

Flora News

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

No. 54 Spring 2018 Published January 2018



Dear Flora Group member

In this issue we have details of lots of events to be held during 2018. Our Annual General Meeting (AGM) this year will be held on Sunday 20 May 2018 when we will be visiting the heathland habitats in the vicinity of Mockbeggar in the New Forest.

Other field meetings during the year include visits to woodland, heathland and wetland habitats, including an opportunity to visit the Trust's recently acquired nature reserve at St Clair's Meadow in the Meon Valley. A day of botanical recording on Selborne Common will be led by Tony Mundell and Steve Povey in early June. During July Martin Rand and Andy Cross will be leading a training day on the Salisbury Plain Training Area to help people identify chalk grassland plants. Following the successful day last Summer when Tim Bailey showed us a variety of carnivorous plants in the New Forest, Tim has invited Flora Group members to join him on 5 August 2018 to see some carnivorous plants in Dorset.

The Species Recovery Trust has invited Flora Group members to help conserve Heath Lobelia at Hinton Admiral on 17 February 2018.

We are very grateful to everyone who has helped to organise these events and as usual we welcome your suggestions for future Flora Group events or activities. Please raise your ideas with any of the Committee members – Sarah Ball (Chairman), Catherine Chatters, Clive Chatters, Ginnie Copsey, Andy Cross, Gareth Knass, Sarah Jackson, Tony Mundell, John Norton, Martin Rand or Neil Sanderson.

If you have enjoyed any of the Flora Group events and would like to write a report we would be very pleased to receive it. Please send your articles, notes or reports to Catherine Chatters (Flora Group Secretary) at Catherine.Chatters@hiwwt.org.uk or to her home address which is given at the end of this newsletter.

Catherine Chatters
Flora Group Secretary

John Norton
Editor

In This Issue

Forthcoming Events	2
Reports of Recent Events	5
Features	
Assessing Decline in Fluctuating Populations: A Hampshire Case Study (Part 1) Martin Rand	16
News and Views	
Little-robin at Hurst Spit..... Clive Chatters	20
<i>Adonis annua</i> at Fob Down	Pete Flood 21
A disturbing sequence of events	Clive Chatters..... 21
Notices	22
Book Review	22
Recording	
VC11 Notes and Records..... Martin Rand	23
VC12 Records	Tony Mundell 33
Membership and Recording Information.....	40

Forthcoming Events

There is normally no need to book a place on Hampshire Flora Group events beforehand, unless the text specifically requests it. A contact telephone number is only given in case you wish to know more about the event. The leader can be expected to turn up whatever the weather (although it may then be mutually agreed to cancel the event)! Bring a packed lunch and suitable footwear to all meetings.

Saturday 17 February 2018, 10.30am-c.3pm
Working party for Heath Lobelia, Hinton Admiral
Organised by Dominic Price for the Species Recovery Trust



Heath Lobelia *Lobelia urens* at Hinton Admiral, 10 August 2017 (Martin Rand)

This is an opportunity for Flora Group members to become involved in some practical conservation work to rescue one of Hampshire's rarest plants in its classic Hampshire site. In 2017 only three flowering plants of Heath Lobelia *Lobelia urens* were found at Hinton Admiral, and these were not on the main patch of heathland, which is now very overgrown, but in a nearby arable margin where they are vulnerable. This is a species that responds well to scrub clearance and ground disturbance, and we have a good chance to restore it to some of its former glory, with not merely a blessing from the landowner but a promise of refreshments.

Parking is at the Meyrick Estate office BH23 7DU (SZ 20851 95417) just north of the A35 Lyndhurst Road. From there we will either walk or organise a vehicle to ferry people to the site, and depending on weather and requirements we may return to the car park for lunch. There is limited parking so please inform Dominic if you intend to drive and lift share wherever possible. We would also urge people to take the train, which is a short walk from the site.

Please bring:

- hand tools (bow saw, loppers, secateurs) if you have them; we will have some spare;
- work gloves;

- warm clothes;
- lunch and drinks.

If you are interested in taking part, please contact Dominic directly: e-mail: dominic.price@speciesrecoverytrust.org.uk or call 01722 322539.

Sunday 15 April 2018, 10.30am–3.30pm
Winter annuals and spring urban flora, Port Solent
Leader: John Norton

Another in our recent series of spring meetings to look for early flowering species of road verges and other urban habitats. This time we should see a good selection of thermophilic winter annuals of coastal and acid grassland habitats, including Musk Stork's-bill *Erodium moschatum*, Early Meadow-grass *Poa infirma* and Lesser Chickweed *Stellaria pallida*. We will move on to a different site (to be decided) after lunch if there is not too much to see at Port Solent itself.

Meet at the far end of the main car park on the south side of the marina at SU 635 048 (180m past the last roundabout).

Contact: John Norton john1@jnecology.com, mobile 07982 257746.

Sunday 22 April 2018, 10.30am–4pm
Visit to Ackender Wood, Alton
Leader: Tony Mundell

This wood has an abundance of Bluebells that should be in full flower. In a few places the ground flora is composed almost entirely of Wood Millet *Milium effusum*, but one much rarer grass that we should try to re-find is Wood Barley *Hordelymus europaeus*. There is also a very small colony of Herb-Paris *Paris quadrifolia*, some patches of Goldilocks Buttercup *Ranunculus auricomus* and sometimes a few plants of Toothwort *Lathraea squamaria*. We will also spend time looking at many common woodland species, so this meeting will also suit those in 'learning mode' (though of course we all are!).

Meet at the Jubilee Playing Fields car park in Northfield Lane, Alton at SU 7026 3773, close to the A31/A32 roundabout at Chawton.

Contact: Tony Mundell (details on back page).

Sunday 20 May 2018, 10.30am–4pm
Flora Group AGM and visit to heaths around Mockbeggar, New Forest
Leaders: Clive Chatters & John Norton

Our visit to Mockbeggar is courtesy of the National Trust who own the commons in this part of the New Forest. They include distinctly sandy soils as well as areas modified by gravel digging. The expected botanical highlights are therefore ephemerals and annuals of short turf. Do bring a hand lens to enjoy identifying the various clovers and other minute species of this superbly rich habitat.

We will meet at the base of the sandpit located at SU 163 083; for those using satnav the nearby Moyles Court

crossroads is at BH24 3NF. Parking is limited around Mockbeggar so if you can share transport that will be helpful. There are some steep slopes, with loose sand and uneven ground, so please do come prepared.

We will hold our brief AGM after our picnic lunch. Please note that we will not be returning to our cars for lunch.

Contact: Clive Chatters, mobile 07788 498980.

Saturday 9 June 2018, 10am–4.30pm
Selborne Common
Leaders: Tony Mundell & Steve Povey

We will record every plant we can find in the tetrad called SU73G that includes Selborne Hill and Selborne Common. This tetrad was well recorded prior to 2000 but has a large number of species not re-found since then, most of them within Selborne Common. We will spend time looking at common species, so this meeting will also provide an opportunity for relative beginners to learn to identify plants.

Meet in the car park behind the Selborne Arms at SU 7414 3349 at 10am (note the relatively early time). Although recently enlarged, this car park fills up at weekends so please double-up in cars if possible. Be prepared for quite a long (but slow) walk with some hills both up and down. Steve advises that it is surprisingly easy to get disorientated in the 250 acres of woodland, especially as GPS satnavs don't work well under trees, so try not to get separated from the group.

Contact: Tony Mundell (details on back page).

Saturday 16 June 2018, 10.30am–4.30pm
Bishops Waltham Moors
Leader: Martin Rand

Bishops Waltham Moors is one of the most impressive spring-fed systems of mire and wet pasture lying on the junction of the Chalk and the Tertiary strata of southern Hampshire. It has a rich flora with particular interest for sedge-lovers: 22 species of *Carex* have been recorded here, but the special prizes to be sought are really rare in Hampshire: Flat-sedge *Blysmus compressus* and Great Fen-sedge *Cladium mariscus*. Those who haven't yet acquired a passion for sedges will still find plenty to interest them: orchid fans, for instance, have a chance to see Marsh Helleborine *Epipactis palustris*, Fen Fragrant-orchid *Gymnadenia densiflora* and up to four Marsh/Spotted Orchids *Dactylorhiza* spp. as well as hybrids. We shall try to make a complete inventory of our visit; the species list is long but several of the more special plants have not been seen for some while.

Meet in the southern part of the Hoe Road Recreation Ground car park (SU 5614 1723), which is approached by a narrow drive from Hoe Road, 120m east of the roundabout with Cricklemede. Don't try and get to the car park directly from Cricklemede; there is a one-way system enforced by sprung barrier ramps. Bring a packed lunch to eat in the field, and waterproof footwear.

Contact: Martin Rand (details on back page).

Sunday 8 July 2018, 10.30am–4.30pm
Training Day: plants of chalk grassland, Hampshire/Wiltshire borders
Leaders: Martin Rand and Andy Cross

This is a day for people who have reached the stage of leafing through one of the popular flower guides and identifying plants with reasonable confidence at least some of the time. Do you struggle with long complicated keys? Have you ever blushed when your proudly announced ID turns out to be something completely unrelated? (Yes, we've all been there.) The session will help you familiarise yourself with the salient features of characteristic families of chalk grassland flowering plants. Once you can put most plants into their correct family, the job of tracking down the species becomes much simpler.

We shall be running this day on part of the magnificent and huge downland tract on the Salisbury Plain Training Area's Bulford Ranges, just over the Wiltshire border from Tidworth. It will be a chance to experience something of what the sheep-walk of southern England was like before almost everything but the steep bits were ploughed up.

Booking is essential, numbers will be limited and there will be a charge of £6 per person payable in advance to the Wildlife Trust. Please contact Martin Rand in the first instance: full details will be sent once you have registered and paid.

Contact: Martin Rand (details on back page).

Saturday 14 July 2018, 10.30am–4pm
Malshanger Estate, near Wootton St Lawrence
Leader: Tony Mundell

This meeting is at the invitation of the farm manager Ian Margetts. The main focus is on arable plants of field edges. Our main target is to see the Large Venus's-looking-glass *Legousia speculum-veneris*. This very attractive plant is quite common in French cornfields, but the Malshanger Estate is the only area in Britain where it has persisted. It has been known here since 1916. Apart from many relatively common arable plants we may also see the 'ordinary' Venus's-looking-glass *Legousia hybrida* (with much smaller flowers), Stinking Chamomile *Anthemis cotula*, Small Toadflax *Chaenorhinum minus*, Dwarf Spurge *Euphorbia exigua*, Henbane *Hyoscyamus niger*, Sharp-leaved Fluellen *Kickxia elatine*, Round-leaved Fluellen *Kickxia spuria*, Corn Spurrey *Spergula arvensis* and Narrow-fruited Cornsalad *Valerianella dentata*.

Of course, arable plants are very fickle in their appearance depending on how the land has been cultivated, so it is a matter of chance what is found in any year. In recent years the following rarities have also been recorded on this estate but usually in small numbers: Few-flowered Fumitory *Fumaria vaillantii*, Prickly Poppy *Papaver argemone*, Shepherd's-needle *Scandix pecten-veneris*, Annual Knawel *Scleranthus annuus*, Night-flowering Catchfly *Silene noctiflora*, Field Woundwort *Stachys arvensis* and Spreading Hedge-parsley *Torilis arvensis*.

We will be lucky if we find any of those, but there will be many commoner arable plants to see.

Meet at SU 5709 5365 on Hook Lane between Upper Wootton and Shear Down Farm, and park on the farm track between two arable fields that heads south-east from a gate at this spot in Hook Lane. This is about 2km west of Wootton St Lawrence.

Contact: Tony Mundell (details on back page)

Saturday 28 July 2018, 10am–4.30pm
Longmoor Airstrip, Woolmer Forest
Leader: Tony Mundell

I have not visited the airstrip myself for ten years, but the special plants to re-find include Wood Small-reed *Calamagrostis epigejos*, Sand Sedge *Carex arenaria*, Lesser Centaury *Centaureum pulchellum*, Chaffweed *Centunculus minimus*, Mossy Stonecrop *Crassula tillaea*, Heath Cudweed *Gnaphalium sylvaticum*, Yellow Bird's-nest *Hypopitys monotropa*, Coral-necklace *Illecebrum verticillatum*, Leafy Rush *Juncus foliosus*, Royal Fern *Osmunda regalis*, Creeping Forget-me-not *Myosotis secunda*, Common Wintergreen *Pyrola minor*, Allseed *Radiola linoides*, Round-leaved Crowfoot *Ranunculus omiophyllus* and Brookweed *Samolus valerandi*.

Note the early start time as we will have a walk of over a mile to get to the disused airstrip where the most interesting plants are. As the army has closed the Woolmer Pond car park we will have to park in several different spots that are close together (within about 70m). The first option is a car park at SU 7833 3160 at the start of Woolmer Road, immediately south of a roundabout on the A325. Meet here at 10am. If that car park is full there is a layby at SU 7834 3167 beside the A325 immediately north of the roundabout. Another option is the start of Benhams Lane at SU 7832 3166 just north-west of the roundabout. Please double up with more than one person per car if you can.

Contact: Tony Mundell (details on back page).

Sunday 5 August 2018, 10am–3pm
Carnivorous plants of Dorset
Leader: Tim Bailey

Following the very enjoyable Flora Group event led by Tim Bailey in the New Forest during August 2017, Tim has kindly offered to lead a Flora Group event focusing on carnivorous plants of Dorset.

We will start the day exploring Spur Bog, Little Sea and Studland Bay where we are likely to find the Pale Butterwort *Pinguicula lusitanica*, the Bladderwort *Utricularia minor*, all three species of Sundew *Drosera* and the Sundew hybrid *Drosera x obovata*. We will move on to see *Utricularia australis* close by, where we hope to see it in flower. Afterwards we will move on to Godlingston Heath below Agglestone Rock where in addition to the Sundews at Spur Bog we will see the rare hybrid *Drosera x eloisiana*. If time allows we will then move on to Hartland Moor to see *Utricularia stygia* and *U. intermedia*, and further on, for the hardy, to see the

conservation project work to control the invasive non-native Pitcher Plant *Sarracenia purpurea* at Lower Hyde Bog, near the Wareham Forest Tourist Park.

Meet in the National Trust Studland Beach car park (the small car park as you drive down, on the left and adjacent to the Discovery Centre). If there are no parking spaces please park in the main carpark and walk back up. Given limiting parking by the actual bog areas car sharing is encouraged on the day. Please note the 10am start time. Bring a packed lunch and plenty to drink.

Booking is essential as we will need to limit numbers to c.20 people. To book your place please contact Catherine Chatters at Catherine.Chatters@hiwwt.org.uk. When you have booked your place Catherine will provide the grid reference for the meeting place.

Contact: Catherine Chatters, mobile 07770 923315.

Saturday 11 August or Sunday 12 August 2018
St Clair's Meadow, Soberton, Meon Valley
Leader: Clive Chatters

Hampshire & Isle of Wight Wildlife Trust has recently completed the purchase of 16ha of river and wet grassland at St Clair's Meadow in the Meon Valley. The river here is a fine stretch of high-quality chalk-stream. The adjacent grasslands have been agriculturally 'improved' but may well host patches of more interesting species that are waiting to be discovered.

We are still working through arrangements for visiting (as the Wildlife Trust has only recently acquired this site as a nature reserve) but hope to arrange a Flora Group visit on 11 or 12 August 2018. Please keep a note in your diary and let Clive Chatters know if you're interested in joining us on e-mail: Clive.Chatters@hiwwt.org.uk. Clive will circulate details to those expressing an interest closer to the date. A nearby postcode to the nature reserve is SO32 3PN with more details on <http://www.hiwwt.org.uk/reserves/st-clairs>.



The old waterwheel on St Clair's Meadow (© HIWWT)

Reports of Recent Events

Aquatic plant identification, Saturday 8 July 2017

A report by Andy Cross

Richard Lansdown and Martin Rand organised a meeting for aquatic plants that we were all looking forward to. The meeting was over-subscribed, so apologies to those who wanted to attend but couldn't get a place.

The meeting took place in two locations: the morning and early afternoon was in and around part of the Holmsley mire system (and Whitten Pond) with the later afternoon at Cowards Marsh on the west side of the Avon floodplain. It was a very hot, sunny day.

We met at the Holmsley car park and headed down to Holmsley Passage. The seasonally/periodically wet ditches on the side of the road on the slopes down to the passage had Chaffweed *Centunculus minima*, Yellow Centaury *Cicendia filiformis* and Lesser Centaury *Centaureum pulchellum*. Lower down the slope in the wetlands, the more base-rich element of the mire became apparent with the presence of the mosses *Calliergon giganteum* and *Campylium stellatum*. Pillwort *Pilularia globulifera* was also present.

The party stopped at the bridge over the Holmsley Mire and a valuable discussion was had about the *Batrachium*. Richard has long botanised in the New Forest and has studied the water crowfoots. The plant by the bridge introduced us to the difficulties associated with this group of plants. Whilst this account of the meeting is not the place to go over how to identify the component species of the *Batrachium* in the Forest, a few observations from Richard set the flavour. He referred us to work on the *Batrachium* sub-genus that has been carried out in Poland and his own account of the sub-genus in the new BSBI Hybrid Flora of the British Isles.

The difficulties we face with the *Batrachium* are summed up succinctly in Richard's introduction to the sub-genus:

'The classification of Ranunculus sub-genus Batrachium has been complicated by combination of extensive natural hybridisation and polyploidy, extreme morphological and physiological plasticity and the limited number of phenotypically fixed characters that may aid identification.'

Three examples were discussed by the bridge at Holmsley Passage. The first was Ivy-leaved Crowfoot *Ranunculus hederaceus*, which was in muddy margins of the ditch alongside the road. It would appear that this is the only one in the sub-genus that can be identified by leaf shape. The second was a crowfoot known to Richard – he had collected this on a previous visit and it had been sent to Poland for genetic analysis. The results were that it was Pond Water-crowfoot *Ranunculus peltatus* with one anomalous locus (locus being the position of a gene on a chromosome).

Thirdly, Richard talked about populations of the New Forest Water-crowfoot *Ranunculus x nova-forestae*

– a hybrid between Round-leaved Water-crowfoot *R. omiohyllus* and Three-lobed Water-crowfoot *R. tripartitus*. These have also been sampled and sent for genetic analysis, with the result that 13 populations identified as *R. nova-forestae* turned out to be *R. tripartitus*.

We moved on from the *Batrachium* – though with much to think about – and spent more time near the Passage enjoying the aquatic and marginal plants of this very diverse mire system. Advice from Richard was helpful for a range of skills. For example, the identification of *Callitriche* is often best done with pollen. For the fruits of *Callitriche*, before grabbing a handful up in the hope of finding fruits (I plead guilty) first look for anthers (that float), which indicates that the plant is likely to have fruits lower down, and *Callitriche*s are more likely to fruit as terrestrial plants rather than aquatic ones. We saw this not long after in a dry to damp ditch on the old railway line where a patch of Pedunculate water-starwort *Callitriche brutia* was fruiting well.

Moving on from the Passage area of the mire, the group went up to the high ground of the old railway line before a side excursion northwards from the Greenberry Bridge back down to the mire to see the New Forest Water-crowfoot, Marsh Violet *Viola palustris* and Marsh Willowherb *Epilobium palustre* with its nodding flowers. This was followed by another visit to the mire further west (between the railway and Shappen Hill) to see the flora of a main ditch, including Alternate Water-milfoil *Myriophyllum alternifolium*. Back up to the railway line for a section before walking to Whitten Pond along the southern side of a ditched woodland. Whitten Pond is a beautiful part of the Forest and with the cattle and horses drinking here is a reminder of what a special place the Forest is. The return journey went up to Holmsley Ridge, en route seeing a small population of Brown Beak-sedge *Rhynchospora fusca* in an area of disturbed wet heath. From the ridge, we dropped into the former quarry and found Mudwort *Limosella aquatica* before returning to the car park.

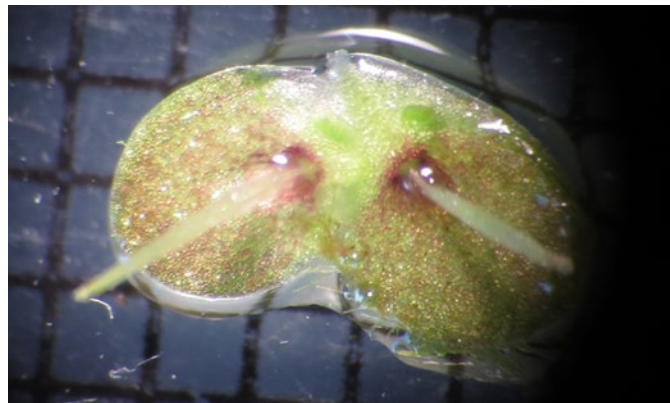
A smaller party then went on in the afternoon to Cowards Marsh. This superb marshland landscape with its



Richard Lansdown (kneeling, left of centre) and Flora Group party admiring Brown Beak-sedge (John Norton)

floodplain pastures (horse-grazed), ditches and the River Avon supports important populations of wetland plants, including Tubular Water-dropwort *Oenanthe fistulosa*, Small Water-pepper *Persicaria minor*, Marsh Cinquefoil *Comarum palustre*, Marsh Stitchwort *Stellaria palustris* and Strawberry Clover *Trifolium fragiferum*. All these species have declining populations in Britain and are Red Listed plants in Britain and/or England. There was also a spectacular display of flowering Arrowhead *Sagittaria sagittifolia* in the ditches (not red-listed but decidedly rare and declining in Hampshire).

The day finished on quite a high! On the way back from the marsh we stopped at a small wooden bridge over a small ditch. Richard bent down and picked out



***Lemna turionifera* showing the diagnostic red pigmentation on the underside of the plant, around the apex of the rootlet (John Norton)**

a small Duckweed which he immediately identified as Red Duckweed *Lemna turionifera*, a species new to Hampshire, albeit one that may not be native to the UK.

We were all very grateful to Richard Lansdown for leading the aquatic day and for the great help and advice on the identification of aquatic plants as well as insights into their ecology and population genetics. Thank you also to Martin Rand for organising the visit and for all the preparatory work to make the day go so well for us.

Introduction to the NVC, Portsdown Hill, Wednesday 12 July 2017

A report by John Norton



Horse grazing at Cowards Marsh (Andrew Cross)



Arrowhead *Sagittaria sagittifolia* (with Canadian Pondweed *Elodea canadensis*) (John Norton)



Quadrat recording at Portsdown Hill (John Norton)

Seven Flora Group members attended this event, which was held as a follow-up to my NVC chalk grassland article published in the last *Flora News* (No. 53, Autumn 2017).

We met up at the viewpoint car park to the south-east of Fort Widley, where to start with I gave a walking commentary on the typical types of grassland on deeper chalk soils, which actually fall under the mesotrophic grasslands chapter of the NVC: MG1d, MG1e, MG5b and MG6c. These do not usually support any of the stricter chalk grassland species of thin rendzina soils, such as

Sheep's Fescue *Festuca ovina*, Dwarf Thistle *Cirsium acaule* and Squinancywort *Asperula cynanchica*. To find these we headed west a few hundred metres to a species rich area of short turf on the south-facing slope, where we carried out some recording of 2 x 2m sample quadrats. This also provided an identification challenge, particularly for the non-flowering grasses. This stand was identified by reference to the published floristic tables and descriptions; a good fit to **CG3a** *Bromus erectus* [*Bromopsis erecta*] grassland, Typical sub-community. It was also nice to see plentiful Bastard-toadflax *Thesium humifusum* in this area.

We then took a further walk to look at the rougher grassland falling under the **CG3b** *Centaurea nigra* sub-community, which here is also characterised by the presence of Greater Knapweed *C. scabiosa* and its root parasite Knapweed Broomrape *Orobanche elatior*. We also saw that this vegetation merges into the undocumented 'chalk underscrub' vegetation composed of tall grasses and herbs, bramble, suckering Dogwood *Cornus sanguinea* and other chalk shrubs. We were lucky enough to find a Great Green Bush-cricket *Tettigonia viridissima*, a declining orthopteran which still seems to be doing well on Portsdown Hill.

Virtually all of the managed grassland on Portsdown Hill falls under CG3, so it was not possible to look at any of the 'classic' **CG2** *Festuca ovina*-*Avenula pratensis* grassland. However, anyone wishing to see what this looks like should visit Ramsdean Down at Butser Hill, which probably represents one of the finest examples in the country.

The majority of the Portsdown Hill SSSI is owned by Portsmouth City Council, and I would like to thank Richard Jones, the site manager, for allowing us to visit, and commend him on the truly fantastic management that he and his staff and volunteers have been carrying out there. Large parts of the site which were historically thick scrub or rough grass have now been restored to species rich chalk grassland.

Visit to Long Bottom, Bourley and Caesar's Camp, Sunday 23 July 2017

A report by Tony Mundell

Only seven members joined me for this meeting but with the good weather we had a splendid time and several people told me afterwards how much they had enjoyed it. The aim was to show the group many typical heathland plants and to gather more data for the BSBI Atlas 2020 project. Our circular route traversed parts of six 1km grid squares that were in four separate tetrads, but we only attempted to list everything seen in two of those 1km squares, simply noting only uncommon plants elsewhere. In all we added records of an impressive 261 taxa.

En route from the Wellington Monument car park to Long Bottom we found a few splendid flowering plants of Broad-leaved Helleborine *Epipactis helleborine* and I was puzzled by a fruiting roadside plant that I eventually decided must be Spotted Medick *Medicago arabica*

though it lacked the usual spots on the leaves. The stipules were not lacinate enough for Toothed Medick *M. polymorpha* but the spines on the fruits were more like that species. Some plants don't read the books!

