tortula caucasica</i>	
	<i>Ulota crispula</i>	9
	<i>Ulota intermedia</i>	9

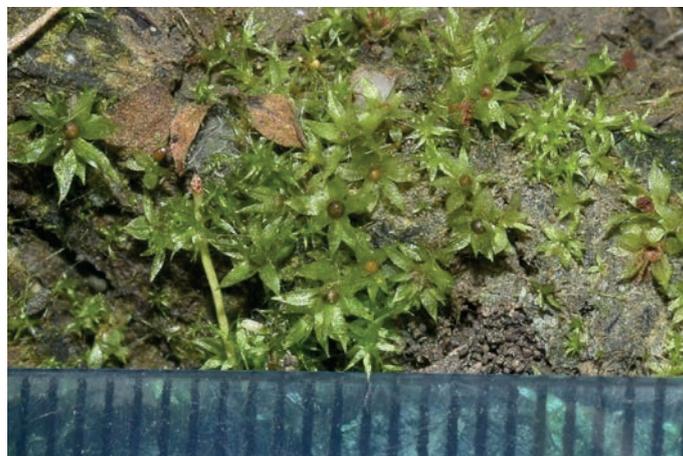
Old name	New name	Note
<i>Ulota phyllantha</i>	<i>Plenogemma phyllantha</i>	
<i>Weissia longifolia</i> var. <i>angustifolia</i>	<i>Weissia angustifolia</i>	
<i>Zygodon forsteri</i>	<i>Codonoblepharon forsteri</i>	
<i>Zygodon viridissimus</i> var. <i>stirtonii</i>	<i>Zygodon stirtonii</i>	

Notes

1. Plants matching the Mediterranean taxon *Dicranella howei* had been recorded widely in the UK for several years but it is now formally added to the British list. For an account of its identification (with respect to the similar *D. varia*) see Blockeel (2020). It was confirmed from VC11 and VC12 in 2021.
2. It has been shown that *Ephemerum serratum* is the correct name for *E. minutissimum*, so *E. serratum* itself takes the earliest published name of *E. stoloniferum*. No doubt this will lead to confusion while the old names and new names are used together!
3. *Gymnocolea inflata* subsp. *acutiloba* has been published, though its taxonomic status is unclear according to the authors of the checklist; however, this has meant that *Gymnocolea inflata* subsp. *inflata* has been added for recording purposes.
4. *Leptophascum leptophyllum* has apparently reverted to an older name of *Chenia leptophylla*. This of course is the species thought to be new to science when discovered during a BBS meeting on the Isle of Wight in 1964, when originally named *Tortula vectensis* (see www.jnecology.uk/bryophytes/isleofwightvc10.html).
5. The north American species *Sphaerocarpos texanus* has now been shown to be distinctly different from specimens from Europe; therefore the European entity takes the earliest published name of *S. europaeus*.
6. *Sphagnum capillifolium* subsp. *capillifolium* and *S. capillifolium* subsp. *rubellum* are now treated as full species (a long overdue change).
7. *Sphagnum auriculatum* is an old name for *S. denticulatum*; the checklist does not give the reason for the change back to this name.
8. A 2018 study showed that the type material of *Sphagnum magellanicum* from South America was different from European material, which actually consisted of two entities, subsequently named *S. divinum* and *S. medium*. So far all plants checked in Hampshire have been *S. medium*, and it is likely that *S. divinum* has a more northerly distribution in the UK.
9. *Ulota crispula* and *U. intermedia* were added as new species after *Ulota crispula* was split into three species. *S. crispula* becomes *S. crispula* 'sensu strictissimo' (in the strictest sense), but inevitably many records will still have to go down as *S. crispula* s.lat.

References

- Blockeel, T.L. (2020). *Dicranella howei* in Britain. *Field Bryology* 124: 16–21.
- Blockeel, T.L., Bell, N.E., Hill, M.O., Hodgetts, N.G., Long, D.G., Pilkington, S.L. & Rothero, G.P. (2021). A new checklist of the bryophytes of Britain and Ireland, 2020. *Journal of Bryology* 43:1–51.
- Hill, M.O., Blackstock, T.H., Long, D.G. & Rothero, G.P. (2008). *A checklist and census catalogue of British and Irish bryophytes, updated 2008*. British Bryological Society.
- Hodgetts, N. et al. (94 authors) (2019). *A miniature world in decline: European Red List of Mosses, Liverworts and Hornworts*. IUCN, Brussels, Belgium.



Aphanorrhagma patens – now *Physcomitrium patens*.
John Norton

Hampshire Lichen Report 2020– 21

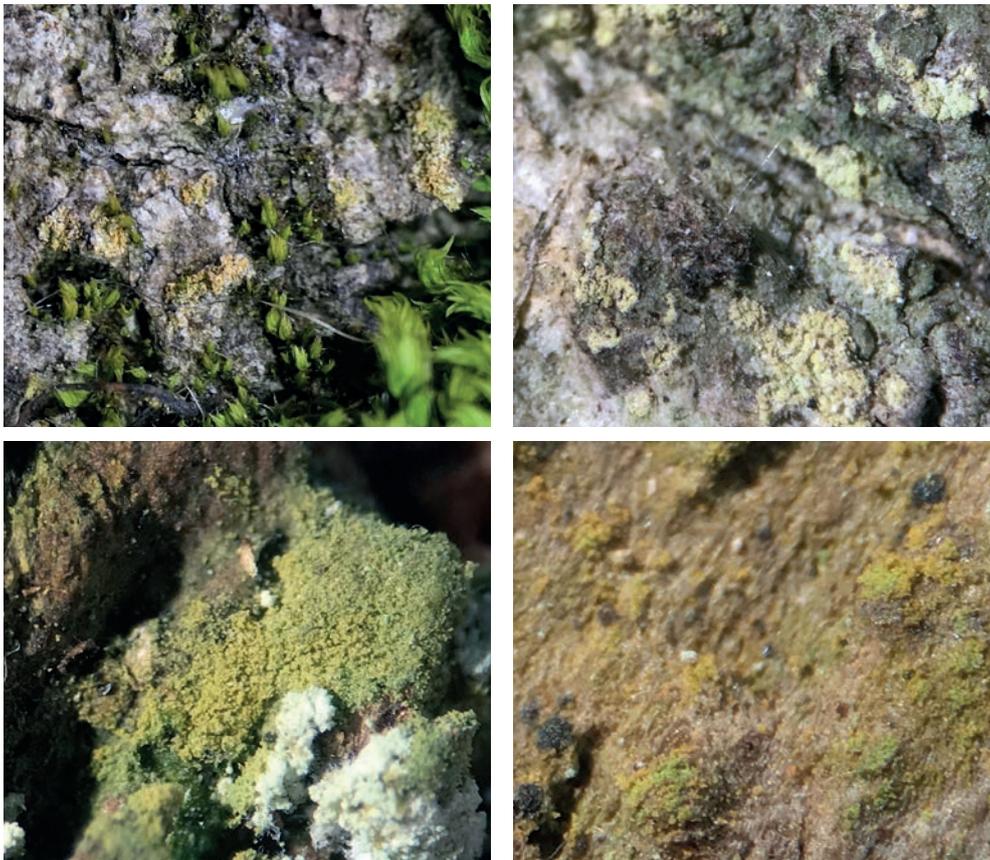
Neil Sanderson

Introduction

This year's report is still very influenced by Covid; I have not yet wandered much out of the New Forest but the one trip out did produce some interesting records. The intensive local survey started during the first strict lockdown has, however, morphed into a project to even up the coverage of the New Forest by visiting every under-recorded 1km square, mainly during dog walks. This is not finished yet but the end is in sight. I hope to top it off by a revived Wessex Lichen Group meeting to Vinney Ridge, not looked at since 2004. There were a lot of walks in rather dull heathland and woodland for lichens, but inevitably, being the New Forest, Andy Cross and I still found some really good records. Also I can report that a long standing problematic taxon, spotted by Francis Rose originally, has been sorted out by gene sequencing by Damien Ertz and proved to be a new genus to science, which we have named in honour of Francis.

New species to science

Francisrosea bicolor Ertz & Sanderson: a long-term New Forest problem taxon was finally named in a recent paper (Ertz et al, 2021). The paper confirmed by sequencing the identity of the locally widespread 'Opegrapha corticola', a specialist of veteran trees, recently found as fertile specimens, as *Thelopsis corticola* and discussed implications of this for the classification of the *Gyalectaceae*. At the same time however, a sterile look-a-like of *Thelopsis corticola* known to be widespread in the New Forest was also investigated. This had commonly been assigned to *Opegrapha corticola* but Francis Rose and I thought it differed from this if looked at closely. An alternative was to allocate it to what was then known as a sterile lichen called 'Opegrapha multipuncta' which has now been found fertile as *Porina multipuncta*. This, however, was also not a good match. Damien Ertz solved the problem by sequencing New Forest specimens; this found the third taxon to be a new unknown



Francisrosea bicolor, top right, compared to **Thelopsis corticola**, top left. Bottom: **Porina multipuncta**, confluent sorediate crust to left; small punctiform soralia with black perithecia, right (all taken in the New Forest, except the bottom right, from the Elan Valley, Wales). All photographs by the author

species. It was distantly related to *Thelopsis corticola* and likely to be in the same family, the *Gyalectaceae*, but not closely related to any known species so was placed in a new genus. It was called *Francisrosea bicolor* in honour of Francis Rose. The discovery of a third taxon of veteran trees with orange soredia with negative spot tests explains why these species were so confused in the past. These species all somewhat resemble the common *Zwackhia soreidiifera* (*Opegrapha soreidiifera*) but this has a C+ red spot test. Sterile thalli can be distinguished as follows:

***Francisrosea bicolor*:** thallus inconspicuous, immersed in the bark, only visible by the soralia, soralia irregular punctiform, never becoming contiguous, darker orange-ochre at the surface but pale greenish inside, with this colour difference usually visible in undamaged soralia, with coarser and looser soredia than *Thelopsis corticola*. Found in wound tracks, especially on veteran Beeches but occasionally also on old Oaks.

