Flora News



Newsletter of the Hampshire & Isle of Wight Wildlife Trust's Flora Group

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Dear Flora Group member

elcome to a new look Flora News. The Flora Group committee hope that you and your family are keeping safe and well during these challenging and uncertain times in which we all find ourselves due to Covid-19. The Committee has continued to adapt to the current situation by using video-conferencing facilities and we held our Committee meeting during Autumn 2020 via Zoom which, again, proved to be very successful. We will ensure that future field meetings and other events are held in accordance with Government guidance aimed at minimising the risk of transmitting the virus.

Martin Rand and Andy Cross hosted a training session remotely on Saturday 18 July 2020 focusing on families of flowering plants associated with chalk grassland, as a substitute for the event they had planned to hold in the field at Shawford Down in June. Following the success of this event (a report of which can be found on page 8) further online workshops have been arranged by Martin. Three of these will follow on from the workshop held in July last year and will also examine plant families, whilst the other workshop will be an opportunity to focus on conifers.

Our Annual General Meeting (AGM), which was due to be held on 6 June 2020, had to be cancelled. Neither were we able to hold it during our annual Exhibition Meeting at Testwood in December which, unfortunately, was also cancelled. Instead, Flora Group members were invited to submit comments/suggestions for discussions at the Autumn committee meeting. This year, we hope to be able to hold the AGM during the field meeting which is planned for Saturday 5 June 2021 in the Itchen Valley. However, if this has to be cancelled, or if numbers have to be limited, we intend to hold the AGM remotely via Zoom.

The Committee has planned an interesting programme of field meetings for 2021 including a couple of events focusing on coastal plants, a visit to Hampshire & Isle of Wight Wildlife Trust's relatively new nature reserve at St Clair's Meadow near Soberton, a botanical survey of an arable reversion site at Barton Meadows nature reserve near Winchester, a botanical walk in the New Forest and a survey of Edenbrook Country Park. Obviously, these events will be dependent on relevant Government guidance and advice from the Trust regarding the Covid-19 pandemic.

In the meantime, Martin Rand has kindly offered to continue his occasional 'open chat sessions' via Zoom (a video-conferencing facility) for Flora Group members to keep in touch. Further details are given on page 3.

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

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

To help us provide a stimulating programme of future events, the Committee would be very grateful if you could spend a few minutes completing a short survey. Further details and a link to the survey can be found on page 3 of this newsletter and for people who receive a hard copy of Flora News, a paper copy of the questionnaire is enclosed.

We would like to encourage more people to provide contributions to Flora News on any 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 (with photographs if possible) 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, January 2020

Cover photo: Yarrow Broomrape Phelipanche purpurea, A31 Alton bypass, 15 June 2020. Fred Rumsey See VC12 Records, p. 37.

Member Survey

What sort of botanist are you?

ampshire Flora Group's Committee is keen to hear about you and your botanical interests. It doesn't matter if you've been involved for years or are reading *Flora News* for the first time, are an expert botanist or barely know a Daisy from a Dandelion. Whoever you are, we want to provide activities and articles that spark enthusiasm, generate conversation and help us all learn more about plants.

And if expertise and interest in Hampshire botany is to thrive in the future, we need to be sure that what we do inspires new members of all ages, experience and backgrounds.

Please help us get this right by clicking the link below to complete a short survey. You may want to tell us what you think of articles in Flora News, the field meetings we arrange or the topics we cover in training events. Would you like more on identifying difficult groups? More - or less - for beginners? More articles on research topics? Maybe you yearn for field meetings in particular habitats? And if you haven't yet been - or have stopped coming - to meetings we'd love to know why that is and if there's anything we can do to make it easier or more attractive for you to join in.

The survey should only take 5 minutes and is anonymous. The more people who complete it, the better informed we will be. So please help us to help you by clicking here: www.surveymonkey.co.uk/r/NFDYHMZ

If you receive your Flora News as a paper copy in the post, a hard copy of the guestionnaire is enclosed with this edition; also enclosed is a stamped-addressed-envelope for you to return your completed questionnaire. Many thanks for your co-operation.

Cathy Wilson, Flora Group Committee member

Keeping in Touch

Flora Group Open Chat Sessions

/hile we are unable to hold formal indoor and outdoor meetings of the Flora Group, I am happy to continue f V to arrange occasional Zoom meetings to help people keep in touch on a face to face basis. I host the meetings for a couple of hours in an evening (7pm–9pm), 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.

Contact: Martin Rand (details on back page).

Forthcoming Online Events

Saturday 20 February 2021, 10.30am-12.30pm, 1.30pm-3pm **Online Conifers Workshop Leader: Martin Rand**

This workshop will look at the distinctive features of conifers in general and 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. It will include video presentations of live material, and you will be encouraged to collect a variety

of material beforehand to examine at home. There will be a fee of £5 for participants, numbers will be limited to 10 people and advance registration with Martin is essential (see back page for Martin's contact details). You will be sent a link to the workshop once you have successfully registered, near the time.

Saturday 17 April 2021, 10.30am-12.30pm, 2pm-4pm Online Workshop: Learning Plant Families, Part 2 **Leader: Martin Rand**

This workshop continues from the one held on 18 July 2020 to replace the cancelled field meeting on the same theme; it is the second of a series of four. It examines plant families looking at where they fit into the pattern of plant evolution and what this means when trying to place them into broader groupings as a first stage in identification, then covers broad family traits and exceptions.

After a general introduction to terms and concepts, the first session looked at the Buttercup family as an example of the 'Basal Eudicots', then a number of families in the Rosid group, which includes most of the Dicots with petals not joined at the base: the Pea family (Fabaceae), the Rose family (Rosaceae) and the Cabbage family (Brassicaceae). This session will look at the Monocots, including the radical recent changes that have split the old Lily family not just into several separate families but even across Orders with a divergent evolutionary history. It will also consider the Pink family (Caryophyllaceae), a part of the loose grouping of Dicots that diverged from the pathway towards the Asterids.

Contact: Martin Rand. There is a fee of £7 per session for participants; numbers will be limited, and advance registration with Martin Rand is essential (see back page for Martin's contact details). You will be sent a link to the workshop once you have successfully registered, near the time. You will be invited to collect some material to examine at home, and tips on what to collect will be provided. It will obviously be an advantage if you attended the first session, but you are welcome in any case. There are notes for the early session modules on the Hants Plants website (hantsplants.uk/workshopnotes.php, then look under 'General techniques and tools').

Saturday 24 July 2021, 10.30am-12.30pm, 2pm-4pm Online Workshop: Learning Plant Families, Part 3 **Leader: Martin Rand**

This workshop is the third of a series of four. It examines plant families looking at where they fit into the pattern of plant evolution and what this means when trying to place them into broader groupings as a first stage in identification, then covers broad family traits and exceptions.

The session will look at families in the Asterids, a very diverse group most of whose members have flowers with a corolla fused at the base, but includes the Carrot family (Apiaceae) which notably does not. The Daisy family (Asteraceae) will be covered in the fourth session.

Contact: Martin Rand. There is a fee of £7 per session for participants; numbers will be limited, and advance registration (via Martin Rand) is essential (see back page for Martin's contact details). You will be sent a link to the workshop once you have successfully registered, near the time. You will be invited to collect some material to examine at home, and tips on what to collect will be provided. It will obviously be an advantage if you attended the earlier sessions, but you are welcome in any case. There are notes for the earlier session modules on the Hants Plants website (hantsplants.uk/workshopnotes.php, then look under 'General techniques and tools').

Saturday 4 September 2021, 10.30am-12.30pm, 2pm-4pm Online Workshop: Learning Plant Families, Part 4 Leader: Martin Rand

This workshop is the fourth of a series of four. It examines plant families looking at where they fit into the pattern of plant evolution and what this means when trying to place them into broader groupings as a first stage in identification, then covers broad family traits and exceptions.

The session will look at the large type family of the Asterids, the Daisy Family (Asteraceae). It will also cover two of the other 'core Eudicot' families that diverged from the Asterid lineage either before or within the Asterid timespan – the Knotweed family (Polygonaceae) and the Goosefoot family (Amaranthaceae).

Contact: Martin Rand. There is a fee of £7 per session for participants; numbers will be limited, and advance registration (via Martin Rand) is essential (see back page for Martin's contact details). You will be sent a link to the workshop once you have successfully registered, near the time. You will be invited to collect some material to examine at home, and tips on what to collect will be provided. It will obviously be an advantage if you attended the earlier sessions, but you are welcome in any case. There are notes for the earlier session modules on the Hants Plants website (hantsplants.uk/workshopnotes.php, then look under 'General techniques and tools').

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.

Saturday 8 May 2021, 10am-4pm Coastal plants, exotics and aliens, Boscombe, Bournemouth **Leaders: Martin Rand and Phil Collier**

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.

The built-up coastline of the Bournemouth cliffs has an extraordinary mix of native coastal plants and many nonnatives. This is a chance to brush up your ID skills, perhaps see something new, and enjoy a day by the sea!

Level: Suitable for all levels of experience.

Meet at: the head of Boscombe Pier, SZ 111 911 (BH5 1BN). There are take-aways and cafés in the meeting area, otherwise bring a packed lunch.

Public transport: Bournemouth Station is 2km away on foot. Yellow Buses and Morebus run multiple frequent services to Boscombe Crescent, from where there is a 700m walk to Boscombe Pier via St John's Road and Sea Road. The bus route from Bournemouth Station entails either a change of bus or a similar distance on foot at the other end.

Parking: Undercliff Drive, adjacent to Boscombe Pier (BH5 1BL) but parking is strung out over a long stretch of coastal road. Overstrand car park off Sea Road, just above Boscombe Pier (BH5 1BN). If these are full, alternative parking at East Overcliff (BH1 3HR), then walk E (path and steps) 400m to Boscombe Pier. Current charges: £6 for up to 6 hours, £9 for over 6 hours; cash or phone (no credit cards).

Car share: via WhatsApp group (text Rob Still on 07702 737456 to join the group).

Contact: Martin Rand (details on back page).

Saturday 5 June 2021, 10.30am-4pm **Visit to Itchen Stoke Mill 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.

This meeting was originally scheduled for June 2020 but had to be cancelled due to the Covid-19 pandemic. The landowner, Roger Harrison, has invited us to survey the plants growing in water meadows near the mill. First Roger will show us the mill itself and talk about management of the water meadows. The Hampshire Conservation Volunteers have been helping to manage the site with annual visits for the last 39 years. One of their annual tasks is to open sluices to flood part of a meadow each year, so in the time-honoured traditional way.

We will make a complete list of all plants seen, hopefully also with abundance on the DAFOR scale. Depending on the Covid-19 situation we hope to include our brief AGM after our lunch and before continuing the survey.

Meet and park in the grassy field immediately south of the mill house at SU 5637 3177, Lat./Long. 51.0825 –1.1966. This is accessed through a gate off the gravelled area. There is a ford just north of the mill house so if there has been a lot of rain it may be best to travel via Ovington. Bring a packed lunch and suitable footwear for very wet ground.

Contact: Tony Mundell. If you are interested in attending this event, you will need to check beforehand to make sure that the event will be taking place. Please contact Tony Mundell (details on back page) or refer to the Hants Plants website at *hantsplants.uk*.

Please note that if we are unable to hold this event, or if numbers have to be limited, Martin Rand has kindly offered to set up a 'Zoom' meeting so that the AGM can be held remotely. For details about this, please keep an eye on the Hants Plants website and contact Martin (whose contact details are given on the back page).

Wednesday 23 June 2021, early evening Survey of St Clair's Meadow, Soberton Leaders: Martin Rand and Clive Chatters

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 Clive and provide contact details in case of late cancellation.

St Clair's Meadow is a recently acquired nature reserve in the Meon Valley which was bought by the Wildlife Trust through the generosity of the local community. We had planned to visit this site during 2018 but we had to cancel the visit as the vegetation was impenetrably tall and tussocky due to the absence of livestock. We also had to cancel the visit planned for 2020 due to the Covid-19 situation. This year we will (hopefully!) be able to look at the site as the gates and fences have been repaired and the cattle have returned. The meadows are unlikely to be particularly species-rich in herbaceous plants as they have had a chequered agricultural history; by way of contrast the chalk river is superb.

Contact: Clive Chatters via email at *Clive.Chatters@hiwwt.org.uk*. Arrangements for parking and access are tricky and booking is essential. Please contact Clive Chatters between 1 and 14 June to book your place.

Saturday 3 July 2021, 10.30am–5.30pm More native, exotic and alien plants by the seaside, Southsea, Portsmouth Leaders: Martin Rand and Bob Wardell

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.

This is a chance to look at weeds and aliens later in the year along another largely built-up stretch of coast. For those who wish, there will then be time to continue to the beach at Eastney where there is a good flora of vegetated shingle and sand, including *Silene nutans* (Nottingham Catchfly) and the spiny coastal form of *Ononis repens* (Common Restharrow), also several good coastal grasses.

Level: Suitable for all levels of experience.

Meet at: Lumps Fort, Southsea, at the eastern end of the car park, SZ 657 982 (PO4 9RU).

Public transport: Fratton Station is 2km on foot. Portsmouth and Southsea Station is 3km on foot. First Bus route 16 runs to the meeting place: alight at the Canoe Lake stop and walk E 300m along The Esplanade. From either of the stations, take the First Bus route 15 to Bransbury Park, Eastney, then change onto route 16 westbound.

Parking: at the meeting place. Currently the parking charge is £6 for the day and machines accept cash only.

Car share: via WhatsApp group (text Rob Still on 07702 737456 to join the group).

Contact: Martin Rand (details on back page).

Saturday 10 July 2021, 10.30am-4pm **Visit to Abbotts Barton Meadows 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.

This is another meeting originally scheduled for 2020 that had to be cancelled due to Covid-19. Abbotts Barton Meadows HIWWT nature reserve is an arable reversion site where grazing has recently been introduced and wildflower reseeding was undertaken in 2017. The Hampshire Flora Group has been requested to survey the plants in order to provide a baseline for monitoring future changes in species composition.

We will list all plants seen with their abundance on the DAFOR scale. There are two fields so we will survey them separately.

Park somewhere in Courtenay Road, Abbotts Barton, c. SU 482 311, Postcode SO23 7ER, and walk to meet at the north end of that road at SU 4825 3132, Lat./Long. 51.0791 –1.3126. Bring a packed lunch and suitable footwear for rough ground.

Contact: Tony Mundell. If you are interested in attending this event, you will need to check beforehand to make sure that the event will be taking place. Please contact Tony Mundell (details on back page) or refer to the Hants Plants website at hantsplants.uk

Saturday 17 July 2021, 10am-2pm A walk over Wilverley Plain, New Forest **Leader Clive Chatters**

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 Clive and provide contact details in case of late cancellation.

We will be taking a circular walk of c. 5km + across Wilverley Plain to Markway and back again. The purpose of the walk is to look at the Plain where it was 'dug for victory' in the 1940s and early 1950s; we will then move on to look at the recently cleared pine plantations of Markway. The recovery of natural vegetation on both sites is most impressive with a range of communities naturally re-establishing themselves after periods of intense disturbance. The former arable land is renowned for its populations of Lesser Butterfly-orchids, Soft-leaved Sedge Carex montana, a good range of Eyebright species/hybrids along with plentiful Field Gentians and Autumn Lady's-tresses. The restored land at Markway has not been thoroughly explored but as it contains some excellent dry heaths, broken ground, mires and open water there is considerable potential. What we will see in flower on the day will be determined on how summer progresses; flowering times are difficult to predict, so nothing is certain. An objective of the day is to draw up a species list of the restored habitats at Markway which we hope will encourage Forestry England to do more of the same.

Meet at: 10am on the plain by the main Wilverley Car Park at SU 254 010.

Contact: Clive Chatters via email at Clive.Chatters@hiwwt.org.uk

Saturday 7 August 2021, 10.30am-4pm **Visit to Edenbrook Country Park 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.

Edenbrook Country Park is a large area of ponds and wet meadows adjacent to a new housing estate and the Fleet Leisure Centre. As part of the development, in recent years the ponds and other features were resculptured using bulldozers or mechanical diggers and numerous new paths were made for public access. The vegetation is now stabilising and Hart District Council's Countryside Service now manage it with wildlife conservation in mind. Most of the park is within monad SU7854, but it also extends into SU7954 including a small Site of Importance for Nature Conservation (SINC) with a different flora. We will list everything we find separately in the two monads. I am not expecting any great rarities and this meeting will be particularly suitable for relative beginners.

Meet at: 10.30am in the small car park at SU 7906 5412, Lat./Long. 51.2808 -0.8677. This is accessed from a roundabout in Hitches Lane at SU 7936 5401, then drive past the entrance to the Leisure Centre on your left, and after that follow the road around to the left. Note that as the park is relatively new, it is not yet shown on maps, unless you access 'Satellite View'. (We cannot use the main Leisure Centre car park as parking there is limited to 3 hours).

Contact: Tony Mundell. If you are interested in attending this event, you will need to check beforehand to make sure that the event will be taking place. Please contact Tony Mundell (details on back page) or refer to the Hants Plants website at hantsplants.uk

Reports of Recent Events

Zoom Workshop on Flowering Plant Families - Saturday 18 July 2020 A report by Martin Rand

'his workshop day was not at all what was originally planned by the leaders, nor expected by the participants! Instead of a nice day out on chalk downland on 27 June, we all found ourselves glued to our computer screens in what was for some their first experience of the cultural trend we've had to learn to love – the Zoom conference.

It clearly wasn't going to be the same sort of meeting at all, so I took the opportunity to broaden its scope and give it more of a formal framework, with some detailed notes for the participants to read in preparation and some more for use on and after the day. The workshop itself was organised into two 2½ hour sessions with a long lunch break, to give the leader a chance to recover his voice and the others to get their (mental) breath back. As well as the printed material, I set my office up with microscopes and a digital camera linked to the conference screen so that we could share in a live demonstration of plant features in detail. Everyone had also been encouraged to collect some specimens of the plant families we were covering during the day so that they could make comparisons at home. By limiting the numbers, it was possible to keep chat going throughout the session without disrupting the natural flow. This format seems to have worked very well, and it will be continued in further sessions during 2021. Everyone seemed to find the day enjoyable and stimulating, and we tried to pace it and limit its length to avoid 'Zoom burn-out'.

The review of salient features of the plant families covered was set in an evolutionary context that explained flowering plant ancestry and relationships on a broad scale and dealt with some of the changes that have been visited on us in recent decades as a result of various disciplines, but above all by molecular studies. Each family treated (Ranunculaceae from the Basal Eudicots; Fabaceae, Rosaceae, Brassicaceae from the Rosids) was then examined in terms of its most characteristic traits and its (often many) special cases: for instance, the Buttercup family's two common but contrasting modes of fruit formation, and the great variety in fruit types and number of floral parts in different genera of the Rose family.

Follow-on sessions are planned for 2021 and are listed in the 'Forthcoming Events' section of this edition: they will cover chosen families from the Monocots, the Asterids, and the 'ones that aren't Asterids but no-one's quite sure how to pigeonhole them', aka 'Other Core Eudicots'. If you want to sign up for these sessions it will obviously be an advantage to have attended the first one, but not obligatory: you can find two sets of reading notes on the new Hants Plants website (hantsplants.uk) under 'Documents/Workshop notes and ID papers/ General techniques and tools'. They will help to get you up to speed and save you from wondering what on earth a Rosid or Asterid is. They include many suggestions for further reading and reference.

Notes and Features

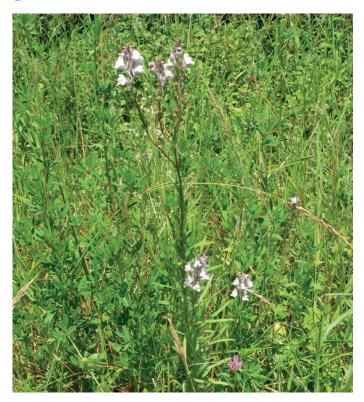
Possible first British record of Linaria vulgaris * L. purpurea at Portsdown Hill, Hampshire (VC11)

An article by John Norton

uring sunny, warm weather on 24 June last year Debbie Allan was helping me carry out a vegetation survey on Portsdown Hill SSSI for Portsmouth City Council when we came across a single plant of an unusual pale-flowered Linaria (toadflax). It was located 500m west of Fort Widley in a narrow strip of rough calcareous grassland within an area of scrub (grid reference SU 6496 0653). It resembled *Linaria repens* (Pale Toadflax), but we knew it was wrong for that, as we see that species frequently in our home town of Gosport. Since the only two species of toadflax which occur on Portsdown Hill are Purple Toadflax L. purpurea and Common Toadflax L. vulgaris, we immediately had a suspicion that it could be the hybrid between them. However, although there was some purple veining on the flowers, there was only a faint hint of the yellow colouration of L. vulgaris, so we were not too convinced. We therefore took some photographs and continued with the survey.

On checking the photos at home it was clear that we were correct to rule out *Linaria repens* as the identity of the plant and almost certainly as one of the parents. The upper 'petal' (the upper two-lobed portion of the corolla) in that species has stronglymarked purple veins which are parallel for most of their length, whereas in the presumed hybrid these veins were less sharply defined, not straight and somewhat branching at the tip, with one or two cross-veins lower down. Although we didn't have any good close-up photographs of L. purpurea of our own for reference, a check of those available online indicated that this veining pattern fitted well with L. purpurea, helping to confirm that this was likely to have been one of the parents.

