

Flora News

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

No. 53 Autumn 2017 Published September 2017



Dear Flora Group member

In this issue we have details of events to be held during autumn/winter 2017 and spring 2018. Field meetings during September include the second Atlas 2020 recording day on Hayling Island, an opportunity to focus on saltmarsh plants (also on Hayling Island) and a chance to learn how to identify Cotoneasters on Portsdown Hill.

On Saturday 9 December we will hold our ever-popular, annual Flora Group / BSBI Exhibition Meeting at Testwood so do join us for this sociable opportunity to catch up with fellow botanists during the dark days of winter and look forward to botanising in the year ahead.

Next April we start the new programme with another field meeting concentrating on coastal urban flora and also visit a woodland near Alton. We are very grateful to everyone who has helped to organise these events.

As usual we are always keen to receive your suggestions for 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, Tony Mundell, John Norton, Martin Rand and Neil Sanderson.

We are always keen for more people to provide contributions to *Flora News* on any relevant botanical topics. 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

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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 9 September 2017, 10am–4.30pm
Atlas Recording Day, South Hayling (jointly with BSBI nationally)
Leader: John Norton

Rather surprisingly given its botanical attractions, the southern strip of Hayling Island, grid reference SZ79 (which excludes the western end around Sinah Common) is still a bit deficient in recent plant records compared with most other parts of the vice-county. This is the second of two field meetings intended to rectify this for Atlas 2020, the BSBI's national distribution mapping project for vascular plants. **Booking is required and should be made to John Norton (see below).**

Amidst the low-key seaside suburban sprawl of Hayling's south coast, there are some striking survivals of coastal heath, dune, shingle and saltmarsh. Even the suburban streets and waste ground have their interest. We shall split into small teams to cover the three tetrads thoroughly. Many of the recently unrecorded species are the more common things, but in the process of checking them off you can expect to see (or in some cases, refind) an interesting blend of native and alien species: in this latter end of the season, these might include Bristle Bent *Agrostis curtisii*, Babington's Orache *Atriplex glabriuscula*, Shrubby Orache *Atriplex halimus*, Frosted Orache *Atriplex laciniata*, Slender Hare's-ear *Bupleurum tenuissimum*, Dotted Sedge *Carex punctata*, Sea-kale *Crambe maritima*, Sea Heath *Frankenia laevis*, Sea Barley *Hordeum marinum*, Golden-samphire *Inula crithmoides*, Sharp Rush *Juncus acutus*, Hare's-tail *Lagurus ovatus*, Sand Cat's-tail *Phleum arenarium*, Sea Knotgrass *Polygonum maritimum*, Ray's Knotgrass *Polygonum oxyspermum*, Borrer's Saltmarsh-grass *Puccinellia fasciculata*, Stiff Saltmarsh-grass *Puccinellia rupestris*, Allseed *Radiola linoides*, Spiral Tasselweed *Ruppia cirrhosa*, annual glassworts *Salicornia* spp., Cock's-eggs *Salpichroa origanifolia*, Perennial Glasswort *Sarcocornia perennis*, Autumn Lady's-tresses *Spiranthes spiralis* and Twiggy Mullein *Verbascum virgatum*.

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

Saturday 16 September 2017, 11am–5pm
Saltmarsh Plant Identification, Gutner Nature Reserve, Hayling Island
Leader: Clive Chatters

This is an opportunity to see a good range of saltmarsh communities and get to grips with their plants, as Gutner

has habitat running from the lower mudflats up to the highest levels of marsh in an attractive quiet setting on the edge of Chichester Harbour.

Booking is required and should be made to Clive Chatters via e-mail Clive.Chatters@hiwwt.org.uk who will provide full details before the meeting. Expect to collaborate in some car-sharing.

Saturday 24 September 2017, 10.30am–4pm
Cotoneaster Identification, Portsdown Hill
Leader: John Norton

By popular demand a return visit to this Cotoneaster hot-spot close on the chalk ridge north of Portsmouth Harbour. We should see about ten of the commonest species which escape from gardens and tend to do well (sometimes too well) on chalk grassland. This will be a good opportunity to compare foliage characters and berries. Meet at the car park on the west side of Fort Widley on Mill Lane, off Portsdown Hill Road (SU654065). It will be quite a strenuous walk, up and down steep slopes, so stout footwear will be essential.

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

Saturday 9 December 2017, 11am–4pm
Flora Group / BSBI Exhibition Meeting
Testwood Lakes Centre, Totton, SU 345 155

We will continue this traditional winter get-together and social event, so please bring along cakes and other goodies to eat, or sandwiches for us to share, plus your specimens, photos, material for display boards and any other botanical talking point. This is a splendid informal event for meeting others interested in Hampshire's wildflowers. A digital projector will be available, so **please can you bring a few digital photos** to show us (but only British plants and preferably species found in Hampshire!). **Note that we will start showing the plant photos at 1pm.**

Testwood Lakes Centre is reached from Brunel Road, a turning off the A36 at a roundabout between Totton and Ower. After entering Brunel Road, look for a small turning on the left after the block of industrial units. Go along this track, ignoring the first (public) car park, until the Centre comes into view above the lake. There is plenty of parking there. No need to book a place.

Contact: Tony Mundell (note new details on back page).

Sunday 8 April 2018
Winter annuals and spring urban flora
Leader: John Norton

Location and further details to be announced in next issue of *Flora News* (January 2018), but it is hoped to run this in either Portsmouth or Gosport to look at species of neutral to acidic road verges and amenity grassland. Species that we have failed to find during the last two years in Southampton, such as Early Meadow-grass *Poa infirma* and Musk Stork's-bill *Erodium moschatum* will be guaranteed!

Sunday 22 April 2018, 10.30am–4pm

Visit to Ackender Wood, Alton

Leader: Tony Mundell

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

Contact: Tony Mundell (note new details on back page).

Reports of Recent Events

Woodhouse Copse & Bakers Copse, Roydon Woods, New Forest on Sunday 12 March 2017

A report by Neil Sanderson

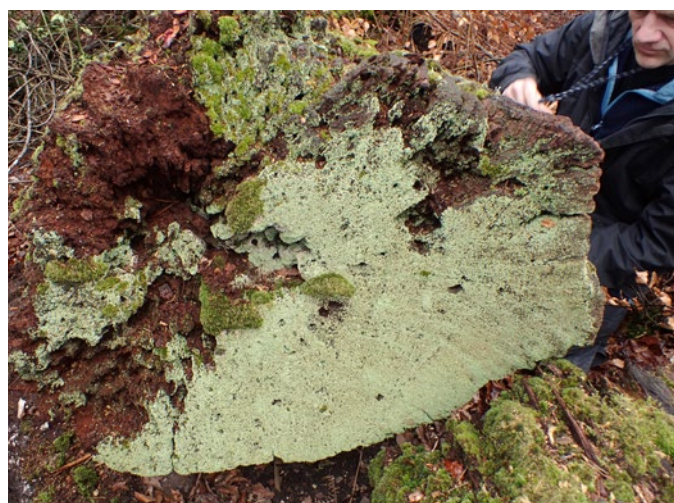
This was a joint meeting with the Hampshire Flora Group and the Wessex Lichen Group to Roydon Woods on the edge of the New Forest, with the aim of both demonstrating lichens to beginners and to look at a known lichen rich area of the Hampshire & Isle of Wight Wildlife Trust reserve, not looked at seriously since the 1990s. The area is the southern part of Brockenhurst Park, an eighteenth-century park created out of farmland, coppices and bits of Forest habitat, but now well wooded and colonised by many typical New Forest lichens.

Eleven people attended, including Wessex Lichen Group regulars, some Flora Group members along with Mark Powell, who had come all the way from Bedfordshire. Mark has gained a reputation as a genius at finding new lichens and, especially, new fungi parasitic on lichens (lichenicolous fungi), so it was great to have him along.

We met at a pull-in on the open Forest opposite the Filly Inn (SU 301 002) and started straight away on the Crab Apples by the car park. These had a nutrient enriched bark, as is typical of Forest Crab Apples on Forest greens. This results from ponies sheltering under them and the habitat has proved fun in past WLG meetings, producing species absent from the much less enriched old woodlands. The Crab Apples proved to be fruitful, and were a more homely habitat for Mark than the nutrient poor woods to come. He found *Halecania viridescens* (NS) a probably increasing species of nutrient enriched bark along with one of his specials, the basidiomycete lichen parasite *Laetisaria lichenicola*. This forms a pink stain on *Physcia tenella*; a species completely overlooked until Mark recently worked out what it was. Also present were *Catillaria nigroclavata* (NS) and *Lecanora barkmaniana* (NS) two other under recorded species. Also noted was a fine colony of *Ramalina lacera*, a species I rarely see, and had not fully got to grips with previously.

Once we got ourselves together, we route marched east into the Roydon Woods reserve and got as far as a group of post mature oaks at the junction of the bridle ways south of Dawkins Bottom (SU 313 004). These had a good varied lichen flora, suitable for demonstrating the variety of forms of lichens and some of the commoner species. They also proved richer than I was expecting with *Micarea pycnidiophora* (NS, IR), a New Forest specialist of acid bark, new to the reserve, and *Enterographa sorediata* (NT, NS, IR, S42), a specialist of dry bark on old oaks, only previously found on one oak within the reserve. Mark also found *Schismatomma decolorans*, a common species of dry bark on older trees, fertile. This is a very rare occurrence and had only been recorded once before in Hampshire.

After this good start, we worked northwards into Pinhorns Rough (SU 312 006–SU 311 008), a strange area of scattered old oaks set in younger woodland infilling former *Molinia* grasslands on less acid soils with lots of quite slow growing young Ash and Hazel in open well-lit deer grazed pasture woodland; very unlike the open Forest. The older trees produced a good range of old woodland species, including the veteran oak specialist *Lecanographa lyncea* (IR) with its near obligate parasite *Milospium graphideorum* (NS) on quite a young oak for this lichen which had not seen in this area in the 1990s; it looked like a colonist from older trees to the north. Other old woodland lichens seen included *Anisomeridium ranunculosporum*, *Cliostomum flavidulum* (NS), *Cresponea premnea* (IR), *Loxospora elatina*, *Mycoblastus caesius*, *Mycoporum antecellens*, *Phaeographis dendritica*, *Schismatomma niveum* (IR), *Schismatomma quercicola* (IR) and *Thelotrema lepadinum*. *Melaspilea ochrothalamia* (NS) was also recorded, new to the woods. A fallen well-rotted oak log produced a large colony of *Cladonia incrassata* (NS), a widespread species on banks in the New Forest heathlands, but rare on wood in Hampshire.



Mark Powell with *Cladonia incrassata* (John Norton)

The old Hazels were well colonised with a diverse assemblage of smooth bark specialists, including *Anisomeridium viridescens* (NS), *Arthonia cinnabarina*, *Enterographa crassa*, *Phaeographis dendritica*, *Phaeographis inusta* (NS) and *Thelotrema lepadinum*,

with young Hornbeams also being colonised by a similar assemblage. The best find in this area was a 'black dot' lichen *Arthopyrenia cinereopruinosa* (NS) on its characteristic habitat, slow growing young Ash trees, found by Fey and Andy. This was only the third record for Hampshire of a mainly western species.

After lunch, we reached the main stream draining out of Woodhouse Copse (SU 311 009–SU 312 008), here there were more old oaks and some large bits of dead wood. The latter produced *Cladonia caespiticia*, *Cladonia parasitica*, *Loxospora elatina*, *Mycoblastus caesius*, *Trapelia corticola*, *Trapeliopsis flexuosa*, *Jamesiella anastomosans* and *Placynthiella dasaea*; the latter two new to Roydon Woods. The old oaks added *Opegrapha corticola* (IR), *Pachyphiale carneola*, *Porina coralloidea* (NS, IR) and *Schismatomma cretaceum* (IR). One target species of the visit was also found here on the old oaks: *Agonimia flabelliformis* (NR). This had been recorded as *Agonimia allobata* s. lat. (NS) in the 1990s but the species has recently split. *Agonimia flabelliformis* has a tiny but beautiful thallus of finely dissected fan like squamules, while *Agonimia allobata* s. str. has a crustose thallus. John Norton had at this point disappeared into the stream gully and was finding a good bryophyte flora and also the bright green discs of the liverwort fungal parasite *Mniaecia jungermanniae* on *Cephalozia bicuspidata*, new to Roydon.

We then did another march, crossing over a field to reach the south of Highwood Copse (SU 314 009, SU 315 009 & SU 315 010). First stop was a patch of Sallow and Blackthorn on the edge of the field. Here Mark was in his element and on the common twig species found two new lichenicolous species for Hampshire: *Unguiculariopsis thallophila* on *Lecanora chlarotera* and *Briancoppinsia cytospora* on *Flavoparmelia caperata*, the latter also rarely recorded and new to Mark. Inside the wood we worked along an avenue of superb old oak. Here the dry bark produced more oaks with *Enterographa sorediata* (NT, NS, IR, S41), suggesting there was likely to be a large over looked population of this rare veteran oak specialist in Roydon Woods along with more *Lecanographa lyncea* (IR) with *Lecanactis subabietina* and (IR) and *Opegrapha*

xerica (NS, IR), the latter new to Roydon Woods. On damp bark the mainly western *Anisomeridium robustum* (NS) was new to Roydon Woods with *Bacidia biatorina*, *Dimerella lutea*, *Pertusaria amara* f. *pulvinata* (NR) and *Rinodina roboris* var. *roboris* (IR) added to the day list.

Along the avenue Mark found a new lichen for Hampshire; *Porina byssophila* (NR), growing on base rich oak and maple bark. This lichen had been thought to be a rare species of damp limestone, but Mark had recently worked out that it was also hiding among the common *Porina aenea* in rain tracks on old or damaged trees. It appears to be a widespread but local species of trees! At the top of the avenue we reached a target tree; an oak that had Tree Lungwort *Lobaria pulmonaria* in the 1990s. Sadly this appeared to have been lost to the growth of Ivy up the trunk.

It was now getting late so we walked quickly back through Connigers Copse, with tantalising glimpses of more good old trees. Quick stops added *Porina rosei* (NT, NS, IR) and *Agonimia octospora* (NT, NS, IR) and there was yet more *Enterographa sorediata*. One spectacular old oak in a clay pit surrounded by a bright green haze of young Large Bittercress *Cardamine amara* was particularly rich and supported fertile *Opegrapha corticola* (IR), sporting sunken *Thelopsis*-type apothecia, showing that this normally sterile species is actually totally unrelated to the genus it had been originally put in.



Fertile *Opegrapha corticola*, with *Thelopsis* type sunken apothecia (Neil Sanderson)



Enterographa sorediata revealed by a Pd+ orange-red reaction (Neil Sanderson)

The full list for the day included 130 lichens and associated fungi, including 24 that were new to either Woodhouse Copse or the Highwood Copse areas of Roydon Woods, 14 new to Roydon Woods and three to Hampshire. The list can be viewed at: http://wessexlichengroup.org/Previous_Meetings/2017_Meetings/roydon-woods/roydon-woods-list. An exciting revisit to a neglected area, that later in 2017 was to produce even more. A veritable jewel in the crown for the Hampshire & Isle of Wight Wildlife Trust.

Spring urban flora, Swaythling, Southampton on Sunday 9 April 2017

A report by John Norton and Phil Budd

This meeting attracted a good turnout of 18 people, boosted no doubt by the very warm and sunny weather, perfect for spring botanising. We met at the main Riverside Park car park at SU 440 151 and made a good start with Red Shepherd's-purse *Capsella rubella* on the adjacent roadside. This was also seen again in several spots later in the day. We then walked over Woodmill Bridge and around to St Mary's Church in South Stoneham, where we looked at a large patch of Honey Garlic *Nectaroscordum siculum*, and found some Lesser Meadow-rue *Thalictrum minus*, a large patch of Abraham-Isaac-Jacob *Trachystemon orientale* and an abundance of Least Yellow-sorrel *Oxalis exilis*.

On the way to the church JN found the moss *Dialytrichia mucronata*, a species that he hadn't seen before. It is uncommon but reasonably widespread in the southern half of Britain – one of several species that have spread to wet tarmac pavements in recent years, having previously been mainly associated with silt-encrusted tree roots along riverbanks.

We continued along part of the Monks Brook, finding one of the target species, Purple Toothwort *Lathraea clandestina*, in addition to Moschatel *Adoxa moschatellina*.

We reached Mansbridge and returned through Riverside Park, which runs alongside a partly canalised section of the River Itchen. Here, Martin's grapnel produced identifiable material of three *Potamogeton* species: Hairlike Pondweed *P. trichoides* (rare in Hampshire, recorded here before, but nice to refine), Shining Pondweed *P. lucens* (scarce) and Fennel Pondweed *P. pectinatus* (locally common in more polluted waters). Also present was some Blunt-fruited Water-starwort *Callitriche obtusangula* and Canadian Pondweed *Elodea canadensis*.

Some of the adjacent grassland had started to brown off on mounded areas and around brickwork, and looked ideal for winter annuals of acid grassland. These areas weren't as rich as hoped but did have some small colonies of Lesser Chickweed *Stellaria pallida*. Knotted Hedge-parsley *Torilis nodosa* was seen in a pavement crack earlier in the day.

After a picnic lunch a now smaller group headed south of Woodmill Lane to explore more of the park. Here the stream is flanked by planted and some native stands of trees on both sides, which were the main focus of interest. Species recorded during the meeting or by a follow-up visit on 21st April by PB and John Poland included *Populus nigra* var. *femina*, *P. nigra* 'Plantierensis', *Populus x canadensis* 'Robusta' and 'Serotina' (noted for being late coming to leaf), as well as Aspen *P. tremula*, White Poplar *P. alba* and Grey Poplar *P. x canescens*. Willows included Crack Willow *Salix fragilis*, Purple Willow *S. purpurea* and *Salix x rubens*. A tree which Eric Clement had identified during the meeting



Purple Toothwort at a nearby site in 2008 (John Norton)



Flora Group at Riverside Park (John Norton)

as Bay Willow *S. pentandra* was redetermined as *Salix fragilis* var. *furcata*.

Further searching of dry spots in the middle of the sports pitches here was rewarded with flowering Upright Chickweed *Moenchia erecta* in a new tetrad and some acid grassland mosses.

Atlas 2020 Recording Day, South Hayling on Saturday 13 May 2017

A report by Sarah Ball

Lured by the prospect of unusual plants in a habitat unfamiliar to many, about 25 people turned up to help fill gaps in BSBI Atlas 2020 survey for VC11. Flushed with success after negotiating the labyrinthine processes of the car parking payment machines, we were put into groups of four or five by coordinator Martin Rand and allocated a 1km square within the designated tetrad SZ79E. Coastal heath, dunes, shingle, saltmarsh and even suburban streets and wasteland were thoroughly scoured after an initial joint orientation session. The weather was glorious and it was a pleasant and convivial means of gathering more records for the database. We reconvened later in the afternoon and after a delicious reviving ice-cream the reward was a drive to another part of the island, Sandy Point/Black Point, to see some of



Sand Cat's-tail *Phleum arenarium* (top) and Sea Knotgrass *Polygonum maritimum* (middle, bottom) at Sandy Point (Pete Flood)



Sharp Rush *Juncus acutus* (foreground) evidently regenerating well at its only Hampshire location at Sandy Point Nature Reserve (John Norton)

Hypochaeris glabra, Sand Cat's-tail *Phleum arenarium*, Sea Knotgrass *Polygonum maritimum* and many other goodies. We also saw Red Shepherd's-purse *Capsella rubella*, an alien on the increase in roadsides and pavements. Hayling Island certainly makes up for its architectural failings with its surprisingly rich flora. There will be another chance to take part in a recording day at South Hayling on Saturday 9 September – well worth the trip!

Dandelion Field Meeting on Saturday 20 May 2017

A note by Martin Rand

This event, advertised in the last issue of *Flora News*, was unfortunately cancelled. Warm weather in early spring 2017 had meant that most dandelions had flowered early, and a reconnaissance visit a couple of weeks prior to the meeting indicated that there were virtually none to be seen! Another meeting may be organised at some time in the future.

the specialities that grow there. For me it was an eye-opener to find several species in UK that I have only seen before in Spain.

In the morning we spotted Bur Chervil *Anthriscus caucalis* lurking beside a beach hut; Mossy Stonecrop *Crassula tillaea* and the pretty Sea Bindweed *Calystegia soldanella* scattered about. At Sandy Point there was Hare's-tail grass *Lagurus ovatus*, Smooth Cat's-ear

Flora Group AGM and visit to Decoy Pond Farm on Saturday 3 June 2017

A report by Clive Chatters

Decoy Pond Farm is an island of privately-owned farmland within the heaths of the Beaulieu River catchment and, at the kind permission of Mrs Horton, the Flora Group met there for our AGM on 3 June 2017.

According to local historian, Richard Reeves, the farm was cut out of the heath on the order of Richard Cromwell, Lord Protector, who was Lord Warden of The New Forest from 1654 until the restoration of the monarchy in 1670. The farm was created to host a duck decoy in the floodplain of the river and this is the origin of the modern excavated pond. Over the centuries the enclosed heathlands of the valley sides have been converted into conventional farmland, with relics of the original vegetation lining the central track, but the floodplain retains the character of a New Forest lawn with its own stretch of river, excellent parched grasslands on the banks of the pond as well as flushed mire communities on the almost imperceptibly rising ground.

As the group was larger than expected (see back cover), we broke up into parties with the learned helping the learners to identify specialities such as New Forest Crowfoot *Ranunculus x novae-forestae* on the poached river crossing, a range of minute clovers on the dry pond margins and an extensive stand of the hybrid horsetail *Equisetum x litorale* along the ditch adjoining the track.

Andy Cross has highlighted some of the species he enjoyed seeing (see below), with notes of some of the England Red Data List species seen on the day. The Red List categories of plants observed on the day were Near Threatened (NT) and Vulnerable (VU) species – see BSBI's website for the full report on England's Red List Plants (<http://bsbi.org/england>) and Martin Rand's excellent analysis of the Red List in a Hampshire context (*Flora News* No 48, Spring 2015).

Also of note was a plant community that is not common in England – the pond edge community characterised by Marsh Cinquefoil *Comarum palustre* and Bottle Sedge



Marsh Cinquefoil in the old Decoy Pond (Keith Betton)



Meadow Thistle and Zigzag Clover (John Norton)

Carex rostrata. Marsh Cinquefoil (NT) has such a pretty flower and with its purple hues nodding over the water it is always a pleasure to find.