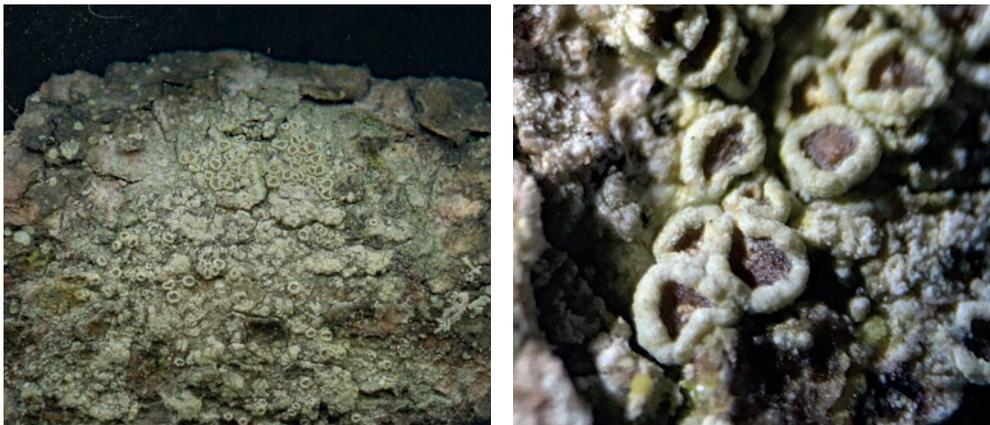
***Thelopsis corticola*:** a continuous grey-green to grey-brown thallus, thicker than the other species, with the soralia irregular punctiform and pale ochraceous with fine compact soredia, paler internal colours sometimes showing when the soredia are abraded, with the soralia rarely becoming contiguous. Found on well-flushed, base-rich bark on veteran trees, often where grading into dry bark.

***Porina multipuncta*:** thallus thin but visible, dull or dark red-brown, soralia bright orange, uniformly coloured unless badly abraded, initially small and punctiform, but soon coalescing into an irregular patchy crust, soredia fine. Shaded base-rich bark, but not always old trees, and also on rocks.

Francisrosea bicolor is widespread in the New Forest, especially in Beech woods, but appears rare beyond. Outside the Forest it has, so far, only been confirmed from an old Oak in Cumbria.

New species to Britain

***Lecanora variolascens*:** this was spotted on a horizontal Oak branch extending out over a glade in Holly – Oak pasture woodland, Lin Wood, New Forest, SU 191 090, March 2021, N.A. Sanderson. It was initially thought to be fertile *Lecanora barkmaniana*, but the strongly pruinose discs, were odd, so a specimen was collected. The pruinose discs indicated that this lichen was actually *Lecanora variolascens*, new to Britain. This is a rarely recorded species of acid but slightly nutrient enriched bark, which matches the New Forest habitat. There are scattered records from European countries: Austria, France, Germany, Italy, Poland and Switzerland. It is closely related to *Lecanora barkmaniana* and is physically quite similar but has a paler thallus and soralia, strongly pruinose apothecial discs and smaller spores. Photographs and comments on the New Forest find can be seen at www.fungi.org.uk/viewtopic.php?f=16&t=3348.



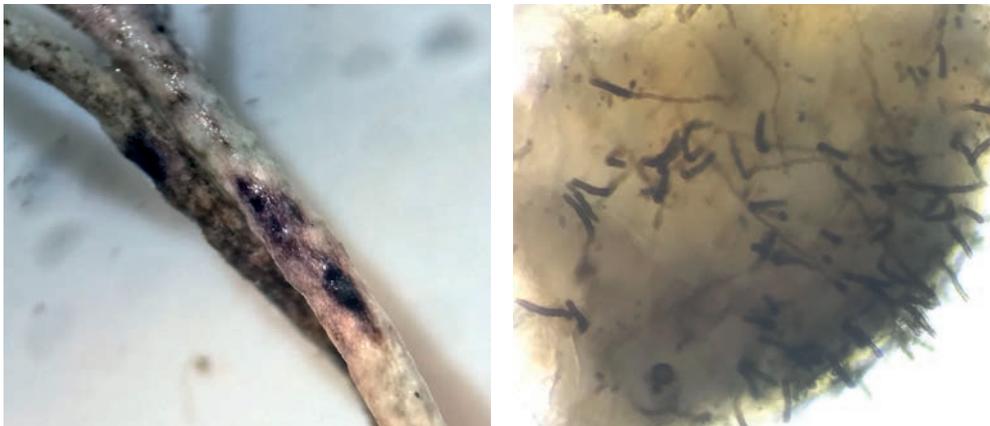
Lecanora variolascens, the sampled thallus to left, showing the pale thallus and soredia, with a close-up of the pruinose apothecial discs, right.

New species to Hampshire

***Phaeopyxis varia*:** an obligate parasite of the mainland upland lichen *Trapeliopsis gelatinosa*, which was new to lowland England. The host had occasionally been recorded from shaded acid soil in Hampshire in the past but recently it had been found to be quite widespread, especially on old woodland and Inclosure banks in the

New Forest. This lichen had been overlooked as the very similar *Trapeliopsis pseudogranulosa* but this has C+ red soralia, has orange patches on its thallus and has noticeably finer soralia, compared to the C– soralia, a purely green thallus and coarser soralia of *Trapeliopsis gelatinosa*. *Phaeopyxis varia* was spotted as small black apothecia on the thallus of *Trapeliopsis gelatinosa*, on the boundary bank of Denny Inclosure, New Forest, SU 329 059, April 2021, N.A. Sanderson & A.M. Cross.

Taeniolella cladinicola: a parasitic fungus infecting a limited number of *Cladonia* species, typically in wetter heathland or moorland habitats. It can be spotted by the characteristic purple and brown staining of the host, with a bristle of short conidiophores emerging from the thallus where the infection is most intense. Previously unrecorded from England, it was discovered in October 2020 parasitising the Notable lichen *Cladonia zopfii*, in wet heath by Denny Bog, and has subsequently been found in similar habitat across the New Forest and spotted in an older photograph of *Cladonia zopfii* (SU10, SU20, SU21, SU30 & SZ39). As well as *Cladonia zopfii*, it was also recorded on *Cladonia uncialis* subsp. *biuncialis* and *Cladonia strepsilis*. The occurrence on the latter has not been reported previously in Europe. This appears to be a rare species confined to *Cladonia* species in high quality wetter heath and moor. See www.fungi.org.uk/viewtopic.php?f=16&t=3132 for more detail and pictures.



Taeniolella cladinicola: left, the characteristic purple staining on a thallus of *Cladonia zopfii*, from wet heath by Denny Bog; right, a bristle of short conidiophores emerging from an infected squamule of *Cladonia strepsilis*, east of Ferny Crofts, both New Forest.

Other records of special interest

Arthonia anglica EN (NR/IR/S41): further to the new colony on Beech at Bratley Water, reported in last year’s report, a third colony New Forest was found on a Beech in Beech dominated pasture woodland in Wood Crates, New Forest, SU 267 0822, October 2020, N.A. Sanderson. This was especially welcome, as a survey by the author of several west country sites for this species in the Clovelly area, N. Devon, last recorded in the 1990s, failed to re-find it at any site. These once-grazed coastal slope woods are now very overgrown and appear too dark for this species, judging from the rather well-lit trees it is found on in the New Forest. The New Forest is the only surviving English site for this species which is also very rare in the rest of SW Europe.

Calicium hyperelloides: this pinhead lichen is a common tropical lichen but is very rare in Europe where it has only been found in Portugal and SW England (*photos on next page*). It was first found in England in the New Forest by Great Stubby Hat, in the Busketts Wood area in 2005, but the tree fell over shortly after this. Although searched for extensively on similar well-lit glade edge trees in the area, no more were found until February 2021. Then Rosie the lurcher led me on a random dog walk and took me right to a veteran Oak on the edge of a glade, I had missed previously. This had a large colony of *Calicium hyperelloides* on well-lit acid and moist bark, Eaves Hill, Busketts Wood area, SU 304 115, N.A. Sanderson.

Graphis handelii: the exciting new record of another tropical species, otherwise only known in Europe in Portugal, was described in the previous edition of *Flora News* on a Holly in Bignell Wood. Since then a second record has been made at Brook Wood, New Forest, SU 263 143, April 2021, N.A. Sanderson, this time on a Beech in Beech-dominated pasture woodland. This species has also been found in a lichen-rich wood in the



Rosie by the tree she led me to, left; right, a close up of *Calicium hyperelloides*, showing the characteristic black stalked apothecia on a yellow warty thallus on damp bark.

south of Dartmoor by Dave Lamacraft of Plantlife. So far this does appear to be a rare species and not an over-looked widespread species.

***Lecanora quercicola*:** this small veteran tree species is a sub-oceanic specialist of well-lit veteran trees and has always been a rare wood-edge species in the New Forest. Such parkland-like habitat is rare in the New Forest as most veteran trees are inside woods rather than out in the grasslands. A welcome discovery was made of a third extant tree in the New Forest on a veteran Oak on the edge of the pasture woodland lawn at The Ridge, in the Busketts Wood area, New Forest, SU 313 112, March 2021, N.A. Sanderson. This tree had been searched previously for this species when it was not found. Potentially the opening up of the tree by scrub clearance had improved conditions for this light-demanding lichen. The scrub clearance was primarily for pasture conservation, not lichen conservation.

***Lecanora phaeostigma (Lecidea hypopta)*:** a mainly boreal species of hard dead wood on old growth woodlands, with very few lowland English records. Old records from the New Forest are errors for the common *Lecanora aitema* or unverified. Good material, however, was found on a lichen-rich fallen Oak limb, in Oak-



Lecanora phaeostigma habitat, a fallen limb in a glade with a rich lichen flora, which also included two Vulnerable lichens *Buellia hyperbolica* and *Lecanora strobilina* and what appeared to be a recently discovered old woodland species *Lecanora stanislai*.

dominated pasture woodland within Frame Wood, New Forest, SU 353 030, July 2021, A.M. Cross & N.A. Sanderson, confirmed for Hampshire.

Lichenomphalia hudsoniana: this attractive and odd lichen has a thallus formed of blue-green round squamules with a basidiomycetes fungus for the fungal partner. It is common in the uplands but has only scattered old records from the lowlands. It was found on acid humus on the side of a hummock in short grazed humid heath, Half Moon Common, New Forest, SU 294 168, March 2021, N.A. Sanderson. This was the first modern record for Hampshire and second modern record for south and south east England.