Another feature helping to rule out L. repens as a parent was the very long, slightly curved spur, which is very obvious in the photographs (on the next page) due to the fairly 'loose' arrangement of the flowers. The shape and orientation of the spur in Linaria is quite difficult to assess from photos and does vary from flower to flower, but the spur of the presumed hybrid most closely resembled





The hybrid Linaria on Portsdown Hill. Top: in situ; bottom: close-up of the inflorescence showing the pattern of purple veins on the corolla. Debbie Allan

L. vulgaris in being relatively long and gently curved. The spur of L. purpurea is also similar, but possibly a little more strongly curved. L. repens, however, has a much shorter, more strongly curved spur which is not always visible within the inflorescence (see photo).





Hybrid Linaria, showing the long, gently curved spur. Debbie Allan





Left: Pale Toadflax Lingrig repens, showing the well-marked veins on the upper corolla lobes and short, strongly-curved spur (Gosport, 15 August 2017); right: Common Toadflax L. vulgaris with long spurs similar to the presumed hybrid (Portsdown Hill, 25 August 2017). John Norton

Thinking, therefore, that the identification was a foregone conclusion, we consulted the Hybrid Flora of the British Isles (Stace et al. 2015, p. 243) to check on the current status of the hybrid. We were surprised to find that it had never been fully confirmed. The account mentions that it was reported as 'very scarce' along a railway at Alnwick, North Northumberland (VC 68) in a local Flora published in 1980, but the record was not included in the later Northumberland Flora or Supplement. In the account Stace went on to say 'However, since L. repens was unknown in the area, and L. purpurea does occur there, it was perhaps correctly identified, although it might merely have been one of the paler coloured variants of L. purpurea.' This sounds plausible, but knowing that L. repens has a strong association with railways, there is a possibility that this might have actually been the identity of the plants reported from Alnwick.

I returned to the site on 28 June and took a small side-shoot of the inflorescence as a specimen for closer examination. Also on this date I managed to find a plant of L. vulgaris freshly in flower. Presumably, one of the main reasons why L. purpurea and L. vulgaris do not commonly hybridise could be because of their different flowering times. L. purpurea is generally an early to mid summer flowering species (i.e. May to June), though it can be seen in flower all year round. L. vulgaris typically starts to flower in late summer from July onwards. Therefore, it was interesting to see L. vulgaris in flower on a relatively early date, when L. purpurea was also still in flower. The photograph opposite shows the specimen of the presumed hybrid (which had been kept in the fridge for a week) compared with a specimen of L. purpurea with a few flowers still present collected even later on 6 July. The difference in the density of the flowers on the inflorescence is also apparent.

As described in Stace's New Flora (Stace 2019), there are two characters of L. vulgaris which are not present in the other two species. The first is the presence of glandular hairs in the inflorescence. When we looked at Debbie's photographs some glandular hairs could clearly be seen, especially on the pedicels. This is probably good enough evidence to confirm L. vulgaris as one of the parents. On a later date I checked some flowering plants of *L. vulgaris*, and found that the glands on that species vary from relatively sparse, as in the presumed hybrid, to locally dense, but are identical in length and appearance to our presumed hybrid.

The other *L. vulgaris* character is the presence of discoid wings around the seeds. The fruits of the specimen obtained on 28 June had not ripened, so in order to look at the seeds in more detail I returned to the location on 7 July to collect further material. The plant was already starting to die back and had relatively few well-formed fruits, so I decided to take the main flowering stem for a herbarium specimen. I managed to obtain a few seeds, which I photographed, and these did seem to have a partial wing. Eventually, Debbie and I also managed to find ripe seeds of L. purpurea and L. vulgaris with which to compare (see photos on next page). The seeds of L. purpurea are three-sided, with the faces wrinkled and the edges defined by a ridge. In the seeds of the presumed hybrid there is certainly the suggestion of a short wing instead of a ridge and in the seeds of L. vulgaris the wing is much more pronounced. It therefore appears that the seeds of the presumed hybrid are intermediate between those of the two likely parents. Incidentally, it was quite difficult to find ripe seeds of the Linaria plants. Many fruits examined, including those of the presumed hybrid and the majority of those on L. vulgaris plants had holes chewed through by insects and the seeds had turned mouldy or had not fully developed. In one photograph of *L. vulgaris* a weevil is visible,



Specimen collected on 28 June (left), with a flowering branch of Linaria purpurea. John Norton



Closer view of the specimen showing yellow and purple coloured young flowers and presence of glands on the pedicels. John Norton

and this may be the culprit (or one of them!). Many fruits of the hybrid had been damaged in this way, although some of the fruits did seem to have been aborted, as would be expected for a hybrid.

Returning to the general appearance and colouration of the flowers of the plant, it can be seen from the photographs that the petal colour is a washed out pink or pale purple, with a faint hint of yellow. If indeed it is a hybrid between L. purpurea and L. vulgaris, it almost seems as if the purple and yellow pigments have cancelled each other out. However, the photograph of the young, unopened flowers at the apex of the specimen, show quite a strongly purple-coloured spur, purple veins and a distinct yellow base colour (this looked more greenish in the plants photographed in situ). Also note the glandular hairs visible in this photograph. The photographs of the plant in situ also show that the boss is coloured orange, which must derive from L. vulgaris (the boss in L. purpurea is wholly purple), but the hairs on the boss are lilac or purple, similar to those on L. purpurea.

There is still a strong possibility that the plant is the hybrid between L. vulgaris and L. repens (L. × sepium). This has been reported quite widely in the UK, especially in England and Wales, and according to the Hybrid Flora has been much studied by botanists in the past, including Druce. The account notes that 'Hybrids are intermediate in all respects and often completely span the spectrum between the two parental extremes'. The seeds are also intermediate between the two parents, having a narrow wing, similar to that of the Portsdown plant. There are a few photographs of this hybrid on the internet, which do quite strongly resemble the Portsdown plant, though mostly with a shorter spur, as should be the case. However, some also show a similar veining pattern on the upper petal to our plant.

More detailed study of our specimen and the photographs is still needed. There are also







Top to bottom: seeds of Linaria purpurea, the Portsdown plant and L. vulgaris. John Norton

differences in the relative shape of the lower corolla lobes in the various species which I haven't discussed in this article and the veining patterns need a closer look. I will happily pass on the specimen to anyone willing to examine it (there is currently no BSBI referee for Linaria). It would be useful to compare against specimens of L. × sepium. Further literature study is also needed because it seems odd that several reputable botanists have studied the hybrid between L. vulgaris and L. repens but there is nothing documented for L. vulgaris × L. purpurea. Presumably, therefore, no-one has been successful in crossing these two species in the past.

References

Stace, C.A. (2019). New Flora of the British Isles (4th edn). C & M Floristics, Middlewood Green, Suffolk. Stace, C.A., Preston, D.C. & Pearman, D.A. (2015). Hybrid Flora of the British Isles. Botanical Society of Britain and Ireland, Bristol.

'Hello Old Friend': the reappearance of Mudwort Limosella aquatica in the New Forest

A note by Clive Chatters

t an elevation of 128m, Bramshaw Telegraph is more or less at the highest point of the New Forest. It was here, during the Napoleonic wars, that the Royal Navy operated a semaphore station to connect the naval base at Plymouth with the Admiralty in London. On a clear day, it took 20 minutes for a relay of hilltop stations to flash a message across southern England.

There is a small seasonal pond by the roadside at the Telegraph, which is little more than a puddle, even in the wettest season. The heath on this part of the ridge is closely grazed as livestock congregate there to escape the unwanted attentions of biting flies. The concentration of ponies and cattle is not as intense as around the gateways where commoners turn out their animals; it has been many years since there were commoners' holdings amongst the now palatial 'cottages' of the Telegraph.



Mudwort habitat at Bramshaw Telegraph, October 2020. Clive Chatters (inset: Martin Rand)

The Telegraph pond is a fine example of an ephemeral pool. Each of the Forest's ponds has its own character; at the Telegraph there are sufficient nutrients to support Chamomile Chamaemelum nobile, a terrestrial plant that will tolerate periodic inundation, but not so much as to exclude Shoreweed Littorella uniflora, an aquatic that survives prolonged periods of drought.

In most years there is sufficient bare ground to support the germination of annual plants. In the summer of 1991 Paul Bowman found a population of Mudwort Limosella aquatica in the pond which persisted for the rest of that decade but seemed to vanish as mysteriously as it first appeared; the last record from the site was made by Naomi Ewald who found two plants in the autumn of 2000.

The lifecycle of Mudwort is of a summer germinating annual that races through its lifecycle between periods of inundation. Mudwort blooms are open to insects and the wind in the terrestrial phase of the plant's life. In 1847 Joseph Hooker described Mudwort growing in the sub-Antarctic Kerguelen Islands where it developed fully formed flowers under two feet of water and a layer of ice, the pollen being transferred within an air bubble trapped by the unopened petals. Hooker's Mudwort was probably the closely related Limosella australis but his account raises the question as to whether our Mudwort is also cleistogamous.

Mudwort is a small, unremarkable member of the suite of 'muddy' species that were once widespread throughout the commons and village greens of lowland England. In the early twentieth century this group of wild flowers experienced a catastrophic decline, and so a suite of plant communities that were once widespread are now distinctly rare (Chatters 1996). The New Atlas (Preston et al. 2002) neatly illustrates the abundance of Mudwort throughout the commons of the Wealden and Thames Basin Heaths in the early twentieth century. By the 1970s there were only sporadic records from these southern counties – the distribution then shrank further so that post-2000 records are confined to a pond in Bushy Park (Middlesex). Rather perversely, because the rate of decline slowed in the late twentieth century and has subsequently stabilised, the official conservation status of Mudwort in the English Red Data Book (Stroh et al. 2014) is of 'Least Concern'.

The New Atlas suggests that the New Forest and the adjacent Avon Valley are a stronghold for the species in England, yet even here botanical records are few and far between with the appearances of the species being irregular, even in well recorded sites, such as Breamore Marsh.

I have known the Bramshaw Telegraph pond since the late 1980s and regularly drop by to pay my respects to the Fairy Shrimps Chirocephalus diaphanus that thrive there, although it is over twenty years since I last saw them swimming above a bed of Chamomile, Littorella and Limosella. During autumn 2020, on the off chance, I called in to see the freshly re-wetted pond in mid-October, well after the usual Mudwort season. I was delighted to find 20 specimens, none in flower but all in vigorous growth. I returned a fortnight later and the population had grown threefold, probably by continued germination supplemented through plantlets forming on stolons.

Mudwort and Fairy shrimps have a good deal in common, they are ephemeral, erratic and inconspicuous. You can visit a site for decades and not see them, then, without any apparent reason, there they are. In a healthy habitat for the species you can only be confident in making one of two records 'I saw them' or 'I did not see them'; it would be a bold naturalist to declaim 'They are not there'.

References

Chatters, C. (1996). Conserving rare plants in muddy places. *British Wildlife* 7 (5) 281–286. Stroh, P.A. et al. (2014). A Vascular Plant Red List for England. BSBI, Bristol. Preston, C.D., Pearman, D.A. & Dines, T.D. (2002). New Atlas of the British & Irish flora. OUP, Oxford.

Small Fleabane: A Miscellany A note by Clive Chatters

t was over 35 years ago when I first took an interest in this scruffy little specialist of the greens and grazed lanes of the New Forest. Once widespread across the lowlands of England and the Welsh borders, the national distribution of the Small Fleabane Pulicaria vulgaris has contracted into the heartland of commoning and extensive pastural farming in the New Forest.

Years ago, under the auspices of the Nature Conservancy Council, I helped put on a display of a village green flora at the New Forest Show. At the time we were pressing for full legal protection for Pennyroyal Mentha pulegium and Small Fleabane – a campaign that resulted in their inclusion on Schedule 8 of the 1981 Wildlife and Countryside Act. Amongst our pots of obscure lovelies was Small Fleabane, and this is the source material of what still grows in my garden.

Seed viability in the soil

In the autumn of 2005, I gathered a handful of seeds (uncounted, but probably in their tens of thousands) from my garden population and mixed it up with John Innes No.3 in a 15-litre plant pot. Each spring I stir the pot and await germination. After the first few years you get familiar with the seedlings and so they can be admired and destroyed long before they flower and set seed of their own. During 2019 the usual scatter of seedlings was very weak and last year (2020) nothing appeared at all, despite my watering the pot through the drought of the early summer. If viable seeds were present, then they should have germinated. From these crude, unscientific, observations I deduced that the seed viability of Small Fleabane, when mixed into soil, is in the order of 15 years. I will persist with the bucket for another couple of years, just in case the plant can prove me wrong.

2020

The weather during the spring and summer of 2020 was not to the liking of Small Fleabane. The astonishingly wet winter was followed by prolonged droughts, with most populations failing to germinate until warm and wet

conditions reasserted themselves in September. This meant that usually strong populations were greatly reduced, such as at Cadnam Green where just a few hundred plants were confined to winter-wet hollows, and the normally highly productive Penn Common was reduced to tens of plants, many of which were miniscule and blooming in late October at less than 2cm height (see photo opposite). The longevity of the seed, and the continuation of commoning, mean that occasional fluctuations in local populations are not of conservation concern.

Of greater significance was the announcement in the autumn of 2020 of the death of a prominent commoner whose livestock were concentrated on Penn Common. A smallholding on the edge of the common supported a herd of 70+ cattle as well as a range of other livestock. The cattle wandered far



A tiny specimen of Small Fleabane Pulicaria vulgaris on **Penn Common, October 2020.** Clive Chatters

and wide; I've seen them as far afield as Longcross Pond, high on the heathland plateau above Bramshaw. The concentration of cattle by the gate of the smallholding supported populations measured in hundreds of thousands of plants, with numbers rising in good years to half a million. The fields of the smallholding were equally supportive of Small Fleabane but the population within the enclosed land was never counted. There is a disturbing tendency for commoners' holdings to be converted into prestigious residential developments and equestrian leisure plots. It will be interesting to see what happens to this holding and how the layers of statutory protection may be applied by the government bodies that are tasked with the conservation of the Forest.

Bisterne Warren

Bisterne Warren is an extraordinary habitat set deep within one of the private estates of the Avon Valley. Flora Group members had the pleasure of visiting in the spring of 2012 (in an unforgettable deluge) and again in the spring of the following year. I had the privilege of revisiting the site during autumn 2020 as part of an attempt to look at a range of mud annual sites around the Forest. There are a series of seasonal pools on the Warren which are rather reminiscent of dune slacks, not least as the topography of the site is of stabilised wind-blown sand. In the larger hollow, amongst the cattletrampled sward, I was delighted to find a population of Small Fleabane, about 160 plants, many of which were sufficiently well grown to have germinated in the previous autumn. The distribution of the plants suggested they marked the high tide line of winter wet; interestingly the pool was dusty-dry on the day I found the plants but a week later it was inundated to the level of the Fleabane. The sandy terraces of the Avon Valley have historically sustained Small Fleabane with an extant population centred on the drove to Tyrells Ford. It is encouraging to know there are still places in the valley that are farmed to such a degree of excellence that they support these important habitats and species.



Bisterne Warren, October 2020. Clive Chatters

Hunting for Local Orchids During the 2020 Lockdown An article by Peter Vaughan

confess to being a bit of an orchid enthusiast – not to the extent of chasing down every British orchid in a single summer, but enough to have managed to break my leg while photographing one on a Greek hillside (and I've met at least two other people who've also done that!). I was looking forward to the start of the UK season and had plans to visit sites around England, but the Covid-19 lockdown began in March, including a prohibition on travelling to distant locations. That prompted me to see how many orchid species I could find within walking distance of my home in Hook, at the edge of the Thames Basin in north-east Hampshire.

Within an hour on foot there is a range of high-quality habitats including several SSSIs (Sites of Special Scientific Interest) and SINCs (Sites of Importance for Nature Conservation) with the potential for finding a good number of different species. The centre of Hook lies on London Clay, with some ancient oak and ash woodland at the edge of the built-up area. To the south there is first, acid grassland/wet heathland lying on the alluvial gravels at Bartley Heath and Hook Common, followed by the mixed woodland of Butter Wood and then the fen and wet meadows at the edge of the Hampshire Chalk, including Greywell Moor and North Warnborough Greens. So, no dry calcareous grassland, but plenty of damp places!

The first orchid of the season to be found was the Early-purple Orchid Orchis mascula. I knew this occurred in at least three woodland locations around the village and on the first of April I saw the first flower spikes developing from the rosettes of spotted leaves. Locally this species seems happiest in damp areas, often near streams, and in some places grows at the edge, or even in the middle, of streamside muddy footpaths, seemingly thriving on a degree of disturbance. Its flower buds change from yellow to dark pink as they develop, reminding me of the old 'rhubarb and custard' sweets. By the time the first flowers were opening they were accompanied by a backdrop of tens of thousands of native Bluebells.

Five weeks on, in mid-May, I donned wellies to visit the wet meadows of North Warnborough, to find the flesh pink flowers of the Early Marshorchid Dactylorhiza incarnata var. incarnata. The prominent green bracts of the flower heads often make them look a bit untidy, at least to my eyes. Around this time I also began to search for White Helleborine Cephalanthera damasonium and Bird's-nest Orchids Neottia nidus-avis in drier stands of Beech in Butter Wood, armed with records



Early-purple Orchid Orchis mascula, Hook, April 2020. Peter Vaughan

of the latter species at the site from the late 1980s. I was unable to find either, but haven't given up hope that they may be hiding away somewhere in the area, especially the Bird's-nest, a somewhat pallid and sicklylooking orchid which doesn't particularly stand out within the shaded woodland situations in which it grows. A tall developing spike in Butter Wood not yet in flower had seemed a promising possible candidate for C. damasonium; however, with help from Tony Mundell this was determined instead to be a precocious Broadleaved Helleborine Epipactis helleborine. But in walking to, and around, Butter Wood I did find several new locations for Early-purple Orchids, and Common Spotted-orchid Dactylorhiza fuchsii leaf rosettes developing in several places.

The end of May and beginning of June brought the flowering of Twayblades Neottia ovata at Greywell (with flowers that look as if they are dribbling down their lip), Southern Marsh-orchids D. praetermissa in the wet meadows, Common Spotted-orchids at many locations surrounding Hook (and a new population that had appeared in my back lawn) and hundreds of Heath Spotted-orchids D. maculata on Bartley Heath. As well as having a slightly different lip shape from the Common Spotted, the Heath Spotted plants tend to be noticeably smaller on average, at least around Hook. There were also what looked like the hybrids between Common Spotted-orchid and Southern Marsh-orchid - D. × grandis at Greywell. Nearby was Greywell's population of Marsh Lousewort Pedicularis palustris. I find this semi-parasite a fascinating plant and haven't seen it growing anywhere else locally.

By now all the vigorous walking between sites had made me considerably fitter than I'd been in March! I'd also seen a wealth of other plants and animals in the process, in particular more wild mammals than I'd seen in any other year. These included a Stoat bounding along an Early-purple Orchid path, numerous Muntjac, and a Water Shrew swimming in a stream.

For most of the three decades I've lived around Hook I'd not seen any Pyramidal Orchids



Common Twayblade Neottia ovata, Greywell, May 2020. Peter Vaughan

Anacamptis pyramidalis within the village. There are a few in the chalky soil at Greywell, but in Hook itself the neutral clay and acidic heathland soils seemed to offer poor prospects of finding the species. So it was a welcome surprise when last year they appeared at a couple of new sites, including one on a suburban grass verge just two hundred metres from my front door. And in mid-June this year two more appeared at the side of a busy main road through the village. In each case I think they are benefiting from some lime in the soil introduced by the road/ pavement materials, which may also account for the surprise appearance of a Bee Orchid Ophrys apifera a few years ago at the edge of an old roadway through Bartley Heath.

The small Bee Orchid *var. belgarum* population at Greywell did not produce any plants this year – perhaps a victim of the drought although, as one wise old botanist once advised me 'Bee Orchids come and go'. I expect they will reappear in the future, although maybe not for a few years.

The end of June brought the first of Greywell's star species – the Marsh Helleborine Epipactis palustris. Hundreds of flower spikes appeared, often densely clustered, reflecting the rhizomatous multiplication of this plant. And greener, var. ochroleuca individuals grew alongside the purple-flushed normal form. Then, in mid-July, the site's Marsh Fragrant-orchids Gymnadenia densiflora flowered in good numbers at the site, living up to their name by giving off a sweet smell in the hot sunshine.

Towards the end of July Broad-leaved Helleborines began to flower. This was the easiest one for me to see as there is a small colony in my garden, where they definitely prefer the shade. The first of these plants appeared ten years ago, possibly via seed hitch-hiking on shoes after a visit to a local nature reserve. I also set out to see if I could find another *Epipactis*, the Violet Helleborine *E. purpurata*, in Butter Wood, following up on a 35-year old record by Andrew Branson. I'd not seen this species before and so it was with some excitement that I found a few specimens tucked away in a dark and (tick-infested!) area of woodland. One tall, many-stemmed plant promised a magnificent display but unfortunately was severely grazed by deer before the buds opened (I understand that is a frequent fate for Violet Helleborines). But other individuals were able to produce their green flowers with white lips that were flushed with a hint of pink. And one plant stood out with its striking, violet-edged leaves – for me the orchid highlight of the year.

So, by the end of the season, I'd seen eleven local orchid species within a couple of miles or so of my home. I am hoping that I may be able to add to that total in future years as, in addition to Bird's-nest Orchid, there are





Violet Helleborine *Epipactis purpurata* with violet-edged leaves and bracts, Butter Wood, July 2020. Peter Vaughan

tantalising old records of Green-flowered Helleborine E. phyllanthes and even a single Greater Butterfly-orchid Platanthera chlorantha nearby...