Wet grasslands with their grazed, poached ditches are always interesting to explore and here we found Marsh Speedwell *Veronica scutellata* (NT) and Tufted Forget-me-not *Myosotis laxa*. The wet pastures adjacent to the ditches had Meadow Thistle *Cirsium dissectum*, a beautiful plant with its single purple flower and so intimately associated with old wet meadows. Despite huge declines in England, this species is not on the Red List. The meadows also supported Marsh Pennywort *Hydrocotyle vulgaris* (NT) and a few plants of Lousewort *Pedicularis sylvatica* (VU) and Lesser Spearwort *Ranunculus flammula* (VU). A patch of the intensely pink-coloured Zigzag Clover *Trifolium medium* was seen at the track edge as we initially walked down from the farm.

As we were leaving the wet meadows, we found a small patch of Bristle Club Rush *Isolepis setacea*, a diminutive plant which is not uncommon but which is never easy to find!

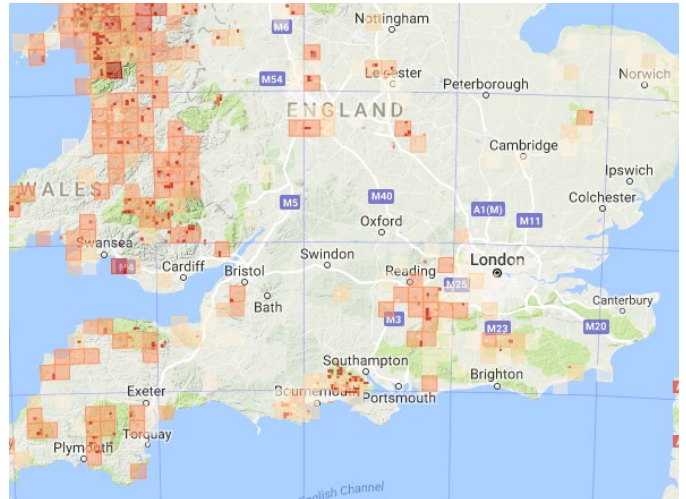
Andy's group drifted into the Open Forest beyond the Decoy Pond Farm gate and spent a little time in wet heathland. Both sundews were seen – Round-leaved Sundew *Drosera rotundifolia* and Oblong-leaved Sundew *D. intermedia* (NT and VU respectively).

One plant we found in an open area of wet ground was Shoreweed *Littorella uniflora* (not Red Listed despite its losses), characteristic of this type of habitat. Although it is locally frequent in the New Forest, as with many of the Forest species, it is not so beyond the Forest. For its status in other heathland areas in the south-east see the latest BSBI map (p.8). There are good records for the New Forest but no modern records for the Dorset heaths at all. The Thames Basin Heaths have few modern records and Shoreweed has always been rare in The Weald – and becoming rarer.

With its green rosette of leaves, it seems such an unremarkable plant yet it tells us plenty about the ecology of the New Forest (and by its relative absence from elsewhere beyond the New Forest) and, in reading



Shoreweed thrives in close-cropped turf in the open Forest (Clive Chatters)...



Shoreweed distribution map (BSBI web site)

of 33 degrees. Elliott Fairs of HIWWT gave us a brief talk on the management of the site, part of which is an SSSI within Yateley Common. A management plan had been agreed between ADT Blackbushe, who run the airfield, HIWWT, HCC and Natural England, but ADT then asked Natural England for permission to let a film crew use the disused runways in the SSSI. NE wanted time to consider this but the filming went ahead without permission and this led to a breakdown in relationships, so sadly the management plan is now shelved.

The main plant we wanted to find was the scarce fern Moonwort *Botrychium lunaria* in its last surviving North Hampshire site. Elliott said he would guide us to it in ten minutes but as we were recording everything we saw, it actually took us over an hour to reach the Moonwort site only a few hundred metres away! In all we noted 38 Moonworts, most of which were fruiting. It has been lost



... and the author in typical habitat (Tony Mundell)

around during the preparation of this report, I found that it has a remarkable way of living: unlike most other vascular plants in the New Forest, Shoreweed can carry out most of its photosynthetic activities at night.

**Visit to Blackbushe Airport on Saturday
18 June 2017**

A report by Tony Mundell

Twelve people attended this meeting on the disused part of the airfield that is north of the active runway. It was the hottest day of the year up to that date with a temperature



Moonwort at Blackbushe Airport (Gareth Knass)

from some spots that are now covered in Gorse, and without sympathetic management its future is uncertain.

A mullein was locally frequent and there was some discussion as to whether it was Moth Mullein *Verbascum blattaria* or Twiggy Mullein *V. virgatum*. I took a specimen of it home and it was definitely the latter. See the photo of both species below. Both usually have yellow flowers but Moth Mullein can be pink or white. Apart from that, the most obvious difference is that the flowers of Moth Mullein are held on pedicels about 1cm long whereas Twiggy Mullein flowers are practically stemless.



Twiggy Mullein (Gareth Knass)



Comparison of Twiggy Mullein (below) and Moth Mullein (above) (Tony Mundell)

One feature of the disused runways is the presence of a curious mix of calcifuge and calcicole species, no doubt due to imported soil onto the acid heathland and leaching from the concrete. This gave us a rich flora and we noted 101 plant species. Where else could you find Hairy Violet *Viola hirta* growing close to Heather, or Fairy Flax *Linum catharticum* beside Small Cudweed *Filago minima* and so-called 'Common' Cudweed *Filago vulgaris*?



Wild Basil *Clinopodium vulgare* beside old runway (John Norton)



Flattened Meadow-grass (Gareth Knass)

Amongst the more interesting plants that we found were Pyramidal Orchid *Anacamptis pyramidalis*, Southern Marsh Orchid *Dactylorhiza praetermissa*, Heath Dog-violet *Viola canina*, Fragrant Agrimony *Agrimonia procera* and Flattened Meadow-grass *Poa compressa*.

John Norton was able to supplement the list with several Bramble species and I should also mention that the butterflies seen included a nectaring Dark Green Fritillary, several Silver-studded Blues (including a mating pair) and several Small Heaths. Also, a Mullein Moth caterpillar was found feeding on one of the Twiggy Mullein plants.

With the temperature still rising and the sun blazing down on us we were beginning to wilt like some of the plants, so after a quick lunch in the shade we headed back. My thanks to Elliott Fairs for leading us and to my scribe for the day, Adam Lucas, for collecting all the records

A Field Guide to the NVC – Part 4: Calcareous Grassland

John Norton



Calcareous grassland at Porton Down

INTRODUCTION

This is the fourth in my series of articles on the National Vegetation Classification (NVC). See *Flora News* 49 (September 2015) for a general introduction to the NVC and *Flora News* 50 (January 2016) for an overview of how grassland is dealt with by the NVC and descriptions of dry neutral grassland types. *Flora News* 51 (September 2016) covered wet neutral grassland, including rush pasture and flood meadows.

In this article I am covering calcareous grassland, termed 'calicolous' grassland (CG) by the NVC authors. There are 14 communities, of which only the first seven (CG1 to CG7) occur in southern England (two of which may be absent from or poorly represented in Hampshire). CG8 to CG14 are all restricted to northern and western Britain and not covered any further here. They include two types characterised by Blue Moor-grass *Sesleria caerulea*, and an alpine community with Mountain Avens *Dryas octopetala*.

To keep this article reasonably short I am only dealing with the main ones familiar to me in Hampshire, but by way of recap I have included brief descriptions of three communities (and four sub-communities) which are included in the mesotrophic grasslands chapter and

were covered in *Flora News* 50, but which are strongly associated with calcareous soils. I have also described two additional unpublished types which I believe are locally common in southern England. Since Hampshire does not have any limestone, I have sometimes referred to all these types generally as 'chalk grassland'.

DESCRIPTIONS

MG1 *Arrhenatherum elatius* grassland

General characteristics

MG1 covers most types of rough, dry grassland on circumneutral soils but two of the sub-communities are particularly characteristic of more strongly calcareous soils. MG1 develops on under-managed sites where the relatively low frequency of cropping allows taller-growing tussocky grasses to thrive, but where management is sufficient enough to prevent succession to scrub. MG1 quickly develops on neglected chalk sites where surrounding intensive agriculture guarantees a ready supply of nutrients.

MG1 is normally dominated by False Oat-grass *Arrhenatherum elatius*, often co-dominant with Cock's-foot *Dactylis glomerata* or other coarse grasses. On calcareous sites some Upright Brome *Bromopsis erecta*

and Downy Oat-grass *Avenula pubescens* may be present. There is an 'underlayer' composed of common pasture grasses, especially Red Fescue *Festuca rubra*.

The community is also characterised by the presence of medium to tall biennial and perennial herbs, especially umbellifers, and sprawlers, both of which have life cycles and habits that can allow them to co-exist with the tussock-forming grasses. The most frequent tall herbs are Hogweed *Heracleum sphondylium* and Creeping Thistle *Cirsium arvense*, and sometimes Teasel *Dipsacus fullonum* or Mugwort *Artemisia vulgaris*. Characteristic medium-sized species of the richer sub-communities include Common Knapweed *Centaurea nigra*, Common Agrimony *Agrimonia eupatoria*, Perforate St John's-wort *Hypericum perforatum* and Hoary Ragwort *Senecio erucifolius* (this last species is inexplicably missing from the published floristic table). Also abundant are shorter herbs associated with the 'pasture' component, particularly Ribwort Plantain *Plantago lanceolata* and Yarrow *Achillea millefolium*. The sprawlers range from the delicate tares and vetches *Vicia* spp., to medium-sized species such as Meadow Vetchling *Lathyrus pratensis* and Field Bindweed *Convolvulus arvensis* and the larger bindweeds *Calystegia* spp. and Traveller's-joy *Clematis vitalba*. Although listed near the bottom of the floristic table by Rodwell (1992), Wild Carrot *Daucus carota* can be a distinctive component of the community and probably replaces Hogweed in warmer and drier situations, especially on calcareous sites.

Sub-communities

MG1d *Pastinaca sativa* sub-community is always characterised by the presence of Wild Parsnip *Pastinaca sativa*, which often replaces Hogweed as the dominant umbellifer. Rodwell (1992) states that Sheep's Fescue *Festuca ovina* replaces Red Fescue in the underlayer, but this is probably incorrect except maybe on thinner, more strongly calcareous soils. False Brome *Brachypodium sylvaticum* may be locally frequent. Other characteristic herbs include Crosswort *Cruciata laevipes*, Hedge Bedstraw *Galium album*, Lady's Bedstraw *G. verum*, Wild Marjoram *Origanum vulgare*, Field Scabious *Knautia arvensis* and occasionally Greater Knapweed *Centaurea scabiosa*. Many of these herbs are also found in MG1e and CG3. The usual sprawler is Traveller's-joy, which like Hedge Bindweed can reach high cover, sometimes completely dominating large patches of vegetation.

MG1d can be relatively herb poor or moderately herb rich. Herb poor examples resemble **MG1b *Urtica dioica* sub-community** and include some Common Nettle and often abundant Creeping Thistle. Herb rich examples can be close to MG1e, but are best distinguished by the relatively low frequency of Common Knapweed.

MG1e *Centaurea nigra* sub-community is the most species rich type, with an average of 21 species and maximum of 30 in the NVC floristic table. It is usually recognised by the abundance of Common Knapweed. The richest version occurs on chalk soils, where most of the MG1d species listed above are also present, along with species such as Cowslip *Primula veris*, Oxeye



MG1d with characteristic Wild Parsnip and Wild Marjoram (grading into MG1e with Common Knapweed also present)

Daisy *Leucanthemum vulgare* and occasionally Bladder Campion *Silene vulgaris*. All the community species are frequent, especially Perforate St John's-wort, Common Agrimony and Hoary Ragwort. Other preferential species listed in the floristic table are Red Fescue, Yellow Oat-grass *Trisetum flavescens*, Common Bird's-foot-trefoil *Lotus corniculatus*, Germander Speedwell *Veronica chamaedrys* and Sweet Vernal-grass *Anthoxanthum odoratum*, but in my extensive sampling of this community I have found these to be occasional at best. Surprisingly, Common Bird's-foot-trefoil can be absent from some examples.

On calcareous soils, patchy stands of Common Knapweed can also occur in rank and herb poor examples of MG1, which would therefore probably fall under **MG1a *Festuca rubra* sub-community**. However, Rodwell also describes a *Centaurea scabiosa* variant of MG1a (**MG1ai**). He states that it tends to be associated with the replacement of *F. rubra* with *F. ovina* in the underlayer and an increase in frequency of Perforate St John's-wort, Hedge Bedstraw and Common Agrimony. However, this type of sward may just be an impoverished (species poor) version of MG1e on chalk soils. Usually some coarser chalk grasses are also present, such as Upright Brome, so it is also related to CG3.

MG5 *Cynosurus cristatus*-*Centaurea nigra* grassland

General characteristics

MG5 grasslands are generally herb rich and species rich with relatively high herb cover (typically 40% or more). Species richness is maintained by frequent mowing or grazing and generally low input of nutrients, so MG5 grasslands are often referred to as being 'unimproved'. The community can be variable in appearance and vary from a short tight sward to lush vegetation up to about 60cm in height. MG5 swards are typically made up of a species rich mixture of common pasture grasses, but most species are also shared with MG6 and MG1e, so it is difficult to define MG5 in terms of grasses alone. However, the combination of abundant Red Fescue,

Common Bent and Sweet Vernal-grass is a good indication of MG5.

The community is characterised by at least five very characteristic herbs: Common Knapweed, Oxeye Daisy, Common Bird's-foot-trefoil, Bulbous Buttercup *Ranunculus bulbosus* and Red Clover *Trifolium pratense*, in addition to Ribwort Plantain and Yarrow which are often both abundant. MG5 can also have high cover of pleurocarp (creeping) mosses, especially *Pseudoscleropodium purum* and *Calliergonella cuspidata* on chalk soils.

Sub-communities

MG5b *Galium verum* sub-community is found mainly on deeper soils on chalk and limestone. All the species listed above will invariably be present, often with Lady's Bedstraw, Rough Hawkbit *Leontodon hispidus* and Yellow-rattle *Rhinanthus minor*. It is also characterised by the presence, usually at low frequency, of chalk grasses and herb species, especially Quaking-grass *Briza media*, Yellow Oat-grass, Downy Oat-grass, Glaucous Sedge *Carex flacca*, Hoary Plantain *Plantago media* and Salad-burnet *Poterium sanguisorba*. It is the most species rich type of MG5, with an average of 26 species and maximum of 38 given in the NVC floristic table. Rodwell (1992) notes that Sheep's Fescue can partly replace Red Fescue in MG5b. Of the community constants and preferentials, Yarrow, Ribwort Plantain and Common Bird's-foot-trefoil are especially frequent in this sub-community.

MG6 *Lolium perenne*-*Cynosurus cristatus* grassland

General characteristics

MG6 is the typical grassland of grazed pastures, lawns, urban road verges and other regularly mown amenity grasslands on freely-draining soils. It therefore usually has a short, tight sward and can develop from previously sown grasslands within a few decades. Most of what is loosely termed 'semi-improved grassland' falls into MG6, reflecting its relatively high nutrient status. Like MG5 it is composed of varying mixtures of all the common pasture grasses, but the two named constants tend to be more obvious. They may co-dominate in sheep-grazed pasture but Perennial Rye-grass is more usually much the dominant species. The other most frequent species are Rough Meadow-grass, Common Bent, Red Fescue, Yorkshire-fog and Smooth Meadow-grass *Poa pratensis*. Grass diversity can be high, since low levels of improvement do not result in loss of any species.

Most typical examples of MG6 are therefore straightforward to distinguish from MG5 due to the high grass cover and correspondingly low herb cover. Herb diversity varies from very poor (maybe only 10 species in a typical sized meadow) to moderately rich (20+ species). The main five characteristic MG5 herbs are rare or absent, except for Red Clover which can be occasional to locally frequent. A distinctive feature of MG6 is the presence of mostly tall-growing nitrophilous weeds, particularly Common Nettle, Creeping Thistle, Spear Thistle and Broad-leaved Dock.



MG5b with Lady's Bedstraw, Oxeye Daisy, Kidney-vetch, Wild Marjoram and Yellow-rattle

Sub-communities

MG6c *Trisetum flavescens* sub-community is the counterpart of MG5b, being associated with base rich soils, particularly on improved or semi-improved chalk downland. Yellow Oat-grass and Small Cat's-tail *Phleum bertolonii* are constant preferentials. Other chalk grassland species can occur at low frequency, such as Glaucous Sedge, Burnet-saxifrage *Pimpinella saxifraga*, Salad Burnet and Lady's Bedstraw.

CG1 *Festuca ovina*-*Carlina vulgaris* grassland.

Not covered here. A type usually found on hard limestones; probably not present in Hampshire (recorded from e.g. Somerset, Wiltshire and the Isle of Wight in southern England). Somewhat similar to CG7.

CG2 *Festuca ovina*-*Avenula pratensis* grassland

General characteristics

This is the classic chalk grassland of southern Britain on thin, well drained, rendzina soils of steeper slopes, though it also occurs on limestones in North Wales and north-east England. The community is normally closely grazed by sheep or rabbits and has a distinctive appearance. The community account in Rodwell (1992) is long and detailed, but highly recommended for further reading. Only a brief summary of the sub-communities is given here.

The community is characterised by a tight sward of fine-leaved grasses (particularly Sheep's Fescue) and a species rich mixture of small to medium-sized herbs. Other constant grasses and relatives comprise Glaucous Sedge, Crested Hair-grass *Koeleria macrantha*, Quaking-grass and Smooth Oat-grass *Avenula pratensis*, though the latter species is early-flowering and difficult to detect by late summer. Characteristic herbs include Salad-burnet, Common Bird's-foot-trefoil, Rough Hawkbit, Mouse-ear Hawkweed, Fairy Flax *Linum catharticum*, Small Scabious *Scabiosa columbaria* and Wild Thyme *Thymus polytrichus* (all constant); also Harebell *Campanula rotundifolia*, Dwarf Thistle *Cirsium acaule*, Squinancywort *Asperula cynanchica*, Milkworts *Polygala* spp., Sainfoin *Onobrychis viciifolia*, Common Rockrose *Helianthemum*

nummularium, Burnet-saxifrage *Pimpinella saxifraga*, Bulbous Buttercup and Lady's Bedstraw. Slightly less frequent species include Dropwort *Filipendula vulgaris*, Autumn Gentian *Gentianella amarella*, Hairy Violet *Viola hirta*, Cowslip and Kidney-vetch *Anthyllis vulneraria*. Several of these are also frequent in other chalk grassland types (especially CG3 and CG7), but in late summer CG2 can usually be easily distinguished at a distance by the abundance of blue flowers of Small Scabious, often accompanied by the small white umbels of Burnet-saxifrage. The commonest pleurocarp mosses are *Pseudoscleropodium purum*, *Homalothecium lutescens* and *Calliergonella cuspidata*.

This is one of the richest chalk grassland communities with average species counts per sample ranging from 25 to 30 for the four sub-communities given in the floristic table, and a maximum of 44-47 species.

Sub-communities and variants

CG2a *Cirsium acaule-Asperula cynanchica* sub-community is in effect the 'typical' sub-community, where all the constants are frequent, in addition to most of the typical associates listed above. Dwarf Thistle, Squinancywort and Horseshoe Vetch *Hippocrepis comosa* are preferential.

Three variants are recognised:

CG2ai *Filipendula vulgaris-Helianthemum nummularium* variant. *Festuca ovina* is often replaced by *F. rubra*. *Poterium sanguisorba* is often abundant and *Koeleria* is more frequent. *Danthonia decumbens* may be locally prominent. Resembles CG7 but the turf is always closed.

CG2aii *Typical variant*. Swards which do not fit into either of the other two variants.

CG2aiii *Pseudoscleropodium purum-Prunella vulgaris* variant. *Helianthemum nummularium* and *Filipendula vulgaris* are infrequent; *Prunella vulgaris* is constant; *Bellis perennis*, *Senecio jacobaea* and possibly *Ranunculus bulbosus* are preferential (though still uncommon, as in the community as a whole). However, this type is particularly distinguished by the prominence of bryophytes, particularly pleurocarpous mosses such as *Pseudoscleropodium purum* and *Homalothecium lutescens*, which can form extensive carpets or mounds, but also often by the presence of acrocarps (tufted) species, such as *Weissia* and *Fissidens* spp. and sometimes also by certain species of liverworts. This type was studied at Butser Hill by Francis Rose. Other occasional to locally frequent bryophytes include *Rhytidiadelphus triquetrus*, *Hypnum cupressiforme* (subsp. *lacunosum*, also known as *Hypnum lacunosum*), *Rhytidiadelphus squarrosus* and *Calliergonella cuspidata*.

CG2b *Succisa pratensis-Leucanthemum vulgare* sub-community is similar to CG2a but with additional characteristic species, particularly Devil's-bit Scabious *Succisa pratensis* and Oxeye Daisy, but also Clustered Bellflower *Campanula glomerata*, Saw-wort *Serratula*

tinctoria and Betony *Betonica officinalis*. A number of more mesotrophic species are also frequent, including Red Clover, Spring Sedge *Carex caryophylla*, Self-heal, Cock's-foot, Crested Dog's-tail and Creeping Bent (though these also occur in CG2c). In Wiltshire, Dwarf Sedge *Carex humilis* and Tuberous Thistle *Cirsium tuberosus* occur in this sub-community. Rodwell (1992) also notes that Bastard Toadflax *Thesium humifusum* and Chalk Milkwort *Polygala calcarea* are more characteristic.

CG2c *Holcus lanatus-Trifolium repens* sub-community lies at the mesotrophic end of the community and is characterised by a relative lack of Dwarf Thistle, Squinancywort, Common Rockrose and Horseshoe Vetch. Mesic grasses are more frequent, particularly Yorkshire-fog, Cock's-foot, Crested Dog's-tail, Creeping Bent and Yellow Oat-grass. Others may include False Oat-grass, Common Bent, Small Cat's-tail and False Brome. Mesic herbs include White Clover, Ragwort, Yarrow and Smooth Hawk's-beard *Crepis capillaris*. This sub-community can become quite rank in appearance.