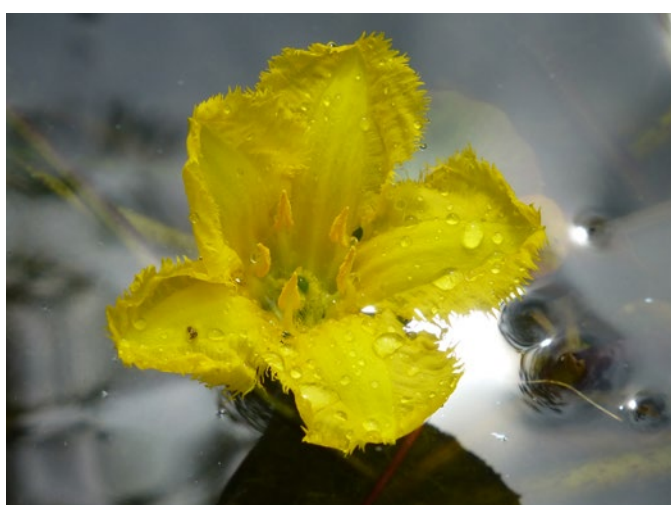
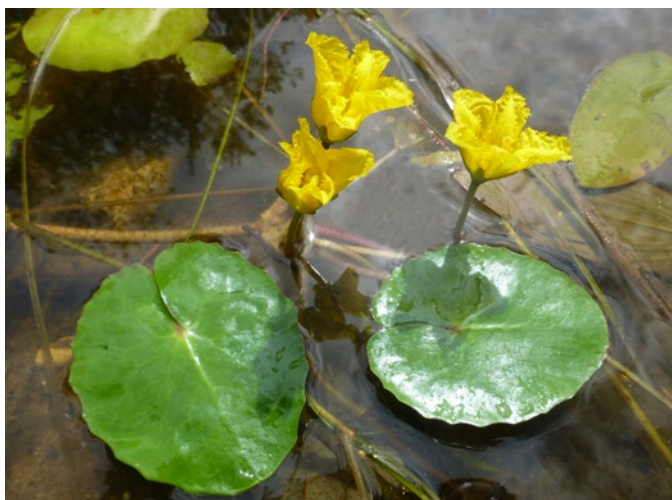
As we reached the heath we saw plants typical of bare, sandy soils like Early Hair-grass *Aira praecox* and its more attractive relative Silver Hair-grass *Aira caryophyllea* as well as Common Cudweed *Filago vulgaris*, Small Cudweed *Filago minima* and Lesser Centaury *Centaurea pulchellum*. The wetter areas and some of the scrapes made in the last few years by Elliott Fairs of HIWWT proved productive, with large colonies of many thousands of Oblong-leaved Sundew *Drosera intermedia* and an impressive display of White Beak-sedge *Rhynchospora alba*. Nearby it was sad to see that the Marsh Clubmoss *Lycopodiella inundata* that I have known for decades had decreased to only nine very tiny plants. Bristle Club-rush *Isolepis setacea* was locally abundant on one wet track and we also found a few patches of Lesser Skullcap *Scutellaria minor* and Deergrass *Trichophorum germanicum*.



White Beak-sedge *Rhynchospora alba* (Tony Mundell)

At the Horse Swimming Pool (formerly used by the army to train the cavalry in crossing water) we added quite a few extra plants including Fringed Water-lily *Nymphoides peltata* and the hybrid between Sharp-flowered Rush and Jointed Rush *Juncus x surrejanus*. Unfortunately, the very invasive New Zealand Pigmyweed *Crassula helmsii* has become established here.

On the drier heath we found Bristle Bent *Agrostis curtisii*, Brown Bent *Agrostis vinealis* and some flowering plants of Harebell *Campanula rotundifolia*. Dodder *Cuscuta epithymum* was locally abundant on the heather and some was even found parasitising Goldenrod *Solidago*



Fringed Water-lily *Nymphoides peltata* (Tony Mundell)

virgaurea (I examined a piece with my microscope at home and confirmed that the haustoria did penetrate the Goldenrod stems). Beside a main track it was surprising to see chalk-loving plants like Fairy Flax *Linum catharticum* growing beside Heather *Calluna vulgaris* – no doubt gravel and soil had been imported here.

The really wet bog and scrapes below Caesar's Camp gave us extra species including Star Sedge *Carex echinata*, Many-stalked Spike-rush *Eleocharis multicaulis*, Common Cottongrass *Eriophorum angustifolium*, Bog-myrtle *Myrica gale* and Bog Asphodel *Narthecium ossifragum*. Sadly, we failed to re-find the Ivy-leaved Bellflower *Wahlenbergia hederacea* – mainly because I had forgotten the exact spot where it was found by Chris Hall in 2015 on one of the over a hundred scrapes made by Elliott Fairs in 2014.

Carnivorous plants in the New Forest, Sunday 13 August 2017

A report by Pete Flood

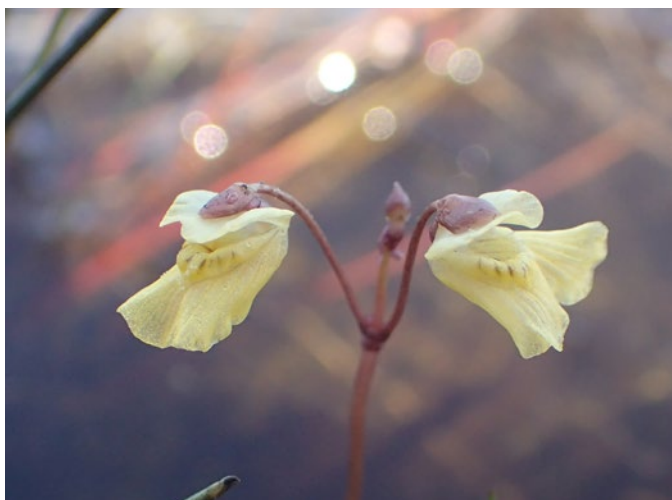
Over twenty people including HFG regulars and attendees from further afield met in Shatterford car park for a day with carnivorous plants expert Tim Bailey. Tim proved to be an engaging host with a deep knowledge of his subject, as well as a raft of good stories about

floundering around in dangerous bogs in search of some of the most unusual plants in the British flora. After a brief account of the day's schedule we headed south to the first bog, stopping to admire some specimens of Marsh Clubmoss, *Lycopodiella inundata* along the way. We quickly found some vegetative plants of Lesser Bladderwort *Utricularia minor*, which gave us a chance to admire their distinctive neat, sparsely-branched and bright green shoots. Tim explained that the plant is capable of vegetative reproduction by means of turions at the shoot tip which, when the growing season is over will sink into the mud, to form new plants next spring. The distinctive bladders, some of the most complex structures in the plant kingdom, are found both on immersed shoots and on their stolons, enabling the plant to trap organisms and organic matter both in the water and in the substrate below. Flowers were found a little further on, becoming numerous at the far side of the mire.

We paused here for an explanation of the mechanics of the trap, including details of the purpose of quadrifid glands that trigger the rapid (10-15 millisecond) convulsion of the bladders – ejecting their contents and thereby creating a vacuum into which prey are instantly sucked. Of particular interest was the fact that *Utricularia* species are not fussy eaters, and will use their enzymes to break down any organic matter that their bladders suck in. Potential prey is limited by the bladder size, and while larger North American members of the genus have bladders capacious enough to fit a tadpole, UK *Utricularia* species seldom manage much more than a small invertebrate; but Tim did mention coming across the gruesome sight of a half-digested mosquito larva half-protruding from a bladder.

After a time spent appreciating the delicate beauty of *U. minor* flowers, we hiked over to another nearby mire, taking in the sight of a diving peregrine falcon, the call of a water rail, a nearby stonechat showing beautifully on the gorse and a large frog which John Poland identified as the hybrid Edible x Marsh frog on the way. Here a putative specimen of *Utricularia bremii* had been found in 1990. This was a much more robust plant, with a net-like tangle of immersed leaves, unlike the comparatively slender strands of *U. minor*. Unfortunately, it has yet to be seen in flower in this country, and until it does flower, experts can't be completely sure of its designation.

Next we followed the drain eastward, stopping to admire some plants of Oblong-leaved Sundew *Drosera intermedia* and a single Marsh Gentian *Gentiana pneumonanthe* before we arrived at the site of our third and final *Utricularia* of the day – Intermediate Bladderwort, *Utricularia intermedia* growing in the shallow water between hummocks of *Molinia*. *U. intermedia* is also a species which very rarely flowers in the UK, and the finding of a single putative flowering stem by Gareth Knass and Tony Mundell was a possible first for this population. Unfortunately, later comparison proved that the 'buds' were quite the wrong shape for *U. intermedia*, being globose rather conical, and were instead vegetative buds.



Lesser Bladderwort *Utricularia minor* (Pete Flood)



Leaves of Great Sundew *Drosera anglica* (top), Round-leaved Sundew *D. rotundifolia* (middle) and *D. x obovata* (bottom) (Pete Flood)



Intermediate Bladderwort *Utricularia intermedia* (Tony Mundell)

For lunch we relocated to the day's second site, Vales Moor, to the West of Burley, where Round-leaved sundew *Drosera rotundifolia* and Great Sundew *Drosera anglica* grow with their hybrid *Drosera x obovata*. Here we could get to grips with the distinctive leaf shapes of the three taxa. Confusingly, the hybrid looks not unlike *Drosera intermedia* at first glance, but unlike that species it is lacking in stolons and has an inflorescence which rises vertically from the centre of the leaf rosette like that of *D. rotundifolia* (*D. intermedia* by comparison has a markedly decumbent inflorescence). The different ecological preferences of the various taxa are also useful characteristics. *D. rotundifolia* likes slightly drier conditions than *D. anglica* and is therefore more common on the margins of a flush than the centre where *D.*

anglica thrives and *D. x obovata* is, like all good hybrids, intermediate in its preferences. *Drosera intermedia* favours the driest conditions of all, being most often found on bare peat.

Tim also told us about the other *Drosera* hybrid found in the UK, *Drosera x eloisiana* (*D. rotundifolia* x *D. intermedia*, previously called *D. x belezeana* but recently renamed – see *New Journal of Botany* Volume 6, 2016), whose current name is a portmanteau of those of his two children, Georgiana and Eloise.

A little searching was required to find the tiny, thumbnail-sized pale green leaves of the final carnivorous plant of the day, and more still to find a specimen in bloom. But in time we located the delicately beautiful Pale

Butterwort *Pinguicula lusitanica* across the road from the sundews and coming to the end of its flowering period. Recognisable as a member of Lentibulariaceae, the same family as Utricularias, by the distinctive two-lipped flower, *P. lusitanica* is closer to members of the Droseraceae in its method of carnivory – sticky, glandular hairs which cause invertebrates to adhere to the leaf, where they are digested by enzymes secreted by sessile glands.

There can't be many places in the UK where over half of the native species of carnivorous plants could be seen in a single day, and it was fascinating to get to know them at close quarters. Our thanks are due to Tim Bailey, whose knowledge of his subject is such that one day seemed too short a length of time to spend in his company. Those interested in the subject but unable to attend the event would do well to track down a copy of his book 'Carnivorous Plants of Britain and Ireland'.

Note: There will be another opportunity to learn about carnivorous plants with Tim Bailey on Sunday 5 August 2018 – please see Forthcoming Events section of this newsletter for further information.

Visit to Tidgrove Warren Farm, Sunday 20 August 2017

A report by Tony Mundell

There was a good turnout of 18 people for this meeting. Raleigh Place who owns and manages this farm made us very welcome, providing tea, coffee and biscuits as we assembled at seating beside the attractive main pond. At Raleigh's invitation a reasonably comprehensive botanical survey of the farm had been made in July/August 2016, so I only noted a few additional species or extra locations for uncommon arable plants.

Much of the farm is given over to encouraging Stone-curlews to breed and the barish plots made for this together with the gentle organic land management has led to a plethora of scarce arable plants. Raleigh led us around himself and soon people were enthusing over the diversity of uncommon species. I was surprised at the extraordinary numbers of Henbit Dead-nettle *Lamium amplexicaule*, and it was not difficult to find Small Toadflax *Chaenorhinum minus*, Venus's Looking-glass *Legousia hybrida* and Scented Mayweed *Matricaria chamomilla*. We also found one or two plants of Dense-flowered Fumitory *Fumaria densiflora* and seed heads of Prickly Poppy *Papaver argemone*.

Raleigh particularly wanted to show us an area with a large number of Red Hemp-nettle *Galeopsis angustifolia*. Remarkably some of these were albino forms with pure white flowers – I had never seen this form before. Among the extra plants not found in 2016 we saw the pink-flowered form of Scarlet Pimpernel *Anagallis arvensis* f. *carnea*, Grey Field-speedwell *Veronica polita* and the subspecies of Greater Plantain known as *Plantago major* subsp. *intermedia*. This latter plant is often overlooked. Compared with ordinary Greater Plantain its leaves are



Dense-flowered Fumitory *Fumaria densiflora* (John Norton)



Red Hemp-nettle *Galeopsis angustifolia* (John Norton) and white-flowered form (Tony Mundell)

smaller and more hairy, with fewer veins and are usually toothed near the base. The flower spike is shorter and the capsules have smaller seeds, but many more of them. Stace tentatively suggests that it prefers 'damp, usually slightly saline places near the sea' but it is widespread in VC12 though almost always confined to the edges of arable fields. I sometimes have doubts about the value of this subspecies as intermediate plants occur, so I prefer to only record the most convincing plants that have only three leaf veins.

We were very lucky to have Arthur Chater at the meeting (he lives in Wales) and he was able to identify a Knotgrass as *Polygonum chamaechyton*. It is one of many segregates of the *Polygonum aviculare* aggregate not covered in 'Stace' (and it cannot be recorded on my MapMate database). I collected a specimen but must await the long-awaited publication of Volume 1 of 'Sell & Murrell' around December 2017 to find out how it differs from *P. aviculare* in the strict sense.

Gareth Knass added several roses to the list for the farm including Small-flowered Sweet Briar *Rosa micrantha* and the hybrid between Hairy Dog-rose *Rosa caesia* and Dog-rose *Rosa canina*, called *Rosa x dumalis*. Keith Betton gave us a brief talk on how Stone Curlews are now being encouraged on farms and we were able to get good views of these rare birds. In fact a fly-past over our heads was organised by Raleigh as we lunched!

Many thanks to Raleigh, Keith and others noted above. It was a great day.

Atlas 2020 Recording Day, Hayling Island, Saturday 9 September 2017

A report by John Norton

This was the return visit to South Hayling as part of a joint BSBI/Hampshire Flora Group recording event organised by Martin Rand. See the last newsletter (No. 53, September 2017) for details and a write-up of the first meeting held in May. This time several people dropped out or couldn't make it at the last minute, but with a few newcomers we managed to cobble together four teams of 3-4 people to re-record four of the five tetrad-wide coastal strips.

There was plenty to record due to the rainy weather reviving road verge habitat and the saltmarsh species coming into season. My team recorded an impressive 165 species, including Dwarf Mallow *Malva neglecta* flowering in two places, Gallant-soldier *Galinsoga parviflora* and what I was fairly sure was Green Field-speedwell *Veronica agrestis*. A walk through a modern housing estate produced several garden plants growing from the adjacent pavements (and just about countable), including Garden Lavender *Lavandula angustifolia* and Argentinian Vervain *Verbena bonariensis*. With the help of a local resident, Andy Cross's team refound Sea Wormwood *Artemisia maritima* at Sinah, whilst Tony Mundell's team's best find was Maple-leaved Goosefoot *Chenopodium hybridum*.

Saltmarsh plant identification, Gutner Nature Reserve, Hayling Island, Saturday 16 September 2017

A report by Clive Chatters

Members gathered at Gutner Point to take a closer look at saltmarsh species under the tutelage of Martin Rand. The Point is a nature reserve that is owned and managed by Hampshire County Council and, quite rightly, is a place of restricted access. Unlike so many of Hampshire's saltmarshes the foreshore at Gutner is not interrupted by seawalls and so there is a full sequence of habitats from the intertidal to the terrestrial.

Over the years, grazing by cattle has kept the upper saltmarshes at Gutner free from rank grasses. Grazing still occurs, but at a lower density than previously, and so we were disappointed not to re-find Sea Heath *Frankenia laevis* or the Slender Hare's-ear *Bupleurum tenuissimum* and had to work hard to locate specimens of Parsley Water-dropwort *Oenanthe lachenalii* and the coastal form of Common Centaury *Centaureum erythraea* var. *sublitorale*. The middle and lower marsh were in a much more open state with our visit timed to see the Glassworts *Salicornia* spp. in a condition where species could be named. Martin took us through the latest thinking on speciation that has been refined by geneticists. The good fortune is that the Glassworts are now 'lumped' into a handful of species, thus simplifying the challenge to recorders.

Our thanks go to Martin Jewel of HCC for arranging access and, as always, to Martin Rand and other members of the Flora Group for their generosity in sharing their expertise.



Glassworts in autumn (Clive Chatters)

Cotoneaster identification, Portsdown Hill, Sunday 24 September 2017 (and a note on Eyebrights)

A report by John Norton

I was joined by nine other enthusiastic Flora Group members for this meeting, which took place in lovely warm late summer sunshine. We looked at the area towards the eastern end of Portsdown Hill, south and south-east of Fort Widley. The following is just a brief list of what we saw. The most recent version of my Cotoneaster Crib is available on the Hants Plants web site: <http://www.hantsplants.org.uk/articles.php>, but this is now in need of a further update to add a few more species, including some of those seen on this meeting (hopefully I will do this some time in 2018).

The first main stop below Fort Widley was at SU 6579 0633. We saw no fewer than eight species here within a 10m wide area either side of a small clump of trees. The first was *C. divaricatus* (dark green thin leaves c.20 x 10mm; dark brown sparsely hairy twigs; 1-2 dark red distinctly oblong berries per cluster). Then *C. lacteus* (thick coriaceous leaves; large clusters of immature berries; these ripen in October, hence the English name 'Late Cotoneaster'). Next *C. dielsianus* (ovate yellow-green to bright green leaves, c.15-20 x 10mm, somewhat shiny above with impressed veins, white-tomentose below; berries bright deep red in short-stalked clusters of usually 3-7). After this a bush of *C. vilmorinianus*, which initially confused us due to its similarity to the much commoner *C. franchetii* (both have leaves strongly white-tomentose below and with silvery stems, producing a striking appearance – the leaves of *C. vilmorinianus* are a bit smaller and the remains of the calyx teeth on the orangey fruit are strongly erect). Then we added *C. salicifolius* (without fruit), *C. simonsii*, *C. horizontalis* and shoots of *C. bullatus*.

Cotoneaster simonsii was particularly abundant over this part of the site; recognisable by its upright growth (and regrowth) with short-stalked clusters of 3-6 orangey berries; these somewhat oblong with a partly erect calyx. Its leaves are about the same size and shape as *C. dielsianus*, but with less distinct veins above and only sparsely hairy below.

We then continued east to a clump of trees with a tall bush of Firethorn *Pyracantha coccinea* and presumed *Cotoneaster* x *watereri* growing out of the top of it, at SU 6583 0632. The latter is a widely planted tree, a hybrid between *C. frigidus* and *C. salicifolius*.

Next, at SU 6594 0631, I pointed out a low-growing bush without fruit, with tiny oblong leaves that were whitish hairy below, which I said was *C. integrifolius*. I didn't take a specimen, but Eric Clement thought it wasn't this due to the leaves not being shiny above. Eric and John Poland later said they thought this was *C. conspicuus*. Later in the month I saw what I presume was *C. conspicuus* in a couple of places planted in housing estates, and it is certainly possible this was what we saw during the

meeting, but I would need to return next year to see if it produces any berries.

After this we continued further east where we saw another bush of *C. vilmorinianus*, just to the west of the planted copse. We had lunch near here, where a small bush of *Berberis julianae* was identified by JP, and then continued back westwards along the bottom of the slope, seeing more of various species and adding *C. sternianus* at SU 6577 0631.

A bit further on at SU 6591 0628 we looked at some small trees of a mystery species of Cotoneaster with very distinctive leaves, which had been bugging me for many years, because I had only previously found suckering, non-flowering shoots. Luckily, some berries were present, and I was delighted to see that it was a black-fruited species. My specimen keyed out straightforwardly to *C. obtusus*. The berries looked black, but were actually dark maroon with a pruinose coating. Their most distinctive feature was that the calyx was wide open, revealing the apex of the two joined nutlets between. The leaves are a broad oval shape and vary from acute to obtuse at the apex; the leaf margin is silvery-hairy.

Also here we found another potential *C. x watereri*, but with smallish leaves. I collected a specimen but have not yet sent to the referee for determination. Nearby we found a tree of *Stranvaesia Photinia [Stranvaesia] davidiana*, identified straight away by Eric Clement. It had large clusters of reddish berries, making it look very similar to a Cotoneaster.

We did not add any further species, but saw plenty more of several species on the way back, including fruiting *C. bullatus*. We checked below Fort Southwick in the hope of finding *C. hjelmqvistii*, seen here on the previous Flora Group visit a few years ago, but with no luck. We ended the meeting seeing 12 taxa, with one unidentified (*C. conspicuus*?).

During the meeting we also admired the abundance of Eyebrights *Euphrasia*, still flowering on the hill, which I assumed were Chalk Eyebright *E. pseudokernerii* (which I knew to be reasonably common there). However, Dawn Nelson, disagreed and was sure that many of them were *E. confusa*. I contacted Martin Rand who provided the following useful summary:

Euphrasia confusa occurs quite widely in Hampshire, although only recorded rather sparsely. On the chalk it often shows up as the hybrid *E. nemorosa* x *confusa*, but it appears on its own as well. I've recorded it twice on Portsdown with you, once in 2006 in the Technology Park on its own, and once on the Paulsgrove slopes with the hybrid.

The flowers of *E. confusa* are on average smaller than *E. pseudokernerii* but slightly larger than *E. nemorosa*. 'Strongly' branched is not quite the word – it is branched from close to the base and has very thin, flexuous branches that go out almost laterally and then curve often to an almost erect position. The internodes are often considerably and consistently longer than the leaves/bracts in the upper stem/lower inflorescence; in the other two species the pattern is more complex and variable. *E. nemorosa* has much stouter and more or less straight branches that start higher up the stem and are ascending. *E. pseudokernerii* tends to be very bushy compared with the other two but it is important to compare plants



A few of the Cotoneasters seen during the meeting at Portsdown Hill on 24 September: 1 & 2 *C. dielsianus*, 3 *C. divaricatus*, 4 & 5 *C. simonsii*, 6. *C. obtusus* (1-5 photographed on 22 September 2017) (John Norton)

with undamaged main stems – *E. nemorosa* can go very bushy if the main stem is broken.

One of the best single features for distinguishing *E. pseudokernerii* from the others is the fruiting capsule, which is appreciably shorter than the calyx. In the others it may be a bit shorter or more or less equal. *E. pseudokernerii* has the most prominent bristles on the lower bract teeth. *E. nemorosa* tends to come next in this respect and *E. confusa* less again, but this becomes a bit subtle in these two. *E. confusa* basal bract teeth are usually forward-pointing, whereas they are more patent in the other two, but this is not a hard and fast distinction. Hybrids between *nemorosa* and *confusa* are frequent, as are those between *nemorosa* and *pseudokernerii*, but *confusa* x *pseudokernerii* seems to be very rare.'

Exhibition meeting at Testwood on Saturday 9 December 2017

A report by Catherine Chatters

Thirty-two people gathered at Testwood Lakes Education Centre for our annual winter botanical get-together. As well as being a chance for people to meet familiar friends from Flora Group and to catch up on botanical news, the event was an opportunity to welcome some new people whom we hope to see again during the coming months.

A range of interesting exhibits were on display, including some of Tony Mundell's recent voucher specimens. Steve Povey had brought along a miscellaneous collection of pressed plants and invited people to identify them. I was interested to see to see *Trifolium angustifolium* and *Medicago praecox* which Steve had found at Blackmoor in a field which had been ploughed during 2016; these species were last recorded at Blackmoor as old shoddy weeds during 1969 by Lady Anne Brewis. Steve's specimens also included *Catapodium maritimum* on the old A3 at Hill Brow near Liss, an example of a species which has spread inland. It was also interesting to see *Digitaria ischaemum* from Slab Common at Oakhanger, *Sambucus nigra* var. *lacinata* and Meadow Barley *Hordeum secalinum* which Steve says is now quite scarce in North Hampshire.

Martin Rand brought along a selection of books for sale to raise funds for wildlife charities. Thanks to everyone who purchased them as they raised £76.40 for HIWWT and £12 for the Woodland Trust.

People were interested to see Clive Chatters' pots of 'winter green' plants he had been growing in his garden, including Early Meadow-grass *Poa infirma*, Bulbous Meadow-grass *Poa bulbosa*, *Festuca longifolia* and Little Robin *Geranium purpureum* subsp. *forsteri*. The pots provided some useful photographic opportunities.

After a tasty bring-and-share buffet lunch we enjoyed a selection of botanical photographs. Peter Billingham showed photographs of a variety of plants which had appeared in an area of disturbed soil where trees had been felled in a neighbour's garden; these included Small-flowered Crane's-bill *Geranium pusillum*, Rough Poppy *Papaver hybridum* and Upright Spurge *Euphorbia stricta* with its characteristic fruits.

Martin Rand emphasised the value of botanising during the early part of the year, illustrating his point with



Flora Group exhibition meeting, 9 December 2017
(Catherine Chatters)

Glabrous Whitlowgrass *Erophila glabrescens* growing on a pavement in Southampton. He encouraged people to differentiate between *Allium subhirsutum* and *Allium trifoliatum* when identifying non-native garlics and urged people to keep their eyes open for Pink Shepherd's Purse *Capsella rubella* which occurs in suburban habitats on Hayling Island and which Ted Pratt has observed growing widely in the Purbeck area. Martin also mentioned Bulbous Meadow-grass *Poa bulbosa* which grows on Hayling Island and which is spreading inland to sites such as Hatchet Pond in the New Forest.

Martin referred to Balsam Poplar as an example of the need to be wary about what you read in books as he found it suckering in Ellingham churchyard, contrary to the books which state it doesn't sucker very much.

We enjoyed some photographs of the Flora Group visit to Decoy Pond Farm in June 2017 where we saw Marsh Cinquefoil *Comarum palustre*, Blunt-fruited Water-starwort *Callitriche obtusangula* and Suffocated Clover *Trifolium suffocatum* (a new record for that tetrad).

A plant which Martin encouraged us to look out for is the stingless stinging nettle *Urtica dioica* subsp. *galeopsifolia* which can be recognised by its long, narrow leaves and soft, downy pubescence on its stem. It grows near water and flowers up to a month later than the 'normal' stinging nettle.

One of the most gratifying finds during 2017 was Neil Sanderson's discovery of a new population of *Equisetum* x *bowmanii* in the New Forest, growing with Great Horsetail *E. telmateia*, one of its parents (see Recording section).

Martin has been involved in lots of recording for Atlas 2020 during 2017 and was pleased for the opportunity this provided to stumble across plants such as Austrian Yellow Cress *Rorippa austriaca*. He also visited a large population of Cornflowers *Centaurea cyanus* in a marginal strip along a field near Danebury Hill. However, recording of cornfield 'weeds' is often challenging, as so many of them have been sown as so-called 'wild-flower seed mixes'. Martin showed a photograph of Apple-of-

Peru *Nicandra physalodes* and explained that it is often difficult to ascertain its origins, for example whether it has been introduced as a contaminant in seed mixes for game birds.

Martin showed a photo of Hairy Rocket *Erucastrum gallicum* which, having been brought in by tanks, grows on the sides of tracks across Salisbury Plain. During 2018 Martin, together with Andy Cross, will be leading a workshop on Salisbury Plain to help people identify plants in families which are characteristic of chalk grasslands (for further details please see the Forthcoming Events section of this newsletter).

Martin ended his presentation with a photograph of Heath Lobelia *Lobelia urens* to encourage us to help with the scrub-cutting task on Saturday 17 February 2018 aimed at conserving this beautiful species. If you are interested in helping, please see the details in the Forthcoming Events section.