***Lichenomphalia hudsoniana* at Half Moon Common, growing over the green globules, which are the thallus of a second much more common basidiomycetes lichen *Lichenomphalia umbellifera*.**

Loxospora elatina: this is a common lichen of acid habitats in old woodland and is especially abundant in the New Forest but it is almost entirely sterile. A remarkable discovery, however, was made of fertile material in the New Forest by Andy Cross. This was on a fallen Oak log in Oak-dominated pasture woodland within Frame Wood, New Forest, SU 353 030, July 2021, A.M. Cross & N.A. Sanderson. This may be the first fertile material seen in England.



***Loxospora elatina*, apothecia nestling among the mounded soralia typical of this normally sterile lichen.**

Megalospora tuberculosa: this rare old woodland lichen was much confused with the widespread *Megalaria pulvereana* in the past, but reliable ways of separating the two species are now available, using constant physical differences and a dried UV/K spot test (the *Megalaria* shows a bright neon yellow fluorescence when the spot test is dry, while *Megalospora* does not). To date the only confirmed records of *Megalospora tuberculosa* from

the New Forest were from Beech in the Mark Ash area. So the discovery of two large thalli on a veteran Oak on edge of a glade in Oak-dominated pasture woodland within Frame Wood, New Forest, SU 350 030, June 2021, N.A. Sanderson, is a considerable range extension.

***Reichlingia anombrophila* (*Arthonia anombrophila*):** an upland lichen typical of dry bark habitats on old trees with very few records from the lowlands. In the New Forest previously recorded from Knightwood Inclosure, Rushpole Wood and Wood Crates, all from Beech trees. A fourth locality was found on dry bark on a veteran Beech, in Beech-dominated pasture woodland, east of Rufus Stone, SU 270 125, April 2021, N.A. Sanderson.

***Rinodina roboris* var. *roboris*:** a widespread veteran tree specialist in the New Forest but with very few records outside the Forest. Found on a small old field Oak in floodplain pasture, HIWWT St Clair's nature reserve, Soberton, Hampshire, SU 606 154, June 2021, N.A. Sanderson. Record made during the Flora Group meeting to this reserve, a new location.

***Orcularia insperata* (*Rinodina biloculata*):** a south western twig species, possibly spreading in response to rising temperatures. Collected on an Ash twig in floodplain pasture, HIWWT St Clair's nature reserve, Soberton, Hampshire, SU 606 156, June 2021, N.A. Sanderson. Record made during the Flora Group meeting to this reserve and the first record from the east of Hampshire.

***Syncesia myrticola*, fertile morph:** the veteran Oak specialist taxon *Enterographa sorediata* was recently shown by gene sequencing, very unexpectedly, to be a sterile sorediate morph of *Syncesia myrticola* (Ertz et al, 2018), and is now known as *Syncesia myrticola*, sorediate morph. The fertile morph is strongly south western in England and found on dry overhanging rocks on coastal cliffs and rarely nearby veteran Oaks. The sorediate morph extends much further north and far inland on veteran trees, mainly Oak, and has its largest known populations in the New Forest. The sorediate morph presumably has an advantage in cooler, less strongly oceanic situations. Since this relationship was discovered, physical hints of the relationship between the morphs have been spotted, with *Syncesia* pycnidia on sorediate thalli and tiny incipient fertile stroma found on non sorediate thalli. In Frame Wood, New Forest, SU 352 029, July 2021, A.M. Cross & N.A. Sanderson, found a very striking fully fertile thallus, with no soredia at all on dry bark on an ancient Oak in Oak-dominated pasture woodland. The single thallus was adjacent to normal thalli of the sorediate morph. It will be interesting to see if more fertile thalli are found with warming temperatures.



***Syncesia myrticola*, fertile morph, a close up of the Frame Wood thallus, showing the groups of small dot-like apothecia in raised mounds of thallus (stroma) and a warty thallus; very unlike the smooth and patchily sorediate thallus of the sorediate morph.**

References

- Ertz, D., Coppins, B.J. & Sanderson, N.A. (2018) The British endemic *Enterographa sorediata* is the widespread *Syncesia myrticola* (Roccellaceae, Arthoniales). *Lichenologist* 50: 153-160
- Ertz, D., Sanderson, N.A. & Lebouvier, M. (2021) *Thelopsis* challenges the generic circumscription in the *Gyalectaceae* and brings new insights to the taxonomy of *Ramonia*. *Lichenologist* 53, 45–61. <https://doi.org/10.1017/S002428292000050X>.

VC 11 Records

The VC 11 records will be published in the Spring 2022 edition of *Flora News*.

Assistance with the BSBI VC12 Recorder role

A note by Tony Mundell

Martin has enlisted several people to help him with the various roles involved in being a BSBI VC Recorder. I am thinking that I should be doing the same in VC12. I became the North Hampshire Recorder in 1999 and I am beginning to run out of steam. Old age is slowing me down and increasingly I cannot recall the names of plants that I knew well a couple of years ago. That could be partly due to the dramatic reduction in days that I was out recording due to the Covid-19 pandemic. As they say: 'If you don't use it, you lose it'.

Three of Martin's helpers are assisting him in building up a facility for using GIS (Graphical Information Systems) to analyse plant distributions. I tried using free GIS software some years ago but gave up, finding it too complicated. Perhaps GIS is one area that I need help with, but if nobody is keen, I am happy to live without it.

One area where I would definitely like help is in computerising more of the legacy of old paper records that I have inherited. I have been working on this for many years as a background task, but there are still zillions of records not yet entered on my database. Lady Anne Brewis, my predecessor as the North Hampshire Recorder, never had a computer and kept some of her records in a Card Index. I have long since entered all those Card Index records onto my database but Lady Anne also gave me a huge collection of personal letters that contain plant records as well as a large set of lists of individual records on separate sheets for each species. Many of those records are not on her Card Index. In general, it is only the scarcer species from those extra sources that have been entered onto my database. More recently I have inherited a huge collection of paper records and survey reports bequeathed to me in his will by Chris Hall who died in 2017.

At present all my data are stored on software called MapMate and get sent from there to HBIC (Hampshire Biodiversity Information Centre) and to the large national BSBI database called the DDb (Distribution Database). In some ways it might be best if anyone helping me with entering data also had MapMate, but MapMate suffers from some problems and is getting near to its 'sell-by' date. One issue is that occasionally Microsoft updates to Windows 10 can cause faults with some MapMate features. BSBI 'HQ' does little to shore-up MapMate so the taxa list is now well out of date. Instead, their plan is to write software to provide an alternative 'front-end' software that county recorders can use for sending data to the DDb.

Rather than installing MapMate, perhaps a better option would be for a helper to enter data into Living Record, because I can easily copy records from there across to my MapMate database. Depending on the data source, I might have to check whether I already have each record, then delete the duplicates. I would prefer any helper with this to live within VC12 as I would often have to deliver batches of the paper records and explain things in detail.

I would be delighted if someone else, in addition to me, could lead Hants Flora Group walks in VC12, including advertising the meetings in *Flora News*. Alternatively, more volunteers to write-up accounts of meetings in *Flora News* would be helpful.

VC12 Records

Compiled by Tony Mundell (records for 1 September 2020 to 17 July 2021)

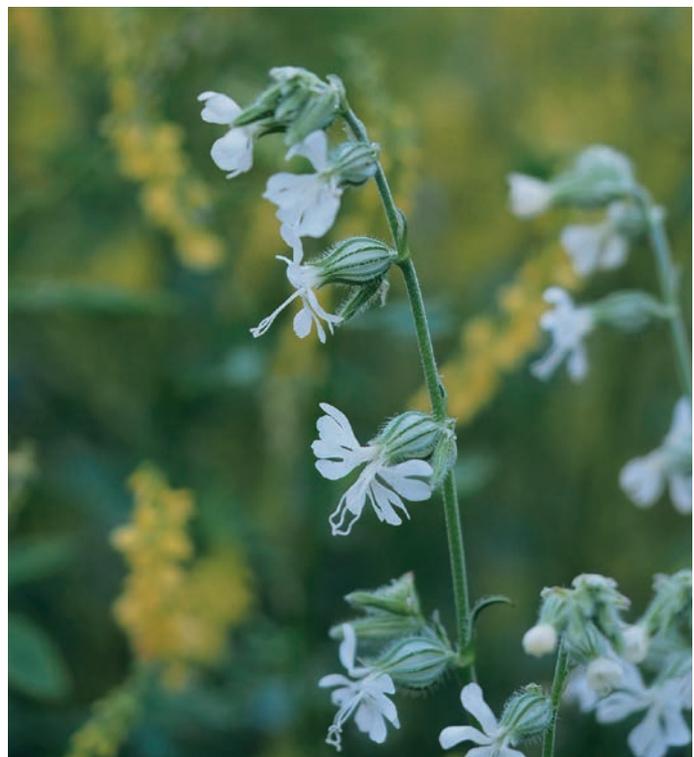
The c.11-month period of records covered here is unusually long because during the Covid pandemic, when I was receiving few records, I have been trying to spread the numbers more evenly across each issue of *Flora News*. To comply with the requested copy date, I usually select records for the Autumn issue in July and for the Spring issue in December, looking only for records dated in the previous 6 or 7 months. This means that if you would like to see your records published in *Flora News*, they must be on my database within 6 months of the record date. If you send me records made say a year ago then those records are still very welcome but will not get considered for *Flora News*. My thanks to all of you who contribute records, including those of you not mentioned here. I very much value all records, but especially re-finds of rarities.

One of the more exciting finds included here is Grass-poly *Lythrum hyssopifolia*, given as Nationally Endangered in the Red Data Book. This was found by Caroline Reid near Aldershot on one of the wet sandy tracks, with large puddles, that are used by the army to test high speed military vehicles. Caroline sent me photos of it as well as of Coral Necklace *Illecebrum verticillatum* that also loves this wet habitat. I visited myself on 26 July 2021 and found a separate colony of the Grass-poly closely nearby in wheel ruts on a grassy strip right in the middle of the broad sandy test track. I was able to take a specimen and confirm with my microscope that the plants are the archaeophyte *L. hyssopifolia* and not the very similar neophyte *L. junceum*. It grew in company with a few plants of Lesser Centaury *Centaureum pulchellum* and the so-called Common Cudweed *Filago germanica* (that is not common now!) but also with Coral Necklace nearby. Coral Necklace has really exploded in abundance in VC12, spread by army vehicles since its first discovery in 2005, so I am hoping that the Grass-poly will do the same. According to the Red Data Book its seeds are very long-lived and can germinate long after any plants have been seen.