(Please note that part of Greywell Moor does not have public access and requires a permit to visit from Hampshire & Isle of Wight Wildlife Trust, who manage the site. Alternatively look out for the guided HIWWT walk which I hope to lead there next July, assuming the Covid situation has improved by then.)

Reporting New Pests and Diseases of Trees

A note for information by Sarah Ball

e as Flora Group members are more likely to be out and about in remote countryside than many others so we can also be eyes and ears to spot any conservation issues, including the health of trees and other plants. Climate change seems to be enabling new pests and diseases to establish more easily and a number are sweeping their way across our continent, some of which are potentially very damaging to trees and shrubs. To gather information from the general public on tree health in the UK there is a collaborative citizen science project called Observatree (www.observatree.org.uk); this provides useful guides and posters ('Have you seen this?') of some of the currently most threatening pests and diseases. If, on your wanderings, you see something untoward you can check your observations on the Observatree website; if anything needs reporting it directs you to TreeAlert, an online reporting tool managed by Forest Research to support monitoring, surveillance and research to protect the nations' trees. Listed for especial concern, in addition to Ash dieback, are examples such as: Acute Oak Decline; Sweet Chestnut blight; Oak and Pine processionary moths; London Plane wilt; Plane and Oak lace bugs, various conifer needle blights and quite a few more.

NB. Not in UK yet, but important to be aware of, is the bacterium Xylella fastidiosa, originally from the Americas but now spreading widely elsewhere via common spittle bugs and froghoppers. It has a wide host range that would include a number of iconic native UK broad-leaved species and also ornamental and crop species; symptoms mimic those of drought stress because the bacteria block up the xylem, the water transport system of plants.

Hants Plants: What's New?

A note by Martin Rand

hope that most of you who look at web-based resources have now found their way to the new Hants Plants website currently hosted at *hantsplants.uk*. At the time of writing (early December 2020), the answer to the title question is 'Not a lot' (at least, not since the last *Flora News* issue). However, as well as one or two undramatic enhancements to the menu bar, you will find some new content:

- A portal into the *Living Record* website for entering plant records has now been installed.
- Under 'Documents', you will now find a 'Videos' section that so far includes three videos by Dr Peter Vaughan on plants of Hampshire habitats. Further contributions are encouraged!
- Also under 'Documents', in the 'Workshop notes and ID papers' section, two documents on 'Developing ID skills' have been added. These were prepared for the Flora Group's first online Zoom participatory workshop in July. If you are thinking of joining any of the follow-on sessions in 2021 but didn't take part in that one, read these first and feel free to email me if you have any questions or comments. Additional modules will be added for the new workshops, and Module 1 will be enhanced.

By the time that you are reading this in early February 2021, I hope to have the following features in place (but no promises!):

- 'News', Calendar' and 'Marketplace' pages working.
- Contributor registration and sign-in completed, so that you can make your own contributions to these sections.
- 'Links' section added, providing a brief catalogue of societies and organisations involved in study or conservation of plants in the county. If you would like to see an organisation you are involved in listed, please supply me with details by email.

At this point all the features of the old Hants Plants that need to be continued will be covered, and that site will be closed down – to be resurrected soon afterwards as the 'real' new Hants Plants. Meanwhile *hantsplants*. uk will continue as a staging and user test site; new and experimental features will appear there first from that point on. If you're wondering why it's being done that way round, it's to do with capacity on the two domains and the resulting financial arrangements.

Of course, Hants Plants will continue to develop in its new guise, with more static content added and more facilities to support new recording projects. The Online Hampshire Flora Supplement will now be hosted here rather than on a separate site, and this will reduce running costs and simplify the 'registered contributor' system. Check the site out over the coming year!



RECORDING

Vice-county 11 (South Hampshire): Meet the Team A note by Martin Rand

n a couple of years, I shall have been the BSBI's (Botanical Society for Britain & Ireland) recorder for South Hampshire for 20 years (can this really be possible?). I shall also be 75, and though I look forward to many more years with the plants after that, I'm conscious that I'm not immortal. For some time I've wanted to share the load and plan for a succession, so I've been looking for someone to become joint recorder and eventually take over from me entirely. There are plenty of excellent candidates in Hampshire, but most of them are at least as old as me or have busy professional lives. Understandably, folks haven't wanted to make such a heavy commitment.

The alternative I've been pursuing recently is a little less ambitious. This is to gather around me a 'Vicecounty Recorder Support Team' who can share the present workload. This removes the onus of the quite formalised requirements that the BSBI now imposes on its officially named recorders. I would hope that one or more people will emerge who have the time and enthusiasm to take on the recorder role. Having a support framework already in place should make their lives easier.

This is working well so far (at least as far as I'm concerned). I now have four people signed up and they are getting engaged in the work; although we're still not completely up to speed on all aspects of workload and division of labour, this is purely down to me and my time constraints. So, meet the team!

Phil Collier is an Australian amateur botanist who is temporarily resident over here through family commitments. Sadly, we shall lose him back to Tasmania in the next couple of years; meanwhile, he has done a lot of good fieldwork, particularly in the south-west of the county, making some dramatic finds. He's taken on the lion's share of verifying records on the Indicia/iRecord database. If you record plants with iRecord, the iRecord app, or several other projects that contribute, expect to see feedback from him on anything exceptional. He is also now collaborating with me on the software I use to get electronic records from multiple sources into the BSBI databases. With a growing number of such sources, it's increasingly onerous to bring the data into a common format, avoid duplication, and not lose elements of it on the way. This should resolve itself at the national level eventually, but I'm not holding my breath. We are also automating more of the process to extract records for reporting; for example, Phil's name rightly appears first on the list of VC11 year records this time, as the unavoidable manual tasks of final selection, verification and editing of format has fallen largely on him, while I make his life difficult by changing the automated processes (not always for the better).

Ginnie Copsey will be well known to many of you as an enthusiastic member of the Flora Group and frequent meeting attendee with wide-ranging interests. Over many years we've botanised together for Atlas 2020 and other projects, and she has also done a great deal of single-handed recording in the centre of the county. She has taken on the scanning and digitising of significant bits of the huge paper archive I hold, and I look forward to giving her much more of this sort of thing when we get back to dealing with our fellow-humans normally.

Sophie Lancaster has her own ecological consultancy business which keeps her very busy for much of the time at present, but she is participating in recording and team field trips.

Bob Wardell has a foot in three countries (Germany, France and Britain) but despite this unusual anatomy, he is putting the extra time he now spends in Hampshire to bringing the records for Portsmouth and neighbouring south-east Hampshire up to a level of detail and coverage as good as any in the county. As a former County Ecologist (in Wales) he is taking a particular interest in the way in which records are used in the county for conservation and the rigour of the data holdings. He is now taking on much of the verification job for Living Record plant records in the vice-county, so if you are a Living Record user don't be surprised to hear from him now and again. This year has seen something of a lull in recording activity since there are no formal projects running, but I am hoping that Bob will be able to take the lead on organising project work in coming years.

If it becomes possible to hold field meetings in 2021, both Bob and Phil will be co-leaders in meetings on their respective parts of the coast.

I will also mention a couple of other people who, although not declared members of the team, continue to offer valuable support. Barry Goater has been preparing the index for Flora News for many years with astonishing accuracy and speed. He now has an understudy in the person of Lisa Malter who will take on the task if Barry is unable to continue. Lisa has already done some excellent editing work on the diaries of John Ounsted, a noted botanist who took up residence in Hampshire in the latter part of his life. Lisa, this is not forgotten, and it will see the light of day when I can give it some more time.

Despite having all these good people to help me, I would still like to enlist one more recruit to the team to provide technical backup on the new Hants Plants website. While I live and have remnants of a brain, this doesn't have to be very onerous, but you will need to be familiar with a typical stack of Web software technologies: HTML5/CSS3 + Bootstrap/JavaScript on the client side, PHP 7/MySQL on the server side; Git and GitHub for version control.

Recording Subspecies in Hampshire

An article by Martin Rand

ubspecies and varieties tend to be recorded very patchily in Hampshire, as elsewhere; often one sees Ithat recording of any given subspecies is down to one or a few recorders, and the distribution patterns therefore show 'recorder bias'. It's not hard to find reasons for this: the standard illustrated field guides have almost no ID coverage of plants below the species level ('infraspecific taxa'); and when consulting the larger, more technical Floras there are often differing opinions about how these taxa should be classified. Indeed, the whole concept of 'subspecies' can be brought into doubt by some plant species.

Nevertheless, some are distinctive and worth recording for several reasons. For me, the two most important questions are these: are the subspecies considered to have different distribution patterns and/or ecology? (this is really part of the classic definition of a subspecies); and are there widespread introduced subspecies which can confuse the distribution pattern of the natives (especially where the latter are of conservation importance)?

I should say right away that to record subspecies you will need a good technical Flora and the confidence to use it, and Stace (2019) is the obvious choice. This article will only deal with subspecies adequately described in Stace and will leave varieties and microspecies out of the picture. Sell & Murrell (1996–2018) has much greater coverage but few people will own copies, and its taxonomy is often unorthodox and sometimes problematic. For additional detail, the BSBI Handbook series is outstandingly useful, although coverage of plant groups is obviously limited. BSBI's Plant Crib (available online in their website at bsbi.org/plant-crib) is another very useful resource.

You need to be aware that subspecies brought together in the same environment can, and often will, hybridise. If the hybrids are fertile then a range of intermediates may form by back-crossing. If you're dubious about an ID it is better to record the species and put your thoughts in a comment.

The rest of this article makes a few suggestions for recording, but it is only a taster for a larger number which will be covered in due course on the Hants Plants website (where I will add illustrations over time). I've made my selection using the two criteria I mentioned above, and relevance to Hampshire.

Fumaria officinalis L. (Common Fumitory)

The species is one of our commonest Fumitories and occurs in a wide range of open and disturbed habitats, but it has a subspecies wirtgenii which is almost completely confined to arable land on calcareous soils. Stace suggests that this is predominantly found in eastern England, but there are many records on the Hampshire chalk. It has shorter, less prolific racemes and smaller sepals: in fact, some forms have such small sepals that they need to be measured carefully to avoid confusion with the much rarer F. vaillantii (Few-flowered Fumitory). The two subspecies often occur together.

- Racemes with more than 20 flowers; sepals 2–3.5mm x 1–1.5mm subsp. officinalis
- 1' Racemes with fewer than 20 flowers; sepals 1.5–2mm x 0.75–1mmsubsp. wirtgenii

Anthyllis vulneraria L. (Kidney Vetch)

As a native this is found in the county as subsp. vulneraria, where it typically occurs on rather open chalk grassland and on other light soils that are not too acid. However, it is worth looking out for two other subspecies that are not native and may come to confuse the distribution. Subsp. polyphylla has yet to be recorded in Hampshire but is noted from Dorset, Surrey and Berkshire. Subsp. carpatica is recorded from North Hampshire.

- 1 Calyx 2-4mm wide, lateral teeth more or less hidden by upper; upper leaves with 4-7 pairs of lateral leaflets of similar size to terminalsubsp. carpatica
- 1' Calyx 4–5mm wide, lateral teeth free from upper and exposed; upper leaves with large terminal leaflet and 1–4 pairs
- 2 Stems usually with appressed hairs throughout or spreading slightly at base; calyx usually with red tipsubsp. vulneraria

Vicia sativa L. (Common Vetch)

The subspecies of *V. sativa* are quite well known and better recorded in our county than those of many species. It is always worth taking them down to subspecies level when possible. The native subsp. nigra is a plant of sandy and gravelly open ground, open grassland and heathland, and the records for Hampshire reflect this well, with large stretches of the chalk where it is absent. The two non-native subspecies are rather harder to tell apart, and without good prior experience of both one really needs mature fruit to distinguish them. Records of subsp. sativa are rather thin on the ground in Hampshire, and the much greater number of records in Dorset and the Isle of Wight suggest that we may be under-recording it, although that may just indicate greater caution on our part. One should be aware of *V. sativa* populations with white to sulphurous-yellow flowers, which might be confused with other species. Personal experience suggests that these are usually subsp. segetalis, but the colour change can obviously make ID more difficult.

- Leaflets of upper leaves much narrower than those of lower leaves, changing suddenly up stem; flowers more or
- 1' Leaflets of upper leaves a little narrower than those of lower leaves, changing gradually up stem; flowers with
- 2 Ripe pods with outline a smooth line, usually hairless, brown to blacksubsp. segetalis







Left to right: Vicia sativa subsp. nigra, subsp. segetalis (Debbie Allan) **and subsp. sativa** (John Norton) **(all taken** in Gosport).

Poterium sanguisorba L. (Salad Burnet/Fodder Burnet)

Here is another pair of subspecies that exemplify how a non-native subspecies can confuse the native distribution of a native. Subsp. sanguisorba is well-recorded in the county chiefly on calcareous grassland, but also with a good scattering of records in places that have some lime in the soil: in the New Forest, for instance, it occurs not only on the drier limy Headon Beds sites but quite frequently on old World War 2 installations.

Subsp. balearicum, on the other hand, is much less recorded but its distribution is not in any way distinctive. It used to be grown as a fodder crop, but now many occurrences look like survivals of 'wild flower' sowings either around arable or on amenity sites and verges. And it does seem to survive very well.

As well as the key characters given below, subsp. *balearicum* tends to be a more robust, more leafy plant with coarser leaflet teeth.

- Fruiting hypanthium up to 4.5mm, with the angles bearing thickened but not prominent ridges, and faces with a fine network of ridges subsp. sanguisorba
- Fruiting hypanthium up to 5mm, with the angles bearing often wavy wings up to 2mm high, and faces smooth or

Rumex crispus (Curled Dock)

There are three native subspecies of this plant, and they have varying ecological preferences. The nearubiquitous subsp. crispus is a generalist of waste and cultivated ground, rough grassland and sometimes of open marshy habitats. Subsp. littoreus is a plant pre-eminently of shingle, although it can occur on dunes; also on the upper parts of saltmarshes on firmer sandy soil of a type we don't really see in Hampshire but occurs on much of Britain's western coasts. It grows on shingle over much of Hampshire's coast, and is generally well-recorded. The dense fruiting inflorescences with large achenes and conspicuous tubercles make it easy to spot from a distance. Subsp. crispus can often occur in the same shingle habitat.

The dark horse is subsp. uliginosus, a plant of tidal estuarine mud which Stace says is 'locally frequent... in S Br', but the only records from the English Channel coast are two from the Isle of Wight: one in 1932, and another from a different site in 1999. Most records come from southern Ireland, the Severn Estuary and the Irish Sea coast of Wales. From its distribution, I suspect it favours the more silty mud which is not typical of our estuaries. Nevertheless, I have looked for it in a desultory way over the years. I've not found it in south Hampshire yet, but I still hope that it might be here.

There is a good account of all three subspecies in Akeroyd (2014). It's also worth reading Stace's notes on two other doubtful alien subspecies: Stace (2019).

- Achene 1.3-2.5mm; tubercles usually <2.5mm, very unequal in size and often only 1 obvious; coastal and inlandsubsp. crispus
- 2 Stems usually <1m; leaves usually strongly crisped; inflorescence dense in fruit subsp. littoreus
- 2' Stems often >1m; leaves uncrisped or weakly crisped; inflorescence lax in fruit......subsp. uliginosus

Cornus sanguinea (Dogwood)

The native subspecies is subsp. sanguinea, which is widespread over much of those areas of the county that have a chalky or base-rich soil. However, the eastern European subsp. australis is now being planted on road verges, amenity plantings in all sorts of situations and restored farm hedges, so it is likely to confuse the distribution. It would be good if records of the species could always be taken to subspecies, which is not difficult provided they are in leaf. Don't be surprised to find the two planted together, or indeed in company with other species, particularly C. alba. I also think that the native plants go more intensely purple in autumn and do it earlier, but this doesn't work in shaded situations.

- Hairs on leaf under-surface mostly 2-armed but often of unequal lengths and with one or both directed away from leaf surfacesubsp. sanguinea
- 1' Hairs on leaf under-surface all 2-armed, of equal length and both appressed to leaf surface like a deployed old-

).....subsp. australis

Galium palustre (Common Marsh-bedstraw)

There are two native subspecies of this Bedstraw recognised by Stace (they are often treated as distinct species on the Continent). Their distribution patterns in Britain seem bizarre and are obviously subject to recorder bias. depending on whether there is systematic recording to subspecies in a region. Where there is, it is possible to see that subsp. palustre tends to favour marshes that are less base-rich (or peaty places in the base-rich areas), and this is borne out in Hampshire too.

A subsp. elongatum distribution pattern is much harder to fathom; Stace (2019) says this is the commoner subspecies, but I think that may be a clerical error. He also makes no comment on ecological difference. My own observation suggests that while there is a scattering of records from many parts of the county, hotspots tend to be found in the floodplains of the larger watercourses, mostly in more base-rich and sometimes more eutrophic water regimes than subsp. palustre; this is particularly noticeable in the Hampshire Avon catchment, and much more sketchily in the Lymington River, Test, Itchen, Hamble and Meon. Elsewhere in England there are concentrations in areas such as the Somerset Levels, Romney Marsh, and in Sussex the Arun and Adur valleys and the Pevensey Levels. Having subsp. elongatum much better documented in Hampshire should lead to greater clarity on this.

Besides the technical details given below, subsp. elongatum is a more robust plant than subsp. palustre and can often be picked out by naked eye.

- 1 Plant often <50cm long (rarely to 60cm); most leaves <20mm long; inflorescence tending to cylindrical, most individual flower stalks <4mm long at flowering; wide-open corolla (1.5)2–3(3.5)mm across lobes; most ripe achenes ≤1.6mm
- 1' Plant 40–120cm long; most leaves >20mm long; inflorescence tending to pyramidal, most individual flower stalks >4mm long at flowering; wide-open corolla (2.5)3-4(4.5)mm across lobes; most ripe achenes 1.5-1.9mm long, smooth or wrinkled......subsp. elongatum





Galium palustre subsp. elongatum, Carter's Copse (an ancient alder carr), Gosport, 7 June 2020. John Norton

Melampyrum pratense (Common Cow-wheat)

There are two subspecies; subsp. pratense occurs in woodland and heathland on acid soils and is common across much of Britain where conditions are suitable. In Hampshire it is widespread in the south and much of the north-east and east. Subsp. commutatum appears to be a rare plant of southern Britain on calcareous soils, with concentrations on the North Downs, in Hampshire and in the southern Welsh borders.

The Hampshire records for subsp. commutatum are not very recent and they are confined to three small areas, but there is a spread of records at the species level, extending well into the chalky heartlands, that deserve further investigation.

- Uppermost leaves (ignore bracts!) mostly 2–10mm broad, with length/breadth ratio 7–15subsp. pratense
- 1' Uppermost leaves mostly 8–20mm broad, with length/breadth ratio 3–8subsp. commutatum

Picris hieracioides (Hawkweed Oxtongue)

Four subspecies are described by Stace, based on Peter Sell's account in Flora Europaea (Sell (1976): one of these is only recorded here in Jersey, and two of them may merely deserve the status of variety, as recent molecular and numerical taxonomy study (Slovak et al. [2012]) doesn't show a good correlation between genetics and morphology.

I shall use the approach delineated in the Slovak paper and adopted by the recent French national flora (Tison & de Foucault (2014)): subsp. hieracioides, which is the one described as a British native by Stace, occurring mostly on at least mildly base-rich soils; and subsp. umbellata, which covers the three others given by Stace. This conveniently does not cut across the main distinction between the common subspecies hieracioides deemed native on mainland Britain, and the rest; that is, the rare Channel Isles subsp. spinulosa and the two (whose frequency is not really known) that are considered as non-native. According to Slovak et al., the morphological distinctions listed for subsp.



Picris hieracioides subsp. hieracioides. Martin Rand

spinulosa do not hold up for Mediterranean populations, so if it happened to come to us by a different route it might not be easily distinguished from subsp. villarsii. The case is a little less clear for subsp. grandiflora, but genetically homogeneous populations of this appear to be confined to the Alps and Carpathians, while those in Italy from which it was originally described are in fact genetically mixed.

- Capitula distributed along the whole length of stem branches; peduncles and outer involucral bracts with mostly pale, rarely brownish-greyish anchor-shaped hairs, never black; inner involucral bracts (5–)6.1–10.9(–11.6)mm long; ligules (6.2–)6.9–12.4(–14.2)mm long, outermost mostly with red stripes in distal part.....subsp. hieracioides
- 1' Capitula only in upper half to third of stem branches; peduncles and outer involucral bracts with brownish-greyish or black (rarely pale) anchor-shaped hairs; inner involucral bracts (9-)10-15(-16)mm long, ligules (6.9-)7.4-15.8(-19.9) mm long; red stripes on outermost ligules absent or raresubsp. umbellata (Schrank) Ces.

As subsp. umbellata is not on the British databases at present, the best option is to record plants with inner involucral bracts <10mm and ligules <7.5mm as subsp. villarsii, plants with inner involucral bracts >11.5mm and ligules >14mm as subsp. grandiflora, and anything in between as subsp. villarsii; but in each case with a note on measurements averaged across several specimens.