Tony Mundell shared photographs taken during a number of Flora Group events during 2017, including Tim Bailey's carnivorous plants day in the New Forest, the visit to Tidgrove Warren Farm where people saw the albino form of Red Hemp Nettle *Galeopsis angustifolia*, and the trip to Long Bottom near Caesar's Camp where White Beak Sedge *Rhynchospora alba* has appeared in the scrapes which the late Chris Hall inspired HIWWT to create.



Bulbous Meadow-grass *Poa bulbosa* (Martin Rand)

Tony had been asked to survey Mill Farm at Isington and discovered a number of woodlands supporting populations of Herb Paris *Paris quadrifolia*. Other interesting finds included Hedge Bindweed *Calystegia sepium* with split corollas found when 'square bashing', Copse Bindweed *Fallopia dumetorum* in Bacon Lane at Wishanger near the Surrey border, lots of Maple-leaved Goosefoot *Chenopodium hybridum* growing in arable fields in the Wherwell area, the pink form of scarlet pimpernel *Anagallis arvensis* var. *carnea* and a new site for the Small-leaved Sweet-briar *Rosa agrestis*.

Clive Chatters' selection of photographs included a number of species he'd seen on his travels during 2017. Whilst on the Lizard in Cornwall he'd enjoyed seeing Land Quillwort *Isoetes histrix* and Fringed Rupturewort *Hernieria ciliata* which grows on the rubble of the serpentine rocks there. At the opposite end of the country he'd explored the serpentine rocks on Unst where Edmonston's (Shetland) Mouse-ear *Cerastium nigrescens* grows on the Keen of Hamar.

Clive showed a number of photographs of plants closer to home in the New Forest, describing their habitats and management requirements. The old sports field on Copythorne Common supports Chamomile *Chamaemelum nobile*, Upright Chickweed *Moenchia erecta* and Blinks *Montia fontana*, whereas the large population of Mousetail *Myosurus minimus* which Clive and Martin had visited requires grossly eutrophic, highly disturbed conditions. Pillwort *Pilularia globulifera* and Lesser Water Plantain *Baldellia ranunculoides* both grow in muddy habitats.

The population of Small Fleabane *Pulicaria vulgaris* at Cadnam Green did particularly well during 2017 and Clive had photographed it growing with Pennyroyal *Mentha pulegium* under a canopy of Chamomile illustrating the need to maintain the traditional grazing management by New Forest commoners' stock. Other plants Clive had photographed in the New Forest this year included Marsh Gentian *Gentiana pneumonanthe* and Brown Beak-sedge *Rhynchospora fusca*.

After the presentations, John Poland provided the answers to his winter twig identification quiz including relatively 'easy' species such as Horse Chestnut, Ash and Beech and some which were much more of a challenge to identify for example Wild Service Tree. Phil Budd scored an admirable 15/18 and Andy Cross scored a respectable 10/18.

Many thanks to Tony Mundell and Martin Rand for organising the event, to John Poland for his interesting and educational quiz and to Pat Mundell for keeping us refreshed with mugs of tea and coffee.

Features

Assessing Decline in Fluctuating Populations: A Hampshire Case Study (Part 1)

Martin Rand

INTRODUCTION

Conservationists are interested in whether populations of organisms are stable or changing – and, in the case of natively occurring species especially, whether changing for the worse. The most fully developed and widely accepted basis for assessing decline is that promulgated by the International Union for the Conservation of Nature (IUCN) for producing Red Lists of threatened species, whether at a global, regional or national level¹.

The IUCN criteria are essentially under three heads (although categorised in five ways): population size (small, declining or subject to extreme fluctuations); geographic range, encompassing fragmentation, decline, and extreme fluctuations; and other analytic approaches (for instance, relating to environment or species performance) that demonstrate a significant threat of extinction within the next century at longest.

For bulk assessment of a species group within a region or nation, the most commonly applied criteria are those related to geographic territory. In a regional Flora, for instance, most assessments of abundance will have been made without considering population size: accurate, precise and objective observations, repeated consistently over time, or even statistically reliable estimates, will not exist for many species. Declines in geographic range are evaluated by *Extent of Occurrence* (EoO) and *Area of Occupancy* (AoO). The former assesses how widespread a species is, by putting some form of outer bound around the set of discrete sites where it is known or predicated. The latter is a record or estimator of the actual surface area taken up by the species.

Both these geographic metrics require some judgment in their practical application, as acknowledged in Section 7 ('Problems of scale') in the Preamble to IUCN (2000) (Figure 1). Taking a blatant example, the post-1995 distribution of Field Gentian (*Gentianella campestris*) in Hampshire, it is clear that disjunct distributions with outliers present a challenge, particularly when working at a restricted regional scale in a largely man-modified landscape. Taking the simplest and most naive method for computing an extent, the convex hull embracing all locations will clearly signal a very large (>70%) decline if the northern outpost population in the county is lost (Figure 2). This might be a slightly more realistic assessment if it was known that areas suitable for (re) colonisation between the two centres of population were available, but the opposite is nearer the truth.

The solution here is obvious: compartmentalise in some way to yield more than one extent polygon and not lose meaning in the process. In this case, it can be

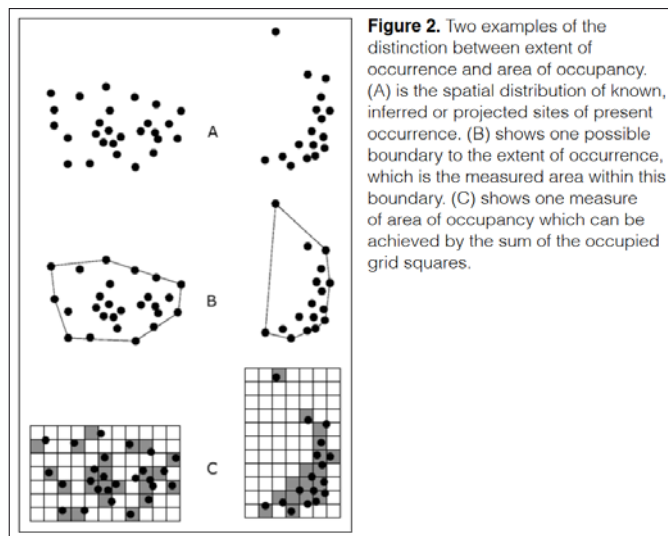


Figure 1: Reproduced from IUCN (2000)

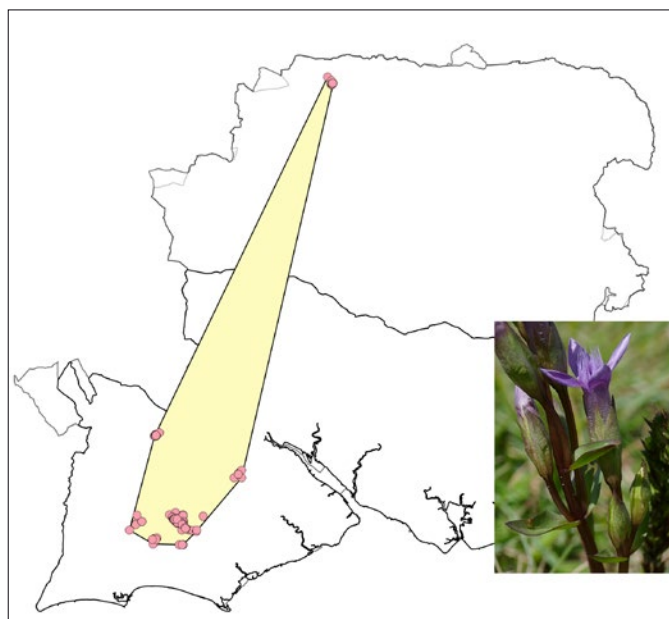


Figure 2: A crude single convex hull polygon for extent



Figure 3: Multiple convex hulls based on clustering

straightforwardly done based on the vice-county of the individual locations (Figure 3). Life will frequently not be that simple. More likely, it will be necessary to put parameters to the procedure to calculate multiple extents – taking into account relative degree of aggregation/separation, critical mass of location points, or other factors. But this can only be done judiciously with prior knowledge of the species' ecology and biology and the lie of the land in the region under consideration.

A similar set of challenges arises from use of the Area of Occupancy to assess decline. For most small organisms (including many plants) the resolution of the unit at which locations are recorded is coarse in comparison to the actual territory held or ground occupied. This means that in many cases the AoO is an over-estimator. On the other hand but less obviously, as the resolution of the recording unit is refined, it can become an under-estimator simply because recording effort tends to be uneven at such a scale, except for a limited number of rarities under formal monitoring. A more important issue for decline assessment is the fact that in the absence of population counts or estimates at each location, a hectare containing a single individual gets equal weighting to one with a population of 10,000. The first indication that the AoO provides of decline is then the total disappearance of the organism from a given unit of recording, and for conservation managers that may be too late.

ANALYSIS OF POPULATION CENSUSES: BREAKING DOWN THE POPULATION

For most plant species we do not have the data to tell us what their actual populations are doing in a region, or even to make reliable estimates, and we rely on the geographical criteria to provide a proxy measure. Sampling can give us a basis for prediction, but entails a great deal of work both to plan and to carry out rigorously even for a few species – often relying on volunteers with limited relevant experience. Hampshire-wide, there are only a few plants for which we have a sufficiently detailed census covering a significant span of years to allow us to make good inferences about their future. They are:

- Marsh Clubmoss (*Lycopodiella inundata*)
- Pillwort (*Pilularia globulifera*)
- Marsh Gentian (*Gentiana pneumonanthe*)
- Small Fleabane (*Pulicaria vulgaris*)
- Brown Galingale (*Cyperus fuscus*)
- Wild Gladiolus (*Gladiolus gallaecicus*)

(A few others, mainly orchids, have a full census at specific sites.) Interestingly, four of these species show marked yearly fluctuations in the number of mature plants; the IUCN limits mature individuals to those that are at a stage and in a situation where they can maintain their population. This adds to the difficulty of analysis, especially where a census is taken only at intervals of a few years and the effects of cyclical variation may be masked or generate artefactual distortions.

For assessment of decline in a region it is advantageous at one level to treat the whole population of the region as an entity, but this presupposes that there is a full enough record of either a complete census or a standardised sampling regime not to introduce too much randomness into the equation through variations or gaps in recording. There is also a question of practical conservation benefit, where comparing performance at different locations can give insight into the effects of local conditions, local management or the lack of it. So assessing subpopulations is both necessary for deriving meaningful information and useful for informing action, provided an adequate recording history can be put together around a subpopulation.

In a fragmented landscape with discrete sites supporting suitable habitat, defining the extent of a subpopulation is usually not hard. Where a population is diffusely spread over extensive suitable habitat, defining the boundaries can be less clear-cut (and more laborious). Statistical methods, in particular hierarchical cluster analysis², can help. This generates a progressively coarser agglomeration of individual observation locations in n-dimensional space into clusters, based on a distance metric for defining the distance between any two individual observations, and a method for determining a distance criterion, derived from this metric, for sets of observations.

If that seems more than a bit abstruse, consider the case I shall use as an example. We have a set of observations of Marsh Gentian numbers (*Gentiana pneumonanthe*) each of which is attributed to a location on the OS National Grid with a precision of 100 metres or better. Since elevation isn't an important factor in the Hampshire environment, that means we can deal with a 2-dimensional space specified by the eastings and northings of observations, and the Euclidean distance between them (the 'flight of the crow') is a suitable distance metric (Figure 4).

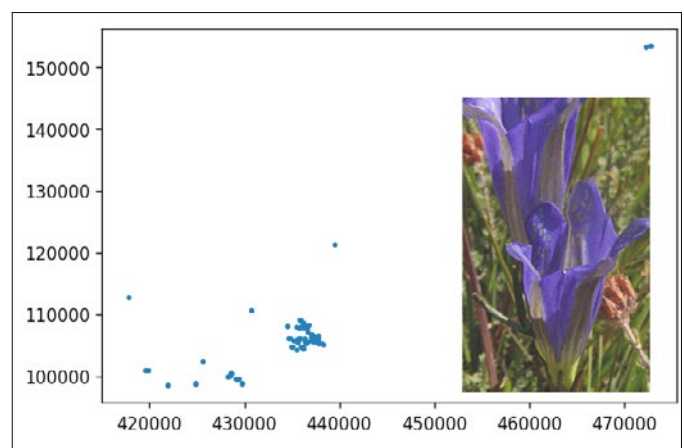


Figure 4: Geographical spread of Marsh Gentian localised records in Hampshire

Clearly many of the sites in the county are discrete and can be easily defined, and at this resolution clustering in the New Forest also looks obvious. At higher scale, and taking topography into account, the picture is not so clear.

The usual way of representing levels of clustering is through a dendrogram. Figure 5 shows part of the dendrogram for all localised census records for Marsh Gentian in Hampshire, using Ward's method as the criterion for agglomeration³. This method works by minimising the variance within a cluster at each step of agglomerating observations and clusters, and gives a satisfactory result for our purposes. Of course, the clustering relies only on Euclidean distance and takes no account of factors such as environmental barriers, but by reading down the dendrogram applying a common-sense approach to the level of aggregation required and recognising obvious break points in the grid references (green lines added to the dendrogram), one can achieve a remarkably close approximation to the division one looks for on the ground, taking into account topography and habitat.

There is a useful summary statistic for a dendrogram generated by hierarchical clustering which goes by the glorious name of the Cophenetic Correlation Coefficient⁴. It crops up in other biological fields such as computer-aided taxonomy, and genetic distance shown by DNA sequencing. Without getting too technical, it ranges between 0 and 1, where the closer the value to 1, the more faithful the model to the set of pairwise distances for the points in the original data. The model for the

Hampshire Marsh Gentian data gives a value of 0.84, which again gives reasonable confidence that the model is a workable one.

Figure 6 shows locations and clusterings on the Beaulieu Road/Longdown/Ipley area of the New Forest: in fact, this required only two outlier points to be reassigned to a different clustering to achieve a sensible partitioning. All other clusters across the county could be accepted as a workable subdivision without modification.

This approach yielded 22 clusters for treatment as subpopulations within the county. Since there is a human element to interpreting the dendrogram, there is inevitably a degree of arbitrariness in the number of clusters chosen and their delimitation, as Figure 6 will suggest. I am reasonably confident that two people with good field knowledge will achieve similar results, but this deserves to be tested. For ongoing studies, any partition only requires that they can agree to use it.

ANALYSIS OF POPULATION CENSUSES: CHANGES OVER TIME

With subpopulations defined, one can look at available observations for each subpopulation and decide which are candidates for analysis (in Part 2 of this article). They

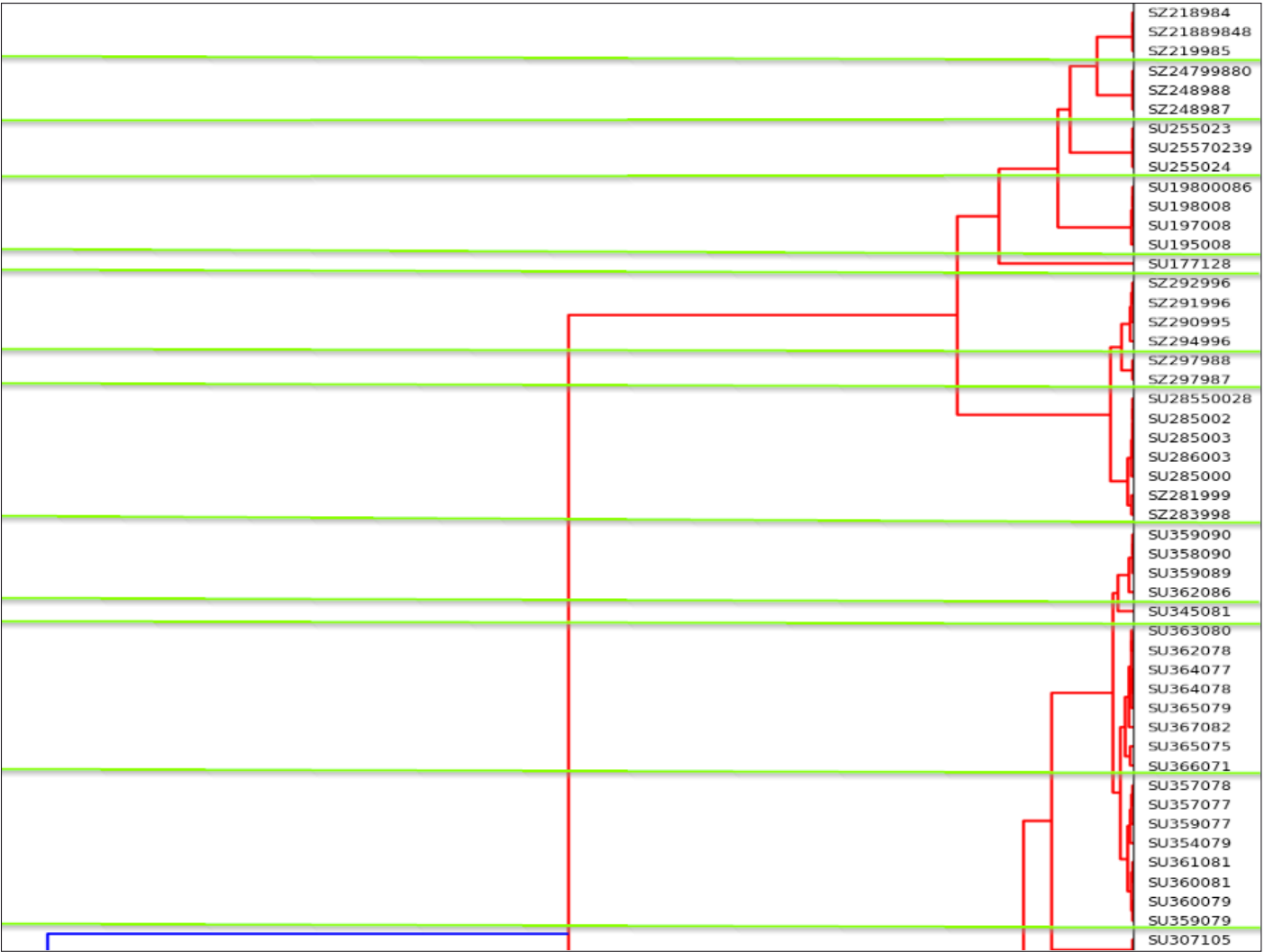


Figure 5: Partial dendrogram for Hampshire Marsh Gentian populations

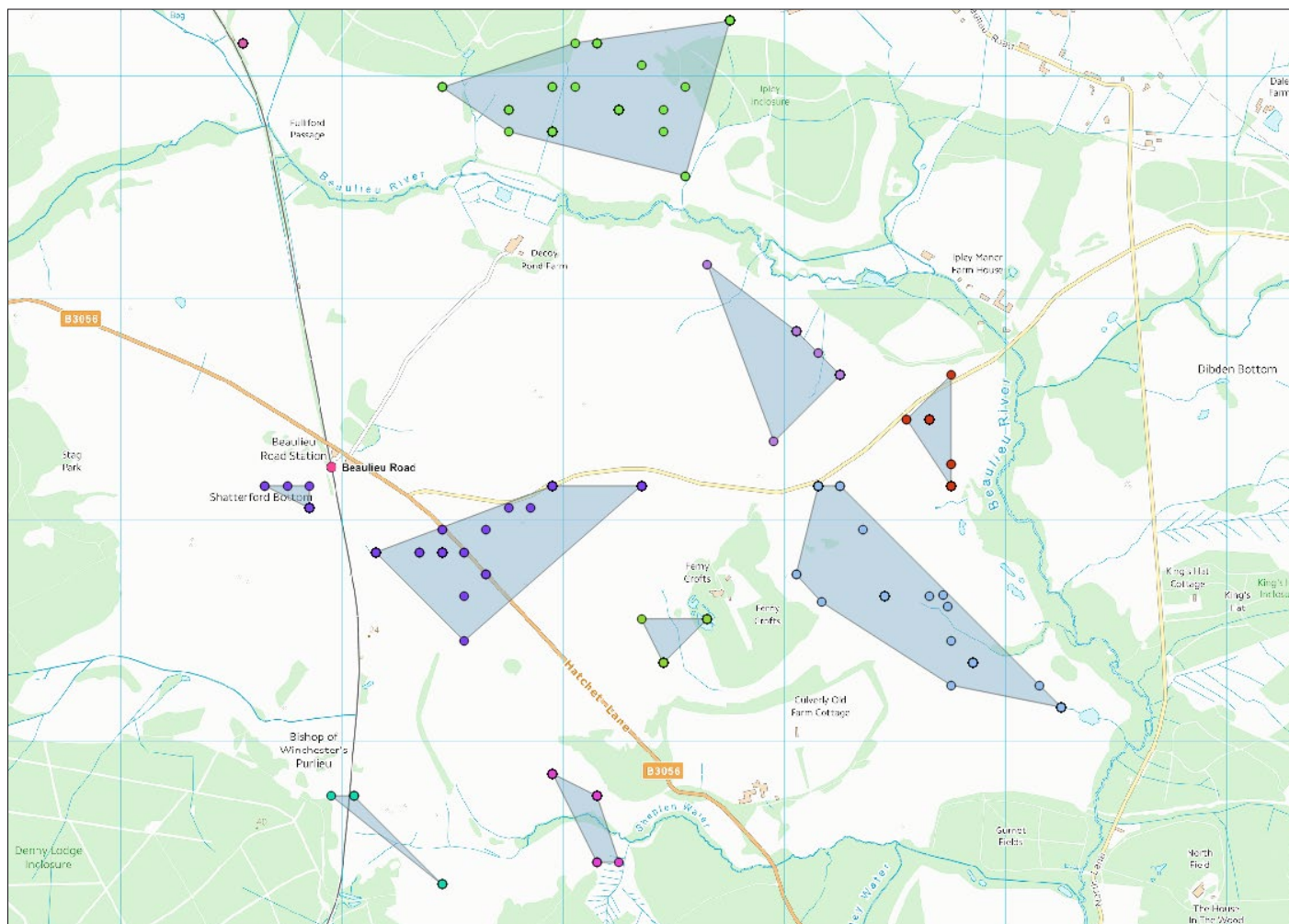


Figure 6: Marsh Gentian populations on the eastern New Forest

Table 1: Marsh Gentian subpopulations

Subpop	Locality	No. obs	Yr span	No. yrs	Usable
1	Plain Heath	11	14	10	
2	Broadley Heath	12	42(13)	10	Y
3	Duck Hole	10	11	8	
4	Dur Hill Down	7	25	5	
5	Abbots Well	1	1	1	
6	Three Beech Bottom	31	18	14	Y
7	Milking Pound Bottom	16	21	16	Y
8	Marlpit Oak	24	34(16)	14	Y
9	Longdown Chapel area	10	67(16)	7	
10	Fulliford	18	19	18	Y
11	Longdown / Peel Hill / Fox Hill	77	47	22	Y
12	Little Stubby Hat, Busketts Lawn	15	15	15	Y
13	Pig Bush	35	46(17)	18	Y
14	Penny Moor / Rowbarrow	9	46(14)	7	
15	Stephill Bottom	88	64(47)	25	Y
16	Shatterford	22	33(19)	19	Y
17	Ipley	38	65(47)	20	Y
18	Yew Tree Heath	27	47(18)	20	Y
19	W of Ferny Crofts	25	33(31)	18	Y
20	E of Ferny Crofts / Buck Hill	84	47(46)	23	Y
21	Emer Bog	2	3	2	
22	Bartley Heath	26	43	25	Y

need to hold enough data over a sufficient span of years. Where the year span in Table 1 contains a number in brackets, this indicates an amended span used in the subsequent analysis, excluding early outliers whose counts generally do not represent an exhaustive site survey. Localities with fewer than 10 years' recorded data, and those with records in less than half the adopted span of years, are considered unusable *a priori*.

I have examined the topic of subdividing populations at some length, as it seems to me crucial to standardise the way in which this is done for studies using existing data not gathered from a designed experiment. That calls for a reproducible method that yields an acceptable result to researchers over time, while allowing for new locations to be added to the picture without grossly distorting it. It also has other uses. It would undoubtedly have speeded up the process of collating records for the Hampshire Rare Plant Register, and should speed up the future update process. It might be argued that this issue of 'slicing and dicing' is really confined to the New Forest, where subpopulation boundaries are harder to define. But I believe it could also help, say, in defining islands of greatest interest for arable plants in the farming areas, and would provide a more sensitive definition of Extent of Occurrence for assessing expansion or decline for these species.

In the second part of this article I shall analyse the population counts from these Marsh Gentian candidate sites, considering whether there are apparent signs of change and determining how much confidence can be placed in such indications.

SOURCES AND ACKNOWLEDGMENTS

First acknowledgments must go to the individuals and groups who, by undertaking systematic censuses at many of the locations listed here, have made this analysis possible in the first place. The New Forest Study Group in the south of the county, and Dr Peter Vaughan in the north, deserve to be singled out for their efforts in recent years.

Maps were prepared with *Quantum GIS*, using the Field Study Council's TomBio extension for easy loading of the record data. The background topographical mapping uses Ordnance Survey OpenData raster mapping under the **Open Government license**: OS data © Crown copyright and database right (2017).

The analysis work was undertaken using the *Python* programming language and its supporting libraries: *pandas* for data manipulation, *numpy* and *scipy* for numerical and statistical processing, *matplotlib* and *seaborn* for graphical output. Anyone interested in examining or using the procedures should contact the author.

REFERENCES

1. 2001 IUCN Red List Categories and Criteria version 3.1, IUCN 2000, downloadable through <http://www.iucnredlist.org/technical-documents/categories-and-criteria>.

[iucnredlist.org/technical-documents/categories-and-criteria](http://www.iucnredlist.org/technical-documents/categories-and-criteria).

2. Kaufman, L. and Rousseeuw, P. J. (1990), *Finding Groups in Data: An Introduction to Cluster Analysis*, New York: Wiley.
3. Ward, J. H., Jr. (1963), Hierarchical Grouping to Optimize an Objective Function, **Journal of the American Statistical Association** 58, 236–244.
4. Sokal, R. R. and F. J. Rohlf. 1962. The comparison of dendrograms by objective methods. *Taxon* 11:33-40

News and Views

Little-robin at Hurst Spit

A note by Clive Chatters



Little-robin *Geranium purpureum* subsp. *forsteri*
(photographed on coastal shingle at Stansore Point,
13 September 2014) (John Norton)

The coastal form of Little-robin *Geranium purpureum* subspecies *forsteri* is found in abundance along the strandlines of the recurve of Hurst Spit in the Western Solent. The Geranium is readily recognisable by its angular 'zigzag' semi-prostrate growth, its stems and leaves being infused with purple and, when in flower, by its yellow anthers.

In October 2017 Pete Durnell and I guided a party from the National Park Societies conference around Keyhaven's nature reserves. We were proud to show our more mountainous colleagues the land at the lowest altitude of any of Britain's national parks. The grazing marshes behind the sea-walls are several metres below sea-level. The walk from Hurst Castle gave us an opportunity to look at the shingle flora. We didn't find any mature plants of Little-robin but there were hundreds of seedlings, with cotyledons and one or two mature leaves to each plant.