CG2d *Dicranum scoparium* sub-community is characteristic of north-facing more humid slopes where Sheep's Fescue is often replaced by Red Fescue and bryophytes are locally abundant, including additional species such as *Dicranum scoparium* and *Ctenidium molluscum*. Many of the characteristic chalk herbs are rare or absent. Weakly preferential are Lesser Hawkbit *Leontodon saxatilis*, Common Bent, False Brome (often forming large patches) and Sweet Vernal-grass. This sub-community is largely restricted to northern limestone districts, so may not occur in Hampshire, except possibly at Butser Hill.

CG3 *Bromus erectus* [*Bromopsis erecta*] grassland

General characteristics

This type is usually strongly dominated by Upright Brome *Bromopsis erecta* (more than 10% cover), often with small amounts of other tall grasses, especially Downy Oat-grass *Avenula pubescens* and False Oat-grass. Some examples have a strong affinity to CG2, with many of the calcicole species in common, but at much lower cover and frequency. However, other types are quite mesic in character with a much closer relationship to MG1e.

CG3 has a predominantly southern and eastern distribution in Britain and consequently seems not to have been not well studied during the NVC work (which was biased towards the west and north), and so is rather briefly dealt with in the published chapter. The described sub-communities are not particularly well defined but do broadly hold true. It is largely a community of ungrazed or infrequently mown sites.

In addition to dominant Upright Brome, other grasses include Sheep's Fescue (though often replaced by Red Fescue), Cock's-foot and various other common mesotrophic and calcareous species. Constant herbs are Salad-burnet, Common Bird's-foot-trefoil and Ribwort Plantain, together with Glaucous Sedge. Rough Hawkbit is frequent throughout. A large number of associates are

listed in the floristic table. Pyramidal Orchid *Ancampsis pyramidalis* also seems to be a characteristic species of this community. Being a rank grassland, sprawlers are often prominent, especially Tufted Vetch *Vicia cracca* and Meadow Vetchling. The most frequent mosses are *Pseudoscleropodium purum* and *Homalothecium lutescens*.

Sub-communities

CG3a Typical sub-community is a slightly ranker version of CG2 grassland and the two can intergrade, depending mainly on the relative intensity of grazing. Rodwell (1992) notes that Upright Brome and Sheep's Fescue are present in roughly equal proportions in this sub-community, so the sward can appear quite short and tight. It is moderately herb rich, averaging 21 species per sample in the floristic table.

CG3b *Centaurea nigra* sub-community is more strongly dominated by Upright Brome, with often abundant Common Knapweed and sometimes also Greater Knapweed. It is therefore taller and ranker than CG3a, with a reduced frequency of CG2 species; however, a variety of additional species typical of rougher, mesic grassland appear or become more frequent, such as Hoary Ragwort, Hedge Bedstraw, Common Agrimony, Perforate St John's-wort and Wild Carrot. Most of these also occur in MG1d/MG1e, and transitions frequently occur between them. The published floristic table gives a mean species per sample of 22 (range 9-36), but in Hampshire CG3b can typically support 30+ species and occasionally exceed 40 species, so can attain a similar diversity to the better examples of CG2. CG3b is probably the most widespread sub-community in Hampshire and Sussex.

CG3c *Knautia arvensis*-*Bellis perennis* sub-community appears to have been defined on the basis of samples located mainly from Wiltshire and Gloucestershire. It is described as a more mesotrophic version found on deeper soils, where grasses such as Cock's-foot, Crested Dog's-tail, Smaller Cat's-tail, Yellow Oat-grass and Creeping Bent are more prominent. It is also characterised by herbs of mesotrophic grasslands such as Daisy, Red Clover, White Clover, Dandelion and Self-heal. Field Scabious is noted to be especially distinctive. In Hampshire, this sub-community is probably replaced by the chalk version of MG1e as described above. The floristic table gives a mean species per sample of 28.

CG3d *Festuca rubra*-*Festuca arundinacea* [*Schedonorus arundinaceus*] sub-community is a very rank and species poor version. In addition to strongly dominant Upright Brome it may have other rough grasses such as Tall Fescue and False Brome. The frequency of herbs is greatly reduced. Rodwell suggested that Greater Knapweed is also distinctive of this type, but it is possible that it is equally likely to occur in CG3b. However, Knapweed Broomrape *Orobanche elatior* (a root parasite of Greater Knapweed) is possibly more frequent in this sub-community than in CG3b. Average species per sample = 20.



CG3a with Small Scabious, Harebell, Burnet Saxifrage, knapweeds, Wild Marjoram and Rough Hawkbit

CG4 *Brachypodium pinnatum* grassland

Not covered here. A relatively species poor, more mesic type of rank chalk grassland. Tor Grass *Brachypodium pinnatum* (including *B. rupestre*) is uncommon in Hampshire, and so this type may be poorly represented.

CG5 *Brachypodium pinnatum*-*Bromus erectus* [*Bromopsis erecta*] grassland

Not covered here. Another type of rank calcareous grassland which appears to be mainly characteristic of oolitic limestones in the Cotswolds and Northants/Lincs. It is also recorded from the southern chalk, possibly at Martin Down, where Tor Grass is a problem.

CG6 *Avenula pubescens* grassland

General characteristics

This type of grassland is typically a rank, tussocky or hummocky sward with an underlayer of Red Fescue (occasionally with some Sheep's Fescue), and an upper layer of *Avenula* spp. (particularly Downy Oat-grass *A. pubescens*). Other frequent grasses include Creeping Bent, Sweet Vernal-grass and Cock's-foot. Common Bird's-foot-trefoil, Dandelion and the moss *Pseudoscleropodium purum* are also constants. Herbs comprise a wide variety of chalk grassland species, which often occur at low cover and frequency.

This community generally occurs on deeper, moister and more mesotrophic soils, often on more gently sloping sites. It sometimes develops on soils that have been previously ploughed and then left ungrazed. In Hampshire it is probably quite rare, but is sometimes encountered as transitions to other types.

Sub-communities

CG6a *Dactylis glomerata*-*Briza media* sub-community is of patchy appearance with local prominence of Cock's-foot, Yorkshire-fog and Heath Grass *Danthonia decumbens*. Preferential herbs include Rough Hawkbit, Glaucous Sedge, Fairy Flax and Devil's-bit Scabious. Average 25 (maximum 40) species per sample in floristic table.

CG6b *Potentilla reptans-Tragopogon pratensis* sub-community is a rare type distinguished only from Porton Down by the NVC sampling. It is a ranker type with uniform appearance and less frequent chalk grassland herbs, which when present occur in patches between the grasses. Main preferentials include Creeping Cinquefoil *Potentilla reptans*, Goat's-beard *Tragopogon pratensis* and Tufted Vetch *Vicia cracca*. Average 16 species per sample in the floristic table.

CG7 *Festuca ovina-Hieracium pilosella-Thymus praecox/pulegioides* grassland

General characteristics

This community is found on very thin or skeletal, highly drought-prone soils and colonises bare chalk, so is particularly characteristic of chalk quarries, road cuttings and trampled paths on chalk sites. It is often strongly rabbit-grazed. Note that of the named constants, Mouse-ear Hawkweed *H. pilosella* is currently called *Pilosella officinarum* and Common Thyme *T. praecox* is *T. polytrichus*. Others comprise the pleurocarpous moss *Hypnum lacunosum* and Rough Hawkbit.

Grasses are often poorly developed in the community and it is often strongly dominated by herbs, particularly small-growing or creeping species. Frequent and characteristic



Rabbit-grazed CG7 which has colonised bare chalk of a former quarry. Here there is a ground cover of the moss *Abietinella abietina* with frequent *Cladonia* spp. and typical CG7 herb species, such as Carlina Thistle.



Herb rich CG7 composed mainly of Mouse-ear Hawkweed and Common Thyme

species include Common Bird's-foot-trefoil, Self-heal, Fairy Flax, Dwarf Thistle, Salad-burnet, Eyebrights *Euphrasia* spp. and Common Centaury *Centaureum erythraea*. Glaucous Sedge is also sometimes locally abundant. Basil-thyme *Clinopodium acinos* should probably be regarded as a characteristic associate.

Pleurocarpous mosses may also form a continuous mat, and lichens such as *Cladonia* species are sometimes frequent. In addition to *Hypnum lacunosum*, other frequent pleurocarps include *Homalothecium lutescens*, *Abietinella abietina* and *Campyliadelphus chrysophyllus*. Characteristic acrocarps include *Weissia* spp. and *Fissidens dubius*.

Due to the disturbance and high amount of bare ground, winter annuals and ephemerals are often well-represented. The community has some similarities to **U1** (parched acid grassland) and some species occur in both types.

The community is also a locus for many rare species of herbs, bryophytes and terricolous lichens. Species richness is moderate according to the NVC floristic table (ranging from 18 to 22 species per sample for the five sub-communities), but these figures are likely to be underestimates since some species will be missed at any one time of year.

Sub-communities

The NVC recognises five sub-communities, one of which (**CG7c *Ditrichum flexicaule-Diploschistes scruposus* var. *bryophilus*** sub-community) is very rare, sampled from only three sites in the Brecks. **CG7b *Cladonia* spp.** sub-community is also mainly confined to the Brecks, but does certainly occur rarely in Hampshire (e.g. at Porton Down). The remaining types are **CG7a *Koeleria macrantha*** sub-community, **CG7d *Fragaria vesca-Erigeron acer*** sub-community and **CG7e *Medicago lupulina-Rumex acetosa*** sub-community.

I do not have good experience of this community but I suspect that like most other types of chalk grassland in south-east England it was poorly sampled by the NVC. Examples from Hampshire and neighbouring counties may therefore not fit exactly into the published sub-communities. However, good examples of it are probably rare in Hampshire, with Micheldever Spoilheaps being one of the better-known sites. There are also small areas at Portsdown Hill. I have recently been carrying out surveys of an old chalk quarry in the west of the county which supports a version not quite fitting any of the sub-communities, but clearly closely allied to CG7b (see photo).

Additional types not covered by the NVC

Chalk OV tall herb community. On chalky soils weedy tall herb vegetation usually develops after clearance of 'chalk scrub' (**W21d *Crataegus monogyna-Hedera helix* scrub, *Viburnum lantana*** sub-community). It is related to one or more of the open vegetation (OV) communities, most likely **OV25 *Urtica dioica-Cirsium arvense* community** but is not described anywhere in the published NVC. It can be dominated by single stands of



**Wild Mignonette *Reseda lutea* and Viper's-bugloss
Echium vulgare (with leaves of Hawkweed Oxtongue
Picris hieracioides bottom left) following scrub
clearance at Portsdown Hill**

tall herb species or more usually by mixtures of species, especially Sow-thistles *Sonchus* spp., mignonettes *Reseda* spp., ox-tongues (*Picris* and *Helminthotheca*), Tall Melilot *Melilotus altissimus* and Viper's-bugloss *Echium vulgare*, in addition to Creeping Thistle and various other mesic tall herb species. Uncommon or rare species of disturbed calcareous soil sometimes occur, such as Common Gromwell *Lithospermum officinale* and Catmint *Nepeta cataria*. Several sub-communities are likely to be distinguishable.

Chalk underscrub. Within a year or two of scrub clearance the above vegetation develops into a species rich assemblage characterised by mixtures of suckering chalk shrubs, especially Dogwood *Cornus sanguinea* and Wild Privet *Ligustrum vulgare* (both characteristic of W21d), together with sprawling bramble *Rubus* agg. (or Dewberry *R. caesius*), coarse grasses, Traveller's-joy and other sprawlers. It also persists indefinitely around the margins of patches of scrub where grazing by livestock or rabbits is less intensive. *Cotoneaster* species may also colonise. Some of the tall herbs of disturbed ground remain, but the most characteristic are the MG1d/MG1e species, especially Common Knapweed, Wild Marjoram and Hedge Bedstraw, together with Wild Basil. Less frequent associates include Ploughman's Spikenard *Inula conyzae*.

This type of vegetation is not covered by the NVC but is probably best considered as the chalk counterpart of **W24 *Rubus fruticosus*-*Holcus lanatus* underscrub**, which occurs on acidic to neutral soils. It is likely that it merits community status and it is possible that it is largely restricted to warmer parts of south-east England.

Hampshire Lichen Report 2016–17

Neil Sanderson

NEW AND NOTEWORTHY RECORDS

The most interesting lichen records from Hampshire made in the last year or so are described below.

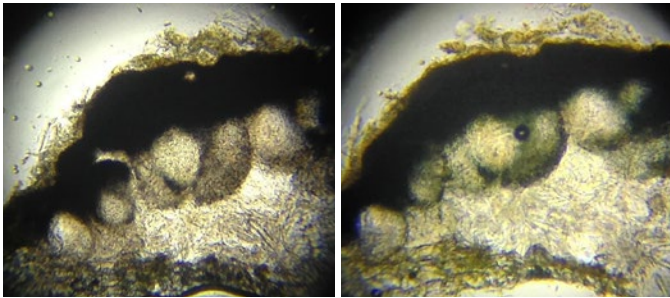
Ionaspis lacustris: the most surprising record from this period; a common upland species of wet rocks, especially by rivers but with no lowland records to date whatsoever. On a Wessex Lichen Group (WLG) meeting on 3/11/2016 to look at the developing old growth woodland of Coppice of Linwood, on the initial walk over the heathland on Janesmoor Plain (SU 246 137) looked at a shallow ephemeral pan in short grazed grassy heathland. As well as strong colonies of Heathtooth *Pycnothelia papillaria* and *Dibaeis baeomyces* on the soil, the small flints had a standard assemblage of common flint lichens. I, however, spotted something very odd; small patches of fawn thallus with immersed brown apothecia. I handed a pebble to Nichola Bacciu, who suggested *Ionaspis lacustris*, which was later confirmed under the microscope.

Micarea adnata Nb (NS): another almost entirely upland species recorded on the same day (3/11/2016) as the *Ionaspis lacustris* during the WLG meeting to Coppice of Linwood. This is a local upland and western species typical of damp lignum in old woodlands. It had only once before been found in the lowlands, when it was recorded by N. A. Sanderson on Sweet Chestnut lignum on a north facing Wealden scarp in an ancient Chestnut coppice rich in oceanic bryophytes at Northpark Copse, West Sussex. This second record was made in a physically similar site in Coppice of Linwood (SU 246 139) a humid north facing scarp. This time, however, the woodland was a *Quercus petraea*-*Ilex* pasture woodland developed from an 18th century *Quercus* plantation and the lichen was found on damp lignum on a large fallen *Quercus* trunk.

Porina byssophila: first was discovered in Hampshire by Mark Powell during the HFG/WLG meeting to Roydon Woods Nature Reserve on 12/3/2016 as described in the meeting report in this issue. This lichen had been thought to be a rare species of damp limestone, but Mark had recently worked out that it was also hiding among the common *Porina aenea* in rain tracks on old or damaged trees. Since the original discovery it has been found locally in the New Forest in rain tracks on Ash, Holly, Field Maple, Beech and oak. Records to date from Roydon Woods (SU 3110), Little Stubby Hat, Busketts Wood area (SU 3010), Beaulieu River (SU 3805), Frame Wood (SU 3503). The lichen looks very similar to the common



***Ionaspis lacustris* on a pebble at Janesmoor Plain (Neil Sanderson)**



Porina byssophila – left: clustered perithecia in water, involucrellum purple-brown; right: in K, involucrellum K+ blue-grey (Beaulieu River, 13 April 2017) (Neil Sanderson)

Porina aenea, but a key feature is that the apothecia of *Porina byssophila* are often grouped, while *Porina aenea* are usually single. The identification is confirmed by the reaction of perithecia pigments to K (sodium or potassium hydroxide).

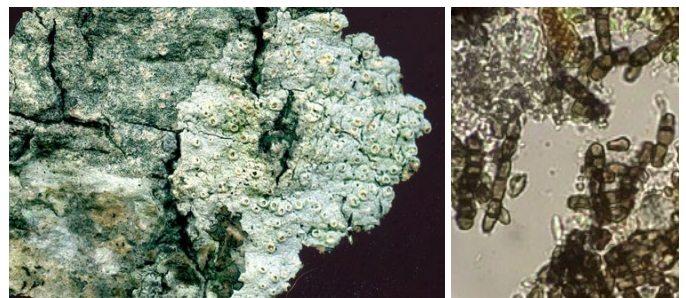
***Rinodina aspersa* NT (NR):** it is good to report an exciting find from outside the New Forest. On 11/3/2017 Mark Powell and John Norton found this rarely recorded species on flint in coastal shingle at Browdown Ranges SSSI, Gosport (SZ 5898). This is a usually sterile sorediate species, but which is quite distinctive so likely to be genuinely rare. It is a specialist species of coastal shingle in Britain, but has been recorded inland as well. The only previous records from Hampshire are one from Lyndhurst Moor, New Forest, J M Crombie, 1906 and another from Isle of Wight Hill Porton Down Peter James, 1975, so this new find is a very welcome one.

Lecidella species nova: in the previous 2015–16 Hampshire Lichen Report a then unresolved species was mentioned as potentially the nationally extinct *Lecidella pulveracea*. The unknown taxa had been recorded from the New Forest and Cumbria and possibly Clackmannan, Scotland. Further progress has been made on this with the help of Dr Holger Thüs. Examining the Natural History Museum specimens of *Lecidella pulveracea* the New Forest and Cumbria material was clearly something else; both the thallus and spores are different. Dr Thüs also carried out thin layer chromatography analysis on both the thallus associated with the *Lecidella* apothecia and on fertile specimens of *Pyrrhospora querneae*. This convincingly showed that both thalli were from the same species. It now appears that the *Lecidella* apothecia are those of a parasitic fungus, which is an obligate parasite of *Pyrrhospora querneae* but one which does not damage the thallus of *Pyrrhospora querneae*. This is clearly a species of *Lecidella* but appears to be undescribed. It also seems likely that at least some recent continental identifications of *Lecidella pulveracea* actually refer to this undescribed species.

Taeniolella toruloides: there are a number of unconfirmed or potential new species being worked from the New Forest one but one has been confirmed. I have long been aware of a black dusting on the widespread old woodland species *Thelotrema lepadinum*, mainly on old Beeches but also recorded on Holly. This was a parasitic hyphomycetes (formerly *fungi imperfecti*), mould like



Rinodina aspersa on pebble, Browdown Ranges, Gosport, 11 March 2017 (John Norton)



Taeniolella toruloides parasitizing *Thelotrema lepadinum* and the conidia at x400 (Neil Sanderson)

fungi without apothecia and reproducing asexually by producing conidia (asexual spores) directly from the hyphae not from a dedicated structure. It appeared to be a *Taeniolella*, but these are difficult to identify but usually quite host specific and there was none described from *Thelotrema lepadinum*. Finally, the answer was provided by a paper 'Contribution to the phylogeny and taxonomy of the genus *Taeniolella*, with a focus on lichenicolous taxa' by Ertz *et al.* (2016) *Fungal Biology* 120: 1416–1447 <http://www.sciencedirect.com/science/article/pii/S1878614616300502>. This paper described a new *Taeniolella* species; *Taeniolella toruloides*, described from *Thelotrema* from south west Europe and the Azores. Some material collected from the Busketts Wood area matched the description in the paper and the identity was confirmed by pictures sent to Dr Damian Ertz, so the mystery was solved and a new species added to the British list.

Taeniolella toruloides is widespread in the Forest but appears localised, mainly found in open old Beech stands with high populations of the host. So far it has been confirmed from Bignell Wood SU 2813, Bramshaw Wood SU 2517 & SU 2616, Busketts Wood area SU 3010, SU 3011, SU 3211 & SU 3110, Emery Down SU 2808, Highland Water Inclosure SU 2508, Mark Ash Wood SU 2407, Matley Wood SU 3307, Rushpole Wood SU 3009 and Shave Wood & French's Bushes SU 2912. I have not seen it outside of the New Forest myself but Brian Coppins is checking two specimens from Devon and Dumfriesshire. If it occurs beyond the Forest at all it

appears to be rare; another southern Atlantic specialist with its headquarters in the New Forest?

OTHER INTERESTING RECORDS

Buellia hyperbolica VU (NR/S41): Gritnam Wood, New Forest SU 283 065, July 2016, N. A. Sanderson. On lignum on limb on recently fallen old oak, the limb probably long dead before the tree fell. New wood and 10km grid square record, for this Section 41 lichen. A rare southern Atlantic, montane Mediterranean species with most of its English population in the east of New Forest.

Bacidia egenula (NS): Beaulieu River, New Forest, SU 385 049, alt 5m, 13/4/2017, N. A. Sanderson & A. M. Cross. On the bark of Sallow in old growth floodplain pasture woodland. New to South Hampshire. A widespread but very under recorded species of shaded rocks and stonework, rarely found on shaded bark.

Caloplaca asserigena Nb (NS): near Pig Bush, New Forest, SU 361 048, September 2016, N. Bacciu. On fallen a fallen dead gorse stem. This is a mainly upland and western species of twigs of Heather and Sallow, which has recently been rarely recorded near the coast in the lowlands; it may be spreading. This appears to be the first inland record from the lowlands.

Calicium diploellum CR (NR/IR/BAP): Fair Cross, Rushpole Wood, New Forest, SU 305 095 & SU 304 094, March and April 2017, N. A. Sanderson, on two old Hollies by glades in Beech–Oak–Holly pasture woodland. Eyeworth Wood, New Forest, SU 226 154, 27/5/2017, N. A. Sanderson, on a single old Holly in similar habitat. The discovery of the species new to England was described in the previous 2016–17 Hampshire Lichen Report. Since then the species has been looked for quite intensively but has only been found in two more woods and is clearly rare in the New Forest.

Chaenothecopsis savonica NT (NR): Pinnick Wood, New Forest, SU 191 076, 3/10/2016, lignum on a standing dead oak, in Oak–Holly pasture woodland. Bakers Copse, Roydon Woods Nature Reserve, SU 315 018, 16/5/2017, lignum on ancient oak in woodland in parkland, both N. A. Sanderson. The second record and third records for Hampshire for this rare and mainly northern and western fungus of old growth woodlands.

