

Flora News

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

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Dear Flora Group member

In this issue we have details of events to be held during winter 2016/17. On Saturday 10 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. Thanks to Tony and Martin for organising this event.

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 or Neil Sanderson.

We are always keen for more people to submit 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 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.

Sunday 11 September 2016, 10am–4.30pm
***Chenopodium* and *Atriplex* Workshop, Testwood Lakes Centre, Totton, SU 345 155**
Leader: Martin Rand

If one took a poll of crowd-pleasing British wildflowers, then it's a reasonable bet that the Goosefoot family *Amaranthaceae* would feature pretty low in the popularity ranking. But one needs to get to know them to earn 'real botanist' credentials, and – who knows? – perhaps after some time together with a microscope or hand lens, you will fall for their subtle charms.

This workshop will look at the genera *Chenopodium* (goosefoots), *Atriplex* (oraches), and perhaps the odd *Amaranthus* (Pigweed). It will examine the differences in flowering, fruiting and vegetative characters between genera, and introduce you to characteristic species in each genus. The day will start with an introductory lab session, then we spend the latter part of the afternoon in and around the Lower Test Marshes.

Booking required; course fee: £6. Refreshments will be available for a small donation, but bring your own lunch, waterproof footwear and appropriate clothing. Contact: Martin Rand (see back page for details).

Note: regrettably this event is already fully booked with a waiting list, but please contact Martin if you have already booked and can no longer attend or do wish to be added to the waiting list.

Saturday 10 December 2016, 11am–4pm
Flora Group/BSBI Exhibition Meeting, Testwood Lakes Centre, Totton, SU 345 155

We will continue this traditional autumn get-together/social event, so please bring along cakes and other goodies to eat, or sandwiches for us to share, plus your specimens, photographs, 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 these 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 and

the Sea Scouts building, until the Centre comes into view above the lake. There is plenty of parking there. No need to book.

Contact: Tony Mundell (see back page for details).

ADVANCE NOTICE OF FUTURE MEETINGS

Sunday 18 June 2017, 10.30am–4pm
Visit to Blackbushe Airfield
Leader: Tony Mundell & Elliott Fairs

Meet in the Bush Café car park, Terminal Buildings, Blackbushe Airport GU17 9LQ, SU 8085 5880, but park on the adjacent grass rather than filling up the car parking bays. We will walk to the north part of the airfield which is no longer used by aircraft and has open public access. This is basically heathland but parts have become very overgrown with scrub (e.g. Gorse) and secondary woodland.

The Hampshire & IoW Wildlife Trust aspire to take over management of the area for the landowner (Blackbushe Airport Ltd.) to prevent further deterioration of the heathland habitats and there is a related need to improve the dataset of species present, focusing on birds, reptiles, key insects (e.g. Silver-studded Blue and Grayling butterflies) as well as key botanical species. One target for us will be to refind as many plants of Moonwort *Botrychium lunaria* as we can, but we will compile a full list of all plants seen.

Bring a packed lunch. No need to book. We will aim to finish by 4pm.

Contact: Tony Mundell (see back page for details).

Sunday 23 July 2017, 10.30am–4pm
Visit to Long Bottom, Bourley and Caesar's Camp
Leaders: Tony Mundell & Elliott Fairs

Meet in the car park close to the Wellington Monument near Aldershot in Claycart Road SU 8533 5113. Do not approach from the A323 at SU 8521 5238 or the A325 at SU 8545 5102 as those routes are closed. Instead, either leave the A323 at the roundabout at SU 8535 5088 onto Wellesley Road, or travel on Bourley Road past Tweseldown Racecourse before turning left at the junction at SU 8487 5108.

The Hampshire & Isle of Wight Wildlife Trust who manage the land for MoD have recently made a large number of shallow scrapes to encourage the scarcer plants. Most of the scrapes are still at an early stage of colonization from the disturbed seed bank but we will visit a selection of the scrapes to see what we can find. A single plant of Ivy-leaved Bellflower *Wahlenbergia hederacea* (which is close to extinction in VC12) was found on one scrape in October 2015 – hopefully it will be in flower in July. We will also visit other heathland plants in this area such as Round-leaved Sundew *Drosera rotundifolia*, Marsh Clubmoss *Lycopodiella inundata*, Sheep's-bit *Jasione montana*, Bristle Bent *Agrostis curtisii* (uncommon in VC12 but not so in VC11), Great Wood-rush *Luzula sylvatica* and a *Hieracium* that has

puzzled even the experts (earlier recorded as *Hieracium diaphanum* agg. but then as *H. argillaceum* and even more recently as *H. mammidens* – see the Hants Rare Plant Register). Whatever it is, it is quite attractive with sprays of typical yellow Hawkweed flowers and purple on the leaf underside.

Bring a packed lunch and note that we will be traversing some very rough ground, often on very steep slopes. No need to book. We will aim to finish by 4pm.

Contact: Tony Mundell (see back page for details).

Reports of Recent Events

Winter annuals and spring urban flora on Sunday 3 April 2016

A report by John Norton

This first meeting of the year was a joint effort with the Southampton Natural History Society, which Phil Budd helped organise and co-lead on the day. As advertised in the last *Flora News*, the original plan was to look at some urban road verges and pavements for species such as Musk Stork's-bill *Erodium moschatum* and Water Bent *Polypogon viridis*, but instead we opted for a slightly more varied, if noisy, setting of a narrow strip of grass, scrub and trees sandwiched between the A33 dual carriageway running past Southampton Docks and the main railway line to the west of Southampton central station. There was an excellent turnout and the weather was mild with sunny spells.

Initially we headed east towards the railway station finding three basal leaf rosettes of Bee Orchid *Ophrys apifera* in some short grass, but otherwise seeing only common and expected species. A little further on at the edge of a grassy verge to the main road a few of us noticed a small patch of a robust grass with large membranous ligules which I readily identified as Reed Canary-grass *Phalaris arundinacea*, confirmed by a single over-wintering flower spike. However, after we walked on we noticed a crowd gathering next to the patch and returned to find it had been correctly identified as Bulbous Canary-grass *P. aquatica*, a bird-seed alien which surprisingly several of us had not encountered before. Near here I collected a bit of a pale-looking pleurocarpous moss on a mown verge, which I later recognised under the microscope as *Rhynchostegium megapolitanum*, an uncommon, largely coastal species favouring sun-baked sandy and chalky soils.

At the roundabout/junction opposite the station we investigated a more expansive grassy area where Phil promised us some Small-flowered Buttercup *Ranunculus parviflorus*, which we duly found, though without any 'decent' flowers, as is often the case. Leaves of Corn Parsley *Petroselinum segetum* were also recorded. Those in the know made a bee-line for some promising-looking sparsely vegetated gravel under a lamp post, which produced both Field and Early Forget-me-nots *Myosotis arvensis* and *M. ramosissima*, along with a rapidly

increasing but attractive urban weed, Keeled-fruited Cornsalad *Valerianella carinata*.

We returned to the starting point, then after lunch headed westwards where the path ran between the docks and the railway line. Just as we set off a small deciduous tree with drooping branches caught our eye, and after rummaging around to find some dead leaves that hadn't completely disintegrated it was identified as Narrow-leaved Ash *Fraxinus angustifolia*. A little further on Phil pointed out a large patch of Lesser Pond-sedge *Carex acutiformis*, carpeting the ground underneath an electricity pylon, though hardly growing to any height and looking very out of place.

Binoculars had to be used to identify annual species growing on the gravelly hardstanding inside the docks (on the other side of a high chain-link fence). After some searching I managed to find a patch of Rue-leaved Saxifrage *Saxifraga tridactylites*, just in flower, followed by a few more, along with some Blue Fleabane *Erigeron acris*. Along the path we recorded False Fox-sedge *Carex otrubae*, Goat's-rue *Galega officinalis* and Hairy Garlic *Allium subhirsutum*. I also managed to procure a specimen of a small patch of moss growing just the other side of the fence, which I was pleased to identify as *Brachythecium velutinum*, a once common species which has now apparently declined in southern England.

Although we did not find many winter or spring annuals or many typical urban species it was an enjoyable trip with enough interesting and initially puzzling plants to keep us occupied throughout the day.

Field Trip to Ampfield Woods, Saturday 21 May 2016

A report by Martin Rand

This field meeting followed a similar one a couple of years before, to a large tract of woodland managed by the Forestry Commission in Botley Woods. Like that, this site is also plantation on an ancient woodland site. Although not having the diversity and richness of the Botley Woods complex, part of which is actually managed as a nature reserve, Ampfield still holds some of its historic interest and is home to a wide range of woodland and heathland plants – as well as hosting large Nightjar and Woodcock populations.

Once again we had Jay Doyle, senior FC ecologist for the region, to explain the background to the Commission's tenure of the woods and their plans for the future, which include some substantial blocks restored to broad-leaved woodland. Our interest was all focused on the eastern third of the woods, which retains the greatest ancient woodland cover. The day started grey but dry, and on the higher ground on acid sandy soils of the Bagshot Beds it was the heathy rides and their characteristic flora that commanded most attention. It was no problem to find typical sedges such as Green-ribbed Sedge *Carex binervis* and Pill Sedge *C. pilulifera* alongside the more colourful low-growing heathland flowers. Soon we were dropping down onto the London Clay which underlies much of



Small-leaved Lime *Tilia cordata* in Ampfield Woods
(Martin Rand)

the wood, making wet and heavy going for much of the year but introducing some mineral enrichment into the soil. Here new sedge species more characteristic of glades in ancient woodland began to appear, including Smooth-stalked Sedge *Carex laevigata* and Pale Sedge *C. pallescens*, both here in great abundance. We had a brief sortie for any late-flowering Early Purple-orchids *Orchis mascula* in a known spot, but without success; and Clive Chatters made a short and similarly unsuccessful pilgrimage to one of the last known sites for Bastard Balm *Melittis melissophyllum*.

Continuing eastwards, and after looking at one of the restored woodland ponds, we met one of the most impressive archaeological features of the area, the bank of the old park pale that surrounded the mediaeval deer park of Hursley. It was while tracing this up through the woodland that we met our first Small-leaved Lime *Tilia cordata*, a notable native tree with a large population here. Heading back westwards we entered a large tract of ancient Lime coppice, where the outgrown coppice stems now make an impressive sight. It was here, too, that we were able to appreciate just how wet a London Clay wood can be, but while floundering about we were also able to enjoy the wetland plants including a primeval-looking stand of Great Horsetail *Equisetum telmateia*.

After lunch taken on higher and drier ground among the plantations of Western Hemlock *Tsuga heterophylla*, the weather took a turn for the worse but most people stalwartly resolved to carry on. We continued on high ground through impressively healthy stands of young and regenerating Small-leaved Lime to Little Fir Hill, where there is an impressive grove of mature Beech trees. All through this area there is abundant Great Woodrush *Luzula sylvatica*, a relatively uncommon plant

in Hampshire. By now Jay had had to leave us but he was keen for us to look at the restoration work undertaken on a large pond in the northern part of the wood. Getting there involved some heavy going underfoot, but we increased the day's sedge tally with several more species including False Fox-sedge *Carex otrubae* and Spiked Sedge *C. spicata*. It was interesting to see the pond work under way, but the botanical interest remains rather limited at present. If the light levels can be maintained and the remaining Rhododendron cleared, it will become a valuable wildlife feature.

Our return became even stickier underfoot and the rain ever heavier and more persistent, so we ducked out of a planned visit to one of the broadleaf restoration areas. A second visit to the more western parts of this huge block of woodland (preferably in better weather!) could well be rewarding.

Our thanks go to Jay Doyle, who gave up family commitments to be with us, the Forestry Commission staff who eased our arrangements for the visit to this largely private wood, and the several landowners who gave their blessing.

Visit to Shortheath Common and Kingsley Common on Sunday 5 June 2016

A report by Tony Mundell



Cranberry *Vaccinium oxycoccus* (John Norton)

There was a good turnout of 17 people for this meeting. We started across part of the heath parallel to the road, stopping for Fine-leaved Sheep's-fescue *Festuca filiformis* and Narrow Buckler-Fern *Dryopteris carthusiana* – the latter is surprisingly plentiful near Shortheath Pond. Gareth could hear Field Crickets singing – they were introduced some years ago on the dry heath just across the road.

We soon reached the edge of the bog where there was much Cranberry *Vaccinium oxycoccus* in flower, and then we doubled back to the south end of Shortheath Pond. Here we saw Marsh St John's-wort *Hypericum elodes* and the glabrous form of Marsh Speedwell

Veronica scutellata. Marsh Cinquefoil *Comarum palustre* was just starting to flower but I could not refind the few vegetative plants of Marsh Willowherb *Epilobium palustre* that I had noted on my 'route check' walk on 28 May.



Marsh Cinquefoil *Comarum palustre* (John Norton)

Shortheath Bog extends over a huge area, reaching to within a few metres of the pond, and here we saw more Cranberry with some Round-leaved Sundew *Drosera rotundifolia*, plus White Sedge *Carex canescens* in a new spot. We then did a circuit of the pond noting Bottle Sedge *Carex rostrata* and lots of Heath Rush *Juncus squarrosus*.

Whilst doing a balancing act to cross a weir John Norton pointed out that the stream contained Fat Duckweed *Lemna gibba*. For many years this has been mistaken for Common Duckweed *Lemna minor*, so it is very under-recorded. The problem is that Fat Duckweed is often not fat – you need to look at the fronds whilst held towards the light in order to see the characteristic opaque reticulation with larger cells in the middle. On and beside the dry, sandy tracks south of the pond we noted Little Mouse-ear *Cerastium semidecandrum*, Sand Sedge *Carex arenaria*, Bird's-foot *Ornithopus perpusillus*, Mossy Stonecrop *Crassula tillaea*, Silver Hair-grass *Aira caryophyllea* and much Early Hair-grass *A. praecox*.



Little Mouse-ear *Cerastium semidecandrum* (Gareth Knass)

We had splendid views of the expanse of open bog, covered with masses of Cranberry. There was some disagreement over whether we had both Early Forget-me-not *Myosotis ramosissima* and Changing Forget-me-not *M. discolor*. I thought they were all *M. discolor* but after taking a possible specimen of each home I had to admit that I was wrong. By making some accurate measurements with my microscope I found that a good distinguishing character is apparently the length of the mature calyx. This ought to be repeated with many more specimens but with the few that I had there was a significant difference. They averaged at 3.85mm (3.6 to 4.0) for *M. discolor* but only 2.65mm (2.4 to 3.0) for *M. ramosissima*. The mature pedicel lengths were very similar, averaging 1.30mm for *M. discolor* and 1.32mm for *M. ramosissima*, so much shorter than the calyx (unlike *M. arvensis* where it is longer than the calyx).



Comparison of *Myosotis ramosissima* (left) and *M. discolor* (right) (Tony Mundell)

A flooded muddy track gave us Round-leaved Crowfoot *Ranunculus omiophyllus* and then we stopped for lunch and our traditionally brief AGM. After that we drove to Kingsley Common for more recording. On the pond perimeter we noted New Zealand Pigmyweed *Crassula helmsii* and Fringecups *Tellima grandiflora* and then headed for the heathland. There we saw Pill Sedge *Carex pilulifera*, Small Cudweed *Filago minima*, Dodder *Cuscuta epithymum* and Mossy Stonecrop *Crassula tillaea*, whilst Eric Clement added Spreading Meadow-grass *Poa humilis*.

One track had lots of a somewhat uncommon variety of Field Forget-me-not *Myosotis arvensis* var. *sylvestris*.

This has flowers about 4-5mm across, so between that of *M. arvensis* var. *arvensis* (only up to 3mm) and Wood Forget-me-not *M. sylvatica* (6-10mm) and so it gets confused with those two. Further on a singing Woodlark and a Slow-worm provided a welcome distraction until we returned to the plants, finding Knotted Clover *Trifolium striatum*, Slender Trefoil *T. micranthum*, the last few Lesser Chickweed *Stellaria pallida* not yet shrivelled up, and numerous clumps of Prickly Sedge *Carex muricata* subsp. *pairae*.

My thanks to the two scribes who I persuaded to note down all the plant names being called out.

Field Trip to Farley Mount on Saturday 18 June 2016

A report by Martin Rand



Flowerly sward at Beacon Hill, Ashley (Martin Rand)

This trip was to look at the remaining areas of chalk grassland in the Farley Mount area west of Winchester, and to provide a fairly gentle introduction to downland flowering plants, including characteristic grasses.

We began at the Hawthorns car park at the west end of Pitt Down, where it became immediately obvious that despite the reintroduction of cattle grazing to the site a few years ago the battle to keep coarse growth down and restore a classic downland sward was not being won. No doubt this was partly down to the season, which has resulted in lush growth everywhere; but one has to ask whether the grazing regime is ideal here, and in some ways things seem to have gone backwards in the last two or three years.