Autumn germination is not unusual in annuals of parched environments. Only closer study will tell whether seedlings of the plant overwinter, or whether this germination was premature due to the mild autumn.

***Adonis annua* at Fob Down, Alresford**

A note by Pete Flood



Pheasant's-eye *Adonis annua* (Pete Flood)

On 6 October 2017 while walking on Fob Down, to the north of Alresford, I noticed that a hedge had been recently grubbed up. The site in question was important because it was the location of one of the last few remaining colonies of Pheasant's Eye *Adonis annua* in the county. I had seen the plant myself for the first time in July 2017, a few metres to the east of the hedge, growing with Dwarf Spurge *Euphorbia exigua* and Rye Brome *Bromus secalinus*.

I immediately got in touch with Tony Mundell and Catherine Chatters, who advised that I contact Natural England, Plantlife and Hampshire Biodiversity Information Centre. I also made contact with Andrew Napier at the Hampshire Chronicle who agreed to cover the story. Finally, in an attempt to stir local feeling for conservation, I wrote this article for the Itchen Valley Forum: <http://forumpublications.co.uk/in-memoriam-adonis-annua>.

It proved difficult to trace the landowners, although the Hampshire Chronicle's investigations established that the land had been cleared for the planting of a vineyard. Natural England were able to confirm that, although listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act, this offered no practical statutory protection. They also confirmed that the land had no designations for nature conservation. From HBIC came the news that Winchester City Council had advised on the work to the hedgerow. On further enquiry, WCC admitted that they had advised strongly against its grubbing up, on the grounds of its 'biodiversity and landscape value', but being unable to demonstrate that the *A. annua* was within the hedgerow itself, had had no choice but to serve a 'Notice to Remove' to the landowners.

I'm sure that this story is, for many of our more experienced botanists, all too predictable and commonplace, usually ending in the local extinction of yet another species. I'm still hopeful that it may persist, and a few tentative rays of light are beginning to show. First, Jayne Chapman of

Butterfly Conservation has been in touch with me about their intention to put an area of the Magdalen Hill reserve under tillage with the aim of providing a habitat for a number of threatened arable weeds such as Pheasant's Eye. Second, Tony Mundell kindly forwarded an e-mail from Rebecca Aziz at Natural England stating that the Fob Down landowners are 'very willing to do what they can to help sustain the species' and will 'put in other wildlife friendly measures on the site'.

It is too early to say what the fate of this particular population of Pheasant's Eye will be, but I'm cheered by the fact that it always was somewhat anomalous, persisting for years on the field margins where disturbance is relatively low, despite the oft-repeated preference of *A. annua* for ploughed ground. Maybe this in itself bespeaks a toughness in this particular strain which will allow it to persist. Or maybe its long-lived seeds will remain dormant in the seed bank long enough for it to reappear when times are more favourable. I hope that it manages to survive the change of land use to viticulture, and that failing that, it and other disappearing arable plants find a home at Magdalen Hill.



Viewing north along the grubbed out hedge at Fob Down (Pete Flood)

A disturbing sequence of events

A note by Clive Chatters

It has long been appreciated that annual plants of arable habitats pose particular challenges to botanists and conservationists. The flowers of cultivated land include some of the rarest and most threatened species in Britain. Whilst we know their distribution is highly localised, the rarer species of arable land tend to be sporadic in their appearance. Cultivated farmland also tends to be under-recorded by botanists, for obvious reasons, not least because you have to look at a lot of dull places before you are rewarded. The combinations of these factors mean that the identification of sites on arable land 'worthy of conservation' is poorly developed.

This year urban growth in Hampshire has revealed, and then destroyed, an important site for arable species just

outside Andover. Elsewhere on the Hampshire chalk the removal of a hedgerow threatens a headland with an important arable flora. In both cases these are sites for Pheasant's-eye *Adonis annua*, a gloriously flamboyant red-flowered member of the Buttercup family. The Andover site was previously unknown, its discovery being made as the land was prepared for development. Pheasant's-eye enjoys the highest level of protection under English law being listed on Schedule 8 of the Wildlife and Countryside Act. Current events cast into doubt the strength of this protection together with the willingness of the statutory sector to enforce the law.

Whereas Pheasant's-eye is a species of open chalk habitats there is a parallel flora associated with more acidic fields. Amongst the richest of such sites in Hampshire was Ganger Farm, just outside Romsey. This was a known site and had been recognised in the planning system as a SINC (Site of Importance for Nature Conservation). The farm has been allocated for housing and so the community that supported Corn Marigold *Glebionis segetum*, Small Toadflax *Chaenorhinum minus* and Corn Mint *Mentha arvensis* is currently disappearing under concrete.

Species of arable land live in the more extreme of our habitats of broken ground. There is a growing appreciation that 'perennial' habitats such as heaths and downs also require an element of broken ground into which annuals and short-lived perennials can seed and establish themselves. Current public funding for habitat management is tending to seek to minimise bare ground, so threatening the long term viability of another suite of species; but that is another story...

Notices

Index to *Flora News*

For a number of years Barry Goater has diligently created a very detailed and useful index to each edition of *Flora News*. We are extremely grateful to Barry for doing this on behalf of the Flora Group as the index is such a valuable resource. However, Barry would now like to have a well-earned break and wishes to hand over responsibility to somebody else. If you have a bit of time to spare and would like to ensure that the creation of the index continues in to the future, please get in touch with Catherine Chatters (whose contact details are on the last page of this newsletter) and she will put you in touch with Barry so he can explain what is involved. If anyone is willing to take on the creation of the index, your help will be much appreciated.

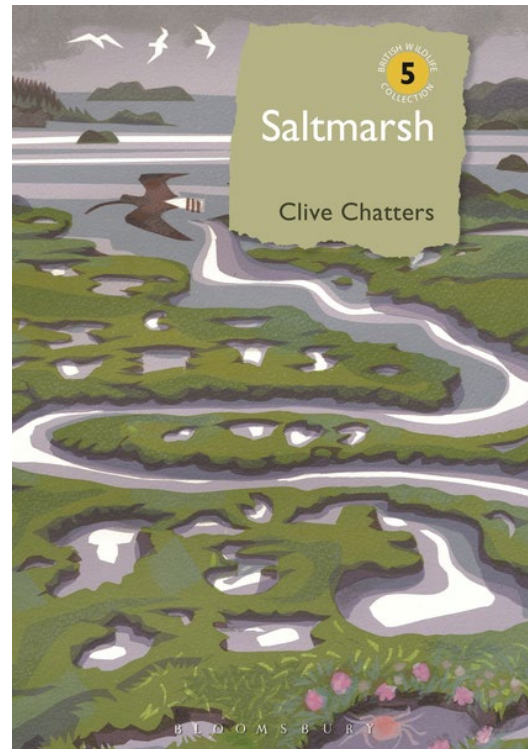
AGM 2017: A correction

Our report of the 2017 AGM that was published in the Autumn 2017 edition of *Flora News* included a thumbnail of the historical origins of Decoy Pond Farm. Our apologies go to Richard Reeves for us giving the wrong date for the restoration of the monarchy, which should have been 1660.

Book Review

Saltmarsh by Clive Chatters (Bloomsbury Publishing 2017)

A review by Martin Rand



Although it has a long way to catch up numerically, the *British Wildlife Collection* is steadily becoming a fine companion series to the venerable *New Naturalists*. In the hand they look rather similar, with their stylised dust jacket illustrations, but under the cover they have a slightly different approach. Certainly the format is smarter (one might say 'glossier', which is literally true, but sounds undeservedly disparaging). *New Naturalists* seem to aspire more and more to be compendious and rigorous in their fields, sometimes at the expense of general appeal; but the *BW Collection* authors generally set out to tell a story, and to do it knowledgeably but entertainingly.

Number 5 in the series, *Saltmarsh*, is no exception in this respect, as we would expect from Clive Chatters. Again he shows his talent for weaving the prehistoric, the historic and the ecological into a rich tapestry threaded through with human anecdotes past and present. Each chapter visits a different part of the British Isles and turns it into an illustrative case history for one strand in this surprisingly diverse habitat. Saltmarshes in the conventional view are such distinctive (and for many, unappealing) places that we can easily fall into the trap of thinking of them in isolation, neatly bounded off by nature or man from the rest of our countryside. From the first chapter it is clear that this view is going to be seriously challenged. We start not in some curlew-haunted mud-flat but in the most forgotten saltmarshes of all, the inland spring-fed marshes of the English Midlands. To follow, we have those 'perched' saltmarshes on cliffs, raised

beaches and anywhere else where our Atlantic weather can drop salt, sometimes hundreds of feet above the shore.

From here the tour proceeds through the highlands and lowlands, seeking out the boundaries of the salt, detailing the edgy relationships between saltwater, freshwater and terrestrial communities, and demonstrating the dynamism of the habitat whether under natural or man-made processes. Two chapters focus on Hampshire, one revealing how one of the most intensive industrial sites on the south coast (Lymington's salt works) has 'come back' to develop into one of our more important and inspiring landscapes for wildlife. The other brings to life the recondite subject of Cord-grasses (*Spartina* species), which through man's agency have had such an enormous impact on our coasts.

A recurrent theme in the book is the important effect of large herbivores in maintaining the diversity of saltmarsh vegetation. The author presents the case for wild beasts having played this role in post-glacial prehistory, finding the open landscape congenial to their mode of life, and documents the surrogate role of domestic animals down the centuries since. Extensive grazing on the flats was an important part of the commoning economy of coastal settlements, with all the attendant battles with reclaimers and drainers that similarly marked the history of inland commons.

The effects of man on the marsh environment in general are yet more of an over-arching thread, whether for sea defence, exploitation or conservation, and the point is well made that not all this activity has been detrimental; pastoral farming in particular has maintained diversity in the coastal fringe even where the wild marsh has been largely embanked out of existence. Nearly a third of the book is devoted to conservation topics, starting with the popular attempts at defence of the commons in the early Middle Ages. These chapters are as much to do with changes in outlook as practice, particularly in the last century or so, and the most recent naturally bring to the forefront the responses to sea-level rise. The book ends by documenting and celebrating recent schemes to deal with this either by non-intervention or by bold schemes of re-engineering. It ends, however, on a note of urgency, questioning whether as a nation we have yet found the commitment or the resources to meet the challenges of the change.

Whether you are a botanist, a general naturalist, a conservation practitioner or a student of our social history, this book will have much to offer you and I strongly recommend it.

Saltmarsh by Clive Chatters is available from all good bookshops and many websites including www.nhbs.com/saltmarsh-book. RRP £34.99, but look out for offers.

Recording

VC11 Notes and Records

Compiled by Martin Rand (December 2017)

Perhaps the most exciting find of the year among the native plants is Neil Sanderson's discovery of a new population of *Equisetum x bowmanii* (Bowman's Horsetail) in the New Forest. Taking the scatter of populations along the A337 as one site, this is still only known from three sites world-wide, with Hampshire having two of them. The new site extends its Hampshire range nearly 2km eastwards and holds one of the most impressive populations. It grows here alongside *E. telmateia*, one of the parents, but apparently without the other. Clive Chatters and I have both looked along the watercourses running between this site and the previously known ones, but have not found any of the hybrid between them.



Equisetum x bowmanii, New Forest, 27 August 2017
(Martin Rand)

While on the subject of ferns and horsetails, Neil is also responsible for extending the known range of epiphytic *Polypodium cambricum* (Southern Polypody) several kilometres westwards to Red Shoot, while the Hampshire Flora Group found a new site for *Equisetum x litorale* (Shore Horsetail) at some distance from known sites on its visit to Decoy Pond Farm in the summer. Meanwhile Felicity Woodhead has taken *Equisetum sylvaticum* (Wood Horsetail) deeper into the south-west of the vice-county.

It is always very gratifying to get news of sites for some of our most vulnerable plants, and the visit made by Felicity Woodhead and John Norton to the (stringently access-restricted) Qinetiq site near Matchams turned up several good things, among which the star must be the population of *Dianthus armeria* (Deptford Pink). All populations of this are now so small that even the continued presence of 25 or more plants is significant. In the same vein it was good to see *Lithospermum arvense* (Corn Gromwell) recorded near Rockbourne by Peter Thompson – the only record in this part of the county since the millennium, where once it was quite widespread. While most people

will visit this part of Hampshire to enjoy the wild expanses of Martin Down, it's worth spending some time to look at the arable chalk flora in the area, which is still quite rich compared with much of the county. Who knows? – you might even rediscover Pheasant's Eye (*Adonis annua*), last seen hereabouts in 1991.

Two critical genera got further expert attention this year. Tim Rich and I spent a productive day with the native Dandelions at Balmer Lawn, which confirmed the presence of the nationally rare *Taraxacum anglicum* at a second New Forest site, and also gave us a third New Forest site for the much less rare *T. gelertii*. This may well be reasonably common in Forest lawns. It was also good to record the first *T. euryphyllum* for 30 years, and to add another confirmed site for the reasonably common but under-recorded *T. nordstedtii* here. We failed, however, to confirm this as a second site for *T. ciliare* on mainland Britain. I was personally pleased to see *T. oxoniense* during the two trips to Hayling this year, as there is only one other VC11 record 'on the books' at the moment since 1976. It is rather striking and surely waiting to be (re)found elsewhere.

Meanwhile, Mike Shaw's investigation into the Hawkweeds of south-east England brought him to Portsdown in 2017, where he was able to get the occurrence of *Hieraceum spilophaeum* (which we had believed for a while) formally confirmed by David McCosh. Also confirmed were *H. cheriense*, new to the county but known just outside north Hampshire in VC22 (Berkshire); and *H. neosparsum*, again new to VC11 but previously recorded as '*H. exotericum*' or '*H. exotericum* agg.'. It has also been confirmed this year from Fleet in North Hampshire (VC12).

As usual there are plenty of neophytes showing up, and it's likely that the years 2016-2017 will be bumper ones for new (unplanted) vice-county records; but at the moment I am sitting on quite a few, waiting for a formal record or more details to be submitted or for independent confirmation. Hopefully these will be dealt with by the next issue of *Flora News*. I've included a few that haven't had full confirmation in the following account, as I am reasonably confident of their correctness and it may inspire others to go out and have a look on the ground. At the prompting of Eric Clement I have started looking again at *Allium subhirsutum* (Hairy Garlic) this year, following Matthew Berry's recent account of the related species *A. trifoliatum*. Not only did this reveal that the plants seen at Freemantle by the Flora Group meeting in 2016 were *A. trifoliatum*, but Ginnie Copsey and I turned up another escaped population along a stream side at Applemore. I've now looked round several garden margins in my home area, including (blush) my own garden, and have found that they are all *A. trifoliatum*! So if you have previously recorded *A. subhirsutum* it would be worth going back and taking another look. For more details of how to distinguish them see *BSBI News* Issue 133. Ignore the character to do with the hairiness of the leaf margins – as Matthew suggested, it doesn't work.



Allium trifoliatum specimen (Martin Rand)



Pink Shepherd's-purse *Capsella rubella*, Woodmill, Southampton 10 April 2017 (Martin Rand)

The two recording trips to South Hayling in 2017 turned up quite a few new things, many of them non-natives. Particularly striking was the presence of *Capsella rubella* (Pink Shepherd's-purse) in the suburban parts of all three tetrads. We had also seen how frequent this was in the Swaythling/Mansbridge area of Southampton during the early-season Flora Group meeting there. It has been known for some years in Southampton and the Waterside, but perhaps needs looking out for all along the urban coastal strip. Although intermediates often occur and there is doubt about its species status, it is a distinctive plant in its pure form.

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 about 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 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. Generally 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 mostly 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:

ACr=Alison Cross, **AEB**=Alison Bolton, **AHP**=Andrew Powling, **AJBa**=Andy Barker, **ALe**=Andrew Leonard, **ALu**=Adam Lucas, **AMC**=Andrew Cross, **ARGM**=Tony Mundell, **ASt**=Anna Stewart, **BHep**=Brian Heppenstall, **BMD**=Ben Mead, **BSBI**=BSBI/HFG meeting (leader or recorder's name in brackets), **CC**=Clive Chatters, **DC**=David Caals, **DJMcC**=David McCosh, **DL**=David Leadbetter, **DN**=Dawn Nelson, **DPr**=Dominic Price, **DWT**=Dorset Wildlife Trust, **EJC**=Eric Clement, **EK**=Liz Kimber, **FAW**=Felicity Woodhead, **GCo**=Ginnie Copsey, **GFa**=Geoffrey Farwell, **GKn**=Gareth Knass, **HFG**=Hampshire Flora Group meeting (leader or recorder's name in brackets), **ILR**=Ian Ralphs, **ISm**=Ian Smith, **JAN**=John Norton, **JMill**=Joel Miller, **JOa**=Jill Oakley, **JSo**=Jodie Southgate, **KB**=Keith Betton, **KT**=Keith Turner, **LBa**=Linda Barker, **LG**=Laura Gravestock, **LMJ**=L. Moreton Jones, **MHo**=Mark Holloway, **MR**=Martin Rand, **MSHa**=Mike Shaw, **MWR**=Mike Rowe, **NAS**=Neil Sanderson, **NFSG**=New Forest Study Group, **PAB**=Phil Budd, **PF**=Pete Flood, **PGLT**=Pete Thompson, **PM**=Pater Marston, **PSm**=Paul Smith, **RCh**=Bob Chapman, **RCR**=Clare Rand, **RGo**=Richard Gowing, **RMas**=Roger Maskew, **RMW**=Robin Walls, **RPH**=Robin Harley, **RPR**=Richard Reeves, **SDa**=Sarah Davis, **SDo**=Stephanie Dobbin, **SP**=Steve Povey, **TAC**=Dr Tom Cope, **TCo**=Trevor Codlin, **TDe**=Tara Dempsey, **TGCR**=Tim Rich.

***NN Acorus calamus (Sweet-flag):** Harrow, Harrow Wood, Lake, campsite wood, SZ1997; 29 Jul 2016; FAW. 19785 97667, in lake. (Planted). **1st for SZ19 since 1977.**

NA Aethusa cynapium subsp. agrestis (Fool's Parsley): St John's Lane, Shedfield, SU5613; 26 Sep 2017; GCo. Bracteoles same length as pedicels. **1st for SU51 for subsp.**

NN Ailanthus altissima (Tree-of-heaven): Hambledon north, SU6415; 14 Sep 2017; AHP & EJC. **1st for SU61.**

NN Alcea rosea (Hollyhock): Hayling Langstone Marina area, SU7204; 15 Sep 2016; AHP & EJC. **1st for SU70.**

West Town, Hayling Island, SZ708989; 13 May 2017; BSBI[ARGM] det. ARGM. SZ7085 9898. **1st for SZ79.**

NA Alisma plantago-aquatica (Water-plantain): Palmersford, footpath N over bridges (from Tricketts Cross brdly), SU0900; 28 Apr 2016; FAW. **1st for SU00 in VC11 since 1980.**

NN Allium trifoliatum: Applemore, SU403069; 03 May 2017; MR & GCo det. MR. Alongside stream in retained woodland strip. **1st for SU40.** It now seems likely that many of the existing records for *A. subhirsutum* will prove to be this. MR conducted a survey of gardens in the Eastleigh / Winchester area and found that all material examined was *A. trifoliatum*.

Fremantle, SU402123; 03 Apr 2016; HFG[JAN]. S of railway footpath, SU4027 1237. **New vice-county record.** (Originally determined as *A. subhirsutum*)

NN Alnus viridis (Green Alder): Marlhill Copse(W), SU447155; 12 Jul 2017; MR & GCo. N side of modern bridge, E end. (Planted). **1st for SU41.**

East Parley Common, East Parley track, tracks to E, Parley lakes, SZ1099; 03 Aug 2016; FAW. Main bridleway. **1st for SZ19.**

NN Ammi majus (Bullwort): Woodside, SZ323941; 03 Aug 2017; MWR. Sown with other 'wildflowers' by pond, SZ 3230 9416. (Planted). **1st for SZ39.**

****NA Anacamptis morio (Green-winged Orchid):** Nr Horestone Hill, SU404064; 03 May 2017; MR & GCo det. MR. In verderers' strip. **New tetrad.**

Browdown Ranges, SZ574992; 17 Apr 2017; TCo. Located at SZ 57410 99207 only a couple of plants were of a reasonable size, some only a few cms tall, but still flowering. Unfortunately, a few had already been trampled. **New tetrad.**

NN Anemone x hybrida (Japanese Anemone): Tegdown Hill, South Downs Way, SU6919; 24 Sep 2017; AHP det. AHP & EJC. **1st for SU61.**

****NA Anthemis cotula (Stinking Chamomile):** Hilsea Lines, SU663042; 19 May 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU6636 0424. **New tetrad.**

Hilsea Lines (East), SU673039; 19 May 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016. **New tetrad.**

***NA Anthriscus caucalis (Bur Chervil):** Hythe (Fairview Parade), SU420067; 24 May 2017; MWR. SU 4205 0679. **New tetrad.**

NN Antirrhinum majus (Snapdragon): Elm Grove, Hayling, SZ721993; 13 May 2017; BSBI[MR] det. MR. **1st for SZ79.**

NA Arctium minus subsp. pubens (Lesser Burdock): Whitsbury Down, SU118213; 09 Aug 2016; RMas, MR *et al.* det. MR. Field corner NE of track crossing. **1st for SU12 for subsp.**

Mansbridge, SU448155; 12 Jul 2017; MR & GCo. Verge of A27. **1st for SU41.**

NA Arrhenatherum elatius var. bulbosum (Onion Couch): Ashley Drive, Ashley Drive plantation and track, SU1307; 13 Aug 2016; FAW. track and field corner. **1st for SU10 for var.**

NN Arum italicum subsp. italicum (Italian Lords-and-Ladies): Hythe Village Marina area, SU420083; 27 Mar 2017; MWR. By footpath by gardens, SU 4201 0837. **1st for SU40 for subsp.**

NN Aster x salignus (Michaelmas Daisy A. lanceolatus x novibelgii): Hayling north of Northey Road, SU7203; 15 Sep 2016; AHP & EJC. **1st for SU70.**

NN Atriplex halimus (Shrubby Orache): Portchester SU60C, SU6104; 23 Jun 2017; ASSt. bushes above strandline, no flowers. **1st for SU60.**

***NN *Berberis vulgaris* (Barberry):** Avon Tyrell - Whitefield Hill, SU186004; 08 Sep 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU1862 0043. (Introduced.) **New tetrad.**

Woodside, SZ321940; 03 Aug 2017; MWR. Hedge opposite garden, Ridgeway Lane, SZ 3211 9402. (Introduced.) **New tetrad.**

NN *Borago officinalis* (Borage): Teglease Farm (Hambledon) area, SU6518; 20 Oct 2016; AHP & EJC. **1st for SU61 since 1969.**

NN *Brassica juncea* (Chinese Mustard): Brockwood Park area, SU6226; 05 Oct 2017; AHP & EJC. (Planted). **1st for SU62.**

NN *Briza maxima* (Greater Quaking-grass): Westering Road, Romsey, SU37182186; 24 Jun 2017; GKn. Abundant in 3m stretch of driveway as a weed. **1st for SU32.**

****NA *Briza media* (Quaking-grass):** Stocker's Mead (North Meadow), SZ14859251; 08 Jun 2017; RPH det. FAW. **1st for SZ19 since 1969.**

***NA *Briza minor* (Lesser Quaking-grass):** Off A334, SU538132; 26 Jul 2017; GCo. Ligule 1 cm long. **New tetrad.**

Wickham Square, SU5711; 28 Feb 2017; GCo. Pavement crack. **New tetrad.**

Harrow, B road, Bransgore churchyard, Harrow Rd, C road, SZ1997; 14 Aug 2016; FAW. Bransgore churchyard. **New tetrad.**

***NA *Bromus hordeaceus* subsp. *thominei* (Sand Soft-brome):** Highcliffe, cliffs and cliff tops, SZ2193; 01 Jul 2016; FAW. **New tetrad for subsp.**

****NA *Bromus secalinus* (Rye Brome):** Off A334, SU538132; 26 Jul 2017; GCo. **New tetrad.**

NN *Buddleja globosa* (Orange-ball-tree): Bournemouth Airport NW, Merritown Heath from Viscount Road, SZ1098; 06 Aug 2016; FAW. **1st for SZ19.**

***NA *Calamagrostis epigejos* (Wood Small-reed):** Ditchend Brook (West), SU178142; 06 Sep 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU1780 1422. **1st for SU11 since ?1960.**

NN *Calendula officinalis* (Pot Marigold): Hambledon south and west, SU6414; 14 Sep 2017; AHP & EJC. Garden escape. **1st for SU61.**

NA *Calystegia sepium* subsp. *roseata*: Berry Hill, Mr Shutlers Fields to S+W of Hicks Farm Field B1, SZ103968; 27 Aug 2016; FAW. Field B7. Druitt Gardens, SZ1592; 31 May 2017; Sda. **1st for SZ19 for subsp.**

NN *Campanula portenschlagiana* (Adria Bellflower): Lockerley churchyard, SU298266; 02 Mar 2017; MR & GCo. By W wall. **1st for SU22.**

NN *Campanula poscharskyana* (Trailing Bellflower): West Tytherley, NE of, SU285312; 10 Jul 2017; MR & GCo. Small plant in centre of gravel track. **1st for SU23.**

Up Somborne, SU3932; 15 Jun 2017; MR. **1st for SU33.**

Tournerbury Lane, Hayling, SZ725999; 13 May 2017; BSBI[MR] det. MR. **1st for SZ79.**

NN *Capsella rubella* (Pink Shepherd's-purse): West Town, Hayling, SZ707992; 13 May 2017; BSBI[ARGM] det. ARGM. Road verge, St Helens Road, SZ7079 9927. Tournerbury Lane, Hayling, SZ723998; 13 May 2017; BSBI[MR] det. MR. Sandy Point Road, Hayling, SZ744983; 13 May 2017; BSBI[MR] det. MR. Verges of this and Bosmere Road. **1st for SZ79.**

***NA *Carex distans* (Distant Sedge):** Tipner Lake and Shoreline, SU647039; 12 Jul 2016; ILR. HBIC Hampshire Habitat Survey Partnership Project 2016. **New tetrad.**

***NA *Carex extensa* (Long-bracted Sedge):** Hengistbury Head (E end and beaches), SZ1890; 15 Aug 2017; RMW. **New tetrad.**

***NA *Carex montana* (Soft-leaved Sedge):** Longslade, SU268001; 29 Apr 2017; NFSG[MR]. Cut Bracken area W of car park access road. **New tetrad.**

East Beaulieu Heath, SU419025; 03 May 2017; MR & GCo det. MR. Fragmentary bracken heath on W side of small valley mire. **New tetrad.**

