

**KENT BOTANICAL RECORDING
GROUP
OCTOBER 2018
Newsletter No. 11**

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Front cover: *Dactylorhiza maculata* (Heath Spotted-orchid) draped with the 'cotton' of *Eriophorum angustifolium* (Common Cottongrass) at Hothfield. Photo by David Steere, 17 June 2018.

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2018 field meeting reports

STOCK WOOD, near CHIDDINGSTONE, Saturday 24 March

The first field meeting of the year was a joint meeting of the Kent Botanical Recording Group and Kent Field Club. Twelve attendees met inside the entrance gate to Stock Wood, where kind permission for the meeting had been granted by the owners. Stock Wood is a High Weald ancient woodland, lying south of Chiddingstone village. The wood is intersected by ghylls and has a mixed geology of Tunbridge Wells Sand on higher ground and Wadhurst Clay lower down. The focus of this meeting was to demonstrate fern species of the High Weald woodlands and to build on the records collected at the Field Club meeting in 2017. Stock Wood sits on the junction of four monads and two tetrads so altogether provides much justification for natural history recording.

The low number of plants found in flower at this meeting reflected the cold winter and late start to the 2018 growing season. From the entrance gate we followed a track north east along the main ghyll, descending to cross the stream and rising back to continue in the same direction. A diversion to the edge of the stream immediately down from the entrance gate produced typical ancient woodland plants of the Wadhurst Clay such as *Allium ursinum* (Ramsons). The ferns here



included last year's dead fronds of *Athyrium filix-femina* (Lady Fern), along with the winter green fronds of *Asplenium scolopendrium* (Hart's-tongue), *Polystichum aculeatum* (Hard Shield-fern) and *Polystichum setiferum* (Soft Shield-fern). A very large fern with fronds over a metre long was assumed from a distance to be *Dryopteris affinis* (Scaly Male-fern), but on closer examination was found to be a *Polystichum* Shield-fern. The frond resembled *P. aculeatum* in its glossy texture, dark green colour and shape, but with the pinnae and pinnules showing traits of *P. setiferum*. Photographs of this plant, including its spores were subsequently confirmed by Roger Golding as *Polystichum x bicknellii*, the hybrid between *P. aculeatum* and *P. setiferum*, this being the second confirmed record for vice county 16.

Polystichum x bicknellii. Photos by Stephen Lemon

Buddleja davidii (Butterfly-bush) was seen growing out of the hardcore surface of the track. Nearby an Apple tree was found with many small fallen fruit, but as it was still in bud and without leaves and flowers it could only be determined as *Malus sylvestris sensu lato* (Crab Apple in the broad sense).



A steady flow of records were collected as the party continued north east, with plants such as *Teucrium scorodonia* (Wood Sage) and *Hypericum pulchrum* (Slender St John's-wort) indicating when we were higher up the ghyll and further from the stream on lighter soils. Closer to the stream we found *Orchis mascula* (Early-purple Orchid) and *Hyacinthoides non-scripta* (Bluebell) still at their early stages. *Chrysosplenium oppositifolium* (Opposite-leaved Golden-Saxifrage) was one of the few plants in flower, growing among *Alnus glutinosa* (Alder) along the edge of the stream. Areas higher up the ghyll and mostly composed of *Betula pubescens* (Downy Birch) were presumed to be natural regeneration on the former pine plantations. Here a small specimen of *Asplenium adiantum-nigrum* (Black Spleenwort) was found with shiny leaves and a dark base to its wiry stipe. The fungus *Hymenochaete corrugata* was found on *Corylus avellana* (Hazel), gluing its old branches together. Another fungus *Hypocrea pulvinata* (Ochre Cushion) was found parasitizing a bracket fungus growing on *Betula*.

Dryopteris ferns were common across the site, the most obvious being *Dryopteris borrieri* (Borrer's Male-fern), with its slightly shiny fronds that had more or less survived the winter and could be compared with the all but dead fronds of *Dryopteris filix-mas* (Male Fern). The fronds of *Dryopteris dilatata* (Broad-leaved Buckler Fern) were still recognisable although had not survived as well as *D. borrieri*. Despite good habitat we found no *D. affinis* in its typical large growth form, although specimens were discovered that resembled it, save for being much smaller than would be expected. This difference as well as variation observed in *D. borrieri* meant some ferns could not be confidently placed to a particular species, so were simply recorded as *Dryopteris affinis* agg.

The 2017 Field Club meeting produced a number of interesting sedge species but records at the present meeting were restricted to those that could be confidently identified by vegetative characters. *Carex pendula* (Pendulous Sedge) and *Carex sylvatica* (Wood-sedge) were most commonly encountered and the easiest to recognise. *Carex flacca* (Glaucous Sedge) and *Carex binervis* (Green-ribbed Sedge) were encountered a few times along the tracks and in damp flushes. The most notable sedge recorded and a new species for the site was *Carex strigosa* (Thin-spiked Wood-sedge), growing in typical Wealden habitat, along the edge of the main ghyll stream on Wadhurst Clay.

The party had split into groups during the morning, but reassembled at the northern tip of the wood, where a few *Viola reichenbachiana* (Early Dog-violet) were found in flower. The majority made a short diversion to cross the field to Highfield Rocks, an outcrop of the Ardingly Sandstone perched on a hill. A long narrow man-made cave provided an opportunity to see cave spiders, probably *Meta menardi*, and hibernating *Scoliopteryx libatrix* (Herald moth). A brief search of an adjacent natural sandstone rock face did not produce the gametophyte form of *Trichomanes speciosum* (Killarney Fern), despite looking suitable.



Stock Wood. Photo by Stephen Lemon

On re-entering the northern half of the wood and having had lunch, the group made their way across the sandy slopes on the high ground where fine specimens of *Fagus sylvatica* (Beech) were growing and where the surrounding ground had been opened up by recent clearance of *Rhododendron ponticum* Rhododendron. *Blechnum spicant* (Hard-fern) and *Digitalis purpurea*

(Foxglove) were notable on the drier slopes here. *Lysimachia nummularia* (Creeping-Jenny), *Lysimachia nemorum* (Yellow Pimpernel), *Ajuga reptans* (Bugle), *Mentha aquatica* (Water Mint) and *Ranunculus flammula* (Lesser Spearwort) were all recorded in flushes. Re-entering the ancient woodland produced *Oxalis acetosella* (Wood-sorrel) growing under *Corylus avellana* (Hazel).

The group returned to the cars where Owen Leyshon kindly supplied everyone with tea and Welsh cakes. On the way back the foresters working in the wood provided some Russet apples which, they explained, had been stored since last Summer by a local farmer and amazingly were in a reasonable condition considering the short shelf life of this particular apple variety!

A total of 164 vascular plant records were collected across the four monads visited.

CLOWES WOOD, near Whitstable, Tuesday 8 May

Clowes Wood is part of the Blean complex and managed by the Forestry Commission who have been removing conifers and restoring large areas of the southern section back to heathland. The purpose of the meeting was to explore this area and to boost the number of general records in the relevant tetrad TR16G. Fifteen members attended the meeting which was led by Colin Osborne and Sue Buckingham.

We set off from the main car park in a westerly direction following a circuit that Colin had planned for the day, and immediately found acid-loving species such as *Carex binervis* (Green-ribbed sedge), *Carex pilulifera* (Pill Sedge) and *Frangula alnus* (Alder Buckthorn). Here the FC had removed a large area of *Pinus nigra* (Corsican Pine) resulting in a fine growth of *Calluna vulgaris* (Heather) and its associated species. Many of these are from our Kent RPR, such as *Polygala serpyllifolia* (Heath Milkwort), *Potentilla erecta* (Tormentil), *Solidago virgaurea* (Golden-rod), *Succisa pratensis* (Devil's-bit Scabious) and lastly *Ranunculus flammula* (Lesser Spearwort) which we found along a wide wet ride. Clowes Wood holds a large population of *Ulex gallii* (Western Gorse) which is very localised in Kent and has greatly benefited from the conifer removal. Although the plants were not flowering, the old fruits from the previous year still remained and we could appreciate their very tiny bracteoles in comparison with those of *Ulex europaeus* (Common Gorse). Small seedlings of Corsican Pine and also of *Tsuga heterophylla* (Western Hemlock-spruce) were frequent.

We followed a wide ride through mixed woodland which took us on to more neutral soils, adding to our general records many common species such as *Agrimonia eupatoria* (Agrimony), *Ajuga reptans* (Bugle), *Carex sylvatica* (Wood Sedge), *Carex otrubae* (False Fox-sedge), *Angelica sylvestris* (Wild Angelica), etc. We recorded *Quercus x rosacea*, the hybrid between Pedunculate and Sessile Oaks, and *Salix x reichardtii*, that between Goat and Grey Willow.

We had lunch by the pond at the junction with a cycle route which follows the route of old the old Crab and Winkle Way, a six mile railway line which once ran between the towns of Canterbury and Whitstable. Close by we found *Fragaria vesca* (Wild Strawberry), *Anemone nemorosa* (Wood Anemone), *Euphorbia amygdaloides* (Wood Spurge) and *Moerhingia trinervia* (Three-veined sandwort).



West of the old railway line the soils returned to an acid nature and our route in the afternoon crossed more heathland restoration with *Melampyrum pratense* subsp. *pratense* (Common Cow-wheat), *Veronica officinalis* (Heath Speedwell) and *Hypericum pulchrum* (Slender St. John's-wort). *Betula x aurata*, the hybrid between Silver Birch and Downy Birch, was recorded.

Dryopteris carthusiana. Photo by Sue Buckingham

The highlight of the day was a couple of patches of our target species, *Lathyrus linifolius* (Bitter Vetch), flowering beautifully along a grassy path, also on the route of the old railway. Nearby grew *Campanula trachelium* (Nettle-leaved Bellflower), *Linum catharticum* (Fairy Flax) and *Cruciata laevipes* (Crosswort), those three probably there as the result of material introduced for the railway.