Valeriana officinalis (Common Valerian)

I hesitated about including this species in the current list, as the two subspecies recorded in southern Britain give rise to many intermediates. But in their pure form they have rather distinct ecologies, and I know you like a challenge! Subsp. sambucifolia is the plant of the more permanently wet places, avoiding only the most acid soils, while subsp. collina is a plant of drier calcareous soils, although it may appear on clay caps which retain some moisture through much of the year. There are only a couple of records for subsp. collina in the county, although it's not hard to find Valerian in the chalk heartlands of the county, and while there are rather more determined to subsp. sambucifolia they are all in the north of the county: clearly, we (and I include myself) haven't been trying hard enough.

- Stolons absent; middle stem leaves mostly with 15-27 usually entire leaflets, the terminal leaflet about as wide as the mid laterals......subsp. collina
- Stolons present; middle stem leaves mostly with 5-13 usually dentate leaflets, the terminal leaflet the widest subsp. sambucifolia

Eleocharis palustris (Common Spike-rush)

Subsp. waltersii occurs throughout Britain and is generally common; subsp. palustris is confined to southern Britain and much rarer even there. There are very few records in Hampshire for the latter, and even the former has only been recorded to subspecies level by a few people in a few parts of the county.

1	Spikelets usually with <40 flowers; glumes from middle of spikelet 3.5–4.5mm; nut (1.3–)1.5–2m
	subsp. waltersii
1'	Spikelets usually with >40 flowers; glumes from middle of spikelet 2.5–3.5mm; nut 1.2–1.4(–1.5)mm
	subsp. palustris

Deschampsia cespitosa (Tufted Hair-grass)

Although better recorded than some subspecies in the county, the two that concern us here still have major gaps in their mapped distributions. Subsp. cespitosa is a plant chiefly of unshaded ground including wet meadows and ditches; subsp. parviflora is a woodland and hedgerow plant confined to lowland Britain. Although it can be found on our central chalk belt it will normally be found on clay patches or areas of poor drainage. Beware of intermediates, which should be recorded to species level.

1	Spikelets 2–3(–3.5)mm; hair-tuft at base of lower lemma not reaching apex of rhachilla-segment above
	subsp. parviflora
1'	Spikelets (3–)3.5–5(–6)mm; hair-tuft at base of lower lemma reaching apex of rhachilla-segment above
	subsp. cespitosa

I hope that you've found something here to pique your interest and get you recording subspecies in the county. If you don't like these ones, there are plenty more in Stace to choose from; and many of them don't require long expeditions to special places. As I mentioned earlier, this topic will become a part of the new Hants Plants website in the future, with expanded coverage, some illustrations and more pointers to information.

Acknowledgements

Most of the keys here are based on keys or descriptions given in Stace (2019). Some have been simplified to leave out subspecies not found in our part of the country, and some have been expanded a little. Any errors are entirely my fault, and I would be grateful to hear about them.

References and Further Reading

Akeroyd, J.R. (2014). Docks and Knotweeds of Britain and Ireland, edn. 2, BSBI Handbook No 3. BSBI, London. Cope, T. & Gray, A. (2009). Grasses of the British Isles, BSBI Handbook No 13. BSBI, London.

Jermy, A.C. et al. (2007). Sedges of the British Isles, edn. 3, BSBI Handbook No 1. BSBI, London.

Murphy, R.J. (2009). Fumitories of Britain and Ireland, BSBI Handbook No 12. BSBI, London.

Sell, P.D. (1976). Picris L., Flora Europaea vol. 4, eds. Tutin, T.G., Heywood, V. H. et al. pp. 159–160. Cambridge University Press, Cambridge.

Sell, P.D. & Murrell, G. (1996–2018). Flora of Great Britain and Ireland, vols 1–5, Cambridge University Press, Cambridge.

Slovák, M. et al. (2012). The morphological and genetic variation in the polymorphic species Picris hieracioides (Compositae, Lactuceae) in Europe strongly contrasts with traditional taxonomical concepts. Systematic Botany 37: 258–278. American Society of Plant Taxonomists.

Stace, C.A. (2019). New Flora of the British Isles (4th edn). C & M Floristics, Middlewood Green, Suffolk. Tison J-M. & de Foucault, B. (2014). Flora Gallica: Flore de France. Biotope, Mèze.

Plant Crib sheets:

Anthyllis: bsbi.org/download/15782

Deschampsia cespitosa: bsbi.org/Deschampsia_cespitosa_Crib_3.pdf

Fumaria: bsbi.org/Fumaria_Crib_3.pdf

Poterium (as Sanguisorba): bsbi.org/Sanguisorba_Crib.pdf

Rumex crispus: bsbi.org/Rumex_crispus_Crib.pdf

Vicia: bsbi.org/Vicia_Crib.pdf

VC11 Notes and Records Compiled by Phil Collier and Martin Rand

Introduction (Martin)

fter the final 2019 push on Atlas 2020, it was to be expected that the quantity of records would abate this year as we all took a deep breath; and with the constraints of 'interesting times' I wasn't expecting too much from 2020. But in fact, we've logged around 12,000 records, and any drop in quantity has been more than made up for in quality! There have been some exciting finds of new or long-lost sites for rare native and archaeophyte plants, some of which I've pulled out for comment below, and of course the usual blizzard of recently arrived non-natives.

Dianthus armeria (Deptford Pink) can't be said to be prospering in Hampshire, so it's good to have Richard Collingridge's record from a new site in reasonable quantity. Encouragingly, it's in an area of heathland restoration where disturbance and light availability may have given it a helping hand. Talking of Pinks, the most intriguing find of the year surely has to be Dianthus gallicus (Jersey Pink) on dunes at Hengistbury Head. This is a plant native to the Atlantic seaboard of France and Spain, which was introduced to Jersey at the end of the 19th century and has colonised dunes on the nearby Cotentin coast of mainland France since 1930. Part of its spread in France appears to be natural and ongoing. I can find no record of it ever being recorded in the UK. The dune where it now lives didn't exist before the 1950s, having built up on the western side of the large boom erected in 1938. There are several well-established patches and the environment looks very much like that of some native sites. How it arrived has to be a matter of speculation. There will be a full article on it in the April 2021 issue of BSBI News.

Alison Bolton and Richard Reeves came upon a large population of Utricularia intermedia (Intermediate Bladderwort) in a valley mire (Withycombe Shade) in the New Forest this year. It has always been confined to the Forest in Hampshire and very localised even there. Recently it has only been seen in the Bishop's Dyke area south of Beaulieu Road station, where the population was bisected by the London-Bournemouth railway and suffered in more recent decades from drainage schemes. The new site is on a different part of the Beaulieu River catchment. Initial impressions are that it is at least as abundant here as at Bishops Dyke.

While taking a look at this and checking its full extent, Martin and his support team made an even more surprising find in the same bog: a small quantity of Carex lasiocarpa (Slender Sedge), looking the worse for wear by early September but



Jersey Pink Dianthus gallicus, Hengistbury Head, 19 October 2020 – a late season flower. Tristan Norton



Deptford Pink Dianthus armeria. Martin Rand

retaining some fruits to confirm it. This is previously unknown in the Beaulieu River catchment, and its nearest neighbours and only other Hampshire localities are two sites more than 10km away in the Avon Water catchment and one by the upper reaches of the Mill Lawn Brook north of Burley.

As you can see from the records, Phil Collier has been doing some very impressive recording in the south-west of the county, and I was fortunate to be able to get out with him and other support team members several times over the late summer and autumn. Barton Common proved to be more interesting than expected despite the drought conditions at the end of the season, and it was nice to be able to examine three native Hawkweed species within two metres of each other. But for me the Eyebrights were the star of the show (of course!), with a good population of Euphrasia tetraquetra (rare in Hampshire) and its hybrids with E. nemorosa. The last records in the vicinity were by Alick Westrup in 1951; these were on the golf course and cliff-top grassland, where he also seems to have found hybrids, but it appears not to have been recorded before on the Common.

Phil recorded Frankenia laevis (Sea Heath) on the coast between Ashlett and Fawley Power Station. This is a first record from west of Southampton Water, while in the south-east of the county it is not faring well. Seeing 16 patches on the upper gravelly fringes of the saltmarsh was gratifying. This stretch is well-botanised and the population is not easy to overlook, so it's presumably a recent arrival. When conditions are right, it seems to be a good coloniser. Phil also found what is probably the largest population of Gastridium ventricosum (Nit-grass) seen in the county for many years at a new site, though whether its choice of locality (the runoff side of a Maize field) was a good long-term life decision remains to be seen.

At the other end of our coast, Bob Wardell has been recording in Portsmouth and neighbouring districts, and around a third of all records submitted this year are his work. The chances for recording exciting new sites for natives are a lot more limited here, but he has added an impressive list of nonnatives to the area and renewed many records for natives. In the latter camp, it was good to have detailed records of the Silene nutans (Nottingham Catchfly) population at Eastney brought up to date by him and Tristan Norton.



Intermediate Bladderwort Utricularia intermedia, Withycombe Shade, 10 October 2020. Martin Rand



Nit-grass Gastridium ventricosum. Martin Rand



Yellow Bird's-nest Hypopitys monotropa. Martin Rand

Eric Jancke will be better known to the mycologists amongst you, but he made an exciting find in Crab Wood, Sparsholt this year: Hypopitys monotropa (Yellow Bird's-nest). There are no other records from here,

and apart from a site near Crawley across the vice-county boundary, no other recent records within 12km in any direction. It goes to show that even well-known sites, especially large ones, can turn up surprises. Can anyone refind Neottia nidus-avis (Bird's-nest Orchid) after an absence of 20 years? I last saw it on the banks of Burrow Road, but there are records from Ashmore Hill Copse and from a spot very close to Eric's Hypopitys site.

Elizabeth Pratt takes a special interest in orchids in the Romsey area and takes a regular census in several spots. One of those is the churchyard of the little church at Crampmoor, and this year it also yielded up to her a small population of Ophioglossum vulgatum (Adder's-tongue). It's a new site, and there are no other records in the area for more than two decades.

An outstanding find was Clive Chatters' discovery of Pulicaria vulgaris (Small Fleabane) at Bisterne Warren - an entirely new site, which makes one wonder where else it might be lurking in the Avon Valley (see his article, p. 14). There is, of course, a well-known site not far to the south. Bisterne Warren is a fascinating place and there are probably other discoveries to be made. (A glance at the Ordnance Survey map suggests that this is open access, by the way, but there is no negotiated access to it over the adjoining private land, and you should seek permission from the landowner before visiting.)

The New Forest is of course a honeypot for visiting botanists, and they sometimes make finds that we have overlooked. Jo Parmenter, a BSBI member from Norfolk, passed on a batch of useful records this year, including new tetrad finds of Sanguisorba officinalis (Great Burnet), one of the distributional oddities of the south and west Forest, and Rosa agrestis (Small-leaved Sweet-briar).

Finally, I had a pleasant surprise when out with Richard Lansdown prospecting sites for the nationally rare Foxtail Stonewort Lamprothamnium papulosum at Cadland. (We didn't find any, and Richard's surveying over the last two years tells a sorry story, but that's for another time.) One of the old gravel pits at the western end of the Cadland shore gets sea-water incursion by seepage through the shingle bank and occasional overtopping, and a good upper saltmarsh community has developed on its margins as a result. We were talking about the feared imminent extinction of Spartina maritima (Small Cord-grass, our native species) in Hampshire and I was describing the differences to him. A moment or two later he said 'like this?'. from which point we went on to find several good patches scattered over the marsh. I was surprised by this, as I thought it was a completely new site and natural colonisation didn't seem very probable. But digging a little deeper in the archive, I found that Miss W.F. Buckle had recorded it at the same spot



Small Cord-grass Spartina maritima within a population of S. anglica, Cadland, 14 August 2020. Martin Rand

60 years ago. With sea-level rise its future here can't be guaranteed, but it is certainly faring better for now than at its only other currently known site on Hayling, where I struggled to find just two flowering spikes this year.

Collating this report has become more of a challenge in recent years as there are more sources of data to take into account, and more people submitting records to them. It would be nice if they all came together in one place (the BSBI's Distribution Database) at roughly the same time - but for now, they don't! To try to reduce the burden, I have been enhancing my software to get records together into a common format, filter out the obvious common plants, and automatically generate most of the article you're reading; that left Phil with the task of manually checking the candidate records, adding or tweaking content, putting any formatting right, and spotting the bugs in my software. I can't guarantee that we have picked up all interesting records from all sources, and there are certainly a few still lurking in emails, spreadsheets and other people's recording systems - although Phil has done a heroic job of pulling many of the best verifiable ones out of iRecord. We shall be working to remedy any gaps by the next report.

Records (Phil and Martin)

The codings at the front of each plant are:

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

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

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

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

Abbreviations for recorders and determiners are:

ACL=Alan Leslie, AEa=Amelia Earley, AEB=Alison Bolton, AJo=A Jones, AMu =Andy Musgrove, APr=Alex Prendergast, CC=Clive Chatters; CCha=Catherine Chatters; DC=David Caals, DHa=D Hall, DHub=David Hubble, DN=Dawn Nelson, DPe=David Pearson, DRA=Debbie Allan, EJa=Eric Janke, EPr=Elizabeth Pratt, FAW=Felicity Woodhead, GCo=Ginnie Copsey, IT=Ian Thirlwell, JAN=John Norton, JOa=Jill Oakley, JPa=Jo Parmenter, JSLe=Jonathan Sleath, MR=Martin Rand, PAB=Phil Budd, PBi=Peter Billinghurst, PCo=Phil Collier, PhSm=Phil Smith, RCol=Richard Collingridge, RCR=Clare Rand, RHWa=Robert H Wardell, RPH=Robin Harley, RPR=Richard Reeves, RSt=Ray Stephenson, RVHL=Richard Lansdown, SDa=Sarah Davis, SP=Steve Povey, TN=Tristan Norton, VCRteam=MR, PCo, RHWa.

NN Acanthus spinosus (Spiny Bear's-breech): Chandlers Ford (Kingsway link path), SU436211; 07-Jun-20; MR. 1st for SU42.

NN Acer cappadocicum (Cappadocian Maple): Ashley, New Milton, SZ2533 9483; 29-Aug-20; PCo. Suckers or seedlings from public open space planting. 1st for SZ29.

NN Allium neapolitanum (Neapolitan Garlic): Barton on Sea, SZ2209 9398; 03-Apr-20; PCo. Mowed road verge. 1st for SZ29.

NN Allium nigrum (Broad-leaved Leek): Milton Common West, SU6692 0068; 14-Jul-20; RHWa. 1st for SU60.

AA Allium subhirsutum (Hairy Garlic): Barton on Sea, SZ2485 9385; 30-May-20; PCo. Between tarmac pavement and kerb. 1st for SZ29.

NN Alnus cordata (Italian Alder): Hayling Billy – Station Copse, SZ7093 9980; 18-Oct-20; RHWa. 1st for SZ79.

*NN Alopecurus aequalis (Orange Foxtail): Hillier Garden Centre, SU375 236; 02-Oct-20; GCo. In gravel. 1st for SU32.

NN Ammi majus (Bullwort): Kings Close, Chandlers Ford, SU435 210; 04-May-20; MR. Garden relic in uncultivated ground and road gutter. 1st for SU42.

NN Anemone blanda (Balkan Anemone): Northney, SU7303; 26-Feb-20; DN det. JOa. 1st for SU70.

*NA Anthriscus caucalis (Bur Chervil): Mayflower Park, Southampton, SU4151 1114; 06-Nov-18; PAB. 1st for SU41. Longwood, SU551 262; 19-May-20; GCo. In field corner, among oil seed rape. 1st for SU52.

*NA Apium graveolens (Wild Celery): Farlington Car Park 1, SU6754 0427; 14-Jul-20; RHWa. 1st for tetrad since 1998.

NA Arenaria leptoclados (Slender Sandwort): Browndown, SZ5899; 01-Jul-20; MR & RCR det. MR. 1st for SZ59 since 1998.

NA Arrhenatherum elatius var. bulbosum (False Oatgrass): Inchmery, SZ4398; 12-Jun-20; MR. On back of shingle beach. 1st for SZ49.

NN Aster x versicolor (Late Michaelmas-daisy): Barton Common, Barton on Sea, SZ2497 9305; 06-Oct-20; PCo. Within area of trampled bracken. 1st for SZ29.

NN Atriplex halimus (Shrubby Orache): Newtown area, Warsash 4905, SU4905; 01-Feb-20; MR. 1st for SU40.

*NA Atriplex x gustafssoniana (Kattegat Orache): Hythe Spartina Marsh, SU4325 0702; 11-Sep-20; VCR team det. MR. Edge of saltmarsh by scrub. New tetrad.

Ashlett, SU4690 0322; 11-Sep-20; VCR team det. MR. New tetrad. Christchurch Harbour SSSI: Hengistbury Head, SZ177 907; 09-Sep-20; MR. Along fence by grazed saltmarsh. New tetrad; 1st for hectad since 1997.

NN Aucuba japonica (Spotted-laurel): Hilsea Lines West – Compartment 1 (Lido), SU6530 0433; 04-Aug-20; RHWa. 1st for SU60.

NN Barbarea verna (American Winter-cress): Bishop's Waltham/Hoe, SU5617; 28-Jun-20; MR & RCR det. MR. In arable margin amongst weeds and sowings. 1st for SU51 since 1999.

NN Berberis thunbergii (Thunberg's Barberry): Lakeside North Harbour IBM North, SU6485 0499; 31-Aug-20; RHWa. 1st for SU60.

NA Bidens cernua (Nodding Bur-marigold): Upper Meon Valley, Titchfield (S of Bridge Street), SU5420 0515; 22-Sep-20; TN. In field. 1st for SU50 since 1995.

NN Brachyglottis x jubar (Shrub Ragwort): Hilsea Lines West – Compartment 1 (Lido), SU6523 0438; 04-Aug-20; RHWa. 1st for SU60.

NN Buddleja globosa (Orange-ball-tree): Milton Common West, SU66930079; 14-Jul-20; RHWa. Probably planted. 1st for SU60.

NN Buddleja x weyeriana (Weyer's Butterfly-bush): Hayling Ferry Road, SZ6898 9984; 06-Sep-20; RHWa. 1st for SZ69.

NN Camelina sativa (Gold-of-pleasure): Dunscombe area, SU5618; 28-Jun-20; MR & RCR det. MR. In arable margin amongst weeds and sowings. 1st for SU51.

NN Campanula poscharskyana (Trailing Bellflower): Kirby Road, SU6586 0258; 06-Aug-20; RHWa. 1st for SU60 since 1999.

NN Cannabis sativa (Hemp): Barton on Sea, SZ2284 9395; 27-Aug-20; PCo. In wildflower mix on roadside. 1st for SZ29.

*NA Carex acuta (Slender Tufted-sedge): Brownwich, SU5172 0339; 02-Sep-20; MR & PCo. In pool where stream runs out to coast. 1st for SU50 since 1999; 1st for tetrad since 1988.

*NA Carex x boenninghusiana (Carex paniculata x remota): Carter's Copse, Brockhurst, SU5856 0014; 17-Jun-20; JAN & ACL det. ACL. One large tussock (but didn't search for more). Both parents in vicinity. 1st for SU50.

**NA Carex divisa (Divided Sedge): Chessel Bay, Southampton, SU441 129; 03-May-20; PAB. Upper shore. 1st for SU41 since 1997.

?NN Carex elata (Tufted-sedge): South Winchester Golf Course, SU4529 2768; 27-Mar-20; JSLe. Single tussock. **New tetrad. [MR: this is probably an introduction, like some other species at the same string of man-made ponds.]

NA Carex hostiana (Tawny Sedge): Cowleys Heath, SU4198 0257, SU4207 0255; 18-Jun-20; AEB. 1st for SU40 since 1998.

****NA Carex lasiocarpa (Slender Sedge)**: Withycombe Shade, SU3488 0738; 10-Sep-20; VCR team, det. MR. 1st for SU30.

NA Carex rostrata (Bottle Sedge): Stony Moors, Holmsley, SZ2161 9965; 26-Jul-20; PCo. Mire at edge of shrubby tussock. 1st for SZ29 since 1999.

NA Catapodium marinum: Margin of M27 J5 roundabout island, SU443 169; 08-Jul-20; MR. 1st non-coastal record for hectad since 1998.

NA Centaurea debeauxii (Chalk Knapweed): Nr Chilling Copse, SU514 040; 02-Sep-20; MR & PCo. 1st for SU50 since 1997. Sinah Gun Site W, SZ6995 9945; 13-Sep-20; RHWa. 1st for SZ69 since 1963.

NN Cerinthe major (Greater Honeywort): Glenfield Crescent, Bitterne, SU447 132; 11-Apr-20; PAB. Selfsown in pavement crack. 1st for SU41.

NN Cordyline australis (Cabbage-palm): Southampton Road promenade West, SU6248 0563; 20-Jul-20; RHWa. 1st for SU60.

NN Coreopsis tinctoria (Golden Tickseed): Merry Oak, SU443 125; 23-Jun-20; AJo det. MR. Garden weed. 1st for SU41.

NN Cornus alba (White Dogwood): Northney, Hayling, SU735 038; 18-Sep-20; VCR team det. MR. 1st for SU70.

NN Cornus sanguinea subsp. australis (Dogwood): Northney, Hayling Island, SU732 039; 18-Sep-20; VCR team det. MR. 1st for SU70.

NN Cosmos bipinnatus (Mexican Aster): Highbridge Community Farm, SU467 210; 13-Jul-19; DHub. Wildflower margin of arable land. 1st for SU42.

NN Cotoneaster salicifolius x dammeri = C. 'Hybridus Pendulus' (Weeping Cotoneaster): Walkford Industrial Estate, SZ231 950; 29-Aug-20; PCo. Probably planted, now spreading. New VC record.