Nevertheless, we soon got busy identifying grasses, the long list including characteristic downland species like Upright Brome *Bromopsis erecta*, Downy Oat-grass *Avenula pubescens* and Yellow Oat-grass *Trisetum flavescens*. As we moved into shorter sward, we were able to add Quaking Grass *Briza media* and Crested Hair-grass *Koeleria macrantha*. But although some of the taller flowers were making a good show here, we were unable to find the Frog Orchid *Coeloglossum viride*, Chalk Milkwort *Polygala calcarea* or Bastard Toadflax *Thesium humifusum* that have been present in quite recent years.



Crested Hair-grass *Koeleria cristata* (Martin Rand)

Greater Butterfly-orchid *Platanthera chlorantha* was also very scarce here, in contrast to recent years; but by way of compensation, as we moved east of the old yew-lined trackway we were able to refind Fragrant Orchid *Gymnadenia conopsea*, not recorded on any part of Pitt Down since 1988.

Rather less welcome was the sight of the patch of Tor-grass *Brachypodium rupestre* that is now dominating about an acre of ground at this eastern end. It has been present here for a long time, but never in such plenty as far as I can remember. Worryingly, it is also spreading farther west on the down.

After lunch in the shade of the Beech Clump we moved onto the area of level downland to the west, which over much of its area has a classic downland community (CG3 in the National Vegetation Classification) with tall grasses but plenty of space in between for characteristic downland plants. Grazing here seems to be working much better, especially towards the western end of the stretch. There is a small amount of Dropwort *Filipendula vulgaris* here, which is perhaps for the best; this species often comes to greatest prominence in downland in declining condition. There was also a scattering of Greater Butterfly-orchids, Fragrant Orchids and Pyramidal Orchids *Anacamptis pyramidalis*, but a number of Juniper bushes seem to have disappeared from this stretch and we only noted one rather sickly bush in the road verge.

We continued farther west up the hill to Beacon Hill, Ashley, which is private downland with an access agreement. In recent times this has been the best area of characteristic short downland turf in the Farley Mount area, and until about 15 years ago it was sheep-grazed. Sadly, this has ended, but rabbits keep some of the sward short. Along the top of the down there are several mature but thriving Junipers, and the steep slopes carry a colourful mosaic of the commoner downland

flowers among which Wild Thyme *Thymus polytrichus*, Squinancywort *Asperula cynanchica*, Common Rock-rose *Helianthemum nummularium* and Lady's Bedstraw *Galium verum* are prominent. Just above the downland we also saw our best stand of Greater Butterfly-orchids.

Returning eastwards, we detoured up to the monument on Farley Mount, a prominent landmark and viewpoint taking in the Isle of Wight, Wiltshire and Berkshire downland as well as a huge swathe of Hampshire. A little group of Bee Orchids in peak condition was a nice find here, but the star of the day as far as the leader is concerned was in the adjacent arable field. Here there used to be one of the best populations of the rare and declining Field Gromwell *Lithospermum arvense*, but a little less than a decade ago the whole margin of the field was put down to grassy 'conservation strip', allowing the sprayers to do their work right up to the edge of the cultivated ground. After recording about 700 plants in 2006, I had seen none at all since. So it was very exciting to see a strong population flowering again in the margins of the crop itself. The timing must just have fitted in with the herbicide regime, hopefully building up the seed bank once more. People had the chance to compare this rare species with its much commoner perennial cousin Common Gromwell *Lithospermum officinale*, seen several times during the day.

Nearly back to the cars, we ended with a curiosity. For many years there has been a patch of the non-native Lesser Caucasian-stonecrop *Sedum stoloniferum* growing on the edge of Beech Clump. It is similar to another garden outcast which features more often in the field guides, its congener *Sedum spurium*, but much less common. It persists here but doesn't seem to spread much.

***Euphorbia* Workshop at Testwood Lakes Centre on Sunday 10 July 2016**

A report by Sarah Ball

One of the problems with identifying spurges, *Euphorbia* species, in the field is the lack of consistency between the various textbooks and field guides, both in terminology used and species included. There may not be many in Britain but the numbers of exotic species appearing regularly in the wild are increasing, so this workshop was indeed a timely exercise for the Flora Group.

Fourteen participants were ably steered by Martin Rand through a good range of specimens using his cleverly devised keys. We benefited too from the photomicroscope bought for the Flora Group with a generous contribution to costs from the Wild Flower Society. Martin was able to project pictures of live specimens onto a screen to show us the various key features of inflorescences and fruit without the need for us to queue up to peer down the microscope eyepieces – a most welcome improvement to FG workshops!

True *Euphorbia* species generally have: umbellate inflorescences; milky sap; flowers lacking a perianth; flowers in clusters surrounded by an involucre (cyathium); and stalked ovaries. Not covered in detail were other

genera in the family Euphorbiaceae such as *Mercurialis*, *Chrozophora* and *Ricinus*, which have relatively 'normal' flowers and none of the other characters. Nor were *Chamaesyce* species included, they are rare in Britain (called *Euphorbia* in some texts but separated in others because of axillary rather than umbel-like inflorescences).

Euphorbia species are monoecious, i.e. separate male and female flowers on the same plant but this may not be obvious because the male flowers are reduced to a single stamen and borne together with a female flower inside a structure of bracts called a 'cyathium'. The female flowers have 3 styles and 3-compartmented fruit capsules. The flowering umbels are subtended by what should be called 'ray leaves' but are often referred to as bracts. Another bizarre feature is the presence of nectar glands within the cyathia the shape of which are key for ID as they may be rounded, kidney-shaped or curved with 'horns'. The fruit capsules project on stalks and the presence or not of ornamentation or hairs is also useful for ID.

We were treated first to some of the species we most frequently see in the field: *Euphorbia peplus*, Petty Spurge, (2-3 rayed umbels, horned glands, untoothed leaves, ridged but otherwise smooth capsules); *E. helioscopia*, Sun Spurge, (5-rayed umbels, rounded glands, toothed leaves but also smooth capsules); *E. exigua*, dwarf spurge, (similar characters to *E. peplus* but with sessile, narrow leaves rather than stalked ovate leaves and slightly granulose capsules) BUT we learned that there are two forms – the small annual var. *exigua* and a larger biennial or perennial var. *diffusa* which is only mentioned in Sell and Murrell and probably under-recorded. We then looked at other species that may be confused with some more common ones, such as *E. platyphyllos*, Broad-leaved Spurge, at first glance like *E. helioscopia*, also an annual of similar habitats, but hairy and with distinctly warty rather than smooth capsules. *Euphorbia stricta* (syn. *E. serratula*), Upright Spurge, is a pretty pale green, delicate-looking spurge of coppice woodlands or disturbed ground, bearing capsules decorated with cylindrical papillae. *Euphorbia amygdaloides*, Wood Spurge, also turns out to have two subspecies; most are subsp. *amygdaloides* with dull green leaves but subsp. *robbiae* with shiny leaves can be found as a garden escape. We also looked at the distinctive Caper Spurge, *E. lathyris*; Balkan Spurge, *E. oblongata*; Mediterranean Spurge, *E. characias* and some of the narrow-leaved perennials such as variations of Cypress Spurge, *E. cyparissias*; Leafy spurges from the *E. esula* group; and Sweet Spurge, *E. dulcis*. Others that may be encountered occasionally are covered by Martin's key.

A great advantage of doing the workshops is that we all look at the specimens in close detail and discuss them together which gives new insights to everybody at all levels of expertise.

The invaluable '*Euphorbia* Workshop Notes' including keys, authored by Martin Rand can be found on the [HantsPlants](http://www.hantsplants.org.uk) website.

A Field Guide to the NVC – Part 3: Wet Grassland

An article by John Norton



A typical wet meadow with mosaic of MG7d wet grassland and MG10a rush pasture (John Norton)

FOREWORD

In the previous article (*Flora News* 50, January 2016) I summarised the ecological and floristic characteristics of the various types of grasslands that occur in lowland regions of the British Isles, grouped into eight different habitat categories. In this article I deal with one of these categories, 'wet grassland and rush pasture', here simply referred to as 'wet grassland'. All the wet grassland communities fall within the mesotrophic grasslands chapter of the NVC (Rodwell 1992). Dry neutral grassland was covered by the previous article, whilst acidic and calcareous dry grassland will be covered in future articles. In this article I was intending to include an account of 'wet brackish grassland' (which includes saline counterparts of wet grassland and rush pasture), but to save space it will be held over until the next issue. The reader should refer to the first article (*Flora News* 49, September 2015) for a general introduction to the NVC and discussion of some aspects of vegetation survey methodology and terminology. As usual much of what follows is based on my own experience and interpretation of the NVC and may not necessarily agree with what is written in the published chapters.

INTRODUCTION

Definitions and ecology

Wet grassland can be defined as short vegetation dominated by grasses that develops on non-saline,

seasonally waterlogged or inundated sites on 'circum-neutral', usually mineral soils. Terms such as 'floodplain meadow', 'flood meadow' and 'floodplain grassland' are widely used to refer to the habitat, and historically this type of grassland would have occurred on traditionally managed water meadows and alluvial hay meadows (some well-known examples of which still survive). Today, wet grassland is still frequent along river valleys, even though it may no longer be regularly inundated by flood water. Vegetation strongly dominated by rushes or sedges, herbaceous water margin vegetation, tall herb fen and reedbed are therefore all excluded from this definition. In Hampshire, much of the New Forest 'lawn' vegetation is essentially made up of types of grazed mire, usually with a high proportion of rushes and sedges, so also falls outside this definition.

The two main ecological factors that determine the vegetation composition of wet grassland are the relative availability of water to plants during the growing season and the level of soil fertility. Soil type is less important. Space for this article precludes a more detailed analysis of these and how they interact, but they are discussed more fully in the NVC chapters and a newly published book on floodplain meadows (Rothero *et al.* 2016, see below). Also important is the fact that nearly all types of wet grassland require some form of regular cropping to prevent succession to tall herb fen and willow carr. It is of course the wet soil and high fertility of floodplain meadows

that makes them well suited to grazing by livestock. In the past they were of high economic importance to the rural community, but nowadays many are used only for keeping horses (i.e. mainly for recreational purposes) or have been abandoned as economically unprofitable to manage. Many, however, are still cattle-grazed in the summer months and cutting for silage and hay occurs in some areas, though more often on the better-drained and improved sites. Significant levels of grazing can occur by waterfowl (not only in the winter months) and many sites are managed as nature reserves, primarily for their migrant waterfowl populations. Grazing by deer or other large herbivores is probably too low-level to have an effect on the vegetation on most sites, but may be important in preventing succession to scrub on some.

Conservation

Wet grassland largely falls within the Coastal and Floodplain Grazing Marsh Priority Habitat (Maddock 2008) and the importance of wet grassland (and wet brackish grassland) to birds has resulted in the designation of large areas of this habitat as SSSIs, SACs and Ramsar sites. However, until recently it has really only been the species rich alluvial hay meadows (such as those at Long Meadow, Cricklade in Wiltshire and Yarnton Meads in Oxfordshire) that have been well studied in the past and are recognised for their botanical importance. Now, through the work of the Floodplain Meadows Partnership (FMP) (<http://www.floodplainmeadows.org.uk/>) it has been realised that other more species poor types of wet grassland still represent important types of semi-natural vegetation and that all types perform important environmental functions (such as sediment trapping, flood alleviation, carbon storage and providing nectar sources for pollinating insects) – not to mention their aesthetic importance in the landscape. The work of FMP has resulted in the publication of ‘*Floodplain Meadows – Beauty and Utility*’ (Rothero *et al.* 2016), which is highly recommended for further reading. It can be downloaded at <http://www.floodplainmeadows.org.uk/floodplain-meadow-technical-handbook> or purchased from NatureBureau.

Floristics

Wet grasslands are invariably dominated by mixtures of Rough Meadow-grass *Poa trivialis*, Yorkshire-fog *Holcus lanatus* and Meadow Foxtail *Alopecurus pratensis*, sometimes with frequent Red Fescue *Festuca rubra* or Creeping Bent *Agrostis stolonifera* (these two are also sometimes dominant in wet brackish grassland). One type of wet grassland is distinguished by the abundance of Tufted Hair-grass *Deschampsia cespitosa*. Other characteristic grasses include Smooth Brome *Bromus racemosus*, Meadow Fescue *Festuca pratensis*, Floating Sweet-grass *Glyceria fluitans* and Meadow Barley *Hordeum secalinum*. Sites which dry out in summer often have locally frequent Perennial Rye-grass *Lolium perenne*, in part because this species withstands the trampling effects of the grazing animals which will be present at this time, as well as being tolerant of nutrient enrichment. Native strains of Perennial Rye-grass probably originate from floodplain grassland.

Rushes and sedges can be frequent, especially Soft Rush *Juncus effusus* on acid soils, or Hard Rush *J. inflexus* and Hairy Sedge *Carex hirta* on neutral to base rich substrates. More strongly base rich sites or sites with peaty soils may support other rushes and sedges at low frequency, particularly Sharp-flowered Rush *Juncus acutiflorus*, Jointed Rush *J. articulatus*, Brown Sedge *Carex disticha*, Common Sedge *C. nigra* and Lesser Pond-sedge *C. acutiformis*. However, where these become more frequent or locally dominant, the vegetation is best regarded as a type of mire.

Herbs and other plants that are characteristically associated with wet grassland and rush pasture include Marsh-marigold (Kingcup) *Caltha palustris*, Cuckooflower *Cardamine pratensis*, Common Spike-rush *Eleocharis palustris*, Creeping-Jenny *Lysimachia nummularia*, Adder’s-tongue *Ophioglossum vulgatum*, Common Fleabane *Pulicaria dysenterica*, Creeping Buttercup *Ranunculus repens*, Marsh Ragwort *Senecio aquaticus* and Ragged-robin *Silene flos-cuculi*, though some types of wet grassland are naturally very herb poor. Great Burnet *Sanguisorba officinalis* is characteristic of the species rich alluvial hay meadow type (MG4) along with several others that are also found in dry neutral and calcareous grassland. Water margin species and other herbs tolerant of inundation can occur in some types of wet grassland, particularly Water Mint *Mentha aquatica*, Amphibious Bistort *Persicaria amphibia*, Common Marsh-bedstraw *Galium palustre*, Tufted Forget-me-not *Myosotis laxa* and willowherb *Epilobium* species.

Surveying wet grassland

Recognising wet grassland vegetation is usually straightforward in spring or early summer when flood water may be in the process of receding and most of the key grass species will be flowering. In late summer and autumn it becomes more difficult as sites will often have dried out and may have been grazed or mown. It is particularly difficult to find species such as Meadow Foxtail, Rough Meadow-grass and Cuckooflower in late summer. The presence of the more obvious rushes and sedges may give an indication of wet grassland vegetation, as will the usual absence of most of the perennial weed species such as Ragwort *Senecio jacobaea* and Creeping Thistle *Cirsium arvense*. Thus, two survey visits spread over the flowering season are generally much better than one in order to record the majority of the key species and to be able to accurately assign NVC types. See comments in the previous article, Box 1, for further points to bear in mind when surveying grassland.

Some types of wet grassland are difficult to place within the NVC, though some have recently become better understood by the research carried out by FMP who have identified a number of new sub-communities and some new communities (see below). It is worthwhile recording a few sample quadrats when conducting surveys of wet grasslands in order to provide some quantitative data.

Mapping wet grasslands can be problematic because they may grade into dry neutral grassland next to

watercourses, so the boundary between the wet and dry grassland is likely to be ill-defined. It can also be difficult to decide the best approach to map mosaics of wet and dry grassland or different types of wet grassland which form over uneven ground or in association with ditches and depressions. There may also be considerable seasonal changes which may need to be taken into account. For example, by late summer rougher grassland may have developed where grazing animals have manured, and annual grass and weed communities (Rodwell 2000) may have developed on drier, trampled ground.

DESCRIPTIONS OF NVC TYPES

Overview

Following extensive research (based on thousands of quadrat samples) Rothero *et al.* (2016, Chapter 8) have published a much needed shake-up of a number of the NVC wet grassland types, some which were poorly defined by the published NVC mesotrophic grasslands chapter (Rodwell 1992). Further information is available at <http://www.floodplainmeadows.org.uk/about-meadows/wildlife/plant-communities>. They have expanded two existing NVC communities (MG4 and MG8) dividing each into four new sub-communities. Carnation Sedge *Carex panicea* has been added to the NVC name for MG8. Two new communities have been described, named MG14 'Sedge lawn' and MG15p 'Cuckooflower grassland' (the 'p' denoting that it is a provisional new community, pending further study).