Badminton Common, SU460019; 03 May 2017; MR & GCo det. MR. **New tetrad.**

****NA *Carex pulicaris* (Flea Sedge):** Northwest of Beaulieu Road Station, SU332072; 02 Jun 2017; AMC, GKn & NAS. In base-enriched wet lawn east of road. Rare. SU33269 07285. **New tetrad.**

Southeast of Beaulieu Road Station, SU352059; 03 Jun 2017; AMC, GKn, JSo and LG det. AMC & GKn. On south edge of disused track. Rare. SU35263 05971. **1st for tetrad since 1965.**

****NA *Cephalanthera damasonium* (White Helleborine):** Nr Sparsholt Corner, West Wood, SU416308; 07 May 2017; AJBa & LBa. 'We counted 62 individual plants, and to be honest there were probably more than this, as we only counted those that were close to the path... The majority of plants were just coming up and still had quite a way to go before flowering. The main concentration of plants was centred around SU4160 3080, and was spread over an area of at least 50m x 20m.' **New tetrad.**

NN *Ceratochloa cathartica* (Rescue Brome): St Augustine Close, St Denys, SU435140; 04 Jan 2017; MR & GCo det. MR. Patch dominating resown strip by parking bay, SU4355 1400. **1st for SU41.**

****NA *Chamaemelum nobile* (Chamomile):** Hengistbury Head, SZ1690; 21 May 2016; BHep. **New tetrad.**

****NN *Chenopodium glaucum* (Oak-leaved Goosefoot):** S of Horton Heath (Bubb Lane (B3342)), SU494159; 11 Sep 2016; MWR. Several plants, SU 4948 1592, with 1 plant of *Chenopodium polyspermum*. **New tetrad.**

Horton Heath (S side) (Botley Road (B3354)), SU496164; 11 Sep 2016; MWR. 1 plant, SU 4960 1648. **New tetrad.**

***?NA *Chenopodium hybridum* (Maple-leaved Goosefoot):** East Tytherley, SU289318; 10 Jul 2017; MR & GCo. **1st for SU23 since 1982.**

NN *Chenopodium quinoa* (Quinoa): Hambledon east, SU6514; 03 Nov 2016; AHP & EJC. **1st for SU61.**

NN *Cicerbita macrophylla* (Common Blue-sow-thistle): Chalkpit Lane, W Tytherley, SU276301; 31 Aug 2017; MR, GCo & ASt det. MR. Established in lane verge from planting by nearby house, SU2762 3015. (Alien). **1st for SU23 in VC11.**

***NA *Cirsium eriophorum* (Woolly Thistle):** Longwood Warren, SU534263; 15 Jul 2017; GFA. Longwood Warren, solitary plant beside track at SU534263. **New tetrad.**

***NA *Clinopodium ascendens* (Common Calamint):** Bedhampton, South of, SU7009 0605; 24 Jun 2017; GKn. 2 plants on wall of railway bridge. Private land. **1st for SU70 in VC11 since 1951.**

IN *Cotoneaster integrifolius* (Entire-leaved Cotoneaster): Curdridge, SU527139; 11 Apr 2017; GCo. **1st for SU51.**

NN *Cotoneaster lacteus* (Late Cotoneaster): Calshot, SU480013; 23 Jul 2017; MWR. Planted in hedge by car park, B3053, SU 4804 0131, with *Griselinia littoralis* and *Symphoricarpos albus*. (Planted). **1st for SU40.**

NN *Cotoneaster rehderi* (Bullate Cotoneaster): Hambledon, 1 km SW, SU6314; 31 Aug 2017; AHP & EJC. **1st for SU61.**

NN *Cotoneaster salicifolius* (Willow-leaved Cotoneaster): St John's Lane, Shedfield, SU5613; 26 Sep 2017; GCo. **1st for SU51.** Stanpit, Old Depot area, cyclepath and car park, SZ1792; 21 May 2016; FAW. Bioblitz, Depot, comp 24, 17057 92480. **1st for SZ19.**

IN *Crassula helmsii* (New Zealand Pigmyweed): Bolderwood Walk, SU240094; 29 Jun 2017; MWR. Wet track in wood, SU 2408 0946. **New tetrad.**

Ashurst Campsite, SU333096; 05 Aug 2016; NAS. Inundation vegetation. **New tetrad.**

Copythorne, SU300141; 03 Jul 2016; PM. Abundant in Splitwind Pond. **New tetrad.**

NN *Crinum x powellii* (*C. bulbispermum* x *moorei*): Bournemouth cliffs, SZ071900; 15 Aug 2017; DL. Established on cliff E of

Branksome Dene Chine at SZ 0714 9003. (Introduced). **1st for SZ09.**

NN *Crocasmia paniculata* (Aunt-Eliza): Peartree Green, SU438118; 08 Jul 2016; PAB. Naturalised. **1st for SU41.**

NN *Crocus tommasinianus* (Early Crocus): Woolmer Lane, Blashford, SU150069; 07 Feb 2017; DL. Several on bank in Woolmer Lane near Blashford Lakes at 15013 06939. (Alien). **1st for SU10.**

NN *Cyclamen coum* (Eastern Sowbread): Snails Lane, Blashford, SU149069; 07 Feb 2017; DL. 1 plant at west end of Snails Lane near Blashford Lakes outside 'Upper Hurst' at SU14992 06963. **1st for SU10.**

NN *Cyclamen hederifolium* (Sowbread): West Tytherley, SU275300; 31 Aug 2017; MR, GCo & ASt det. MR. **1st for SU23.**

****NA *Cynoglossum officinale* (Hound's-tongue):** Broughton, The Valley, N side, SU301320; 30 Jul 2017; ARGM & ACr. Many plants at SU3018 3208. **New tetrad.**

NN *Cynosurus echinatus* (Rough Dog's-tail): Fir Grove Farm South, Palmersford, bridleway beside sewage works, SU1000; 03 Aug 2016; FAW. 10238 00454. **1st for SU10.**

****NN *Cyperus longus* (Galingale):** Fawley, SU445030; 05 Sep 2016; MWR. Lake, Gang Warily Recreation Centre, SU 4457 0308. **1st for SU40.**

NN *Cyrtomium falcatum* (House Holly-fern): Havant Town (walls), SU7170 0616; 17 Jul 2017; Ale. Havant Town (walls), SU7178 0618; 17 Jul 2017; Ale. **1st for SU70.**

****NA *Dianthus armeria* (Deptford Pink):** Avon Castle, Qinetiq, Hurn Site NE, SU1303; 15 Jun 2016; FAW. north from car park, 25+ plants edge of gorse bushes. Avon Castle, Avon Heath C P North, SU1303; 25 Jul 2016; FAW. **New tetrad.**

NN *Dicksonia antarctica* (Australian Tree-fern): Hook with Warsash (Holly Hill Woodland Park), SU49880793; 16 Feb 2017; Ale. Hook with Warsash (Holly Hill Woodland Park), SU49990810; 16 Feb 2017; Ale. **New vice-county record.**

NN *Diplotaxis muralis* (Annual Wall-rocket): Emery Down, SU289088; 17 Sep 2016; MWR. 2 plants on roadside, SU 2897 0888. **1st for SU20.**

NN *Egeria densa* (Large-flowered Waterweed): Swanwick Lakes (New Lake, margin), SU51011016; 10 Jun 2017; PSm. **New vice-county record.**

NN *Elaeagnus pungens* (Spiny Oleaster): East of Hook Cotts, Hook, SU511052; 10 Feb 2016; PAB. One presumably bird sown 6 foot tall bush at SU5118 0526. **1st for SU50.**

NN *Elaeagnus x submacrophylla* (*E. macrophylla* x *pungens*): Hill Head area, SU5302; 02 Jan 2017; MR. (Neophyte). **1st for SU50.**

NA *Elytrigia repens* f. *aristata* (Common Couch): West Tytherley, SU2730; 31 Aug 2017; MR, GCo & ASt det. MR. (Native). **1st for SU23.** This awned form is almost certainly under-recorded.

***NA *Epilobium roseum* (Pale Willowherb):** Marchwood (S side), SU382095; 29 Sep 2016; MWR. Many plants in roadside ditch by garden, Twiggs Lane, SU 3827 0957. **1st for SU30 since 1988.**

NA *Epilobium x interjectum* (*E. montanum* x *ciliatum*): Minstead, SU281109; 28 Sep 2016; PM. Flowering/fruitlet on west side of lane north of church. **1st for SU21.**

***NA *Equisetum sylvaticum* (Wood Horsetail):** Chewton Common, SZ2194; 04 Aug 2016; FAW. Amberwood Road. **1st for SZ29 since 1910.**

****NA *Equisetum x bowmanii* (Bowman's Horsetail):** Busketts Lawn Inclosure, SU3110; Jul 2017; NAS. (Native). **1st for SU31.**

***NA *Equisetum x litorale* (Shore Horsetail *E. arvense* x *fluviatile*):** Decoy Pond (Field 1), SU357074; 03 Jun 2017; HFG[CC] det. HFG. Decoy Pond Farm, SU358074; 03 Jun 2017; HFG[MR]. Ditches and verges by track to ford. **1st for SU30.**

NN *Eragrostis pilosa* (Jersey Love-grass): Bishopstoke (SE side), SU474186; 22 Sep 2016; MWR det. TAC. Roadside gutter, Oakgrove Road, SU 4748 1862. **New vice-county record.**

NN *Eranthis hyemalis* (Winter Aconite): Ellingham churchyard, SU145083; 05 Apr 2017; MR & GCo det. MR. **1st for SU10.**

***?NN *Erica ciliaris* (Dorset Heath):** Wattons Ford Common, SU133015; 08 Sep 2016; DWT. **1st for SU10.**

***NN *Erica vagans* (Cornish Heath):** Charminster, Strouden Park, North Crematorium, SZ1094; 28 Jun 2016; FAW. Planted but also escaping and surviving. **New tetrad.**

NN *Erigeron karvinskianus* (Mexican Fleabane): Hambledon north, SU6415; 14 Sep 2017; AHP & EJC. **1st for SU61.**

***NA *Erophila glabrescens* (Glabrous Whitlowgrass):** Emsworth, SE, SU7405; 12 Apr 2016; DN and JOa det. DN. On W side of South Street, with *E. verna*. **1st for SU70.**

NN *Eryngium giganteum* (Tall Eryngo): Eldon, south of, SU367265; 24 Jul 2016; PM. Flowering on hedgebank on north side of road at Hall Place at SU3674 2655. **New vice-county record.**

NN *Eryngium planum* (Blue Eryngo): East Cliff, Bournemouth, SZ092908; 15 Aug 2017; DL. 1 plant on Bournemouth East Cliff opposite entrance to Russell Coates Museum at SZ 09207 90857. **1st for SZ09.**

Selsmore and Tournier Bury Fort, SZ7399; 13 May 2017; BSBI[AMC]. Garden escape in rough grassland by public footpath. **1st for SZ79.**

NN *Euphorbia amygdaloides* subsp. *robbiae* (Turkish Wood Spurge): Nomansland, SU253172; 05 Apr 2016; PM. A few plants escaping from garden onto road verge at SU2532 1727. **1st for SU21 for subsp.**

Hythe (Kitcher's Copse area), SU421065; 24 May 2017; MWR. Footpath by garden, SU 4219 0653. **1st for SU40.**

NN *Euphorbia characias* subsp. *veneta*: Clock intersection, Chilworth, SU419172; 11 Apr 2017; MR. Central reservation of A33 N of bridge over M27. **1st for SU41.**

NN *Euphorbia x pseudovirgata* (Twiggy Spurge): Hilsea Lines (East), SU673039; 19 May 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016. **1st for SU60.**

****NA *Euphrasia tetraquetra* (Western Eyebright):** Wilverley Plain, SU254014; 10 Aug 2017; MR, GCo & ASt det. MR. A few plants scattered in a mixed *Euphrasia* population. Broad deltoid bracts, strongly decussate. **1st for SU20.**

NA *Euphrasia x areschougii* (*E. nemorosa* x *micrantha*): Deep Moor, Beaulieu Heath, SU348001; 19 Jul 2016; MR & GCo det. MR. With parents. **New tetrad.**

NN *Fagopyrum esculentum* (Buckwheat): Hambledon east, SU6514; 03 Nov 2016; AHP & EJC. **1st for SU61.**

N of Walkford, SZ220954; 12 Sep 2016; MWR. In sown strip at field edge, SZ 2201 9541, with *Chenopodium polyspermum*, *Sinapis alba*, etc. **1st for SZ29.**

IN *Fallopia japonica* (Japanese Knotweed): SE of Beaby's Copse, Dibden, SU391084; 08 Mar 2016; MR & BMd. Along hedge line. **New tetrad.**

Ampfield Wood South, SU387237; 15 Jun 2016; ILR. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU3871 2374. **New tetrad.**

Exbury Gardens (NW part) and Gilbury Hard, SU417003; 30 Jul 2017; MWR. Hedge by footpath, SU 4174 0031. **New tetrad.**

Curbridge, SU5211; 27 Aug 2017; GCo. Along Whiteley Lane and main road. **New tetrad.**

Catherington Lith, SU702140; 20 Jul 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016. **New tetrad.**

IN *Fallopia x bohémica* (Bohemian Knotweed *F. japonica* x *sachalinensis*): Bassett Green (E side), SU436165; 16 Sep 2016; MWR. Abundant in and by wood, SU 4363 1656. **New tetrad.**

Bishopstoke, Sports Ground, SU461193; 13 Oct 2016; MR & GCo det. MR. W edge of sports field, with *F. japonica*. **New tetrad.**

NN *Festuca brevipila* (Hard Fescue): Beaulieu Airfield North (Heathland south of Hawkhill Inclosure), SU356017; 16 Jul 2016;

AMC & NAS det. NAS. Near road verge. SU35675 01746. **1st for SU30.**

****NA *Filago vulgaris* (Common Cudweed):** Yewtree Bottom area, SU250000; 04 Sep 2016; MWR. Rather bare soil on roadside at road junction, SU 2505 0003. **New tetrad.**

Kimbridge, SU323255; 07 Jul 2016; PM. Many plants in field north of footpath spreading for about 30 metres from SU3230 2551 to SU3233 2551. **1st for tetrad since 1936.**

NN *Forsythia x intermedia* (Forsythia): Wootton, SZ242983; 15 Sep 2016; MWR. Roadside hedge, Bashley Common Road (B3058), SZ 2423 9830. **1st for SZ29.**

NN *Fraxinus ornus* (Manna Ash): Winchester Road, Bishops Waltham, SU5318; 24 Sep 2017; GCo. 3 on north side of road, 1 on the south side. **1st for SU51.**

***NN *Fritillaria meleagris* (Fritillary):** Ellingham Churchyard, SU144083; 05 Apr 2017; MR & GCo det. MR. Naturalised in churchyard from grave planting. (Established). **1st for SU10.**

NN *Galanthus elwesii* (Greater Snowdrop): Ellingham Churchyard, SU144083; 05 Apr 2017; MR & GCo det. MR. Naturalised in churchyard from planting. **1st for SU10.**

NN *Galanthus nivalis x elwesii*: Twyford Churchyard, SU481250; 13 Feb 2017; MR. Established in churchyard grassland presumably from planting. Leaves intermediate, weakly convolute, 15-20mm broad, flowers quite large with a single green tepal patch. Much *nivalis* elsewhere but no pure *elwesii*. **New vice-county record.**

NN *Galega officinalis* (Goat's-rue): Burrridge, SU5210; 30 Jun 2017; GCo. Vernon Hill House, SU5518; 20 Sep 2017; GCo. **1st for SU51 since 1987.**

****NA *Galium parisiense* (Wall Bedstraw):** Hurn Forest North, Foxbury Rd, Qinetiq, Barnsfield Heath W, SU1100; 15 Jun 2016; FAW. 11873 00521. **New tetrad.**

Barnsfield Heath, Qinetiq, Barnsfield Heath NE, Tumuli, road, SU1200; 15 Jun 2016; FAW. **New tetrad.**

Avon Heath CP Visitor Centre, Qinetiq, Hurn Site W, SU1202; 15 Jun 2016; FAW. Large disturbed area, and part of woodland, 12716 02708, very large amounts. Leybrook Common, Qinetiq, Hurn Site SE, SU1302; 15 Jun 2016; FAW. south from car park, 13003 02608, 13081 02664, 13259 02903. **New tetrad.**

***NA *Galium x pomeranicum* (*G. verum x album*):** Ramsdean Down, SU7120; 04 Jul 2016; SP. Single plant on Ramsdean Down at SU7112 2038, with several other possible hybrids nearby. **New tetrad.**

IN *Gaultheria shallon* (Shallon): Wintershill, SU527178; 18 Aug 2017; GCo. **1st for SU51.**

NN *Geranium nodosum* (Knotted Crane's-bill): North View, Winchester, SU474298; 01 Jun 2017; GCo det. ARGM. **1st for SU42.**

NN *Gilia capitata* (Blue-thimble-flower): Stanpit, marsh car park, + area around, recreation gr, comp 25a, SZ1792; 21 May 2016; FAW. Bioblitz, comp 25a. (Planted). **1st for SZ19.**

NN *Gladiolus communis* (Eastern Gladiolus): Hayling Island - South Beach - West, SZ708990; 13 May 2017; BSBI[ARGM] det. ARGM. **1st for SZ79.**

NN *Gnaphalium luteoalbum* (Jersey Cudweed): Bishopstoke (SE side), SU473186; 22 Sep 2016; MWR conf. EJC. Pavement edge, Oakgrove Road, SU 4730 1866. **1st for SU41.**

NN *Gunnera manicata* (Brazilian Giant-rhubarb): Kimbridge, SU3325; 28 May 2016; ALu. **1st for SU32.**

IN *Gunnera tinctoria* (Giant-rhubarb): Chewton Common, Chewton Common North, SZ2194; 04 Aug 2016; FAW. **1st for SZ29.**

****NA *Hammarbya paludosa* (Bog Orchid):** Near Holm Hill, Rhinefield, SU260027; 05 Aug 2017; TDe. near Holm Hill, Rhinefield (SU 26049 02736) - 14 plants 13 in tight clump one more a couple of inches away, just below base spring line in bog. **New tetrad.**
Setley Plain, SU295001; 17 Sep 2016; AEB. At SU29505 00103. **1st for tetrad since 1980.**

Near High Corner, Linwood, SU202106; 01 Aug 2017; RPR. near High Corner, Linwood (SU 20255 10609) - 18 plants scattered in runnel below flushing spring line. **New tetrad.**

NN *Helianthus annuus* (Sunflower): Minstead, west of, SU275113; 28 Sep 2016; PM. Flowering in field at SU2751 1137. **1st for SU21.**

Hambledon east, SU6514; 03 Nov 2016; AHP & EJC. **1st for SU61.**

NN *Helleborus argutifolius* (Corsican Hellebore): Bure Woods North, SZ1993; 24 Feb 2017; RPH det. FAW. **1st for SZ19.**

?NN *Helleborus foetidus* (Stinking Hellebore): Turf Hill Inclosure, E of, SU215176; 05 Apr 2016; PM. Two large flowering plants and one small non-flowering plant at SU2159 1765. **1st for SU21.**

Steamer Point North, SZ1993; 04 Aug 2016; FAW. by Bure Brook, Cornford Way, 19717 93619. **1st for SZ19.**

NN *Helleborus x hybridus* (Garden Hellebore): Betty Mundy's Bottom, SU579219; 23 Apr 2017; MR & RCR det. MR. Introduced and established in woodland E of Betty Mundy's Cottage. **New vice-county record.**

IN *Heracleum mantegazzianum* (Giant Hogweed): Sway, SZ270986; 18 Jul 2017; MWR. 1 plant on roadside, Mead End Road, SZ 2708 9869. **New tetrad.**

NN *Hesperis matronalis* (Dame's-violet): Meon Valley Trail South - Stocks Lane to B2150 Brockbridge, SU615195; 04 May 2016; ILR. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU6151 1955. **1st for SU61.**

?NN *Hieracium cheriense* (Cher Hawkweed): Portsdown, SU633066; 04 Jul 2016; MSha det. DJMcC. In middle of open chalk slope above Paulsgrove pit between 2 tracks, SU63369 06693. **New vice-county record.**

NN *Hieracium neosparsum* (Bank Hawkweed): Crooked Walk Lane, Southwick, SU623073; 04 Jul 2016; MSha det. DJMcC. On scrubby verge & bank on S side of Crooked Hill Lane, SU62333 07341. Sizable colony over c.20m.

Portsdown, Paulsgrove, SU632067; 04 Jul 2016; MSha det. DJMcC. On bank above path running parallel to and below James Callaghan Drive, SU63264 06713. Paulsgrove, Portsdown, SU633067; 04 Jul 2016; MSha det. DJMcC. On bank above path running parallel to and below James Callaghan Drive, SU63377 06732. **1st and 2nd for SU60 since 1934.**

NA *Hieracium spilophaeum* (Spotted Hawkweed): Paulsgrove Pit, Portsdown, SU633066; 04 Jul 2016; MSha conf. DJMcC. In middle of open chalk slope above Paulsgrove pit between 2 tracks, SU63382 06699. Paulsgrove, Portsdown, SU633067; 04 Jul 2016; MSha conf. DJMcC. On bank above path running parallel to and below James Callaghan Drive, SU63377 06730. Portsdown, Paulsgrove, Pit, SU634067; 04 Jul 2016; MSha conf. DJMcC. At top of slope above Paulsgrove pit next to scrub, SU63450 06707. Ports Down: Paulsgrove Chalk Pit, SU635066; 04 Jul 2016; MSha conf. DJMcC. By path at E end of chalk slope above Paulsgrove pit, SU63554 06689. **1st to species level for SU60.** These update records for *H. maculatum* agg. made 2005-6.

NN *Hirschfeldia incana* (Hoary Mustard): Fishlake Meadows, SU353223; 26 Jun 2016; PM. Large plant flowering/fruiting on east side of A3057 at SU3531 2230. **1st for SU32.**

****NN *Hyoscyamus niger* (Henbane):** E of Manor Farm, Michelmers, SU359265; 17 Sep 2017; MR. By footpath through Maize crop. **1st for SU32 since 1965.**

Tipner area, SU6403; Aug 2017; ISm. Beside road for construction traffic from Mountbatten Centre area towards shore. **New tetrad.**

NN *Hypericum x inodorum* (Tall Tutsan *H. androsaemum x hircinum*): Pilley Pond and Bull Hill, SZ333982; 17 Aug 2017; MWR. Hedge opposite garden, Lucky Lane, SZ 3337 9827. *H. hircinum* in same lane. **1st for SZ39.**

NN *Hypericum xylosteifolium* (Turkish Tutsan): Hawkhill Inclosure, SU350021; 02 Jul 2017; JAN & EJC det. EJC. Grid ref SU 3507 0210. It occupies an 80m long area (c. 1-5m wide) alongside an old concrete roadway (see images and location maps attached). **1st for SU30.**

NN *Ilex x altaclerensis* (Highclere Holly): Tegdown Hill, South Downs Way, SU6919; 24 Sep 2017; AHP det. AHP & EJC. **1st for SU61.**

Upper Pennington, SZ304950; 31 Mar 2017; MWR. Planted by track just S of Wainsford Road, SZ 3046 9505. (Planted). **1st for SZ39.**

****?NA *Illecebrum verticillatum* (Coral-necklace):** Avon Heath CP Visitor Centre, Qinetiq, Hurn Site W, SU1202; 15 Jun 2016; FAW. large disturbed area and part of woodland, 12871 02584. Leybrook Common, Qinetiq, Hurn Site SE, SU1302; 15 Jun 2016; FAW. south from car park, 13000 02606. Avon Castle, Qinetiq, Hurn Site NE, SU1303; 15 Jun 2016; FAW. north from car park, sheep pen, 13278 03156. **New tetrad.**

IN *Impatiens glandulifera* (Indian Balsam): Durley, SU5216; 23 Aug 2017; GCo. **New tetrad.**

Steamer Point North, Steamer Point woodland, SZ1993; 03 Jul 2016; FAW. **New tetrad.**

NA *Inula conyzae* (Ploughman's-spikenard): Soberton Down E area, SU6116; 27 Oct 2016; AHP & EJC. Hambledon, 1 km SW, SU6314; 31 Aug 2017; AHP & EJC. **1st for SU61 since 1969.**

NN *Inula helenium* (Elecampane): Southampton Old Cemetery, SU413137; 26 Jun 2016; PAB. **1st for SU41.**

NN *Iris laevigata* (Smooth-leaved Iris): Holbury Pond, New Forest (NE bank E of causeway), SU420047; 28 May 2017; RCh. One large clump and one or two seedlings. **1st for SU40.**

***NA *Juncus foliosus* (Leafy Rush):** White Moor, Lyndhurst, SU3098 0852; 03 Aug 2016; NAS. Foxhill Moor, SU3194 0854; 10 Aug 2016; NAS. Valley mire. **New tetrad.**

S of Ashurst Lodge (Matley Heath/Ashurst Wood), SU333087; 31 Jul 2016; AMC & NAS det. NAS. SU33381 08769. Open, wet ground. S of Ashurst Lodge (Matley Heath/River Beaulieu floodplain), SU334085; 31 Jul 2016; AMC & NAS. at SU33416 08536. **New tetrad.**

Black Down, SU34790727; 14 Aug 2016; NAS. East of the second bridge to the north. Decoy Pond Farm area, SU354074; 22 Jun 2016; MWR. SU 3544 0749. **New tetrad.**

Furzey Lodge, SU36410273; 13 Aug 2016; NAS. Marshy grassland. **1st for tetrad since 1983.**

***NA *Juncus x kern-reichgeltii* (*J. conglomeratus x effusus*):** Avon Heath CP Visitor Centre, Qinetiq, Hurn Site W, SU1202; 15 Jun 2016; FAW. large disturbed area and part of woodland, 12918 02960. **New tetrad.**

***NA *Juncus x surrejanus* (*J. acutiflorus x articulatus*):** Wilverley, SU243002; 10 Aug 2017; MR, GCo & ASt det. MR. **1st for SU20.**

NN *Kalmia angustifolia* (Sheep-laurel): S of Ashurst Lodge (Matley Heath/Ashurst Wood), SU332089; 31 Jul 2016; AMC & NAS. SU33264 08934. One bush well established. **New vice-county record.**

NN *Kerria japonica* (Kerria): East Leigh Havant, SU7207; 07 Oct 2017; DN & JOa det. DN. Spreading from a garden in residential area east of the railway. **1st for SU70.**

NN *Kniphofia praecox* (Greater Red-hot-poker): Meonstoke 1 km east, SU6220; 22 Sep 2016; AHP & EJC. **1st for SU62.**

***NA *Lactuca virosa* (Great Lettuce):** Near Stansore Point, SZ466991; 02 Sep 2016; MWR. 1 plant, 2m tall, SZ 4666 9918. **1st for SZ49.**

***NN *Lagurus ovatus* (Hare's-tail):** Greenwood, SU5117; 05 Oct 2017; GCo. In disused golf dugout with *Rumex acetosella*. **New tetrad.**