NN Cotula coronopifolia (Buttonweed): Crowd Hill, SU485 194; 22-May-20; GCo. In balancing ponds west of new housing estate. 1st for SU41.

NN Crataegus monogyna x laevigata = C. x media: Miller's Pond LNR, Southampton, SU4498 1096; 31-Mar-19; PAB. **1st for SU41.**

NN Crocus speciosus (Bieberstein's Crocus): Southbourne, SZ1424 9125; 22-Oct-20; DC. 1st for SZ19.

NN Crocus vernus (White Crocus): Northney, SU7303; 26-Feb-20; DN det. JOa. 1st for SU70.

NN Cucurbita pepo (Marrow): Hook with Warsash (Workman's Lane, N side), SU5019 0462; 10-Oct-20; TN. Extensive patch on verge. 1st for SU50.

NN Cyclamen repandum (Spring Sowbread): Barton on Sea, SZ250 936; 31-Mar-20; PCo. Edge of woodland backing onto fences and houses. 1st for SZ29.

NN Cynara cardunculus (Globe Artichoke): Highbridge Community Farm, SU467 210; 13-Jul-19; DHub. Next to farm track. 1st for SU42.

NN Deutzia scabra (Deutzia): Itchen Navigation, SU481 276; 01-Jun-20; DPe. Growing out of the eastern river bank. 1st for SU42.

**NA Dianthus armeria (Deptford Pink): SU1207; 04-Jul-20; RCol. Well-established colony along edge of heathland restoration. New tetrad.

?NN Dianthus gallicus (Jersey Pink): Hengistbury Head, SZ1771 9039; 08-Sep-20; PCo conf. MR. Stabilized and partly vegetated dunes. New VC record and new for mainland Britain.

NN Dracunculus vulgaris (Dragon Arum): Orams Arbour, SU474 297; 03-Jun-20; AEa. 1st for SU42.

NA Dryopteris affinis subsp. affinis (Golden-scaled Male-fern): Great Linford Enclosure, SU1815 0786; 10-Sep-20; JPa. 1st for SU10 (subsp. affinis).

NN Echium pininana (Giant Viper's-bugloss): Farlington Pumping Station Park, SU6308 1927; 25-Sep-20; RHWa. 1st for SU61.

NN Elaeagnus macrophylla (Broad-leaved Oleaster): Mude Valley North (triangle north of Somerford Road), SZ1893; 24-Aug-20; FAW. 1st for SZ19.

*NA Eleocharis palustris subsp. palustris: QinetiQ, SU131 031; 03-Jul-20; RCol. Wet heath. 1st for SU10 (subsp. *palustris*).

NA Elytrigia atherica f. setigera: Hythe Spartina Marsh, SU432070; 11-Sep-20; VCR team det. MR. New VC record (f. setigera).

NA Equisetum fluviatile x arvense = E. x litorale (Shore Horsetail): Withycombe Shade, Beaulieu Road, SU3492 0740; 13-Sep-20; PCo. In shaded shallow standing water. New tetrad. Barton Common, Barton on Sea, SZ251 933; 18-May-20; PCo. In shaded wet soil. New tetrad.

*NN Erica vagans (Cornish Heath): Somerley heathland restoration, SU12310680; 02-Jul-09; RCol. Presumably a survivor from garden waste. 1st for SU10.

NN Erigeron floribundus (Bilbao's Fleabane): Godshill, SU1734 1473; 06-Sep-20; JPa. 1st for SU11.

*NA Eriophorum latifolium (Broad-leaved Cottongrass): Cowleys Heath, SU4207 0255; 18-Jun-20; AEB. New tetrad.

?NA Erodium cicutarium (Common Stork's-bill): London Road/Lovedean Lane corner, SU6947 1189; 31-Mar-20; DHa. 1st for SU61.

NN Escallonia rubra var. macrantha (Escallonia): Northney, Hayling Island, SU735 039; 18-Sep-20; VCR team det. MR. 1st for SU70.

NN Euonymus japonicus (Evergreen Spindle): Hilsea Lines West – Compartment 1 (Lido), SU6526 0433; 04-Aug-20; RHWa. 1st for SU60.

NN Euphorbia characias subsp. characias (Mediterranean Spurge): Northney, SU7303; 26-Feb-20; DN det. JOa. 1st for SU70 (subsp. characias).

NN Euphorbia characias subsp. veneta (Mediterranean Spurge): SW Hayling, SZ6899; 26-Feb-20; DN det. JOa. New tetrad (subsp. veneta).

*NA Euphorbia paralias (Sea Spurge): Barton on Sea, SZ2346 9292; 27-Aug-20; PCo. Gravel platform just above rock sea defence. New tetrad.

NN Euphorbia serpens: Pelham Road, Gosport, SU6053 0019; 12-Sep-20; DRA det. JAN. Spreading from base of garden wall to the kerb. New VC record.

**NA Euphrasia confusa (Confused Eyebright): Ashlett, SU466 031; 11-Sep-20; VCR team det. MR. 1st for SU40.

NN Euphrasia nemorosa x confusa: Ashlett, SU466 031; 11-Sep-20; VCR team det. MR. **1st for SU40.**

**NA Euphrasia pseudokerneri (Chalk Eyebright): Beacon Hill, Warnford, SU6075 2260; 18-Aug-20; MR & GCo. New tetrad.

NA Euphrasia tetraquetra (Western Eyebright): Barton Common, SZ249 931; 17-Jul-20; VCR team det. MR. **New tetrad.

NA Euphrasia tetraquetra x nemorosa: Barton Common, SZ249 931; 17-Jul-20; VCR team det. MR. 1st for SZ29 since 1990.

NN Fagopyrum esculentum (Buckwheat): Buckland Park, SU6488 0156; 16-Sep-20; RHWa. 1st for SU60 since 1950-69.

NA Festuca rubra subsp. litoralis (Red Fescue): Inchmery, SZ4398; 12-Jun-20; MR. New tetrad.

?NA Filipendula vulgaris (Dropwort): Hillier Gardens, Braishfield, SU3723; 26-Jun-20; MR & RCR det. MR. 1st for SU32.

**NA Frankenia laevis (Sea-heath): Fawley, SU4735 0286; 10-Aug-20; PCo. Upper edge of salt marsh, infrequently inundated. 1st for SU40 since pre-1930.

NN Fuchsia magellanica (Fuchsia): Winton, SZ0867 9311; 11-Jun-20; SDa. 1st for SZ09.

NN Galanthus plicatus (Pleated Snowdrop): New Milton, SZ2376 9451; 01-Feb-20; PCo. Extensive patches spread from graveside planting. 1st for SZ29.

NN Galinsoga parviflora (Gallant-soldier): Hall Lands, SU500 191; 02-Oct-20; GCo. In wall. 1st for SU51 since 1990.

*NA Gastridium ventricosum (Nit-grass): Downton, Milford on Sea, SZ2655 9316; 09-Jul-20; PCo. Lower edge of field that is seasonally wet. 1st for SZ29 since 1957.

NN Genista hispanica (Spanish Gorse): New Milton, SZ2322 9512; 20-Apr-20; PCo. Amongst planted shrubs in garden bed, industrial estate. 1st for SZ29.

?NA Geranium pratense (Meadow Crane's-bill): Iford Meadows, SZ1364 9372; 22-Jun-20; SDa. 1st for SZ19.

NA Geranium rotundifolium (Round-leaved Crane'sbill): Longwood, SU550 260; 10-May-20; GCo. Amongst Geranium dissectum in field margin. 1st for SU52.

**NA Glaucium flavum (Yellow Horned-poppy): Redbridge Wharf Park, Southampton, SU3708 1355; 23-Oct-20; PAB. 1st for SU31.

NN Gnaphalium purpureum (American Cudweed): Holcroft Road, Thornhill, Southampton, SU4742 1224; 22-Aug-20; PAB. Edge of pavement outside garden. 1st for SU41.

NN Helenium autumnale (Sneezeweed): Southbourne, SZ1427 9125; 22-Oct-20; DC. Two flowering plants by fence in cliff top turf. None to be seen in any gardens nearby. New vice-county record.

**NA Helosciadium inundatum: Fulliford Passage, SU34460780; 09-Sep-20; JPa. New tetrad. Pottern Ford, Longdown, SU364074; 10-Sep-20; VCR team det. MR. New tetrad.

NA Hieracium sabaudum: Cadnam Green, SU296148; 04-Sep-20; VCR team det. MR. Several small plants along lane side. 1st for SU21 since 1999. Bitterne Church, Southampton, SU4522 1290; 09-Sep-20; PAB. 1st for SU41.

NN Hieracium scotostictum (Dappled Hawkweed): Highcliffe, SZ2023 9365; 17-May-20; PCo. In mortar on shaded mossy garden wall. 1st for SZ29 since 1991.

*NA Hieracium sublepistoides: Lakewood Road, Chandlers Ford, SU437 215; 04-Jul-20; MR & RCR det. MR. Under hedge on east side of road. New tetrad.

NA Hieracium trichocaulon: Hursley Road, Chandler's Ford, SU428 217; 04-Jul-20; MR & RCR det. MR. On roadside bank. 1st for SU42 since 1930-1995. Barton Common, Barton on Sea, SZ250 930; 21-Jun-20; PCo. In scrubby grassland. 1st for SZ29 since 1999.

NN Hyacinthus orientalis (Hyacinth): Northney, SU7303; 26-Feb-20; DN det. JOa. In compost area of Church Yard. 1st for SU70.

**NA Hypopitys monotropa (Yellow Bird's-nest): Crabwood, SU4152 3073; 28-Jul-20; EJa det. MR. More than 5 flowering clumps. 1st for SU43.

NN Ipomoea purpurea (Common Morning-glory): Corner of field, Nursted, SU761 211; 30-Sep-20; SP. In hedgerow near small rubbish tip. 1st for SU72.

NN Jacobaea maritima (Silver Ragwort): Barton on Sea, SZ2468 9384; 09-May-20; PCo. Road verge, but not seen in nearby garden. 1st for SZ29.

*NA Juncus x surrejanus: Holm Hill, SU2602; 10-Jul-20; PCo det. MR. New tetrad.

NN Koelreuteria paniculata (Pride-of-India): Highcliffe Castle Grounds (Eastern glade), SZ204 931; 03-Sep-20; RPH det. FAW. Planted. 1st for SZ29.

NN Lactuca virosa f. virosa (Greater Lettuce): Barton on Sea, SZ24689321; 07-Jun-20; PCo det. MR. Roadside verge. New VC record (f. virosa); new hectad record.

*NA Lamium hybridum (Cut-leaved Dead-nettle): Morestead, SU525 260; 09-Apr-20; DPe. 1st for SU52.

NN Lapsana communis subsp. intermedia (Nipplewort): Longwood Dean Lane, SU538 220; 05-Aug-20; GCo. Road verge, with some hybrids. New

NN Lavatera cretica (Smaller Tree-mallow): Warlock Close, Sholing, Southampton, SU4659 1146; 26-Oct-19; PAB. 1st for SU41.

NA Legousia hybrida (Venus's-looking-glass): South Lynch Estate (Field margin east of Farley Mount Monument), SU403 290; 16-Jul-20; TN. Scattered in weedy margin of crop. 1st for SU42 since 1930-1995.

*NA Limonium x neumanii: E of Fawley Power Station, SU4762 0256; 11-Sep-20; VCR team det. MR. 1st for SU40 since 1930.

*NA Linum bienne (Pale Flax): New Milton, SZ2300 9497; 14-May-20; PCo. Beside gravel farm track. 1st for SZ29.

NN Linum grandiflorum (Scarlet Flax): Zetland Field, SU6766 0517; 25-Sep-20; RHWa. 1st for SU60.

NN Linum usitatissimum (Flax): Nr Shallow Farm, Breamore, SU163 173; 19-Sep-20; VCR team det. MR. 1st for SU11.

NN Lonicera japonica (Japanese Honeysuckle): Elmore Triangle, SZ5689 9966; 26-Jul-20; RHWa. 1st for SZ59.

*NA Lotus subbiflorus (Hairy Bird's-foot-trefoil): Boldre, SU3326 0030; 20-Jul-20; PCo. On grassy trackside. 1st for SU30 since 1999. Winchester Hill, Bishop's Waltham, SU5563 1715; 16-Jun-20; PAB. On semi-bare ground. 1st for SU51.

NN Lycium barbarum (Duke of Argyll's Teaplant): Dean, SU568 195; 28-Jun-20; MR & RCR det. MR. 1st for SU51.

NA Melica uniflora (Wood Melick): Cemetery Junction cemetery (Bournemouth), SZ0912 9276; 29-Jun-20; PhSm. 1st for SZ09 since 1987-1999.

NN Muehlenbeckia complexa (Wireplant): New Milton, SZ25019 372; 30-Dec-19; PCo. Scrambling in woodland, close to domestic fence. 1st for SZ29.

NN Nepeta x faassenii (Garden Cat-mint): Moneyfield Avenue, SU6664 0222; 17-Sep-20; RHWa. 1st for SU60.

NN Nerine bowdenii (Nerine): Hayling Billy Line, SU7114 0029; 18-Oct-20; RHWa. New VC record.

NN Nicandra physalodes (Apple-of-Peru): Barton on Sea, SZ2411 9360; 05-Sep-20; PCo. Narrow strip between foot track and urban fence, shaded. 1st for SZ29.

NN Oenothera cambrica (Small-flowered Eveningprimrose): Station Road, Nursling, SU362 162; 08-Jul-20; PAB. 1st for SU31 since 1958.

NN Oenothera x fallax (Intermediate Eveningprimrose): Sinah Gun Site W, SZ6992 9939; 13-Sep-20; RHWa. 1st for SZ69.

NN Omphalodes verna (Blue-eyed-Mary): Downton, Milford on Sea, SZ2693 9333; 07-Mar-20; PCo. Spread onto cleared bank beside rural drive. New VC record.

NA Ophioglossum vulgatum (Adder's-tongue): St Swithuns Churchyard, Crampmoor, SU375 221; 01-May-20; EPr. 1st for SU32 since 1997. Holmsley New Forest, SZ2213 9848; 12-May-20; PCo. Shallow hollow in grazed grassland. 1st for SZ29 since 1999.

NN Oxalis debilis (Large-flowered Pink-sorrel): Barton on Sea, SZ2413 9347; 14-Sep-20; PCo. Base of garden fence in linear reserve. 1st for SZ29.

NN Oxalis stricta (Upright Yellow-sorrel): Barton on Sea, SZ2402 9385; 05-Jul-20; PCo. Beside pavement near weedy urban garden. 1st for SZ29 since 1998.

NN Panicum capillare (Witch-grass): Downton, SZ2655 9315; 05-Sep-20; PCo. In sweetcorn, two rows from edge of field. 1st for SZ29.

NN Parthenocissus inserta (False Virginia-creeper): Paulsgrove Chalk Pit, SU6386 0651; 05-Oct-20; RHWa. **1st for SU60.** Highland Road, SZ65899 872; 01-Aug-20; RHWa. 1st for SZ69.

NN Parthenocissus tricuspidata (Boston-ivy): Lumps Fort - Southsea Rose Garden, SZ6582 9832; 14-Oct-20; RHWa. 1st for SZ69.

*NN Petrosedum forsterianum (Rock Stonecrop): Victoria Park, SU6396 0013; 16-Sep-20; RHWa. 1st for SU60 since 1992.

NN Phacelia tanacetifolia (Scorpion Weed): Downton, Milford on Sea, SZ2586 9329; 08-Jun-20; PCo. Arable, recently sown to pasture but with many weeds. 1st for SZ29.

NN Phlomis russeliana (Turkish Sage): Keyhaven, SZ3103 9220; 19-May-20; PCo. Beside gravel track. 1st for SZ39.

NN Pleioblastus chino (Maximowicz's Bamboo): Sandy Balls, Fordingbridge, SU1639 1425; 27-Sep-20; PCo. Very extensive thicket, edge of woodland. 1st for SU11.

*NA Polycarpon tetraphyllum (Four-leaved Allseed): Winchester Hill, Bishop's Waltham, SU5564 1714; 16-Jun-20; PAB. On disturbed ground on bank. 1st for **SU51.** Henderson Road, SZ6701 9915; 01-Aug-20; RHWa. 1st for SZ69.

NN Polygonatum x hybridum (Garden Solomon'sseal): Sandy Balls, SU1689 1446; 06-Sep-20; JPa. 1st for SU11. Lakeside North Harbour IBM North, SU6481 0520; 31-Aug-20; RHWa. 1st for SU60 since 1983.

*NA Potentilla x suberecta: Pitts Wood Inclosure, SU1907 1439; 06-Sep-20; JPa. 1st for SU11.

NN Prunus cerasifera var. pissardii (Cherry Plum): Warsash area, SU4806; 01-Feb-20; MR. 1st for SU40 (var. pissardii).

?NN Prunus x fruticans (Cherry): Barton on Sea, Great Woar Copse, SZ2348 9595; 24-Sep-20; PCo. In narrow strip of deciduous woodland. 1st for SZ29. W of Newbridge, SU296 156; 04-Sep-20; VCR team det. MR. 1st for SU21.

**NA Pulicaria vulgaris (Small Fleabane): Bisterne Warren, SU1442 0037; 25-Sep-20; CC. C.160 plants in an area of flooded hollow in the sandy undulations 10x14m. New site and tetrad.

NA Ranunculus peltatus (Pond Water-crowfoot): Bashley, New Milton, SZ2390 9860; 02-May-20; PCo. Floating in isolated pond. 1st for SZ29 since 1999.

*NA Rhynchospora fusca (Brown Beak-sedge): Burley Rocks, SU2347 0329; 22-Jun-20; AEB. 1st for tetrad since 1995.

NN Ribes sanguineum (Flowering Currant): Inchmery, SZ4498; 12-Jun-20; MR. 1st for SZ49.

IN Robinia pseudoacacia (False-acacia): Milton Park, SZ6638 9996; 13-Jul-20; RHWa. 1st for SZ69 since **1997.** Hayling Billy – Station Copse, SZ7095 9992; 18-Oct-20; RHWa. 1st for SZ79 since 1999.

**NA Rosa agrestis (Small-leaved Sweet-briar): Black Down, SU3460 0735; 09-Sep-20; JPa. New tetrad; 1st for SU30 since 1997.

*NA Rosa spinosissima (Burnet Rose): Northney, Hayling, SU734040; 18-Sep-20; VCR team det. MR. 1st for SU70.

?NA Rumex hydrolapathum (Water Dock): Baffins Pond, SU6650 0124; 23-Jul-20; RHWa. 1st for SU60.

NN Rumex sanguineus var. sanguineus (Wood Dock): Godshill, SU1771 1457; 06-Sep-20; JPa. Naturalised presumably from nearby gardens. 1st for SU11.

NA Rumex x pratensis: Lakeside North Harbour IBM West, SU6434 0534; 31-Aug-20; RHWa. 1st for SU60.

*NA Salicornia disarticulata (One-flowered Glasswort): E of Fawley Power Station, SU476 026; 11-Sep-20; VCR team det. MR. **New tetrad.** Stansore Point, Cadland, SZ462 987; 14-Aug-20; MR & RVHL det. MR. New tetrad.

*NA Salicornia emerici (Shiny Glasswort): Hythe Spartina Marsh, SU434 071; 11-Sep-20; VCR team det. MR. 1st for SU40. Hayling Oyster Bank, SU716 037; 27-Aug-20; MR & RVHL det. MR. New tetrad.

*NA Salicornia fragilis (Yellow Glasswort): Hythe Spartina Marsh, SU432 072; 11-Sep-20; VCR team det. MR. On chenier. **New tetrad.** North Common Saltmarsh, SU722 041; 27-Aug-20; MR & RVHL det. MR. 1st for tetrad since 1989.

NN Salix pentandra (Bay Willow): Brownwich, SU519 035; 02-Sep-20; MR & PCo. Presumed planting in hedge just outside garden. 1st for SU50.

NA Salix x reichardtii: Owslebury, SU508 230; 06-Sep-20; MR & RCR det. MR. 1st for SU52.

NN Salix x sepulcralis (Weeping Willow): Baffins Pond, SU6648 0131; 23-Jul-20; RHWa. 1st for SU60.

**NA Salvia verbenaca (Wild Clary): Tipner roundabout, SU6397 0315; 03-Aug-20; RHWa. New tetrad.

*NA Sanguisorba officinalis (Great Burnet): Picket Bottom, SU1894 0663; 10-Sep-20; JPa. New tetrad.

NA Saxifraga tridactylites (Rue-leaved Saxifrage): Fraser Range, SZ6813 9902; 02-Mar-20; TN. Frequent. 1st for hectad since 1908.

NN Scabiosa atropurpurea (Sweet Scabious): Barton on Sea, SZ2379 9390; 22-Aug-20; PCo. Spread from garden to nearby road gutters. 1st for SZ29.

NA Sedum acre (Biting Stonecrop): Barton on Sea, SZ23739 292; 31-May-20; PCo. Gravel path blocked off from regular use. 1st for SZ29 since 1998.

NN Sedum kimnachii (Lesser Mexican Stonecrop): Eastney Beach, SZ6768 9889; 27-Sep-20; RHWa. 1st for SZ69.

NN Sedum pallidum: Barton on Sea, SZ237 941; 11-Jun-20; PCo det. RSt. Growing on roof and gutter, partly in decaying material from herring gull nests. New VC record.

NN Senecio inaequidens (Narrow-leaved Ragwort): Saint Agatha's Church, Market Way, Portsmouth, SU6405 0071; 31-Jul-20; RHWa. 1st for SU60.