We spotted a couple of patches of *Dryopteris carthusiana* (Narrow Buckler-fern) on our return to the car park where thanks to Owen we all enjoyed tea and Welsh cakes.

We had a total of nine species for the Rare Plant Register and collected a good number of general records.

CUTLERS WOOD, Challock/Chilham, Thursday 17 June

Cutlers Wood is a privately owned wood which borders the Forestry Commission's Kings Wood, on its north eastern side. We had been given permission to visit and explore the site, which has a long history of management for the benefit of local wildlife, with regular coppicing and ride and glade clearance and on soils which range from mildly acid to alkaline. It is described as ancient semi-natural woodland and is home to a herd of fallow deer. Fifteen KBRG members attended the meeting which was led by Alfie Gay and Sue Buckingham.

A locked gate in the deer fence was opened specially for us and we climbed a path which took us through mixed deciduous woodland with a carpet of bluebells now going over but with plenty of typical woodland species to enjoy. We soon spotted *Orchis mascula* (Early-purple Orchid) and *Neottia ovata* (Common Twayblade) and we recorded *Hypericum androsaemum* (Tutsan), *Digitalis purpurea* (Foxglove), *Oxalis acetosella* (Wood Sorrel), *Lysimachia nemorum* (Yellow Pimpernel), *Dryopteris carthusiana* (Narrow Buckler-fern) and many more, indicating the mix of soils.



Hypericum androsaemum (Tutsan), *Digitalis purpurea* (Foxglove), *Oxalis acetosella* (Wood Sorrel), *Lysimachia nemorum* (Yellow Pimpernel), *Dryopteris carthusiana* (Narrow Buckler-fern) and many more, indicating the mix of soils.

Cutlers Wood coppice.
Photo by Sue Buckingham

On the plateau a large area had been coppiced and was quite heavily browsed. Recording was tricky as the deer had left us only tiny fragments of vegetation as clues but in a while we managed to identify a good number of mostly acid lovers such as *Galium saxatile* (Heath Bedstraw), *Teucrium scorodonia* (Wood Sage), *Aphanes australis*

(Slender Parsley-piert), *Luzula multiflora* (Heath Wood-rush), *Veronica officinalis* (Heath Bedstraw). We were then surprised to find alongside them *Origanum vulgare* (Wild Marjoram), *Cynoglossum officinale* (Hound's-tongue) and one of the sweet-briars, alas without enough material to identify the rose, but all three latter species are chalk lovers.



Back on the woodland path, Alfie very cleverly spotted a single sterile blade of *Ophioglossum vulgatum* (Adder's-tongue). Without a fertile spike and with a lot of similar-looking tiny plants of *Arum maculatum* (Lords-and-ladies) alongside, some members of the party weren't at all sure so we had to search hard to find a plant with both sterile and fertile blade in order to convince the doubters and eventually we found a good number.

***Orchis purpurea*, with unusual labella. Photo by Liam Rooney**

We picked up more chalk plants as the path dropped down into a valley, first *Atropa belladonna* (Deadly Nightshade) and then a single flowering *Orchis purpurea* (Lady Orchid). Two of the three ladies in the party who had come to join us from Sussex had never seen one before and spent a long time taking photographs. *Astragalus glycyphyllos* (Wild Liquorice) was next with several large clumps and a little *Aquilegia vulgaris* (Columbine).

Alfie urged us on to a well-lit ride with glades kept open by the deer and an abundance of Lady Orchids and *Ophrys insectifera* (Fly Orchid), enough to keep everyone and their cameras and phones very happy and busy until we had had enough and sat down for lunch.

In the glades were chalk-lovers of open sites such as *Poterium sanguisorba* (Salad Burnet), *Inula conyzae* (Ploughman's Spikenard) and *Campanula trachelium* (Nettle-leaved Bellflower); and we recorded *Epipactis helleborine* (Broad-leaved

Helleborine), *Dactylorhiza fuchsii* (Common Spotted-orchid), *Platanthera chlorantha* (Greater Butterfly-orchid) and, much later in the day, *Cephalanthera damasonium* (White Helleborine). This type of open well-lit woodland with wide paths and open glades managed for and kept open by grazing animals is known as wood pasture and from what we could see it appears to provide the optimum conditions for the orchids. We noticed only a few casualties where spikes may have been bitten off by the deer and in fact only two of us actually saw a deer during our visit, in spite of later discovering that the herd is quite large.

During the afternoon we strayed out of the wood and onto an open area of set-aside. It looked interesting and colourful with huge blue patches of *Veronica chamaedrys* (Germander Speedwell), and yellow ones of *Cruciata laevipes* (Crosswort) and *Reseda lutea* (Wild mignonette). It was edged by arable with an unsprayed margin where we found an abundance of arable annuals and to everyone's surprise a couple of last year's dried up fruiting spikes of *Hyoscyamus niger* (Henbane).

Exploring set-aside.
Photo by Sue Poyser



We returned to the woodland for the remainder of the day having entered four monads in total, recording nine RPR species and acquiring a good number of general records. Weather-wise the day started unseasonably cold but by lunch time the layers of clothing were peeled off as the sun shone warmly.

We are very grateful to the owner and the manager of Cutlers Wood for allowing this visit and we promised to send a species list.

SB

MARSH GREEN, Edenbridge, Tuesday 22 May

This meeting was a joint one with Surrey Botanical Society, our leaders being Geoffrey Kitchener (Kent) and Caroline Bateman (Surrey). The Kent contingent was considerably outnumbered by Surrey attendees, but we did ample justice to both sides of the county border. Five years previously, we had started from Smithers Lane near the Kent/Surrey/Sussex borders and walked northwards to Dry Hill reservoir. This time we started from Marsh Green and walked south to the point which we had reached in 2013.

On the green of Marsh Green we recorded *Rumex x pratensis*, the hybrid between Broad-leaved and Curled Dock, and then set off along footpaths and farm roads towards Christmas Place, to the call of a Cuckoo and the song of a Garden Warbler. A field margin gave us *Ranunculus sardous* (Hairy Buttercup), growing scattered on the open clay ground.

Ranunculus sardous. Photo by Linda Pitkin



The lane between Christmas Place and Clatfields passes alongside a valley bearing an alder-lined stream, and the damp grassland here held a good flora, including *Equisetum palustre* (Marsh Horsetail), *Isolepis setacea* (Bristle Club-rush) and *Glyceria declinata* (Small Sweet-grass). To our surprise, as an earlier recce had not recognised this properly, there was a large circular patch of *Valeriana dioica* (Marsh Valerian) in flower, corresponding to an area of particularly wet ground.

Valeriana dioica: the meeting approaches a boggy patch. Photo by Caroline Bateman

Where our footpath crossed the stream we were gratified to see *Cardamine amara* (Large Bitter-cress), but concerned to find that occasional small plants of *Lysichiton americanus* (American Skunk-cabbage) were also present, this being an invasive species placed under EU-wide controls since 2016, and here presumably spreading downstream of a garden. Some debate followed, as regards tree sucker growth, well out into a meadow, which appeared to originate with planted specimens of both *Populus tremula* (Aspen) and *Populus x canescens* (Grey Poplar, of which Aspen is a parent).



We rejoined the watercourse further upstream, where it ran in a wooded valley, eventually becoming a steep-sided gill more or less at the junction of Ardingly Sandstone and Wadhurst Clay Formation. This held a good Alder carr flora, with *Carex strigosa* (Thin-spiked Wood-sedge) following the line of a damp depression. Surprisingly, *Sambucus nigra* f. *laciniata* (Cut-leaved Elder) was here in the woodland, a form known since the 16th century and cultivated, but currently supplanted by golden and purple cultivars; here it seemed genuinely wild. Climbing the grassland slopes above the gill, we found *Myosotis discolor* (Changing Forget-me-not) in broken ground. Linda Pitkin's attempts to photograph it were thwarted by horses determined to push her away from the spot and ultimately we had to yield ground to them. Our route continued as an ascent through woodland towards the Dry Hill iron age fort. Lunch was taken on fallen trees, still in Kent, and, suitably refreshed, we pressed on to where we had reached in 2013, a path traversing the county boundary called Smugglers Lane on older maps (supposedly part of a network of lanes used for tea smuggling between the Sussex coast and London in the early 18th century).



Cut-leaved Elder with Ash. Photo by Geoffrey Kitchener

Now in Surrey, we spent some time in the damper areas of Reynolds Wood, finding *Dryopteris carthusiana* (Narrow Buckler-Fern) and a nest of Great Spotted Woodpecker. Between Hoopers and Skitts Farms a streamside provided a Surrey record of *Cardamine amara* (Large Bitter-cress). We rejoined Kent at New Barns Farm, in a monad (TQ4343), for which we lacked any post-2010 records, but now acquired 130 (inadvertently omitted, I'm afraid, from the lists circulated afterwards). These new records included more *Ranunculus sardous* (Hairy Buttercup), plentiful at the margin of a clay arable field, *Carex laevigata* (Smooth-stalked Sedge), *Carex sylvatica* (Wood-sedge) and more *Carex strigosa* (Thin-spiked Wood-sedge). Greybury Lane provided our route back to Marsh Green, where Sarah Kitchener had arrived to provide refreshments for the group.

Overall, we made nearly 500 records in four Kent monads; so for Wealden recording (and bearing in mind that Surrey botanists had their own separate listings in addition), this was a very good total.

GK

FOLKESTONE WARREN, Saturday 9 June

Seventeen people attended this meeting at Folkestone Warren and these included three who had taken up our extended invitation to the general BSBI membership. Having parked our vehicles, we met up at the top of the zigzag public footpath at Capel-le-Ferne. The purpose was to update our records for the Folkestone Warren SSSI which carries a number of classic chalk plants growing alongside maritime ones and all influenced by the underlying Gault Clay which has given rise to slumping ground and a mosaic of habitats.