Table 1: Wet grassland NVC types

New or revised types are shown in blue text.

NVC community	NVC sub-community
MG4 <i>Alopecurus pratensis-Sanguisorba officinalis</i> grassland	MG4a <i>Dactylis glomerata</i> sub-community
	MG4b Typical sub-community
	MG4c <i>Holcus lanatus</i> sub-community
	MG4d <i>Agrostis stolonifera</i> sub-community
MG6 <i>Lolium perenne-Cynosurus cristatus</i> grassland	MG6d <i>Filipendula ulmaria</i> sub-community
MG7 <i>Lolium perenne</i> leys and related grasslands	[MG7c <i>Lolium perenne-Alopecurus pratensis-Festuca pratensis</i> (<i>Schedonorus pratensis</i>) grassland] - now redefined as MG15pa
	MG7d <i>Lolium perenne-Alopecurus pratensis</i> grassland
MG8 <i>Cynosurus cristatus-Carex panicea-Caltha palustris</i> grassland	MG8a <i>Sanguisorba officinalis</i> sub-community
	MG8b Typical sub-community
	MG8c <i>Carex nigra-Ranunculus flammula</i> sub-community
	MG8d <i>Caltha palustris-Bellis perennis</i> sub-community
MG9 <i>Holcus lanatus-Deschampsia cespitosa</i> grassland	MG9a <i>Poa trivialis</i> sub-community
	MG9b <i>Arrhenatherum elatius</i> sub-community
MG10 <i>Holcus lanatus-Juncus effusus</i> rush-pasture	MG10a Typical sub-community
	MG10b <i>Juncus inflexus</i> sub-community
MG13 <i>Agrostis stolonifera-Alopecurus geniculatus</i> grassland	no sub-communities defined
MG14 <i>Carex nigra-Agrostis stolonifera-Senecio aquaticus</i> grassland	MG14a Typical sub-community
	MG14b <i>Anthoxanthum odoratum</i> sub-community
MG15p <i>Alopecurus pratensis-Poa trivialis-Cardamine pratensis</i> grassland (provisional)	MG15pa <i>Agrostis stolonifera</i> sub-community
	MG15pb <i>Lolium perenne-Ranunculus acris</i> sub-community

Two sub-communities are recognised for both of these and a new sub-community of MG6 is also described. MG15p is a redefined and expanded MG7c, which now becomes defunct.

In total, therefore, there are nine wet grassland communities and 18 more widespread sub-communities relating to eight of these (Table 1). However, two of the communities, MG6 and MG7, are predominantly dry grassland communities. Of the nineteen recognisable types of wet grassland at least five probably do not occur in Hampshire (MG4a-d and MG8d). The table omits a few sub-communities which do not qualify as grassland or are rare types that occur outside Hampshire or southern England generally. **MG11** *Festuca rubra-Agrostis stolonifera-Potentilla anserina* grassland and **MG12** *Festuca arundinacea [Schedonorus arundinaceus]* grassland will be covered under wet brackish grassland in the next article.

MG4 *Alopecurus pratensis-Sanguisorba officinalis* grassland

General characteristics

MG4 is the herb rich alluvial hay meadow type of grassland that visitors to North Meadow NNR, Cricklade will be familiar with. It is distinguished by the constant presence of Great Burnet and the occasional presence of Fritillary *Fritillaria meleagris*, but it also supports a wide range of other species of neutral and calcareous grasslands. The species richness is related to the relative

dryness and poorer fertility of these types of meadows. Other constant species include Meadow Foxtail, Crested Dog's-tail *Cynosurus cristatus*, Red Fescue, Yorkshire-fog, Perennial Rye-grass, Common Mouse-ear *Cerastium fontanum*, Meadowsweet *Filipendula ulmaria*, Ribwort Plantain *Plantago lanceolata*, Meadow Buttercup *Ranunculus acris*, Common Sorrel *Rumex acetosa*, Red Clover *Trifolium pratense* and White Clover *T. repens*. One feature noted by Rodwell (1992) is the abundance of Dandelions *Taraxacum* spp., with older sites having rich assemblages of microspecies. Other occasional to frequent species in the community which may be particularly helpful in field identification are Yellow-rattle *Rhinanthus minor*, Cowslip *Primula veris*, Peppercorn *Silaum silaus*, Meadow-rue *Thalictrum flavum* and Adder's-tongue *Ophioglossum vulgatum*.

MG4 is concentrated in central England and Yorkshire and is probably not represented in Hampshire. The *Flora of Hampshire* (Brewis *et al.* 1996) notes that Great Burnet is 'rare and very local', being confined to the south-west New Forest and the river basins in the north-east, including the Loddon. It occurred to me whilst writing this article that the presence of fine examples of MG4 in the 'academic' counties of Oxfordshire and Cambridgeshire has presumably been part of the reason why this particular community has been so well studied in the past (I first came across it at Brampton Racecourse in Huntingdon). For full details of sub-communities see Rothero *et al.* (2016); only brief descriptions are given here.

Sub-communities

MG4a *Dactylis glomerata* sub-community is the most species rich and driest type, distinguished by constant Cock's-foot *Dactylis glomerata* and Yellow Oat-grass *Trisetum flavescens*, but lower frequency of Meadow Foxtail. Average 25 species per square metre (FMP data).

MG4b Typical sub-community is closest to the MG4 community as a whole with no strongly preferential species. Average 22 species per square metre.

MG4c *Holcus lanatus* sub-community is wetter than the above sub-communities and is more grass-dominated and less species rich. Average 22 species per square metre. It is the most widespread of the sub-communities.

MG4d *Agrostis stolonifera* sub-community is the wettest, most species poor and nutrient rich type. It is similar to the *Holcus lanatus* sub-community but distinguished from it by the presence of species more typical of damper ground such as Cuckooflower, Meadowsweet and Creeping-Jenny, along with various sedges. Average 15 species per square metre.

MG6 and MG7 *Lolium perenne* grasslands

General characteristics

Details of these two communities were given in the previous article (*Flora News* 50, January 2016). They encompass so-called 'improved' and 'semi-improved' grasslands on dry to wet soils, characterised usually by a high proportion of Perennial Rye-grass, though in

some cases the high fertility may be entirely natural and Perennial Rye-grass can sometimes be scarce.

Sub-communities

MG6d *Filipendula ulmaria* sub-community (Rothero *et al.* 2016) is characterised by frequent Meadowsweet and probably represents an improved version of MG8 on damp soils (it usually occurs on deep peaty profiles). It is less fertile than most types of MG7 and occupies drier parts of the floodplain that may be only rarely flooded.

MG7c and MG7d – wet forms of *Lolium perenne* grassland

MG7c *Lolium perenne-Alopecurus pratensis-Festuca pratensis* [*Schedonorus pratensis*] grassland has now been redefined by the work of FMP as **MG15p** (see below). It fitted poorly into the NVC as typically it contains little or no Perennial Rye-grass and occurs on unimproved or moderately semi-improved sites. Even though MG15 is considered a provisional new community, I would certainly recommend that vegetation surveyors use it in preference to MG7c.

MG7d *Lolium perenne-Alopecurus pratensis* grassland is a more improved version of MG7c/MG15p which occurs on fertile alluvial soils, usually on drier parts of the floodplain, or in areas where only moderate waterlogging occurs in winter. Although Perennial Rye-grass is typically present it may be scarce or difficult to find in spring, when the main dominants are Meadow Foxtail and Rough Meadow-grass with smaller amounts of Yorkshire-fog and Creeping Bent. The sward is dry enough for Cock's-foot to be frequent and for Common Bent and Sweet Vernal-grass to be occasional. Timothy *Phleum pratense* is occasional to locally frequent and I have seen examples where Italian Rye-grass *Lolium multiflorum* has been sown into the sward. MG7d is herb poor to moderately herb rich, but herb cover is usually low. More frequent species include White Clover, Dandelion and Creeping Buttercup, with Common Mouse-ear, Common Sorrel and Red Clover generally being occasional or locally frequent, but a number of other typical herbs of improved grasslands can also occur. Average 9 species per quadrat (NVC floristic table).

MG8 *Cynosurus cristatus-Carex panicea-Caltha palustris* grassland

General characteristics

This type of wet grassland has almost mythical status amongst vegetation surveyors because it is relatively rare (or at least good examples of it which fitted the original NVC description were seldom encountered in the field). Some researchers had also even questioned the validity of the community. However, in his review of the NVC (Rodwell *et al.* 2000) Rodwell writes: 'the community is certainly real, the core of the description in Rodwell (1992) seems adequate but it is based on very few relevés from a limited area and the vegetation is both more widespread and diverse'. It is one of the communities studied in detail by FMP (with over 4,700 quadrats analysed) which has now resulted in a much better understanding of its floristics and ecology. It is

also clear that it is much more widely distributed than previously thought and may be frequent in Hampshire along the main river valleys.

MG8 is essentially a sedge-rich, species rich, semi-natural wet grassland, related to MG4 but on less fertile soils where the water table is constantly high. Management is typically by summer cattle grazing and/or by hay cutting. The sub-communities are related to differences in soil fertility rather than hydrology. The sward is made up of most of the typical wet meadow grasses, including Meadow Fescue, but with Red Fescue and Crested Dog's-tail also sometimes common. Main sedges are Carnation Sedge, Glaucous Sedge *C. flacca*, Common Sedge and Brown Sedge. In my (limited) experience of this community Marsh-marigold may only be present as scattered plants and is of course best seen only in early spring. Other community constants are Meadowsweet, Meadow Buttercup, Yorkshire-fog, Sweet Vernal-grass and Ribwort Plantain.

Sub-communities

MG8a *Sanguisorba officinalis* sub-community is found on drier mineral soils and is related to MG4. Characteristic species are Great Burnet, Common Knapweed *Centaurea nigra* and Sharp-flowered Rush, with frequent Devil's-bit Scabious *Succisa pratensis*, Selfheal *Prunella vulgaris*, Common Bird's-foot-trefoil *Lotus corniculatus*, Glaucous Sedge and Pepper Saxifrage *Silaum silaus*. Average 24 species per quadrat (FMP data).

MG8b Typical sub-community is more frequent on peaty soils and is noted by Rothero *et al.* (2016) to be well represented along the main rivers of Hampshire and Dorset. Weakly preferential species include Brown Sedge, Jointed Rush, Water Avens *Geum rivale*, Greater Bird's-foot-trefoil and Fen Bedstraw *Galium uliginosum*. Average 22 species per quadrat.

MG8c *Carex nigra-Ranunculus flammula* sub-community is found on infertile wet peaty substrates. Mesotrophic grasses such as Red Fescue tend to be replaced by Brown Bent *Agrostis vinealis* and Heath-grass *Danthonia*

decumbens. Other characteristic species include Meadow Thistle *Cirsium dissectum*, Common Meadow-rue *Thalictrum flavum*, Marsh Ragwort and mat-forming species such as Lesser Spearwort *Ranunculus flammula* and Marsh Pennywort *Hydrocotyle vulgaris*. Average 19 species per quadrat.

MG8d *Caltha palustris-Bellis perennis* sub-community is a northern sub-community limited to smaller streamside stands. The vegetation is found on fertile substrates and contains a relatively low number of flood-tolerant species and a wider diversity of species of dry neutral grassland. Marsh-marigold is more abundant here. Characteristic northern species include Globeflower *Trollius europaeus*, Marsh Hawk's-beard *Crepis paludosa* and Lady's-mantles *Alchemilla* spp. Average 25 species per quadrat.

MG9 *Holcus lanatus-Deschampsia cespitosa* grassland

General characteristics

MG9 is typically much less well grazed or managed than most of the other types listed here. It is characterised by frequent to abundant Tufted Hair-grass, a species which at best is only occasional in other types of wet grassland. The tussocks of this species give the community a mosaic feel, as the areas of shorter turf between them often remains shortly grazed. Soft Rush and other tall grasses can also be conspicuous, whilst Yorkshire-fog is also abundant and constant in the community. Tufted Hair-grass is better adapted than most other grasses to grow in anaerobic conditions, so the community tends to occur on permanently moist or waterlogged 'gleyed' soils. It is generally a relatively species poor community, but better examples can be rich in grass species and also support a wide range of wet grassland and water margin species.

Sub-communities

MG9a *Poa trivialis* sub-community occurs on wetter ground than MG9b. The patches between the *Deschampsia* tussocks are dominated by Rough Meadow-grass, with Meadow Foxtail, Meadow Fescue, Meadow Buttercup, White and Red clovers being preferentially frequent and



Brown Sedge *Carex disticha* growing in an MG8b sward (at Horton Heath, 3 June 2014) (John Norton)



MG9a in late summer with Tufted Hair-grass now browned-off (Horton Heath, 12 August 2014) (John Norton)

Soft Rush being locally frequent in some examples. Average 15 species per quadrat (NVC floristic table).

MG9b *Arrhenatherum elatius* sub-community is a drier type, often developing on areas where management has ceased altogether. False Oat-grass, Cock's-foot, Yorkshire-fog may all be abundant and taller herbs such as Common Knapweed and Curled Dock may gain a foothold. Blackthorn scrub may develop after a period of time. Average 18 species per quadrat.

MG10 *Holcus lanatus*-*Juncus effusus* rush-pasture

General characteristics

This is the typical type of rush pasture of more strongly improved wet (or damp) grassland on mineral soils. Soft Rush and Hard Rush can occur in variable proportions and are usually dominant or at least prominent in the sward (at least 10% cover, though usually more). The main grasses are Yorkshire-fog, Rough Meadow-grass and Creeping Bent, whilst Perennial Rye-grass occurs in 20-40% of stands. It is generally a herb poor community, with Creeping Buttercup often being the only frequent species. For a very common and widespread community the published account (Rodwell 1992) is surprisingly brief, and the NVC floristic table was based on relatively few samples (40 over all three sub-communities).

A third sub-community **MG10c** *Iris pseudacorus* sub-community is omitted here. It is described by Rodwell (1992) as a type of transitional water margin vegetation in western England, though presumably it may be more widespread.

At the drier end of the spectrum MG10 grades into MG6a and MG7b, or can be invaded by False Oat-grass if left ungrazed, whilst wetter forms of MG10a grade into **M23** *Juncus effusus/acutiflorus-Galium palustre* rush-pasture and MG10b into **M22** *Juncus subnodulosus-Cirsium palustre* fen-meadow (both types of mire). Stands with occasional to locally frequent Marsh Thistle, Greater Bird's-foot-trefoil and Water Mint will indicate transitions towards these two communities.

Sub-communities

MG10a Typical sub-community is usually dominated by Soft Rush. Average 12 species per quadrat (NVC floristic table). Stands with very dense Soft Rush can resemble **M23b** *Juncus effusus/acutiflorus-Galium palustre* rush-pasture, *Juncus effusus* sub-community but that usually has abundant Greater Bird's-foot-trefoil. Sharp-flowered Rush can be occasional in MG10a, but is usually frequent in M23.

MG10b *Juncus inflexus* sub-community occurs on soils that are moderately base rich and probably with more organic matter compared to soils which support MG10a. Hard Rush usually replaces Soft Rush, but mixtures of the two often occur. Hairy Sedge is characteristic and can be abundant. Rodwell (1992) notes that White Clover and *Rumex* spp. are preferential to this sub-community. The sub-community is a little richer (average 15 species per quadrat) than MG10a. Under the published NVC scheme there is a wide gap between improved base rich grassland

falling under MG10b and unimproved **M22**, which is often dominated by *Juncus inflexus* in the absence of Blunt-flowered Rush *Juncus subnodulosus*.

MG13 *Agrostis stolonifera*-*Alopecurus geniculatus* community

General characteristics

Rothero *et al.* (2016) collected data on this community during their work on floodplain meadows and gave it the nickname 'foxtail splash' but their interpretation of it does not differ substantially from the NVC version (Rodwell 1992). It occurs particularly in depressions and runnels on areas of flood pasture prone to winter flooding, i.e. where water sits for longest in the spring. Rothero *et al.* (2016) also note that it is characteristic of poorly drained compacted ground along trackways and occurs more extensively in poorly-drained pastures. Creeping Bent and Marsh Foxtail are co-dominant, sometimes in the absence of any other species, but other constant associates are Creeping Buttercup, Rough Meadow-grass and Floating Sweet-grass. Occasional species include Amphibious Bistort, Cuckooflower, Common Spike-rush, Curled Dock *Rumex crispus*, Yorkshire-fog and Perennial Rye-grass. Some stands may be similar to or grade into the various weed and inundation communities (Rodwell 2000) where Creeping Bent and Creeping Buttercup may also be abundant. Average 8 species per quadrat (NVC floristic table); 11 species per quadrat (FMP data).