Collema fragrans EN (NR/IR): Lymington River floodplain by Bakers Copse, SU 3181 019, 19/5/2017, N. A. Sanderson, in a wound track inside an ancient hollow Ash on floodplain. New to Roydon Woods, and not seen on his tree in the 1990s. This lichen was once characteristic of old Elms and has been devastated by the impact of Dutch Elm disease. A large population survives on old Beeches in the New Forest, but otherwise it is known to survive on only four trees outside the New Forest.

Enterographa brezhonaga VU (NR): King's Hat, Hollands Wood, New Forest, SU 305 055, 23/8/2016 and Brook Wood, New Forest, SU 262 144, 24/2/2017, N. A. Sanderson, at both sites parasitizing *Porina rosei*,

on base rich bark on an old oak in Sessile Oak–Beech–Holly pasture woodland. The second and third records for Britain for an internationally rare obligate parasite of *Porina rosei*.

Enterographa elaborata CR (NR/IR/S41): Allum Green, New Forest, VC11, South Hampshire, SU 279 076, 4/2/2017, N. A. Sanderson & A. M. Cross. Two thalli over 1cm wide plus frequent smaller thalli, in rain track facing north on a small suppressed ancient *Fagus*, in Beech–Oak–Holly pasture woodland. A new site for this internationally rare lichen.

Leptorhaphis atomaria (NS): Dunces Arch Inclosure, New Forest, SU 309 092, 16/11/2016, N. A. Sanderson, on a large *Populus tremula*, in scrub left after a former plantation on heathland had been restored back to heathland. New to south Hampshire. A probably very under recorded species of Aspen and poplars, originally thought to be a mainly Scottish species but likely to be widespread in England.

Opegrapha thelotrematis Nb (NS/IR): Mallard Wood, New Forest, SU 323 091, 27/12/ 2016. Parasitizing *Thelotrema lepadinum* on old *Fagus* in *Fagus–Ilex* pasture woodland. A new site for a species that is very rare in the lowlands.

Porina rosei NT (NS/IR): Great Stubby Hat, Busketts Wood, New Forest, VC11, South Hampshire, SU 307 108, 16/2/2017, N. A. Sanderson. Fertile thalli found on a senescent ancient *Fagus*, in *Fagus–Quercus–Ilex* pasture woodland. First fertile record for the New Forest and apparently the second for Britain. The fertile material is striking and exotic looking, with orange perithecia deeply sunken into the thallus. As the isidia are largely suppressed near the apothecia the identity of the lichen is not immediately obvious in the field.

Ramonia nigra: Ravens Nest Inclosure, New Forest, SU 259 148, 25/12/2017, N. A. Sanderson. A single apothecium seen on the bark of an old *Quercus petraea*, in *Quercus petraea* pasture woodland developed from an 18th century *Quercus* planation. A new site for this rare Section 41 species.

Schismatomma graphidioides: Beaulieu River, New Forest, VC11, South Hampshire, SU 385 049, 13/4/2017 & 6/5/2017, N. A. Sanderson, A. M. Cross, N. Bacciu & WLG, frequent on a double stemmed Sallow, and colonising two young Ash, in floodplain pasture woodland. Connigers Copse, Roydon Woods Nature Reserve, SU 313 011, 11/5/2017, N. A. Sanderson, frequent on an old Beech in old growth woodland. Two new sites for this Section 41 species, which now appears to have an English stronghold in the New Forest.

Syzygospora bachmannii: Allum Green, New Forest, VC11, South Hampshire, SU 278 075, 4/2/2017, A. M. Cross & N. A. Sanderson. A parasite forming galls on *Cladonia ochrochlora* on a fallen *Fagus* trunk, in *Fagus–Quercus–Ilex* pasture woodland. New to Hampshire.

Thelenella muscorum var. muscorum: Lymington River floodplain by Highwood Copse, Roydon Woods Nature

Reserve, SU 319 011, 11/5/2017, N. A. Sanderson, ancient Ash high cut stool in flood plain pasture woodland. First localised record for Hampshire. A species of base rich bark, usually Ash, and calcareous grasslands.

Veздаea retigera: Beaulieu River, New Forest, VC11, South Hampshire, SU 385 053 13/4/2017, N. A. Sanderson, A. M. Cross. Overgrowing *Agonimia flabelliformis* and bryophytes on base rich bark of an old *Fraxinus* in old growth floodplain pasture woodland. New to Hampshire and an unusual epiphytic record of a normally terricolous ephemeral lichen.

Multiclavula vernalis: north of Thorney Hill Holms, New Forest, SU 209 007, 09/04/17, A Newton. On bare ground in a path rut in heathland. An exciting record of a rare lichenised basidiomycete, normally only recorded on moorland in the far north west of Scotland, but also discovered in heathland in 2010 in north Hampshire.

STOP PRESS

Coenogonium tavaresianum: Highwood Copse, Roydon Woods Nature Reserve, SU 315 010, 11/5/2017, coll. N. A. Sanderson, det. E. Serusiaux, M. Powell & B. J. Coppins. On flushed base rich oak bark, on edge of the dry bark on old oak by ride in wood in parkland. New to Britain, this is an apparently internationally rare warm temperate oceanic species previously only recorded from western Italy, western Iberia and the Canary Islands. It was also collected in June from ancient oaks in a park in Oxfordshire, but seems likely to be rare on current evidence. A description is available at <http://fungi.myspecies.info/all-fungi/gyalecta-sp-nas2284>.

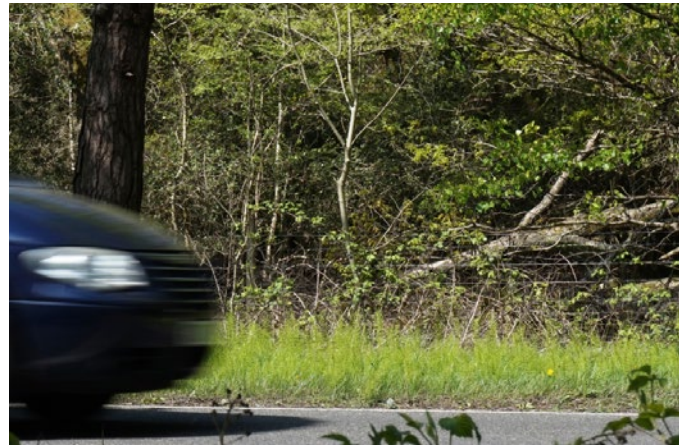
Key

- CR Critically Endangered Red Data Book species
- EN Endangered Red Data Book species
- VU Vulnerable Red Data Book species
- NT Near Threatened Red Data Book species
- DD Data Deficient Red Data Book species
- Ex Extinct in Britain
- NR Nationally Rare
- NS Nationally Scarce
- IR International Responsibility species
- Nb Notable species (NR, NS, IR or S42 species not RDB NT or higher, which are not under recorded ruderal species. Includes species listed as DD in the RDB)
- S41 Section 41 species
- BAP BAP species discovered in England after the list of Section 41 species was made

Paul Bowman's Horsetail

Clive Chatters

The drive from the M27 down to Lyndhurst is notorious for traffic congestion. There are, however, compensations in such snarl-ups as you can safely gaze out into the surrounding Forest. On either side of the A337 spring arrives with an apple-green flush of horsetails, not the dreaded perennial garden weed but a globally rare hybrid of Wood Horsetail *Equisetum sylvaticum* and the Giant Horsetail *Equisetum telmateia*.



A337 west verge with *Equisetum x bowmanii*, April 2017 (Clive Chatters)



Equisetum x bowmanii, Shave Wood, April 2017 (Clive Chatters)

This hybrid, *Equisetum x bowmanii*, is named after Paul Bowman (1931-1999) who first discovered and described the population in 1986 from where you turn off the main road for Minstead. At first this short stretch of roadside in the New Forest was considered the hybrid's only world locality until a second population was discovered in 2007 in the catchment of the Conon, north of Inverness. As far as I'm aware these two sites represent the entire world population. The parent species have very different ecological requirements and therefore the likelihood of them growing in sufficient close proximity to hybridise is slim. Exceptionally diverse habitats, such as the New Forest, offer exceptional opportunities for such events.

The extent of the Horsetail is easy to determine and is recorded in detail in Hampshire's Rare Plant Register ¹. This spring (April 2017) I re-walked the population on the inside of the Forest fence, peering into the verges as the traffic hammered past. Whilst every piece of Bowman's Horsetail probably represents a scion from the original hybridisation, the plant is variable in how it grows. The larger plants in shady damp hollows on the road side of the fence may exceed 30cm with the intermediate characteristics of the two parent species well expressed. Small, probably immature, specimens don't always show

the branching structure of the hybrid but that appears to come with time as the rhizomes thicken and vigour accumulates. There is a scattering of small specimens in seasonally parched silty-clay soils amongst the scrub of the junction to Minstead as well as a scattering of shoots emerging from deeply shaded muddy sumps; this is a plant of broad environmental tolerances within its wood-pasture landscape.

The verge of the A337 is regularly mown, which encourages the horsetails to be densely packed and of even-height; their tolerance to mowing appears to give them an advantage over the other species of the verge. The relative artificiality and aesthetic unpleasantness of the roadside is more than compensated for by plants growing in the scrubs and shady stream-sides on the Open Forest side of the fence. Here each individual shoot is widely spaced, the hybrid characteristics are well displayed and, all but for the traffic noise, the scene is delightful. The cattle and ponies don't appear to show any interest in eating the horsetail; I nibbled a stem and found it exceptionally rough, due to the high silica content, an experiment not to be recommended.

Next time you watch cricket at Cadnam or drop into the Trusty Servant for a quick pint do take a few moments to pay your respects to Paul Bowman and his beautiful horsetail.

Postscript

Since writing this article Neil Sanderson has found another population of *Equisetum x bowmanii* that significantly extends its distribution in the Forest. More details will be given in the next edition of *Flora News*.

¹ Rand, M. & Mundell, T. (2011) *Hampshire Rare Plant Register*, Trollius Publications.

News and Notices

The New Forest heathland lichen survey 2011–2015

A note by Neil Sanderson

The results of a large-scale survey of the lichen assemblage of the New Forest has been published by Natural England as Natural England Joint Publication JP020 and can be downloaded from <http://publications.naturalengland.org.uk/publication/6223067854929920>.

This survey included random sampling carried out by the Natural History Museum by Pat Wolseley and myself and systematic recording of 100 representative 1km grid squares by me, aided by many volunteers. The write up was funded by Natural England, The Forestry Commission and The National Trust.

The survey demonstrated that exceptionally rich, and internationally important, lichen assemblages thrive in the New Forest heaths. These were shown to be highly dependent on the continuity of management of the heaths by varying combinations of grazing and controlled burning. A stark contrast was found with heaths beyond

the New Forest, where even on heaths managed for conservation, lichen assemblages were much poorer and clearly declining. The presence of controlled burning and very extensive grazing with a marked variations in grazing intensity were thought to be the main factors absent from heaths beyond the New Forest that were promoting lichen diversity on the Forest heathlands.

An Appreciation for Chris Hall 1954–2017

By Tony Mundell



Sadly, Chris Hall, one of North Hampshire's most competent botanists, died suddenly on 10 June 2017, soon after being diagnosed with pancreatic cancer. I first got to know Chris around 1980. He was then a member of 'Friends of the Earth' and 'Countryside Action' and he was concerned that although they wanted to resist developments on the local heathlands they lacked sufficient knowledge of the flora and fauna present. I had only started to try to record every wild plant that I saw a few years before that, but I agreed to teach him what I knew.

So we botanised together for many years, often in Surrey with the so-called Surrey Flora Committee. Chris was a fast learner and after a few years he was outpacing me. I still have, and sometimes still refer to, a set of carefully annotated Bent grasses *Agrostis* specimens that he pressed for me when I told him of the difficulty I had in identifying them.

Chris lived in the same cottage all his life and this is only a few hundred yards from some heathland habitat that soon became his passion – for both its flora and fauna. He cycled everywhere because he could not afford to own a car, although he did learn to drive and in some years he would hire a car to explore further afield for a holiday. Back in the 1990s Chris with his 'hippy look' of long flowing hair and a long beard preferred to botanise barefoot. The soles of his feet became so hard that he did not notice sharp stones. Eventually he stepped on an Adder which bit him. He was not one to go rushing to a doctor or hospital but he did tell me that it was much worse than a bee sting.

For a brief time he tried working at the National Gas Turbine Establishment at Pyestock as a Scientific

Assistant but an office was not for him and he eventually settled on doing ecological survey work. Soon after his parents died he went through a low period but then his cousin, Iris, arrived from Canada intending to find out more about her family history. They really got on well together and Iris moved in with him. Chris once told me that Iris had rescued him from a miserable period and given him stability. Apart from his work involving conservation and wildlife recording, Chris had a great interest in local history, the ancient names of places and their meanings. He also helped to write a booklet on the local post boxes of NE Hampshire.

Chris produced a really huge number of records of plants, butterflies and dragonflies for NE Hampshire and neighbouring Surrey. I always knew I could trust his records as he was so careful with his identifications. If he was uncertain of anything he would pop a specimen through my letterbox (he lived less than a mile from me). Quite a long time ago he started on a Flora of the Hart District area and showed me lots of dot-distribution maps that he had drawn manually. That was before he was eventually convinced of the need to buy a computer for producing the vast number of survey reports that he published. I have several box files filled with his superb reports, covering local areas such as Fleet Pond, Hazeley Heath and the Basingstoke Canal. Many years ago he wrote the first Heathland Management Plan for Hart District Council and he continued to provide invaluable information and advice about areas like Basingbourne Heath. He also provided management advice to local HIWWT reserve managers like Elliott Fairs, extolling the virtue of scrapes on wet heathland.

Most of all Chris expended huge efforts in the study, management and monitoring of Eelmoor Marsh at Farnborough. In fact, over many years under contract to Marwell Zoo he published an amazing 120 reports just on this superb area. The 282 species of vascular plants recorded at Eelmoor Marsh by 1994 eventually rose to a list of 492 mainly through his studies. He was always very meticulous in recording exactly what management work was done then following this up by monitoring over the following years. He has masterminded the annual winter works at Eelmoor Marsh by contractors for many years, planning the spots where the JCB should scrape, where a giant mower should mow or the areas of scrub or mature trees to be removed. He was always present to direct the work underway.

Last year I was concerned that we were losing Bog Asphodel *Narthecium ossifragum* from its main site at Hazeley Heath in the same process that led to its demise many years ago at Fleet Pond when in competition with Purple Moor-grass *Molinia caerulea*. In the absence of grazing Bog Asphodel becomes stranded on the relatively dry tops of very closely spaced, ever-growing, tall grass tussocks, remote from the boggy water over 50cm below where it is too dark for it to survive. With Hart District Council support Chris took this problem on and last winter hired a JCB to try three different ways to revive the Bog Asphodel.

Although Chris kept sending a steady stream of plant records to me, in recent years I have barely been out botanising with him as he really preferred to do his own thing. At Chris's funeral Tim Woodfine from Marwell Zoo said that Chris was one of the few people of whom we can genuinely say: they made the natural world a better place. He trod lightly on this earth and had a love and passion for nature, and the wider environment which he made his lifetime's work.

I will finish by adding a few words from Clive Chatters:

Chris, through 'Countryside Action' in the mid-1980s was one of the first people to recognise the challenges posed by urban growth in the vicinity of heathlands. His work challenged a widely held view that the heathlands of Surrey and Hampshire were ideal for promotion as amenity areas. Chris was at the forefront of quantifying the issues as they affected the conservation and management of these habitats. I recall his hand drawn maps of dumping and arson at Yateley which fed into NCC's evidence at public inquiries: the presentation was simple and persuasive. A lot of what conservationists rely on today grew out of his deep local knowledge and considered insights.





Recording

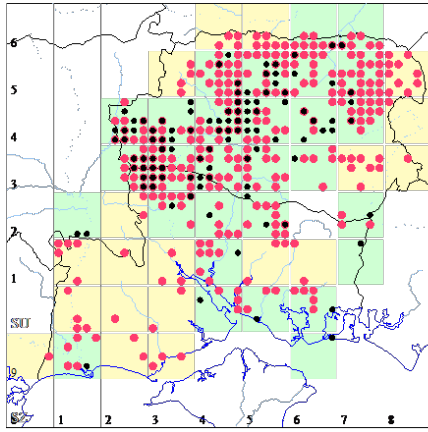
Atlas 2020 – Are We Missing Something?

Martin Rand

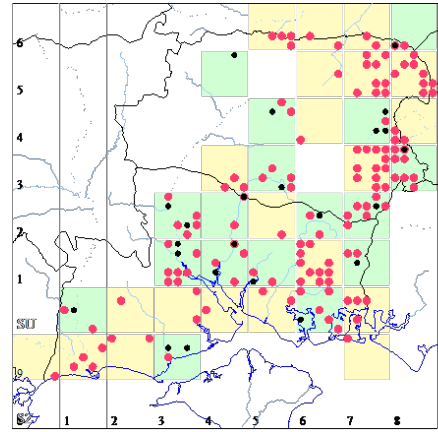
While there's been very good progress in getting reasonable numbers of species recorded in tetrads (2km squares) for the BSBI's next update of its national Atlas ('Atlas 2020'), it's becoming clear that there are certain species, more widely recorded in the past, for which we have much fewer recent (that is, post-1999) records. Of course, there are several possible reasons for this. A plant may genuinely be in decline; for instance, there seems to be little doubt that Opposite-leaved Pondweed, *Groenlandia densa* is simply disappearing from the county. Or it may be a casual, so chances of re-recording in the same areas at a later date are slim to non-existent, and recruitment to new sites is slow or has totally dried up (e.g. Large-flowered Hemp-nettle, *Galeopsis speciosa*). There may be confusions due to changing taxonomy, causing different plants to be recorded under the same name in different recording epochs, or most recording to be done under an aggregate in one epoch but not in another. I am fairly sure this is

Key to maps on next pages:

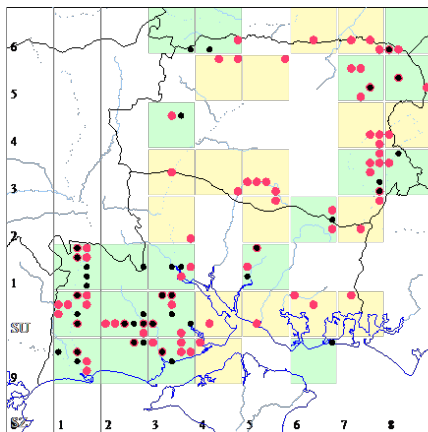
-  Hectad (10km square) pre-2000
-  Hectad (10km square) 2000 onwards
-  Tetrad (2km square) pre-2000
-  Tetrad (2km square) 2000 onwards



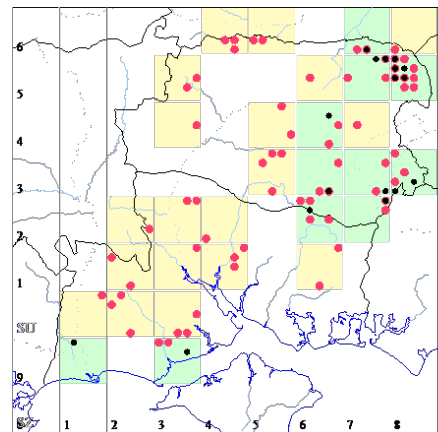
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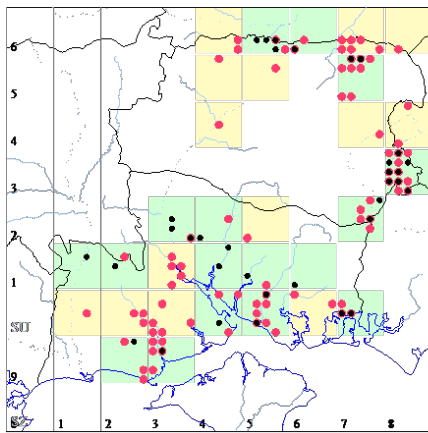
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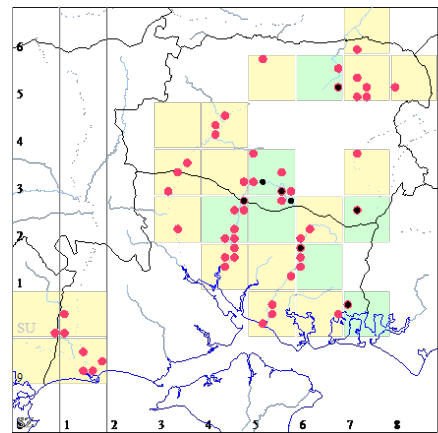
Bidens cernua



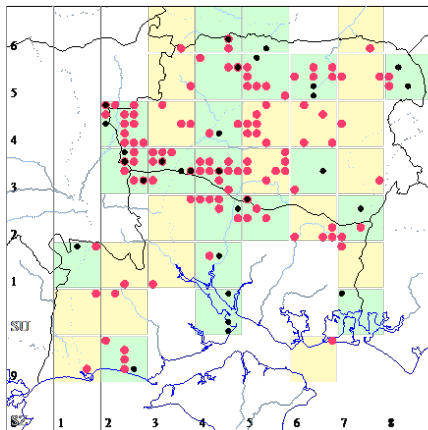
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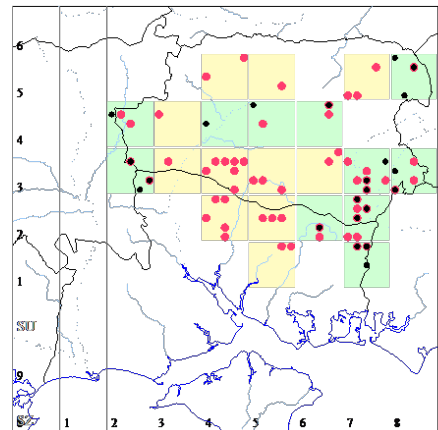
Cardamine amara