We hadn't got far down the 200-step descent before seeing one of our target species for the Rare Plant Register, *Silene nutans* (Nottingham Catchfly) flowering on chalk grassland slopes above and below us and also at eye-level on the bare chalk cliff face. It was accompanied by species such as *Pimpinella saxifraga* (Burnet-saxifrage), *Origanum vulgare* (Wild Marjoram), *Poterium sanguisorba* (Salad Burnet) etc. for the first 200 yards or so until we reached tree cover. We had a hand rail for much, though not quite all, of the descent and although the weather was generally dry, the air was noticeably warm and humid under the trees and the bare chalk became quite slippery underfoot.



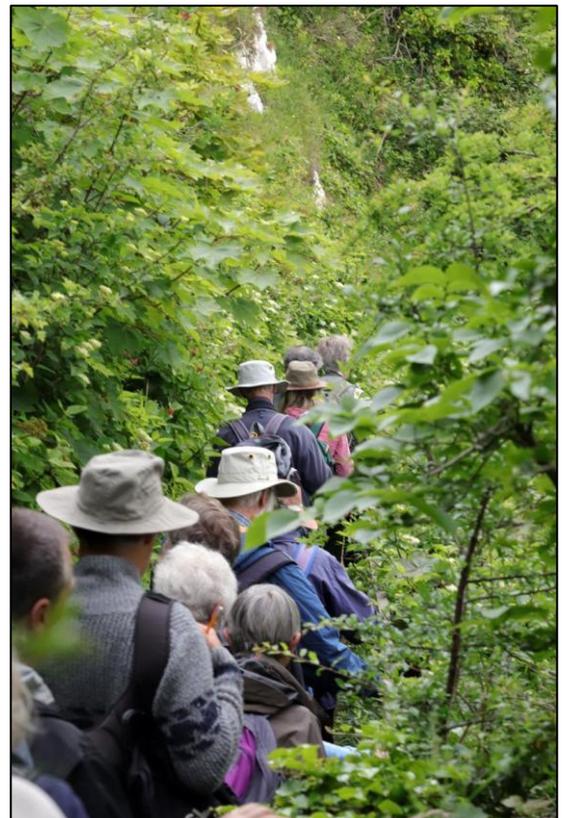
Acer pseudoplatanus (Sycamore) and *Fraxinus excelsior* (Ash) make up much of the tree cover here with some *Ulmus glabra* (Wych Elm), *Sambucus niger* (Elder) and *Cornus sanguinea* (Dogwood) and the ground flora in places is virtually a continuous carpet of enormous specimens of *Asplenium scolopendrium* (Hart's-tongue fern). There had once been some houses near the foot of the landslip and from the gardens were naturalised *Prunus avium* (Wild Cherry) trees and a *Philadelphus* which, once its flower buds had opened later at home in water, was seen to have single flowers each with a hairy calyx and so was presumed to be of the *Philadelphus Lemoine* group.

Hart's-tongue slopes. Photo by Sue Buckingham

Eventually we remerged onto sunlit chalk grassland just above the railway line with abundant *Helianthemum nummularium* (Common Rock-rose), *Asperula cynanchica* (Squinancywort), *Fragaria vesca* (Wild Strawberry) *Anacamptis pyramidalis* (Pyramidal Orchid) and a mass of *Hippocrepis comosa* (Horseshoe Vetch). Because of the continuous history of disturbance the sward here cannot be regarded as ancient chalk grassland and that might explain why some of the rarities of that habitat are missing, for example the less common orchid species. However we were pleased to see *Blackstonia perfoliata* (Yellow-wort) and, for the Rare Plant Register, *Rubia peregrina* (Wild Madder) which was clambering through the low scrub in abundance along with *Lathyrus sylvestris* (Narrow-leaved Everlasting-pea). *Euphrasia nemorosa* (Common Eyebright) was in flower, as was a single plant of *E. pseudokernerii* (Chalk Eyebright) just south of the railway line. There we also came across a dense cluster of plants, some with flowers measuring just 5 mm and others more than 10. It was generally agreed that these had the appearance of the hybrid between both, *Euphrasia nemorosa x pseudokernerii*.

The long descent. Photo by Owen Leyshon

A few more steps took us down to the sea and a great contorted and broken concrete platform, above which the slumped edge of the undercliff was at eye-level. There we found a very hairy *Pilosella* (a Mouse-ear Hawkweed) but with its long stolons ending in leaves which decreased in size, was clearly not the hoped for *Pilosella peleteriana* (Shaggy Mouse-ear) for which there is a historic record from the Warren.



We ate our lunch on the concrete in between bouts of crawling about on hands and knees to compare the minute anthers of *Parapholis incurva* (Curved Hard-grass) with the much larger ones of *P. strigosa* (Hard-grass) which were both

flowering side by side at our feet within the reach of sea spray and in the cracks of the concrete. *Spergularia marina* (Lesser Sea-spurrey) and *S. media* (Greater Sea-spurrey) were also close by.

Limonium binervosum (Rock Sea-lavender) was in abundance along the edge of the Undercliff, though not yet in flower, and some monstrous domed flower heads of *Daucus carota* suggested that they might be good candidates for subsp *gummifer*. (Sea Carrot). A few members climbed up and collected a very convex dry fruiting head from last year to prove the point because this species can only be identified from the fruiting heads. For the moth enthusiasts *Aplasta ononaria* (Restharrow Moth) was spotted on its flowering larval food plant *Ononis repens* (Common Rest-harrow).

Our final target species for the day was *Juniperus communis* (Juniper) and this was viewed with binoculars from the beach thanks to Alfie Gay who had informed us that this one and all of the other few specimens of Juniper at the Warren are male and so without assistance have no chance of reproducing themselves. With the temperature rising, the climb back up the 200 steps was hard work and Owen's tea and Welsh cakes never tasted better.

During the day, we recorded 14 species for the RPR and enjoyed a remarkable variety of habitat in a fascinating location. A few of us went on afterwards to admire a colony of *Ophrys fuciflora* (Late Spider-orchid) flowering at a site on the Folkestone Downs.

SB

STONE-IN-OXNEY, Tuesday 19 June

This meeting was held at Coldharbour Farm where Owen had arranged with the owner for us to access the farm's grassland and sheep pasture along part of the old clay cliffs which once formed the coastline and now provide fine views across the Romney Marsh below. Thirteen KBRG members and guests attended the meeting and we set off on a warm sunny morning first to explore a couple of ponds in some improved grassland. The grasses were at their best and some time was spent on discussing how to identify the common species amongst which we enjoyed seeing *Lathyrus nissolia* (Grass Vetchling).

The first pond was filled with flowering Water-crowfoot and we hauled some out for a closer look. From the first haul, the flowers were large with petals 9mm long, nectar-pits circular, the leaves 3-5-lobed with obtuse sinus so either *Ranunculus aquatilis* (Common Water-crowfoot) or *R. peltatus* (Pond Water-crowfoot) was suspected but neither fitted because the immature achenes were glabrous, and that is a character for *R. baudotii* (Brackish Water-crowfoot) and not the others.

The second haul produced plants with smaller flowers and hairy achenes. Sue confessed to be thoroughly confused and agreed to take specimens home otherwise, as Owen observed, we would still be by the pond at tea-time! The second pond was largely shaded with willow but *Myosotis laxa* (Tufted Forget-me-not), *Potamogeton natans* (Broad-leaved Pondweed) and *Carex pseudocyperus* (Cyperus Sedge) were present.



Cattle trough botany. Photo by Owen Leyshon

On the sheep pasture we were interested to see scattered plants of *Carduus tenuiflorus* (Slender Thistle) which is mostly, though not always, seen fairly near the sea, hence its other name of Seaside Thistle. Later on we came across vast areas of the old clay cliff which were dominated by this and by *Cirsium vulgare* (Spear Thistle) and then we could understand why the farmer had been spot-spraying them.

We struggled along the rough uneven clay at the foot of the cliffs taking care to avoid rabbit holes. The plants indicated somewhat acidic conditions with *Rumex acetosella* (Sheep's Sorrel) which was reddening, *Digitalis purpurea* (Foxglove) and *Hypericum humifusum* (Trailing St. John's-wort). *Danthonia decumbens* (Heath Grass) was a surprise and close by we found *Aira caryophyllea* (Silver Hair-grass).

A pondweed was spotted well-grown in a cattle drinking trough and was identified as *Potamogeton trichoides* (Hairlike Pondweed) from its narrow pointed leaves with a broad prominent midrib and no visible lateral veins.

We had lunch near the base of the cliff admiring the view and the Marbled White Butterflies. We had moved into a second monad and so needed to find again the typical species from the last one. We scrambled up the cliff which was almost vertical above us and found all of those plus Rare Plant Register species *Carlina vulgaris* (Carlina Thistle), with *Trifolium subterraneum* (Subterranean Clover) *Trifolium striatum* (Knotted Clover) *Aphanes australis* (Slender Parsley-piert) and *Linum catharticum* (Fairy Flax).

The former island's cliffs.
Photo by Sue Buckingham



We opted to drop down to the grassland below for the remainder of the afternoon to explore some rushy areas and to take a look along a ditch. The ditch had plenty of *Althaea officinalis* (Marsh-mallow) and the damp rushy patches turned up *Carex leporina* (Oval Sedge) and Rare Plant Register species *Oenanthe lachenalii* (Parsley Water-dropwort).

Ruscus aculeatus (Butcher's Broom) was seen near the end of the day by a dry ditch and we agreed that this had been a most interesting venue with its surprising mixture of plants. By mid-afternoon the sun was hot and we struggled back up to the farm where as usual Owen provided us with a much welcomed cuppa.

The Water-crowfoot material was in fact two species, *Ranunculus trichophyllus* (Thread-leaved Water-crowfoot), with small flowers, only submerged leaves and hairy immature achenes. The large-flowered material which had both laminar and submerged leaves remains a puzzle but most likely to be *R. baudotii* (Brackish Water-crowfoot) from its glabrous immature achenes and reflexed sepals. The possibility of a hybrid seems unlikely as there were no required intermediate leaves.