Sub-communities

No sub-communities were distinguished by Rodwell (1992) or Rothero *et al.* (2016), but there may be enough variation to warrant recognition of a Typical species poor type and one or two other sub-communities, including one where Floating Sweet-grass becomes abundant during prolonged wet weather in spring and summer. One quite characteristic but rather patchily distributed species of damp depressions, Hairy Buttercup *Ranunculus sardous*, may possibly belong in this community or in a closely-related undescribed community (and also occurs in damp coastal grassland where there is some saline influence).

MG14 *Carex nigra*-*Agrostis stolonifera*-*Senecio aquaticus* grassland ('sedge lawn')

General characteristics

Rothero *et al.* (2016) describe this as a new NVC community though state that it was earlier documented for the Somerset Levels. They also note that it occurs in Hampshire and Dorset. It is a moderately species rich community found on wet floodplains, lying between the more fertile MG13 and less fertile MG8. The main community constants are Creeping Bent, Common Sedge, Creeping Buttercup and Cuckooflower with other characteristic associates including Marsh Ragwort, Amphibious Bistort, Marsh-marigold, Brown Sedge and Tufted Forget-me-not. Carnation Sedge *Carex panicea* and Hairy Sedge are occasional. It can be distinguished from MG8 by the higher frequencies and cover of Creeping Bent, Creeping Buttercup and some of the other species listed above and much lower frequencies

of species such as Red Clover, Meadowsweet, Ribwort Plantain, Yorkshire-fog and Red Fescue.

Sub-communities

MG14a Typical sub-community is defined by the preferential species Floating Sweet-grass, Common Spike-rush, Lesser Spearwort *Ranunculus flammula*, Jointed Rush and Tubular Water-dropwort *Oenanthe fistulosa*, which are all flood-tolerant. It occurs on grasslands prone to summer flooding and is managed for pasture, or sometimes hay. Average 15 species per quadrat (FMP data).

MG14b *Anthoxanthum odoratum* sub-community occurs on drier sites, where the preferential species include most of the common grasses and herbs of semi-improved pasture, such as Crested Dog's-tail, Perennial Rye-grass, Meadow Foxtail, White Clover, Meadow Buttercup and Common Sorrel. Others include Meadow Fescue and Autumn Hawkbit *Scorzoneroides autumnalis*. Management is normally by hay cutting. Average 18 species per quadrat.

MG15p *Alopecurus pratensis-Poa trivialis-Cardamine pratensis* grassland ('Cuckooflower grassland')

General characteristics

This provisional community described by Rothero *et al.* (2016) replaces Rodwell's MG7c *Lolium perenne-Alopecurus pratensis-Festuca pratensis* [*Schedonorus pratensis*] grassland and is certainly very widespread and common throughout lowland England. It is a moderately species rich type of wet grassland related to MG4 and MG8, but develops on more fertile, mineral soils. It can have a 'semi-improved' look to it, with grasses being strongly dominant over herbs, especially later in the season when mown or grazed.

MG15p is dominated by mixtures of Rough Meadow-grass, Meadow Foxtail and Creeping Bent (which vary considerably in their relative cover seasonally), with variable amounts of Perennial Rye-grass. The authors have not included Meadow Fescue in the name of the community as it did not prove to be a constant species, though is preferential to one of the sub-communities (in my experience this grass is actually rather rare, though easily overlooked in grazed stands). MG15p appears to be the main locus for Meadow Barley in damp fertile grasslands, a species which was grossly under-sampled by the original NVC work; however, it is also frequent in an undescribed type of wet brackish grassland (to be covered in the next article). Soft Rush is sometimes locally frequent, but all other rushes are rare in the community. Of the sedges, Slender Tufted-sedge *Carex acuta* was the most frequently recorded, with Hairy Sedge less so, though the first of these is very unlikely to be encountered in southern England, where it has seriously declined.

Constant herb species comprise Cuckooflower, Creeping Buttercup and Meadow Buttercup. Other more frequent associates listed in the FMP floristic table include Creeping-Jenny, Pepper-saxifrage *Silvaum silaus*, Autumn Hawkbit, Common Spike-rush and Marsh Horsetail

Equisetum palustre. Rarer species listed include Tubular Water-dropwort and Narrow-leaved Water-dropwort *Oenanthe silaifolia*. Sites which may have derived from MG4 can contain a little Greater Burnet, Brown Bent, Common Knapweed and Pepper-saxifrage. A number of flood-tolerant species can also occur, including Floating Sweet-grass, Common Marsh-bedstraw and Tufted Forget-me-not.

Sub-communities

MG15pa *Agrostis stolonifera* sub-community occurs on wetter sites, where Marsh Foxtail, Amphibious Bistort, Curled Dock, Common Couch *Elytrigia repens* and Brown Sedge are preferential. Other associates mentioned by Rothero *et al.* (2016) include Creeping-Jenny and Marsh-marigold. To this list I would add Ragged-robin an occasional associate. Average 13 species per quadrat (FMP data).

MG15pb *Lolium perenne-Ranunculus acris* sub-community is more strongly grass-dominated than MG15pa and occurs on drier soils. Rothero *et al.* (2016) found it to be more common than MG15pa. It is dominated by mixtures of Perennial Rye-grass, Sweet Vernal-grass, Crested Dog's-tail, Yorkshire-fog, Meadow Fescue and Timothy *Phleum pratense*, with the more frequent herbs comprising Meadow Buttercup, White Clover, Common Sorrel and Meadowsweet. Other preferentials include Red Fescue, Common Bent, Ribwort Plantain and Red Clover. It is possible that examples in Hampshire and neighbouring counties do not contain much Meadowsweet and would be easily mis-recorded as MG7d or MG6a. Average 18 species per quadrat.

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News and Views

Golden Club in the New Forest

A note by Catherine Chatters



Golden Club *Orontium aquaticum* (Clive Chatters)

During April 2016, in my role as the New Forest Non-Native Plants Officer, I was alerted to the discovery of Golden Club *Orontium aquaticum* growing somewhere in The New Forest. Golden Club is a species of flowering plant in the Araceae family and is the single living species in the genus *Orontium* which also contains several extinct species described from fossils. Golden Club is native to the eastern United States of America where it grows in ponds, streams and shallow lakes. The Golden Club had been discovered on Crown Land on the Open Forest by consultants undertaking surveys on behalf of the National Grid.

As I was unfamiliar with this species, I sought advice from Martin Rand regarding what action, if any, should be taken to control this species in the New Forest. Martin explained that previously there have only been two other reports in Britain. One of these records was from Hertfordshire prior to 2000, where it was planted deliberately in a wild situation but failed to establish and the other record was from a lake in Ceredigion in 2010, in the hinterland of Aberystwyth, where it was reported as planted and naturalised.

Although Martin initially thought that climatically Golden Club wouldn't do too well in Britain, he realised that interestingly all the records for it in Europe outside Britain have so far been in Scandinavia, i.e. Denmark, Finland, Norway and Sweden. Martin was aware that nobody had listed it as invasive in Europe and it does not appear to be listed as invasive in North America outside its native range. Nevertheless, he concluded that a precautionary approach should be taken as it is adapted to fairly low nutrient levels and is an aquatic aroid. We agreed that there is a good case for controlling it in the New Forest.

Obviously it was important for us to receive details of its location, to enable it to be entered on to national

databases to assist in judging its prevalence and spread and to enable appropriate advice to be given to the Forestry Commission.

By early May I had received details of where it had been seen, in a pond near the Forestry Commission car park at Turf Hill, and on 7 May 2016 Clive Chatters and I observed it growing abundantly around the margins of the pond. Martin noted that the Golden Club had become established here within the seven years since he had last visited this pond.

I advised the Forestry Commission that action should be taken to control the Golden Club on the Open Forest and a contractor has now been commissioned by the New Forest Non-Native Plants Project with funding from the New Forest Higher Level Stewardship Scheme.

If anyone discovers potentially invasive non-native plants growing in the New Forest area, particularly along watercourses and in wetland habitats, please contact me at Hampshire & Isle of Wight Wildlife Trust at Catherine.Chatters@hiwwt.org.uk or on 07770 923315.

Pillwort survey by the British Pteridological Society in the New Forest on 17 and 18 September 2016

The British Pteridological Society (BPS) has embarked on a national survey of Pillwort *Pilularia globulifera* and has invited Hampshire Flora Group members to participate in a survey to record its distribution in the New Forest.

For further details about the aims of this survey which has been organised by the BPS and which will take place during the weekend of 17 and 18 September 2016 see the BPS website: <http://ebps.org.uk/event/pilularia-hunting-weekend>. Contact: Fred Rumsey, telephone 020 7942 5692; e-mail F.Rumsey@nhm.ac.uk.

Geological maps of Hampshire – free to a good home

Flora Group committee member Andy Cross has acquired a set of framed geological maps for Hampshire. If anyone would like one of more of these maps please contact Andy via e-mail at andymcross@gmail.com to arrange collection.

Flora Group on Facebook

A Facebook group page for the Hampshire Flora Group has been set up by Nick Montegriffo. If you are signed up to Facebook and would like to join the group, please contact Nick at nicholas.montegriffo@btopenworld.com or use the Facebook search box to find the group and then apply for membership. It is a 'closed' group, so posts are only visible to members. The idea is that it will act as a forum to exchange comments and for members to post photographs of unidentified or unusual plants in Hampshire.

Recording

Bryophyte recording in Hampshire – past, present and future

An article by John Norton

As many of you will already know I have become more interested in bryophytes in recent years and took over from Rod Stern as VC11 (South Hants) recorder for the British Bryological Society (BBS) in April 2013. Fred Rumsey is the VC12 (North Hants) recorder, and together with June Chatfield we organise meetings of the Southern Group of the BBS each winter (details are given below).

Although Hampshire is a relatively warm, dry and flat county it has a relatively rich 'bryoflora'. The county supports about 502 recognisable taxa, made up of 125 liverworts, 3 hornworts and 374 mosses. Excluding varieties and subspecies, the total of about 482 distinct species amounts to 45% of the British flora of 1069 species, as covered by the 2014 *Atlas of British & Irish Bryophytes*. The species richness of the flora is helped especially by the extensive areas of wet heath and bog in the New Forest where several species have been recorded that are more at home in the wetter west and north of Britain, here occurring well outside their main ranges. The New Forest also has the largest population of the British Red Data moss *Zygodon forsteri* which is epiphytic on old Beech trees. Away from the Forest the most important habitat is the Chalk, on which there are several quite different communities, including one on warm, exposed substrates with species such as *Weissia condensata* and *Abietinella abietina* and another on cooler, higher altitude grassland, notable here for the calcicole liverwort *Scapania aspera*. A small but apparently thriving population of the Red Data liverwort *Cephaloziella baumgartneri*, a limestone-loving species, was discovered at Netley Abbey by Phil Budd and myself in March 2013. Other species in Hampshire with significant populations in a Britain and Ireland context include the liverworts *Targionia hypophylla* and *Pallavicinia lyellii*, and the heathland mosses *Dicranum spurium* and *Hypnum imponens*.

Rod Stern, who is no longer active due to ill health, thinly spread his recording activities across several counties, but did undertake a systematic survey of VC11 between 2000 and 2008, often accompanied on his outings by Francis Rose and Howard Matcham. Prior to Rod's survey most of our bryological knowledge of South Hants was based on the records of liverwort specialist Jean Paton, dating mainly from 1957-1960, when she was working at Southampton University. Other contributions have come from people such as Neil Sanderson who has lived and worked in the New Forest for many years, but there are relatively few historical records for the vice-county prior to the 1950s. Paton also probably did most of her recording in the New Forest, but also visited other parts of VC11 and published a flora of the vice-county in 1961. Rod Stern compiled all of Paton's records and

the results of his more recent survey into the '*Atlas of the bryophytes of South Hampshire*', published in 2010, which mapped records on a 5 x 5km basis. His book also usefully includes a copy of Paton's paper. In VC12 most past recording work was carried out by the late Alan Crundwell in the 1980s and more recently by the current recorder.

Therefore, although some progress has been made in the last few decades to document the county's bryophytes, the net recording effort in recent years has effectively been negligible, compared to that for higher plants. Furthermore, bryophytes are not easy to record in the first place, due to their small size, propensity for inhabiting inhospitable or inaccessible places and the fact that they are sometimes only present in small quantity. Recording is also made more difficult because many species dry up or die back in the dry, summer season and there are also a great many species that are true ephemerals, identifiable only for a short period when fruit are present, typically in autumn or winter. Refinding bryophytes can also be difficult, unless the original finder has provided detailed notes on their location (even 10-figure grid references can sometimes be useless).

I have come to realise that there is a great deal of skill involved in bryophyte recording, much more so than looking for vascular plants. I am now beginning to learn the search image for species in both wet and dry state and also getting to know the microhabitat preferences of each species and appreciate the large range of different microhabitats that should be searched when out recording bryophytes.

To publicise recording of bryophytes in Hampshire I have set up some pages on my web site: <http://www.jnecology.com/bryophytes/index.htm>. These include a calendar of Southern Group meetings, but at the time of writing we have yet to sort out anything for 2016/17. The first meeting of the season is usually a combined one with the Wessex Group in the New Forest, likely to be the last weekend of October. I have also uploaded 10km dot maps of all the main taxa in the county to illustrate where there are significant gaps in recording. It would take another long article to explain fully, but there are big problems with the Hampshire bryophyte data because much of it has been input only at 5km or 10km resolution for a notional date (usually 1980 in South Hants). This means that it is impossible to create maps showing the distribution based on more recent records (most of the records mapped in the recently published BBS atlas fell into an older date class as a result).

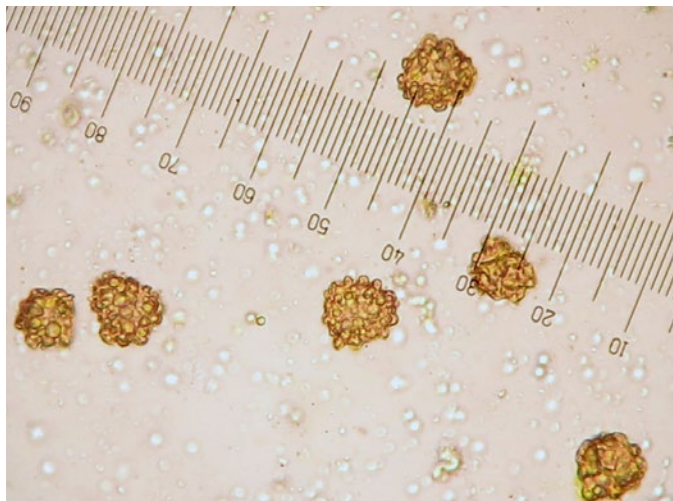
For the future I will be doing what I can personally or with the Southern Group to record under-explored or not-recently-visited parts of the county with potential bryophyte interest. I have spent some time looking at chalk grassland sites, such as Portsdown Hill (which has proved to be exceptionally rich in county terms) and will continue to look at some other sites this coming winter. However, I am still rather poor on Sphagna and 'brown mosses' so also intend to spend more time in the New Forest this winter. There are several species recorded

Hampshire Lichen Report 2015-16

By Neil Sanderson

there in the past, including some from Paton's time, which have not been seen since. Fred Rumsey has put together a red data list of Hampshire bryophytes which we are in the process of updating as a list of Notable species, to be exchanged in due course with HBIC.

In addition to *Cephaloziella baumgartneri*, other new VC11 records since Rod Stern's atlas have been *Microbryum starckeanum* (30 October 2014), *Didymodon acutus* and *Encalypta vulgaris* (both 13 December 2014), all from the slopes of Portsdown Hill below Fort Widley. These are strongly calcicole mosses and not unexpected finds here. *Encalypta vulgaris* was recorded in an earlier census catalogue but was later deleted due to the lack of any specimen. I have also found a *Hennediella* species (either *H. macrophylla* or *H. stanfordensis*) at Pook Lane, Emsworth, which would be new to the county, but so far the poorly developed material has not allowed confident identification or acceptance by the national referee. Both are introduced species and *H. macrophylla* is rapidly increasing in eastern England and has been recorded in parks in Chichester, so this is the most likely of the two.



The distinctive 'sack of potatoes' spores of *Microbryum starckeanum* (divisions = 2.5 microns) (John Norton)



Hennediella sp. (with mm ruler) (John Norton)

Please contact me at web@jnecology.com if you would like to come along to a bryophyte meeting this winter, or would like to be put on the e-mail mailing list.

INTRODUCTION

For the past few years my lichen surveying in Hampshire has concentrated on a systematic survey of the New Forest heathlands. This was concluded in 2015 and the report is in the last stages of review and will be released soon. After so long on the heaths I have made a point of getting back into searching the New Forest woodlands. This has produced an interesting crop of new records, showing that these amazing woods continue to surprise. The most interesting recent records and some other noteworthy records are discussed below. A list of abbreviations (which follow the species names) are given at the end of the report.