The list of records below contains quite a few plants that are teetering on the edge of local extinction within VC12, some of them with only a few plants found in recent years in their last few surviving sites. Examples given below are *Ajuga chamaepitys*, *Astragalus glycyphyllos*, *Botrychium lunaria*,



Grass-poly *Lythrum hyssopifolia*, Bourley, Aldershot. Caroline Reid



Forked Catchfly *Silene dichotoma*, Crawley. Tristan Norton

Chrysosplenium alternifolium, *Fallopia dumetorum*, *Galium pumilum*, *Groenlandia densa*, *Lotus tenuis*, *Platanthera bifolia*, *Potamogeton pusillus*, *Sabulina tenuifolia*, *Scleranthus annuus*, *Silene gallica*, *Stellaria palustris*, *Tephrosia integrifolia* and *Teucrium botrys*. Others in dire straits that I have not included below are *Filago lutescens* and *Wahlenbergia hederacea*. I find it upsetting that so many species have reached this desperate state 'on my watch'.

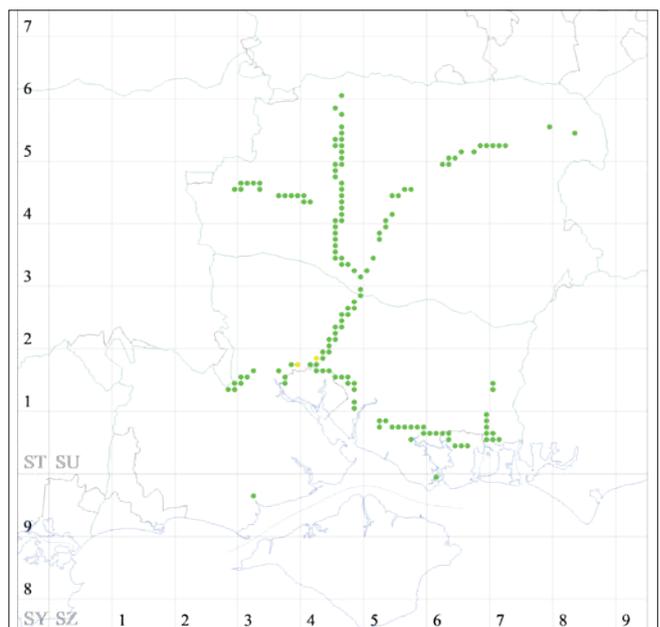
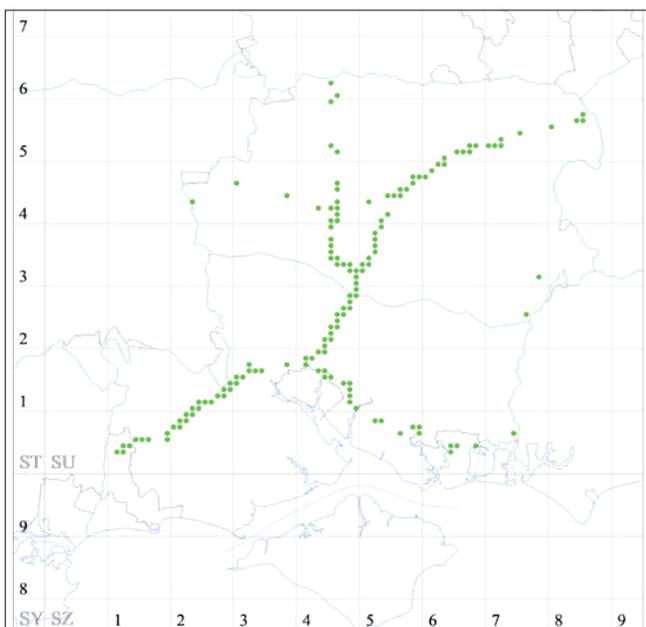
The biological damage caused by the frequent mowing of verges (which seems far more frequent than 10 years ago) is horrendous. As an example, see the entry for *Silene gallica*.

Apart from the native species, this list includes an interesting selection of unusual aliens. These include three species of *Cardamine*: *C. corymbosa*, *C. quinquefolia* and *C. raphanifolia*. Tristan Norton, who contributes many records of uncommon arable species has added Forked Catchfly *Silene dichotoma* to the Hampshire list, whilst Fred Rumsey has recorded Shaggy Wood-fern *Dryopteris cycadina*, also new to Hampshire.

I suspect that many Hampshire Flora Group members are still not familiar with Stinking Fleabane, *Dittrichia graveolens* as it is difficult to see a plant close-up because it is practically confined to the central reservations of motorways or trunk A roads. It is a thermophilic species that is a native of the Mediterranean, so only very hot sunbaked surfaces suit it. In Hampshire it was first found at Eastleigh (Southampton) Airport in 2006 and it was soon found to be spreading along the M27 and A31. There are now about 300 Hampshire records for it, and it has an amusing distribution map that faithfully traces out the whole of the M27 and M3, with more scattered records along the A34 and A303. It flowers late in September and October but once you know it, the little pale green conical spikes of



Stinking Fleabane *Dittrichia graveolens*, Dummer. Ian Ralphs



Hampshire distribution of Stinking Fleabane *Dittrichia graveolens*, left, and Summer-cypress *Bassia scoparia*, right. Yellow symbols = 1990–99; green symbols = 2000 onwards.

foliage dotted with tiny yellow flowers can easily be recognised while driving at 70mph. Another alien plant, Summer-cypress *Bassia scoparia* shares a rather similar distribution showing a network of major roads. In October Ian Ralphs was puzzled by a plant that he found in an arable field close to the M3. His photos showed it to be Stinking Fleabane. It is very unusual to find this plant away from central reservations so I am hoping that global warming will not allow it to spread to other habitats and become a nuisance.

Note that *Flora News* aims to use the latest plant names given in the 4th edition of 'Stace' published in 2019 so there may be some unfamiliar names in this listing. For example, what was formerly *Minuartia hybrida* is now *Sabulina tenuifolia*, *Myosoton aquaticum* has changed to *Stellaria aquatica* and *Petroselinum segetum* is now *Sison segetum*.

List of Records

***Agrostis canina* (Velvet Bent)** Pamber Forest and Upper Inhams Copse SU61116058, long acute ligule, panicle not contracted, damp area, Anna Stewart 17 Oct 2020.

***Ajuga chamaepitys* (Ground-pine)** Upper Cranbourne Farm, Micheldever Station SU50464386, east edge of arable field to south of Freefolk Wood. One large plant noted, in flower, Tristan Norton 2 Sep 2020.

***Allium paradoxum* (Few-flowered Garlic)** Griggs Green SU82043176, under roadside scrub and two immature oaks, Phil Collier & Robin Garnett 20 Apr 2021.

***Allium roseum* (Rosy Garlic)** Bramshott Common SU86953357, shown to Tony Mundell by Andy Swan. Several flowering plants with bulbils on a raised soil bank at entrance to a car park, 16 Jun 2021.

***Allium schoenoprasum* (Chives)** E of Lower Froyle SU75754443, beneath roadside wall in village, Steve Povey & Isobel Girvan 2 May 2021.

***Allium trifoliatum* (Hirsute Garlic)** Winchester, St Giles Hill SU48932923, pink stripe on petals, leaves hairy, Anna Stewart 2 May 2021.

***Allium triquetrum* (Three-cornered Garlic)** E of Lower Froyle SU759442, plentiful on roadside in village, Steve Povey & Isobel Girvan 2 May 2021.

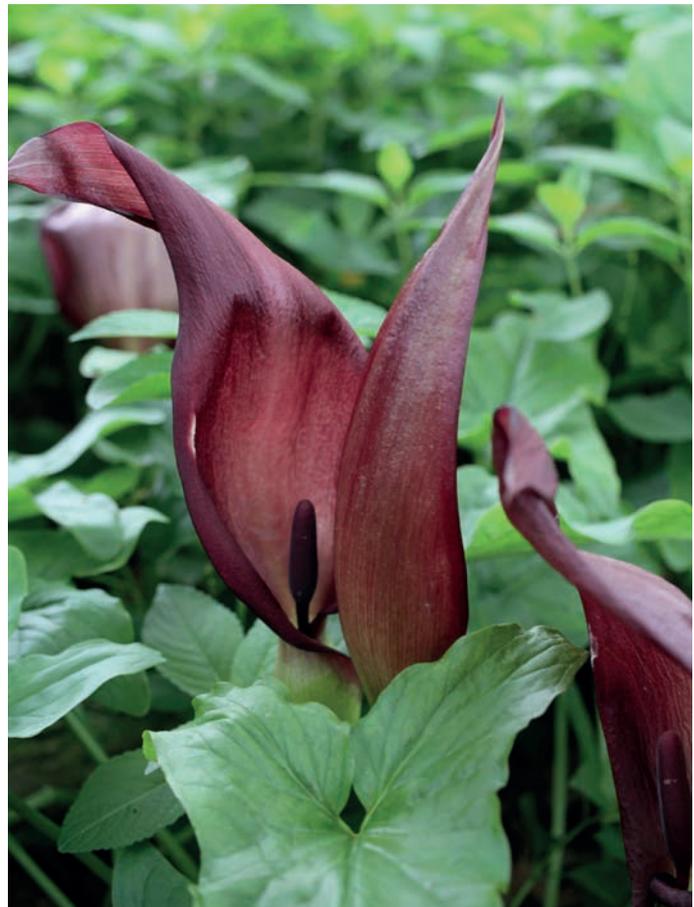
***Ambrosia artemisiifolia* (Ragweed)** Cholderton, Home Farm SU233429, outside the mill-shed where cow feed is processed. Henry Edmunds 18 Sep 2020, photos determined by Tony Mundell.

***Ammi majus* (Bullwort)** Abbots Ann SU3444, single plant beside permissive footpath 100m south of A303 bridge, 25 Oct 2020.