Two grasses were taken by Chris Cook and examined at home and identified as *Glyceria fluitans* (Floating Sweet-grass) and *Bromus commutatus* (Meadow Brome). A possible *Anisantha diandra* (Great Brome) proved after all to be *Anisantha sterilis* (Barren Brome).

SB

TROSLEY COUNTRY PARK, Friday 29 June

The meeting at Trosley Country Park was attended by nine KBRG members and led by Owen Leyshon and Sue Buckingham. Owen had previously arranged free parking for us all in the KCC car park and, better still, arranged for the warden and his assistant to drive us from there to the easternmost point of the park, giving us the rest of the day to return on foot. We agreed to send a species list in return.



Surprisingly, our previous records for the two tetrads that include this well-visited spot on the downs amounted to only 51% of the total number of species that have ever been recorded. The purpose of the meeting was to attempt to add at least some of the missing ones. One of those is *Prunella laciniata* (Cut-leaved Selfheal), last recorded at Trosley in the early 2000s, and we planned to search for that and *Orchis anthropophora* (Man Orchid), last recorded there in 1982.

Ground-pine. Photo by Daphne Mills

It was a hot sunny day and like everywhere else this year Trosley was suffering from drought with all of the downland species noticeably dwarfed. We had been dropped off just above the well-known site for *Ajuga chamaepitys* (Ground-pine) and we began by searching for some plants. It took a while to find five tiny ones on the very steep slope. We clocked up a good general species list from

the surrounding area for the warden and, armed with a list of “species yet to find” from both of the tetrads we would be in, we set about searching particularly for any of those. *Aphanes australis* (Slender Parsley-piert), *Centaurea scabiosa* (Greater Knapweed), *Clinopodium vulgare* (Wild Basil), *Festuca ovina* (Sheep’s Fescue), *Gentianella amarella* (Autumn Gentian), *Hippocrepis comosa* (Horseshoe Vetch), *Inula conyzae* (Ploughman’s-spikenard), *Knautia arvensis* (Field Scabious), *Malva moschata* (Musk Mallow) and *Pimpinella saxifraga* (Burnet-saxifrage) were amongst those which we were able to add in the first monad.

Our route took us down to the foot of slope and into the next grazing compartment and finally to the spot where Rosemary Roberts remembered first ever seeing *Prunella laciniata*. Back home after the meeting Rosemary checked her Wild Flower Society Diary and found that it was in July 2008 that she first saw it whilst planning a route for a meeting of the Orpington Field Club. Sadly it was no longer there in the spot beside a bench, the seat of which had also gone but not its supports. Owen said he would suggest to the warden that a little scarification there might be a good idea and might hopefully bring some buried seed to the surface.

We moved on a little further to have lunch under a sparse group of Silver Birch trees and just where we chose to sit was a single flowering *Ophrys apifera* (Bee Orchid) to everyone’s delight and particularly to David Johnson’s. There can’t be many better places to eat a picnic lunch on a nice day than Trosley with its magnificent view out across the county.

Afterwards we moved on and reached the site of Trosley’s single male juniper bush, now very well grown and protected from stock grazing with a fence. After admiring the large spreading colony of *Dipsacus pilosus* (Small Teasel) we climbed up to enter a grazing compartment when, quite out of the blue, we were joined by plant enthusiasts of a different kind - a herd of little brown goats with very attractive red plastic ear tags. In spite of their over-friendliness and interest in our rucksacks, we found some more *Ajuga chamaepitys* in the second monad and a few more species to add to the “missing” list.

Capra hircus, established and dominant.

Photo by Owen Leyshon



Back at the car park we followed David into a well-known corner to check up on the state of *Epipactis purpurata* (Violet Helleborine) and counted thirteen flower spikes in the darkness under laurel bushes. The day ended with tea and Welsh cakes, courtesy of Owen. Our thanks go to the ranger of Trosley Country Park for both free parking and transport.

SB

UPPER HORTON FARM, CHARTHAM, Thursday 5 July

This year’s arable farm meeting attracted 15 members and friends who met up with Dan Tuson, farm conservation advisor, and leaders Owen Leyshon and Sue Buckingham at a cluster of farm buildings at Upper Horton Farm above the Chartham Downs on a bright sunny morning. Upper Horton Farm is mixed arable and fruit on the chalk plateau and, with some woodland edge, margins, grassland and banks on thin chalk soil, it offered the prospect of a good range of species as well as arable weeds. The last Kent record for *Thesium humifusum* (Bastard toadflax) was from around 1960 from a roadside bank close by but which is no longer suitable for the species; nevertheless, however unlikely our chances of finding it again, we intended to keep a close look out.

A grass growing by the farm buildings stood out as different and Liam suggested quite rightly that it might key out to *Bromus hordeaceus* subsp. *longipedicellatus* (Soft-brome). We set out westwards on a track which ran alongside a rape crop with a broad weedy margin on one side and a chalk bank on the other. The very dry weather hadn't been good for annuals so we weren't hopeful of doing as well as usual for arable weeds. Those we did find included *Kickxia elatine* (Sharp-leaved Fluellen), *Petroselinum segetum*, (Corn Parsley), *Veronica polita* (Grey Field-speedwell) and, for the RPR, *Euphorbia exigua* (Dwarf Spurge) and *Papaver argemone* (Prickly Poppy), several very small drought-affected plants at the crop margin. The chalk bank, however, was colourful, with *Centaurea scabiosa* (Greater Knapweed) *Chaerophyllum*

temulum (Rough Chervil) and *Reseda lutea* (Wild Mignonette) all attracting lots of butterflies with Marbled White, Painted Lady and Brimstone.



To cover more of the farm we had to retrace our steps and turn south along the edge of a very orderly and weed-free orchard but once again we remarked on the wide unsprayed margins with a mass of typical chalk flora, with lots of *Origanum vulgare* (Wild Marjoram), *Agrimonia europaea* (Agrimony), *Silene vulgaris* (Bladder Campion) and *Orobanche minor* (Common Broomrape).

Briefing by Dan Tuson. Photo by Owen Leyshon

The party split for lunch, with those wanting shade opting for a log pile just inside a wood and the sun lovers going for a grassy margin

outside. We picked up a few woodland species before heading south and adding more arables such as *Anagallis arvensis* subsp. *arvensis* f. *pallida*, the pale form of Scarlet Pimpernel, and more *Euphorbia exigua* with *Geranium columbinum* (Long-stalked Crane's-bill). *Anacamptis pyramidalis* (Pyramidal Orchid), *Cynoglossum officinale* (Hound's-tongue), *Lithospermum officinale* (Common Gromwell), *Campanula trachelium* (Nettle-leaved Bellflower), *Knautia scabiosa* (Field Scabious) and *Ononis repens* (Common Restharrow) were amongst the array of chalk plants on a large bank which was checked over thoroughly, but unsuccessfully, for *Thesium humifusum*.

The possible candidate for *Bromopsis benekenii* (Lesser Hairy-brome) which was collected for investigation at home, had spikelets which were too large for that species and so was *Bromopsis ramosus* (Hairy-brome). We turned north along a lane to return to the parking area, adding *Kickxia spuria* (Round-leaved Fluellen) and *Elymus caninus* (Bearded Couch) to the list.

A patch of *Sisyrinchium striatum* (Pale Yellow-eyed-grass) had spread quite extensively alongside the farm access track next to an attractive pink-flowered form of *Calystegia sepium* (Hedge Bindweed).

Pale Yellow-eyed-grass. Photo by Daphne Mills



Back at the farm buildings we enjoyed Owen's refreshments after a really hot day and although we had only four RPR species and didn't find Bastard Toadflax, we had a great day on the downs with a super abundance of chalk plants, acquiring 254 records for the database, and the butterflies were an added bonus. Thanks go to Dan for organising it for us and for encouraging the farmer to manage an obviously successful farm business alongside an abundance of flowers and insects.

SB

POTMANS HEATH, Wittersham, Thursday 12 July

Ten members of the Kent Botanical Recording Group, including the two leaders Sue Buckingham and Owen Leyshon, met at Potman's Heath, near Wittersham on a hot, sunny day with a breeze, making it very pleasant.



This was a great opportunity by invitation of the Kent Wildlife Trust to have a look at the ditches on this grazing marsh reserve. So after a brief 'cattle and water' Health and Safety chat, we ventured off down the Potman's Heath Channel.

Photo by Owen Leyshon

Within minutes, the grapnels were out and were being lobbed in and a fine selection of aquatics was being dragged out and also marginals noted as we walked south. One of the initial highlights was *Potamogeton perfoliatus* (Perfoliate Pondweed) which was seen along good stretches of the channel, a plant many members were not familiar with, and which is scarce in the County.

Other quality plants noted included *Sagittaria sagittifolia* (Arrowhead), *Althaea officinalis* (Marsh-mallow), *Butomus umbellatus* (Flowering Rush), *Alisma lanceolatum* (Narrow-leaved Water-plantain), *Hydrocharis morsus-ranae* (Frogbit), *Potamogeton trichoides* (Hairlike Pondweed), *Oenanthe fistulosa* (Tubular Water-dropwort), *Scutellaria galericulata* (Skullcap), *Nymphoides peltata* (Fringed Water-lily) and *Potamogeton lucens* (Shining Pondweed).

We then dropped into the grazing marsh and the first field had not been baled for hay or grazed and held good stands of *Oenanthe fistulosa* (Tubular Water-dropwort) and *Ranunculus flammula* (Lesser Spearwort). Throughout the day most of the ditches which we walked along had been de-silted over the previous autumn/winter and, as they had not been cut, grazed or sprayed, we had a great opportunity to see all the marginals which were sprouting out of the deposited silt. This included large stands of *Persicaria hydropiper* (Water-pepper), *Myosotis laxa* (Tufted Forget-me-not) and *Butomus umbellatus* (Flowering Rush).