MOST INTERESTING RECORDS

***Calicium diploellum* CR (NR/IR/BAP):** Great Stubby Hat, Busketts Wood, SU 307 109, 24/3/2016; Matley Wood, Busketts Wood, SU334 076 & 332 076, 30/3/2016 & 1/4/2016, N.A. Sanderson. A tiny pin head lichen found on lignum exposed within lenticels on old Hollies. Remarkable new records for England of a species otherwise recorded from old Hollies in hyper-oceanic climates, with one site in western Scotland and a few in western Ireland. Searches of several other woods with old Hollies in the New Forest have not yet found further sites, so the species is not general in the Forest. The habitat of *Calicium diploellum* is the same as in Ireland; the species is invariably found in lenticels, or damaged bark, where the non-lichenised fungus *Mycoporum lacteum* NT (NS) dominates. The reason seems to be quite simple; *Mycoporum lacteum* appears to be a bark chloroplast parasite; a fungus that lives like a lichen, but rather than developing a mutualistic relationship with an alga, it simply parasitises the chloroplasts in the bark of the Holly. For this reason *Mycoporum lacteum* avoids overgrowing the chloroplast free exposed lignum in the lenticels. This leaves the lignum habitat free for *Calicium diploellum*.



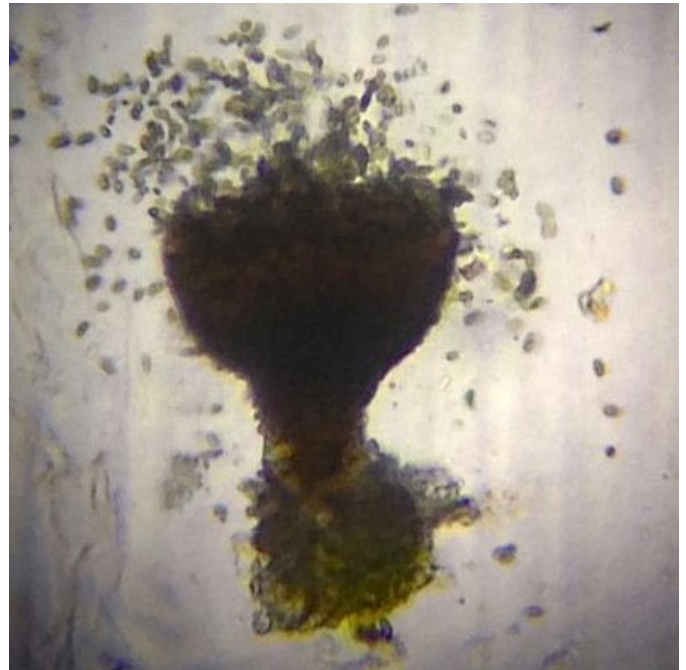
Calicium diploellum habitat, on an old Holly in Great Stubby Hat (Neil Sanderson)

Finding the species is very much a learned knack. One needs to look out for the green speckling in Holly lenticels on the dry sides of old Hollies, especially where *Mycoporum lacteum* is extensive. This suggests the presence of the lichen. Then one has to squint sideways into the lenticels to try and spot the tiny (0.1 – 0.2mm) high pinheads. If well-developed these can have yellow pruina on their heads, but this is usually absent; looking for this pruina may have led to the species being missed in the past. Mostly the pinheads are very difficult to separate from general frass and rubbish, but with luck they can be spotted.



Calicium diploellum apothecia on an old Holly in Great Stubby Hat (Neil Sanderson)

See http://wessexlichengroup.org/news/Calicium_diploellum for more details.



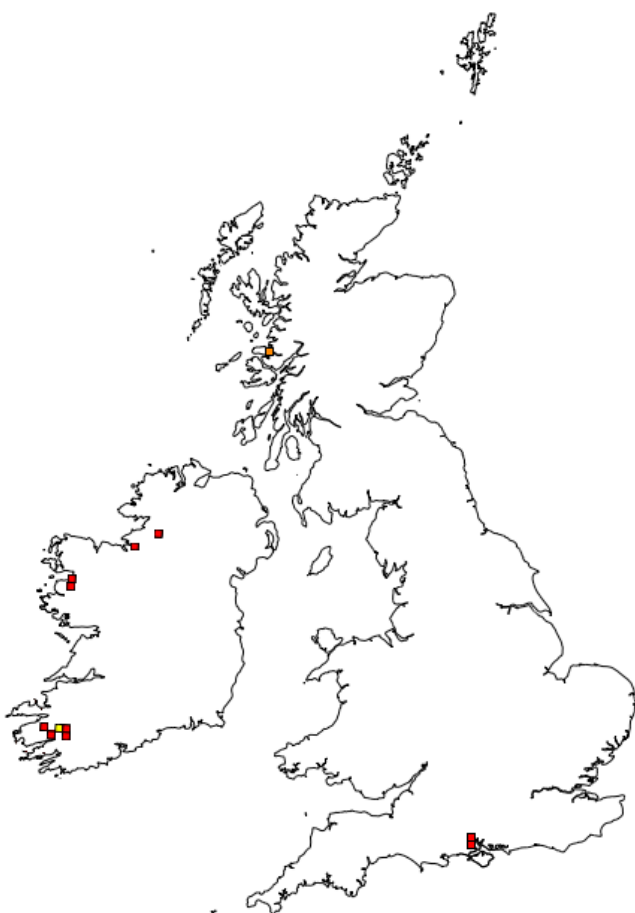
Calicium diploellum apothecia from old Holly in Licheen Wood, Kerry, Ireland (Neil Sanderson)

Arthonia anglica EN (NR/IR/S41): Matley Wood, New Forest, SU 334 076, 12/4/2016, N.A. Sanderson. A single thallus on an ancient Holly pollard in ancient Oak-Holly pasture woodland. The first record for this rarely recorded lichen from the New Forest since 1868 and the first for England since 1998. It appears to be a very rare species in Britain and Europe, with previously only two historic records from England (the New Forest and St Leonard's Forest, Sussex) and two 20th century records (Millook, North Cornwall and Clovelly, North Devon). A search of the internet indicates that in Europe it has also been recorded in the Azores and in Portugal. It appears more frequently recorded in eastern USA and it has also been recorded from Rwanda, so it is also in the tropics.



Arthonia anglica on old Holly in Matley Wood (Neil Sanderson)

This is a lichen for which I have been looking for over 20 years, so I was really pleased to find it. It looks very similar to the more widespread *Arthonia astroidestera*



Calicium diploellum distribution map

NT (NS/IR), which also grows in similar habitat. *A. astroidestera*, however, has white pruina that strongly fluoresce orange, while *A. anglica* lacks pruina. It is certainly much rarer than *A. astroidestera*, but may have been overlooked for this species.



Arthonia anglica habitat: old Holly in Matley Wood (Neil Sanderson)

See http://wessexlichengroup.org/news/Arthonia_anglica for more details.

Schismatomma graphidioides VU (NR/IR/S41): Matley Wood, New Forest, SU 334 SU 335 076 & SU 334 079, 16/4/2016 & 17/4/2016, A.M. Cross & N.A. Sanderson. Frequent on quite acid and dry bark on a young Sweet Chestnut tree, with abundant *Lecanactis abietina* and frequent on moister acid bark on old Holly. Third site for this rare species in the New Forest and the largest and strongest colonies found here to date. Both Sweet Chestnut and Holly appear to be new substrates for the lichen. The species is very rare and scattered in England and Wales, and appears to turn up at random, often on otherwise rather ordinary trees; not an easy ecology to understand.

These new records turned up in an extended search of Matley Wood after the earlier exciting finds described above. The record on Holly was an addition to the already outstanding assemblage found on the old Hollies at this site but the record on Sweet Chestnut was unusual. This exotic tree is marked mainly by the poverty of its lichen assemblage in the New Forest; even old trees are much poorer than similar Oak trees. Chestnut, however, can be a very lichen rich habitat in southern Europe,

where it is native or has been present for millennia. This phenomenon is not seen in trees with more base rich bark but does appear typical of exotic trees with more acidic bark. Francis Rose pondered this issue, and could only suppose that lichens needed time to evolve adaptations to successfully grow on the bark of more acidic trees.

See http://wessexlichengroup.org/news/Arthonia_anglica for more details.



Schismatomma graphidioides on Sweet Chestnut, Matley Wood (Neil Sanderson)

Bacidia subturgidula CR (NR/IR/S41): Great Huntley Bank, Brinken Wood, New Forest, SU 277 060, 21/4/2015, N.A. Sanderson & P. Evans. A small patch on lignum on an old Holly in open Beech-Holly-Pedunculate Oak pasture woodland. Third record for the New Forest and fifth recent world record for this extremely rarely recorded species. A specialist of Holly and Oak lignum in southern oceanic woodlands, since found in a sixth world location in Dorset.

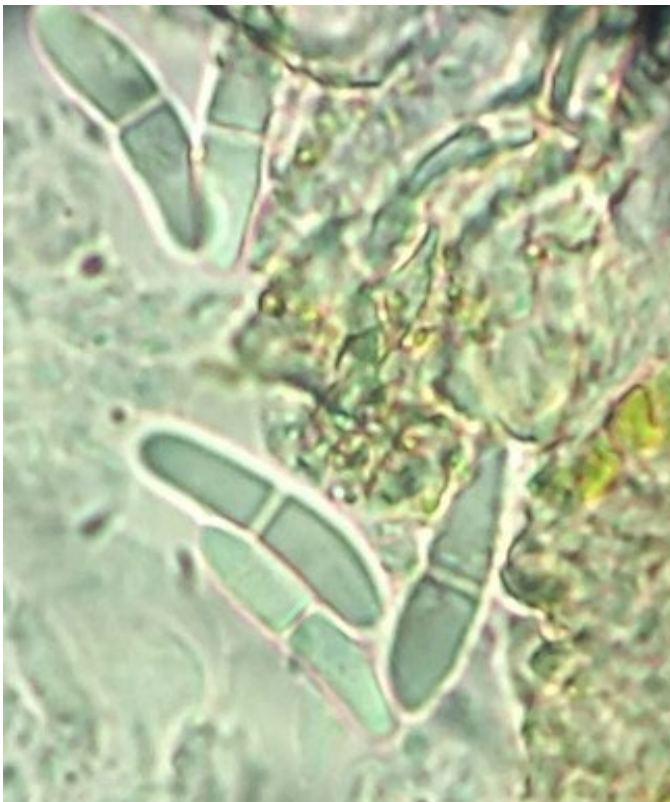
Arthonia thelotrematis Nb (DD/NR): Shave Wood, New Forest, SU 287 121, 22/4/2015, N.A. Sanderson & P. Evans. Parasitic on *Thelotrema lepadinum* on an old Holly in Beech-Holly-Pedunculate Oak pasture woodland. First lowland record for the rare oceanic fungal parasite.

Arthopyrenia nitescens Nb (NS/IR): Denny Wood, New Forest, SU 338 055, 8/2/2011 & 8/2/2016, N.A. Sanderson; French's Bushes, New Forest, SU 297 125, 2/2/2016, N.A. Sanderson; The Ridge, Great Stubby Hat & Bartley Water, in the Busketts Wood complex New Forest, SU 310 109, SU 397 108 & SU 304 105, 6/5/2016 & 5/7/2016, N.A. Sanderson. Found on several old Beech trees, on less acidic smooth bark, and once on a suppressed Oak in old pasture woodlands. This species was first collected in 2011, but its identity was not worked out until this year, mainly because it seemed an unlikely species to occur. It is a strongly oceanic species, otherwise only known from western Britain. However, it was collected once from the New Forest in the 19th century from Holly. The refinding of this species and *Arthonia anglica* is significant. There are now very few lichen species, recorded from the New Forest woods in the 19th century and not refound, which are not highly sensitive to acidifying air pollution.

This indicates that the main habitat deterioration in the New Forest woods since the 19th century has been due to increased air pollution and not changes the condition of the woodlands.



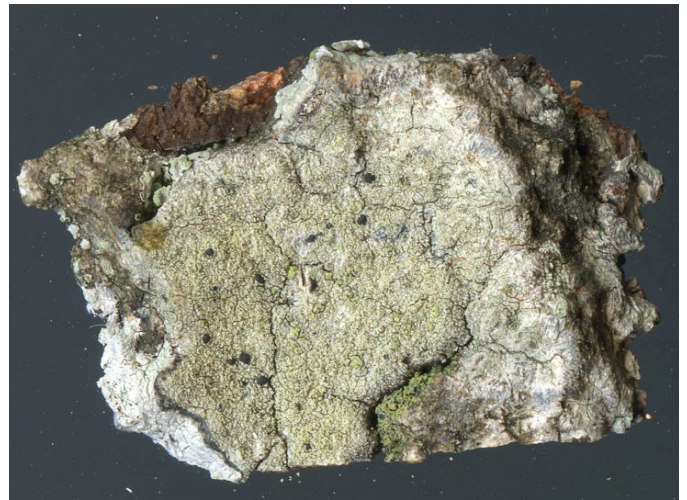
Arthopyrenia nitescens on old Beech in Denny Wood (Neil Sanderson)



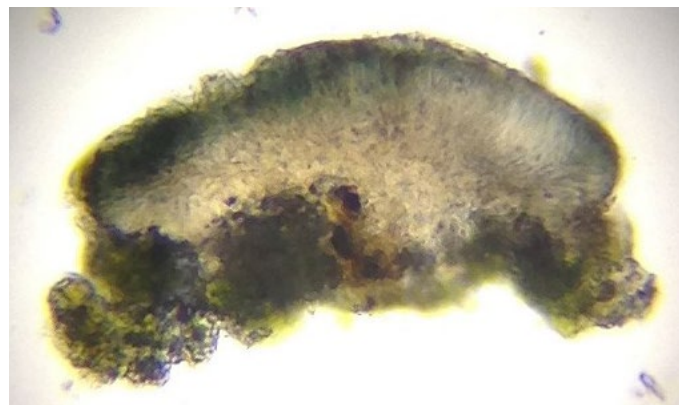
Arthopyrenia nitescens spores, specimen on old Beech in French's Bushes (Neil Sanderson)

Lecidella cf. *pulveracea* Ex: The last species of special interest is as yet a work in progress in terms of its identity. On 24th April 2016, in Rushpole Wood I spotted what looked like stunted *Pyrrhospora quernea*, but with small dark apothecia, rather than the large red-brown apothecia, on a couple of old Beech trees. The dull cream

yellow thallus was thinly soresdiate, the soresdia being produced by the breakdown of small thallus fragments (blastidia). Some patches of hyphae with a blue pigment occasionally occur and can be just made out in the field as dark speckling, but other than the soresdia being thinner, the look and spot tests given by the thallus are similar to *Pyrrhospora quernea*. The apothecia, however, are very different, lacking the K + red pigment in *Pyrrhospora quernea*. The green-yellow exciple, blue or green epithecium, pale yellow hypothecium and simple spores (8)10–12 x 6µm, were very different. The species was clearly a *Lecidella*, but which *Lecidella*? The most similar species in the Lichens of Great Britain and Ireland (LGBI) is *Lecidella pulveracea* but this gives a larger spore size. However, continental lichen floras give spores sizes that match the New Forest material, so it may be *Lecidella pulveracea*, but more work is required.



Lecidella cf. *pulveracea* on old Beech, Rushpole Wood (Neil Sanderson)



Lecidella cf. *pulveracea* apothecia cross section, old Oak, Bartley Green (Neil Sanderson)

The LGBI describes *Lecidella pulveracea* as occurring 'on wood, confined to worked timber of barns, and fence rails, especially near farms, formerly widespread and frequently collected. England (Midlands and the S.E.); not seen since 1879'. More recent continental records, however, imply that it is more frequent on bark there. It also appears to be now rare on the continent. My taxon has now been found on old Beech on well-lit mesic bark in Rushpole Wood, Denny Wood, Mallard Wood, Stricknage Wood and Busketts Wood and more rarely

on Oak bark at Bartley Green and Busketts Wood. I have looked for it outside the Forest and have collected it from lignum on a fallen dead Oak in an old deer park in the Lake District. Brian Coppins and John Douglass have collected what seems to be the same taxon on a Sycamore in the Ochils in Scotland. Whatever taxon it is, it seems to be rare but widespread and probably overlooked as *Pyrrhospora querneae* in the past.