Northern Ramparts, SU614005; 18 Aug 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016. Full GR: SU6145 0056. **New tetrad.**

NA *Lathraea squamaria* (Toothwort): Longwood, SU547241; 04 Apr 2017; ARGM & GCo. Ten spikes beside Hazel stool on roadside at SU5479 2417. SU548242; a remarkable 265 spikes counted beside the road beneath Hazel stools stretching from SU5480 2418

to SU5483 2423. Most extend beyond the fence into a garden. **1st for tetrad since 1953.**

Crabden's Row, SU678135; 20 Apr 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU6780 1358. **New tetrad.**

NA *Lathyrus nissolia* (Grass Vetchling): North Poulner area, SU156069; 27 Jun 2017; MR & GCo. N margin of grassy area W of N end of Northfield Lake. **1st for SU10 since 1982.**

***?NN *Lathyrus sylvestris* (Narrow-leaved Everlasting-pea):** Turkey Island, SU5612; 06 Oct 2017; GCo. At least 3 plants fp behind McCarthy's. **1st for SU51.**

NN *Lavandula angustifolia* (Garden Lavender): Oram's Arbour area, SU4729; 26 May 2017; ASt. **1st for SU42.**

Burridge, SU5210; 30 Jun 2017; GCo. In kerb. **1st for SU51.**

***NA *Lemna gibba* (Fat Duckweed):** Holmsley Passage, Burley, SU221014; 04 Jul 2017; MR, GCo & BMd det. MR. In roadside runnel, SU2219 0149. **1st for SU20 since 1956.**

Decoy Pond (Field 1), SU357074; 03 Jun 2017; PF det. HFG. **1st for SU30.**

NN *Lemna minuta* (Least Duckweed): Sway Court area, SZ287970; 15 Jul 2017; MWR. Permanently-wet trickle at edge of Mill Lane, SZ 2873 9701. **1st for SZ29.**

NA *Lemna trisulca* (Ivy-leaved Duckweed): Lepe, SZ454987; 30 Mar 2017; MWR. Abundant in pond, Lepe Point Local Nature Reserve, SZ 4549 9873. **1st for SZ49 in VC11.**

NN *Leucojum aestivum* (Summer Snowflake): Burley (Shappen), SU206027; 03 Apr 2017; MWR. Roadside by gardens, Warnes Lane, SU 2067 0273; ?ssp. *pulchellum*. Burley (Burley Park area), SU214031; 03 Apr 2017; MWR. Planted in churchyard, SU 2140 0315. Subspecies not clear. (Planted). **1st for SU20.**

NN *Limnanthes douglasii* (Meadow-foam): Calmore, SU349146; 15 May 2016; PM. Escaping from garden and flowering beside pavement at SU3498 1468. **1st for SU31.**

Near Boldre, SZ321979; 01 Jun 2017; DL. on roadside E of Lymington River at SZ 32192 97942. **1st for SZ39.**

****NA *Lithospermum arvense* (Field Gromwell):** Rockbourne Manor Farm, SU112197; 01 Aug 2017; PGLT. **1st for SU11.**

NN *Lonicera japonica* (Japanese Honeysuckle): Marchwood (S side), SU383096; 29 Sep 2016; MWR. Roadside, Marchwood Bypass (A326), SU 3834 0966. **1st for SU30.**

NN *Lonicera pileata* (Box-leaved Honeysuckle): Rear of college, Applemore, SU403068; 03 May 2017; MR & GCo det. MR. Planted along path / stream. **1st for SU40.**

Nr Hursley Church, SU427253; 28 Feb 2017; MR. Established in churchyard from planting. **1st for SU42.**

***NA *Lotus subbiflorus* (Hairy Bird's-foot-trefoil):** Hurn Forest North, Foxbury Rd, Qinetiq, Barnsfield Heath W, SU1100; 15 Jun 2016; FAW. **New tetrad.**

NA *Luzula forsteri* (Southern Wood-rush): Lin Brook, Blashford, SU156070; 27 Jun 2017; MR & GCo. Small clump on S bank of Lin Brook. **1st for SU10.**

***NA *Luzula sylvatica* (Great Wood-rush):** Lord's Wood - central, SU40071692; 12 Jul 2016; PAB. Large clump by small footpath. **New tetrad.**

****NA *Lycopodiella inundata* (Marsh Clubmoss):** NW edge of Millersford Plantation, SU201179; 2016; DPr. SU 20139 17977. 190 stroboli in 3x3m, 20% bare earth. Good surrounding habitat, no current threats. **New tetrad.**

IN *Lysichiton americanus* (American Skunk-cabbage): Blashford Lakes (flood woodland S of boardwalk), SU151075; 09 Jul 2017; RCh. hopefully removed. **New tetrad.**

NN *Mahonia x wagneri* (*M. aquifolium x pinnata*): Riverside Park South, SU4314; 04 Jan 2017; MR & GCo det. MR. (Planted). **1st for SU41.**

NN *Malus hupehensis* (Hupeh Crab): East Parley Common, East Parley track, tracks to E, Parley lakes, SZ1099; 03 Aug 2016; FAW. Main bridleway. **1st for SZ19.**

NN *Meconopsis cambrica* (Welsh Poppy): Portchester SU60C, SU6104; 23 Jun 2017; ASt. **1st for SU60.**

***NA *Medicago polymorpha* (Toothed Medick):** Long Down (W of Arters Lawn Farm), SU367089; 28 Sep 2016; MWR conf. EJC. SU 3679 0896. **1st for SU30.**

?NN *Menyanthes trifoliata* (Bogbean): Park Farm area, SU6823; 29 Sep 2016; AHP & EJC. **1st for SU62.**

NN *Miscanthus sinensis* (Chinese Silver-grass): Chewton Common, Chewton Common North, SZ2194; 04 Aug 2016; FAW. **New vice-county record.**

***NA *Montia fontana* subsp. *amporitana* (Blinks):** West of car park, The Ridge, Busketts Wood, SU3102 1115; 07 Jun 2016; NAS. (In wet flush in Wet Lawn between car park & cricket pitch). **New tetrad.**

NN *Morus alba* (White Mulberry): Woodside, SZ323942; 03 Aug 2017; MWR. Planted in grass field, SZ 3230 9429. (Planted). **1st for SZ39.**

****NA *Myosurus minimus* (Mousetail):** Hayling Island (W), SU710004; 20 Apr 2017; KT. c. SU7104 0048 in N corner of a ploughed field (100+ plants) on the W coastal path. (Native). **New tetrad.**

Christchurch Priory, Stanpit Marsh NW, Priory Marsh, SZ1692; 21 May 2016; FAW. Bioblitz, Priory Marsh, comp 12, 16385 92450. **New tetrad.**

IN *Myriophyllum aquaticum* (Parrot's-feather): Wootton, SZ245983; 15 Sep 2016; MWR. Abundant in dry roadside pond, Tiptoe Road, SZ 2456 9834. **New tetrad.**

NN *Narcissus hispanicus* (Spanish Daffodil): Barton on Sea (Durlston Court area), SZ248931; 26 Mar 2017; MWR. Planted in grass field, SZ 2488 9315. Angels Cottage area, SZ258931; 26 Mar 2017; MWR. 1 clump by field entrance, Milford Road (B3058), SZ 2584 9317. Hordle Manor Farm area, SZ263926; 26 Mar 2017; MWR. Planted by car park, SZ 2635 9267. Hordle Grange area, SZ265962; 12 Apr 2017; MWR. Roadside hedge by garden, Vaggs Lane, SZ 2659 9624. Milford (Studland Common area), SZ273922; 05 Apr 2017; MWR. Planted on roadside, West Road, SZ 2739 9228. Milford on Sea (NW), SZ282921; 05 Apr 2017; MWR. Planted in woodland near gardens, SZ 2825 9212. **1st for SZ29.**

NN *Narcissus minor* (Lesser Daffodil): Nr Hursley Church, SU427253; 28 Feb 2017; MR. Established in small area of churchyard from planting. **1st for SU42.**

NN *Narcissus tazetta* (Bunch-flowered Daffodil): Lyndhurst (NW), SU298086; 30 Apr 2016; MWR. Planted on roadside, A337, SU 2986 0865. **1st for SU20.**

Lyndhurst (Pondhead Inclosure), SU300075; 25 Mar 2017; MWR. Planted on green space, Gosport Lane, SU 3004 0757, with *N. hispanicus* and *N. x incomparabilis*. **1st for SU30.**

NN *Narcissus x cyclazetta* (Head-to-head Daffodil *N. tazetta* x *cyclamineus*): Lepe, SZ457986; 30 Mar 2017; MWR. Lepe Country Park, SZ 4570 9865, with *Muscari armeniacum*. **1st for SZ49.**

NN *Narcissus x incomparabilis* (Nonesuch Daffodil Div. II): Hythe (central), SU423072; 27 Mar 2017; MWR. Planted on roadside, SU 4236 0725, with *N. hispanicus*. **1st for SU40.**

Ditcham Park area, SU7417; 01 Apr 2016; MR. (Introduced). **1st for SU71.**

Lepe, SZ457986; 30 Mar 2017; MWR. 1 plant, Lepe Country Park, SZ 4573 9864. **1st for SZ49.**

NN *Narcissus x monochromus* (Reflexed Daffodil): Dibden Churchyard area, SU397084; 08 Mar 2016; MR & BMd. Planted and surviving, possibly establishing. **New vice-county record.**

NN *Nectaroscordum siculum* (Honey Garlic): Crampmoor, SU380217; 05 Jun 2016; PM. Flowering on south side of Green Lane at SU3807 2173. **1st for SU32.**

NN *Nothofagus obliqua* (Roble): Ashley, Ashley Heath roundabout and verges, SU1304; 13 Aug 2016; FAW. Verwood slip road, 13600 04763.

Moyles Court School area, SU161088; 16 Jun 2017; MWR. Many trees planted at edge of wood (Fir Walk) by road, SU 1613 0883. **1st for SU10.**

***NA *Oenanthe lachenalii* (Parsley Water-dropwort):** Hengistbury Head, SZ159918; 03 Aug 2017; BHep. **1st for tetrad since 1970.**

NA *Ophioglossum vulgatum* (Adder's-tongue): Appleslade, SU180093; 11 Jun 2016; RMW. **New tetrad.**

NA *Ophrys apifera* (Bee Orchid): Marlhill Copse, Southampton, SU450155; 12 Jul 2017; MR & GCo. N verge of A27, several fine fruiting plants. **New tetrad.**

***NA *Orobanche hederæ* (Ivy Broomrape):** Lymington (Walhampton) (Bridge Road (B3054)), SZ328961; 27 May 2017; MWR. 5 spikes among *Hedera*, SZ 3281 9611. **New tetrad.**

NN *Oxalis articulata* (Pink-sorrel): Ampfield, SU399231; 05 Jun 2016; PM. Flowering at SU3999 2319. **1st for SU32.**

NN *Oxalis incarnata* (Pale Pink-sorrel): Iford, SZ14729314; 17 May 2017; EK. **1st for SZ19.**

***NA *Papaver lecoqii* (Yellow-juiced Poppy):** Curdridge, SU5314; 14 Jul 2017; GCo. Wildflower seed mix sown. (Planted). **1st for SU51.**

NA *Parapholis strigosa* (Hard-grass): Stamshaw, Portsmouth, SU6402; 29 Jul 2017; GFa. **New tetrad.**

***NA *Parentucellia viscosa* (Yellow Bartsia):** Kimbridge, SU322253; 07 Jul 2016; PM. Large area flowering on island in middle of lake. **New tetrad.**

NN *Parietaria officinalis* (Eastern Pellitory-of-the-wall): Monks Brook, Chandlers Ford, SU438195; 28 Oct 2017; MR. 3-4 feet high, erect, growing in damp margins of culverted brook, SU4388 1953. Gardens adjacent but no obvious source. Photos held by MR. **New vice-county record.**

***NA *Paris quadrifolia* (Herb-paris):** Kilmeston Hattock CHS, SU578245; 26 Apr 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016 SU5773 2440, SU5779 2442. **New tetrad.**

Preshaw Wood, Exton, SU579230, ; 14 Apr 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016 SU5793 2286. **1st for tetrad since 1930.**

IN *Parthenocissus inserta* (False Virginia-creeper): Bedhampton, SU707065; 02 Jul 2016; ALu. SU7076 0656 Along fence at train station. **1st for SU70.**

West Town, Hayling, SZ702992; 13 May 2017; BSBI[ARGM] det. ARGM. Links Lane, SZ7022 9928. **1st for SZ79.**

IN *Parthenocissus quinquefolia* (Virginia-creeper): Breamore, SU154178; 31 Aug 2016; MR, GCo & ASt det. MR. **1st for SU11.**

NN *Passiflora caerulea* (Blue Passionflower): Emsworth, SW, SU748056; 10 Jan 2017; DN. SU74880561 One straggly self sown plant in S end of South Street carpark. **1st for SU70.**

?NA *Petasites hybridus* (Butterbur): Catherington Lith, SU702140; 20 Jul 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016. **1st for SU71 since 1978.**

NN *Philadelphus coronarius* (Mock-orange): Romsey, SU352219; 26 Jun 2016; PM. Large bush 5 metres tall flowering on north side of road below railway line at SU3527 2195 recorded as *Philadelphus 'Lemoinei Group'*. **1st for SU32.**

NN *Phygellus capensis* (Cape Figwort): West Common (S side) area, SU442009; 24 Sep 2016; MWR det. EJC. Roadside just outside garden fence, West Common, SU 4428 0095, in dense *Rubus ulmifolius*. **New vice-county record.**

NN *Picea sitchensis* (Sitka Spruce): Dibden Inclosure area, SU404058; 26 Jun 2017; MWR. Planted by ride in wood (Dibden Inclosure), SU 4044 0585.

King's Copse Inclosure (N side), SU425021; 10 May 2017; MWR. By track, wood, SU 4258 0210. **1st for SU40.**

***NA *Pinguicula lusitanica* (Pale Butterwort):** Bolderwood Walk, SU243090; 29 Jun 2017; MWR. Boggy woodland ride, SU 2434 0901. **New tetrad.**
Exbury (E side), SU437009; 20 Sep 2016; MWR. Bog, S end of Blackwell Common, SU 4375 0093. **1st for tetrad since 1962.**

NN *Pinus radiata* (Monterey Pine): Hambledon, 1 km SW, SU6314; 31 Aug 2017; AHP & EJC. (Planted). **1st for SU61.**

NN *Plagiobothrys scouleri* (White Forget-me-not): Exbury Gardens, SU4240022; 13 Apr 2016; PAB. ID not confirmed. **1st for SU40.**

***NA *Poa infirma* (Early Meadow-grass):** Ellingham Pound, Blashford Lakes, SU150081; 05 Apr 2017; MR & GCo det. MR. Rare in gravelly turf beside track to Ellingham Lake car park, SU1506 0815. Anthers checked. **1st for SU10.**

***NA *Polygonum rurivagum* (Cornfield Knotgrass):** Field SW of minor road to Buckholt Farm and near junction, SU277316; 31 Aug 2017; MR, GCo & ASt det. MR. **New tetrad.**
Sowley (Field N of Sowley Lane), SZ370963; 14 Sep 2016; MWR. SZ 3708 9637. **New tetrad.**

***NA *Polypodium cambricum* (Southern Polypody):** Red Shoot Wood (On ancient Sessile Oak), SU19190893; 28 Jan 2017; NAS. Red Shoot Wood (On ancient Pedunculate Oak), SU19260883; 28 Jan 2017; NAS. **1st for SU10.**

NN *Polypogon viridis* (Water Bent): Petersfield, SU7423; 01 Jan 2016; ARGM & SP. At least three plants on walls or on pavement beside Charles Street. Flowering with stamens visible under lens. Voucher collected. **1st for SU72.**

NN *Portulaca oleracea* (Common Purslane): Weardale Road, Chandlers Ford, SU438198; 28 Oct 2017; MR. Pavement weed. **1st for SU41.**

****NA *Potamogeton alpinus* (Red Pondweed):** Ipley Manor, south of. (Beaulieu River valley), SU380067; 30 Jun 2017; AMC and GK. In Beaulieu River at SU38036 06779 and SU 38087 06702. **New tetrad.**

***NA *Potentilla x italica* (*P. erecta x reptans*):** Emery Down SU287084; 17 Sep 2016; MWR. Or *P. x mixta*. Churchyard, SU 2870 0840. **New tetrad.**

***NA *Potentilla x suberecta* (*P. anglica x erecta*):** Decoy Pond Farm, SU356075; 03 Jun 2017; HFG[MR]. (Native). **New tetrad.**

?NA *Poterium sanguisorba* (Salad Burnet): Hurn Forest North, Foxbury Rd, Qinetiq, Barnsfield Heath W, SU1100; 15 Jun 2016; FAW. **1st for SU10 since ?1950s.**

NA *Primula x polyantha* (False Oxlip *P. veris x vulgaris*): Emsworth, SE, SU7405; 12 Apr 2016; DN and JOa det. DN. **1st for SU70.**

NN *Primula x polyantha cultivar* (Cultivated Primrose): Church Road, Houghton, SU341326; 21 Apr 2016; MR. **1st for SU33.**
Longwood, SU548242; 04 Apr 2017; ARGM & GCo. At SU5482 2423, one plant on road verge with carmine red flowers amongst normal Primrose plants. **1st for SU52.**
Chewton Common, SZ2194; 01 Jan 2016; MR. (Established). **1st for SZ29.**

NN *Prunus lusitanica* (Portugal Laurel): West Tytherley, SU273301; 31 Aug 2017; MR, GCo & ASt det. MR. **1st for SU23.**

NA *Prunus x fruticans* (*P. domestica x spinosa*): Soberton Down E area, SU6116; 27 Oct 2016; AHP & EJC. **1st for SU61.**

***NA *Puccinellia distans* (Reflexed Saltmarsh-grass):** Breamore, SU1517; 31 Aug 2016; MR, GCo & ASt det. MR. **1st for SU11.**

NN *Pulmonaria officinalis* (Lungwort): East Meon, SU677223; 13 Mar 2017; KB conf. MR. On roadside verge at East Meon, SU6778 2236. Checked from photo provided. (Alien). **1st for SU62.**

NN *Pyrus salicifolia* (Willow-leaved Pear): Farley Mount, SU372298; 30 Apr 2016; ALu. SU3727 2988 Single plant near houses, possibly planted. **1st for SU32.**

NN *Quercus rubra* (Red Oak): Northern Ramparts, SU614005; 18 Aug 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU6145 0056. **1st for SU60.**

NA *Raphanus raphanistrum subsp. maritimus x subsp. raphanistrum* (Sea Radish): Mengham / Gable Head area, Hayling, SZ2798, SZ7299; 13 May 2017; BSB[MR] det. MR. **New vice-county record.**

NN *Raphanus sativus* (Garden Radish): NE of West Tytherley, SU280306; 10 Jul 2017; MR & GCo. **1st for SU23.**
Hambledon east, SU6514; 03 Nov 2016; AHP & EJC. **1st for SU61.**

NN *Rhus typhina* (Stag's-horn Sumach): Meonstoke 1 km east, SU6220; 22 Sep 2016; AHP & EJC. Spreading from garden by suckers. Warnford area, SU6223; 28 Sep 2017; AHP & EJC. Escaping from a garden by suckers. **1st for SU62.**
Walhampton and Ferry Terminal, SZ3395; 03 Jun 2016; MWR. 3 small plants planted at entrance to Bampton's Farm, Lisle Court Road, SZ 3373 9559. **1st for SZ39.**

***NA *Rorippa sylvestris* (Creeping Yellow-cress):** Sway Court area, SZ283971; 07 Aug 2017; MWR. Fine specimens by track, SZ 2838 9719. **1st for SZ29.**

NN *Rosa multiflora* (Many-flowered Rose): Emery Down, SU287084; 17 Sep 2016; MWR. Hedge, churchyard, SU 2871 0840. **1st for SU20.**
Hatch Bottom (Allington Lane area), SU462152; 18 Sep 2016; MWR. Well established in hedge, not near houses, SU 462152. **1st for SU41.**

NA *Rosa rubiginosa* (Sweet-briar): Hengistbury Head, SZ1790; 17 Jun 2017; BHep det. MHol. **1st for SZ19.**

IN *Rosa rugosa* (Japanese Rose): Warnford area, SU6223; 28 Sep 2017; AHP & EJC. **1st for SU62.**

***?NN *Rosa spinosissima* (Burnet Rose):** Turkey Island, SU5612; 06 Oct 2017; GCo. Seedling by fp. **1st for SU51.**

***NA *Rosa tomentosa* (Harsh Downy-rose):** Avon Tyrrell House - entrance road, SU191001; 07 Jul 2016; PAB. Two bushes on north side of road between Avon Tyrrell and Bragger's Lane. **New tetrad.**

NA *Rosa x dumalis* (*Rosa caesia x canina*): Roughdown, SU434025; 30 Sep 2016; MWR. Hedge by track, SU 4345 0254. Non-directional hybrid. Calshot, SU482014; 23 Jul 2017; MWR. Roadside, Jack Maynard Road, SU 4823 0140. **1st for SU40.**
Stansore Point area (Coast), SZ465988; 02 Sep 2016; MWR. Shingle, SZ 4651 9882. **1st for SZ49.**

NA *Rosa x irregularis* (*Rosa arvensis x canina* [fxm or mxfl]): New Forest, west of Ashurst Lodge (Matley Heath/Ashurst Wood), SU331086; 31 Jul 2016; AMC & NAS det. NAS. SU33173 08610. Beaulieu North Gate, SU385053; 13 Apr 2017; AMC & NAS. SU38505 05326. Slender rose climbing high. Small hips, curved spines. **1st for SU30.**

NN *Rubus tricolor* (Chinese Bramble): Portswood area, SU433146; 25 Sep 2016; MWR. Roadside, SU 4337 1462, not looking planted. **1st for SU41.**

***NA *Rumex crispus subsp. littoreus* (Curled Dock):** Christchurch Priory, Stanpit Marsh NW, Priory Marsh, SZ1692; 21 May 2016; FAW. Bioblitz, Priory Marsh, comp 12. **1st for SZ19 for subsp.**

NN *Salix elaeagnos* (Olive Willow): Portswood area, SU433145; 25 Sep 2016; MWR. Planted in shrubbery, SU 4331 1457. **1st for SU41.**

NN *Salix euxina* (Crack-willow): Palmersford, end of track by S side sewage wks, 'weed' field, com, SU0900; 03 Aug 2016; FAW. W end of track s of sewage works, W across heath, N past solar + up bridleway. (Planted). **1st for SU00.**
Parley Court, Parley Manor, Stour Valley Way, footpaths, tracks, SZ0997; 07 May 2016; FAW. **1st for SZ09.**

****NA *Salsola kali subsp. kali* (Prickly Saltwort):** Hengistbury Head, SZ156909; 15 Jun 2017; SDo. **1st for tetrad since ?1924.**

***?NN *Sanguisorba officinalis* (Great Burnet):** Stanpit, Old Depot area, cyclepath and car park, SZ1792; 21 May 2016; FAW. Bioblitz, Depot, comp 24, 17082 92503. **New tetrad.**

***NA *Sarcocornia perennis* (Perennial Glasswort):** Stamshaw, Portsmouth, SU6402; 29 Jul 2017; GFA. **New tetrad.**

NN *Sasa veitchii* (Veitch's Bamboo): Between Stroud and Langrish, SU719234; 21 Mar 2016; DN & JOa det. DN. SU719234 escaping from garden on E side of N Stroud Ln. **New vice-county record.**

NN *Sedum 'Herbstfreude'* (Autumn Stonecrop *S. spectabile* x *telephium*): West Town, Hayling Island, SZ708989; 13 May 2017; BSBI[ARGM] det. ARGM. SZ7089 9896. **1st for SZ79.**

NN *Sedum kamtschaticum* (Kamchatka Stonecrop): Rockbourne village.; SU114183; 09 May 2017; DC det. MR. two plants in bud and starting to flower on old wall in Rockbourne by footpath leading to church; SU1149 1831. (Photos seen by MR.). **1st for SU11.**

NN *Sedum spurium* (Caucasian-stonecrop): Winsor, SU311140; 03 Jul 2016; PM. A large area spreading along verge on north side of Winsor Road at SU3113 1406. (Established). **1st for SU31.**

Bowling Green, SZ297969; 23 May 2017; MWR. Patch 30 x 30cm, roadside by garden, Pitmore Lane, SZ 2972 9691. **1st for SZ29.**

NN *Sequoia sempervirens* (Coastal Redwood): Soberton Down E area, SU6116; 27 Oct 2016; AHP & EJC. (Planted). **1st for SU61.**

NA *Serratula tinctoria* (Saw-wort): Havant Thicket, SU715105; 02 Jun 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016. **1st for SU71 since 1969.**

NN *Setaria verticillata* (Rough Bristle-grass): near Lyons Copse, SU5514; 15 Sep 2017; GCo. Retrorse barbs on bristles. **1st for SU51.**

Teglease Down area, SU6519; 20 Oct 2016; AHP & EJC. **1st for SU61.**

NN *Sinapis alba* (White Mustard): B2177, SU5517; 30 Mar 2017; GCo. **1st for SU51 since 1969.**

NN *Smyrniolus olusatrum* (Alexanders): Brockenhurst, SU3001; 15 Apr 2017; ALu. **1st for SU30.**

NN *Soleirolia soleirolia* (Mind-your-own-business): Beaulieu, SU391024; 09 Jul 2016; MWR. Base of garden wall, B3054, SU 3915 0244. **1st for SU30.**

NN *Solidago gigantea* (Early Goldenrod): Teglease Down area, SU6519; 20 Oct 2016; AHP & EJC. Near houses. **1st for SU61.**

NA *Sorbus torminalis* (Wild Service-tree): Wittensford, Bignell Wood (By the B3078), SU28431367; 23 Sep 2016; NAS. Tree on northern road verge, I have known this for years. **1st for SU21 since 1969.**

NN *Sorbus x thuringiaca* (German Service-tree): Bishopstoke (SE side), SU472187; 22 Sep 2016; MWR conf. TGCR. Street tree, SU 4726 1879. Bishopstoke (Stoke Park Wood area), SU472190; 28 Apr 2017; MWR. Street tree, Underwood Road, SU 4722 1909 (and along much of this road). **1st for SU41.**

NN *Sorghum bicolor* (Great Millet): Hambledon east, SU6514; 03 Nov 2016; AHP & EJC. **1st for SU61.**

***NA *Spartina x townsendii* (Townsend's Cord-grass):** Pennington Marshes (Coast), SZ329926; 28 Aug 2016; MWR det. TAC. 3 patches, the largest c 4 x 5m, SZ 3291 9260; no other plants present. **1st for tetrad since 1977.**

NN *Spiraea japonica* (Japanese Spiraea): Chewton Common, Chewton Common North, SZ2194; 04 Aug 2016; FAW. **1st for SZ29.**