Stephen Lemon pulled out a couple of *Chara* (Stoneworts) specimens from the main ditch channel amongst all the other aquatic material, which keyed out to *C. globularis* and *C. vulgaris*

Lunch was taken near the Kent / Sussex boundary and we then ventured into the a new monad to add to the records, before returning along the banks of the Potman's Heath Channel adding *Rorippa amphibia* (Marsh Yellow-cress) and *Stachys palustris* (Marsh Woundwort).



Wet Level. Photo by Sue Buckingham

Mid-afternoon we did a cheeky dive off to the left and made our way around a few more ditches to get into another new monad, adding *Sparganium emersum* (Unbranched Bur-reed) amongst a good assortment of aquatics again.

Throughout the day numerous Marsh Frogs were disturbed from the banks of the grazing ditches, while Buzzards, Kestrels, the odd Grey Heron were seen and a single Raven flew over.

A welcome cup of tea and a traditional Welsh cake was supplied back at the cars and then, with another dip into an adjoining field after a tip-off from Melvin and Pam, we were enjoying a large population of *Oenanthe pimpinelloides* (Corky fruited Water-dropwort) in a sloping grassy field, the site of an old brick works which was demolished in the 1960s. This

again was a plant not seen in the County by a number of members and a big thumbs-up for a great day and finale in this corner of Kent.

A big thank you to Sue who collated and then input all the data to the system after the event (as always) and to the Kent Wildlife Trust for allowing us on to the reserve.

OL

HAM FEN, Saturday 21 July

This meeting was led by Stephen Lemon and Sue Buckingham on a very hot sunny day several weeks into a summer drought, so it was a relief for all of us to see somewhere looking really green. Ham Fen isn't open to the general public so the meeting attracted a good crowd of twenty KBRG or KFC members and friends. Kent Wildlife Trust warden Christina was responsible for letting us in and out of the reserve and although she had planned to take the opportunity to accompany us and learn more about fenland plant species, she was immediately caught up with an onslaught of problems including rounding up sheep, mending fences and herding cattle, which kept her busy for most of the day.



Photo by Owen Leyshon

The aim was first to re-find *Eleocharis quinqueflora* (Few-flowered Spike-rush) discovered there last year after an absence from the County of nearly 150 years and then we planned to make haste to the southernmost and least explored part of the reserve. Ham Fen has been quite well recorded so we chose only to record species which weren't on the current database for each of the two monads we were to be in.

We left the parking area and dropped down into the fen alongside the North Stream where we were soon enjoying the typical fenland species *Juncus subnodulosus* (Blunt-flowered Rush), *Baldellia ranunculoides* (Lesser Water-plantain), *Anagallis tenella* (Bog Pimpernel), *Galium uliginosum* (Fen Bedstraw) and *Potamogeton coloratus* (Fen Pondweed). Stephen relocated the spot for *Eleocharis quinqueflora* which was exciting enough but then some spikes of *Cladium mariscus* (Fen Sedge) were spotted close by. Fen Sedge is well known for the reserve but only from the original wet fen site in the adjacent monad where it is currently not faring too well. So this is a new area for the sedge and it appeared to be thriving, with 30 flowering and fruiting spikes in the large patch and two smaller patches a few yards away. This area of wet calcareous fen peat was re-profiled 15-20 years ago by KWT in order to keep it wet and it is believed that the *Eleocharis* arrived in response and now quite probably the *Cladium* also.

Stephen took time to explain the multitude of sedges that we found throughout the day, with the highlights being *Carex lepidocarpa* (Long-stalked Yellow-sedge) and also *Carex rostrata* (Bottle Sedge), which was re-found along the ditch dividing the re-profiled open fen from the woodland. Growing within the ditch were *Callitriche obtusangula* (Blunt-fruited Water-starwort) and *Potamogeton bertholdii* (Small Pondweed).

One of the new species for the current recording period was *Arctium lappa* (Greater Burdock), a great mass of plants with *Arctium minus* (Lesser Burdock) on the higher dry ground. Ever on the look-out for a hybrid, Liam spotted a burdock that looked different and after his careful scrutiny we had at least two plants of *Arctium x nothum*, the hybrid between *A. lappa* and *A. minus*, which were quite clearly intermediate. We were fortunate in having Geoffrey with us to spot dock hybrids and he pointed out three, with their parents, and took time to explain the characteristics of each. They were *Rumex x pratensis* = *R. crispus* x *obtusifolius*, the hybrid between Curled and Broad-leaved Dock which is the commonest of the

dock hybrids; *Rumex x abortivus* = *R. conglomeratus x obtusifolius*, the hybrid between Clustered and Broad-leaved Dock; and *Rumex x schulzei* = *R. crispus x conglomeratus*, the hybrid between Curled and Clustered Dock.

Arctium x nothum. Photo by Liam Rooney

We had lunch before setting off into the southern part of the reserve and initially that proved to be a bit disappointing because little grazing had taken place there for a while and the sward was high and the ditches overgrown. However, we walked around to an area where a small herd of highland cattle had spent a few months earlier in the year and they had created open fen conditions with poached areas of bare damp peat. Here we found at least 40 clumps of *Isolepis cernua* (Slender Club-rush). These were growing among the usual fenland species mentioned earlier and included *Triglochin palustris* (Marsh Arrow-grass) and *Ranunculus flammula* (Lesser Spearwort). We examined the fruits of the Club-rush which are smooth, unlike those of the commoner species *I. setacea* (Bristle Club-rush) which have longitudinal ribs.

Isolepis cernua. Photo by Geoffrey Kitchener



On our return we stopped to look at some flowering *Utricularia* in a pond. Specimens were collected and both Stephen and Joanna took some home to confirm identity. They agreed on *U. australis* (Bladderwort), both on the profile of the flower and the glands circling the inside of the spur. The pond also contained *Chara hispida* (Bristly Stonewort). Whilst admiring the *Utricularia*, Owen Leyshon drew everyone's attention to a pair of mating *Aeshna affinis* (Southern Migrant Hawker), a very rare dragonfly seen earlier that week at a few other coastal sites in Kent. The first record for the Sandwich area was only a few days previous on nearby Worth Marshes.

Owen had plenty of tea and Welsh cakes to fortify us back at the cars at the end of a very hot day and we were pleased to meet with John Wilson, who is the KWT

warden currently in charge of Ham Fen and had come along with his wife to try and round up the sheep. Our thanks are due to KWT for allowing us in and to Christina.

SB

ASHURST, Tunbridge Wells, Sunday 5 August

Ashurst station car park was the starting point where eight Kent botanists met up with five from Sussex, for a joint cross-border session by the recording groups of both counties, co-led by Geoffrey Kitchener (Kent) and Brad Scott (Sussex). Although the car park surrounds had been recently strimmed, we took a long time to get beyond the station approach, but amply justified by the opportunity for all to be comfortable with identification of the commoner species and by the absence of any recent West Kent records whatsoever for this monad. Our path then took us through some marshy ground under a railway bridge, whose walls carried a couple of fern species, and *Polystichum aculeatum* (Hard Shield-fern) was found nearby. A footbridge then took us over the Medway and into Sussex, although the transition was prolonged.

The leaders hold an on-bridge consultation. Photo by Sarah Kitchener

There must be something about recording group dynamics and bridges, as it was



evident every time we crossed over a watercourse – and our route took us twice across the Medway and once each across the Eridge Stream and the River Grom – that the party would savour the experience, taking out grapnels, speculating about what grapnels could not reach and so on.

*Another bridge opportunity.
Photo by Sarah Kitchener*

Once on the Sussex side we came upon *Rumex x dufftii* (the hybrid between Broad-leaved and Wood Docks), which we were to see again at intervals, and a mystery *Hypericum* which was queried as *H. maculatum* (Imperforate St John's-wort), but which may well have been *Hypericum x desetangsii* (the cross between Perforate and Imperforate St John's-worts). We followed the Medway upstream for a while, which did not greatly contribute to Kent recording, although we saw a truly giant colony of *Heracleum*



mantegazzianum (Giant Hogweed) across the river. The Sussex arable margins carried a variety of weeds including *Echinochloa crus-galli* (Cockspur) and, after a sighting of a stag with a fine head of antlers bounding off across a field, we reached a pasture with some welcome tree shade where we stopped for lunch. We carried on to Hale Court Farm, then to our second crossing of the Medway, past plentiful *Bromus secalinus* (Rye Brome) in a cornfield, and grapnels were taken out again, with an ensuing debate about Water-starworts. The Medway at this point is no longer the county (and vice county) boundary, nor was the Eridge Stream, the next watercourse to be crossed.



KBRG/SBRS celebration for Helen. Cake and photo by Sarah Kitchener

However, the same valley also carries the River Grom, over which we crossed into Kent, well west of the Grom's bridge at Groombridge (although some would say that the river must derive its name from the settlement, rather than the other way round). Here Stephen Lemon fished out *Elodea nuttallii* (Nuttall's Waterweed) and *Callitriche obtusangula* (Blunt-fruited Water-starwort), which must therefore count for both counties. As the ground rose up from the valley, we passed damp seepage, probably from the junction of valley alluvium and Wadhurst Clay with the Lower Tunbridge Wells Sand, reflected in our records of *Myosotis laxa* (Tufted Forget-me-not), *Glyceria x pedicellata* (the cross between Floating and Plicate Sweet-grasses, identified by Stephen Lemon after the meeting) and *Salix x reichardtii* (the cross between Goat and Grey Willows).

Returning to the station, we were informed by Brad Scott that a springtail at the car park was, although not uncommon, last recorded in Kent by Sir John Lubbock. We couldn't match this as regards our plant discoveries, but then springtail recorders are likely to be a rarer breed than plant recorders. Our post-meeting refreshments, supplied by Sarah Kitchener, were enlivened by the opportunity to celebrate Helen Proctor's birthday, with cake for all.