***Anacamptis pyramidalis* (Pyramidal Orchid)** Crawley village SU42563503, one large rosette noted, Tristan Norton 2 Feb 2021. Bawksbury Hill SU34844454, single spike in bud, probably widespread here, Tristan Norton 10 Jun 2021. N of Charlton SU348482, on left verge of road coming off roundabout towards Charlton Down, Peter Billingham 19 Jun 2021. Alton SU723396, at junction of Paper Mill Lane and Waterside Court, Margaret Wonham 26 Jun 2021. Noar Hill SU73883195, var. *emarginata*, where last seen here two years ago, Nigel Johnson 2 Jul 2021. Barton Meadows, outside re-seeded area SU48323140 and in a few other places, including the strip between the two re-seeded areas, Hampshire Flora Group 10 Jul 2021.

***Anthriscus caucalis* (Bur Chervil)** Oakhanger, increasing, with now over 100+ plants on sandy bank beneath large trees from SU7709 3485 to SU7709 3482. Also, now on opposite bank, Steve Povey & Laura Gravestock 21 Mar 2021.

***Asplenium adiantum-nigrum* (Black Spleenwort)** Fairfield Rd, Winchester SU475300, frequent on walls along c.50m stretch of front gardens on S



Lords-and-Ladies *Arum maculatum*, remarkable form, Dilly Lane Fred Rumsey

side of road, several dozens of plants, also Brassey Rd, Winchester SU477303, locally frequent along several frontages. One house with luxuriant growth on wall beside path to front door, entire wall covered, Tristan Norton 21 Oct 2020. Headbourne Worthy SU48233273, a fine set of many plants on the west buttress side of the bridge, Andrew Leonard 21 Mar 2021.

***Asplenium ceterach* (Rustyback)** Martyr Worthy Churchyard, 2 mature plants and one small one at SU5159 3277 on inside of boundary wall of the churchyard. Also, St Nicholas Church, Bishops Sutton SU606320, 20 plants on inside of boundary wall and 15 on the outside (by the roadside). 50+ plants on buttress at east side of church and 5 more in three locations on a drainage gutter around the church. Also, Fob Down Farm SU57143396, 50+ plants on exterior wall and interior wall of a property in Abbotstone Road. All Andrew Leonard 21 Mar 2021.

***Arum maculatum* (Lords-and-Ladies)** Dilly Lane, Hartley Wintney SU76575565, a remarkable form with rich, dark purple spathes, by roadside under *Corylus*, Fred Rumsey 14 May 2021.

***Astragalus glycyphyllos* (Wild Liquorice)** Kings Worthy Rail path SU47983513, a large flowering patch remains at south end of platform. Also, a single small clump at edge of path. Certainly, less vigorous than in 2020, likely due to shading, Tristan Norton 25 Jun 2021.

***Astrantia major* (Astrantia)** Noar Hill SU74273186, one main vegetative patch plus a few smaller clumps, Helen Boyce 11 May 2021.

***Atropa belladonna* (Deadly Nightshade)** Ashford, East, around 10 plants scattered in area of short scrub at SU740268, Steve Povey 30 May 2021.

***Azolla filiculoides* (Water Fern)** Itchen Stoke Mill SU56813176, in ditch close to River Itchen, and SU56913195, in shady marsh near River Itchen, Hampshire Flora Group 5 Jun 2021.

***Berberis gagnepainii* (Gagnepain's Barberry)** Easton Down - Abbots Worthy SU499321, growing about 5m south of the footpath in dense woodland, Dave Pearson 5 Mar 2021.

***Bistorta affinis* (Himalayan Bistort)** Edenbrook Country Park SU78875436, many flowering plants beside a 'balancing pond' in the meadow constructed a few years ago. Presumably originally planted by the site developers, Tony Mundell 5 Oct 2020.

***Botrychium lunaria* (Moonwort)** Blackbushe, searched all of the 8-figure grid references at Blackbushe without any joy, but did find a single plant near to one of them at SU80347 59715, Fred Rumsey 14 May 2021.

***Brachypodium pinnatum* (Heath False-brome)** Bramshott Common, shown to Tony Mundell by Andy Swan on 16 Jun 2021. A patch in middle of a sandy track on acidic heathland at SU86289 33097. Specimen collected for Hb. ARGM and studied closely under microscope. It is a better match for *B. pinnatum sens. strict.* than for *B. rupestre*.



Gagnepain's Barberry *Berberis gagnepainii*, Easton Down. Dave Pearson

***Campanula glomerata* (Clustered Bellflower)** Beggarwood Lane, on steep roadside bank, e.g., one at SU6082 4815, one at SU6085 4815, Tony Mundell & Phil Collier 2 Jul 2021.

***Cardamine corymbosa* (New Zealand Bitter-cress)** Aldershot, Pavilion Road SU85175039, a weed between paving in front garden, presumably it arrived originally with a purchased nursery plant, Fred Rumsey 11 Apr 2021.

***Cardamine quinquefolia* (Whorled Coralroot)** Huntsmoor Hill, Plastow Green SU53026227, two clumps close together, one 1.5m x 1m, the other 0.5m x 0.5m. The adjacent woodland is 'gardened' but these plants were in the 'wild' part, around 12m outside the fenced garden part, Sarah White 17 Mar 2021, photos det. by Tony Mundell.

***Cardamine rapanifolia* (Greater Cuckooflower)** Brookly Stream, Fleet Pond SU81855471, a few patches on the stream bank, just starting to flower, Tony Mundell 4 May 2021, shown to John Sutton who photographed it in full flower on 11 Jun 2021. Increased since first recorded here in 2015.

***Carex acuta* (Slender Tufted-sedge)** Fleet, Edenbrook Country Park SU78905465, single large patch at pond edge, Tony Mundell & Cathy Wilson 8 Jul 2021.

***Carex disticha* (Brown Sedge)** Itchen Stoke Mill SU56253197 in a traditionally managed water meadow and at SU56923219 in the northern meadow, Hampshire Flora Group 5 Jun 2021.

***Carex pallescens* (Pale Sedge)** Ashford Hill Meadows SU56416204, several plants, Sarah White & Bob Winfield 9 Jun 2021. Bramshott Common SU86793319, shown to Tony Mundell by Andy Swan 16 Jun 2021, two fruiting clumps.

***Catabrosa aquatica* (Whorl-grass)** Itchen Stoke Mill SU56393180 & SU56953217 in River Itchen, Hampshire Flora Group 5 Jun 2021.

***Centaurea cyanus* (Cornflower)** Basingstoke: Town Centre West Junction, beside the B3400 and A3010 both east and west of the roundabout from SU6248 5223 to SU6215 5213 following much soil disturbance due to major road works. Presumably from the long-buried seed bank when this area was arable fields, Mike Hackston Jun 2021.

***Cephalanthera damasonium* (White Helleborine)** Down Farm Lane SU46653346, cluster of old stems with seed-heads noted. Suspect species is throughout this plantation, Tristan Norton 3 Jan 2021. Crawley SU43063461, five flowering plants noted beneath small trees and on open verge. Plants protected with stakes, Tristan Norton 8 Jun 2021. Hamilton Close, Basingstoke SU622532, 150 flowering plants on verges of Hamilton Close, within Houndmills Industrial Estate, Andrew Mitchell 11 Jun 2021. Winnall flats SU49542998, 15+ good spikes, flowering almost ended. Area soon to be redeveloped, Anna Stewart 16 Jun 2021. Omega Park Industrial Estate, Alton SU72723933, remains (after mowing) of 19 plants on grassy verge between a private car park and the pavement, Helen Boyce 9 Jul 2021.

***Cephalanthera longifolia* (Narrow-leaved Helleborine)** Ashford, East, around 300 flowering plants scattered in clearing at SU7406 2681, Steve Povey 30 May 2021.

***Cerastium arvense* (Field Mouse-ear)** Stockbridge Down SSSI Unit 1 SU38043516, eleven flowering stems in one square metre, Dave Pearson 8 Jun 2021.

***Chaenorhinum minus* (Small Toadflax)** Field at west end of Cholderton Lane, Quarley SU250423, along northern headland of arable field, John Moon 10 Sep 2020. South Wonston SU475356, occasional along margin, Tristan Norton 11 Sep 2020.

***Chrysosplenium alternifolium* (Alternate-leaved Golden-saxifrage)** Tankerdale Lane SU769259, many plants in flower on damp ground beneath Poplars, growing among *C. oppositifolium*, Steve Povey & Laura Gravestock 21 Mar 2021.

***Chrysosplenium oppositifolium* (Opposite-leaved Golden-saxifrage)** River Dever, W of Hunton Lane SU471396, Frequent to Locally Abundant flowering at edges of small channels/pools. Also, Wonston SU47333953, large non-flowering patch at edge of river. Also, Upper Bullington SU46414115, large patches of non-flowering plants noted. All Tristan Norton 10 Feb 2021.



New Zealand Bitter-cress *Cardamine corymbosa*, Aldershot. Fred Rumsey



Whorled Coralroot *Cardamine quinquefolia*, Plastow Green. Sarah White



Greater Cuckooflower *Cardamine raphanifolia*, Brookly Stream, Fleet. John Sutton

***Cicerbita macrophylla* (Common Blue-sow-thistle)** Upton, road verge SU3564 5511, Peter Billingham 3 Jul 2021.

***Claytonia sibirica* (Pink Purslane)** Pophole SU87353263, single plant on streamside, Andy Swan Jun 2021.

***Clinopodium ascendens* (Common Calamint)** Winnall, M3/A34 roundabout SU49663041, single clump of flowering plants. Calyx form accords with *C. ascendens*, Gavin McClean 6 Sep 2020, determined by Tristan Norton.

***Coeloglossum viride* (Frog Orchid)** Ladle Hill SU478567, seven plants found, all of them in this 100m square, 5 at SU4783 5675 and 2 at SU4785 5675, Fred Rumsey 9 Jul 2021.

***Convallaria majalis* (Lily-of-the-valley)** Bramshott Common SU85763288, shown to Tony Mundell by Andy Swan 16 Jun 2021. A huge patch in woodland, 10m in diameter, that had flowered well recently.

***Cornus mas* (Cornelian-cherry)** Winchester, Winnall SU49322962, in play park, Anna Stewart 20 Mar 2021.

***Crocus speciosus* (Bieberstein's Crocus)** Velmead Lane SU81755327, photo of two flowers beside the track near Stinging Nettles, David Dimmock 10 Oct 2020, confirmed by Tony Mundell.