NN Solanum laciniatum (Kangaroo-apple): S of Cadnam River, Ower, SU3291 1666; 01-Sep-20; CCha conf. MR. 1st for SU31.

NN Solanum nigrum var. schultesii: Northney, Hayling Island, SU724 037; 18-Sep-20; PCo det. MR. Arable weed. 1st for SU70.

NN Soleirolia soleirolii (Mind-your-own-business): Victoria Park, SU6402 0033; 16-Sep-20; RHWa. 1st for SU60 since 1996.

NN Soliva sessilis (Onehunga-weed): Barton Common, Barton on Sea, SZ248 931; 15-May-20; PCo. Grazed and trampled grassland. 1st for SZ29.

**NA Spartina maritima (Small Cord-grass): Stansore Point, Cadland, SZ462 987; 14-Aug-20; MR & RVHL det. MR. 1st for tetrad and SZ49 since 1960.

NN Spartium junceum (Spanish Broom): Northney, Hayling, SU735 038; 18-Sep-20; VCR team det. MR. 1st for SU70. Sinah Gun Site W, SZ6973 9953; 13-Sep-20; RHWa. 1st for SZ69 since 1997.

NN Spiraea douglasii subsp. douglasii: Barton Common, Barton on Sea, SZ2493; 28-Jun-20; PCo. Amongst extensive thicket of brambles. 1st for SZ29.

NN Stachys byzantina (Lamb's-ear): New Milton, SZ2365 9519; 04-Jul-20; PCo. Planted in urban landscape and now spreading. 1st for SZ29. South Parade gardens, SZ6482 9813; 21-Jul-20; RHWa. 1st for SZ69.

NN Symphytum caucasicum (Caucasian Comfrey): Milford on Sea, SZ29139 226; 19-May-20; PCo. Possibly planted but now a large sprawling herb. 1st for SZ29.

NN Symphytum grandiflorum (Creeping Comfrey): Barton on Sea, SZ2527 9343; 16-Apr-20; PCo. Semiurban woodland with other non-native herbs. 1st for

NN Symphytum tuberosum (Tuberous Comfrey): Hiltingbury Lakes, SU441 218; 22-Apr-20; MR & RCR det. MR. 1st for SU42.

NN Tagetes minuta (Southern Marigold): Carlyn Drive, Chandler's Ford, SU437 212; 26-Oct-20; MR. Several plants in gutter, presumed from bird seed. 1st for SU42.

NA Taraxacum atactum (Narrow-bracted Dandelion): Cadman's Pool area (New Forest), SU2245 1221; 20-Apr-19; AMu det. APr. 1st for SU21.

?NA Tragopogon x mirabilis: Milton Common, Portsmouth, SU673 010; 08-Jun-20; IT. Growing with T. porrifolius and both subspecies of T. pratensis. New VC record.

NN Trifolium incarnatum subsp. incarnatum (Crimson Clover): Breamore, SU160 176; 19-Sep-20; VCR team det. MR. Pavement edge, presumed survivor from wild flower sowing. 1st for SU11.

NA Tripleurospermum maritimum subsp. vinicaule (Sea Mayweed): Hythe Spartina Marsh, SU432 072; 11-Sep-20; VCR team det. MR. On chenier. 1st for SU40 (subsp. vinicaule).

*NA Umbilicus rupestris (Navelwort): Nile Road, Southampton, SU421 147; 24-Jun-19; DHub. On frontgarden walls. 1st for SU41.

**NA Utricularia intermedia (Intermediate Bladderwort): Withycombe Shade, New Forest, SU3478 0741-SU3490 0740; 07-Sep-20; AEB & RPR. Independently checked microscopically by AEB and MR. New tetrad.

*NA Verbascum nigrum (Dark Mullein): Highcliffe, SZ2042 9306; 01-Oct-20; PCo. Steep south-facing slope. 1st for SZ29 since 1930-95.

NN Verbena bonariensis (Argentine Vervain): Highland Road, SZ6584 9894; 01-Aug-20; RHWa. 1st for SZ69.

NA Viburnum lantana (Wayfaring-tree): Hayling Billy Station Copse, SZ7093 9981; 18-Oct-20; RHWa. 1st for SZ79 since 1999.

**NA Viola canina (Heath Dog-violet): Mudeford Woods, SZ1835 9343; 18-May-20; SDa. 1st for SZ19 since 1985.

?NN Viola odorata var. dumetorum: Bashley, New Milton, SZ2508 9665; 23-Mar-20; PCo. Lightly vegetated shady road verge. 1st for SZ29.

NN Yucca gloriosa (Spanish-dagger): Northney, Hayling Island, SU722 041; 27-Aug-20; MR & RVHL. Probably planted. 1st for SU70.

VC12 Records

Compiled by Tony Mundell (Records for June to August 2020)

ou may notice a few unfamiliar plant names in this listing as I am now amending the Latin names to the latest ones given in the 4th edition of 'Stace'. All these records are extracted from my MapMate database but BSBI HQ has not updated any names on MapMate for many years, so I may miss a few required changes.

I have received fewer records than usual because of the Covid-19 pandemic, so to compensate I have lowered the 'rarity threshold' for including records here. I am concerned that I will have even fewer records for the next Flora News so I have decided to defer listing of records for September 2020 onwards until that issue.

However, a few people managed to continue to send me many records, and I am especially grateful to them. With the paucity of records, I decided to include many of my own records this time - mainly for the period in July and August when I was with ether Phil Collier or Cathy Wilson doing surveys requested by the Hampshire & Isle of Wight Wildlife Trust for land that they help to manage for the army. Those surveys were on army training areas, including the splendid complex of wet meadows at Foxlease and the heathland at Hawley Common. It was alarming how the populations of some rarities have crashed at Hawley. See for example the records below for Marsh Clubmoss Lycopodiella inundata and Heath Cudweed Omalotheca sylvatica. I suspect that drying out of the habitat due to global warming is responsible for the decline in Marsh Clubmoss.

There have still been some splendid finds, some of them even for plants new to VC12. An example of that is a subspecies of Scaly Male-fern called *Dryopteris affinis* subsp. paleaceolobata found by Fred Rumsey. I still find the subspecies of D. affinis very difficult to identify but Fred added the following helpful note to his record "It is a neater, narrow-fronded plant than D. affinis sens. str.; still glossy but flushes a little later and is more yellow-green initially. The scales are dense, dark and many are rather wispy. The pinnules overlap the main rachis rather as in D. cambrensis, which is the thing it most looks like. There was a single D. carthusiana close to the best part of the population. I also saw one example of D. affinis sens. str. c.20m away and the Polystichum setiferum nearby is extremely variable with some forms having narrowly dissected pinnules."



Scaly Male-fern Dryopteris affinis subsp paleacelobata, Tweseldown. Fred Rumsey



Pennyroyal Mentha pulegium, Longmoor Ranges, **7 August 2020.** Dave Pearson

In the last issue I mentioned the exciting discovery of Yarrow Broomrape, now called Phelipanche purpurea, that was found in July 2019 near Chawton (and was promptly mown off) (see photo on front cover). It reappeared this year and the colony is rather more widespread than originally thought. Nicky Court of HBIC (Hampshire Biodiversity Information Centre) has requested HCC (Hampshire County Council) not to mow the plants off during the flowering/fruiting period but unfortunately the plants are in a very vulnerable place on the central reservation of the A31 close to the Chawton roundabout.

Another exciting find is the Pennyroyal Mentha pulegium at Longmoor. When Dave Pearson found it on 7 August 2020, he did not realise its significance and he did not have his GPS with him. A little later he tried to show it to me, but we failed to re-find it. Steve Povey and I then tried another search on 20 August, and we did manage to find the colony, though most flowers were then going over. It was a patch c. 30 x 15cm at SU 79052 29821. To help refinding it next year we noted that it is 9 metres north-west of a pair of mature Scots Pines close to the main path, one of which has a separate 10cm diameter pine sapling growing attached to its trunk base. It seems likely that a search of suitable habitat at Longmoor in early August would reveal other sites for it. The tallest flower spike was about 10cm tall and others were only about 5cm. That small stature, combined with the species-rich heathland habitat at Longmoor (its associated plants included Allseed and Yellow Bartsia) is convincing that this is the native form rather than the robust, tall alien form found elsewhere as a result of a seed contaminant in newly sown grass.

Tristan Norton has contributed many records of uncommon arable plants recently, including Denseflowered Fumitory Fumaria densiflora, Fine-leaved Fumitory Fumaria parviflora and the very rare Fewflowered Fumitory Fumaria vaillantii (confirmed by Tim Rich). In early September 2020 Tristan sent me photos of a white-flowered Fumitory (with purple tips) that had been



Fine-leaved Fumitory Fumaria parviflora, Chilbolton Down Farm, 22 July 2020. Tristan Norton



Red-tipped Cudweed Filago lutescens, Broomhurst Farm road verge. Fred Rumsey

originally found by Phil Allen at Kings Worthy SU 4922 3341. It was growing adjacent to a garden fence amongst copious Cleavers. I originally agreed that Tristan's photos were White Ramping-fumitory F. capreolata. However, Tristan later posted his photos on a Facebook page dedicated to UK botany and Tim Rich (the BSBI Fumaria Referee) responded that it did not look right for F. capreolata and was probably Common Ramping-fumitory F. muralis. Unfortunately, when Dave Pearson went to see it in early October 2020, he found that the area had been cleared and sprayed, presumably to benefit newly-planted trees. We will have to wait until 2021 to get a definitive determination (if it is allowed to reappear!). Actually, I have F. capreolata as a tolerated weed in my garden, originally obtained some years ago as a hand-out at a BSBI Exhibition meeting. It is very persistent, cropping up in new places in my garden each year, so I am hopeful that it will re-emerge at Kings Worthy.

The Nationally Endangered, Red-tipped Cudweed Filago lutescens has been teetering on the edge of extinction in VC12 for the last few years. However, following rotavation by HCC last winter of its roadside site near Fleet it made a splendid come-back, with over 30 flower spikes. For 24 years starting in 1986 I used to organise volunteers to annually till the site with hand tools each autumn/winter. That typically gave counts in the hundreds (the peak was 2,250 in 2004) but I ran out of steam and my last tilling was done in November

2009. HCC were persuaded to take on the task and did a splendid rotavation a month later in December 2009, resulting in a good count in 2010. Since then the numbers had dwindled, partly because someone kept mowing the plants off (illegally, as it is a Schedule 8 species in the Wildlife & Countryside Act), encouraging a dense grass sward, and partly because the planned annual rotavations by HCC were missed or at least were very cursory.

There have been some surprising alien plants found during the last few months. One yellow-flowered plant really puzzled both me and Phil Collier when we were surveying a damp meadow on 4 August 2020. We were pretty sure it was a Crepis and in the end I recorded it as Crepis nicaeensis, but I must return next year to check it again if it survives. There was only one plant, so we could not collect a specimen, but I took several photos. The immature achenes were not beaked, the stems had milky sap. The leaves were entire (not lobed). They were glabrous and narrow with blunt rounded tips and there were no sharp lobes at the leaf base (as on C. capillaris). The phyllaries were glabrous and the outer ones were distinctly patent. The yellow flowerhead was larger than C. capillaris. I returned on 16 August 2020 armed with the Crepis key from Stace (4th edition) and took more measurements and photos. The plant was 50cm tall and no capitula heads had fully-formed seed yet. Although the leaf shape was more typical of C. tectorum, the best match in the key was C. nicaeensis as the phyllaries are glabrous on their inner faces (though the outer faces had both short glandular and long eglandular hairs).









A hawk's-beard, probably Crepis nicaeensis, 4 August 2020. Tony Mundell

I have commented in previous issues about the unusual alien plants now being sown by farmers. One that was new to me and apparently new to Hampshire was sent to me as photos from Helen Boyce. It is Ornithopus sativus with the curious vernacular name Serradella. It is rather like a giant version (up to 70cm tall) of the native Bird's-foot O. perpusillus but growing upright instead of prostrate. It is described in Stace (4th edition) but is not included on my MapMate taxa list so I cannot record it on my database.







Serradella Ornithopus sativus, Colemore (Helen Boyce)

Achillea ptarmica (Sneezewort) Whitehouse Meadow Reserve SU84045657, beside footpath, Tony Mundell & Phil Collier 7 Jul 2020. Foxlease, N of M3 SU83035675 & SU83285691, Tony Mundell & Cathy Wilson 16 Jul 2020. Foxlease, N of M3 SU82735686, SU82705643, SU82715655, SU82445671 & SU82685688, Tony Mundell & Phil Collier 21 Jul 2020. Foxlease, S of M3 SU83245628, SU83375641, SU83015632, SU83055635 & SU83235619, Tony Mundell & Cathy Wilson 23 Jul 2020.

Agrimonia procera (Fragrant Agrimony) N of Candovers SU757363, near Hartley Wood Pond, Cathy Wilson 4 Jul 2020. Ancells Farm & Bramshot Fields SU82835582, beside main track, Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83325815 & SU83475818, several large plants beside a main track, Tony Mundell & Cathy Wilson 17 Aug 2020.

Agrostis curtisii (Bristle Bent) Hawley Common SU83395790, a few plants at track junction but trampled and droughted, Tony Mundell & Cathy Wilson 13 Aug 2020.

Agrostis gigantea (Black Bent) Foxlease, Minley part SU82315729, on a bonfire site, Tony Mundell & Phil Collier 28 Jul 2020.

Agrostis vinealis (Brown Bent) Hawley Common SU83445788 & SU83545786, specimen confirmed from beside main sandy track, but probably in many other places on the dry heathland, Tony Mundell & Cathy Wilson 13 Aug 2020. Hawley Common SU83545800, on an open firebreak, and at SU83735803 beside a minor ditch that had formerly been cleared and scraped, Tony Mundell & Cathy Wilson 17 Aug 2020.

Aira caryophyllea (Silver Hair-grass) Hawley Common SU83215792, many plants towards base of tall earthen bund, Tony Mundell & Cathy Wilson 13 Aug 2020.

Alcea rosea (Hollyhock) Several hundred self-seeded plants of every colour growing along Village Street, Sheet, at base of high wall, from SU7588 2453 to SU7599 2451. An amazing sight! Know here for many years, Steve Povey & Sheryl Pape 21 Jun 2020.

Alchemilla mollis (Garden Lady's-mantle) Tweseldown SU832521, on heap of imported soil, Sarah Smith 7 Jun 2020.

Amaranthus retroflexus (Common Amaranth) Odiham SU759492, on edge of arable field near Roke Farm, and in at least three separate fields in the area, Mike Marshall 14 Jul 2020.

Anacamptis pyramidalis (Pyramidal Orchid) Many records - this is just a selection! Crawley Village playground SU42563503, one plant in flower, within grass left uncut since early April 2020, also The Street, Barton Stacey SU43844230, four flowering Tristan Norton 1 Jun 2020. Winnall Tesco, south of main Tesco entrance sign, one flowering plant, also Percy Hobbs roundabout SU520293, at least several dozen present throughout all verges, Tristan Norton 4 Jun 2020. Holybourne, South, at least 35 spikes on central reservation of A31, between SU7355 4033 and SU7357 4034, also 2 spikes beside footpath up Copt Hill SU73784015, Cathy Wilson 4 Jun 2020. Noar Hill SU739319 & SU745318, Peter Vaughan 9 Jun 2020. Longparish old tip SU412436, many thousand scattered over whole site, John Moon 10 Jun 2020. Winchester, A31/B3404 roundabout SU519293, 200+ flowering plants in all grassed areas of roundabout, and 40+ at SU52052937, Anna Stewart 20 Jun 2020.

Shortheath Common SU77513690, two spikes between car park and pond. In amongst 60 Dactylorhiza fuchsii. Adjacent to mown grass that may contain more of both species, Cathy Wilson 20 Jun 2020. Yateley Country Park SU81675894, near track, Jean Cheadle 24 Jun 2020. Hollybush Hill SU88515287, 68 spikes, Steve Bailey 1 Jul 2020. Combe, Walbury Hill (VC12 part) SU369620, several scattered along east road verge, Peter Billinghurst 3 Jul 2020.

Arctium lappa (Great Burdock) Foxlease, N of M3 SU82415679, SU82435694, SU82735699, many plants scattered on grassy verges of a track, Tony Mundell & Phil Collier 21 Jul 2020. Ancells Farm & Bramshot Fields SU82775589, SU82815585, beside main track, Tony Mundell & Cathy Wilson 30 Jul 2020.

Atropa belladonna (Deadly Nightshade) Matterley Estate, Telegraph clump SU52652843, several plants clumped together, one metre tall, flowers and fruits present, Anna Stewart 17 Jul 2020.

Barbarea verna (American Winter-cress) Church Crookham, Conifer Close, photo taken of fruiting plant at SU81018 52093 in the roadside pavement. There are more plants on the opposite pavement, Tony Mundell 2 Jun 2020.

Berberis vulgaris (Barberry) Hawley Common, a row of at least three shrubs at SU8379 5777, SU8380 5778 and SU8384 5780 etc. presumably originally planted, on the heathland side of the roadside fence-line, Tony Mundell & Cathy Wilson 13 Aug 2020.

Bidens cernua (Nodding Bur-marigold) Avington Lake – west shore SU52813223, many plants, Dave Pearson 25 Aug 2020.

Bidens tripartita (Trifid Bur-marigold) Avington Lake west shore SU52813223, growing at edge of pond among many Nodding Bur-marigolds, Dave Pearson 25 Aug 2020.

Blackstonia perfoliata (Yellow-wort) Springvale, Kings Worthy SU485335, Jonathan & Charlotte Smith 26 Jul 2020.

Briza maxima (Greater Quaking-grass) Church Crookham, plentiful as a pavement weed for 70m along the verge of Rounton Road from SU8167 5219 to SU8170 5213, Tony Mundell 29 Jun 2020. East Worldham SU74903816, on roadside, presumably garden escape or deliberately sown, Cathy Wilson 9 Jul 2020.

Bromus commutatus (Meadow Brome) [Now lumped within **Bromus racemosus (Smooth Brome)** in 'Stace'] Matterley Estate SU52862902, number of plants along a grassy track, photo, Anna Stewart 23 Jun 2020.

Bromus secalinus (Rye Brome) Hannington SU550573, throughout field, and Kingsclere Estate SU578553, throughout field, Alison Cross 3 Aug 2020.

Calystegia sepium subsp. sepium f. colorata (Hedge **Bindweed – pink form)** Bramshot Lane SU83215606, on road verge, a single pink flower, Tony Mundell & Cathy Wilson 23 Jul 2020.

Camelina sativa (Gold-of-pleasure) N of Colemore SU706311, in an arable field where the farmer says he has sown a 'Rescue Mix', Helen Boyce 26 Jul 2020. Identified by Tony Mundell from excellent close-up

Campanula glomerata (Clustered Bellflower) Combe, Walbury Hill (VC12 part) several on road verge at SU36966201 and SU36946202, Peter Billinghurst 3 Jul 2020. Magdalen Hill Down SU49972928 & SU50292928, a few individual plants, Anna Stewart 5 Jul 2020. Noar Hill a magnificent display, SU74173190 100 flower spikes, SU74133190 23 spikes, SU74203190 13 spikes, Nigel Johnson & Rosemary Webb 20 Jul 2020.

Campanula trachelium (Nettle-leaved Bellflower) Spollycombe Copse SU736430, in flower on edge of copse, Keith Betton 20 Jul 2020.

Carduus nutans (Musk Thistle) Noar Hill SU74223194, Peter Vaughan 9 Jun 2020. Springvale, Kings Worthy SU485335, Jonathan Smith 21 Jul 2020.

Carex binervis (Green-ribbed Sedge) Foxlease, Minley part SU82055709, beside a previously cleared ditch, Tony Mundell & Phil Collier 28 Jul 2020. Hawley Common SU83655799, locally frequent on a mown firebreak, Tony Mundell & Cathy Wilson 13 Aug 2020. Hawley Common SU83145307, beside a main track, and SU83765810 in a shallow ditch beside a main gravel track, Tony Mundell & Phil Collier 17 Aug 2020.

Carex canescens (White Sedge) Foxlease, N of M3 SU82545696, SU82585696 & SU82595696, in the few sections of a badly overgrown ditch where light can still penetrate, Tony Mundell & Phil Collier 21 Jul 2020. Foxlease, Minley part SU82125715, about five tussocks in a large open shallow depression, Tony Mundell & Phil Collier 28 Jul 2020.

Carex caryophyllea (Spring-sedge) Whitehouse Meadow Reserve SU841565, a few tufts in one spot only, Tony Mundell & Phil Collier 7 Jul 2020.

Carex diandra (Lesser Tussock-sedge) Greywell Fen SU720509, within 10m of C. x fulva and C. hostiana, Fred Rumsey & Mark Jannink 26 Jun 2020.

Carex disticha (Brown Sedge) Foxlease, N of M3 SU83385660, SU83665666 & SU83685661, small patches, Tony Mundell & Cathy Wilson 23 Jul 2020. Foxlease, North-east SU83505671, many scattered plants extending at least to SU83485670, Tony Mundell & Cathy Wilson 6 Aug 2020.

Carex echinata (Star Sedge) Foxlease, S of M3 SU83035632, beside scraped section of ditch, Tony Mundell & Cathy Wilson 23 Jul 2020. Foxlease, Minley part SU82055709, beside a previously cleared ditch, Tony Mundell & Phil Collier 28 Jul 2020. Ancells Farm & Bramshot Fields SU82405575, at the pond edge, Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83845792, a few plants in a rather overgrown ditch, Tony Mundell & Cathy Wilson 13 Aug 2020. Hawley Common SU83885821, in overgrown ditch, Tony Mundell & Phil Collier 17 Aug 2020.