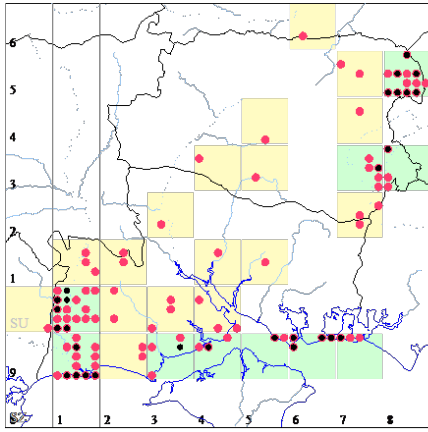
Groenlandia densa



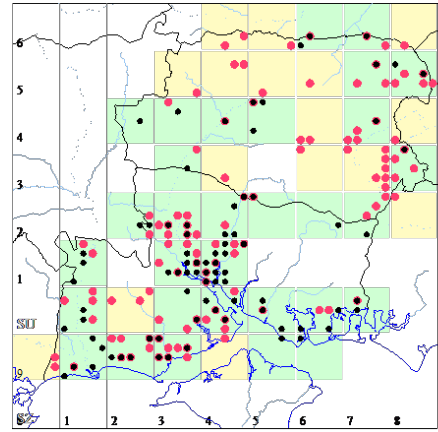
Cerastium arvense



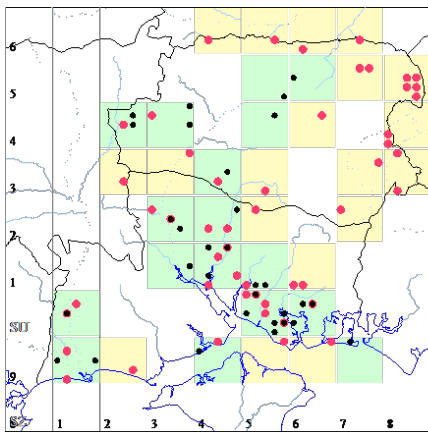
Hypopitys monotropa



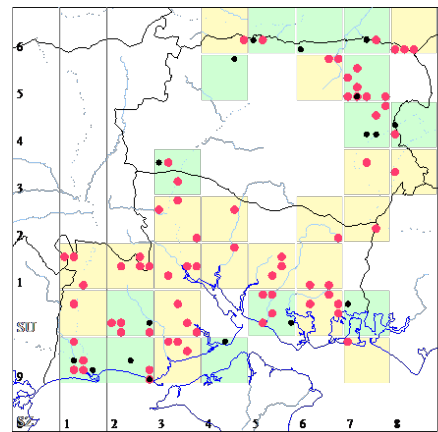
Jasione montana



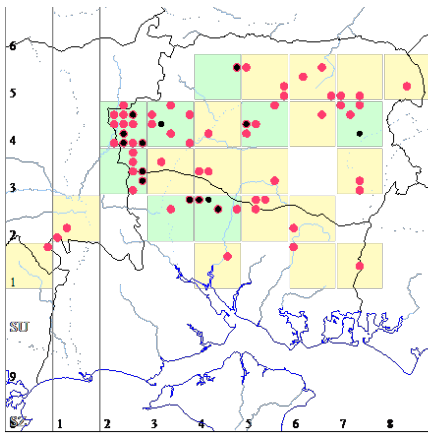
Misopates orontium



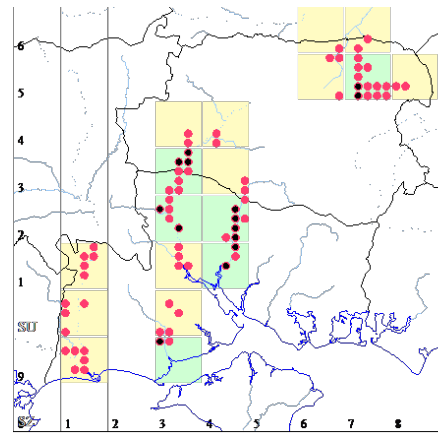
Lepidium campestre



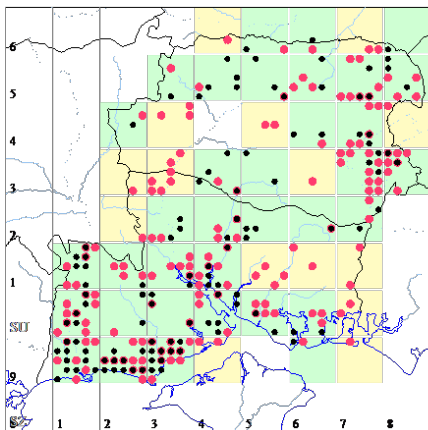
Nasturtium microphyllum



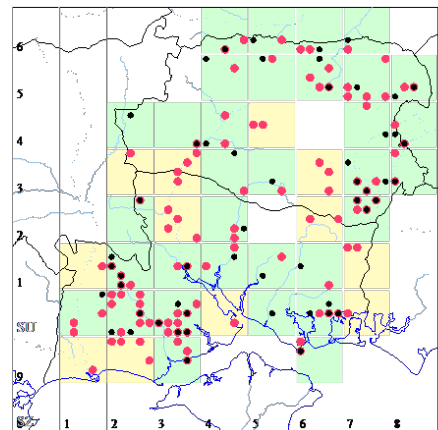
Lithospermum arvense



Oenanthe fluviatilis



Malva neglecta



Ophioglossum vulgatum

the case for Slender Sandwort *Arenaria leptoclados*, for instance. Or we may just be overlooking them – perhaps because of unfamiliarity, or a reluctance to get to grips with tricky points of recognition. Finally, there’s always the possibility that we’re being more cautious and critical about recording some ‘confusable’ species!

I’ve been promising for some time now that there will be a new facility on the Hants Plants web site allowing people to see the situation for individual species across the county, and to chase down old localised records within an area so that sites can be re-visited. I’m still hoping to achieve this and expect to be putting in some effort over the winter. Meanwhile, as a taster, here’s a small selection of stand-out species that you might like to look for in your area if there’s a gap. Although the new facility isn’t in place yet, remember that if you know which tetrad you want to visit, you can get a list of localised records for all species for that tetrad with the existing search features.

A more extensive version of this list can be downloaded from http://hantsplants.org.uk/aup_watn.php.

Species	Total	2000+	pre-2000
<i>Anthemis cotula</i> (Stinking Chamomile)	49	30	19
<i>Bidens cernua</i> (Nodding Bur-marigold)	38	21	17
<i>Cardamine amara</i> (Large Bitter-cress)	31	17	14
<i>Cerastium arvense</i> (Field Mouse-ear)	37	18	29
<i>Erysimum cheiranthoides</i> (Treacle Mustard)	36	15	21
<i>Gnaphalium sylvaticum</i> (Heath Cudweed)	30	11	19
<i>Groenlandia densa</i> (Opposite-leaved Pondweed)	26	7	19
<i>Hypopitys monotropa</i> (Yellow Bird’s-nest)	22	11	11
<i>Jasione montana</i> (Sheep’s-bit)	27	10	17
<i>Lepidium campestre</i> (Field Pepperwort)	36	17	19
<i>Lithospermum arvense</i> (Field Gromwell)	25	8	17
<i>Malva neglecta</i> (Dwarf Mallow)	50	35	15
<i>Misopates orontium</i> (Weasel’s-snout)	47	31	16
<i>Nasturtium microphyllum</i> (Narrow-fruited Water-cress)	34	14	20
<i>Oenanthe fluviatilis</i> (River Water-dropwort)	18	6	12
<i>Ophioglossum vulgatum</i> (Adder’s-tongue)	45	33	12

Table showing number of hectads for selected species

Recording Subspecies and Varieties ‘Two for the Price of One’

A note by Tony Mundell

Some time ago I circulated the following note to some of the people recording plants in VC12 in an attempt to encourage more recording at subspecies and variety level. I thought it might be worth repeating it here. My main reason for wanting to have a similar second record added at species level when a plant is recorded at subspecies level is that I want the maps that I generate from my MapMate database both to be updated.

This is what I wrote:

It is worth recording some plants at subspecies level because if you do (for records sent to me via Living Record or Excel spreadsheets) showing that at least you are aware that there are subspecies and implying some knowledge of the ones in Hampshire, I will then usually automatically add another similar record but at species level. The same is true for some taxa at variety level. This can be useful in bumping up the taxon count if it is just below the magic threshold of 80% refund or new in a tetrad since 2000 (which is a threshold level for the BSBI Atlas 2020 project).

The reverse is not true, so I will not add a taxon at subspecies level if you only record it at species level (even though in many cases there is only one subspecies that would be expected in Hampshire). This is because a record at species level implies that you don’t know about the subspecies.

Below I have listed some subspecies that are the only ones that could be found in Hampshire (usually because the other subspecies are confined to northern England, Scotland or Wales). **These are the easy ones where you can’t go wrong by recording the subspecies, and they are shown in green font.**

I have also included other species where more than one subspecies (or variety) occurs in Hampshire. Most of these are not too difficult to distinguish, but to record them you will need to study full descriptions in books like Stace’s 3rd edition, etc.

This is NOT an exhaustive list of subspecies in Hampshire. I have omitted many other examples, e.g. where they are difficult to segregate or where Stace prefers not to recognise them, etc.

So be aware that these effectively count as two records if you add the subspecies or variety name:

Aethusa cynapium is nearly always **subsp. cynapium** in Hants but there are also a few records of **subsp. agrestis** – see Stace for descriptions.

Anagallis arvensis is nearly always **subsp. arvensis** in Hants (there are a few records of **subsp. foemina** but I suspect that most are errors for the blue form of **subsp. arvensis**). The colour forms of **subsp. arvensis** are worth recording; **f. arvensis** is red, **f. azurea** is blue, **f. carnea** is pink and **f. lilacina** is purple.

Anthyllis vulneraria is nearly always **subsp. vulneraria** in Hants but there are a few records of **subsp. carpatica** (e.g. originally sown on the Alresford Bypass).

Arctium minus is often **subsp. minus** but **subsp. pubens** is also widespread in Hants and is under-recorded. Be aware also of **Arctium nemorosum**, Wood Burdock, which again is under-recorded in Hants.

Arrhenatherum elatius var. bulbosum occurs in Hants. It has a more tufted habit than the type and has very swollen corn-like swellings on the base of the stems. Unfortunately, there are confusing intermediates – if you have access to *BSBI News* see the article by Martin Rand on p.33 of No.131, Jan 2016.

Asplenium trichomanes is always **subsp. quadrivalens** in Hants.

Ballota nigra is always **subsp. meridionalis** in Britain.

Betula pubescens is always **subsp. pubescens** in Hants.

Brassica napus subsp. oleifera, Oil-seed Rape, is the only subspecies recorded in Hants (neither **subsp. rapifera**, the cultivated Swede, or **subsp. napus** have yet been recorded in Hants).

Brassica rapa has three subspecies, **subsp. rapa**, **subsp. campestris** and **subsp. oleifera**, all of which occur in Hants. See Stace, etc. for descriptions.

Bromus hordeaceus is nearly always **subsp. hordeaceus** in VC12 but be aware of **subsp. longipedicellatus** which is much taller at c.1.5m and has a large panicle to 20cm, with many spikelets and some very long pedicels particularly at the lowest node. **Subsp. molliformis** has also been recorded in Hants and so have the coastal **subsp. thominei** and **subsp. ferronii**.

Calystegia silvatica has two subspecies in Hants, **subsp. silvatica** and **subsp. disjuncta**. See Stace, etc. for descriptions.

Carduus crispus is always **subsp. multiflorus** in Britain.

Carex divulsa has **subsp. divulsa** and **subsp. leersii** in Hants. See Stace, etc.

Carex muricata is always **subsp. pairae** in Hants.

Catapodium rigidum has the common **subsp. rigidum** and the coastal **subsp. majus** in Hants.

Cerastium fontanum includes the very common **subsp. vulgare**, but **subsp. holosteoides** also occurs in Hants, usually in damp places. See Stace, etc.

Circerbita macrophylla is always **subsp. uralensis** in Britain.

Convolvulus arvensis is nearly always **var. arvensis** in Hants but there is one record for **var. stonestreetii** which has the corolla deeply 5-lobed.

Cornus sanguinea subsp. sanguinea is common but **subsp. australis** also occurs in Hants. See Stace, etc.

Crepis capillaris is almost always **var. capillaris** but there is one record for **var. glandulosa** with glandular hairs on the phyllaries. See Stace.

Crepis vesicaria is always **subsp. taraxacifolia** in Hants.

Cymbalaria muralis is always **subsp. muralis** in Hants.

Cytisus scoparius is always **subsp. scoparius** in Hants.

Dactylorhiza maculata is always **subsp. ericetorum** in Hants.

Daucus carota is almost always **subsp. carota** in VC12. The coastal **subsp. gummifer** also occurs in VC11, and the garden carrot **subsp. sativus** with an orange root is possible anywhere on dumped garden soil.

Deschampsia cespitosa Both **subsp. cespitosa** and **subsp. parviflora** occur in Hants. The latter, with smaller spikelets, is under-recorded in VC12. See Stace, etc.

Eleocharis palustris Both the common **subsp. vulgaris** and the rare **subsp. palustris** occur in Hants.

Elytrigia repens Forms with long awns are **f. aristata**.

Epilobium tetragonum is usually **subsp. tetragonum** (leaves sessile with many teeth) but there are also some records for **subsp. lamyi** in Hants (leaves shortly petiolate, up to 2mm, with fewer teeth). See Stace, etc.

Euphorbia amygdaloides in woods is almost always **subsp. amygdaloides** but **subsp. robbiae** also occurs throughout Hants

and is a very different-looking garden plant, usually found near houses or dumped by roadsides.

Fallopia convolvulus is nearly always **var. convolvulus (var. subalatum)** is very rare in Hants. It is rather like *F. dumetorum* with winged fruits and it is very vigorous reaching 2m high).

Ficaria verna has four subspecies, all of them recorded in Hants, though two are rare. The common two are **subsp. fertilis** (no tubers in leaf axils and a full head of ripe achenes) and **subsp. verna** (tubers in leaf axils and many undeveloped achenes – usually nearer to houses).

Fumaria officinalis Both **subsp. officinalis** and **subsp. wirtgenii** are widespread in Hants. See Stace or preferably the BSBI Fumitory Handbook.

Galium palustre Both **subsp. palustre** and **subsp. elongatum** are widespread in Hants. See Stace, etc.

Genista tinctoria is always **subsp. tinctoria** in Hants.

Gentianella amarella is always **subsp. amarella** in Hants.

Geranium robertianum is always **subsp. robertianum** in VC12 but the coastal **subsp. maritima** has also been recorded in VC11.

Helleborus viridis is always **subsp. occidentalis** in Britain.

Hordeum murinum Only **subsp. murinum** has been recorded so far in Hants.

Hypericum maculatum Only **subsp. obtusiusculum** has been recorded so far in Hants, **subsp. maculatum** tends to be northern.

Hypopitys monotropa Both **subsp. hypophegea** and **subsp. monotropa** have been recorded in Hants but the latter is rarer.

Juncus bulbosus Both **subsp. bulbosus** and **subsp. kochii** occur in Hants.

Juncus conglomeratus Both **var. conglomeratus** and **var. subuliflorus** occur in Hants.

Juncus effusus Both **var. effusus** and **var. subglomeratus** occur in Hants.

Juniperus communis is always **subsp. communis** in Hants.

Lactuca serriola has two forms in Hants. **f. integrifolia** is commonest with unlobed leaves, whilst **f. serriola** has pinnately lobed leaves.

Lamium galeobdolon subsp. montanum is the common native plant in woods (which rarely can have a few whitish marks on the leaves) but **subsp. argentatum** is the garden chuck-out with very conspicuous large whitish blotches on the leaves.

Lapsana communis is always **subsp. communis** in VC12 (unless you can find **subsp. intermedia** with far larger flowers that in Hants is currently only known in a large area of VC11 SE of Winchester).

Lathyrus linifolius is always **var. montanus** in Britain.

Lepidium draba is always **subsp. draba** in Hants.

Leucosium aestivum Both **subsp. aestivum** and the commoner **subsp. pulchellum** occur in Hants.

Lotus corniculatus var. corniculatus is a common native plant with a low spreading habit but be aware of the alien **var. sativus**, often sown by farmers, which has a very upright growth habit.

Luzula multiflora Both **subsp. multiflora** and **subsp. congesta** occur in Hants.

Matricaria discoidea Only **subsp. discoidea** has been recorded in Hants to date.

Medicago sativa subsp. sativa, Lucerne, is the common one, but **subsp. falcata**, Sickle Medick also occurs in Hants.

Melampyrum pratense Both **subsp. pratense** (acid soils) and **subsp. commutatum** (calcareous soils) occur in Hants. The leaves differ – see Stace.

Molinia caerulea Both **subsp. caerulea** and **subsp. arundinacea** occur in Hants.

Montia fontana Three of the four subspecies are recorded in Hants. They are **subsp. amporitana**, **subsp. chondrosperma** (the commonest) and **subsp. variabilis** (the rarest). The seeds, illustrated in Stace, distinguish them.

Myosotis arvensis It is worth distinguishing between the very common **var. arvensis** and **var. sylvestris** (with its larger flowers, calyx and nutlets).

Myosotis laxa is always **subsp. caespitosa** in Britain.

Nymphaea alba is always **subsp. alba** in Hants.

Odontites vernus is nearly always **subsp. serotinus** in Hants but **subsp. vernus** (which flowers much earlier) has also been recorded. See Stace for the differences.

Ononis repens is always **subsp. repens** in VC12 but the coastal **subsp. maritima** also occurs in VC11.

Ornithogalum umbellatum is almost always **subsp. campestre** but check in Stace for details of **subsp. umbellatum** which rarely occurs in Hants. It has larger, wider 'petals' and other differences.

Papaver somniferum The only subspecies recorded so far in Hants is **subsp. somniferum** (but see Stace for **subsp. setigerum** which might possibly occur).

Pastinaca sativa The Wild Parsnip is **subsp. sylvestris** and is common, but there are a few records in Hants for the cultivated Parsnip, **subsp. sativa**.

Pedicularis sylvatica is always **subsp. sylvatica** in Hants.

Phalaris arundinacea var. arundinacea is common but **var. picta**, the garden version with variegated leaves also occurs in Hants, usually planted beside ponds.

Picris hieracioides There are four British subspecies keyed out in Stace but so far only **subsp. hieracioides** has been recorded in Hants.

Pilosella aurantiaca Both **subsp. aurantiaca** (with rhizomes) and the commoner **subsp. carpathicola** (with stolons) are recorded in Hants. The leaves and phyllaries also differ.

Pilosella flagellaris is always **subsp. flagellaris** in Hants.

Pinus nigra Both **subsp. nigra**, Austrian Pine (with its wide crown) and **subsp. laricio**, Corsican Pine, (a commonly planted forestry tree with columnar habit) are widespread in Hants.

Plantago major is nearly always **subsp. major** (with mostly 5-9 leaf veins) but on arable land check for **subsp. intermedia** with very hairy, more toothed, leaves having mostly only 3-5 veins. Both are widespread in Hants.

Polygala vulgaris is nearly always **subsp. vulgaris** in Hants, but **subsp. collina** has been recorded rarely.

Potentilla erecta is always **subsp. erecta** in Hants.

Poterium sanguisorba subsp. sanguisorba, the native Salad Burnet is quite common but the alien **subsp. balearicum**, Fodder Burney is also widespread in Hants.

Pteridium aquilinum is nearly always **subsp. aquilinum** in Hants (**subsp. atlanticum** has also been recorded but it is only mentioned without a description in Stace edition 3).

Puciniella distans is always **subsp. distans** in Hants.

Ranunculus acris is always **subsp. acris** in Hants.

Ranunculus flammula is always **subsp. flammula** in Hants.

Ranunculus penicillatus is always **subsp. pseudofluitans** in Hants, but within that subspecies both **var. vertumnus** and **var. pseudofluitans** occur – the latter is the common one in chalk streams.

Raphanus raphanistrum includes the common **subsp. raphanistrum** and the coastal **subsp. maritimus**.

Rhinanthus minor has six subspecies in Britain with three of them recorded in Hants. They are **subsp. calcareus**, **subsp. minor** and **subsp. stenophyllus** – see Stace.

Rumex acetosa is always **subsp. acetosa** in Hants.

Rumex acetosella is nearly always **subsp. acetosella** in Hants (where the tepals are easily rubbed off the ripe seed by rolling between finger and thumb) but if in seed check for **subsp. pyrenaicus** (where the tepals cannot be rubbed off) as this also occurs. Plants with very narrow linear leaves growing on bare sand come under **subsp. acetosella** as **var. tenuifolius**.

Rumex crispus is always **subsp. crispus** in VC12 but **subsp. littoreus** also occurs on the coast in VC11.

Rumex sanguineus is nearly always **var. viridis** (with green leaf veins) but **var. sanguineus** with bright red veins does occur rarely in Hants.

Salix caprea is always **subsp. caprea** in Hants.

Salix cinerea is nearly always **subsp. oleifolia** in Hants. There are no confirmed records for **subsp. cinerea** in VC12 but it is recorded in VC11 – see Stace for the differences.

Salix repens is nearly always **var. repens** in Hants but there are a few expertly confirmed specimens of the upright-growing **var. fusca** from one area.

Scleranthus annuus To date only **subsp. annuus** has been recorded in Hants but plants should be checked for **subsp. polycarpus** which might occur.

Senecio vulgaris is always **subsp. vulgaris** in Hants.

Silene vulgaris is always **subsp. vulgaris** in Hants.

Sedum telephium Nearly all plants in Hants are likely to be **subsp. fabaria** but there is one apparently correct record of **subsp. telephium**.

Silene latifolia Only **subsp. alba** has been recorded in Hants (the rare alien **subsp. latifolia** has not been found here to date).

Silene vulgaris is always **subsp. vulgaris** in Hants.

Solanum dulcamara is always **var. dulcamara** in VC12 but the coastal **var. marinum** occurs in VC11.

Solanum nigrum is nearly always **subsp. nigrum** in Hants but the rare **subsp. schultesii** does also occur. It is very hairy and with mostly glandular hairs.

Solidago canadensis Both **subsp. canadensis** and **subsp. altissima** are recorded in Hants.

Solidago gigantea is always **subsp. serotina** in Britain.

Sonchus arvensis is nearly always **subsp. arvensis** in Hants but the glabrous **subsp. uliginosus** has also been recorded.

Sonchus asper is nearly always **subsp. asper** in Hants but the biennial **subsp. glaucescens**, with different achenes, has been recorded and may be widespread.

Sparganium erectum has four subspecies, **subsp. erectum**, **subsp. microcarpum**, **subsp. neglectum** and **subsp. oocarpum**, all of which have been recorded in Hants. Ripe fruits are needed to separate them.

Spergula arvensis Only **var. arvensis** has been recorded in Hants to date (**var. sativa** might possibly occur but is more northern in distribution).