GK

CHINGLEY WOOD, near Kilndown, Saturday 11 August

Chingley Wood is a privately owned LWS (Local Wildlife Site) close to Bewl Water. It comprises a large area of mixed deciduous woodland on acid soils derived from Tunbridge Wells Sand with chestnut coppice on the higher ground and several gills cutting into the underlying Wadhurst Clay on lower ground. The leader Stephen Lemon had obtained permission for us to hold a meeting there and to park our vehicles inside the wood. The purpose was to give members a chance to see *Sibthorpia europaea* (Cornish Moneywort) which, apart from a few locations in the Sussex Weald, is

otherwise known only from southwest England and Wales. Chingley Wood is particularly notable for its fern and bryophyte flora and we were also hoping to see *Dryopteris aemula* (Hay-scented Buckler-fern) and *Oreopteris limbosperma* (Lemon-scented Fern).

Fifteen people attended the meeting, an invitation to which had been extended to KFC (Kent Field Club) members. The day was beautifully clear and sunny and followed one of torrential rain showers which seemed to have brought an end to the exceptional drought and heat wave of the last month or so.

We began recording in the wood yard parking area where a small seedling of *Datura* (Thorn-apple) was noticed under Daphne's car but we weren't certain which species. *Centaurea erythraea* and *C. pulchellum* (Common and Lesser Centaury) were both there with *Mentha arvensis* and *M. aquatica* (Corn Mint and Water Mint) and *Erodium cicutarium* (Common Stork's-bill).



Small change: Cornish Moneywort.
Photo by Liam Rooney

We headed off along woodland rides to a path under a pylon line which had *Scutellaria minor* (Lesser Skullcap) along its damp margins. We soon found *Sibthorpia europaea* (Cornish Moneywort) though it was very tiny this year because of the exceptionally dry weather. Just one minute flower was spotted and photographed with great enthusiasm. *Galium saxatile* (Heath Bedstraw), *Hypericum humifusum* (Trailing St John's-wort), *H. pulchrum* (Slender St

John's-wort), *Carex pilulifera* (Pill Sedge) and *C. binervis* (Green-ribbed Sedge) were all indicative of the acid soil, as was *Isolepis setacea* (Bristle Club-rush). We compared it and the patterning on the surface of its achenes to our recollections of those of *I. cernua* (Slender Club-rush) which many of us had seen just a few weeks earlier at the Ham Fen meeting.

A damp path with *Lythrum portula* (Water-purslane) was scrutinised for *Centunculus minima* (Chaffweed) which, as its name suggests, is always small and we found a few scattered plants which were even smaller than usual this year. *Radiola linioides* (Allseed) was abundant and during the day we recorded it in all four of the monads visited. We were to see a huge population of *Oreopteris limbosperma* (Lemon-scented Fern) later in the day but a patch on the side of a ride in a new monad was a good discovery before lunch.

Lemon-scented Fern.
Photo by Stephen Lemon

Half the party scrambled down a slope to investigate a large lake with a narrow-leaved pondweed. We suspected it was *P. berchtoldii* (Small Pondweed), and that was later confirmed after stipules were properly dissected at home and found to be open. Path repair around the lake area had brought about the introduction of plants such as *Conyza floribunda*, (Bilbao's Fleabane), *Alchemilla mollis* (Garden Lady's-mantle), *Soleirolia soleirolii* (Mind-your-own-business) and, most unexpectedly, *Echium vulgare* (Viper's-bugloss).



We regrouped for lunch on a bank in view of a massive population of Lemon-scented Fern and during the afternoon we walked to the far end of the wood via a wide ride which was flanked for much of the way with a continuous carpet of it. Eventually under hornbeam woodland we arrived at a spot where Francis Rose had recorded *Dryopteris aemula* (Hay-scented

Buckler-fern) and we enjoyed some very fine specimens on the banks of a gill. *D carthusiana* (Narrow Buckler-fern) was also present and Stephen located the moss *Hookeria lucens* close by in a location which Francis also knew.

The hybrids *Mentha x verticillata*, *Betula x aurata* and *Quercus x rosea* were recorded during the day. We had good views of a Hobby which we were told had nested in the wood.

In all, eight species were noted for the RPR and a very large number of general records collected from four monads. Doug and Sue shared the recording and back in the parking area Owen as usual served up tea and Welsh cakes from his car.

The specimen of *Datura* which was collected from the car park and grown on by Sue produced a blue flower followed by spiky fruit and proved to be *Datura stramonium* var. *chalybaea* (Purple-flowered Thorn-apple).

SB

WARDEN BAY, Sheppey, Monday 13 August (Grasses Day)

Grasses Day, at Sheppey, was led by Geoffrey Kitchener and attended by 16 botanists. Sheppey, as the leader pointed out, was well-known for its flora, but primarily that of 50 million years ago, preserved in fossils in the slumping London Clay cliffs. He produced a fragment of fossil vegetation found on his recent recce. But so far as the meeting was concerned, we were to concentrate on identifying present-day grasses, both common and rare, and compare what we were able to find with earlier records. It was impossible to resist, however, a digression to see a non-grass species known to few of the recording group present: naturalised *Portulaca oleracea* (Common Purslane) growing on a pavement just outside the car park. Despite the name 'Common', there appear to have been only two previous East Kent records.

Coastal grasses. Photo by Sue Buckingham

From the car park, we progressed along a coastal path between the clay cliffs and the shore with its sea defences. This small and marginal habitat had provided a home for several grasses able to cope with saline conditions such as *Catapodium marinum* (Sea Fern-grass), *Elytrigia atherica* (Sea Couch), *Hordeum marinum* (Sea Barley), *Parapholis strigosa* (Hard-grass), *Puccinellia distans* (Reflexed Saltmarsh-grass) and *Puccinellia rupestris* (Stiff Saltmarsh-grass). We had hoped also to re-find an old record for *Parapholis incurva* (Curved Hard-grass), but none of the plants with a tendency towards short, incurved growth had anthers not exceeding 0.5mm long, and so we could not assume that they were other than *P. strigosa* affected by trampling.



The cliff slopes had a relatively coarse grass flora, with species such as *Agrostis stolonifera* (Creeping Bent) and *Arrhenatherum elatius* (False Oat-Grass), and there was some speculation as to whether the Couch Grasses towards the bottom might be *Elytrigia x drucei* (the hybrid between Common and Sea Couches). In the event, some material gathered here was later confirmed by Mike Wilcox as being this hybrid – it may well be frequent along the Kent coasts, but under-recorded. The cliffs are very mobile, in a state of constant slippage, but we found one place where there was an ill-defined track leading up to a caravan park. Liam Rooney joined the leader in ascending to the top of the cliffs in order to bring back *Agrostis gigantea* (Black Bent) and *Agrostis capillaris* (Common Bent) for comparison; also *Phleum pratense* (Timothy) and *Phleum bertolonii* (Smaller Cat's-tail), for which Liam pointed out distinguishing features.

We then retraced our steps to the car park, from which we explored the housing estate grass flora. *Catapodium rigidum* (Fern-grass) was found for contrast with *C. marinum* found earlier. A front garden and drive was sprouting *Polypogon viridis* (Water Bent) which has a passing resemblance to *Agrostis stolonifera* (Creeping Bent) but spreads aggressively: it may get down the whole street from here in a couple of years or so. The same street also had a young plant which we agreed to be *Digitaria sanguinalis* (Hairy Finger-grass), a first record for Sheppey.

Our circuit then took us towards what the maps call The Bay (as though there could be no other), to see *Spartina anglica* (Common Cord-grass) growing, not as one would expect on tidal mudflats, but by an inland sluice gate. We found

Lathyrus hirsutus (Hairy Vetchling) in flower here by the sea wall. Along the beach sand and shingle was present what is currently known as *Elytrigia juncea* (Sand Couch), but to become *Elymus junceiforme*, its culms breaking up with maturity. Various fairly similar plants were present which were not breaking up, and these were its hybrid with *Elytrigia* (to become *Elymus*) *atherica* (Sea Couch). Couching by the sea sounded a good idea, so we sat or reclined for lunch, and some were even tempted to take a paddle.

Zostera was not on anyone's mind.... Photo by Geoffrey Kitchener

After lunch we came into monad TR0371, 99.5% of which is out to sea, or at any rate below high tide mark. As it lacked any plant records entirely, we quartered the ground, which was not very prepossessing, the beach being used to park cars. A total of 37 different plants was noted. After reaching Leysdown-on-Sea itself, which seemed unlikely to hold any botanical charms, we followed a line of dike back where there were adjoining populations of *Typha angustifolia* (Lesser Bulrush) and *Typha latifolia* (Bulrush) accompanied by intermediates, which we took to be the hybrid. Much of the land between the dikes and the coast had been affected by tipping so as to raise the land surface, but one small area traversed by a path remained low-lying and somewhat saline. *Puccinellia fasciculata*



(Borrer's Saltmarsh-grass) grew on the open, compacted ground as well as *Polypogon monspeliensis* (Annual Beard-grass), which had hybridised with *Agrostis stolonifera* (Creeping Bent). The neighbouring tipped ground was not without interest, however, as a very stunted plant of *Echinops bannaticus* (Blue Globe-thistle) was discovered there.

Close scrutiny of Echinops bannaticus. Photo by Sue Poyser, inset by Daphne Mills

We returned to the car park where Sarah Kitchener provided tea and cakes for all. Over the day we had found 42 different grasses on cliffs, beach sand and shingle, by dikes and in housing estates and coastal grassland.

GK

STODMARSH National Nature Reserve, Saturday 18 August (Willows Day)

In his *Flora of Stodmarsh*, which can be viewed on the Kent page of BSBI website at <http://bsbi.org/kent>, Alex Lockton records several *Salix* (willow) species from the Reserve and some hybrids. We invited him, and he very kindly agreed, to lead this day for us and to explain how to identify each of the species and help us spot the hybrids. Eighteen members of both KBRG and KFC (Kent Field Club) met up in the Nature Reserve car park, all very keen to learn more about this difficult genus.