Carex hostiana (Tawny Sedge) Greywell Fen SU720509, within 10m of *C.* x *fulva* and *C. diandra*, Fred Rumsey & Mark Jannink 26 Jun 2020. Ancell's Farm SU82355571, a few plants 2m from path between Myrica gale bushes. Much decreased now that the formerly scraped area is more vegetated, Tony Mundell & Phil Collier 4 Aug 2020. Hawley Common SU83765810, shallow ditch beside a main gravel track, Tony Mundell & Phil Collier 17 Aug 2020.

Carex laevigata (Smooth-stalked Sedge) Hawley Common SU83705806, two clumps in a ditch, neither fruiting as too heavily shaded by scrub, also at SU83715802 one splendid huge fruiting plant plus two smaller ones in an open section of this ditch, Tony Mundell & Phil Collier 17 Aug 2020.

Carex lepidocarpa (Long-stalked Yellow-sedge) Greywell Fen SU720509, within 10m of C. x fulva and C. diandra, Fred Rumsey & Mark Jannink 26 Jun 2020.

Carex pallescens (Pale Sedge) Ancell's Farm SU82365572, a small group of plants beside path in previously scraped area, Tony Mundell & Phil Collier 4 Aug 2020.

Carex pulicaris (Flea Sedge) Noar Hill SU74263184, several tens of plants noted, Tristan Norton 9 Jun 2020. Mapledurwell Fen SU67795230, Fred Rumsey 28 Jun 2020. Ashford Hill NNR SU56480 61845 and SU56482 61842, Sarah White 6 Jul 2020. Hawley Common SU83765810, shallow ditch beside a main gravel track. In a dense group on a raised hummock under a small Gorse. Fruiting plants of this also extend north on both sides of the ditch to SU8376 5811, SU8376 5812 and SU8376 5813, so for 30 metres, Tony Mundell & Phil Collier 17 Aug 2020.

Carex vesicaria (Bladder-sedge) Foxlease, N of M3 SU83215667, plentiful over a large area, Tony Mundell & Cathy Wilson 16 Jul 2020. Foxlease, N of M3 SU82885670, in ditch, Tony Mundell & Phil Collier 21 Jul 2020. Foxlease, N of M3 SU83575663, a small patch of plants, Tony Mundell & Cathy Wilson 23 Jul 2020. Foxlease, Minley part SU82815735, a large fruiting patch 8m x 3m on north edge of meadow, Tony Mundell & Phil Collier 28 Jul 2020. Foxlease, North-east SU83735663, edge of dried-up pond. This pond needs rescuing, removing the invading trees! Tony Mundell & Cathy Wilson 6 Aug 2020.

Carex x fulva (C. hostiana x lepidocarpa) Greywell Fen SU720509, several plants with both parents and within 10m of C. diandra, Fred Rumsey & Mark Jannink 26 Jun 2020.

Centaurea cyanus (Cornflower) E of Laverstoke SU50444900, all along field edge (north boundary) in organic spring cereal. Probably introduced from previous grass ley mix, Alison Cross 7 Jul 2020. Chilbolton Down Farm SU42203660, extensive patch of plants c.10m x 5m in corner of crop and extending eastwards, Tristan Norton 16 Jul 2020.

Centaurium pulchellum (Lesser Centaury) Longmoor SU79052980, several small plants, Tony Mundell & Steve Povey 20 Aug 2020.

Cephalanthera damasonium (White Helleborine) Monk Wood SU74173917, 3 spikes on a bank, approx 3m in from the edge of the wood, Cathy Wilson 4 Jun 2020. Woolverton Chalk-pit SU554576, 114 plants, now in seed, beneath Beech trees, Andrew Bolton 24 Jul

Ceratocapnos claviculata (Climbing Corydalis) Foxlease, S of M3 SU83045611, small flowering patch near north edge of meadow under trees, Tony Mundell & Cathy Wilson 23 Jul 2020.

Chaenorhinum minus (Small Toadflax) Hurstbourne Tarrant SU390535, in considerable quantity on fallow arable, Peter Billinghurst 15 Jul 2020. Crawley SU444340, locally abundant, sometimes forming dense carpet, Tristan Norton 22 Jul 2020. New Barn Farm, Crawley SU442342, frequent clumps all along S side of set-aside strip. Flowering, Tristan Norton 26 Aug 2020.

Cirsium acaule (Dwarf Thistle) Ladle Hill SU478567, Peter Vaughan 26 Jun 2020.

Cirsium dissectum (Meadow Thistle) Foxlease, N of M3 SU830567, abundant throughout this 100m x 100m square, Tony Mundell & Cathy Wilson 16 Jul 2020. Foxlease, N of M3 SU82895663, large patch in wet meadow, Tony Mundell & Phil Collier 21 Jul 2020. Ancells Farm & Bramshot Fields SU82355572, locally plentiful in a previously scraped area, Tony Mundell & Cathy Wilson 30 Jul 2020. Ancell's Meadows SU82965628, a very large patch, Tony Mundell & Phil Collier 4 Aug 2020. Foxlease, North-east SU83555682, abundant over a large area here, Tony Mundell & Cathy Wilson 6 Aug 2020.

Cirsium eriophorum (Woolly Thistle) Springvale, Kings Worthy SU484335 & SU485336, Phil Allen & Sarah White 18 Jul 2020.

Coeloglossum viride (Frog Orchid) Noar Hill SU74123198 three flowering one in seed, SU74123203 one flowering, SU74133203 one flowering, SU74153190 one in seed, Nigel Johnson & Rosemary Webb 20 Jul

Comarum palustre (Marsh Cinquefoil) Foxlease, N of M3 SU82745694, at shaded edge of a pond, Tony Mundell & Phil Collier 21 Jul 2020.

Crepis nicaeensis (French Hawk's-beard) Ancell's Meadows, Tony Mundell & Phil Collier 4 Aug 2020, a single flowering plant at SU82864 56107, 9m from a gate and 2.5m from the nearest part of the wooden boards (for avoiding poached mud near the gate).

Cruciata laevipes (Crosswort) Longparish old tip SU412436, several large patches, John Moon 10 Jun 2020.

Cyperus eragrostis (Pale Galingale) Bramshot Lane SU83355625, on road verge, Tony Mundell & Cathy Wilson 23 Jul 2020.

Dactylorhiza incarnata (Early Marsh-orchid) Castle Bottom SU799594, 51 spikes, Binz Chapman 10 Jun 2020.

Dactylorhiza maculata (Heath Spotted-orchid) Castle Bottom SU79905977, edge of mire habitat near boardwalk up to old bench, Jean Cheadle 3 Jun 2020. Castle Bottom SU79955975 & SU79965976, below boardwalk, Binz Chapman 10 Jun 2020.

Dactylorhiza praetermissa (Southern Marsh-orchid) Hatch nature reserve SU677522, Peter Vaughan 1 Jun 2020. Greywell Moors nature reserve SU720509, Peter Vaughan 4 Jun 2020.

Dactylorhiza x grandis (D. fuchsii x praetermissa) Greywell Moors nature reserve SU720509, Peter Vaughan 4 Jun 2020. Ashford Hill NNR SU56481 61836 & SU56480 61836, Sarah White 6 Jun 2020.

Danthonia decumbens (Heath-grass) Church Crookham, Award Road SU81045241, completely dominant in a garden lawn, Tony Mundell 2 Jun 2020. Whitehouse Meadow Reserve SU841565, surprisingly frequent in many places on the reserve, Tony Mundell & Phil Collier 7 Jul 2020.

Datura stramonium (Thorn-apple) Matterley Estate SU52472885, two small plants, Anna Stewart 20 Aug 2020.

Dipsacus laciniatus (Cut-leaved Teasel) W of Liss SU77842751, three flowering plants beside path to Somersfield Terrace, Steve Povey & Laura Gravestock 2 Aug 2020.

Dipsacus pilosus (Small Teasel) Sheet SU75902482, several plants in rough grass beside perimeter fence of Sheet Allotments, Steve Povey & Sheryl Pape 21 Jun 2020.

Drosera intermedia (Oblong-leaved Sundew) Many recent records so only a few examples given. Foxlease, N of M3 SU82875697, dozens of plants in a patch 60cm x 40cm on bare poached peat in a shallow dried-up pond, Tony Mundell & Phil Collier 21 Jul 2020. Ancells Farm SU82395576, in extraordinary abundance in the pond, now nearly dried-up, Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83675798, locally abundant in bed of dried-up ditch, Tony Mundell & Cathy Wilson 13 Aug 2020.

Drosera rotundifolia (Round-leaved Sundew) Many recent records so only a few examples given. Shortheath Common SU7736, many plants on raised bog at Shortheath Common, Cathy Wilson 26 Jun 2020. Ancells Farm SU82395576, a few scattered plants in the pond, now nearly dried-up, Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83675798, locally abundant in bed of dried-up ditch, Tony Mundell & Cathy Wilson 13 Aug 2020.

Dryopteris affinis subsp. paleaceolobata (Scaly Male-fern) Tweseldown Wood, six or seven plants at SU8205 5206 and nearby, Fred Rumsey 18 Jun 2020. Specimen confirmed by Roger Golding.

Echinochloa crus-galli (Cockspur) Bordon By-pass SU788361, occasional, Steve Povey & Laura Gravestock 2 Aug 2020. Hawley Common SU83735778, a few plants beside the main sandy track, Tony Mundell & Cathy Wilson 13 Aug 2020.

Eleocharis multicaulis (Many-stalked Spike-rush) Many recent records so only a few examples given. Foxlease, N of M3 SU82915693, dominant in dried-up pond, Tony Mundell & Phil Collier 21 Jul 2020. Foxlease, Minley part SU82125716, locally dominant in a large open shallow depression, Tony Mundell & Phil Collier 28 Jul 2020.

Epilobium palustre (Marsh Willowherb) Many recent records so only a few examples given. Whitehouse Meadow Reserve SU84035653, a good colony of about 20 plants but confined to one area, Tony Mundell & Phil Collier 7 Jul 2020. Foxlease, S of M3 SU83045632, in scraped section of a ditch, Tony Mundell & Cathy Wilson 23 Jul 2020. Ancells Farm & Bramshot Fields, scattered plants at SU82718 55843, Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83765786, boggy area beside a minor path. Tony Mundell & Cathy Wilson 13 Aug 2020. Longmoor SU78392955, SU78412956 & SU78472960, in ditch beside main gravel track, Tony Mundell & Dave Pearson 15 Aug 2020.

Epipactis helleborine (Broad-leaved Helleborine) Christmas Hill SU46233398, several hundred plants noted. Mostly at S edge of woodland on bank but throughout most of area. Many non-flowering stems in deepest shade, Tristan Norton 8 Jul 2020. Church Crookham Churchyard SU807517, under a hedge, Sarah Smith 9 Jul 2020. Velmead Common SU819530. three plants, Sarah Smith 26 Jul 2020. SW of Binsted SU76764040, one spike approx 5m above track, under Corylus avellana and Quercus robur with 4 large trunks (former coppice), amongst Paris quadrifolia and Hyacinthoides non-scripta, Cathy Wilson 7 Aug 2020. Fleet Services Southbound SU79655562, dark red flowers, Anna Stewart 25 Aug 2020.

Epipactis palustris (Marsh Helleborine) Greywell Moors nature reserve, fields next to Pumping Station SU7251, first flowers opening, Peter Vaughan 12 Jun 2020. Mapledurwell Fen, var. palustris at SU67785230, SU6779 5231, SU6777 5231 and SU6778 5232, Fred Rumsey 28 Jun 2020.

Epipactis palustris var. ochroleuca (Marsh Helleborine) Mapledurwell Fen SU67795229, SU67795221 & SU67795230, Fred Rumsey 28 Jun 2020.

Epipactis phyllanthes (Green-flowered Helleborine) Old Alresford SU586330, northern side of footpath and west of red dog bin, Dave Pearson 28 Jun 2020, photo confirmed by Tony Mundell.

Epipactis phyllanthes var. vectensis (Green-flowered Helleborine) A343 south of The Chase SU443623 13 spikes on road verge in this 100m square, SU443624 31 spikes on road verge in this 100m square, SU444624 24 spikes on road verge in this 100m square, SU444625 3 spikes on road verge in this 100m square, Nigel Johnson 5 Aug 2020.

Epipactis purpurata (Violet Helleborine) Newnham/ Up Nately SU707524, five plants, one intact and in flower, one intact and in bud, one four-stemmed plant that had been severely grazed, one two-stemmed plant with striking, violet-bordered leaves and one fivestemmed plant that had large developing flower spikes on 20 Jul but has now been badly grazed, Peter Vaughan 23 Jul 2020. N of Froxfield SU711271, five plants on bank beside lane, Steve Povey 14 Aug 2020. E of Four Marks SU681358, at least 12 plants noted, all gone over. Infrequent along verge and within one unmown front garden on N side of The Shrave, Tristan Norton19 Aug 2020.

Equisetum sylvaticum (Wood Horsetail) Sheet SU757247, many plants on bank of Mill Lane, Steve Povey & Laura Gravestock 2 Aug 2020.

Equisetum x littorale (Shore Horsetail E. arvense x fluviatile) Ancell's Farm SU82615596, patch 3m x 1m in ditch, Tony Mundell & Cathy Wilson 30 Jul 2020. Ancell's Farm SU82615605, in ditch, colony extending to SU8261 5600, also SU82375580 in ditch extending to SU8236 5579, Tony Mundell & Phil Collier 4 Aug 2020.

Erigeron acris (Blue Fleabane) Winchfield SU754544, on railway bridge, Mike Marshall 9 Jun 2020.

Eriophorum angustifolium (Common Cottongrass) Ashford Hill NNR SU56480 61843, Sarah White 6 Jul 2020. Foxlease, S of M3 SU83005631, in scraped section of ditch, Tony Mundell & Cathy Wilson 23 Jul 2020. Foxlease, Minley part SU82835701, in dried-up shallow pool, Tony Mundell & Phil Collier 28 Jul 2020. Ancell's Meadows SU82995636, in a previously cleared section of ditch, Tony Mundell & Phil Collier 4 Aug 2020. Hawley Common SU83765786, boggy area beside a minor path, Tony Mundell & Cathy Wilson 13 Aug 2020.

Eryngium giganteum (Tall Eryngo) A31, near Cuckoo's Corner SU74694168, noticed in central reservation while driving past, so grid reference approximate, Fred Rumsey 25 Jul 2020.

Euphorbia exigua (Dwarf Spurge) Malshanger Estate, along the field edge SU5731 5389 to the corner at SU5739 5393, Fred Rumsey 25 Jul 2020. Sheet Allotments SU759248, Steve Povey & Sheryl Pape 21 Jun 2020. Crawley SU43053457, thousands of plants, forming dense carpet in field corner and throughout crop edge for c.20m length S and E, Tristan Norton 15 Jul 2020. Crawley SU427342, frequent throughout weedy margin and into pea crop, Tristan Norton 20 Jul 2020.

Euphorbia platyphyllos (Broad-leaved Spurge) Froyle SU76384360, hundreds if not thousands in an Oilseed Rape field, directly SW of the public footpath, Sue Clark 17 Jun 2020.

Euphorbia x *pseudovirgata* (Twiggy Spurge) Chilbolton Down Farm SU41403674, c.100 flowering stems along c.20m stretch of woodland edge. Obvious increase since 2019, Tristan Norton 24 Jun 2020.

Filago germanica (Common Cudweed) Gibb's Lane, Bordon SU78573647, six large clumps noted. Occasional on damp sandy verge and puddle edges, Tristan Norton 19 Aug 2020.

Filago lutescens (Red-tipped Cudweed) Minley Road, Fleet SU81255636, 14 plants, the majority on bare ground on slope about 5m from road, Dave Pearson 1 Jul 2020. Broomhurst Farm, road verge SU81255636, 30+ mostly good, large plants with one outlier at SU81245636 at the bottom of the slope, Fred Rumsey 14 Jul 2020.

Filipendula vulgaris (Dropwort) Worthy Down SU455354, frequent throughout site, Tristan Norton 23 Jun 2020.

Fumaria densiflora (Dense-flowered Fumitory) Newton Stacey SU424409, c.6 individual plants noted in c.10m length of margin, Tristan Norton 3 Jul 2020. Matterley Estate SU52452894, small flowers, sepals large, Anna Stewart 20 Aug 2020.

Fumaria parviflora (Fine-leaved Fumitory) Chilbolton Down Farm SU421366, one healthy and sizeable plant within 'weedy' margin, Tristan Norton 16 Jul 2020, two additional plants noted on 22 Jul 2020, very small, flowering c.3m west of first plant, photo confirmed by Tony Mundell.

Fumaria vaillantii (Few-flowered Fumitory) Crawley SU42713421, single plant noted, minute sepals, apiculate fruits longer than wide, Tristan Norton 20 Jun 2020. Confirmed from photos by BSBI Fumaria Referee, Tim Rich.

Galega officinalis (Goat's-rue) Winchfield, Beggar's Corner SU752542, in a field, Mike Marshall 9 Jun 2020, photo confirmed by Tony Mundell.

Galinsoga parviflora (Gallant Soldier) Sheet Allotments SU759248, Steve Povey & Sheryl Pape 21 Jun 2020.

Galium parisiense (Wall Bedstraw) Hawley Common SU83215789, many dried-up plants on very steep wall of tall earthen bund, Tony Mundell & Cathy Wilson 13 Aug 2020.

Galium pumilum (Slender Bedstraw) Ladle Hill, one plant re-found at SU47671 56738, Fred Rumsey 6 Jun 2020.

Galium x pomeranicum (G. verum x album) Noar Hill SU741318, single plant, Helen Boyce 7 Jul 2020, photos confirmed by Tony Mundell.

Gaultheria shallon (Shallon) Hawley Common SU83495765, a large patch on the roadside verge, extending under the fence-line onto the heathland, Tony Mundell & Cathy Wilson 13 Aug 2020.

Genista anglica (Petty whin) Ancell's Farm, a patch 1m across at SU82565 55690, Tony Mundell & Cathy Wilson 30 Jul 2020. Ancell's Farm, despite much searching we could only find a single bush at SU82538 55933, though there were many dozens of bushes in this NW corner of the meadow on 18 May 2008, Tony Mundell & Phil Collier 4 Aug 2020.

Genista tinctoria subsp. tinctoria (Dyer's Greenweed) Foxlease, N of M3, SU82635687 single patch beside a track, SU82885669 30+ plants in wet meadow, SU82905663 5+ plants in wet meadow, Tony Mundell & Phil Collier 21 Jul 2020. Foxlease, Minley part SU82615701, nine large healthy clumps, flowers mostly over and much green seed formed, Tony Mundell & Phil Collier 28 Jul 2020. Ancell's Farm, a few scattered plants centered at SU82544 55686, but much decreased here compared to earlier records, Tony Mundell & Cathy Wilson 30 Jul 2020. Foxlease, North-east SU83515693 and SU83525695, single clumps, now in seed, Tony Mundell & Cathy Wilson 6 Aug 2020.

Gentianella amarella (Autumn Gentian) Danebury Iron Age Hill Fort SU326377, many hundreds of flowering plants noted across this area, extending in dense patches downslope, Tristan Norton 31 Aug 2020.

Gentianella germanica (Chiltern Gentian) Litchfield SU46315528, verge on east edge of A34 by Seven Barrows. Many dozens of flowering plants, Tristan Norton 28 Aug 2020.

Glebionis segetum (Corn Marigold) Axmansford, Wheathold Road SU563605, many plants in spring barley crop, Andrew Bolton 28 Jun 2020. Hartley Wintney SU76565608, masses of plants colouring the cornfield golden and seen from a distance. Photo taken near the field corner at SU7646 5596. On the 'Wheresthepath' website I can see extensive patches of it too, so presumably it is a fixture of this field, Fred Rumsey 12 Jul 2020.

Gymnadenia densiflora (Marsh Fragrant-orchid) Mapledurwell Fen SU6777 5230 and SU6779 5230, only about five spikes noted but mostly in bud so easily missed, Fred Rumsey 28 Jun 2020.

Hedera colchica (Persian Ivy) N of Froxfield SU712271, in quantity along hedgerow for 25+ metres, Steve Povey 14 Aug 2020.

Herminium monorchis (Musk Orchid) Noar Hill SU73983190, Peter Vaughan 9 Jun 2020. Noar Hill SU74263185 at least 10 flowering plants noted within this small area, Tristan Norton 9 Jun 2020.

Hordelymus europaeus (Wood Barley) Ackender Wood SU70183868, three fruiting spikes directly beside the path (the other site nearby was not checked), Steve Mansfield 1 Aug 2020.

Hordeum secalinum (Meadow Barley) E of Wyck, plentiful in meadow covering SU763392 and SU764392, Cathy Wilson 24 Jun 2020.

Hottonia palustris (Water-violet) Fleet Pond, plentiful in a ditch from SU82295512 to SU82315515, Tony Mundell 15 Jul 2020. Foxlease, N of M3 SU82585696, SU82595696 & SU82855685 a few plants where light can reach into a ditch, Tony Mundell & Phil Collier 21 Jul 2020. Foxlease Brook Meadow, south part SU82345691, in ditch where a little light can penetrate the overgrown scrub. Two separate patches here, one 1m across, the other extending along 5m of the ditch. Also, at SU82355693, a 1m patch in ditch where a little



Galium x pomeranicum, Noar Hill. Helen Boyce



Corn Marigold Glebionis segetum, Axmansford, 28 **June 2020.** Andy Bolton

light can penetrate the overgrown scrub, Tony Mundell & Phil Collier 28 Jul 2020.