OTHER NOTEWORTHY RECORDS

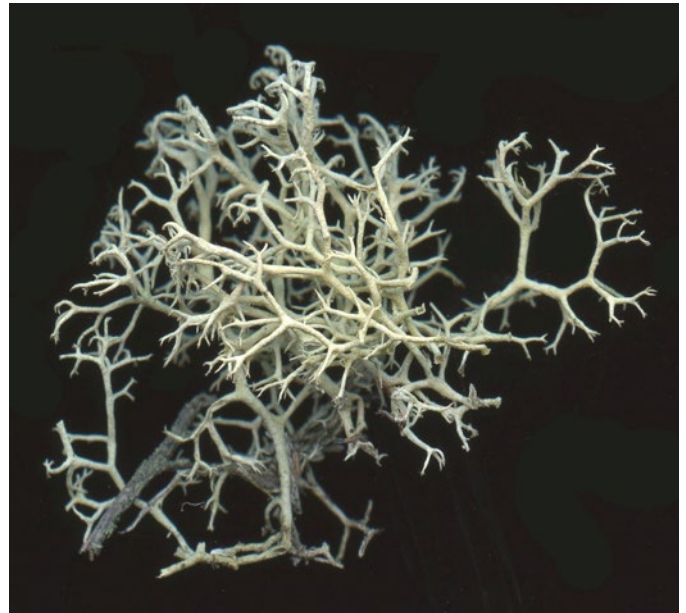
Bacidia circumspecta VU (NS/S41): Anses Wood, New Forest, SU 230 127, 29/12/2105, N.A. Sanderson and Wessex Lichen Group. On wound track on ancient Beech, in Beech-Holly-Oak pasture woodland. A new site for this declining lichen, which has lost many locations to Dutch elm disease, and the first record from this 10km national grid square since 1976.

Bacidia squamellosa Nb (NS): recent riverine woodland by Dockens Water, Anses Wood, New Forest, 31/5/2015, N.A. Sanderson, British Bryological Society Southern Group and Wessex Lichen Group. On the stem of a collapsed *Salix cinerea*, in scrub on floodplain. A recently described oceanic species and new to Hampshire and lowland England.

Buellia hyperbolica VU (NR/S41): Matley Wood, New Forest, SU 3324 076, 1, 23/1/2016, N.A. Sanderson & Andy M. Cross; Gritnam Wood, New Forest, SU 283 065, 10/7/2016, N.A. Sanderson. Both on fallen dead Oaks, the former clearly having colonised the log since death, probably from Denny Wood, while the second had obviously been already growing on a dead branch before the tree fell down. A rare southern Atlantic, montane Mediterranean species with most of its English population in the east of New Forest. The Gritnam record is new to the 10km square.

Cladonia mediterranea CR (NR/S41): Wootton Bridge, New Forest, SZ257 998, 3/1/2015, N.A. Sanderson. Large patch in damp humid heath, near junction with wet heath. The second record of this rare southern Atlantic-Mediterranean species from the New Forest. Recent genetic work has confirmed that this species is a separate species from the common *Cladonia portentosa*. It also indicates that a strong macro feature differentiating *Cladonia mediterranea* from *C. portentosa* is the rarity of holes in the axles of the branches together with dichotomous branching and a continuous algal layer (giving the thallus a silvery look similar to *Cladonia arbuscula*). The material at Wootton Bridge had no perforated axils and was strongly dichotomously branching.

Enterographa elaborata CR (NR/S41): Rushpole Wood, New Forest, SU 311 098, 27/4/2016 & 1/5/2016, N.A. Sanderson & A.M. Cross. On two old Beech trees in rain track, one a senescent ancient tree, the other a small suppressed Beech tree. A new site for this internationally rare lichen, only known from the New Forest and Hatch Park, Kent in Britain.



Cladonia mediterranea Wootton Bridge (Neil Sanderson)

Megalaria laureri EN (NR/IR?/S41): Mallard Wood, New Forest, SU 320 093, 4/2/2016, N.A. Sanderson; Little Stubby Hat, Busketts Wood, New Forest, SU 305 108, 24/3/2016, N.A. Sanderson. Single thalli on two old Beech trees, new sites for this very rare Beech specialist lichen.

Ochrolechia arborea NT (NR): Yew Tree Hill, Busketts Wood, New Forest, SU 3108 1068, 17/3/2016 & 2/4/2016, 31/3/2015, N.A. Sanderson and Wessex Lichen Group; Ashurst Wood, New Forest, SU 327 093, 21/3/2016, N.A. Sanderson. Both on fallen dead Oaks, the former with a rich assemblage of dead wood specialists, including *Protoparmelia oleagina* Nb (NS) and *Pycnora sorophora* Nb (NR) on what were dead branches on a stag-headed Oak, which had recently fallen over. The second was on a long fallen well-lit log, also with *Protoparmelia oleagina* Nb (NS). First records for Hampshire for an under recorded but probably uncommon specialist of old weathered sunny dead wood. Easily detected if a UV light is used, due to the bright yellow fluorescence.

Opegrapha thelotrematis Nb (NS): Great Stubby Hat, Busketts Wood, New Forest, SU 306 112, 7/3/2016, N.A. Sanderson. Parasitizing *Thelotrema lepadinum* on an old Beech, on Beech-Holly-Oak pasture woodland. Second record for the New Forest and the lowlands of the oceanic species.

Pertusaria pustulata VU (NR): Cadman's Pond, Anses Wood, New Forest SU 229 122, 31/5/2015, N.A. Sanderson, British Bryological Society Southern Group and Wessex Lichen Group; Matley Wood, New Forest, SU 332 075, 13/4/2016, N.A. Sanderson. On old Beech trees, the first record was new to the wood and the north east of the New Forest, while the second was a new 10km national record. A very rare species of smooth mesic bark on old Beech and Hollies, currently only known from the New Forest and a single site in Sussex in Britain.

See http://wessexlichengroup.org/Previous_Meetings/2015_Meetings/anses_wood and http://wessexlichengroup.org/news/Arthonia_anglica for more details.

Ramonia nigra CR (NR/IR/S41): Matley Wood, New Forest, SU 334 076, 13/4/2016, N.A. Sanderson & A.M. Cross. On lignum inside two ancient Holly pollards. A new site for this endemic fungus, which very rare outside of the New Forest.

See http://wessexlichengroup.org/news/Arthonia_anglica for more details.

Sticta limbata Nb (IR): Cadman's Pond, Anses Wood, New Forest, two sizable clumps of thalli at the base of an ancient Oak, SU 229 122, 31/5/2015 & 29/12/2015, N.A. Sanderson, British Bryological Society Southern Group and Wessex Lichen Group. Two clumps of thalli at the base of an ancient Oak. Francis Rose found this very pollution sensitive lichen, which has declined drastically in the south of England, on this Oak many decades ago. This lichen was still present in 1996, but I had failed to refind it in the late 2000s; leaving only one other extant site in the New Forest, a transplant in Busketts Wood. Much to my delight I refound a nice healthy patch of *Sticta limbata* during a BBS meeting and a second one was spotted on the same tree during a later WLG meeting.

See http://wessexlichengroup.org/Previous_Meetings/2015_Meetings/anses_wood and http://wessexlichengroup.org/Previous_Meetings/2015_Meetings/anses_wood_12_2016 for more details.

Teloschistes chrysophthalmus Goldeneyes CR (NR): the old airfield site at Plain Heath, New Forest (SZ221 993),

a single thallus on a Hawthorn twig, 7/2/2015, N.A. Sanderson & A.M. Cross. Few reports of new thalli after the earlier rush of records, but this is the first for the Open Forest. This warmth loving species appears to have undergone a large scale invasion from the nearest large populations in Brittany over the last decade. It formerly occurred along the south coast in the early 19th century, but had long disappeared before the recent recolonisation. It remains to be seen if this colonisation event established sustained populations or not.

See http://wessexlichengroup.org/conservation_ecology/teloschistes_chrysophthalmus_ecology for more details on the colonisation of southern England by this species.

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. 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



Sticta limbata on Oak, Anses Wood (John Norton)

VC11 Records

Martin Rand's selection of records from VC11 (South Hampshire) will be included in the Spring 2017 edition of *Flora News*.

VC12 Records

Compiled by Tony Mundell (30 June 2016)

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. As usual I have omitted the 'SU' to save space, and I remind you that inclusion of a record does not imply that there is public access, as some of these records were obtained during surveys at the owner's invitation.

Amongst the native species listed I was delighted to re-find *Alchemilla filicaulis* subsp. *vestita* (misleadingly called Common Lady's mantle). This is close to extinction in Hampshire (as shown by the Hampshire Rare Plant Register) and was thought lost from the Hound Green site as no plants could be found there on 7 August 2008 despite a careful search. So it was a real surprise to re-find at least 50 plants there recently.

Andrew Leonard has done a lot of driving, zig-zagging across North Hampshire to check on earlier records for particular ferns. Below I have only included his records for a few of the fern species he has recently been searching for. As always Steve Povey has made a huge number of records this year, and he continues to study the genus *Arum*, with a particular interest in the native Hampshire speciality *Arum italicum* subsp. *neglectum* and its putative hybrid with *A. maculatum*.

Chris Hall has found a new species for VC12, *Catapodium marinum* Sea Fern-grass. This is a coastal plant that like several other species can spread along main roads that are sprinkled with salt in the winter. I visited the site myself and found hundreds of plants of it along several hundred metres of roadside, growing with other seaside halophytes including *Cochlearia danica* Danish Scurvy-grass, *Puccinellia distans* Reflexed Saltmarsh-grass and *Spergularia marina* Lesser Sea-spurrey.

Of course the intensive recording for Atlas 2020 keeps yielding records of uncommon plants in new places. Examples listed below include *Acaena novae-zelandiae* Pirri-pirri-bur, *Cerastium semidecandrum* Little Mouse-ear, *Malva setigera* (a Schedule 8 species) Rough Marsh-mallow, *Populus nigra* subsp. *betulifolia* Black Poplar and *Stellaria pallida* Lesser Chickweed. Many new sites were found this year for *Ranunculus auricomus* Goldilocks Buttercup and curiously in a couple of areas they did not have the typically mal-formed petals.

I am pleased that HIWWT Reserve Managers are now putting some records on Living Record. Examples here are the impressive count of 2,600 plants of *Anacamptis*

morio Green-winged Orchid and a new site for *Dactylorhiza incarnata* subsp. *incarnata* Early Marsh-orchid.

Site mismanagement continues to take its toll. All the roadside plants of *Silene gallica* Small-flowered Catchfly were mown off at its sole surviving VC12 site in a real comedy of errors too long to recount here. For several years I have been trying to get HCC to disturb the soil at the roadside site for *Filago lutescens* Red-tipped Cudweed (after doing it myself for well over 20 years) and somewhat ironically this year someone (but probably the local council rather than HCC) rotavated an area only a couple of hundred metres away, which was later sown with a mixture including Corncockle *Agrostemma githago* and Corn Marigold *Glebionis segetum*. I have also been pressing for years to get HCC to manage the roadside *Turritis glabra* Tower Mustard site near Kingsley, but still nothing has been done and it is now dreadfully overgrown. See also the entries below for *Epipactis purpurata* Violet Helleborine and *Saxifraga granulata* Meadow Saxifrage for more examples of mismanagement.



One of only two plants of Tower Mustard *Turritis glabra*, Kingsley, 5 June 2016 (John Norton)

Abbreviations:

ANHS = Alton Natural History Society

HFG = Hants Flora Group

RDNSH = Reading District Natural History Society

***Acaena novae-zelandiae* (Pirri-pirri-bur)** In plenty at the rear of Sleaford 'Pre-mix' cement yard at Sleaford 8047 3835, Steve Povey 11 May 2015.

***Acorus calamus* (Sweet-flag)** Basingstoke 6482 5241, found at the River Loddon in Eastrop so possibly planted by the council, Adam Lucas 1 May 2016.

***Adiantum capillus-veneris* (Maidenhair Fern)** Aldershot 8692 5055, railway bridge on the High Street, Andrew Leonard 23 Mar 2016.

***Agrostis canina* (Velvet Bent)** On muddy track at Kingsley Common 7910 3821, Tony Mundell 28 May 2016.

***Agrostis curtisii* (Bristle Bent)** Hazeley Heath 7649 5806 and 7653 5796, Tony Mundell 6 Jun 2016.

***Alchemilla filicaulis* subsp. *vestita* (Common Lady's mantle)** Hound Green, Mattingley, although not re-found here earlier on 7 Aug 2008, at least 50 relatively small plants were re-found at 73065 59120, with several more at 73053 59126, in a marshy corner of unimproved grassland, Tony Mundell 28 Apr 2016. (A real rarity in Hampshire so not 'Common' as its name implies).



'Common' Lady's-mantle *Alchemilla filicaulis* subsp. *vestita*, Hound Green, 16 May 2016 (Tony Mundell)

***Allium paradoxum* (Few-flowered Garlic)** Liphook (VC12 part) in plenty along laneside verges in many directions from junction at 8468 3050, Steve Povey 9 Feb 2016. Alton 705393, small clump on verge, Steve Povey 10 Mar 2016.

***Allium triquetrum* (Three-cornered Garlic)** Silchester, Roman Amphitheatre, locally abundant in a large area on the amphitheatre wall at 6446 6263, Tony Mundell with RDNHS 19 Dec 2015. Church Crookham, patch beside Award Road track at 8062 5209, Tony Mundell 22 Dec 2015. Basingstoke Canal, Fleet, patch by towpath at 8034 5302, Tony Mundell 19 Apr 2016.

***Alnus incana* (Grey Alder)** Several planted trees at Bourne Park 3770 5161, suckering abundantly, Tony Mundell & Peter Billingham 4 Apr 2016.

***Anacamptis morio* (Green-winged Orchid)** 2,600 plants counted at Headley Gravel Pit 511627 by Basingstoke HIWWT local group.

***Anacamptis pyramidalis* (Pyramidal Orchid)** Andover 356443, nine plants counted, Graeme Davis 9 Jun 2016. Andover 354465, 20 plants counted, cycle path behind hospital, Graeme Davis 18 Jun 2016. Great Shoddesden, A342 Andover Road 2951 4817, roadside, Julia Nethercott 20 Jun 2016.

***Anthemis cotula* (Stinking Chamomile)** In arable field corner east of Litchfield at 4801 5326, Tony Mundell & Graeme Down 29 May 2016.

***Aponogeton distachyos* (Cape-pondweed)** Still present in stream at Elvetham Heath 8018 5544, Tony Mundell 9 Dec 2016.

***Arenaria leptoclados* (Slender Sandwort)** Silchester Roman Wall 638620, fruit capsules, sepal length etc. confirmed it was not *A. serpyllifolia*, Tony Mundell 4 Jan 2016. Tufon 4639 4463 near road junction. Sepals only 2.5mm, capsule conical, not flask-shaped, Tony Mundell 27 May 2016.

***Arum italicum* subsp. *neglectum* (Italian Lords-and-Ladies)** Hale Copse, a few plants at 7327 3205, a new place!, Steve Povey 7 Feb 2016. N of Hawkey, many plants on roadside bank from 7400 3092 to 7408 3098, Steve Povey 28 Jan 2016.

***Arum italicum* x *maculatum* (Hybrid Lords-and-Ladies)** Large colony of very intermediate plants among many 'normal' plants of both *A. maculatum* and *A. italicum* subsp. *neglectum*. Some with large glossy spotted leaves, not typical of either species. Base of Noar Hill Hanger at 7424 3125. I believe this could well

be a colony of hybrid origin, but it will require further investigation of flowers and fruits, Steve Povey 28 Jan 2016.

***Asplenium ceterach* (Rustyback)** Alton, Old Acre Road 715389, now only two plants, one having 6 fronds and the other with 4, on the wall at the side of the Hop Poles in Old Acre Road, June Chatfield & ANHS 20 Dec 2015. W of Liss, around 50 plants on low garden walls from No. 14 to No. 18 Western Road, Liss at 7763 2799, Steve Povey 7 Jan 2016. Liss, B3006, 7715 2873; also Blackmoor St Matthews Church 7808 3358; also Lower Farringdon 7100 3510, all Andrew Leonard 7 May 2016. Bishop's Sutton, School Lane 6069 3201 and St Nicholas Church 60613201, Andrew Leonard 10 May 2016. Nether Wallop, Church Hill 3016 3646 and High Street 3026 3655, Andrew Leonard 12 May 2016. Whitchurch, alleyway 4638 4785; and Silk Mill wall 4629 4790; and The Lynch 4649 4821; also Leckford railway bridge 3738 3777; Andrew Leonard 14 May 2016. Alton 7112 3847, walls of the French Horn, Andrew Leonard 6 Jun 2016. Wootton St Lawrence 5920 5333 on old wall, Sarah Ball & Sarah White 8 Jun 2016.

***Astragalus glycyphyllos* (Wild Liquorice)** Kings Worthy Rail Path, rail platform clearing 4796 3513, Andrew Davidson 11 May 2016.