***Crocus tommasinianus* (Early Crocus)** Winchester SU49042943, plants cut shortly after flowering, photos. Planted November 2020 by Rotary Club, part of Polio eradication campaign, Anna Stewart 2 Mar 2021.

***Cyclamen hederifolium* (Sowbread)** MOD Barton Stacey, Moody's Down Range buffer zone SU4042, large clump in hedge bordering Roman road, John Moon 6 Dec 2020.

***Daboecia cantabrica* (St Dabeoc's Heath)** Bramshott Common SU85783278 & SU85743281, shown to Tony Mundell by Andy Swan 16 Jun 2021. Many scattered vegetative plants. Various garden plants were introduced in this area where Canadian troops were stationed during World War 2.



Bieberstein's Crocus *Crocus speciosus*, Velmead Lane, October 2020. Dave Dimmock

***Dactylorhiza incarnata* subsp. *incarnata* (Early Marsh-orchid)** Itchen Stoke Mill SU56753175 & SU56423179, in a water meadow. A few flowering plants together with *Dactylorhiza praetermissa*, Hampshire Flora Group 5 Jun 2021.

***Dactylorhiza praetermissa* (Southern Marsh-orchid)** Poland Mill SU742531, a single rather trampled flowering plant on the footpath in front of the Mill, Sarah Smith 26 Jun 2021.

***Daphne laureola* (Spurge-laurel)** Hacks Lane, Crawley SU42303553, frequent plants throughout woodland, most now flowering, Tristan Norton 19 Jan 2021.

***Daphne mezereum* (Mezereon)** Herriard SU6547, with permission from Herriard Estates, saw around 30 plants in woodland, most in flower, some up to 30 inches tall and the vast majority looking good. Precise location withheld at request of landowner, Rob Still 4 Mar 2021.

***Dianthus deltoides* (Maiden Pink)** Originally introduced via seed by Hatch Warren Nature Group and now self-seeding. e.g., Beggarwood Lane, three plants at SU6082 4815 and one at SU60804812, Garlic Lane East e.g., SU60914813 and SU60934810, St Mark's Meadow e.g., SU60784882, SU60774883 and SU60794881, Tony Mundell & Phil Collier 2 Jul 2021.

***Dittrichia graveolens* (Stinking Fleabane)** Oakdown Farm, Dummer SU58764699, a single robust plant growing on the margin of an abandoned arable field immediately NE of junction 7 of the M3, Ian Ralphs 6 Oct 2020. Photos confirmed by Tony Mundell.

***Dryopteris cycadina* (Shaggy Wood-fern)** Fleet Pond SU81905469, close to the trackside. The gardens back on to the woodland here but this was not obviously planted or cast out, and it does self-sow quite well, Fred Rumsey 22 Nov 2020.

***Dryopteris x deweveri* (*D. carthusiana* x *dilatata*)** Itchen Stoke Mill SU56943197, one plant growing between both parents in a wet meadow, and a second plant at SU56933209, Hampshire Flora Group 5 Jun 2021.

***Erigeron karvinskianus* (Mexican Fleabane)** E of Lower Froyle SU7544, naturalised on walls about Lower Froyle, Steve Povey & Isobel Girvan 2 May 2021.

***Erysimum cheiranthoides* (Treacle-mustard)** Fleet, Edenbrook Country Park SU78945440, in swale balancing pond. About ten flowering spikes, Tony Mundell & Cathy Wilson 15 Jul 2021.

***Euphorbia exigua* (Dwarf Spurge)** Field at west end of Cholderton Lane, Quarley SU250423, along northern headland of arable field, John Moon 10 Sep 2020. Sutton Down Farm SU442376, abundant along stubble edge, Tristan Norton 12 Sep 2020. River Swift, Hurstbourne Tarrant SU384529, in dry riverbed opposite Parsonage Farm, Peter Billinghamurst 7 Oct 2020.

***Euphorbia lathyris* (Caper Spurge)** Chestnut Horse Inn, Easton SU51373220, growing from base of wall of inn, definitely not planted, Dave Pearson 11 Mar 2021.

***Euphorbia oblongata* (Balkan Spurge)** St Mary Bourne, beside track near garden at SU40325021, Peter Billinghamurst 25 Jun 2021.

***Fallopia dumetorum* (Copse-bindweed)** Bacon Lane, Churt SU84213867, Tristan Norton 14 Oct 2020.

***Filago germanica* (Common Cudweed)** Fleet, Edenbrook Country Park SU78735476, on steep sandy hill, single plant, Tony Mundell & Cathy Wilson 8 Jul 2021.

***Fritillaria meleagris* (Fritillary)** Chilbolton Common SU388399, 650+ plants, Glynne Evans 6 Apr 2021.

***Fumaria densiflora* (Dense-flowered Fumitory)** Crawley SU427341, arable field, one large flowering plant, Tristan Norton 8 Sep 2020. Lower Broadview, Kings Worthy SU49223341, single clump noted, Tristan Norton 9 Sep 2020. Field at west end of Cholderton Lane, Quarley SU250423, along northern headland of arable field, John Moon 10 Sep 2020. Chilbolton Down Farm SU41853637, several large flowering plants along c.10m stretch of margin, Tristan Norton 11 Sep 2020. Sutton Down Farm SU448363, several plants noted. Field to east of A272 opposite Crawley Clump, Tristan Norton 12 Sep 2020. Fob Down, Alresford SU575331, frequent flowering plants along E edge of vineyard, Tristan Norton 22 Nov 2020.

***Galeopsis angustifolia* (Red Hemp-nettle)** Micheldever Spoil Heaps, minimum of 60 small seedlings at SU51904472 recorded on bare chalk, halfway down steep slope, across c.10 square metres, plus minimum of 60 small seedlings at SU51984446, Tristan Norton 14 Jun 2021.

***Galinsoga parviflora* (Gallant Soldier)** Andover town centre SU364454, west entrance to Globe Yard, beside fence, Peter Billinghamurst 8 Jul 2021.

***Galinsoga quadriradiata* (Shaggy Soldier)** Lower Brook St, Winchester SU484295, numerous plants in flower along c.20m stretch of wall, Tristan Norton 18 Oct 2020. Friarsgate SU48442951, one large flowering plant, Tristan Norton 18 Oct 2020. Friarsgate, Winchester SU483295, frequent plants along base of wall on pavement and in car park, and on and around steps into car park, Tristan Norton 23 Oct 2020. Lower Brook St, Winchester SU484295, frequent along both sides of wall, within car park and on adjacent pavement, Tristan Norton 23 Oct 2020. Andover town centre, at base of fence at SU36414547, Peter Billinghamurst 10 Nov 2020.

***Galium parisiense* (Wall Bedstraw)** Wall North of Basing House, all plants more or less confined within SU661527 on the wall, so less extensive than the *Sabulina tenuifolia* that is also growing on this wall, Fred & Sue Rumsey 6 Jun 2021.

***Galium pumilum* (Slender Bedstraw)** Ladle Hill, the patch reported in 2019 and 2020 at c. SU47670 56738 is still present although perhaps less vigorous, Fred Rumsey 9 Jul 2021.

***Galium x pomeranicum* (*G. verum* x *album*)** Hatch Warren, St Marks Meadow, several scattered plants growing with both parents, e.g., SU6076 4881 and SU6075 4881, Tony Mundell & Phil Collier 2 Jul 2021. Fleet, Edenbrook Country Park SU78875435, on edge of balancing pond, growing with both parents, Tony Mundell & Cathy Wilson



Shaggy Wood-fern *Dryopteris cycadina*, Fleet Pond. Fred Rumsey

8 Jul 2021. Barton Meadows, reseeded area, SU48353142, single plant amongst both parents, Hampshire Flora Group 10 Jul 2021. Noar Hill SU74033194, single plant beside small path, Steve Povey 17 Jul 2021.

***Genista tinctoria* (Dyer's Greenweed)** Ashford Hill Meadows, a few plants on ant hills, starting to flower, at SU56386202, SU56406194 & SU56396198, Sarah White & Bob Winfield 30 Jun 2021.

***Geranium pratense* (Meadow Crane's-bill)** Ashford, East, in great quantity in Jack's Meadow at SU742269, Steve Povey 30 May 2021.

***Geranium rotundifolium* (Round-leaved Crane's-bill)** Winchester Rail Station SU477303, extensive patch at NW corner of car park. Flowering, Tristan Norton 18 Oct 2020. Ladywell Lane, Alresford SU58763296, several flowering plants present at base of wall, Tristan Norton 22 Nov 2020.

***Geranium sanguineum* (Bloody Crane's-bill)** Woolton Hill Parish Field, a garden escape on the roadside verge of the hedgerow at c. SU4296 6169, Ian Ralphs 29 Sep 2020. Bramshott Common SU85753280, shown to Tony Mundell by Andy Swan 16 Jun 2021. Many large patches in flower, suspected of introduction during WW2 when many Canadian soldiers were barracked here with an army hospital nearby.

***Geum rivale* (Water Avens)** Ashford, East, 10 plants in Jack's Meadow at SU742 269. Slowly increasing, Steve Povey 30 May 2021.

***Geum x intermedium* (*G. rivale* x *urbanum*)** Itchen Stoke Mill SU56933207, one plant in a wet meadow with an attractive aberrant flower, Hampshire Flora Group 5 Jun 2021.

***Groenlandia densa* (Opposite-leaved Pondweed)** Ludcombe Pond SU735264, still present, but greatly reduced in quantity, Steve Povey 27 Apr 2021.

***Hedera helix* subsp. *poetarum* (Yellow-berried Ivy)** Aldershot, on corner of Ayling Hill and Ayling Lane SU85795002, and in Ayling Lane at SU85824996, Fred Rumsey 9 Apr 2021.

***Helleborus foetidus* (Stinking Hellebore)** N of Steep SU737265, around 20 flowering plants scattered on Ashford Hanger, Sheryl Pape 15 Jan 2021.

***Helleborus niger* (Christmas-rose)** Harestock Road, Harestock SU46403174, on grass verge by corner of a large drive, but possibly planted, Dave Pearson 14 Feb 2021. Photo showing the white flowers and entire bracts confirmed by Tony Mundell.

***Helleborus viridis* (Green Hellebore)** Squiresfield Hanger near Bradshott Hall SU76133219, 24 vigorous clumps on road verge, half in flower and half in bud, Bill & Chris Wain 21 Feb 2021. Hale Copse, many hundreds of plants scattered at western end of Hale Copse SU731320, plus many at south-west end at SU73193198, Steve Povey & Isobel Girvan 29 Mar 2021.