Hypericum elodes (Marsh St John's-wort) Many recent records so only a few examples given. Foxlease, N of M3 SU83215689, in scraped ditch, Tony Mundell & Cathy Wilson 16 Jul 2020. Ancells Farm SU82375574, locally co-dominant where previously scraped, Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83675798, locally abundant in bed of dried-up ditch, Tony Mundell & Cathy Wilson 13 Aug 2020. Hawley Common SU83775816, locally abundant in a dried-up shallow pond, probably a former scrape, Tony Mundell & Phil Collier 17 Aug 2020.

Impatiens parviflora (Small Balsam) SW of Liss SU7726, many plants beside Pruetts Lane and in great quantity in valley just to west of lane, Steve Povey & Laura Gravestock 2 Aug 2020.

Isolepis setacea (Bristle Club-rush) Foxlease, N of M3 SU83275690, only one plant in ditch that had previously been cleared and scraped, Tony Mundell & Cathy Wilson 16 Jul 2020. Foxlease, Minley part SU82835701, in dried-up shallow pool. Tony Mundell & Phil Collier 28 Jul 2020. Hawley Common SU83765810, shallow ditch beside a main gravel track, Tony Mundell & Phil Collier 17 Aug 2020.

Jasione montana (Sheep's-bit) Church Crookham Churchyard SU80745182, in flower, Sarah Smith 9 Jul

Kickxia elatine (Sharp-leaved Fluellen) Crawley SU43053457, frequent in field corner and throughout crop edge, Tristan Norton 15 Jul 2020.

Kickxia spuria (Round-leaved Fluellen) Malshanger Estate, along the field edge SU5731 5389 to the corner at SU5739 5393, Fred Rumsey 6 Jun 2020. Crawley SU43053457, frequent in field corner and along crop margin, Tristan Norton 15 Jul 2020. Northdown, Near Overton SU53184757, searched remainder of margin but only found plants at the given grid ref where there were many large plants, Alison Cross 13 Aug 2020.

Koeleria macrantha (Crested Hair-grass) Matterley Estate SU53012900 & SU53032879, a few plants, Anna Stewart 16 Jun 2020.

Lagurus ovatus (Hare's-tail) Matterley Estate SU52922903, a large number of plants on gravel, Anna Stewart 23 Jun 2020. A3 Central reservation SU7525, large patch in central reservation – noted while driving, Robert Wardell 10 Jul 2020.

Lathyrus nissolia (Grass Vetchling) S of Flexcombe SU76872683, 100+ plants along 20m stretch of verge beside Flexcombe roundabout, Steve Povey 11 Jun 2020.

Legousia hybrida (Venus's-looking-glass) Newton Stacey SU424409, one flowering plant noted c.5m from field corner in centre of c.2m-wide weedy margin, Tristan Norton 3 Jul 2020.

Legousia speculum-veneris (Large Venus's-lookingglass) Malshanger Estate, the first plants are just starting to flower from SU5731 5389 along the field margin to the corner at SU5739 5393 (I did not check further on round), Fred Rumsey 6 Jun 2020.

Lemna gibba (Fat Duckweed) Ovington, in plenty in streams at and around SU562317, Steve Povey & Laura Gravestock 1 Aug 2020.

Logfia minima (Small Cudweed) Foxlease, Minley part SU83095711, on small hummock, Tony Mundell & Phil Collier 28 Jul 2020. Hawley Common SU83375791, a few beside main sandy track, Tony Mundell & Cathy Wilson 13 Aug 2020.

Lycopodiella inundata (Marsh Clubmoss) Hawley Common SU83615806, about 35 plants with four strobili in a former scrape, Tony Mundell & Phil Collier 17 Aug 2020. The population has crashed, probably due to the recent drought conditions, from over 2,000 plants at 18 different spots within SU836580 recorded on 27 Sep 2013. We checked those extra spots (where hundreds of plants were also found on 2 Oct 2015) but found none. We also failed to find any in SU8357 at the former sites in SU830577 where 30 were last recorded on 18 Jul 2013. Also, Hawley Common SU83635807, Tony Mundell & Phil Collier 17 Aug 2020, seriously declined. About five plants with no strobili, in an old scrape. There were over 1,100 plants in this spot, on 27 Sep 2013 and then over 2,000 in the 100m x 100m square SU836580.

Lysimachia arvensis subsp. arvensis f. pallida (Scarlet Pimpernel, pale form) Crawley SU43313486, forma pallida amongst abundant f. arvensis, Tristan Norton 26 Aug 2020.

Lysimachia tenella (Bog Pimpernel) Bartley Heath (west side), Hook SU729 534, Peter Vaughan 8 Jun 2020. Mapledurwell Fen SU67795229, Fred Rumsey 28 Jun 2020. Ashford Hill NNR SU564618, plentiful and flowering well, Sarah White 6 Jul 2020. Foxlease, N of M3 SU83215688 & SU83275689 a few plants flowering well in ditch sections that had previously been cleared and scraped, Tony Mundell & Cathy Wilson 16 Jul 2020. Foxlease, Minley part SU82125715, SU82125716, SU82135716 locally plentiful in a large open shallow depression, Tony Mundell & Phil Collier 28 Jul 2020. Ancells Farm & Bramshot Fields SU82355572, locally plentiful in a previously scraped area Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83675801, SU83715808, SU83735803, SU83755815, SU83765810, SU83775816, SU83885821 etc., Tony Mundell, Cathy Wilson & Phil Collier 17 Aug 2020.

Malva neglecta (Dwarf Mallow) Crawley, several plants at foot of wall at SU42503484. Reoccurrence at an old site for this plant, John Moon 8 Jun 2020.

Mentha pulegium (Pennyroyal) Longmoor Ranges, several plants together in one small area at SU79052 29821, Dave Pearson 7 Aug 2020.

Myosotis laxa subsp. caespitosa (Tufted Forget-menot) Foxlease, N of M3 SU83045659, several plants 2m away from the W edge of the dried-up pond. Also, SU83215668, a few flowering plants amongst Carex vesicaria and Carex acutiformis, both Tony Mundell & Cathy Wilson 16 Jul 2020.

Myrica gale (Bog-myrtle) Foxlease, N of M3 SU828569, dominant in this 100m x 100m square and swamping other rarities that used to be present here, Tony Mundell & Phil Collier 21 Jul 2020. Foxlease, Minley part, dominant across most of this 100m x 100m square, Tony Mundell & Phil Collier 28 Jul 2020.

Myriophyllum spicatum (Spiked Water-milfoil) SE of East Worldham SU75343770, in pond, Cathy Wilson 26 Jun 2020.

Nardus stricta (Mat-grass) Whitehouse Meadow Reserve SU84125649, abundant in many places on the reserve, Tony Mundell & Phil Collier 7 Jul 2020.

Narthecium ossifragum (Bog Asphodel) Many recent records so only a few examples given. Castle Bottom SU798596 46 flower spikes, and SU799594 248 spikes, Binz Chapman 10 Jun 2020. Yateley Country Park SU82105953, 137 spikes, Jean Cheadle 17 Jul 2020. Foxlease, N of M3 SU82885695, a single flowering plant amongst a sea of Myrica gale, Tony Mundell & Phil Collier 21 Jul 2020. Hawley Common SU83805786, many in a plant-rich open boggy area, Tony Mundell & Cathy Wilson 13 Aug 2020.

Neotinea ustulata (Burnt Orchid) Ladle Hill, found only one in flower at SU 4782 5673, Peter Vaughan 26 Jun 2020.

Nepeta cataria (Cat-mint) Abbotstone SU566350, at the site of the old dairy, Steve Mansfield 26 Jul 2020.

Oenanthe fistulosa (Tubular Water-dropwort) Ashford Hill Meadows SU56276185, in flower, growing with Stellaria palustris, that is mostly now going over, Sarah White & Bob Winfield 29 Jun 2020.

Omalotheca sylvatica (Heath Cudweed) Hawley Common SU83395790, a few plants at track junction but trampled and droughted, also a few flowering spikes beside main sandy track at SU83405790, Tony Mundell & Cathy Wilson 13 Aug 2020. The Hawley population is massively reduced. We found none beside the track in SU831578 where 110 spikes were counted on 13 Aug 2012. Large excavations have been cut in the sand beside that track possibly to provide material to make the enormous bund around the nearby building. Longmoor SU79462991, about 20 flowering plants at a minor sandy track junction about 30m from the main gravel track, Tony Mundell & Dave Pearson 15 Aug 2020.

Ophrys apifera (Bee Orchid) West Down: Dobbs Field SU38783898, five flowering spikes, Glynne Evans 4 Jun 2020. Percy Hobbs roundabout SU51952934, west side of roundabout, 4 plants noted at base of small shrub. 3 are obvious var. belgarum, 1 normal var. apifera. The Warren, East SU734281, two small flowering plants beside path through open grassy area, Steve Povey 8 Jun 2020. Balksbury Hill SU348444, min 90+ plants flowering, Tristan Norton 10 Jun 2020. Longparish old tip, seven at SU4132 4366, beside footpath, John Moon 10 Jun 2020.

Ophrys apifera var. belgarum (Bee Orchid) Easton Lane, Winnall SU49523036, with several withered White Helleborines, Dave Pearson 11 Jun 2020. Winchester, A31/B3404 roundabout SU519293, ten plants, Anna Stewart 20 Jun 2020.

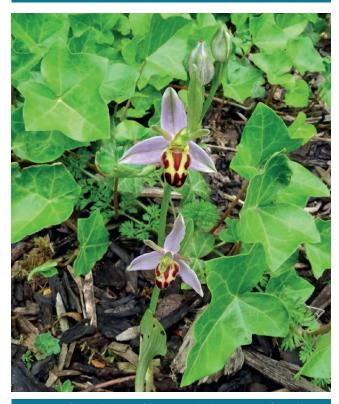
Ophrys insectifera (Fly Orchid) Noar Hill SU74273182, Peter Vaughan 9 Jun 2020.

Ornithopus perpusillus (Bird's-foot) Broomhurst Farm, road verge SU81255636, near the Filago lutescens plants, Fred Rumsey 14 Jul 2020. Foxlease, North-east SU83475700, amongst patches of Pilosella officinalis and on ant hills, Tony Mundell & Cathy Wilson 6 Aug 2020.

Ornithopus sativus (Serradella) N of Colemore SU707315, in an arable field on the Rotherfield Estate,



Cat-mint Nepeta cataria, Abbotstone old dairy, **26 July 2020.** Steve Mansfield



Bee Orchid Ophrys apifera var. belgarum, Winnall, 13 June 2020. Dave Pearson

Helen Boyce 23 Jul 2020. Identified by Tony Mundell from excellent photographs. On 26 July 2020 more plants were found nearby at SU706311 by Helen Boyce and the farmer said he had sown 'Rescue Mix' there (though O. sativus was not listed in the mix).

Orobanche elatior (Knapweed Broomrape) Noar Hill SU73923193, Peter Vaughan 9 Jun 2020. Matterley Estate, Hidden Valley SU52662870, a large number of plants, Anna Stewart 23 Jun 2020. Odiham SU744498, in rank grass with Knapweeds at entrance to Snatchangers

Farm, Mike Marshall 14 Jul 2020. Itchen Stoke Down SU55603432, two spikes with Centaurea scabiosa beside path, Cathy Wilson 24 Aug 2020.

Orobanche hederae (Ivy Broomrape) Hook SU727537, amongst Ivy in hedge on west side of B3349, Mike Marshall 20 Jun 2020. Photo confirmed by Tony Mundell.

Orobanche hederae f. monochroa (Ivy Broomrape) New Alresford SU58693240 & SU58793253, in two places near the Watercess Line Station, Chris Matcham 20 Jul 2020, photos determined by Tony Mundell. S of Old Alresford SU58783373, at least 23 spikes under trees beside path, Cathy Wilson 24 Aug 2020.

Orobanche rapum-genistae (Greater Broomrape) Ashford Hill Meadows, three Broom bushes hosting O. rapum-genistae at SU56289 62099, SU56279 62106 and SU56295 62118, Sarah White & Bob Winfield 29 Jun 2020.

Osmunda regalis (Royal Fern) Ancell's Farm, six separate crowns still present, all within about a square metre at SU82433 55772 among many youngish Birch trees, Tony Mundell & Cathy Wilson 30 Jul 2020. Hawley Common SU83895791, three large mature crowns in fruit beside a ditch, but partly buried under a pile of cut brash. Two small young plants nearby in the ditch, Tony Mundell & Cathy Wilson 13 Aug 2020.

Pedicularis palustris (Marsh Lousewort) Greywell Moors SU720509, Peter Vaughan 4 Jun 2020. Ashford Hill NNR SU56481 61843 and SU56485 61837, Sarah White 6 Jul 2020.

Phelipanche purpurea (Yarrow Broomrape) A31 near Chawton Roundabout SU70543761, five small flowering plants on verge of central reservation, I marked them with sticks, June Chatfield 14 Jun 2020. A31 near Chawton Roundabout SU70543761, following on from June Chatfield's information I actually found seven spikes by her marker at SU70541 37610, although some in bud and tiny. They are c.1.5m from the road verge. There are also c.15 plants at SU70541 37612 c. 1m from the verge, plus one slightly bigger plant at SU70542 37614. Nearer to the roundabout there is also one small plant at SU70474 37530 and three in a c.1m triangle at SU70470 37533. So, in all 27 flowering shoots, Fred Rumsey 15 Jun 2020.

Platanthera chlorantha (Greater Butterfly-orchid) The Warren, East SU734281, around 200 flowering plants scattered in open grassy area, Steve Povey 8 Jun 2020.

Poa compressa (Flattened Meadow-grass) Fleet Services, Southbound SU79865572, small clump, flattened stalk, compact inflorescence, Anna Stewart 9 Jul 2020.

Polycarpon tetraphyllum (Four-leaved Allseed) Aldershot, Princes Way SU86085081, at the top of Princes Way beside/below Cineworld. At least three reasonably sized plants coming up from between the paving slabs, Fred Rumsey 19 Jun 2020. Aldershot, Lime Street SU85905059, between pavers at top of Lime Street, Fred Rumsey 7 Jul 2020.



Ivy Broomrape Orobanche hederae, Hook, 20 June 2020. Mike Marshall



Four-leaved Allseed Polycarpon tetraphyllum, Aldershot, 7 July 2020. Fred Rumsey

Polypogon monspeliensis (Annual Beard-grass) Hogmoor Road, North, scattered in plenty along verges of Bordon By-pass from SU787359 to SU789352, Steve Povey & Laura Gravestock 28 Jun 2020. Bordon Bypass SU790363, in great quantity, Steve Povey & Laura Gravestock 2 Aug 2020.

Polypogon viridis (Water Bent) Ovington SU561319, single plant on bank of River Itchen by bridge, Steve Povey & Laura Gravestock 1 Aug 2020.

Potentilla norvegica (Ternate-leaved Cinquefoil) Hogmoor Road, North, scattered in plenty along verges of Bordon By-pass from SU787359 to SU789352, Steve Povey & Laura Gravestock 28 Jun 2020.

Ranunculus hederaceus (Ivy-leaved Crowfoot) Foxlease, Minley part SU82505726 & SU82545727, locally plentiful in a ditch, Tony Mundell & Phil Collier 28 Jul 2020.

Ranunculus omiophyllus (Round-leaved Crowfoot) Foxlease, Minley part SU82035711, in a previously scraped area, Tony Mundell & Phil Collier 28 Jul 2020.

Rhynchospora alba (White Beak-sedge) Hawley Common SU83675792 locally frequent in dried-up ditch, also SU83805786 large patch in a plant-rich bog, Tony Mundell & Cathy Wilson 13 Aug 2020.

Roemeria hispida (Rough Poppy) Crawley SU41693419, single plant noted, two stems flowering, Tristan Norton 2 Jul 2020. Crawley SU44383452, 4 sizeable plants noted, Tristan Norton 22 Jul 2020.

Rumex x pratensis (R. crispus x obtusifolius) Hurstbourne Tarrant, Dene Green SU387536, Peter Billinghurst 15 Jul 2020, confirmed by Rumex referee, John Akeroyd.

Sanguisorba officinalis (Great Burnet) Hawley Meadows SU86235863, two plants, one either side of path, also SU862585 20+ patches scattered flower heads eaten (by deer?) so not easy to spot, Steve Bailey 5 Jul 2020.

Scabiosa columbaria (Small Scabious) Hawley Common SU83485764, three flowering plants still present on road verge (where first found on 13 Jul 2018). Usually only found on calcareous soils so it is surprising that it can persist here, Tony Mundell & Cathy Wilson 13 Aug 2020.

Schoenoplectus tabernaemontani (Grey Club-rush) Ancell's Farm SU82425577, single clump in the pond, Tony Mundell & Cathy Wilson 30 Jul 2020.

Scleranthus annuus (Annual Knawel) Broomhurst Farm, road verge SU81255636, two plants close to a stone (marking a gas main?) near the *Filago lutescens* plants, Fred Rumsey 14 Jul 2020.

Senecio viscosus (Sticky Groundsel) Winnall SU49333000, a number of plants by fences, very sticky, rays rolled back, bracts green tipped, Anna Stewart 30

Sison segetum (Corn Parsley) Odiham SU757500, in profusion at edge of an arable field, Mike Marshall 14 Jul 2020.

Solidago virgaurea (Goldenrod) Church Crookham Churchyard SU807518, many spikes, Sarah Smith 22 Aug 2020.

Spergularia rubra (Sand Spurrey) Foxlease, Northeast SU83485699, on ant hills, Tony Mundell & Cathy Wilson 6 Aug 2020.

Stellaria palustris (Marsh Stitchwort) Ashford Hill Meadows SU56276185, at least 47 plants, most with flowers going over, in a depression with much Oenanthe fistulosa and Veronica scutellata, about 75m SE of a lone Ash tree in the meadow, Sarah White & Bob Winfield 29 Jun 2020. Ashford Hill Meadows, at least 17 plants at SU56317 61775, growing in association with *Oenanthe* fistulosa and Veronica scutellata, Sarah White 2 Jul 2020. Foxlease, N of M3 SU83045661, dozens of plants between the NW corner of the dried-up pond and up to 8m away, also SU83065661 dozens of flowering plants scattered from the NE corner of the pond up to 5m further NE, with a few more in SU83045659, SU83045660, SU83055659 & SU83055660, Tony Mundell & Cathy Wilson 16 Jul 2020.

Tephroseris integrifolia subsp. integrifolia (Field Fleawort) Ladle Hill, one very sorry-looking small flowering plant suffering from the drought at SU47897 56753, Fred Rumsey 6 Jun 2020.

Thelypteris palustris (Marsh Fern) Fleet Pond SU81825499 many plants in the marsh nearly to the water's edge, between Chestnut Gove and Wellington Avenue, also SU82285511 in the ditch that has a colony of Water-violet, Tony Mundell 15 Jul 2020.



Grey Club-rush Schoenoplectus tabernaemontani, Ancells Farm pond. Cathy Wilson

Thesium humifusum (Bastard-toadflax) Danebury Iron Age Hill Fort SU326377, frequent within shorter rich turf across this slope, Tristan Norton 28 Aug 2020.

Torilis nodosa (Knotted Hedge-parsley) Hook SU731544, as a weed in a flower-bed on west side of B3349, north of Bartley Way, Mike Marshall 20 Jun 2020. Photo confirmed by Tony Mundell.

Trifolium subterraneum (Subterranean Clover) Hogmoor Road, North, scattered in plenty along verge of Bordon By-pass from SU787359 to SU789352, Steve Povey & Laura Gravestock 28 Jun 2020.

Triglochin palustris (Marsh Arrowgrass) Ashford Hill NNR at SU56480 61843, Sarah White 6 Jul 2020.

Vaccinium oxycoccos (Cranberry) Shortheath Common SU7736, many plants, flowering and with berries, on raised bog, Cathy Wilson 26 Jun 2020.

Verbascum blattaria (Moth Mullein) Longparish old tip SU412436, 5 plants with white flowers, long pedicels, glabrous leaves, purple anther hairs, John Moon 10 Jun 2020.

Veronica agrestis (Green Field-speedwell) Kingsclere Estate SU53695556, leaves a fresh bright green, fruit checked under a microscope, Alison Cross 5 Aug 2020.

Veronica polita (Grey Field-speedwell) Kingsclere Estate SU527556, grey leaves, fruit checked under microscope, Alison Cross 5 Aug 2020.

Viscum album (Mistletoe) Ovington SU563317, on Poplars beside River Itchen, Steve Povey & Laura Gravestock 1 Aug 2020.

X Dactylodenia heinzeliana (Gymnadenia conopsea x Dactylorhiza fuchsii) Combe, Walbury Hill, clump of 5 at SU3698 6199, Peter Billinghurst 3 Jul 2020.

X Schedolium Ioliaceum (Schedonorus pratensis x Lolium perenne) Magdalen Hill Down SU50022933, a number of plants, both parents in area. Glabrous auricles, inflorescence slightly branched, Anna Stewart 5 Jul 2020.



Marsh Stitchwort Stellaria palustris, Ashford Hill Meadows, 29 June 2020 Sarah White



Annual Knawel Scleranthus annuus, Broomhurst Farm road verge, 14 July 2020. Fred Rumsey

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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