Symphytum officinale is always **subsp. officinale** in Hants.

Tephrosia integrifolia is always **subsp. integrifolia** in Hants.

Thymus polytrichus is always **subsp. britannicus** in Britain.

Tragopogon pratensis should be recorded only at species level if not in flower! The common one is **subsp. minor** ('petals' $\frac{1}{2}$ - $\frac{3}{4}$ as long as phyllaries) but if in flower check for **subsp. pratensis** ('petals' as long, or longer, than the phyllaries) as both occur in Hants.

Trifolium fragiferum Only **subsp. fragiferum** has been recorded in Hants so far.

Trifolium hybridum is nearly always the cultivated **subsp. hybridum** in Hants but **subsp. elegans** has been recorded rarely.

Trifolium pratense The common one is **var. pratense** but the more robust **var. sativum** also occurs in Hants.

Trisetum flavescens Only **subsp. flavescens** has been recorded in Hants (but **subsp. purpurascens** might possibly also occur).

Urtica dioica The (too!) common plant is **subsp. dioica** but the stingless **subsp. galeopsifolia** is also found in Hants in damp places.

Valeriana officinalis is probably always **subsp. sambucifolia** in Hants and is the only subspecies recorded (but **subsp. collina** might possibly occur in dry chalkland.)

Veronica hederifolia subsp. **lucorum** has whitish to pale blue anthers and fruiting pedicels mostly 3.5–7 times as long as the calyx and it prefers shade. **Subsp. hederifolia** with dark blue anthers and fruiting pedicels only 2–4 times the calyx length is scattered mainly in full sun in arable fields. The leaves also differ but the anther colour is the easiest distinction if in flower. Both are common in Hants.

Veronica scutellata has two varieties in Hants. **var. scutellata** is glabrous whilst **var. villosa** is hairy.

Veronica serpyllifolia is always **subsp. serpyllifolia** in Hants.

Vicia sativa subsp. **segetalis** is the very common subspecies but **subsp. nigra** with all leaves similar and narrower occurs on acid heathland, and **subsp. sativa** with larger leaves and flowers is rarely sown by farmers. See Stace for details of the differences.

Viola odorata has six varieties in Hants that are relatively easy to distinguish, mainly on flower colour – see The Plant Crib.

Viola palustris has two subspecies in Hants. The commonest one is **subsp. palustris** but **subsp. juressi** is definitely on Silchester Common and could be elsewhere.

Vulpia ciliata is always **subsp. ambigua** in Hants.

Recording Subspecies and Varieties – A Summary of Some Main Characters

A response by Adam Lucas

I thought it would be useful to have a listing of the main characters that separate the subspecies and varieties given on Tony's list. This list could be taken into the field for recording but note that it is only intended as a brief summary of what appear to be the most important characters. Further detail is available in the textbooks, and these must be consulted. It needs more testing and I would be interested in any feedback on whether these characters work or not.

As on Tony's list I have shown the taxa that only have a single subspecies or variety in Hampshire in green font. I have added a few extra ones of these.

Aethusa cynapium subsp. *cynapium* = Longest pedicels mostly <1/2 as long as the bracteoles

Aethusa cynapium subsp. *agrestis* = Longest pedicels c. as long as bracteoles

Agapanthus praecox* subsp. *orientalis

Amaranthus capensis* subsp. *uncinatus

Anagallis arvensis subsp. *arvensis* = Numerous hairs on corolla lobes, flowers variously coloured

Anagallis arvensis subsp. *arvensis* f. *arvensis* = red

Anagallis arvensis subsp. *arvensis* f. *azurea* = blue

Anagallis arvensis subsp. *arvensis* f. *carnea* = pink

Anagallis arvensis subsp. *arvensis* f. *lilacina* = purple

Anagallis arvensis subsp. *foemina* = Sparse hairs on corolla lobes, flowers always blue

Anthemis punctata* subsp. *cupaniana

Anthyllis vulneraria subsp. *vulneraria* = Lateral calyx teeth appressed to upper ones + usually red-tipped calyx

Anthyllis vulneraria subsp. *carpatica* = Lateral calyx teeth not appressed to upper ones + appressed, sparse calyx-hairs

Arctium minus subsp. *minus* = Capitula 15–25 mm across, middle phyllaries 0.7–1.5 mm across (near base), peduncles 0–8 mm

Arctium minus subsp. *pubens* = Capitula 20–32 mm across, middle phyllaries 0.9–1.7 mm across (near base), peduncles 0.5–4 cm

Arctium nemorosum = Middle phyllaries at least 1.7 mm across (near base)

Arrhenatherum elatius var. *elatius* = Basal internodes not swollen or slightly swollen

Arrhenatherum elatius var. *bulbosum* = Basal internodes heavily swollen, broader than tall

Asplenium trichomanes* subsp. *quadrivalens

Ballota nigra* subsp. *meridionalis

Betula pubescens* subsp. *pubescens

Brassica napus* subsp. *oleifera

Brassica rapa subsp. *rapa* = Root swollen into a white-fleshed tuber

Brassica rapa subsp. *campestris* = Root slender and grey to blackish seeds

Brassica rapa subsp. *oleifera* = Root slender and red-brown seeds

Bromus hordeaceus subsp. *hordeaceus* = Awns +/- straight to slightly flexuous; panicle +/- dense, with 0–3 pedicels longer than spikelets, lemmas 8–11 mm, usually hairy

Bromus hordeaceus subsp. *thominei* = Awns +/- straight to slightly flexuous; panicle +/- dense, with 0–3 pedicels longer than spikelets, lemmas 6.5–8 mm, usually glabrous

Bromus hordeaceus subsp. *longipedicellatus* = Awns +/- straight to slightly flexuous, panicle +/- lax, with at least 4 pedicels longer than spikelets

Bromus hordeaceus subsp. *ferronii* = Awns curved or bent out at maturity; lemmas 6.5–8.5 mm long

Bromus hordeaceus subsp. *molliformis* = Awns curved or bent out at maturity; lemmas 8–11 mm long

Cakile maritima* subsp. *integrifolia

X *Calammophila baltica* subsp. *baltica*

Calystegia silvatica subsp. *silvatica* = Bracteoles c. 2x as long as wide

Calystegia silvatica subsp. *disjuncta* = Bracteoles c. as wide as long

Carduus crispus* subsp. *multiflorus

Carex divulsa subsp. *divulsa* = Lower spikes well spaced out

Carex divulsa subsp. *leersii* = Lower spikes less than 2 cm apart

Carex muricata* subsp. *pairae

Catapodium rigidum subsp. *rigidum* = Inflorescence racemose to little-branched panicle with branches spreading only in 1 plane

Catapodium rigidum subsp. *majus* = Inflorescence well branched and spreading in 3 dimensions

Cerastium fontanum subsp. *vulgare* = Lower stem internodes with hairs all round

Cerastium fontanum subsp. *holosteoides* = Lower stem internodes glabrous or with 1 or 2 lines of hairs

Cicerbita macrophylla* subsp. *uralensis

Convolvulus arvensis var. *arvensis* = Corolla circular

Convolvulus arvensis var. *stonestreetii* = Corolla deeply 5-lobed

Cornus sanguinea subsp. *sanguinea* = Hairs on leaf abaxial surface mostly 2-armed but many unevenly so and many with at least 1 arm directed away from leaf surface

Cornus sanguinea subsp. *australis* = Hairs on leaf abaxial surface all with 2 +/- equal arms both appressed to leaf surface

Crepis capillaris var. *capillaris* = No glandular hairs on the phyllaries

Crepis capillaris var. *glandulosus* = Glandular hairs on the phyllaries

Crambe hispanica* subsp. *abyssinica

Crepis vesicaria* subsp. *taraxacifolia

Cytisus scoparius* subsp. *scoparius

Dactylorhiza maculata* subsp. *ericetorum

Daucus carota subsp. *carota* = Umbels very contracted in fruit; root not swollen

Daucus carota subsp. *sativus* = Umbels very contracted in fruit; root swollen

Daucus carota subsp. *gummifer* = Umbels convex to slightly concave in fruit

Deschampsia cespitosa subsp. *cespitosa* = Spikelets 3.5–5 mm long

Deschampsia cespitosa subsp. *parviflora* = Spikelets 2–3 mm long

Eleocharis palustris subsp. *palustris* = Spikelets usually with more than 40 flowers, middle glumes < = 3.5mm

Eleocharis palustris subsp. *vulgaris* = Spikelets usually with less than 40 flowers, middle glumes > = 3.5mm

Elytrigia juncea* subsp. *boreoatlantica

Elytrigia repens f. *repens* = Awnless

Elytrigia repens f. *aristata* = Awns

Escallonia rubra* var. *macrantha

Euphorbia amygdaloides subsp. *amygdaloides* = Leaves of first-year stems herbaceous, dull, pale-green to mid-green, hairy on lowerside and margins

Euphorbia amygdaloides subsp. *robbiae* = Leaves of first-year stems +/- coriaceous, +/- shiny, dark green, +/- glabrous

Fallopia convolvulus var. *convolvulus* = Outer tepals keeled

Fallopia convolvulus var. *subalatum* = Outer tepals narrowly winged

Ficaria verna subsp. *verna* = Tubers present; petals mostly less than 1.5 cm long

Ficaria verna subsp. *ficariiformis* = Tubers present; petals mostly more than 1.5 cm long

Ficaria verna subsp. *fertilis* = Tubers absent; petals less than 9 mm wide

Ficaria verna subsp. *chrysocephala* = Tubers absent; petals more than 9 mm wide

Foeniculum vulgare* var. *sativum

Fumaria officinalis subsp. *officinalis* = Racemes with more than 20 flowers

Fumaria officinalis subsp. *wirtgenii* = Racemes with less than 20 flowers

Fumaria reuteri* subsp. *martinii

Galium palustre subsp. *palustre* = Most leaves less than 2 cm long

Galium palustre subsp. *elongatum* = Most leaves more than 2 cm long

Genista tinctoria* subsp. *tinctoria

Gentianella amarella* subsp. *amarella

Geranium robertianum subsp. *robertianum* = Erect

Geranium robertianum subsp. *maritimum* = Procumbent, on coastal shingle

Gladiolus communis* subsp. *byzantinus

Helleborus viridis* subsp. *occidentalis

Hypericum hircinum* subsp. *majus

Hypericum maculatum* subsp. *obtusiusculum

Hypopitys monotropa subsp. *monotropa* = Stamens, carpels and inside of petals hairy

Hypopitys monotropa subsp. *hypophegea* = Stamens, carpels and inside of petals glabrous

Juncus conglomeratus var. *conglomeratus* = Inflorescence very compact

Juncus conglomeratus var. *subuliflorus* = Several stalked heads

Juncus effusus var. *effusus* = Widely divergent branches

Juncus effusus var. *subglomeratus* = Branches compact

Juniperus communis* subsp. *communis

Lactuca serriola f. *serriola* = Pinnately lobed leaves

Lactuca serriola f. *integrifolia* = Entire leaves

Lamiaeum galeobdolon subsp. *montanum* = No or few white marks on leaves

Lamiaeum galeobdolon subsp. *argentatum* = Prominent white marks on leaves

Lapsana communis subsp. *communis* = Upper stem-leaves lanceolate to ovate or rhombic, usually well toothed, capitula 1.5–2cm across

Lapsana communis subsp. *intermedia* = Upper stem-leaves linear to linear-lanceolate, entire or slightly toothed, capitula 2.5–3cm across

Lathyrus japonicus* subsp. *maritimus

Lathyrus linifolius* var. *montanus

Leucojum aestivum subsp. *aestivum* = Stems with the 2 sharp edges remotely and often inconspicuously denticulate, at least in the lower half

Leucojum aestivum subsp. *pulchellum* = Stems with the 2 sharp edges entire throughout

Linum perenne* subsp. *anglicum

Lotus corniculatus var. *corniculatus* = Procumbent, lower part of stem solid

Lotus corniculatus var. *sativus* = Erect, lower part of stem hollow

Luzula multiflora subsp. *multiflora* = Flowers in several mostly stalked corymbose clusters

Luzula multiflora subsp. *congesta* = All or most flower clusters sessile in compact lobed head

Matthiola longipetala* subsp. *bicornis

Matricaria discoidea* subsp. *discoidea

Medicago sativa subsp. *sativa* = Flowers mauve to violet

Medicago sativa subsp. *falcata* = Flowers yellow

Melampyrum pratense subsp. *pratense* = Uppermost leaves mostly 7–15 x as long as wide

Melampyrum pratense subsp. *commutatum* = Uppermost leaves mostly 3–8 x as long as wide

Mentha x longifolia* nothovar. *webberi

Minuartia hybrida* subsp. *tenuifolia

Molinia caerulea subsp. *caerulea* = Culms usually less than 65 cm tall

Molinia caerulea subsp. *arundinacea* = Culms usually more than 65 cm tall

Montia fontana subsp. *chondrosperma* = Seeds with broad rounded tubercles on faces and margin

Montia fontana subsp. *amporitana* = Seeds smooth near centre of faces; seeds with at least 3 rows of narrow long-pointed tubercles along margin

Montia fontana subsp. *variabilis* = Seeds smooth near centre of faces; seeds with usually only 1–4 rows of broad short-pointed tubercles along margin

Myosotis arvensis var. *arvensis* = Corolla no more than 3 mm across

Myosotis arvensis var. *sylvestris* = Corolla more than 3 mm across

Myosotis laxa* subsp. *caespitosa

Nymphaea alba* subsp. *alba

Odontites vernus subsp. *vernus* = Branches held no more than 50 degrees to main stem

Odontites vernus subsp. *serotinus* = Branches held at least 50 degrees to main stem

Ononis repens subsp. *repens* = Flowers 12–20mm long

Ononis repens subsp. *maritima* = Flowers 7–12mm long

Ornithogalum umbellatum subsp. *umbellatum* = Tepals 2–3 cm long

Ornithogalum umbellatum subsp. *campestre* = Tepals 1.5 - 2 cm long

Papaver somniferum* subsp. *somniferum

Pastinaca sativa subsp. *sativa* = Stems and leaves with sparse short hairs

Pastinaca sativa subsp. *sylvestris* = Stems and leaves with rather dense hairs

Pedicularis sylvatica* subsp. *sylvatica

Petasites japonicus* subsp. *giganteus

Phalaris arundinacea var. *arundinacea* = Leaves not variegated

- Phalaris arundinacea* var. *picta* = Leaves variegated
- Phyteuma orbiculare* subsp. *tenerum***
- Picris hieracioides* subsp. *hieracioides***
- Pilosella aurantiaca* subsp. *aurantiaca* = Stolons absent
- Pilosella aurantiaca* subsp. *carpathicola* = Stolons present
- Pilosella flagellaris* subsp. *flagellaris***
- Pinus nigra* subsp. *nigra* = Wide crown with long side branches, leaves 8-12cm, rather stiff
- Pinus nigra* subsp. *laricio* = Columnar crown with short side branches, leaves 10-18cm, rather flexible
- Plantago major* subsp. *major* = Hardly toothed leaves with more than 5 veins
- Plantago major* subsp. *intermedia* = Very toothed leaves with less than 5 veins
- Polygala vulgaris* subsp. *vulgaris* = Inner sepals 6–8.5 mm long
- Polygala vulgaris* subsp. *collina* = Inner sepals 4–6 mm long
- Polygonum oxyspermum* subsp. *raii***
- Populus x canadensis* cv. 'Gelrica' — Crown of tree with rounded outline; twigs of lowest branches stiff, many up-pointed; tree male; bark persistently whitish-grey until becoming fissured
- Populus x canadensis* cv. 'Serotina' — Crown of tree with rounded outline; twigs of lowest branches stiff, many up-pointed; tree male; bark not persistently whitish-grey until becoming fissured
- Populus x canadensis* cv. 'Casale 78' — Crown of tree with rounded outline; twigs of lowest branches stiff, many up-pointed; tree female
- Populus x canadensis* cv. 'Regenerata' — Crown of tree with rounded outline; twigs of lowest branches mostly pendent, often out- or up-turned at tip; young twigs glabrous
- Populus x canadensis* cv. 'Marilandica' — Crown of tree with rounded outline; twigs of lowest branches mostly pendent, often out- or up-turned at tip; young twigs hairy
- Populus x canadensis* cv. 'Heidemij' — Crown of tree narrow; young twigs glabrous; mature leaves mostly truncate to very broadly cuneate at base
- Populus x canadensis* cv. 'Eugenei' — Crown of tree narrow; young twigs glabrous; mature leaves mostly distinctly cuneate at base
- Populus x canadensis* cv. 'Robusta' — Crown of tree narrow; young twigs hairy
- Potentilla erecta* subsp. *erecta***
- Poterium sanguisorba* subsp. *sanguisorba* = Hypanthium with scarcely winged ridges
- Poterium sanguisorba* subsp. *balearicum* = Hypanthium with undulate wings
- Pteridium aquilinum* subsp. *aquilinum***
- Puccinellia distans* subsp. *distans***
- Ranunculus acris* subsp. *acris***
- Ranunculus flammula* subsp. *flammula***
- Ranunculus penicillatus* subsp. *pseudofluitans* var. *pseudofluitans* = Capillary leaves obconical
- Ranunculus penicillatus* subsp. *pseudofluitans* var. *vertumnus* = Capillary leaves globose to reniform
- Raphanus raphanistrum* subsp. *raphanistrum* = Fruit with cylindrical mericarps, annual
- Raphanus raphanistrum* subsp. *maritimus* = Fruit with +/- globose mericarps, biennial or perennial
- Rapistrum rugosum* subsp. *linnaeanum***
- Rhinanthus minor* subsp. *minor* = Intercalary leaves mostly absent
- Rhinanthus minor* subsp. *stenophyllus* = 1–2 pairs of intercalary leaves
- Rhinanthus minor* subsp. *calcareus* = 3–6 pairs of intercalary leaves
- Rumex acetosa* subsp. *acetosa***
- Rumex acetosella* subsp. *acetosella* var. *acetosella* = Tepals easily rubbed off; leaves narrow and linear
- Rumex acetosella* subsp. *acetosella* var. *tenuifolia* = Tepals easily rubbed off; leaves narrow and linear
- Rumex acetosella* subsp. *pyrenaicus* = Tepals not easily rubbed off
- Rumex crispus* subsp. *crispus* = Achenes 1.3–2.5 mm long, with 1 well-developed tubercle
- Rumex crispus* subsp. *littoreus* = Achenes 2.5–3.5 mm long, usually with 3 well-developed tubercles
- Rumex sanguineus* subsp. *sanguineus* = Red veins
- Rumex sanguineus* subsp. *viridis* = Green veins
- Salix caprea* subsp. *caprea***
- Salix cinerea* subsp. *cinerea* = Mature twigs hairy; lf undersides densely grey-hairy
- Salix cinerea* subsp. *oleifolia* = Mature twigs mostly glabrous; lf undersides with some rusty hairs
- Salix repens* var. *repens* = Procumbent
- Salix repens* var. *fusca* = Erect
- Saxifraga cymbalaria* var. *huetiana***
- Scleranthus annuus* subsp. *annuus* = Achene 3.2–4.5 mm long
- Scleranthus annuus* subsp. *polycarpus* = Achene 2.2–3 mm long
- Sedum telephium* subsp. *telephium* = Leaves truncate
- Sedum telephium* subsp. *fabaria* = Leaves cuneate
- Sedum kamtschaticum* var. *middendorffianum***
- Senecio vulgaris* subsp. *vulgaris***
- Silene latifolia* subsp. *latifolia* = Calyx-teeth finely tapered
- Silene latifolia* subsp. *alba* = Calyx-teeth not finely tapered
- Silene nutans* subsp. *smithiana***
- Silene vulgaris* subsp. *vulgaris***
- Solanum dulcamara* var. *dulcamara* = Scrambling, not succulent
- Solanum dulcamara* var. *maritimum* = Procumbent, succulent
- Solanum nigrum* subsp. *nigrum* = Stem hairs eglandular, appressed
- Solanum nigrum* subsp. *schultesii* = Stem hairs mostly glandular and spreading
- Solanum physalifolium* var. *nitidibaccatum***
- Solidago canadensis* subsp. *canadensis* = Stems hairy in upper half only
- Solidago canadensis* subsp. *altissima* = Stems hairy throughout
- Solidago gigantea* subsp. *gigantea***
- Sonchus arvensis* subsp. *arvensis* = Upper parts of peduncles and involucre bracts glandular-hairy
- Sonchus arvensis* subsp. *uliginosus* = Upper parts of peduncles and involucre bracts glabrous
- Sonchus asper* subsp. *asper* = No or sparse recurved spinules on the achene ribs
- Sonchus asper* subsp. *glaucescens* = Dense recurved spinules on the achene ribs
- Sparganium erectum* subsp. *erectum* = Fruits distinctly shouldered below beak; fruit with flat top 4–6 mm across
- Sparganium erectum* subsp. *microcarpum* = Fruits distinctly shouldered below beak; fruit with rounded top 2.5–4.5 mm across
- Sparganium erectum* subsp. *neglectum* = Fruits gradually rounded below beak; fruit ellipsoid
- Sparganium erectum* subsp. *oocarpum* = Fruits gradually rounded below beak; fruit subglobose
- Spergula arvensis* var. *arvensis***
- Symphoricarpos albus* subsp. *laevigatus***
- Symphytum officinale* subsp. *officinale***
- Tephrosia integrifolia* subsp. *integrifolia***
- Thymus polytrichus* subsp. *britannicus***
- Tragopogon pratensis* subsp. *pratensis* = Petals at least as long as phyllaries
- Tragopogon pratensis* subsp. *minor* = Petals shorter than phyllaries

Trifolium fragiferum subsp. *fragiferum*

Trifolium hybridum subsp. *hybridum* = Stems hollow

Trifolium hybridum subsp. *elegans* = Stems solid

Trifolium pratense var. *pratense* = Stems solid

Trifolium pratense var. *sativum* = Stems hollow

Urtica dioica subsp. *dioica* = Stinging

Urtica dioica subsp. *galeopsifolia* = Stingless (but intermediates also occur!)