NN *Spiraea salicifolia* (Bridewort): Upper Pennington, SZ301951; 31 Aug 2017; DL. Edge of woodland near verge, Upper Pennington at SZ 30161 95182. (Introduced). The Mound Grassland, SZ334967; 30 Aug 2016; JMill. HBIC Hampshire Habitat Survey Partnership Project 2016. **1st for SZ39.**

****NA *Spiranthes spiralis* (Autumn Lady's-tresses):** M27 - junction 8 - inside the roundabout, SU483112; 11 Sep 2016; PAB. **New tetrad.**

***NA *Spirodela polyrhiza* (Greater Duckweed):** Knapp, SU405235; 18 Jul 2016; PM. A few in Chapel Wood Pond. **1st for SU42.**

***NN *Stratiotes aloides* (Water-soldier):** Blashford Lakes (Ivy Silt Pond (S)), SU151076, SU151077; 31 Jul 2017; RCh. **1st for SU10.**

NN *Sutera cordata* (Bacopa): Wall of corner building Bitterne Road East & Commercial Road, Bi, SU454130; 10 May 2016; PAB. Self sown but later destroyed. **New vice-county record.**

NN *Symphoricarpos x chenaultii* (Pink Snowberry): Marchwood (S side), SU383096; 29 Sep 2016; MWR. Planted on roadside near garden, Marchwood Bypass (A326), SU 3832 0967. (Planted). **1st for SU30.**

Droxford south, SU6017; 10 Nov 2016; AHP & EJC. In hedge, not obviously planted. **1st for SU61.**

****NA *Taraxacum anglicum*:** Balmer Lawn, Brockenhurst, SU306035; 26 Apr 2017; TGCR, LMJ & MR det. TGCR. SW of 1st bridge, frequent, SU30664 03512. North side of 1st bridge, hundreds, SU30697 03561. SU307035; hundreds by ditch, SU30710 03511. South side 2nd bridge, hundreds, SU30742 03582. SU307034; hundreds by ditch, SU30728 03494. SU310034; very few, SU31012 03414. **1st for SU30.**

NA *Taraxacum euryphyllum*: Balmer Lawn, SU307034; 26 Apr 2017; TGCR, LMJ & MR det. TGCR. Bank formed from ditch clearings, SU3078 0347. Sparse, SU30797 03469. SU310034; 26 Apr 2017; TGCR, LMJ & MR det. TGCR. Sparse, SU31012 03414. **1st for SU30 since 1977.**

NA *Taraxacum gelertii*: Balmer Lawn, SU307034; 26 Apr 2017; MR & TGCR det. TGCR. Bank formed from ditch clearings, SU3078 0347. SU307035; sparse. SU308038; north of 2nd bridge, sparse, SU30863 03811, SU3087 0381. SU310034; 3rd bridge, both sides of ditch, SU31001 03457. **1st for SU30.**

NA *Taraxacum nordstedtii*: Balmer Lawn, SU307034; 26 Apr 2017; TGCR, LMJ & MR det. TGCR. E.g. at SU30754 03485. SU308038; e.g. at SU3087 0381, SU30863 03811. SU309037; 3rd bridge, SU30904 03721. **1st for SU30 since 1977.**

***NA *Thelypteris palustris* (Marsh Fern):** New Forest, East of Lyndhurst (Matley Heath - White Moor), SU327081; 31 Jul 2016; AMC & NAS. Patch c. 10m from SU32731 08167 to SU32730 08158. **1st for tetrad since 1960.**

***NA *Torilis nodosa* (Knotted Hedge-parsley):** Hythe (Knightwood Road), SU425069; 24 May 2017; MWR. SU 4254 0695. **1st for SU40 since 1969.**

***NA *Trifolium suffocatum* (Suffocated Clover):** Decoy Pond Farm, SU357074; 03 Jun 2017; HFG[MR]. (Native). **1st for SU30.**

NN *Tristagma uniflorum* (Spring Starflower): Woodley, SU371224; 10 Apr 2016; PM. Flowering on verge in School Road at SU3717 2245. **1st for SU32.**

***NA *Urtica dioica* subsp. *galeopsifolia* (Stingless Nettle):** Cowards Marsh, SZ154952; 04 Jul 2017; MR, GCo & BMd det. MR. Under Salix just back from river. **New tetrad for subsp.**

****NA *Utricularia minor* (Lesser Bladderwort):** Burley, east of, SU251023; 24 Sep 2017; AMC & NAS. Locally frequent in open flush at SU25112 02333. **1st for tetrad since 1956.**

****NA *Valerianella dentata* (Narrow-fruited Cornsalad):** Nr Chalk Hill, Up Somborne, SU388321; 15 Jun 2017; MR. Corner of arable W of lane. **New tetrad.**

NN *Verbascum blattaria* (Moth Mullein): Vernon Hill House, SU5518; 03 Aug 2017; GCo. In front of House where cleared for fencing. **1st for SU51.**

NA *Verbascum nigrum* (Dark Mullein): Lymington Reedbeds and Warborne, SZ328971; 13 Jul 2017; MWR. Several plants on waste ground at field edge, near footpath, SZ 3284 9717. Not seen here before despite many visits. **1st for SZ39 since 1969.**

NN *Verbascum phlomoides* (Orange Mullein): Hayling Northney east, SU7303; 15 Sep 2016; AHP & EJC. **1st for SU70.**

NN *Verbena bonariensis* (Argentinian Vervain): West Tytherley, SU275301; 31 Aug 2017; MR, GCo & ASt det. MR. Self-seeded near village shop. (Alien). **1st for SU23.**

NN *Vicia villosa* (Fodder Vetch): Mottisfont, SU3126; 28 May 2016; ALu. **1st for SU32.**

NN *Vinca difformis* (Intermediate Periwinkle): Milford (Studland Common area), SZ2792; 05 Apr 2017; MWR. Large patch (c 9 x 5m) in hedge at edge of Shorefield Country Park, presumed planted but now well naturalised. **1st for SZ29.**

****NA *Viola canina* (Heath Dog-violet):** Hurn Forest North, Foxbury Rd, Qinetiq, Barnsfield Heath W, SU1100; 15 Jun 2016; FAW. **1st for tetrad since 1960.**

Avon Castle, Qinetiq, Hurn Site NE, SU1303; 15 Jun 2016; FAW. north from car park, sheep pen, 13285 03143. **New tetrad.**

?NA *Viola odorata* var. *dumetorum* (Sweet Violet): Hinton Ampner park, SU5927; 19 Mar 2017; MR. **New tetrad for var.**

NN *Viola odorata* var. *praecox* (Sweet Violet): East Tytherley, SU2928; 02 Mar 2017; MR & GCo. **1st for SU22 for var.**

Hill Head area, SU5402; 02 Jan 2017; MR. **1st for SU50.**

NN *Weigela florida* (Weigelia): Lower Buckland, Undershore, Walhampton, SZ329961; 27 May 2017; MWR. Planted by estuary, Undershore Road, SZ 3292 9611. **1st for SZ39.**

****NA *Zostera marina* (Eelgrass):** Tipner Lake and Shoreline, SU647039; 12 Jul 2016; ILR. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU6479 0390. **New tetrad.**

****NA *Zostera noltei* (Dwarf Eelgrass):** Tipner Lake and Shoreline, SU647039; 12 Jul 2016; ILR. HBIC Hampshire Habitat Survey Partnership Project 2016 Full GR: SU6479 0390. **New tetrad.**

VC12 Records

Compiled by Tony Mundell (30 Nov 2017)

Here again is a set of my personal selections from the records received recently. As usual I have tended to select the scarcer native species with a sprinkling of interesting aliens. I would far prefer to include **YOUR** records rather than my own but inevitably the records selected here are greatly influenced by the number of records each person contributes.

One of the most surprising finds listed below is *Fallopia dumetorum* Copse Bindweed. It was discovered in several new sites along Bacon Lane in the Wishanger area. Another new location was found within the Surrey part of Bacon Lane beside Frensham Pond. This rare plant had been thought to be teetering close to extinction in VC12 so it is splendid that new sites have been found.

I was amused to see that *Illecebrum verticillatum* Coral Necklace has now been found at The Slab near Bordon. Years ago when this plant first began to spread across the military training areas around Aldershot and Longmoor I predicted that if it got transferred on army vehicles to The Slab it would really prosper there on the wide expanses of bare wet sand used for testing tanks. Now I am not so sure because the army is pulling out of Bordon with many troops relocating to the Salisbury Plain area.

Other good finds were new sites for *Berberis vulgaris* Barberry, and *Nepeta cataria* Catmint. Barberry has a very thinly scattered distribution across much of Hampshire but Catmint is mainly confined to the western half of the central belt of chalk, from Winchester to Thruxton. I was also pleased to find a few plants of *Erysimum*

cheiranthoides Treacle-mustard but it will not persist where found, and the bad news is that in the same spot I recorded over 200 plants of it in 2009. Unfortunately, the use of that field has changed and it has also been lost from more than half of its previous VC12 sites, so it is in steep decline.

Talking of losses I was horrified to see that on the Shepherd's Meadows Nature Reserve near Blackwater, all but one of a group of one of Hampshire's scarcest trees, *Populus nigra* subsp. *betulifolia* Black Poplar, had been felled leaving a pile of logs. This Reserve is mainly in Berkshire and I think it is managed by Berkshire County Council.

Checking out the route for the HFG meeting at Long Bottom, I climbed to the crest of Caesar's Camp to see how the special *Hieracium* that grows there was doing. The record below, given as *Hieracium mammidens* Breast-toothed Hawkweed, shows that it has declined sharply as I could only find three plants, mainly because its bare gravel habitat has recently been eroded away. The Hants Rare Plant Register recounts how various different names have been given to this plant (*Hieracium* can be difficult!). The confusion continues because I have just heard from Mike Shaw that a specimen he collected some time ago from this spot has been studied by David McCosh who wrote '...seems not to be *H. mammidens* but closely resembles *H. surrejanum*. There are differences from *H. mammidens* in the jizz, particularly the leaves, and genuine *H. mammidens* has phyllaries much narrower than the 1.5mm of the plant you collected.' David advises a further visit to study the plants there. So watch this space.

The listing below includes quite a few uncommon roses (another rather difficult group!). I have stuck to the names used by Stace and on the MapMate taxa list, though there have been some recent changes in rose taxonomy (see BSBI News no.135 p. 46-48, April 2017). New sites for *Rosa agrestis* Small-leaved Sweet-briar and *R. obtusifolia* Round-leaved Dog-rose, together with a re-find of a pre-2000 *R. tomentosa* Harsh Downy-rose record are especially valuable, as are the various rose hybrid records.

As usual I have included many records of alien plants. Some of the more unusual ones include *Bromus inermis* Hungarian Brome, *Chenopodium hybridum* Maple-leaved Goosefoot, *Digitaria ischaemum* Smooth Finger-grass, *Euphorbia stricta* Upright Spurge, *Hordeum jubatum* Foxtail Barley and *Houttuynia cordata* (Fish-plant). The highly invasive *Hydrocotyle ranunculoides* (Floating Pennywort) is the least welcome.

Apart from those it is surprising what odd plants are being sown deliberately (but probably unknowingly!) by farmers or local councils. In the list below these include *Amaranthus blitoides* Prostrate Pigweed, *Ammi majus* Bullwort, *Chenopodium opulifolium* Grey Goosefoot, *Chenopodium giganteum* Tree Spinach, *Datura stramonium* Thorn-apple and *Linum grandiflorum* Red Flax.

HFG = Hants Flora Group

***Aconitum napellus* (Monk's-hood)** Whitchurch SU462488 in woodland, Sarah Ball and Sarah White 25 Jul 2017.

***Acorus calamus* (Sweet-flag)** S edge of Frensham Pond at c. SU8417 4002, just in VC12, Tony Mundell 16 Sep 2017.

***Agrimonia procera* (Fragrant Agrimony)** W of Aldershot SU8492 5114, HFG 23 Jul 2017.

***Agrostis curtisii* (Bristle Bent)** Aldershot Heath SU8395 5012 and SU8401 5013, HFG 23 Jul 2017.

***Agrostis vinealis* (Brown Bent)** Aldershot Heath SU8396 4980, HFG 23 Jul 2017.

***Ajuga chamaepitys* (Ground-pine)** S of Freefolk Wood SU504439, about a dozen healthy plants all about to come into flower, Simon Melville 18 Aug 2017. (This area was tilled in late spring or early summer so flowering was delayed). 19 young plants, most not yet flowering, in the vegetated headland band a few metres wide from SU5041 4391 to SU5035 4391, Fred Rumsey 23 Aug 2017 (though Fred adds that Helena Crouch and her daughter Jenny counted 20+ recently).

***Amaranthus blitoides* (Prostrate Pigweed)** Voucher specimen retained. Several prostrate plants at Cow Down SU3821 4326 in arable field corner, with more at SU3843 4398 on waste ground near barn, Tony Mundell, Alison Cross & Mary Parker 10 Aug 2017.

***Ammi majus* (Bullwort)** Fleet SU8099 5436 in roadside strip of wasteland sown by local council with "wildflowers", in company with many alien plants, Tony Mundell 11 Oct 2017.

***Anagallis arvensis* f. *carnea* (Scarlet Pimpernel, pink form)** S of Whitchurch SU4787 4536 on arable field edge, several pink-flowered plants amongst normal red ones, Tony Mundell, Simon Melville & Sarah White 16 Aug 2017. Tidgrove Warren Farm SU5262 5457, several pink-flowered plants amongst normal red-flowered ones, HFG 20 Aug 2017. Roundwood Estate in arable field margin at SU5180 4505, Fred Rumsey 23 Aug 2017.



Pink-flowered form of Scarlet Pimpernel *Anagallis arvensis* f. *carnea*, Whitchurch, 16 August 2017 (Tony Mundell)

***Anchusa arvensis* (Bugloss)** NW of Bordon, several plants on new roadside verge at SU7975 3671, Steve Povey 24 Jul 2017. Frequent on Sheet Allotments SU758247, Steve Povey 1 Sep 2017.

***Anthemis cotula* (Stinking Chamomile)** W of Quarley in gap between two fields around SU252425, John Moon 18 Jul 2017.

***Arabis hirsuta* (Hairy Rock-cress)** Ropley Chalk Quarry SU6562 3057 and SU6566 3058, Tony Mundell, John Norton & Keith Betton 5 Sep 2017.

***Arctium lappa* (Greater Burdock)** Basingstoke, Basing Road, road junction, just W of Hampshire Clinic at SU6524 5265, Peter Billingham 3 Aug 2017, photo confirmed by Tony Mundell. Up

Nately SU6954 5210, one plant in roadside hedgerow, Adam Lucas 13 Aug 2017.

***Arctium minus* subsp. *pubens* (Lesser Burdock)** SW of St Mary Bourne. Voucher specimen kept. At SU4198 4850 beside footpath, near arable field corner and railway bridge. Lowest petiole hollow, largest capitula 35mm across, middle phyllaries 1.4 - 1.8mm wide, corolla exceeds phyllaries by 2 - 3mm, Tony Mundell, Simon Melville, Anna Stewart & Andrew Heideman 17 Jul 2017.

***Arum italicum* subsp. *neglectum* (Italian Lords-and-Ladies)** Selborne SU7409 3337, large colony scattered in strip of woodland know as 'The Piddle' (private), Steve Povey 2 Nov 2017.

***Arum maculatum* x *italicum* (Hybrid Lords-and-Ladies)** Single plant at the edge of The Wakes Park, Selborne SU7411 3344, Steve Povey 2 Nov 2017. Single plant on roadside of Cottage Lane, Wheatham at SU7455 2738, this plant would appear to be *A. maculatum* x *A. italicum* subsp. *neglectum*, Steve Povey 21 Nov 2017. Small group of plants beside path beneath Hanger north of Steep at SU7351 2646, these plants would appear to be *A. maculatum* x *A. italicum* subsp. *neglectum*, Steve Povey 21 Nov 2017.



Hybrid Lords-and-Ladies *Arum maculatum* x *italicum*, The Wakes Park, Selborne (Steve Povey)

***Arum italicum* subsp. *neglectum* (Italian Lords-and-Ladies)** Single plant in Adam's Lane, Selborne SU7429 3320, Steve Povey 19 Sep 2017.

***Asplenium ceterach* (Rustyback)** Whitchurch SU4673 4829, Sarah & Ken White 26 Aug 2017.

***Atropa belladonna* (Deadly Nightshade)** Danebury Hill Fort SU324379, one plant, Graeme Davis 25 Jul 2017.

***Berberis vulgaris* (Barberry)** In hedge of both sides of track, S of St Mary Bourne SU4228 4989 and SU4228 4984, Tony Mundell & Simon Melville 14 Aug 2017.

***Borago officinalis* (Borage)** Buckskin and Worting SU6010 5117 all along field edge, Adam Lucas 12 Jul 2017. NW of Bordon SU7975 3671, single plant in grounds of new building site, Steve Povey 24 Jul 2017.

***Bromus inermis* (Hungarian Brome)** Voucher specimen collected. Large colony in field corner at Wherwell SU3903 4119 and SU3905 4120, Tony Mundell, Anna Stewart *et al.*, 28 Aug 2017.

***Butomus umbellatus* (Flowering-rush)** Hawley Meadows SU8603 5911, river opposite car park entrance, Steve Bailey 1 Aug 2017.

***Cabomba caroliniana* (Carolina Water-shield)** Basingstoke Canal, Pondtail Heath SU8257 5366, Tony Mundell 31 Jul 2017.

Basingstoke Canal, Greywell SU7189 5145, a large population under the entrance to Greywell Tunnel, Adam Lucas 17 Sep 2017.

***Calystegia sepium* f. *schizoflora* (Hedge Bindweed – split corolla)** Still on roadside verge at Dora's Green SU8119 4752 where it has been known for many years. Also on roadside verge at SU8119 4762, in a new site 100m from the known site, Tony Mundell, Isobel Girvan & Pete Flood 24 Aug 2017.



Hedge Bindweed *Calystegia sepium* f. *schizoflora*, Dora's Green, 24 August 2017 (Tony Mundell)

***Camelina sativa* (Gold-of-pleasure)** Several plants on arable field edge beside footpath at Cow Down SU3809 4332, Tony Mundell, Alison Cross & Mary Parker 10 Aug 2017.

***Campanula rotundifolia* (Harebell)** Aldershot, Caesar's Camp SU8395 5009 beside main track, HFG 23 Jul 2017. Ropley Chalk Quarry SU6577 3046 etc., Tony Mundell, John Norton & Keith Betton 5 Sep 2017.

***Cardamine amara* (Large Bitter-cress)** Sydmondstone SU8456 3891 on both banks of the stream so in both VC12 and VC17, Tony Mundell 16 Sep 2017.

***Carex echinata* (Star Sedge)** Aldershot Heath SU8386 5010 on scrape, HFG 23 Jul 2017.

***Carex pseudocyperus* (Cyperus Sedge)** Aldershot Common, Long Bottom SU8421 4991 beside pond, HFG 23 Jul 2017.

***Carex strigosa* (Thin-spiked Wood-sedge)** Gully Copse, Hound Green SU7308 5865 by stream in wood, and many plants by muddy path SU7305 5878 to SU7306 5872, Tony Mundell 13 Jul 2017. Coombe Wood SU7507 3468, Tony Mundell 25 Aug 2017.

***Centaureum pulchellum* (Lesser Centaury)** W of Aldershot SU8476 5069, HFG 23 Jul 2017.

***Ceratochloa carinata* (California Brome)** Wishanger SU8405 3974 on road verge. Awns 10mm so not *C. cathartica*. Also S of Frensham Pond SU8426 3999 on roadside, both Tony Mundell 16 Sep 2017.

***Chaenorhinum minus* (Small Toadflax)** Ibthorpe, top of Windmill Hill lane SU36915313 to SU3692 5312 - an area where a large tree was felled in 2015, leaving disturbed ground next to a garden, Peter Billingham 12 Jul 2017. Tidgrove Warren Farm SU5178 5420, HFG 20 Aug 2017.

***Chenopodium giganteum* (Tree Spinach)** SW of Tichborne in sown conservation strip at SU5424 2870 with *Panicum miliaceum* etc., Tony Mundell, Ginnie Copsey & Mary Parker 4 Aug 2017. W of Hatherden SU3396 5004 in sown 'conservation' strip, Tony Mundell & Peter Billingham 23 Aug 2017.

***Chenopodium hybridum* (Maple-leaved Goosefoot)** W of Quarley in gap between two fields around SU252425, John Moon 18 Jul 2017. Winchester Station car park just within VC12. This car park has recently been extended, disturbing some soil, Nick Rumens 20 Jul 2017. W of Quarley, at least nine plants at SU2688 4317 near arable field corner, at least seven plants at SU2702 4327, over ten plants at 2669 4359 and seven plants at SU2710 4331, Tony Mundell & Mary Parker 11 Aug 2017.



Maple-leaved Goosefoot *Chenopodium hybridum*, Winchester, 20 July 2017 (Nick Rumens)

***Chenopodium opulifolium* (Grey Goosefoot)** SW of Odiham in large numbers at SU7267 4845, but clearly sown in an arable field, together with a white-flowered form of *Linum usitatissimum* and *Panicum miliaceum*, Tony Mundell, Adam Lucas & Dave Pearson 24 Jul 2017, voucher specimen kept. SW of Tichborne, a few plants in arable field corner at SU5448 2857, Tony Mundell, Ginnie Copsey & Mary Parker 4 Aug 2017, voucher specimen retained.

***Cotoneaster dammeri* (Bearberry Cotoneaster)** S of Wheatley SU786391, single plant in ditch, Steve Povey 26 Sep 2017.

***Crataegus crus-galli* (Cockspurthorn)** Mill Farm, Isington SU7694 4271 in roadside hedge, Tony Mundell & Sue Clark 25 Jul 2017.

***Cuscuta epithymum* (Dodder)** Aldershot Heath, locally abundant with dozens of patches at SU8395 4978, SU8394 4978, SU8393 4978, SU8396 4980 and SU8392 4978 on scraped/mown *Calluna* and *Erica tetralix*. Also beside track at SU8386 4972. At SU8396 5010 with *Solidago virgaurea* as host. Checked with microscope and the haustoria do penetrate. All HFG 23 Jul 2017.

***Cyperus eragrostis* (Pale Galingale)** Single plant on roadside verge at 'The Straits', Kingsley SU786391, Steve Povey 26 Sep 2017.

***Daphne laureola* (Spurge-laurel)** Buckskin and Worting SU6006 5192, one plant beside wall, Adam Lucas 12 Jul 2017.

***Datura stramonium* (Thorn-apple)** Harewood Forest SU3970 4261, many plants apparently sown in a 'conservation strip' near abandoned farm buildings, Tony Mundell, Alison Cross & Mary Parker 10 Aug 2017.

***Digitaria ischaemum* (Smooth Finger-grass)** In great quantity on bare sand at and around The Slab SU780358, Steve Povey 18 Jul 2017. Many plants in grassy clearing at Woolmer Forest SU7844 3126, Steve Povey 11 Aug 2017.

***Drosera intermedia* (Oblong-leaved Sundew)** W of Aldershot SU8434 5007 to SU8433 5006, a huge colony of thousands of plants, HFG 23 Jul 2017.

***Epipactis phyllanthus* (Green-flowered Helleborine)** Alresford, Wayfarer's Walk SU5864 3304, edge of path near junction with Ladywell Lane, Pete Flood 14 Jul 2017.

***Eriophorum angustifolium* (Common Cottongrass)** Aldershot Heath SU8386 5018 and SU8388 5017, HFG 23 Jul 2017.

Erysimum cheiranthoides (Treacle-mustard) Mill Farm, Isington, a few plants at SU7806 4217 in recently tilled area near the pigs, Tony Mundell & Sue Clark 26 Jul 2017.

Eschscholzia californica (Californian Poppy) NW of Bordon SU797367, several plants near new road verge, Steve Povey 24 Jul 2017. Long established beside Selborne High Street SU742335, Steve Povey 19 Sep 2017.

Euphorbia lathyris (Caper Spurge) On Sheet Allotments SU758247, Steve Povey 1 Sep 2017.

Euphorbia stricta (Upright Spurge) Ibthorpe, top of Windmill Hill lane, SU36915313 to SU3692 5312 - an area where a large tree was felled in 2015, leaving disturbed ground next to a garden, Peter Billingham 12 Jul 2017.

Fallopia dumetorum (Cope-bindweed) Wishanger, Bacon Lane, about three plants climbing up through Brambles at SU84215 38665 to SU84214 38667 on E side of Bacon Lane and at least three robust plants climbing about 3m high on roadside hedgerow at SU84060 39598 on NE side, Tony Mundell 16 Sep 2017. On W side of Bacon Lane, two plants at SU84205 38712, three at SU84205 38716, two at SU84205 3871, one at SU84204 38709, one at SU84210 38680, Steve Povey & Tony Mundell 18 Sep 2017. Reappeared beside the B3011 at Heckfield SU7344 6067 - this is between two large roadside mirrors for guiding house owners out from their drives. Fred Rumsey thought he had seen it there recently as he drove past, confirmed by Tony Mundell on foot 19 Sep 2017.



Cope-bindweed *Fallopia dumetorum*, Wishanger, 18 September 2017 (Tony Mundell)

Filago lutescens (Red-tipped Cudweed) A single flowering plant 6 inches tall on the verge at Fleet SU81255 56367, Steve Little & Dave Albon (Wildflower Society members from Glos.) 8 Jul 2017. [Tony Mundell visited on 15 July and found a second plant 3m away. After a gap 2012 to 2016 with no management to disturb the soil and no plants, this verge was rotavated on 15 Feb 2017 by HCC to try to revive the seed bank. Unfortunately, the area has been mown a couple of times recently but it is splendid that two plants have survived].

Filago minima (Small Cudweed) The Slab SU780358, in quantity on bare sand, Steve Povey 18 Jul 2017. Aldershot Common SU8461 5027 and SU8393 4985, HFG 23 Jul 2017.

Filago vulgaris (Common Cudweed) W of Aldershot SU8406 5017, SU8465 5033 and SU8484 5115, HFG 23 Jul 2017.

Fumaria densiflora (Dense-flowered Fumitory) Tidgrove Warren Farm SU5179 5422, HFG 20 Aug 2017.

Galega officinalis (Goat's-rue) Black Wood SU5459 4230, one plant beside road, Adam Lucas 25 Aug 2017.

Galeopsis angustifolia (Red Hemp-nettle) Tidgrove Warren Farm, dozens of plants around SU5188 5427, plus many dozens at SU5182 5421 including a couple of albinos with white flowers, HFG 20 Aug 2017. Roundwood Estate, old chalk spoil heaps, small plants localised to a small area on a bare chalk bank at SU5191 4472 extending to SU5190 4472, Fred Rumsey 23 Aug 2017.

Galinsoga parviflora (Gallant Soldier) Common weed on Sheet Allotments SU758247, Steve Povey 1 Sep 2017.