***Heracleum sphondylium* (Hogweed – pink form)** Itchen Stoke Down SU547333, edge of arable field, showing some characteristics of subsp. *sphondylium* f. *rubriflorum*, Dave Pearson 18 Oct 2020.

***Hieracium scotostictum* (Dappled Hawkweed)** Alresford Road, Winchester SU490294, north side of road next to footpath and near turning to old Alresford Road, Dave Pearson 1 May 2021. Species determined by Tony Mundell from specimen. E of Froyle SU7544, occasional about Lower Froyle as garden escape, Steve Povey & Isobel Girvan 2 May 2021.

***Hottonia palustris* (Water-violet)** Ashford Hill Meadows SU56446203, 2-3 square metres of the plant scattered within 10m x 10m in shallow standing water amongst abundant *Carex acutiformis* which is shading the *Hottonia*, Sarah White & Bob Winfield 9 Jun 2021.

***Hyoscyamus niger* (Henbane)** Court Drove, Quidhampton SU50925071, planted arable margin to east of Court Drove. c.10 flowering plants noted at W end of margin - likely many more throughout, Tristan Norton 4 Sep 2020.

***Hypochaeris glabra* (Smooth Cat's-ear)** Fleet, Edenbrook Country Park SU78745477, many plants, but more robust than the usual form and with just a few leaf hairs, both marginal and central achenes not beaked and 6.5-7mm. Open capitula vary a lot in size, even on same plant 8-15mm. At least some seem to be the hybrid with *H. radicata* (that is also present), Tony Mundell & Cathy Wilson 8 Jul 2021.

***Ilex aquifolium*, yellow-berried form (Holly)** Newtown Common SU47596289, Simon Melville 21 Jan 2021.



Holly *Ilex aquifolium*, yellow-berried form, Newtown Common. Simon Melville

***Illecebrum verticillatum* (Coral-necklace)** Broxhead Common SU80153787, many plants, Isobel Girvan & June Chatfield 21 Sep 2020.

***Kickxia elatine* (Sharp-leaved Fluellen)** Field at west end of Cholderton Lane, Quarley SU250423, along northern headland of arable field, John Moon 10 Sep 2020.

***Kickxia spuria* (Round-leaved Fluellen)** Barton Meadows, Education area SU48513170, a couple of plants just inside the entrance gate, Hampshire Flora Group 10 Jul 2021.

***Lamium amplexicaule* (Henbit Dead-nettle)** Upper Cranbourne Farm, Micheldever Station SU50274388, several plants, Tristan Norton 2 Sep 2020. South Wonston SU47463553, several, Tristan Norton 11 Sep 2020. Sutton Down Farm SU44103819, one large patch noted, several large plants flowering, Tristan Norton 12 Sep 2020. Cowdown Lane, Goodworth Clatford SU38124330, occasional at field edge, Tristan Norton 22 Sep 2020.

***Lamium hybridum* (Cut-leaved Dead-nettle)** Cowdown Lane, Goodworth Clatford SU38124330, occasional throughout margin, Tristan Norton 22 Sep 2020.

***Lamium maculatum* (Spotted Dead-nettle)** Hurstbourne Tarrant, Stoke Lane SU393528, abundant over area c. 2m square, Peter Billingham 24 Apr 2021. St. Mary Bourne, pond enclosure SU421502, Peter Billingham 12 May 2021.

***Lathraea clandestina* (Purple Toothwort)** Liss, beside River Rother SU77972864, rather hidden beneath Ramsons on the riverbank opposite to the footpath, Bill & Chris Wain 30 Mar 2021.

***Lathraea squamaria* (Toothwort)** Wick Hill Hanger SU75083599, six sturdy spikes, Bill & Chris Wain 30 Mar 2021. Hurstbourne Tarrant, Stoke Lane SU395529, on Hazel, Peter Billingham 24 Apr 2021. Vernham Dean, Boats Copse, edge of wood at SU33515609, Peter Billingham 5 May 2021.

***Lathyrus linifolius* (Bitter-vetch)** Ashford Hill Meadows SU56406195, a flowering plant, Sarah White & Bob Winfield 30 Jun 2021.

***Lemna gibba* (Fat Duckweed)** Itchen Stoke Mill SU56883220, in a small stream at the northern meadow, Hampshire Flora Group 5 Jun 2021.

***Logfia minima* (Small Cudweed)** Fleet, Edenbrook Country Park, surprisingly abundant on the sandy hillside at SU78695475 and nearby at SU78745477, Tony Mundell & Cathy Wilson 8 Jul 2021.

***Lotus tenuis* (Narrow-leaved Bird's-foot-trefoil)** Hook, Rawlings Road SU72525380, at a working construction site, on probably imported soil, growing amongst Redshank and Fat-hen, Hamdah Ismail 2 Sep 2020. Photos, sent via Isobel Girvan, identified by Tony Mundell.

***Luzula luzuloides* (White Wood-rush)** Bramshott Common SU86913271, on bank in mixed woods, two plants, Andy Swan Jun 2021. Photo confirmed by Tony Mundell.

***Lythrum hyssopifolia* (Grass-poly)** Bourley, Aldershot SU84015145, about 30 flowering plants on army land (a fenced danger area with public access only permitted on some weekends and evenings) on sandy soil at the edge of one of the seasonally flooded large puddles, Caroline Reid 17 Jul 2021.

***Moenchia erecta* (Upright Chickweed)** Yateley Common SU81395937, quite a few plants in fruit, Fred Rumsey 14 May 2021.

***Montia fontana* subsp. *chondrosperma* (Blinks)** NW of Binswood SU75733722, in vast numbers over a huge area of an arable field, but ploughed the following week, seeds were examined and were subspecies *chondrosperma*, Helen Boyce 8 Apr 2021.

***Myosurus minimus* (Mousetail)** Hartley Wintney SU76805598, glorious, with probably hundreds of good-sized plants, Fred Rumsey 14 May 2021.

***Neottia nidus-avis* (Bird's-nest Orchid)** Laverstoke, in wood south of road at SU50114898 & SU50144902, Peter Billingham 25 May 2021. Roundwood Estate SU51954427, 2 plants noted, both gone over, in deep beech litter, Tristan Norton 14 Jun 2021.

***Ophioglossum vulgatum* (Adder's-tongue)** Noar Hill, large patches at SU74123187 & SU74503185, Helen Boyce 11 May 2021. Holybourne Roundabout,



Blinks *Montia fontana* subsp. *chondrosperma*, near Binswood. Helen Boyce

A31, SU73534029, in extraordinary abundance on the roundabout. In excess of 600 'leaf blades' counted, Helen Boyce 14 May 2021. Chilbolton Cow Common SSSI SU38774012, numerous over c.10m². Hundreds of plants noted, Tristan Norton 19 May 2021.

***Ophrys apifera* var. *flavescens* (Bee Orchid variety)** Winnall flats SU49542998, colony with three good flower spikes in an area soon to be developed, Anna Stewart 16 Jun 2021.

***Orobanche hederæ* f. *monochroa* (Ivy Broomrape)** Winchester Rail Station SU476300, yellow form, one flowering, many dozens of old spikes in various patches, Tristan Norton 18 Oct 2020.

***Orobanche rapum-genistæ* (Greater Broomrape)** Ashford Hill Meadows, all parasitic on very old Broom plants made impenetrable to grazing by brambles. 20+ flowering or very young spikes on Broom bush at SU56355 62081, two of the immature spikes are the yellow form, forma *flavescens*, Fred Rumsey 6 Jun 2021. Ashford Hill Meadows SU56356208, at least 20 spikes with flowers going over, very hidden inside a Broom bush, where recently reported by Fred Rumsey. At least one towards the south-east side of the bush appears to be the yellow form, but badly damaged by slugs, Sarah White & Bob Winfield 30 Jun 2021.

***Paris quadrifolia* (Herb-paris)** Burghclere to Ecchinswell SU48495941, site damaged by clearance work, only 18 plants of which only 5 flowering, Sarah Ball 7 May 2021.

***Persicaria capitata* (Pink-headed Persicaria)** Martyr Worthy Churchyard SU515327, many plants growing along the base of the southern church wall, Helen Boyce 16 Apr 2021. Photo determined by Tony Mundell.

***Phedimus hybridus* (Siberian Stonecrop)** Greatham SU773303, flowering on wall of a ruined, disused church. The flowers were measured and were mostly less than 15mm across and the leaves were mostly less than 3cm, so it is not the very similar *P. kamschaticum*, Gill Bevington 4 Jul 2021.

***Platanthera bifolia* (Lesser Butterfly-orchid)** Micheldever Spoil Heaps SU51904466, one flowering example, Tristan Norton 14 Jun 2021.

***Platanthera chlorantha* (Greater Butterfly-orchid)** St. Mary Bourne, new site - in semi-woodland at SU42455040, Peter Billinghamurst 23 Jun 2021.

***Polypogon monspeliensis* (Annual Beard-grass)** Basingstoke, Town Centre West Junction SU623522, beside the B3400 following much soil disturbance due to major road works, Mike Hackston Jun 2021. Tadley, Newchurch Road SU59326217, on the road verge, but in essence a building plot site, so unlikely to persist, Paul Sterry 18 Jun 2021. Fleet, Edenbrook Country Park SU79015414, many plants in a low-



Bee Orchid *Ophrys apifera* var. *flavescens*, Winnall. Anna Stewart



Pink-headed Persicaria *Persicaria capitata*, Martyr Worthy. Helen Boyce

lying wet area, Tony Mundell & Cathy Wilson 15 Jul 2021.

Potamogeton pusillus (Lesser Pondweed) Fleet, Edenbrook Country Park SU78865415 and SU78915462, in two different ponds, specimens pressed for later expert confirmation. Under microscope the stipules are closed and tubular, so almost certainly *P. pusillus* and not the much commoner *P. berchtoldii*, Tony Mundell & Cathy Wilson 15 Jul 2021.

Potentilla argentea (Hoary Cinquefoil) The Slab SU782360, ten plants in sandy grassland fringe at the north end of The Slab, Nick Aston 2 Jun 2021. Picketts Hill, Sleaford c. SU80773847 Charles Whitworth 26 Jun 2021.