Valeriana officinalis subsp. *sambucifolia* = Stolons present

Valeriana officinalis subsp. *collina* = Stolons absent

Veronica hederifolia subsp. *hederifolia* = Dark blue anthers

Veronica hederifolia subsp. *lucorum* = Pale blue to white anthers

Veronica scutellata var. *scutellata* = Glabrous

Veronica scutellata var. *villosa* = Hairy

Veronica serpyllifolia subsp. *serpyllifolia*

Vicia sativa subsp. *sativa* = Plant +/- isophyllous; fruits slightly constricted between seeds

Vicia sativa subsp. *segetalis* = Plant +/- isophyllous; fruits not constricted

Vicia sativa subsp. *nigra* = Plant heterophyllous

Viola odorata var. *odorata* = Spurs violet-purple; petals bluish-purple

Viola odorata var. *praecox* = Spurs violet-purple; petals deep violet-purple

Viola odorata var. *dumetorum* = Spurs violet-purple; petals white, sometimes splashed with purple

Viola odorata var. *sulfurea* = Spurs violet-purple; petals white suffused with apricot

Viola odorata var. *imberbis* = Spurs pinkish-purple; petals white

Viola odorata var. *subcarnea* = Spurs pinkish-purple; petals pinkish-purple

Viola palustris subsp. *palustris* = Leaves rounded at apex

Viola palustris subsp. *juressi* = Leaves obtuse to subacute

Vulpia ciliata subsp. *ambigua*

VC11 records by Martin Rand will be held over until the next edition of *Flora News*.

VC12 Records

Compiled by Tony Mundell (12 July 2017)

Once again here 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.

Andrew Leonard has continued his programme of checking formerly recorded sites for numerous species of ferns. He contributes so many records that I can only include a small sample here. I have included a few of his records for the two Shield Ferns *Polystichum aculeatum* and *P. setiferum* plus their hybrid. Note that Andrew published evidence in the journal 'Pteridologist' in 2013, that the hybrid may be much commoner than previously thought.

It is interesting how some plants vary in quantity from year to year, presumably as a result of the previous weather. 2017 turned out to be exceptionally good for Toothwort

Lathraea squamaria, and not just in Hampshire. On 4 April Ginnie Copsey and I stumbled on a remarkable 265 flower spikes beneath Hazels on a road verge at Longwood (VC11 so not included here). Musk Orchid *Herminium monorchis* had a splendid year at Noar Hill with uncountable thousands of plants. Another species that did well was Bee Orchid *Ophrys apifera*, but I have only included below some uncommon varieties of it.

As usual the list below is sprinkled with alien plants, some of them new to VC12, but there have also been some splendid discoveries of scarce native species in new places. One of these is Pillwort *Pilularia globulifera*, found at new sites at Penny Hill near Minley and also at Woolmer Pond.

Steve Povey and I were delighted to find a new site for Spear-leaved Willowherb *Epilobium lanceolatum*. It was in the south-east corner of VC12 where most former records of this plant come from, as it apparently needs dry sandy soils. It was also splendid to have records of native rarities like Clustered Clover *Trifolium glomeratum* and Subterranean Clover *Trifolium subterraneum*.

Probably the most remarkable find this year was a colony of Hampshire-purslane *Ludwigia palustris* at Woolmer Pond. This is a national rarity, confined to the New Forest and Dorset (found 1996) that once also occurred in Sussex and Jersey. However, it did formerly also occur just into VC11 at Petersfield Heath at roughly SU 7522, where I have records for two hundred years from John Goodyer's time in 1645 to the latest (supported by a specimen at Kew) in 1849. This is less than 11km from Woolmer Pond. A hybrid plant of horticultural origin known as False Hampshire-purslane *Ludwigia x kentiana* has been found as an aquarists' throw-out in ponds in Sussex, Surrey and Essex and has been mistaken for the native plant. Certainly, John Buckley's photos show that the plants are prostrate which is correct for *L. palustris* and not the hybrid. Steve Povey has visited the Woolmer site and is sure that the plants are not this hybrid. It is possible that it might be a deliberate introduction.



Hampshire-purslane at Woolmer Pond (John Buckley)

Back in the 1970's Woolmer Pond had virtually disappeared due to natural succession and silting. Subsequently a first phase of dredging was done by

the army in 1983 with a second phase in 1986 to restore open water. Since then it has frequently been visited by botanists but nobody has reported this very rare plant here before. However, the water level is currently exceptionally low allowing access to more areas than usual, particularly the central bund (where the plants were found) that is usually an island. Other good finds include Spreading Hedge-parsley *Torilis arvensis*, though sadly it is unlikely to persist in such a precarious habitat as a pavement in a car park. This list also includes a few new alien taxa for VC12, including Pale Pink-sorrel *Oxalis incarnata* and Pick-a-back-plant *Tolmiea menziesii*, whereas only one previous record was known for some others including Spiny Bear's-breech *Acanthus spinosus*, Red Alder *Alnus rubra* and Yellow Nonea *Nonea lutea*.

In *BSBI News* No.133, Sep 2016, p.30 it was pointed out that many of the plants previously recorded as Hairy Garlic *Allium subhirsutum* are actually Hirsute Garlic *Allium trifoliatum*. The main differences between these two is that *A. trifoliatum* has (rather indistinct) pink veins on the white tepals whilst those of *A. subhirsutum* are just white, and that the pedicels are 15-21 (30) mm on *A. trifoliatum* but 28-35 mm on *A. subhirsutum*. So when Mike Hackston thought he had found *A. subhirsutum* we soon established that it was really *A. trifoliatum*. Unfortunately, I cannot add Mike's records to my database as it is not yet on the MapMate taxa list, but I have included his records below.

Another pleasing record was of Field Garlic *Allium oleraceum* in a new spot. This is a fast disappearing rarity in Hampshire, lost from most VC12 sites.

Key

HFG = Hants Flora Group WFS = Wildflower Society

***Acaena novae-zelandiae* (Pirri-pirri-bur)** NE of Headley Down, beside Whitmoor Lane SU 8559 3702, Tony Mundell, Isobel Girvan & Steve Povey 9 May 2017.

***Acanthus spinosus* (Spiny Bear's-breech)** Eversley SU7616 6279 near the ford, Tony Mundell, Gareth Knass & Adam Lucas 30 May 2017.

***Acer rufinerve* (Grey-budded Snake-bark-maple)** Wonston Bridge Meadow SU4760 3964 beside stream, presumably originally planted. Voucher specimen retained. Tony Mundell, Gareth Knass & Andy Cross 17 Jun 2017.

***Aconitum napellus* (Monk's-hood)** Monk Sherborne SU61165769, a small clump of plants beside field edge, Adam Lucas 7 May 2017.

***Acorus calamus* (Sweet-flag)** Southrope SU6718 4487 in small dried-up roadside pond, Tony Mundell & Adam Lucas 18 Apr 2017.

***Adonis annua* (Pheasant's-eye)** Fob Down, Alresford, about five small plants at SU5738 3303 just coming into flower, suffering from rabbit grazing, Fred Rumsey 27 May 2017.

***Agrostemma githago* (Corncockle)** Chineham SU655560, 50+ noted edge of tree belt near new development entrance at Crockford Lane, the only herb in sown *Cynosurus cristatus* grassland, Gareth Knass 13 Jun 2017.

***Ajuga reptans* (Bugle – pink form)** A large patch of a pink-flowered form, probably cv. Pink Elf, on grassy road verge at Woodmancott SU5606 4243, Tony Mundell, Adam Lucas & Gareth Knass 14 Apr 2017.

***Allium oleraceum* (Field Garlic)** N of Martyr Worthy at SU5104 3488 on grassy road verge, showing the characteristic very long pair of spathe valves. Flowers still very immature but one dissected



Bugle *Ajuga reptans* pink form, Woodmancott (Adam Lucas)



Hirsute Garlic *Allium trifoliatum* (Mike Hackston)



Red Alder *Alnus rubra*, showing the distinctive leaf edge, Bramshill (Victor Freestone)

under microscope and stamens confirmed shorter than tepals, Tony Mundell & Anna Stewart 29 Jun 2017.

Allium paradoxum (Few-flowered Garlic) N of Conford on S verge of Standford Lane, 5m x 3m patch at SU8257 3336, Dawn Nelson 8 Apr 2017. In great quantity on both sides of Midhurst Road, Liphook, from SU846 305 to SU842 309 and beyond, Steve Povey 17 Mar 2017. In quantity at Hurstbourne Tarrant SU3860 5302 at the bottom of a field, spreading from a garden, Peter Billingham & Dawn Nelson 24 Mar 2017.

Allium trifoliatum (Hirsute Garlic) Single plant at SU618517 beside St Peters Road, Basingstoke amongst low growing council-planted shrubbery, Mike Hackston 19 May 2017, photos det. Tony Mundell. Also at Winklebury, Basingstoke SU61247 52389, a patch 60cm x 20cm at the base of a shady bank, Mike Hackston 23 May 2017. On 3 Jun 2017 Mike Hackston revisited this site and found the plants to be more extensive, stretching along a 15m section of the bank.

Alnus rubra (Red Alder) Six largish trees at Bramshill SU75497 62590 (presumably planted) and two self-seeded saplings. Photo showing the distinctive leaf edge confirmed by Tony Mundell (see *previous page*).

Anacamptis morio (Green-winged Orchid) Forest Research, Alice Holt SU804426, around a dozen plants on grass verge and on lawn opposite, Steve Povey 15 May 2017.

Anchusa arvensis (Bugloss) Woolmer Pond SU783316, small group of plants, Steve Povey 25 Jun 2017.

Anemone ranunculoides (Yellow Anemone) In a field at Hurstbourne Tarrant SU3864 5304. Shown to Dawn Nelson by Peter Billingham 24 Mar 2017.

Apium nodiflorum (Fool's-water-cress) Voucher specimen retained. A curious form with strongly dentate leaves (but not *Berula erecta*). At Cottus Wood, Andwell SU6841 5246 in outlet stream from pond, Tony Mundell & Adam Lucas 20 Jun 2017.

Aponogeton distachyos (Cape-pondweed) Following recent ditch clearance work, still present in two places at Elvetham Heath SU8032 5564, Tony Mundell 5 Apr 2017.

Arum italicum subsp. neglectum (Italian Lords-and-Ladies) 27 groups of stems scattered across an area of c. 4m x 4m at Hawkley Hanger at SU74050 29077 and more further along this hanger, Catherine Chatters 21 Jan 2017. Photos det. Steve Povey.

Asplenium ceterach (Rustyback) Martyr Worthy Churchyard SU515327, on east-facing wall of church. It appeared to be the only plant growing on that wall, Dave Pearson 31 Mar 2017. Single plant on wall of Blackmoor Churchyard SU780335, Steve Povey 31 May 2017. Whitchurch SU465482 on a wall, Sarah Ball & Sarah White 23 Jun 2017. Many plants on entrance wall to French Horn PH at Spitalhatch SU7112 3847, Steve Povey 2 Jul 2017.



Rustyback *Asplenium ceterach*, Martyr Worthy Churchyard (Dave Pearson)

Astrantia major (Astrantia) Single plant flowering well at Noar Hill SU7428 3187 in *Cornus sanguinea* scrub on the reserve, presumably introduced, shown to WFS by Steve Povey 8 Jul 2017.

Aucuba japonica (Spotted-laurel) Bramley SU6572 5955 one plant beside ditch, Adam Lucas 22 Apr 2017.

Botrychium lunaria (Moonwort) Yateley Common, 10 plants at SU80592 59339, 17 plants at SU80595 59376, four at SU80594 59377. A large fruiting plant at SU80595 59359, one more at SU80597 59356 and two at SU80591 59355. One at SU80585 59341. Two groups of three plants each, c.1m apart, at SU80594 59362. Almost all amongst *Pilosella officinalis*, most fruiting, Tony Mundell & HFG 18 Jun 2017.

Buddleja alternifolia (Alternate-leaved Butterfly-bush) N of Martyr Worthy in planted hedgerow at SU5178 3416. Voucher specimen kept, Tony Mundell & Anna Stewart 29 Jun 2017.

Butomus umbellatus (Flowering-rush) NW of Whitchurch at SU4403 4927 by artificial pond, Sarah Ball & Sarah White 27 Jun 2017.

Calamagrostis epigejos (Wood Small-reed) Conford Moor, patch at SU8188 3332, Tony Mundell 13 Apr 2017. E of Upper Farringdon, patch in field corner at SU7215 3536, Tony Mundell 21 May 2017.

Campanula rotundifolia (Harebell) Locally frequent N of Rake on sandy roadside banks at SU8033 2877, SU8037 2842, SU8040 2878 and SU8055 2874 etc., Tony Mundell & Steve Povey 27 Jun 2017.

Cardamine amara (Large Bitter-cress) NE of Headley Down at SU8540 3724 on Hants side of the Hants/Surrey border stream, and in wet flush on Hants side of the Hants/Surrey border stream at SU8590 3667, Tony Mundell, Isobel Girvan & Steve Povey 9 May 2017.

Carex canescens (White Sedge) Blackmoor Unit 1, several plants in and beside the 'canal' at SU7889 3339 and one large plant at SU78632 33389, Tony Mundell & Steve Povey 21 Jun 2017.

Carex diandra (Lesser Tussock-sedge) One plant in well-grazed and poached area at Greywell Fen SU7201 5097 at margin of tussocky fen (with *C. lepidocarpa* and *Pedicularis palustris*), Fred Rumsey 25 Jun 2017.

Carex strigosa (Thin-spiked Wood-sedge) Bordon SU7838 3684, several plants in trackside mud, Tony Mundell, Isobel Girvan & Steve Povey 14 Jun 2017. Many plants by muddy path Mattingley SU7305 5878 to SU7306 5872 and more by stream at SU7308 5865, Tony Mundell 13 Jul 2017.

Catabrosa aquatica (Whorl-grass) Wonston Bridge Meadow, locally dominant or abundant in stream at SU4752 3957, SU4748 3960 and SU4733 3957, Tony Mundell, Gareth Knass & Andy Cross 17 Jun 2017.

Cephalanthera damasonium (White Helleborine) Andover SU382462, 11 plants counted, three in flower, Graeme Davis 30 Apr 2017. N of Winchester, one plant under Beech at SU4722 3153 and under Beech at SU4806 3167, Anna Stewart 8 May 2017 N of Laverstoke, on the Harrow Way, nine small plants at SU4909 5030, five just coming into flower, Richard Easton 14 May 2017. NW of Micheldever Station SU503439, one plant seen on north side of E-W track, Andy Cross 22 May 2017. In several residential gardens on both sides of Lynch Park Road, Whitchurch SU467483 in at least tens if not hundreds, mainly under Beech trees, Sarah Warriss-Simmons 30 May 2017. Chilbolton SU397379, approx 40 flowering spikes mown down to ground level by over-enthusiastic County Council contractor. A few remaining in hedge, Glynne Evans 4 Jun 2017.

Cerastium arvense (Field Mouse-ear) Stockbridge Down, about ten plants in total located at approximately SU38022 35140, Dave Pearson 14 May 2017. SE of Sydmonton SU4943 5612 beside track, on grassy verge, spread along 2m but not flowering, Tony Mundell & Pete Flood 12 Jun 2017.

Cerastium diffusum (Sea Mouse-ear) NW of Farnborough, SU8456, scattered across Sun Park, Andy Cross 24 May 2017.

Chenopodium hybridum (Maple-leaved Goosefoot) NW of Quarley, single plant on arable field edge at SU25345 42460, growing with *Lithospermum arvense*, Steve Little & David Albon 5 Jul 2017.

Chrysosplenium alternifolium (Alternate-leaved Golden-saxifrage) Tankerdale Lane SU769259, many plants in flower plants on damp ground beneath Poplars, some growing among *C. oppositifolium*, Steve Povey 14 Mar 2017. Two non-flowering plants islands in stream which feeds Lutcombe Pond at SU7349 2643, Steve Povey 5 Apr 2017.

Cirsium eriophorum (Woolly Thistle) W of Lasham, several plants scattered from SU6568 4265 to SU6564 4262, Tony Mundell 30 Jun 2016.

Claytonia sibirica (Pink Purslane) Hannington SU540554, on bank outside a garden wall, Sarah Ball and Sarah White 30 May 2017.

Cotinus coggygria (Smoke-tree) Cranbourne SU6272 5082 on wasteland, Adam Lucas 14 May 2017.

Crepis biennis (Rough Hawk's-beard) Ibthorpe area, SU373540 – not beaked – hispid stems, Peter Billingham 23 May 2017.

Dactylorhiza incarnata subsp. incarnata (Early Marsh-orchid) Winnall Moors SU49123121, Anna Stewart 18 May 2017, photos confirmed by Tony Mundell.



Early Marsh-orchid *Dactylorhiza incarnata* subsp. *incarnata*, Winnall Moors (Dave Stewart)

Drosera intermedia (Oblong-leaved Sundew) Many plants around 'scrape' at southern end of Woolmer Pond at SU7869 3167, Steve Povey 25 Jun 2017.

Epilobium lanceolatum (Spear-leaved Willowherb) Voucher specimen collected. N of Rake, about ten plants at SU8024 2864 and several more at SU8055 2874, on sandy roadside banks, Tony Mundell & Steve Povey 27 Jun 2017.

Epipactis phyllanthes (Green-flowered Helleborine) Great Pen Wood, A343 verge SU442622, counted before they all get mown off. 190 on east side of road and a further 64 on west side, Simon Melville 14 Jun 2017. Winnall Moors, in bud, one at SU48587 29925, one at SU48596 29915 and one at SU48598 29913, Nigel Johnson 9 Jul 2017. Alresford, Wayfarer's Walk SU5865 3303 and SU5864 3304, edge of path near junction with Ladywell Lane, Pete Flood 13 Jul 2017.

Erigeron philadelphicus (Robin's-plantain) Voucher specimen collected. Several plants on road verge at Wonston SU4729 3947 escaping from a garden, Tony Mundell, Gareth Knass & Andy Cross 17 Jun 2017.

Eriophorum vaginatum (Hare's-tail Cottongrass) Voucher specimen collected. Blackmoor Unit 1, dozens of plants mainly between SU78611 33530 to SU78638 33534 to SU78635 33521, Tony Mundell & Steve Povey 21 Jun 2017.

Euphrasia arctica subsp. borealis (An Eyebright) Winnall Moors SU49083103, Anna Stewart 18 May 2017, specimen confirmed by Tony Mundell.

Euphorbia platyphyllos (Broad-leaved Spurge) Charity Farm beside Noar Hill, many hundreds of plants around edge of Oilseed Rape crop extending from SU7428 3165 via field corner at SU7428 3168 to SU7420 3172. Over 100 counted in first 50m then gave up counting, Tony Mundell with WFS 8 Jul 2017.

Euphorbia stricta (Upright Spurge) At top of Windmill Hill Lane, Ibthorpe SU3692 5312, in an area next to a garden, cleared of trees a couple of years ago, now with much bare ground, Peter Billingham 12 July 2017.



Upright Spurge *Euphorbia stricta* showing capsules with cylindrical bumps (Peter Billingham)

Filago lutescens (Red-tipped Cudweed) A single flowering plant 6 inches tall on the verge at Broomhurst Farm, Fleet SU81255 56367, Steve Little & David Albon 8 Jul 2017. [After a gap of several years 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 one plant has survived – Tony Mundell]

Fritillaria meleagris (Fritillary) 450+ blooms in 100m x 20m strip, Chilbolton Common SU3885 3996 to SU3890 3998 in south corner, Glynne Evans 3 Apr 2017.



Fritillary *Fritillaria meleagris*, Chilbolton Common (Glynne Evans)

Fumaria parviflora (Fine-leaved Fumitory) Cholderton Estate, Romsey Road field, scattered with other *Fumaria* spp. including *F. reuteri* in SU244430 to SU244429 (and probably more widely), Fred Rumsey 31 May 2017. S of Freefolk Wood, SU4845 4372, two plants, Victor Freestone 16 June 2017.

Fumaria reuteri (Martin's Ramping-fumitory) Cholderton Estate, Romsey Road field, scattered with other *Fumaria* spp. including *F. parviflora* in SU244430 to SU244429 (and probably more widely), Fred Rumsey 31 May 2017.

Galanthus elwesii (Greater Snowdrop) St Giles Hill Graveyard, Winchester SU49072942, clump of plants on grave in front row, section I, west side, Anna Stewart 31 Jan 2017. E of Binley SU4242 5290 on road verge beside a dwelling, probably planted, Peter Billingham 2 Mar 2017.

Galanthus nivalis x plicatus (A hybrid Snowdrop) In several places in Hurstbourne Tarrant Churchyard SU3853, Dawn Nelson 11 Mar 2017.

Genista tinctoria (Dyer's Greenweed) Anton Lakes SU360471, one large clump, I was not expecting to see it in such an unfavourable habitat, Graeme Davis 22 Apr 2017.

Geranium himalayense (Himalayan Crane's-bill) Cranbourne SU6272 5082 on wasteland, Adam Lucas 14 May 2017.

Geum rivale (Water Avens) NE of Hound Green at SU7342 5944, Graeme Down 2 May 2017. NE of West Stratton, flowering, on edge of track ditch/bank at SU5369 4194. Extends into SU5342, Andy Cross 3 May 2017. E of Basing SU682521, private track parallel to M3, Ginnie Copey 7 May 2017.

Glebionis segetum (Corn Marigold) NE of Micheldever Station, two flowering and one non-flowering plants at SU53667 45693 in bean field, Gareth Knass 25 Jun 2017.

Helleborus foetidus (Stinking Hellebore) Shalden SU696421, solitary plant in small wood north of village, Geoffrey Farwell 1 Jul 2017.

Helleborus viridis (Green Hellebore) Empshott Green on bank to north of road verge, five shoots at SU74044 30957, one at SU74049 30962 and one at SU74050 30962, Catherine Chatters 21 Jan 2017. Lutcombe Bottom, 40 stems and many flowers at SU7359 2640 on west bank of stream downstream of the weir, Catherine Chatters 17 Mar 2017.

Hepatica nobilis (Liverleaf) Hurstbourne Tarrant Churchyard SU385529, presumably planted, SE area of churchyard, in flower, Dawn Nelson 11 Mar 2017.

Herminium monorchis (Musk Orchid) Many thousands of flowering-plants scattered over central areas of Noar Hill SU7431, Steve Povey & Laura Gravestock 18 Jun 2017.

Hieracium scotostictum (Dappled Hawkweed) New Alresford SU580321, Grange Road, along line of fence, 15 plants in cracks in pavement, Pete Flood 20 May 2017.