***Aucuba japonica* (Spotted-laurel)** Crondall, two bushes in Hannam's Copse.794496, Tony Mundell 7 Apr 2016.

***Azolla filiculoides* (Water Fern)** Basingstoke Canal, Greywell, a large patch at 7191 5144 with smaller patches nearby further downstream, Cheryl Richards 27 Mar 2016. Basingstoke Canal, Greywell, more or less continuous growth along the edge of the canal from 7216 5146 to 7225 5152, with other patches nearby; also patches at 7229 5157, 7234 5160, 7235 5163, 7240 5170, 7247 5179 and 7270 5179, Cheryl Richards 5 Apr 2016.

***Berberis vulgaris* (Barberry)** Single bush in hedgerow NW of Overton 4853 5033 (a new site), Tony Mundell, Graeme Down & Adam Lucas 14 May 2016. Single bushes in hedgerow south of Basingstoke at 6476 5046, 6472 5057, 6479 5055, 6460 5061, 6458 5061 and 6451 5062, Graeme Down 22 May 2016. Also one bush at 6436 5092 on east side of A339 just north of, and opposite, entrance to a hotel, but getting overgrown in the hedge, Graeme Down 22 May 2016.

***Botrychium lunaria* (Moonwort)** Blackbushe Airfield, 17 plants at 80577 59398 and one at each of 80583 59332, 80585 59359, 80590 59331, 80594 59330, 80596 59346 and one at 80590 59347, Elliott Fairs, Ian Stoneham, Graham Dennis et al, 17 Jun 2016.



Moonwort *Botrychium lunaria*, Blackbushe Airfield, 16 June 2016 (Guy Mason)

***Campanula persicifolia* (Peach-leaved Bellflower)** Andover 361449, one plant on river bank, Graeme Davis 15 Jun 2016.

***Carex arenaria* (Sand Sedge)** Shortheath Common 7748 3699, 7751 3699 and 7756 3661, Tony Mundell 28 May 2016.

***Carex canescens* (White Sedge)** Zebon Copse, Crookham, still plentiful around 7989 5188 and 7995 5187, Tony Mundell 17 May 2016. Shortheath Common 7751 3679, 7750 3678 and 7756 3665, HFG 5 Jun 2016.

***Carex echinata* (Star Sedge)** Hazeley Heath 7544 5824 and 7644 5808, Tony Mundell 6 Jun 2016. Basingbourne Heath, one tuft at a pool within scrub area at back of Grange Estate, 8074 5233, one large tuft on old turf cut at 8076 5232, five tufts in wet ground at scrub edge, 8075 5235 and five tufts near south end of the new ditch, 8078 5255, Chris Hall 9 Jun 2016.

***Carex hostiana* (Tawny Sedge)** Hazeley Heath, several plants shown to me by Chris Hall at 7634 5811, Tony Mundell 6 Jun 2016.

***Carex muricata* subsp. *pairae* (Prickly Sedge)** Many plants at Kingsley Common 7968 3828, HFG 5 Jun 2016.

***Carex pulicaris* (Flea Sedge)** Hazeley Heath, several plants shown to me by Chris Hall at 7634 5811 to 7631 5810, Tony Mundell 6 Jun 2016.

***Carex strigosa* (Thin-spiked Wood-sedge)** Silchester, Roman Wall, several clumps in damp sunken area below the wall at 6363 6216. Leaves 12mm wide with 19 veins either side of midrib, Tony Mundell with RDNHS 19 Dec 2015. Up Nately, many hundreds of plants in extraordinary abundance along muddy track from 7084 5243 to 7068 5225, with more at 7063 5214, Tony Mundell, Steve Povey, Adam Lucas & Mike Harrison 30 Jun 2016.

***Catabrosa aquatica* (Whorl-grass)** In River Dever at Hunton 4840 3963 and E of Stoke Charity 4969 3932, Tony Mundell & Adam Lucas 12 May 2016.

***Catapodium marinum* (Sea Fern-grass)** On north verge of A323, west of Eelmoor Bridge, 200+ plants at 8396 5283 and c.80 plants at 8394 5284, Chris Hall 12 Jun 2016. Specimen confirmed by Tony Mundell, upper glumes measure 3.0mm.

***Centaureum pulchellum* (Lesser Centaury)** Several plants at Up Nately 7107 5256 on bridge over M3, Tony Mundell, Steve Povey, Adam Lucas & Mike Harrison 30 Jun 2016.

***Cerastium semidecandrum* (Little Mouse-ear)** At Oakley 57022 50972 on dry gravelly/sandy edge of a car park, Sarah Ball & Sarah White 27 Apr 2016, specimen confirmed by Tony Mundell. Quidhampton 5201 5107, Sarah Ball and Sarah White 18 May 2016.

***Chaenomeles speciosa* (Japanese Quince)** Flowering plant N of Bentworth 6525 4187, beside woodland ride away from houses, presumably bird-sown, Tony Mundell 3 May 2016.

***Chamaemelum nobile* (Chamomile)** North Warnborough Greens, Cotmans Corner 725524 on old fire site in 'Chamomile Glade', David Jewsbury 18 Feb 2016.

***Chrysosplenium alternifolium* (Alternate-leaved Golden-saxifrage)** N of Steep, around 8 non-flowering plants on one small island in stream which feeds Lutcombe Pond at 7349 2643, Steve Povey 12 Apr 2016.

***Cornus mas* (Cornelian Cherry)** One bush in overgrown hedge at Weyhill 3043 4731, John Moon 18 Jan 2016.

***Cotoneaster rehderi* (Bullate Cotoneaster)** Fleet, Basingbourne Park 8074 5239, 8074 5241 and 8083 5232, presumably bird-sown, Tony Mundell 17 May 2016.

***Crassula tillaea* (Mossy Stonecrop)** Shortheath Common 7764 3676 and Kingsley Common 7931 3814, 7961 3830, all HFG 5 Jun 2016.

***Crataegus x media* (*C. monogyna* x *laevigata*)** Planted in hedge at Bentworth 6517 4011, voucher retained, Tony Mundell 3 May 2016.

***Crocsmia paniculata* (Aunt Eliza)** Two clumps at Little London 6294 5934 a few metres apart beside public footpath, near a pond, Tony Mundell & Adam Lucas 24 May 2016.

***Crocus tommasinianus* (Early Crocus)** Liphook (VC12 part) 849309, on verge, Steve Povey 9 Feb 2016. Heckfield 738604, patch in flower beside B3011, Tony Mundell 10 Feb 2016.

***Crocus vernus* (Spring Crocus)** Single plant in flower in St. Mary's churchyard, Liss 775279, Steve Povey 7 Jan 2016. Itchen Stoke churchyard 558324, naturalising in grass from plantings, Martin & Clare Rand 16 Mar 2016. S of Colemore 702296 on grass verge near cottages, Steve Povey 25 Mar 2016.

***Cuscuta epithymum* (Dodder)** At least two young plants on *Calluna* at Kingsley Common 79371 38114, on track edge, HFG 5 Jun 2016.

***Cyclamen hederifolium* (Sowbread)** Selborne, in several places along Gracious Street 7333 in hedgerows, Steve Povey 11 Feb 2016.

***Dactylorhiza incarnata* subsp. *incarnata* (Early Marsh-orchid)** Bassett's Mead, Hook 73975429, Otter's Acre field, Guy Mason 8 Jun 2016. Subsp. determined by Tony Mundell from photo showing two spikes.



Early Marsh-orchid *Dactylorhiza incarnata* subsp. *incarnata*, Bassett's Mead, 8 June 2016 (Guy Mason)

***Dactylorhiza maculata* (Heath Spotted-orchid)** Around 60 flowering plants in wet gully on east section of Newtown Common 47740 62949, Simon Melville 23 Jun 2016.

***Daphne laureola* (Spurge-laurel)** Several bushes at edge of Basingstoke Canal visible across from towpath at Dogmersfield 7790 5288, Tony Mundell 29 Apr 2016.

***Drosera intermedia* (Oblong-leaved Sundew)** In a new scrape at Hazeley Heath 7648 5764 and with *Drosera rotundifolia* at 7563 5824 on another new scrape, Tony Mundell 6 Jun 2016.

***Drosera rotundifolia* (Round-leaved Sundew)** Plentiful at edge of bog at Shortheath Common 7747 3655, HFG 5 Jun 2016. Eight plants growing on wet *Sphagnum* in mire at Basingbourne Heath 8080 5257, Chris Hall 9 Jun 2016.

***Elaeagnus umbellata* (Spreading Oleaster)** Fleet, Basingbourne Park, young bush in woods at 8088 5254, Tony Mundell 17 May 2016.

***Eleocharis multicaulis* (Many-stalked Spike-rush)** A few plants at Basingbourne Heath 8076 5232 in bog behind the south heath, Tony Mundell 17 May 2016. Two patches in the wet mire at Basingbourne Heath 8080 5257, Chris Hall 9 Jun 2016.

***Epilobium palustre* (Marsh Willowherb)** At Shortheath Pond 7751 3678, not yet in flower, Tony Mundell 28 May 2016. Woolmer Enclosure, West, 781296, beside MOD track, Steve Povey 7 Jun 2016.

***Epipactis purpurata* (Violet Helleborine)** Another plant located outside 'Brambles' at Four Marks 67523 35282 on opposite side of the road to the plants noted previously, Carole Arrowsmith 14 Jun 2016, det. Diana Tennyson. However, on 21 June 2016 almost all the Violet Helleborines in Blackberry Lane were strimmed off by contractors who had been instructed not to cut them off. They even strimmed around a telegraph pole with a copy of the laminated poster supplied by Nicky Court on the need to only mow these verges once a year in April.

***Euphorbia cyparissias* (Cypress Spurge)** Woodcote, field edge near Upper Woodcote Farm 432548, Peter Billingham 16 Feb 2016.

***Euphorbia lathyris* (Caper Spurge)** Hungry Lodge and Five Lanes End 6905 5032, one plant on a patch of chalk shingle, Adam Lucas 22 May 2016. Baughurst, Heath End 5883 6127 on field edge by road verge, Sarah Ball & Sarah White 22 Jun 2016.

***Filago minima* (Small Cudweed)** Kingsley Common 7924 3816, Tony Mundell 28 May 2016.

***Fritillaria meleagris* (Fritillary)** Stratfield Saye, near Standfordend Bridge, total of nine native plants in the Hampshire field close to the road, three of them at 7053 6305, two at 7054 6307, two at 7054 6306 and two at 7054 6305 (there are vast numbers in the adjacent fields but just in Berkshire), Tony Mundell 21 Apr 2016. Chilbolton Common 3886 3996 to 3890 3997 (where introduced a few years ago), minimum count of 130, flowers mostly over, Glynne Evans 24 Apr 2016.

***Fumaria densiflora* (Dense-flowered Fumitory)** Blackstake Hill, disturbed chalk of Stockbridge Road verge next to long barrow, 2 plants, Martin Rand, Mary Parker & Ginnie Copsey 22 May 2016.

***Fumaria muralis* (Common Ramping-fumitory)** Sherborne St John 6239 5459, one plant beside field, Adam Lucas 18 Jun 2016.

***Galanthus woronowii* (Green Snowdrop)** S of Crookham village, in flower on grassy verge of Crondall Road 792514, outside a house, Tony Mundell 16 Feb 2016.

***Galinsoga quadriradiata* (Shaggy Soldier)** Single plant near shops at centre of Liss at 777275, Steve Povey 7 Jan 2016.

***Geranium lucidum* (Shining Crane's-bill)** Beside track at Stoke 4090 5193, Peter Billingham 29 Jan 2016. Two large clumps beneath hedgerow in Gracious Street, Selborne 737337, Steve Povey 7 Jan 2016. Two small plants on wall, Alton 705393, Steve Povey 10 Mar 2016. Wootton St Lawrence 5922 5323 on gravel path in churchyard, Sarah Ball & Sarah White 8 Jun 2016.

***Geum rivale* (Water Avens)** In flower, Itchen Stoke 5532, BSBI New Year Plant Hunt, Pete Flood 3 Jan 2016. Basingstoke 6539 5234, small patch either side of boardwalk in fen, Adam Lucas 1 May 2016. Andover, Rooksbury Mill Nature Reserve 356443, Graeme Davis 3 Jun 2016. Basing Fen 653522, Graeme Davis 5 Jun 2016.

***Geum x intermedium* (*G. rivale* x *urbanum*)** Single flowering plant at Stoke Charity 4884 3949 on verge of road at junction with a track Tony Mundell & Adam Lucas 12 May 2016.

***Hedera colchica* (Persian Ivy)** Single plant in hedgerow, beside footpath near Harrow Public House garden at Steep 7515 2513, Steve Povey 29 Feb 2016.

***Hypericum humifusum* (Trailing St John's-wort)** Single plant in short turf at Woolmer Enclosure 7891 2973 Steve Povey 7 Jun 2016.

***Juncus subnodulosus* (Blunt-flowered Rush)** Patch still present at Odiham 7454 5176 on the canal bank, Tony Mundell 18 Dec 2015.

***Lathraea squamaria* (Toothwort)** Many plants scattered on shady bank, New Buildings 750366, beside lane on Hazel, Steve Povey 30 Mar 2016.

***Lemna gibba* (Fat Duckweed)** At Shortheath Common 7757 3665 in stream/ditch, HFG 5 Jun 2016.

***Lobularia maritima* (Sweet Alison)** Large, red-flowered plant seeded beneath garden wall at Liss 7763 2799, Steve Povey 7 Jan 2016.

***Lolium multiflorum* (Italian Rye-grass)** East of Danebury Hill 3337 in a couple of grassy conservation strips around arable fields, Martin Rand, Mary Parker & Ginnie Copsey 22 May 2016. In abundance east of Little London at 6319 6002 near a gate, Tony Mundell & Adam Lucas 24 May 2016. S of Laverstoke 485460, Tony Mundell & Mary Parker 7 Jun 2016, the youngest leaves are convolute (unlike *L. perenne* which can also have awns).

***Lonicera xylosteum* (Fly Honeysuckle)** Beside West End Green village pond at 6668 6171, but clearly planted, Tony Mundell 25 Mar 2016. About 6 very old bushes on edge of copse at Cholderton Home Farm 2391 4260, Henry Edmunds & John Moon 18 Jan 2016, specimen det. Tony Mundell. About 40 scattered bushes, mostly old but some young, in light natural woodland around Cholderton Estate, Quarley Park 234411, Henry Edmunds & John Moon 23 Mar 2016.

***Lotus corniculatus* var. *sativus* (Alien Bird's-foot Trefoil)** Blackstake Hill 335376, in grassy conservation strip, Martin Rand, Mary Parker & Ginnie Copsey 22 May 2016.

***Malva setigera* (Rough Marsh-mallow)** About 75 plants estimated south of Freefolk Wood at 49552 43738 on arable field margin at south tip of Cranbourne/Norton Wood. Curiously the flowers are white rather than pink, Cath Shellswell 9 Jun 2016. Photos confirmed by Tony Mundell.

***Melampyrum pratense* (Common Cow-wheat)** Burghclere, Earlstone Common 4761 and Newtown Common West 4662, both Simon Melville 23 Jun 2016.

***Menyanthes trifoliata* (Bogbean)** On edge of Kingsley Pond at 7898 3811, HFG 5 Jun 2016.

***Mercurialis annua* (Annual Mercury)** In flower, Itchen Stoke 5532, BSBI New Year Plant Hunt, Pete Flood 3 Jan 2016. Andover, Sainsbury's car park 3664 4631, Peter Billingham 19 Jan 2016 – midwinter flowering!

***Mespilus germanica* (Medlar)** SW of Kingsley at 7888 3802, near houses but not in a garden, clearly planted, HFG 5 Jun 2016.

***Miscanthus sinensis* (Chinese Silver-grass)** Several plants 2-3m high along arable field boundary at Holt End 6580 3934 by public footpath, Tony Mundell 2 May 2016.

***Montia fontana* subsp. *chondrosperma* (Blinks)** Kingsley Common 7906 3799, HFG 5 Jun 2016.

***Myosotis arvensis* var. *sylvestris* (Field Forget-me-not)** Kingsley Common, locally plentiful beside track, e.g. 7943 3802, HFG 5 Jun 2016. Plentiful in several places in southern part of Hazeley Heath, e.g. 7609 5788, 7609 5788 and 7597 5779, Tony Mundell 6 Jun 2016.

***Myosotis discolor* (Changing Forget-me-not)** Kingsley Common 7968 3828, HFG 5 Jun 2016. Woolmer Enclosure 7829, scattered on sandy heaths, Steve Povey 7 Jun 2016.