Potentilla indica (Yellow-flowered Strawberry) Hilliers Haven, Abbots Barton SU485306, abundant throughout woodland floor, more obvious in N end of site. In fruit and flower, Tristan Norton 18 Oct 2020.

Pulmonaria saccharata (Bethlehem-sage) Edenbrook Country Park SU78875436, several plants beside a 'balancing pond' for containing flash floods. It is the cultivar Majeste (with wholly silver-white leaves) growing with *Bistorta* (previously *Persicaria*) *affinis* and both clearly originally planted, presumably by the developers of the adjacent new housing estate, Tony Mundell 5 Oct 2020.

Puschkinia scilloides (Striped Squill) St Mary's Churchyard, Easton SU5090 3220, Dave Pearson 28 Mar 2021.

Pyrola minor (Common Wintergreen) Longmoor, patches on both sides of the main track at c. SU7923 2976 and SU7923 2975, Helen McAra 6 Jul 2021.

Pyrus pyraeaster (Wild Pear) Danebury Ring SU32408376, old tree with spherical fruits, John Moon 6 Nov 2020.

Ranunculus bulbosus, double form (Bulbous Buttercup) Five very attractive double flowers in a small patch, Noar Hill SU74013185, Helen Boyce 31 May 2021.

Roemeria hispida (Rough Poppy) Field at west end of Cholderton Lane, Quarley SU250423, two plants on northern headland of arable field, John Moon 10 Sep 2020. Crawley SU44383452, locally frequent in field corner and margin heading south, Tristan Norton 2 Jul 2021.

Ruscus aculeatus (Butcher's-broom) Rotherwick SU71365558, at the side of Post Horn Lane, Peter Vaughan 11 Nov 2020. Abbots Ann SU33904407, young multistemmed plant 60cm high on dry bank of Cattle Lane, looks like self-sown seedling, John Moon 18 Nov 2020.

Sabulina tenuifolia (Fine-leaved Sandwort) Upper Froyle SU754426, three plants coming into flower on lower shelf of wall, numerous small spindly plants on top shelf of wall, Dave Pearson 22 May 2021. Wall North of Basing House, growing on the wall from SU6621 5277 to at least SU6617 5276, Fred Rumsey 6 Jun 2021.

Salvia pratensis (Meadow Clary) Hatch Warren, Garlic Lane east, originally introduced via seed by Hatch Warren Nature Group. e.g., one plant at SU6089 4815 and two at SU6091 4813, Tony Mundell & Phil Collier 2 Jul 2021.

Salvia verbenaca (Wild Clary) Hatch Warren, St Marks Meadow, originally introduced via seed by Hatch Warren Nature Group. Two plants a few metres apart at SU6078 4882, Tony Mundell, Cathy Wilson & Phil Collier 20 May 2021.



Siberian Stonecrop *Phedimus hybridus*, Greatham. Gill Bevington



Annual Knawel *Scleranthus annuus*, Edenbrook. Cathy Wilson

***Sambucus ebulus* (Dwarf Elder)** Cottonworth SU3739 & Fullerton SU3839, banks of A3057, Martin Rand 26 Sep 2020.

***Schoenoplectus tabernaemontani* (Grey Club-rush)** Edenbrook Country Park SU79095453, in a ditch beside a footpath, Tony Mundell 5 Oct 2020. This mainly coastal species is increasing inland, presumably spread by waterfowl.

***Scilla bithynica* (Turkish Squill)** Netherton, on road verge bordering garden at SU3786 5767, Peter Billingham 30 Mar 2021. St. Mary's Church, Crawley SU42433485, solitary plant on eastern side of churchyard, Dave Pearson 5 Apr 2021.

***Scleranthus annuus* (Annual Knawel)** Fleet, Edenbrook Country Park SU78745477, hundreds of plants, but many rather hidden under taller but quite sparse vegetation, Tony Mundell & Cathy Wilson 8 Jul 2021.

***Scrophularia vernalis* (Yellow Figwort)** St Giles Hill Cemetery SU49072934, large clump, flowering, Tristan Norton 25 Mar 2021.

***Senecio inaequidens* (Narrow-leaved Ragwort)** Edenbrook Country Park SU79175479, a single flowering plant, Tony Mundell 13 Oct 2020.

***Silene dichotoma* (Forked Catchfly)** Crawley SU432347, frequent in sown pollinator/birdseed margin. Plants to c.60cm, densely hairy, small deeply bifid petals, stalkless flowers, Tristan Norton 30 Jun 2021.

***Silene gallica* var. *gallica* (Small-flowered Catchfly)** Conde Way, Bordon SU79653470, counted 470 to 500+ flowering plants on the road verge, but a 1m wide strip of them adjacent to the pavement has been mown off again by East Hampshire District Council despite my plea not to mow them on 1 Jun 2021. This protected road verge is supposed to only be mown in September, Bill Wain 4 Jun 2021. [Despite Bill Wain's further protests the site was found mown again on 16 July 2021 and so Bill protested for the third time this year, requesting a meeting with those in charge].

***Sison segetum* (Corn Parsley)** Three Maids Hill SU46243365, minimum 200 rosettes counted. Could easily be 300-400, Tristan Norton 24 Dec 2020

***Spiranthes spiralis* (Autumn Lady's-tresses)** Longmoor Inclosure, eight spikes, remarkably growing close to *Calluna vulgaris* on the east side of a vehicle track covered with limestone chippings. I first noted it here exactly a year ago on 1 Sep 2019 when there were also several spikes, Stephen Carter 1 Sep 2020.

***Stachys arvensis* (Field Woundwort)** Cowdown Lane, Goodworth Clatford SU38054335 & SU38124330, locally frequent at edges of margin, Tristan Norton 22 Sep 2020.

***Stellaria aquatica* (Water Chickweed)** Edenbrook Country Park, Fleet SU78775466 & SU78805469, a



Wild Tulip *Tulipa sylvestris*, Martyr Worthy. Helen Boyce



Hybrid Bulrush *Typha x glauca*, Fleet Pond, amongst *Typha angustifolia*. John Sutton

few flowering plants, Tony Mundell & Cathy Wilson 8 Jul 2021.

***Stellaria palustris* (Marsh Stitchwort)** Ashford Hill Meadows SU56296182, plentiful in a strip about 20m x 1.5m and flowering well, Sarah White & Bob Winfield 9 Jun 2021.

***Tephrosia integrifolia* (Field Fleawort)** Gander Down, 28+ flowering and fruiting plants, effectively restricted to one shallow SW-facing bank. Plants extending from SU56009 27398 to SU56005 27405 and then another three on the same bank but at SU55997 27422 beyond two *Crataegus* bushes. No plants were found on the parallel bank feature closer to the main track at SU5600 2742 where a single small plant was seen in 2020, Fred & Sue Rumsey 13 Jun 2021. Ladle Hill SU478567, 33 plants found in all at Ladle Hill, 18 in this 100m square, 1 at SU4780 5675, 3 at SU4781 5674, 3 at SU4781 5675, 1 at SU4783 5673, 1 at SU4783 5674, 1 at SU4783 5675, 6 at SU4785 5674 and 2 at SU4785 5675, Fred Rumsey 9 Jul 2021.

***Teucrium botrys* (Cut-leaved Germander)** Micheldever Spoil Heaps SU51984446, 1 small seedling noted - not a detailed search, Tristan Norton 14 Jun 2021.

***Torilis nodosa* (Knotted Hedge-parsley)** Winnall SU49522955 and SU49502955, a few plants, mostly near verge. Sprawling plants, hairy, fruits clustered with hooked bristles, umbel has short stalk, Anna Stewart 16 Jun 2021

***Trifolium repens* (White Clover)** Barton Meadows, outside reseeded area SU48383137, a mutant form with nearly all its flowers replaced with a dense mass of miniature leaves, Hampshire Flora Group 10 Jul 2021.

***Tulipa sylvestris* (Wild Tulip)** Martyr Worthy Churchyard, 24 blooms plus many non-flowering plants close to a gravestone at SU51573278, Helen Boyce & Gill Bevington 16 Apr 2021. Lady Place public garden, Alton SU71443922, in flower, presumably originally planted here, Gill Bevington 27 Apr 2021.

***Turritis glabra* (Tower Mustard)** Woolmer, Linchborough SU81403345, 31 stalks counted, now dead and dry, Bill & Chris Wain 3 Sep 2020. Woolmer, Linchborough SU81393343, 16 plants in flower, mainly on western side of the track, Bill & Chris Wain 3 Jun 2021. Baker's Corner, Kingsley SU778377, at least 50 plants in flower or in green fruit, Bill & Chris Wain 4 Jun 2021. Gold Hill, Kingsley SU79693844, 34 flower spikes, on road bank of B3004, 40m west of a telephone pole with a 'UK Rico' sign on it, Bill & Chris Wain 13 Jun 2021. Kingsley SU77873775, some still in flower, on bank, Charles Whitworth 26 Jun 2021.

***Typha x glauca* (*T. angustifolia* x *latifolia*)** Fleet Pond, NE pond edge SU82245514, voucher specimen in Hb.ARGM, at water's edge of the reed beds, accessed by boat with John Sutton. A few plants growing amongst many *T. angustifolia*, Tony Mundell 30 Jun 2021.

***Utricularia australis* (Bladderwort)** Fleet Pond, Coldstream Marsh SU82475494, vegetative plants, John Sutton 5 Jul 2021, close-up photos identified by Tony Mundell

***Veronica catenata* (Pink Water-speedwell)** Fleet, Edenbrook Country Park SU79005415, a few plants in a low-lying wet area, Tony Mundell & Cathy Wilson 15 Jul 2021.

***Vinca difformis* (Intermediate Periwinkle)** Stockbridge Road SU468303, Dave Pearson 27 Jan 2021.

***X Dactylodenia heinzliana* (*Gymnadenia conopsea* x *Dactylorhiza fuchsii*)** Noar Hill, for third year in a row a splendid plant at SU7451331801, Nigel Johnson 2 Jul 2021.



Tower Mustard *Turritis glabra*, Linchborough. Bill Wain



Bladderwort *Utricularia australis* with a trapped mosquito, Fleet Pond. John Sutton

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. 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 and a link to Living Record for bulk recording, or contact your relevant BSBI Vice-county Recorder:

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