Alex began his introduction in the car park by passing around specimens of ***Salix caprea* (Goat Willow)** and ***Salix cinerea* (Grey Willow)**, the two commonest species in Kent. The Grey Willow was picked in the car park but as we might not see any Goat Willow at Stodmarsh he had brought a very good specimen from outside the area in order to demonstrate the difference. As it happened we did come across one, but being able to compare both together made for a great introduction.

***Salix caprea* (Goat Willow)** leaves were very broadly oblong, almost orbicular (round), dull green above with crinkled margins, and feeling and looking softly hairy and ashy grey beneath. Alex explained that *S. caprea* is a species of drier habitats than *S. cinerea*, of hedgerows and woodland margins and is at home on the chalk.

The leaves of *Salix cinerea* subsp. *oleifolia* (**Grey Willow**) (also known as *Salix atrocinerea*) are narrowly oblong or obovate, that is with the broadest part above the middle. Leaves are dark green above, ashy grey beneath but with sparse hairs including some stiff rusty-coloured ones. This was easy to see on the leaves of the tree in the car park but not so much on others we came across later. The rusty hairs are said to be a feature during late summer and autumn. We have two subspecies of Grey Willow in Kent, this one and subsp. *cinerea*; the latter is a fenland subspecies and consequently very rare in Kent, recorded currently only from Ham Fen.

Willows galore. Photo by Owen Leyshon

We then set off a short way from the car park to look at two more taxa growing side by side by the stream. These were *Salix alba* (**White Willow**) and *Salix x fragilis* (**Crack Willow**), and both have linear lanceolate leaves. Alex said they are often confused and it was useful to see them here together where you could clearly see the silver-white hairy undersides of the much more slender White Willow leaves. Crack Willow leaves were certainly paler beneath but on close inspection were hairless below with great big marginal serrations. For Crack Willow both names *Salix x fragilis* and *Salix fragilis* are used in different books.



Salix viminalis (**Osier**) was our next species, also with leaves silvery-hairy underneath but distinct in its very long, narrowly lanceolate leaves which were not toothed but inrolled on the margins. Alex told us that it regularly hybridises with other species so a couple of specimens showing some very robust broad-leaved growth were investigated but showed no signs of hybridity.



Photo by Sue Buckingham

The next willow we stopped at was a hybrid, *Salix x mollissima* var. *undulata* = *Salix triandra* x *S. viminalis* (**Almond Willow** x **Osier**). Surprisingly, it had a few catkins, its twigs were shiny and olive-coloured and its leaves long and narrowly lanceolate, dark green above and paler but not hairy below and resembling one of its parents, *Salix triandra*

(**Almond Willow**). Alex had previously sent a specimen of this for determination and one of the key features for this hybrid are the persistent stipules (from *S. triandra*) which are thinly gland-dotted. We managed to see the glands on the stipules.

Alex stressed the importance of collecting specimens, particularly if you decide to name a hybrid, and this is because willows are frequently having their names changed so it could well become useful in the future to know exactly what you meant when you named yours. In fact, he said, it's much better to name the parents than use the hybrid name. Dr Irena Belyaeva (BSBI referee for *Salix*) has discovered that many herbarium specimens have been wrongly named in the past, including one of Linnaeus's labelled *Salix fragilis* when it is clearly *S. pentandra*.

We came across a line of *Salix triandra* (**Almond Willow**) further along the Lampen Wall. The leaves were shorter and broader than those of the hybrid we'd just seen but they were otherwise very similar and had persistent stipules. The willow growth is generally dense at Stodmarsh along the river bank and so it's difficult to get a look at a trunk but we did manage to see some bark of this species which typically flakes off in chunks like London Plane.

After this we had three hybrids: *Salix x holosericea* (*Salix viminalis* x *S. cinerea*) (**Silky-leaved Osier**), which is Osier x Grey Willow; *Salix x smithiana* (*Salix viminalis* x *S. caprea*) (**Broad-leaved Osier**), which is Osier x Goat Willow; and lastly a single tree of *Salix x reichardtii*, which is *Salix caprea* x *S. cinerea* (Goat Willow x Grey Willow). The first, **S. x**

holosericea, which is reckoned to be a common hybrid in moist lowland sites, has long lanceolate leaves which are shortly silky below and with striae, (the elongate ridges just under the bark). The second, **Salix x smithiana**, was similar in shape but broader and more hairy than *S x holosericea* and had no striae on the wood. With regard to **Salix x**



reichardtii, its leaves could best be described as intermediate in shape between its parents and the leaf undersides were a little softly and shortly pubescent.

Shamefully, we all walked past our last species without noticing **Salix purpurea (Purple Willow)** but then it was past lunch time! This is an uncommon species in Kent with fairly small, linear oblong leaves and we saw the characteristic yellow colouring on the inside of its bark. Alex said it characteristically stains the herbarium papers on which specimens are mounted.

Utricularia and Myriophyllum flowering together.

Photo by Liam Rooney

After lunch we had a break from Willows and spent the afternoon looking at some of the other special Stodmarsh plants including flowering *Hydrocharis morsus-ranae* (Frogbit) and, most especially, the spectacular mass flowering of *Utricularia vulgaris* (Greater Bladderwort) which presumably was due to the recent prolonged hot weather. *Myriophyllum verticillatum* (Whorled Water-milfoil) was also fished out with

flowers. We spent some time inspecting duckweed and speculating that we might have *Lemna turionifera* (Red Duckweed) a species said to be taking over elsewhere in the country from *Lemna minor*. Later Alex showed some to the aquatic plants referee, who thought that, as the fronds weren't reddish in the middle, it was probably *Lemna gibba* (Fat Duckweed) that wasn't fat after all.

Back in the in the car park we were all as always very glad of tea and Welsh cakes, thanks to Owen and our special thanks to Alex for a highly informative day.

SB

NORTHWARD HILL/ COOLING MARSHES, Tuesday 18 September

A fantastic opportunity was granted by the warden, Will Tofts of the RSPB, for the Kent Botanical Recording Group to survey parts of the Northward Hill RSPB reserve. Thirteen members met up at the farm and a disastrous start was narrowly avoided as Owen forgot the milk for the drink/refreshments at the end of the day. However, for the first time in years Sue Buckingham was late with her passengers, so a quick phone call for a jump out at the local store by John Puckett and panic was over.

Supplied with brilliant maps by the RSPB staff (we do like maps) with all the gates and bridges marked, we walked out onto the west end of the grazing marshlands and the well-named Whalebone Marshes. We first had to go through the anti-predator fencing/gate and immediately Geoffrey Kitchener was looking at a selection of *Alopecurus* grasses which were present in strong zones around the edge of the dried up scrapes. Discussions, bulb or no bulb and measuring of the number of nodes (in no particular order), still confirmed we were looking at a range of features strongly suggesting that most, if not all, of the plants were of hybrid origin. Material was taken and at least the hybrid *Alopecurus geniculatus x bulbosus* (*A. x plettkei*) was recorded and the *geniculatus* parent, but with some uncertainty as regards the other, rarer, parent. It is hoped a quick 10min visit at the end of May to the nearest piece of grassland inside the fence will answer some questions when *A. bulbosus* should be in flower.



Discovery of Alopecurus x plettkei.

Photo by Sue Buckingham

We then moved out into the far west corner of the reserve to record in two monads which hold no records post 2010. In more dried up scrapes the first *Rumex maritimus* (Golden Dock) plants and *Chenopodium chenopodioides* (Saltmarsh Goosefoot) were discovered. By this time the friendly cattle had spotted us and joined in to watch what we were up to. Will the warden said they are only nosy, and they were! We carried on and moved across the grazed fields and ditches with Alfie and Stephen recording *Hippuris vulgaris* (Maretail), and *Ceratophyllum submersum* (Soft Hornwort) was scooped out of a number of ditches.

The whole day was sunny and dry, however very windy, and a decision on a lunch location was crucial to making the day enjoyable for the group. So it was a welcome relief to find that Owen had arranged for a large lorry trailer with the side down to be parked in the middle of the marshes for us to sit out of the strong winds and eat our grub in comfort.



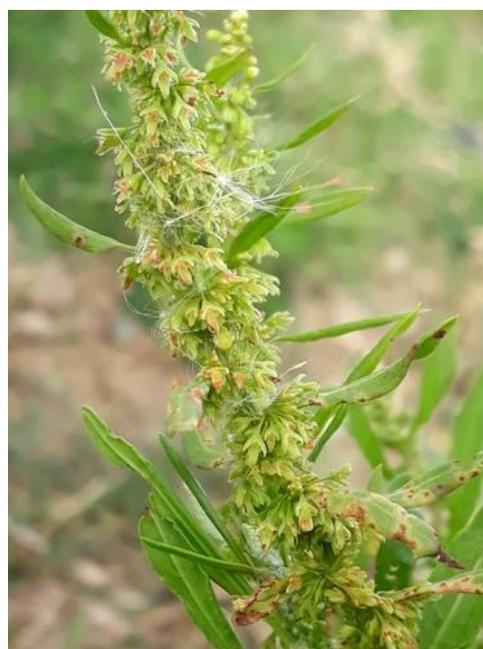
Lunch at Bromhey Farm (beer not laid on). Photo by Sue Buckingham

After lunch, the last push was made to look at further blocks of grazing marsh, which was promptly stalled as a large rubble pile was spotted and the group diverted and explored it. *Datura stramonium* (Thorn-apple) plants were found and an unusual, fragrant pink flowering plant poking out of the rubble was discussed and with plenty of head scratching as well, but with no name put forward. (Material was collected and it was later determined as an *Agastache* (North American garden plant), down to two possibilities, *A. mexicana* and *A. pallidiflora*, with their hybrids and so maybe a cultivar/species will be named sometime soon).

The group passed another group of cattle – this time, uninterested – into a far block of grazing marsh and through another anti-predator gate and we arrived at a range of dried up scrapes. These produced large stands of *Rumex maritimus* (Golden Dock) and Geoffrey was able quickly to find the hybrid with *Rumex conglomeratus* (Clustered Dock) which is *Rumex x knafii*. Sue was able to find some *Chenopodium glaucum* (Oak leaved Goosefoot) as well.