***Myosotis ramosissima* (Early Forget-me-not)** Pilot Hill, SE Site 3958, on ant hill, Mike Wildish 5 May 2016. Shortheath Common 775365, HFG 5 Jun 2016.

***Myosurus minimus* (Mousetail)** Hundreds of plants at North Warnborough 73372 5176 in an area about 15m x 15m in churned-up ground adjacent to a cattle feeding/watering trough, Mike Hackston 7 May 2016.



**Mousetail *Myosurus minimus*, North Warnborough,
11 May 2016 (Tony Mundell)**

***Narthecium ossifragum* (Bog Asphodel)** Many plants in a large patch c.50m across near head of valley bog at Hazeley Heath, centred around 7633 5798 to 7635 5800, formerly the largest colony of it in North Hampshire but getting overgrown by *Molinia* tussocks, Tony Mundell & David Murdoch 16 Jan 2016.

***Oenothera rubricaulis* (an Evening Primrose)** Still plentiful at Kingsley 7787 3777, Tony Mundell 5 Jun 2016.

***Ophrys apifera* (Bee Orchid)** A single large rosette in grass outside Tesco at Church Crookham 8189 5230, also three rosettes on corner of Sian Close, Church Crookham 8175 5248, both Chris Hall 24 Feb 2016. Andover, Rooksbury Mill Nature Reserve 356444, five plants, Graeme Davis 9 Jun 2016.

***Ophrys insectifera* (Fly Orchid)** One vegetative plant yet to flower, N of Laverstoke 49055 50275 beside Harrow Way, close to two vegetative *Cephalanthera damasonium*, Tony Mundell, Graeme Down, Adam Lucas & Ciara Sugrue 14 May 2016, needs confirming when in flower – confirmed by Graeme Down 4 July 2016 who found 11 in flower over a distance of 150m along Harrow Way.

***Orchis mascula* (Early-purple Orchid)** Shalden Park Wood 703426, localised to the western slopes north of the track, Clive Chatters 30 Apr 2016. N of Laverstoke, 20+ flower spikes at 4942 5052, 50+ flower spikes at 4951 5058, 20 flower spikes at 4956 5064, 6 at 4955 5062, 70+ at 4953 5061, all in woodland strip beside Harrow Way, Tony Mundell, Graeme Down, Adam Lucas & Ciara Sugrue 14 May 2016. 14 plants, most still in flower, on roadside verge at Faccombe 3863 5786 Tony Mundell & Peter Billingham 2 Jun 2016.

***Orobanche elatior* (Knapweed Broomrape)** Cowdery Downs 65765283, two plants, Adam Lucas 17 May 2016.

***Orobanche minor* (Common Broomrape)** Basingstoke, Basing Road 657528, 16 individual plants, Graeme Davis 5 Jun 2016. Some tall, vigorous plants on *Senecio cineraria* in the Tadley Sainsbury car park, on the NE side of the east entrance at 5994 6230, near the bottle bank, Paul Sterry 22 Jun 2016.

***Osmunda regalis* (Royal Fern)** A single young plant at Hazeley Heath 7556 5807, a few metres from the well-known clump of small plants at 7555 5805, Tony Mundell 6 Jun 2016.

***Papaver dubium* (Long-headed Poppy)** Hungry Lodge and Five Lanes End 691503, one plant in field, Adam Lucas 22 May 2016.

***Paris quadrifolia* (Herb-Paris)** Nine small plants beside a minor track at Ackender Wood, Alton 7016 3864, most of them only seedlings but one in bud, Tony Mundell & ANHS 7 May 2016.

***Petroselinum segetum* (Corn Parsley)** Over a dozen vegetative plants at Bentworth 6544 4081 on grassy public footpath beside an arable field, Tony Mundell 3 May 2016. Voucher specimen of leaves retained. In grassy conservation strip, E of Chattis Hill 3374 3672, Martin Rand, Ginnie Copsey & Mary Parker 22 May 2016. Tufton, on arable field edge beside footpath, c.10 plants at 4760 4589, 20+ plants at 4766 4582 and six vegetative plants on arable field edge at 4791 4605, Tony Mundell 27 May 2016.

***Phalaris aquatica* (Bulbous Canary-grass)** Several plants in 'set-aside' part of an arable field south of Laverstoke at 4946 4682, Tony Mundell & Mary Parker 7 Jun 2016. Voucher specimen collected.

***Poa angustifolia* (Narrow-leaved Meadow-grass)** On the Roman wall at Silchester 6426 6221 and 6434 6232. Voucher specimen collected, Tony Mundell & RDNHS 19 Dec 2016.

***Polypogon monspeliensis* (Annual Beard-grass)** Baughurst, Heath End 5875 6164 on piece of waste ground, Sarah Ball & Sarah White 22 Jun 2016.

***Polystichum aculeatum* (Hard Shield-fern)** E of Selborne, several plants on shady banks in Southerington Lane 754331 and on shady banks in Honey Lane 754339, Steve Povey 23 Feb 2016. Baughurst 5835 6057 on hedge bank, Sarah Ball and Sarah White 4 May 2016. Faccombe, a large colony of 25 plants in hedgerow on both sides of road from 3876 5792 to 3880 5795, Tony Mundell & Peter Billingham 2 Jun 2016.

***Polystichum setiferum* (Soft Shield-fern)** At least 20 plants in hollow sunken area below the Silchester Roman wall around 6370 6215, Tony Mundell & RDNHS 19 Dec 2015 (also independently noted here by Andrew Leonard on 6 Jun 2016). Liss, St Patrick's Lane 7922 2813, Andrew Leonard 10 May 2016. Bramshott, Tunbridge Lane 8347 3334, Andrew Leonard 21 May 2016.

***Populus nigra* subsp. *betulifolia* (Black Poplar)** Two really massive trees beside River Dever, E of Stoke Charity, one at 4949 3933, the other at 4954 3937, Tony Mundell & Adam Lucas 12 May 2016 – a new site.



**Black Poplar *Populus nigra* subsp. *betulifolia*, River Dever,
12 May 2016 (Tony Mundell)**

***Primula elatior* (Oxlip)** Several large plants on grassy bank along Harrow Lane, E of Steep, now increasing at this place, Steve Povey 26 Apr 2016.

***Quercus x crenata*?? (Lucombe Oak (*Q. cerris x suber*))** A relatively small tree at Holt End 6532 3947 close to a public footpath in Gaston Wood, evidently planted and well away from habitation. Evergreen leaves, specimen collected for confirmation as lobes seem rather too rounded. Possibly *Q. canariensis*?, Tony Mundell 2 May 2016.

***Ranunculus auricomus* (Goldilocks Buttercup)** Oakley 5703 5184 under trees on side of lane. N.B. some flowers entire, Sarah Ball and Sarah White 27 Apr 2016. Bentworth, hundreds of plants at 6490 4046 and about 12 more at 6490 4044 beside bridleway, dozens at 6532 4016 and 6546 4021 on roadside and two large patches at 6525 4013 on roadside, also many hundreds of plants at 6550 4022 in a patch 25 metres long on roadside, colouring the verge yellow. I have never seen such an amazing abundance of this species. Curiously, with the exception of one clump, none of these hundreds of plants at Bentworth have the mal-formed petals that I associate with this species, Tony Mundell 3 May 2016. Ackender Wood, Alton, in many places in this wood, and all plants here have the typically mal-formed flowers, e.g. 7021 3851, 7039 3856, 7048 3866, 7046 3875 etc., Tony Mundell & ANHS, 7 May 2016. At 6703 4370 on western verge of access lane to Lasham Airfield, next to Avenue Farm, Nick Hughes 22 May 2016. Plenty by woodland path south of Froxfield 7117 2510, Steve Povey 9 Jun 2016.

***Ranunculus lingua* (Greater Spearwort)** Bentworth Village Pond 662400, though pond currently dried-up, presumably planted, Tony Mundell 2 May 2016.

***Ranunculus ompiophyllus* (Round-leaved Crowfoot)** Shortheath Common 7758 3666, HFG 5 Jun 2016.

***Ranunculus sceleratus* (Celery-leaved Buttercup)** North Warnborough, at least 50 plants at 7374 5205 in churned-up mud around a large puddle at a field entrance, beside a public footpath, also several plants at 7372 5176 in another area of churned-up ground close to a cattle water trough, where there are hundreds of plants of *Myosurus minimus*, Tony Mundell 11 May 2016.

***Rosa micrantha* (Small-flowered Sweet-briar)** One small bush at Kingsley Common 7947 3805 HFG 5 Jun 2016.

***Rumex pulcher* (Fiddle Dock)** Three plants still beside Odiham Churchyard entrance at 7402 5097, Tony Mundell 4 Feb 2016.

***Saxifraga granulata* (Meadow Saxifrage)** Chilbolton, West Down, one plant on north slope, Glynne Evans 23 May 2016. A few plants in flower on roadside verge at Facombe 3865 5786, Tony Mundell & Peter Billingham 2 Jun 2016. Chilbolton Churchyard 395402, hammered last year by over-zealous grass-cutting contractors, and now not as numerous as previously, Glynne Evans 29 May 2016.

***Saxifraga tridactylites* (Rue-leaved Saxifrage)** Swan Hotel car park wall, New Alresford 5880 3261, Pete Flood 19 Mar 2016. Bordon 790358, Prince Philip Barracks/Technical Training Area. 5-10 plants near guard house on parched ground by kerb stones, Andrew Cross 17 May 2016.

***Scutellaria minor* (Lesser Skullcap)** Hook Common, an extraordinary patch of thousands of plants in cleared area beneath power lines extending almost continuously over 15m x 2m centred at 7111 5347. Also a large patch several metres across in adjacent woodland at 7115 5343, both Tony Mundell, Steve Povey, Adam Lucas & Mike Harrison 30 Jun 2016.

***Silene x hampeana* (Pink Campion, *S. dioica x latifolia*)** Baughurst, Heath End 5822 6098 field edge, one plant with pink flowers near *Silene latifolia*, Sarah Ball & Sarah White 22 Jun 2016.

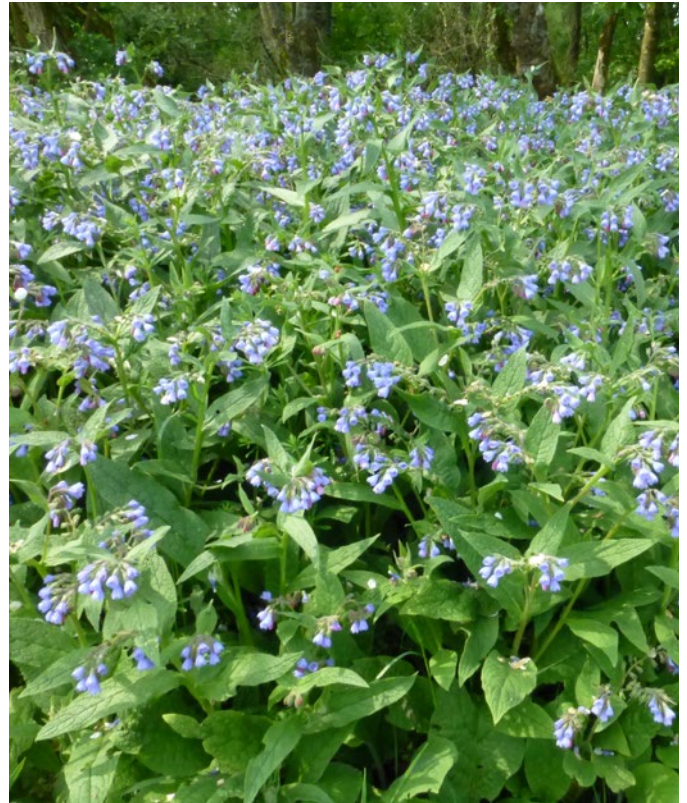
***Smyrniolus olusatrum* (Alexanders)** Basingstoke Canal, Dogmersfield, several plants in flower at 7784 5378 beside track between towpath and car park, Tony Mundell 22 Apr 2016.

***Soleirolia soleirolii* (Mind-your-own-business)** Liss 775278, beneath wall, Steve Povey 7 Jan 2016. Steep Marsh, by cottage at 7548 2619, Steve Povey 7 May 2016. Sherborne St John 6216 5560, one patch beside path, Adam Lucas 18 Jun 2016.

***Solidago gigantea* subsp. *serotina* (Early Golden Rod)** Baughurst, Heath End 5831 6125, on road verge, not in flower, Sarah Ball & Sarah White 22 Jun 2016.

***Stellaria pallida* (Lesser Chickweed)** In seed at Oakley 57022 50972 on dry gravelly/sandy edge of a car park, Sarah Ball and Sarah White 27 Apr 2016, specimen confirmed by Tony Mundell.

***Symphytum caucasicum* (Caucasian Comfrey)** Patch 1m across at Hunton 4847 3972 just outside a garden, beside public footpath, no doubt it will spread!, also an enormous patch at Hunton 4865 3969 dominating about 30m x 10m at a woodland edge beside watercress beds, both Tony Mundell & Adam Lucas 12 May 2016.



Caucasian Comfrey *Symphytum caucasicum*, Hunton, 12 May 2016 (Tony Mundell)

***Symphytum orientale* (White Comfrey)** At Dogmersfield 7843 5276 on grassy roadside verge and in ditch, on opposite side of road to houses, Tony Mundell 13 May 2016.

***Taraxacum britannicum* (Section *Celtica*)** Specimen from garden in Conifer Close, Church Crookham, determined Dr John Richards April 2016.

***Taraxacum hamiferum* (Section *Hamata*)** Specimen from wet, grassy area beside public footpath, West End Green 6614 6130, determined John Richards April 2016.

***Taraxacum nitidum* (Section Ruderalia)** Specimen collected off the Roman wall at Silchester 6435 6234, 19 Dec 2015, grown on and pressed April 2016, determined by Dr John Richards April 2016.

***Thlaspi arvense* (Field Penny-cress)** Dozens of plants in field corner E of Litchfield 4800 5323, Tony Mundell & Graeme Down 29 May 2016. Wootton St Lawrence 59459 53063, arable field, Sarah Ball & Sarah White 8 Jun 2016. Abbots Ann, Vitacress Watercress Beds site 3243, Mike Wildish 11 Jun 2016

***Trifolium striatum* (Knotted Clover)** Kingsley Common on track at 7966 3821, HFG 5 Jun 2016.



Knotted Clover *Trifolium striatum*, Kingsley Common, 5 June 2016 (Tony Mundell)

***Tristagma uniflorum* (Spring Starflower)** Basingstoke 6499 5360 one plant growing beside road underneath a tree, Adam Lucas 1 May 2016.

***Turritis glabra* (Tower Mustard)** Kingsley, two plants only, at 7787 3777, site dreadfully overgrown with *Ulmus procera* scrub, Tony Mundell 5 Jun 2016.

***Umbilicus rupestris* (Navelwort)** Locally abundant with many hundreds of plants in a shady place on the Roman wall at Silchester 6361 6223, Tony Mundell with RDNHS 19 Dec 2015.

***Urtica dioica* subsp. *galeopsifolia* (Stingless Nettle)** Beside damp shady track at Up Nately 7058 5204. Several leaves (much narrower than ordinary Stinging Nettle) were tested and gave no sting, Tony Mundell, Steve Povey, Adam Lucas & Mike Harrison 30 Jun 2016.

***Veronica polita* (Grey Field-speedwell)** Several plants on arable field, east of Wyck, Steve Povey 14 Mar 2016.



Close-up of flowers of Tower Mustard *Turritis glabra*, Kingsley, 5 June 2016 (John Norton)

***Viburnum opulus* subsp. *trilobum* (American Guelder-rose)** South of Laverstoke, roadside at 4916 4672, opposite New Barn Cottages, Tony Mundell & Mary Parker 7 Jun 2016.

***Vinca major* var. *oxyloba* (Greater Periwinkle – narrow petalled variety)** A large patch at Alton 7055 3888 extending for several metres beside the pavement of the A339, escaped from an adjacent garden, Tony Mundell with ANHS 7 May 2016.

***Viola odorata* var. *dumetorum* (Scented Violet – white flowers, with ‘beard’)** Silchester Roman Wall 6359 6245, remarkably in flower due to exceptionally mild December weather, Tony Mundell with RDNHS 19 Dec 2015.

***Viola odorata* var. *imberbis* (Scented Violet – white flowers, no ‘beard’)** Roadside verge, south of Overton 516474, Tony Mundell & Gareth Knass 13 Apr 2016.

***Viola odorata* var. *subcarnea* (Scented Violet – pink flowers)** Two patches in flower at Basingstoke 6192 5222 and 6193 5222 at foot of steep slope near Milestones Museum 5 Apr 2016.

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.

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Flora Group members at Kingsley Common, 5 June 2016 (Tony Mundell)

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

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