Galinsoga quadriradiata (Shaggy Soldier) Frequent weed on Sheet Allotments SU758247, Steve Povey 1 Sep 2017.

Genista anglica (Petty whin) Tweseldown, five mature plants at SU8294 5202, not flowering, at least 4-5 years old, Elliott Fairs 15 Aug 2017.

Geranium lucidum (Shining Crane's-bill) S of Wheatley SU786391, in plenty, Steve Povey 26 Sep 2017.

Geranium pusillum (Small-flowered Crane's-bill) Ibthorpe, top of Windmill Hill lane SU36915313 to SU3692 5312 - an area where a large tree was felled in 2015, leaving disturbed ground next to a garden, Peter Billingham 12 Jul 2017. Hunton SU4939 4142, plentiful in arable field corner, Tony Mundell & Sarah White 21 Aug 2017.

Geranium rotundifolium (Round-leaved Crane's-bill) Winchester SU474314, petals rounded, glandular hairs on stem, Anna Stewart 16 Aug 2017.

Hieracium mammidens (Breast-toothed Hawkweed) Caesar's Camp, still at SU8375 5027, but only three plants now, Tony Mundell 18 Jul 2017. There is continuing doubt about the identity of this Hieracium - see the preamble above.

Hieracium sabaudum (Autumn Hawkweed) S of Crondall SU801466, on road verge, leaves more than twice as long as wide, lower stem deep purple, involucral bracts with glandular and eglandular hairs, receptacle margins fimbriate/dentate, Tony Mundell, Isobel Girvan & Pete Flood 24 Aug 2017.

Hieracium scotostictum (Dappled Hawkweed) As a garden weed in Willow Road, Liss SU780275, Steve Povey 1 Sep 2017. In flower, growing in pavement of Church Road, Fleet SU8115 5420, Tony Mundell 6 Sep 2017. At Fleet SU8021 5445 on grassy road verge, Tony Mundell 13 Sep 2017.

Hordeum jubatum (Foxtail Barley) An escape from the adjacent plant nursery beside footpath at Hound Green SU7277 5919, also seen as a weed in a large pot of *Carpinus betulus* in the nursery, Tony Mundell 13 Jul 2017.

Houttuynia cordata (Fish-plant) Kingsley, Sickles Lane, in plenty in roadside ditch at SU7873 3909, both var. 'Chameleon' and the plain green-leaved plant, Steve Povey 26 Sep 2017.

Hydrocotyle ranunculoides (Floating Pennywort) Basingstoke Canal, Fleet, a free floating patch at SU8095 5364. Basingstoke Canal Authority informed, Ian Ralphs 6 Sep 2017.

Hyoscyamus niger (Henbane) W of Longparish SU419448, at edge of birdseed crop, Sarah Ball & Sarah White 1 Aug 2017. SW of Upper Wooton SU5748 5387, Fred Rumsey 23 Aug 2017. Northington Farm, Overton SU5027 5069 on edge of an arable field, Keith Betton 17 Sep 2017.

Illecebrum verticillatum (Coral-necklace) The Slab, scattered on bare sand at and around SU7807 3587, Steve Povey 18 Jul 2017.

Inula conyzae (Ploughman's-spikennard) Danebury Hill Fort SU323374, around ten plants, Graeme Davis 25 Jul 2017.

***Inula helenium* (Elecampane)** E of Andover, beside the Test Way just after it crosses the B3400 near Fox Farm SU414465, Andrew Bolton 20 Jul 2017.

***Isolepis setacea* (Bristle Club-rush)** Aldershot Heath, plentiful at SU8440 5009 on damp track and also at SU8386 5010 on a scrape, HFG 23 Jul 2017.

***Juncus x kern-reichgeltii* (*J. conglomeratus* x *effusus*)** Aldershot Heath SU8385 5012, voucher specimen kept, HFG 23 Jul 2017. Harewood Forest SU3970 4314 beside woodland footpath, voucher specimen kept, Tony Mundell, Alison Cross & Mary Parker 10 Aug 2017.

***Juncus x surrejanus* (*J. acutiflorus* x *articulatus*)** Long Bottom Horse Pond, on pond bank at SU8424 4988, voucher specimen retained, HFG 23 Jul 2017.

***Lamium amplexicaule* (Henbit Dead-nettle)** Tidgrove Warren Farm, many plants noted in several places, SU518542 and SU519543, HFG 20 Aug 2017. S of Freefolk Wood, plentiful at SU503439 and SU504439, Fred Rumsey 23 Aug 2017.

***Lamium hybridum* (Cut-leaved Dead-nettle)** Dora's Green SU8114 4711, plentiful on public footpath across an arable field, Tony Mundell, Isobel Girvan & Pete Flood 24 Aug 2017.

***Lathyrus latifolius* (Broad-leaved Everlasting-pea)** Buckskin and Worting SU6035 5150 one plant in hedgerow, Adam Lucas 12 Jul 2017.

***Lathyrus linifolius* var. *montanus* (Bitter-vetch)** S of Crondall, on road verge at SU8007 4659 and SU8011 4661, Tony Mundell, Isobel Girvan & Pete Flood 24 Aug 2017.

***Lathyrus nissolia* (Grass Vetchling)** Mill Farm, Isington, large colony scattered amongst tall coarse grasses at SU7831 4207 near the public footpath, Tony Mundell & Sue Clark 26 Jul 2017.

***Legousia hybrida* (Venus's-looking-glass)** Tidgrove Warren Farm, at SU5178 5420, SU5180 5423 also scattered plants at SU5192 5430 in Stone Curlew plots, HFG 20 Aug 2016.

***Legousia speculum-veneris* (Large Venus's-looking-glass)** SW of Upper Wootton, in previous years present in greater abundance as the site is suffering due to rank growth of *Sonchus arvensis* etc. One *Legousia speculum-veneris* plant at SU5732 5390. At its greatest concentration in the barer field corner at SU5738 5394, but present from SU5737 5392 round the margin as far as SU5743 5391, Fred Rumsey 23 Aug 2017.

***Linum grandiflorum* (Red Flax)** Fleet SU8099 5436 in roadside strip of wasteland sown by local council with "wildflowers", in company with many alien plants, Tony Mundell 11 Oct 2017.

***Linum usitatissimum* (Flax)** Netherton, track to Combe Hill in game cover at SU382596, Peter Billingham 28 Aug 2017.

***Lotus corniculatus* var. *sativus* (Alien variety of Common Bird's-foot-trefoil)** Buckskin and Worting SU6015 5109, one clump of plants at field edge, Adam Lucas 12 Jul 2017. NW of Bordon on many new roadside verges from SU7975 3671 to SU7989 3675 and beyond. Probably sown along with various grass species, Steve Povey 24 Jul 2017.

***Lycopodiella inundata* (Marsh Clubmoss)** Aldershot Common, Long Bottom, nine tiny plants at SU8424 5000, HFG 23 Jul 2017.

***Malva neglecta* (Dwarf Mallow)** Whitchurch SU4629 4817, Sarah & Ken White 26 Aug 2017.

***Matricaria chamomilla* (Scented Mayweed)** NW of Bordon on new roadside verge at SU7975 3671, Steve Povey 24 Jul 2017. Upper Froyle SU753430, on edge of Potato crop, Alison Cross 14 Aug 2017.

***Mentha arvensis* (Corn Mint)** Cholderton Estate SU244440 at foot of aials, John Moon 17 Jul 2017.

***Mentha x gracilis* (Bushy Mint *M. arvensis* x *spicata*)** Voucher specimen retained. At Cow Down SU3821 4326 in arable field corner, many plants that may have been sown in a 'conservation strip' (which is odd as this should be an almost sterile hybrid). Calyx tube has few or no hairs but calyx teeth are hairy. Calyx 2.5 - 3.0mm

long including subulate teeth <1mm long. Calyx tube <1.5mm wide. Stamens included inside corolla, Tony Mundell, Alison Cross & Mary Parker 10 Aug 2017.

***Mercurialis annua* (Annual Mercury)** Cholderton Estate SU244440, at foot of aials, John Moon 17 Jul 2017.

***Misopates orontium* (Weasel's-snout)** S of Freefolk Wood SU504439, several plants on arable field edge, Simon Melville 18 Aug 2017.

***Myosoton aquaticum* (Water Chickweed)** S of St Mary Bourne SU4249 4992 in stream, Tony Mundell & Simon Melville 18 Aug 2017. Whitehall SU7483 5217, a group of plants growing in flooded ditch, Adam Lucas 21 Sep 2017.

***Myrica gale* (Bog-myrtle)** Aldershot Heath SU8386 5010 and SU8394 5016, HFG 23 Jul 2017.

***Narthecium ossifragum* (Bog Asphodel)** Aldershot Heath SU8386 5011, HFG 23 Jul 2017.

***Nepeta cataria* (Cat-mint)** Harewood Forest on waste ground near abandoned farm buildings, one large flowering plant at SU3970 4261 and two young plants at SU3968 4261, Tony Mundell, Alison Cross & Mary Parker 10 Aug 2017.

***Nicandra physalodes* (Apple-of-Peru)** Several fine plants as weed on Sheet Allotments SU758247, Steve Povey 1 Sep 2017.

***Nymphoides peltata* (Fringed Water-lily)** Long Bottom, Horse Pond SU8425 4987, HFG 23 Jul 2017.

***Oenothera x fallax* (*O. glazioviana* x *biennis*)** Many plants by grassy clearing at Woolmer Forest SU7844 3126, Steve Povey 11 Aug 2017.

***Ononis spinosa* (Spiny Restharrow)** Scattered over a large area at Chilbolton Common, e.g. SU3867 4030, SU3880 4027 and SU3886 4019, Tony Mundell, Anna Stewart *et al.* 28 Aug 2017.

***Ononis x pseudohircina* (*O. repens* x *spinosa*)** Voucher specimen collected. Chilbolton Common SU3887 4017, amongst many plants of *O. spinosa*; at least some plants appear to be this hybrid having broader leaves with a more acute tip and stem hairs on more sides, Tony Mundell, Anna Stewart *et al.* 28 Aug 2017.

***Orobancha hederæ* f. *monochroma* (Ivy Broomrape)** 55 plants of the yellow form on roadside opposite Alresford Pond and a further 10 or so about 100yds north at SU588331 past the gate into the viewing point over the pond, Penny Raynor 23 Jul 2017.

***Orobancha minor* (Common Broomrape)** Tidgrove Warren Farm SU5257 5467, HFG 20 Aug 2017.

***Oxalis exilis* (Least Yellow-sorrel)** Selborne SU740337, single patch in Gracious Street, Steve Povey 19 Sep 2017.

***Papaver argemone* (Prickly Poppy)** Tidgrove Warren Farm, seed heads noted at SU5188 5427, HFG 20 Aug 2017.

***Papaver dubium* (Long-headed Poppy)** Ibthorpe, top of Windmill Hill lane, SU36915313 to SU3692 5312, an area where a large tree was felled in 2015, leaving disturbed ground next to a garden, Peter Billingham 12 Jul 2017. NW of Bordon on new roadside verge at SU7989 3675 and a few other nearby places, Steve Povey 24 Jul 2017.

***Papaver hybridum* (Rough Poppy)** SE of Shepherd's Bush, Houghton Down SU3371 3615 and SU3373 3623, Martin & Clare Rand 16 Jul 2017. W of Quarley Hill in gap between two fields around SU252425, John Moon 18 Jul 2017.

***Parentucellia viscosa* (Yellow Bartsia)** Longmoor Camp SU789297, in short grazed turf, Graham Dennis 17 Aug 2017.

***Paris quadrifolia* (Herb-paris)** Many places in Crooked Cut Wood, but thinly scattered, e.g. 5 plants at SU7775 4183, 3 at SU7776 4182, 1 at SU7777 4182, groups of 5 and 4 at SU7777 4181, 10 at SU7771 41505 at SU7778 4179, 7 at SU7779 4176, Tony Mundell & Sue Clark 27 Jul 2017. Eight plants at Catham Copse, Binsted SU78549 42309, Gareth Knass 3 Aug 2017.

***Pedicularis sylvatica* (Lousewort)** Aldershot Heath SU8386 5012, HFG 23 Jul 2017.

***Persicaria amplexicaulis* (Red Bistort)** Selborne SU744333, a number of plants established on grassy, roadside bank, Steve Povey 19 Sep 2017.

***Persicaria campanulata* (Lesser Knotweed)** Large flowering patch at Mill Farm, Isington SU7591 4237 beside public footpath, in shade, Tony Mundell & Sue Clark 27 Jul 2017.

***Persicaria wallichii* (Himalayan Knotweed)** Large colony beside B2070, London Road, Stodham SU7796 2576, along 15m just E of Puetts Lane, and a large clump beside B2070 at SU775255 just E of Stodham Lane, Steve Povey 9 Oct 2017.

***Phalaris canariensis* (Canary-grass)** NW of Bordon SU7989 3675 on new roadside verge, Steve Povey 24 Jul 2017.

***Phalaris paradoxa* (Awned Canary-grass)** Cow Down SU3858 4361 on arable field edge, Tony Mundell, Alison Cross & Mary Parker 10 Aug 2017. S of Whitchurch SU4787 4536 on arable field edge, Tony Mundell, Simon Melville & Sarah White 29 Aug 2017.

***Phyteuma orbiculare* (Round-headed Rampion)** Stockbridge Down SU379352 on Hillfort ramparts, Catherine Hadler 27 Jul 2017. Stockbridge Down SU382346 within scrubby edges of grassland glades, Catherine Hadler 29 Aug 2017.

***Pilosella aurantiaca* (Fox-and-cubs)** Overton SU5205 4994 in several places on land cleared for a housing development, Keith Betton 17 Sep 2017. Andover SU353457, railway car park embankment, Graeme Davis 3 Oct 2017.

***Polygala serpyllifolia* (Heath Milkwort)** Aldershot Heath SU8396 5013, HFG 23 Jul 2017.

***Polygonum rurivagum* (Cornfield Knotgrass)** S of Freefolk Wood, some convincing plants, but of spreading habit, at SU5041 4391, with narrow acute leaves, darkish flowers and long silvery ochrae (most apparent on the young growth). No mature fruit available to check, Fred Rumsey 23 Aug 2017. Tidgrove Warren Farm, arable field at SU5185 5426, HFG 20 Aug 2017, specimen determined by Dr John Akeroyd 29 Nov 2017 with the comment "Good *P. rurivagum*, narrow acute leaves, silvery ochrae, non-overlapping reddish perianth segments, exerted nuts, and the arable habitat. The nuts are rather small, and the habit [prostrate for the specimen] doesn't fit the conventional description. The fragmentary reddish flowers tally with the vegetative characters". SW of Odiham on arable field edge at SU7223 4920, Tony Mundell, Adam Lucas & Dave Pearson 24 July 2017, specimen determined by Dr John Akeroyd 29 Nov 2017. Of prostrate habit, most leaves <4mm wide but some up to 5.0mm when fresh. Largest fresh leaves measured at 31 x 5.0mm, 34 x 4.5mm and 33 x 4.9mm.

***Polystichum aculeatum* (Hard Shield-fern)** Selborne SU743331, single plant by footpath, Steve Povey 19 Sep 2017.

***Populus nigra* subsp. *betulifolia* (Black Poplar)** Blackwater (VC12 part) SU8472 6059, Tony Mundell 1 Sep 2017, formerly a row of three or four trees, known here since 1987, but all but one have been felled relatively recently, leaving a pile of logs. This is the Shepherd's Meadows Nature Reserve!

***Potamogeton crispus* (Curled Pondweed)** Whitchurch SU466480, in river by mill, Sarah Ball 31 Jul 2017.

***Potentilla anglica* (Trailing Tormentil)** Aldershot Common SU8476 5095, HFG 23 Jul 2017.

***Potentilla tabernaemontani* (Spring Cinquefoil)** Roundwood Estate, old chalk spoil heaps, widespread at SU518447, SU518448, SU518449, SU519446, SU519447 and SU519448, Fred Rumsey 23 Aug 2017.

***Pyrus communis* (Pear)** A large fruiting tree at Boughurst SU5818 5901 near Hillside Farm, Pound Green, Andrew Bolton 30 Jul 2017.

***Rhynchospora alba* (White Beak-sedge)** Aldershot Common, Long Bottom, a large colony at SU8431 5004 with a few spread to a newish scrape at SU8432 5005, also at SU8421 4999 and SU8428 5002, HFG 23 Jul 2017.

***Rosa agrestis* (Small-leaved Sweet-briar)** Mill Farm, Isington SU7729 4227 in hedgerow, beside footpath/track, near to a gate,

Tony Mundell & Sue Clark 25 Jul 2017, specimen confirmed by Roger Maskew.

***Rosa micrantha* (Small-flowered Sweet-briar)** NE of Bentley, a roadside bush at Cowleigh Copse SU80076 45136, another roadside bush at Gascombe Copse SU80341 45506, Gareth Knass 13 Jul 2017. NW of Longparish SU416458 and scattered along trackside, Sarah Ball & Sarah White 1 Aug 2017.

***Rosa multiflora* (Many-flowered Rose)** N of Isington, many plants on both sides of minor road parallel and close to A31 at SU77380 43422 to SU77310 43385, presumably planted. Voucher specimen collected and confirmed by Roger Maskew.

***Rosa obtusifolia* (Round-leaved Dog-rose)** Mill Farm, Isington, S side of minor road at SU77379 42419, Gareth Knass 3 Aug 2017, many photos taken by Gareth. Specimen collected by Tony Mundell on 5 Aug 2017 determined by Roger Maskew as *R. tomentella* (formerly *R. obtusifolia*).

***Rosa rubiginosa* (Sweet-briar)** Mill Farm, Isington, in hedgerow at SU77432 42094 beside footpath, many photos taken by Gareth. Voucher specimens collected by Tony Mundell on 5 Aug 2017 det. Roger Maskew.

***Rosa spinosissima* (Burnet Rose)** Woolmer Forest, many plants alongside A325 at and around SU788 313, probably originally planted, Steve Povey 11 Aug 2017.

***Rosa tomentosa* (Harsh Downy-rose)** NE of Bentley, a single mature bush in a roadside hedge at SU80345 45493, immediately S of a field gate, suffering from hedge flailing. Limited fruiting material, but maybe 12 hips present, Gareth Knass 13 Jul 2017. Specimen collected 29 Jul 2017 by Tony Mundell confirmed by Roger Maskew Sep 2017 with the comment 'On balance *R. tomentosa* rather than a hybrid of it.'

***Rosa x dumetorum* (*Rosa canina* x *obtusifolia*)** Mill Farm, Isington, on north side of minor road at SU77381 42433, growing close to but on opposite side of road to *R. obtusifolia* (now *R. tomentella*), Tony Mundell 5 Aug 2017, specimen det. Roger Maskew. Hunton SU484402, in roadside hedgerow, Tony Mundell & Sarah White 21 Aug 2017, specimen det. Roger Maskew.

***Rosa x irregularis* (*Rosa arvensis* x *canina*)** Mill Farm, Isington, in field hedgerow at SU77443 42015, Gareth Knass 3 Aug 2017. Voucher specimens collected by Tony Mundell on 5 Aug 2017 and conf. by Roger Maskew with the comment 'Probably a back-crosser with a few red glands on the leaf margins, but can be recorded as *R. x irregularis*.'

***Rosa x nitidula* (*Rosa canina* x *rubiginosa*)** Wherwell SU3965 4048 in hedgerow at start of footpath, photos taken, Tony Mundell, Anna Stewart *et al.* 28 Aug 2017.

***Rosa x scabriuscula* (*Rosa canina* x *tomentosa*)** Hurstbourne Tarrant in hedge along track at SU3880 5378, Peter Billinghurst 12 Aug 2017, previous record was confirmed by Roger Maskew.

***Rumex hydrolapathum* (Water Dock)** Basingstoke Canal, Odiham, a few plants in canal, Adam Lucas 17 Sep 2017.

***Sagittaria sagittifolia* (Arrowhead)** Hawley Meadows SU859592, plants over c. 200m of river, downstream of car park, Steve Bailey 1 Aug 2017.

***Salix purpurea* (Purple Willow)** Kimpton SU2846, beside stream, opposite leaves, glabrous, no stipules, pointed buds, John Moon 12 Jul 2017. Wherwell SU3862 4048 beside River Test, Tony Mundell, Anna Stewart *et al.* 28 Aug 2017.

***Sambucus ebulus* (Dwarf Elder)** Hurstbourne Priors SU438464, roadside, Andrew Bolton 20 Jul 2017. Very large colony containing a great many plants covering an area of 30m x 10m at edge of field known as 'The Ewel', at The Wakes, Selborne SU7391 3361, Steve Povey 4 Aug 2017. W of Bransbury Common, SU410415, large patch on S side of scrub, Glynne Evans 10 Sep 2017.

***Schoenoplectus lacustris* (Common Club-rush)** Rooksbury Mill SU3558 4462, lakes in reserve, Graeme Davis 21 Jul 2017.

***Scutellaria minor* (Lesser Skullcap)** Aldershot Heath SU8386 5011 and SU8432 5003, HFG 23 Jul 2017.



Harsh Downy-rose *Rosa tomentosa*, Bentley, 13 July 2017. Top: a large hedgerow bush, flailed annually; bottom: showing hips with spreading sepals and long glandular pedicels. (Gareth Knass)

***Senecio inaequidens* (Narrow-leaved Ragwort)** S of Flexcombe SU763261, in plenty along central reservation of A3 in many places, Steve Povey 26 Sep 2017.

***Senecio viscosus* (Sticky Groundsel)** SE of Blackmoor SU789322, by disused cottage, Steve Povey 7 Sep 2017.

***Silaum silaus* (Pepper-saxifrage)** Odiham SU7472 5187 single plant growing on track at entrance to public space, Adam Lucas 17 Sep 2017.

***Silene x hampeana* (Pink Champion *S. dioica* x *latifolia*)** NE of Whitchurch SU471496, on lane verge next to *S. dioica*, Sarah Ball & Sarah White 26 Jul 2017.

***Solidago virgaurea* (Goldenrod)** Aldershot Heath SU8395 5009 and SU8395 5013, HFG 23 Jul 2017.

***Spergularia rubra* (Sand Spurrey)** Woolmer Forest, a few plants on grassy path, Steve Povey 11 Aug 2017.

***Spiranthes spiralis* (Autumn Lady's-tresses)** Winchester SU4886 2949, in lawn of number 7 and 9, occupier of 7 unaware of orchids, Anna Stewart 18 Aug 2017.

***Teucrium botrys* (Cut-leaved Germander)** Roundwood Estate, old chalk spoil heaps, scattered plants, e.g. at SU5187 4488, SU5186 4485, SU5190 4472, SU5192 4465 and SU5191 4464, almost all in fruit, with only a very few non-flowering rosettes, Fred Rumsey 23 Aug 2017.

***Thlaspi arvense* (Field Penny-cress)** Selborne SU741335, many plants in the car-park behind Selborne Arms Inn, Steve Povey 27 Jul 2017.

***Trichophorum germanicum* (Deergrass)** Aldershot Heath SU8434 5007 to SU8433 5006, a few scattered plants, HFG 23 Jul 2017.

***Trifolium medium* (Zigzag Clover)** Mill Farm, Isington SU7797 4218 at gate in public footpath, Tony Mundell & Sue Clark 25 Jul 2017. S of Wheatley SU787390, single plant in field, Steve Povey 18 Jul 2017.

***Typha angustifolia* (Lesser Bulrush)** The Slab SU780358, single plant in a shallow pool, Steve Povey 18 Jul 2017.

***Urtica urens* (Small Nettle)** W of Quarley Hill in gap between two fields around SU252425, John Moon 18 Jul 2017.

***Valeriana dioica* (Marsh Valerian)** Chilbolton Common in several places, e.g. SU3863 4044, Tony Mundell, Anna Stewart *et al.* 28 Aug 2017.

***Valerianella dentata* (Narrow-fruited Cornsalad)** NW of Longparish SU416457, in rough grass field corner, Sarah Ball & Sarah White 1 Aug 2017. SW of Upper Wootton SU573539, abundant in field corner, Fred Rumsey 23 Aug 2017.

***Verbascum virgatum* (Twiggy Mullein)** Woolmer Forest, 14 plants beside grassy clearing at SU7844 3126, Steve Povey 11 Aug 2017.

***Verbena bonariensis* (Argentinian Vervain)** Ibthorpe, top of Windmill Hill lane, SU36915313 to SU3692 5312 - an area where a large tree was felled in 2015, leaving disturbed ground next to a garden, Peter Billingham 12 Jul 2017.

***Veronica austriaca* (Large Speedwell)** Hatch Warren, Basingstoke SU6072 4891 in a small trackside glade near Woodbury Road. I suspect the site had been partly sown with a chalk grassland type mix at some point and this may have been introduced then. Photo and specimen taken, Ian Ralphs 22 Aug 2017.

***Viola tricolor* (Wild Pansy)** Several plants amongst *V. arvensis* in bare, harrowed, arable strip SW of Odiham at SU7219 4922. Flowers 18mm vertically, purple and yellow, petals much longer than calyx, stipules lanceolate and entire. Tony Mundell, Adam Lucas & Dave Pearson 24 July 2017.



Wild Pansy *Viola tricolor*, Odiham, 24 July 2017 (Tony Mundell)

The Hampshire and Isle of Wight Wildlife Trust Flora Group aims to monitor the 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 articles or photographs for inclusion in a future issue please contact:

Catherine Chatters, Flora Group Secretary

Ivy Cottage, Ashurst Bridge Road, Totton, Southampton SO40 7EA

Tel: 023 8086 3920, e-mail: Catherine.Chatters@hiwwt.org.uk

When submitting digital photographs, please reduce the size of each image to no larger than 2MB and please include your own name in the filename, along with description of subject and date taken for inclusion in the caption. Please include English and scientific names of any plants.

If you would like to send in your plant records, please see the Hants Plants website:

<http://www.hantsplants.org.uk> for information, including downloadable forms, or contact your relevant vice-county Recorder:

VC11: Martin Rand

3 Kings Close, Chandler's Ford, Eastleigh, SO53 2FF

Tel: 07531 461442, e-mail: VC11recorder@hantsplants.net

VC12: Tony Mundell

38 Conifer Close, Church Crookham, Fleet GU52 6LS

Tel: 01252 614516, e-mail: argmundell@gmail.com



Flora Group at Tidgrove Warren Farm, 20 August 2017 (John Norton). See p.10.

If you would like to join Hampshire & Isle of Wight Wildlife Trust and become a member of the Flora Group please contact our Membership Team on [01489 774400](tel:01489774400) or visit our website for further details: www.hiwwt.org.uk. Visit us on Facebook under *Hampshire Flora Group*.

Company Limited by guarantee and Registered in England and Wales No 676313
Registered Charity No 201081
Beechcroft House, Vicarage Lane, Curdridge, SO32 2DP

**Hampshire &
Isle of Wight**
Wildlife Trust 