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

Hordeum secalinum (Meadow Barley) Selborne SU740335 and SU739335, several groups of plants in small area of Wakes Park, Steve Povey & Laura Gravestock 17 Jun 2017.

Hydrocotyle ranunculoides (Floating Pennywort) Patch on Hampshire bank of River Blackwater at Yateley SU8095 6215, Tony Mundell 3 May 2017.

Illecebrum verticillatum (Coral-necklace) Longmoor, Liss Forest, at SU8051 2963 and SU8073 2966 in puddles in track, east edge of Liss Forest, Tony Mundell & Steve Povey 27 Jun 2017.

Impatiens parviflora (Small Balsam) N of Rake, colonies scattered along road verge from SU8024 2871 to SU8004 2873, Tony Mundell & Steve Povey 27 Jun 2017.

Isolepis setacea (Bristle Club-rush) NW of Farnborough SU843569, five plants on western edge of watercourse, Andy Cross 24 May 2017.

Lathraea clandestina (Purple Toothwort) Tankerdale Lane SU766254, small clump on grassy path near River Rother growing on *Salix* sp. A new place. (Private land), Steve Povey 30 Mar 2017.

Lathraea squamaria (Toothwort) Hurstbourne Tarrant, Stoke Lane, >150 on track verge at SU3922 5271, on Holly and 28 spikes in strip of wood beside track at SU3957 5298, on oak & Hawthorn. Also Stoke, Doiley Bottom area, >250 on track verge at SU3994 5308, at base of oak, all Peter Billingham 6 Apr 2017. NE of Dummer, many spikes under Hazel at SU5980 4724, Tony Mundell & Gareth Knass 6 Apr 2017. Tangley, a clump of c.20 spikes at SU33487 52030 in Fox Plantation, Glynne Evans 8 Apr 2017. Vernham Dean, Boats Wood, 15 at SU3367 5619, three at SU3367 5617, seven at 3356 5612, one at 3319 5603, seven at SU3331 5599, four at SU3330 5602, one at SU3332 2602, Peter Billingham 10 Apr 2017. E of Kingsclere, a patch in flower a metre across on Hazel at SU5425 5846 beside a track parallel to the A339, Bob Winfield 15 Apr 2017.



Toothwort *Lathraea squamaria*, NE of Dummer (Tony Mundell)

Lathyrus linifolius (Bitter-vetch) Ron Ward's Meadow, Tadley, in flower at SU6022 6063, Tony Mundell 22 Apr 2017.

Lathyrus nissolia (Grass Vetchling) Burghclere SU46116065, scattered in wide verge, Harts Lane junction, Jamie Fletcher 18 Jun 2017.

Limnanthes douglasii (Meadow-foam) Cranbourne SU6401 5119 beneath gate to allotments, Adam Lucas 14 May 2017.

Linaria repens (Pale Toadflax) Woolmer Forest c.SU7892 3233, John Buckley 19 Jun 2017.

Lithospermum arvense (Field Gromwell) NW of Quarley Hill, literally hundreds of plants along field edge heading eastwards from SU25334 42481, Steve Little & David Albon 5 Jul 2017.

Littorella uniflora (Shoreweed) A great many plants creating 'lawns' on the dried-up areas of Woolmer Pond at and around 787318, Steve Povey 25 Jun 2017.

Ludwigia palustris (Hampshire-purslane) Seven plants at SU7896 3202, John Buckley 30 Jun 2017. Photos confirmed by Martin Rand and Tony Mundell. Several plants both large and small

along margin of Woolmer Pond at SU7899 3204, where first found by John Buckley, Steve Povey 8 Jul 2017.

***Lycium barbarum* (Duke of Argyll's Teaplant)** Bramley SU6552 5948 beside railway line, Adam Lucas 22 Apr 2017.

***Lycopodiella inundata* (Marsh Clubmoss)** Woolmer Pond c.SU7957 3295, John Buckley 19 Jun 2017.

***Matteuccia struthiopteris* (Ostrich Fern)** Whitmoor Vale SU86223611, in very boggy ground on the Hants side of the county boundary stream (but also nearby on the Surrey side), just north of a small footbridge, looking well-naturalised, George Houndsome & Eric Clement 22 Dec 2016. Seems naturalised on verge of Whitmoor Lane at SU8561 3696, but clearly planted in two other places nearby on same road verge directly outside gardens, Tony Mundell, Isobel Girvan & Steve Povey 9 May 2017.

***Misopates orontium* (Weasel's-snout)** W of Eversley SU7486 6353, 20-30 plants in corner of a field of cultivated Lucerne *Medicago sativa*. One more at SU7494 6355 and two at SU7472 6349, Victor Freestone 23 Jun 2017.

***Myosurus minimus* (Mousetail)** One largish plant only, in crop at Hartley Wintney SU7680 5598 on field margin adjacent to church, Fred Rumsey 6 May 2017.

***Myrrhis odorata* (Sweet Cicely)** Single large plant on bank beside Tilmore Road, Petersfield, at SU744 241, Steve Povey 7 Jun 2017.

***Nectaroscordum siculum* subsp. *siculum* (Honey Garlic)** A31, New Alresford SU56873146, on westbound road verge, was mown before I could return for specimens – seems to have spread, Pete Flood 14 May 2017.

***Nonea lutea* (Yellow Nonea)** One plant in flower by roadside at Steep SU75405 24730, Victor Freestone 19 Apr 2017.

***Ophioglossum vulgatum* (Adder's-tongue)** Many plants in area where scrub has recently been cleared on Noar Hill at SU7419 3189, Steve Povey 20 May 2017.

***Ophrys apifera* var. *belgarum* (Bee Orchid variety)** Winchester, A31/B3404 roundabout, two at SU5193 2937, 30 at SU5193 2939, one at SU5194 2939, nine at SU5196 2936. Eight plants at SU5194 2940. One at SU5203 2935, one at SU5203 2937, four at SU5203 2938, one at SU5204 2935. A later visitor told me the total count was over 100, Fred Rumsey 11 Jun 2017. Greywell, one at SU7239 5146 (rather aberrant and approaching var. *trollii*) plus three at SU7240 5148 and seven at SU7241 5149, Fred Rumsey 25 Jun 2017.

***Ophrys apifera* var. *trollii* (Wasp Orchid)** Cody Technology Park, single plant at c.SU8430 5386 in flower bed near the Buccaneer Aircraft, with normal Bee Orchids nearby. First found here by Helen Anderson, Betty Hansell 8 Jun 2017. An aberrant form. photos identified by Nigel Johnson and Rosemary Webb as var. *trollii*.

***Ophrys insectifera* (Fly Orchid)** N of Laverstoke on the Harrow Way, two very small individuals in flower with five vegetative ones at SU4905 5027 on south edge of main path, Richard Easton 14 May 2017. Three plants of var. *ochroleuca* at Noar Hill SU742318, Steve Povey 18 May 2017. Old Burghclere Lime Quarry SU471572, estimate of population between 700 and 1000, Graham Dennis 3 Jun 2017.

***Ornithogalum nutans* (Drooping Star-of-Bethlehem)** A thriving colony in flower on bank at east side of Blaegrove Lane, Up Nately, Mike Hackston 26 Mar 2017, photos confirmed by Tony Mundell.

***Orobanche hederæ* (Ivy Broomrape)** Winchester, St Giles Hill SU49042937, ten plants, yellow colour, forma *monochroma*, Ivy nearby, Anna Stewart 29 May 2017. Church Crookham, 14 spikes of the normal purplish colour form pushing up through tarmac in alleyway at SU8105 5205. It has been here since 2005 as an accidental escape from my own garden and parasitising variegated ivy in my neighbour's garden on the other side of the alleyway fence, Tony Mundell 23 Jun 2017.

***Oxalis acetosella* (Wood-sorrel)** Flowers a remarkable rich deep pink at Upper Inhams Copse SU62259 61549, Reading & District Natural History Society meeting 8 Apr 2017. Photo identified by Tony Mundell.



Yellow Nonea *Nonea lutea*, Steep (Victor Freestone)



Wasp Orchid *Ophrys apifera* var. *trollii* (Betty Hansell)



Wood Sorrel *Oxalis acetosella* – deep pink form, Inhams Copse (Rob Stallard)

***Oxalis incarnata* (Pale Pink-sorrel)** Patch about a metre across at Dummer Cemetery SU5875 4603, Tony Mundell & Gareth Knass 6 Apr 2017.

***Papaver atlanticum* (Atlas Poppy)** Cranbourne SU6397 5160 base of wall beside road, Adam Lucas 14 May 2017.

***Papaver hybridum* (Rough Poppy)** SW of South Wonston, over a dozen plants in field corner at SU4411 3482, Tony Mundell & Pete Flood 9 Jun 2017.



Rough Poppy *Papaver hybridum*, SW of South Wonston (Tony Mundell)

***Papaver lecoqii* (Yellow-juiced Poppy)** Several plants in and around car-park behind Selborne Arms Inn. SU741335, Steve Povey 30 May 2017.

***Paris quadrifolia* (Herb-paris)** W of Ecchinswell, over 60 in flower and many more on wooded banks off both sides of lane, Sarah Ball 17 Apr 2017. Fox Plantation, both sides of road at SU3356 5220 to SU3358 5223, Peter Billingham 22 Apr 2017.

***Pedicularis palustris* (Marsh Lousewort)** Greywell Fen SU7201 5097 at margin of tussocky fen, Fred Rumsey 25 Jun 2017.

***Persicaria bistorta* (Common Bistort)** Bramley SU6505 5929 beside ditch, Adam Lucas 22 Apr 2017.

***Pilularia globulifera* (Pillwort)** Penny Hill, patch 50cm across, showing several 'pills', at SU8109 5769 at edge of ditch beside main track, Tony Mundell, Mary Parker & Adam Lucas 25 Apr 2017. Woolmer Pond, first found by John Buckley a few days ago. Five colonies of plants of varying sizes scattered along the pond margin from SU78772 31813 to 78788 31880, one at SU78780 31847 covering an area of 1m x 3m, Steve Povey 25 Jun 2017.

***Poa angustifolia* (Narrow-leaved Meadow-grass)** Winchester, Tesco car park SU49583026, Anna Stewart 1 Jun 2017. Andwell, voucher specimen retained, at SU6905 5235 on bridge over M3, Tony Mundell, Adam Lucas & Gareth Knass 20 Jun 2017. Winchester SU47942982, on wall, Anna Stewart 28 Jun 2017.

***Poa compressa* (Flattened Meadow-grass)** Yateley Common SU8078 5935 at edge of disused runway, Tony Mundell & HFG 18 Jun 2017.

***Polycarpon tetraphyllum* (Four-leaved Allseed)** Aldershot, Pavilion Road, on roadside pavement edges at SU8515 5038 (two plants) and SU8516 5040 (one plant). A persistent accidental introduction escaped from my garden, Fred Rumsey 27 Jun 2017.

***Polypogon monspeliensis* (Annual Beard-grass)** Aldershot, one plant at junction of The Grove and Birchett Road, on pavement at base of wall at SU8651 5053. Sadly this disappeared the day after I photographed it, Fred Rumsey 20 Jun 2017.

***Polypogon viridis* (Water Bent)** Alresford SU5849 3259, a big clump, Anna Stewart 30 May 2017. Whitchurch SU4626 4815 at base of wall in town, Sarah Ball and Sarah White 23 Jun 2017.

***Polystichum aculeatum* (Hard Shield-fern)** Ashford Hangers by footpath SU7306 2654, SU7318 2658, SU7326 2659, SU7346 2637, SU7351 2627, Andrew Leonard 20 Mar 2017. Waggoners

Wells SU8623 3452, in wall by road, Andrew Leonard 25 Mar 2017. Hawkey steep banks of unnamed road SU7414 2880, Hawkey Road SU7513 2882, Andrew Leonard 28 Mar 2017. Hawkey, Cheescombe Farm Lane SU7458 2897, SU7459 2891, SU7463 2882, Andrew Leonard 8 Apr 2017.

***Polystichum setiferum* (Soft Shield-fern)** Around Hawkey SU7502 3070, SU7527 3004, SU7529 2931, SU7535 3055, SU7539 2935, SU7539 3041, SU7560 2963, SU7566 2970, SU7575 2988, Andrew Leonard 15 Apr 2017.

***Polystichum x bicknellii* (Hybrid Shield-fern)** Ashford Hangers SU7412 2681, by footpath, only identified on morphological grounds, Andrew Leonard 23 Mar 2017. Hawkey Hanger SU7375 2996 by footpath, Andrew Leonard 11 Apr 2017.

***Populus nigra* subsp. *betulifolia* (Black Poplar)** Hound Green, a row of c.25 trees extending close to public footpath from SU7243 5811 to SU7227 5802, Tony Mundell 13 Jul 2017.

***Potentilla indica* (Yellow-flowered Strawberry)** S of South Hay SU777381, small group of plants on waste ground, Steve Povey 8 May 2017.

***Primula elatior* (Oxlip)** E of Steep SU751250, two groups of plants along Harrow Lane, four in one, seven in the other, with a total of 14 flower-spikes, Steve Povey 7 Apr 2017.

***Puccinellia distans* (Reflexed Saltmarsh-grass)** Winchester SU4951 3036, near Tesco sign, Easton Lane roundabout, Anna Stewart 1 Jun 2017.

***Pyrola minor* (Common Wintergreen)** Around 8 plants beside perimeter fence of MOD Longmoor SU788293, Steve Povey 1 Jun 2017.

***Ranunculus auricomus* (Goldilocks Buttercup)** Ibthorpe SU3750 5366, Peter Billingham 1 Apr 2017. SE of Hurstbourne Tarrant, track verge at SU392523 & SU397522, Peter Billingham 6 Apr 2017. SW of Ashmansworth, beside track SU408551 to SU409551, Peter Billingham 10 Apr 2017. Bentworth, beside track at SU6489 4050, SU6422 4049 and SU6444 4064, Tony Mundell & Anna Stewart 12 Apr 2017. Tangley, verge of road to church SU336524, and verge of wooded track SU337523, Peter Billingham 25 Apr 2017. Vernham Dean SU347561, a clump of around 15 plants, Graeme Davis 1 May 2017.

***Ranunculus hederaceus* (Ivy-leaved Crowfoot)** Lyde Green SU7095 5711, masses around the edge of village pond, Adam Lucas 4 Jun 2017.

***Ranunculus parviflorus* (Small-flowered Buttercup)** Woolmer Forest c.SU7883 3275, John Buckley 19 Jun 2017.

***Rosa spinosissima* (Burnet Rose)** Bordon, patch 2m long beside track at SU7805 3706, not adjacent to houses so presumably bird-sown, Tony Mundell, Steve Povey & Isobel Girvan 14 Jun 2017.

***Rosa stylosa* (Short-styled Field-rose)** NE of Bentley, a single bush at SU80336 45510 at start of public right of way running along the north edge of Gully Copse, Gareth Knass 13 Jul 2017.

***Rosa tomentosa* (Harsh Downy-rose)** NE of Bentley, a single mature bush in a roadside hedge at SU80345 45493, immediately south of a field gate, suffering from hedge flailing. Limited fruiting material, but maybe 12 hips present. Photos taken, Gareth Knass 13 Jul 2017.

***Rosa x andegavensis* (*Rosa stylosa* x *canina*)** NE of Micheldever Station SU53703 45337, by field entrance in hedge under tree line. Non-directional hybrid, Gareth Knass 25 Jun 2017.

***Salix triandra* var. *hoffmanniana* (Almond Willow)** Goodworth Clatford, many plants at SU3677 4109 near stream, also some at SU3654 4155, Tony Mundell, Adam Lucas & Dave Pearson 10 Jul 2017.

***Salvia pratensis* (Meadow Clary)** Cholderton Estate, Reservoir field SU246438, Fred Rumsey 31 May 2017.

***Saxifraga granulata* (Meadow Saxifrage)** Chilbolton, West Down SU383389, on SW slope, Glynnne Evans 10 May 2017.

***Scirpus sylvaticus* (Wood Club-rush)** Bordon SU7847 3672, Tony Mundell, Isobel Girvan & Steve Povey 14 Jun 2017.

Sisymbrium orientale (Eastern Rocket) Cranbourne SU6223 5069 all along path edge next to football stadium, Adam Lucas 14 May 2017.

Smyrniolum olusatrum (Alexanders) Basingstoke, in flower by entrance to gate to the Vyne School, SU6360 5302. There are about 15 plants on the south side of the gate and two on the north side and a single plant in the hedge a few metres further south on Vyne Road, Mike Hackston 2 Apr 2017. Single plant at Fleet SU8011 5378 in scrubby vegetation near boundary path around playing fields, Tony Mundell 10 Apr 2017. South View SU636530, six plants at entrance to school, Adam Lucas 3 May 2017.

Stellaria neglecta (Greater Chickweed) On Hampshire side of River Blackwater at SU80682 62094, near to a footbridge, Tony Mundell 3 May 2017.

Stratiotes aloides (Water-soldier) Abundant in roadside pond at Hartley Wintney SU7670 5565, probably originally planted, Tony Mundell 16 Dec 2016.

Tolmiea menziesii (Pick-a-back-plant) Three patches at Liss SU78081 28378, the flowers had gone over. A photo from 18 May 2011 (confirmed by Tony Mundell) was taken when I first came across this plant. Then it was very much more extensive. The area is now over-run with Himalayan Balsam and American Skunk Cabbage, Victor Freestone 10 May 2017.

Torilis arvensis (Spreading Hedge-parsley) Whitchurch SU46108 48048 under kerb to vegetated island in middle of car park, Sarah Ball and Sarah White 27 Jun 2017.

Trifolium glomeratum (Clustered Clover) In Bordon military cemetery SU787362, growing not far from *Trifolium striatum*, Tony Mundell, Isobel Girvan & Steve Povey 14 Jun 2017.

Trifolium subterraneum (Subterranean Clover) Woolmer Forest, on top on bank of soil at c.SU7887 3283, John Buckley 19 Jun 2017.

Turritis glabra (Tower Mustard) Baker's Corner, Kingsley SU7787 3775, several dozen plants on ground cleared of scrub by HCC on 15 Feb 2017, Steve Povey 8 May 2017.

Typha angustifolia (Lesser Bulrush) Foxlease Meadows, Hawley SU8291 5679, three in flower and at least a dozen not in flower. Growing in same pond (but in a separate area) as *Typha latifolia*, Victor Freestone 5 July 2017.

Umbilicus rupestris (Navelwort) Aldershot, Pavilion Road, three flowering plants at SU8522 5043 and one larger flowering plant at SU8523 5043 at base of wall/pavement edge, Fred Rumsey 27 Jun 2017.

Urtica dioica subsp. galeopsifolia (Stingless Nettle) Whitchurch SU466480, spread alongside riverside path, Sarah Ball and Sarah White 23 Jun 2017.

Utricularia australis (Bladderwort) Blackmoor Unit 1, locally abundant in the 'canal' at SU7887 3346 to SU7887 3342, so extending for about 40m. Spines on leaf edges confirmed with microscope, so not *U. minor*. Tony Mundell, Steve Povey & John Buckley 21 Jun 2017.

Verbascum virgatum (Twiggy Mullein) Yateley Common SU8101 5890 beside footpath and numerous plants in flower at SU8105 5915 on raised bank, Tony Mundell & HFG 18 Jun 2017.

Verbena bonariensis (Argentine Vervain) At top of Windmill Hill Lane, Ibthorpe SU3692 5312, in an area next to a garden, cleared of trees a couple of years ago, now with much bare ground, Peter Billingham 12 July 2017.

Veronica catenata (Pink Water-speedwell) E of Upper Farringdon, by pond at SU7271 3582, Tony Mundell 21 May 2017.

Veronica polita (Grey Field-speedwell) N of Whitchurch SU4657 4946 scattered along field edge Sarah Ball and Sarah White 27 Jun 2017. N of Martyr Worthy, arable field corner at SU5165 3457, Tony Mundell & Anna Stewart 29 Jun 2017.

Viburnum tinus (Laurustinus) Up Nately SU6990 5208 beside road edge, Adam Lucas 29 Mar 2017.

Vinca major var. oxyloba (Greater Periwinkle) Mapledurwell SU6834 5209 beside road, Adam Lucas 29 Mar 2017. Bramley

SU6477 5895 amongst a roadside hedge, Adam Lucas 22 Apr 2017. Worthy Down, a huge flowering patch at least 20m across in woodland at SU4558 3478, Tony Mundell & Pete Flood 9 Jun 2017.

Viola canina (Heath Dog-violet) Yateley Common, locally frequent on damp track at SU8087 5940, Tony Mundell & HFG 18 Jun 2017.

Viola hirta (Hairy Violet) Yateley Common SU8106 5917 beside footpath, very surprising as surrounded by acid heath, but due to nearby concrete runways and imported soil, Tony Mundell & HFG 18 Jun 2017.

Viola lactea (Pale Dog-violet) A large number of plants at Upper Bourley SU82724 49819 in an area c.10m x 4m, flowers all over, Barry Phillips, Isobel Girvan & Mick Bailey 19 Jun 2017.

Viola odorata var. dumetorum (Scented Violet) Basingstoke SU6178 5142 in grass under Larch, and SU6182 5175 in grass alongside a path, Mike Hackston 22 Mar 2017. Photos show white flowers with bearded petals.

Viola odorata var. imberbis (Scented Violet) E of Steep, in small quantity on verge at SU7548 2577, Steve Povey 21 Mar 2017. Netherton to Facombe SU381577, along road verge, Peter Billingham 22 Mar 2017. Ibthorpe Test Way, track verge SU381544, Peter Billingham 27 Mar 2017. Mapledurwell SU6836 5204 and SU6849 5206, Adam Lucas 29 Mar 2017.

Viola odorata var. subcarnea (Scented Violet) E of Steep SU7525, frequent in tetrad on grass verges, Steve Povey 21 Mar 2017.



Pick-a-back-plant *Tolmiea menziesii*, Liss (Victor Freestone)



Spreading Hedge-parsley, Whitchurch (Sarah White)

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:

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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:

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Flora Group AGM and field visit to Decoy Pond Farm, New Forest, 3 June 2017 (Tony Mundell). See p.7.

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 or visit our website for further details: www.hiwwt.org.uk. Visit us on Facebook under *Hampshire Flora Group*.

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