Rumex x knafii. Photo by Daphne Mills

As time was ticking on, it was decided to retrace our steps and back to the car park via the main access track, for well deserved Welsh cakes, tea, coffee and juice. Left-over Welsh cakes were donated to the RSPB office staff.



OL

CONYER CREEK, Thursday 4 October (Glassworts Day)

The main purpose of this final meeting of the year, led by Liam Rooney and Sue Buckingham, was to gather *Salicornia* and *Sarcocornia* (Glasswort) records from the monads through which Conyer Creek winds its way. Whilst the group had

visited the same tetrad in previous years and ventured onto the saltmarsh on the eastern side of the creek, it had been too early in the year to record the glassworts. However, now it was early October and with a low tide it was perfect timing to try and identify this difficult group of plants that ideally need to be fruiting and turning their diagnostic colours.

Conyer sits pretty much halfway between Sittingbourne and Faversham with the creek to the western side of the village spilling out into the Swale. We had parked our cars along Conyer Road within sight of the Ship Inn and after hellos and introductions we made our way along the footpath that hugs the creek and navigates around the marina before reaching the saltmarsh. We were rather strung out at this point since some waited back for late comers as the M20 had been closed in both directions causing early morning traffic chaos. Those that marched ahead met an Australian man who asked if we knew the way to Sydney. Liam pointed straight down but he was more than contented to take the less direct route and continue his Saxon Shore walk in his t-shirt and shorts as the weather had blessed us with a beautiful clement day.

On the north side of the marina we had finally banded together, totalling 16 members in all, and it wasn't long before garments were slung around waists. Some members left the path and began looking at a strip of dry saltmarsh on the other side of the fence separating the marina. I don't know if there is a mathematical formula that states how many botanists on a field trip it takes to look at something before curiosity attracts every other botanist to the spot but before long we were all along the fence. The first RPR record of the day was made for *Inula crithmoides* (Golden-samphire) and the leaves of *Triglochin maritima* (Sea Arrowgrass) were handed around to smell. *Aster tripolium* (Sea Aster) was present and the Sea Aster Mining Bee (*Colletes halophilus*) was seen visiting its flowers. Owen Leyshon pointed out how it is identical to the Ivy Bee (*Colletes hederae*) but is distinguished only by the host plant it pollinates. *Atriplex prostrata* (Spear-leaved Orache) was also present, almost hiding our first *Salicornia* of the day, *S. ramosissima* (Purple Glasswort) which had to be slim-fingered plucked through the fence to certify identification.

The first bit of lower saltmarsh we came across we didn't really want to spend too much time on as it had been grazed by sheep at some point. This meant that the *Salicornias* weren't looking typical and therefore not useful in helping members learn about their identification. Some looked more like frozen tortured souls than Glassworts! The vast majority of plants

there were *S. ramosissima* (Purple Glasswort), easily identified by their distinctive purple colour they were now showing off. Further out by runnels a patch of plants were found that seemed to show intermediate features between *Salicornia dolichostachya* (Long-spiked Glasswort) and *S. fragilis* (Yellow Glasswort). Liam explained how some authorities believed the two species should be amalgamated and that *S. fragilis* is perhaps at best a variety of *S. dolichostachya*. He went on to say that when the plants are 'behaving' themselves they are distinctly different and perhaps populations of what we were seeing, when looking intermediate, were in fact hybrids.



A debate over intermediate S. fragilis and S. dolichostachya. Photo by Sue Buckingham

Moving more onto the seawall and beyond, Geoffrey Kitchener keenly and skilfully picked out the vegetative re-growth of another RPR plant *Alopecurus bulbosus* (Bulbous Foxtail). Passing it around he showed how the lowest culm node was swollen and stated that if we had seen flowering plants then they would have most definitely been *Alopecurus x plettkei*, its hybrid with *A. geniculatus* (Marsh Foxtail). Other RPR plants seen included *Bupleurum tenuissimum* (Slender Hare's-ear) now showing off its rather elegant fruits and *Trifolium squamosum* (Sea Clover), just about identifiable by the remaining stiff spiky calyces.

Before moving onto the next stretch of saltmarsh we found a population of very green slender Glassworts growing from a rather uninviting and unpredictably firm area of mud behind a sluice gate. Having first tried to lower a grapnel from the bridge above to gather material, Jacques Turner-Moss decided to volunteer to make a deft, nimble and somewhat

dangerous dance across stones and planks like some game show assault course in order to gather some good material. The plants were very shiny with narrow branches and it was suggested they were *Salicornia emerici* (Shiny Glasswort) which was first and last seen in Kent at Oare on a KBRG meeting in 2011 led by Eric Philp. Liam collected material to take home and after much deliberation decided that despite the colour, shininess and fertile segments matching precisely the plants found at Oare, they were more likely to be a diminutive form of *S. dolichostachya* caused by growing in the deep shade of the sluice gate.

We were now on the more northerly saltmarsh opposite the disused brickworks and it had a spread of far more accommodating Glassworts. Almost right away we had *Sarcocornia perennis* (Perennial Glasswort). Liam pointed out the narrow infertile stems which were more prevalent than the wider fertile stems which resembled stubby fingers with far too many knuckles. Liam and Sue also demonstrated how the stems would rather snap than be pulled up as they were a shrubby perennial. It wasn't long before *Salicornia disarticulata* (One-flowered Glasswort) was found. This is an easy species to start with as it has the distinctive short branches bearing a single central flower to its fertile segments. At the edge of the creek Liam found a very good example of *Salicornia europaea* (Common Glasswort) which, despite its name, isn't that common. It was handed around so people could see how the scarious borders to the fertile segments were narrower than those of *S. ramosissima*, which it very closely resembles, and how they formed a distinctive mucronate point.



Habitat: the littoral and prandial zones. Photo by Owen Leyshon

By now it was time for lunch and so we sat along the seawall amongst the gorgeously aromatic *Artemisia maritima* (Sea Wormwood), another RPR plant. After lunch more distinctive colonies of *S. fragilis* and *S. dolichostachya* were found, as were *Sarcocornia perennis* and *Salicornia disarticulata*. Liam was also able to point out the plasticity of *S. ramosissima*, both carpeting areas of the saltmarsh as tiny unbranched purple fingers and close by as large bushy plants. Liam was hoping to find *S. obscura* (Glaucous Glasswort) which is rare in Kent and the UK in general. A possible candidate was found and taken home but at best it was a 'funny *fragilis*'. As we walked along the line of the seawall Liam and Geoffrey simultaneously found *S. europaea* which demonstrated that it doesn't seem to mind which levels of the saltmarsh it grows on. As we were approaching the end of the saltmarsh, Liam found a glasswort that had both the characteristics of the diploid *S. europaea* group, which has strongly beaded sides to the fertile segments with smaller lateral flowers, and of the tetraploid *S. procumbens* group, which has more or less straight sides to the segments with equal sized flowers. Liam went on to say that this shows how difficult or impossible it can be to name some plants as they are not only highly polymorphic but also most certainly a promiscuous group of plants. To prove the last point, Judith Shorter found a plant with mostly one flowers to the segments but also with a mixture of three and two flowers on one of the branches. There is only one currently recognised hybrid glasswort and that is *S. x marshallii* and as we had both parents mixed together, *S. ramosissima* and *S. disarticulata*, it was agreed upon that this was a putative hybrid, probably showing a level of introgression.

Once the saltmarsh petered out, general recording became a priority, especially as some monads lacked a sizable number of records. More Slender Hare's-ear and Sea Clover were found as was another RPR grass, *Hordeum marinum* (Sea Barley), which was nestled at the bottom of the seawall.

Heading back we took a shortcut across the grazing marsh where a large number of *Vicia faba* (Broad Bean) plants were found and we were treated to a flurry of dragonflies as we ascended the steps onto the seawall. Just before we got to the cars a busying body of Ivy Bees were admired and photographed and then it was the traditional and eagerly awaited refreshments and Welsh cakes kindly provided by Owen. A good and successful day in all with close to 200 records in four monads being made and the list of Salicornias now extended.

LR

KENT BOTANICAL RECORDING GROUP FIELD MEETINGS – THE FIGURES AND BEYOND

We would just like to thank everyone who has come along on a Kent Botanical Recording Group Field Meeting this year. I have really enjoyed them but also learnt something on all meetings and also gained knowledge of different parts of the County I might not otherwise visit.

I would like to quickly summarise 2018.

In 2018, we have organised and led 16 Field Meetings across the County with 220 attendances, which averages out at c.14 people per meeting. I am not going to state 13.75 people and I am not counting Danny's and Joyce's dogs which have made occasional visits in 2018.

We have arranged four meetings in partnership with the Kent Field Club and one with BSBI on weekends, increasing the average to 16 people per meeting. We have had joint meetings with Sussex and Surrey and then four meetings in West Kent and 12 in East Kent.

If we look back to 2017 when we had 14 events and 177 came along, that included five weekends and two joint Kent Field Club meetings; while in 2016 we had 16 events and 233 people came along, with seven weekend events and five joint Kent Field Club meetings.

I would highlight the healthy number of the attendances over the years regardless of midweek or weekends, which is encouraging and testimony to how friendly and productive a group we all are. I would probably also highlight the need for maybe more West Kent meetings in 2019 to avoid too much of an East Kent bias to the programme. That is only a suggestion.

I think the emphasis over next year for meetings is maybe the Low Weald and target areas within the County which are lacking records for the last year of the National Atlas. Myself and Sue are always looking for guidance and suggestions from members on the programme, but we do need to get a good chunk of the 2019 programme sorted by the Christmas period. So get your thinking caps on and we are looking for any opportunities to visit private land or reserves, which would be tremendous.

If you wish to email or phone either myself or Sue as regards locations, that would be great, or if you wish to make suggestions on how we can improve the Field Meetings, we are very flexible and understanding.

OL

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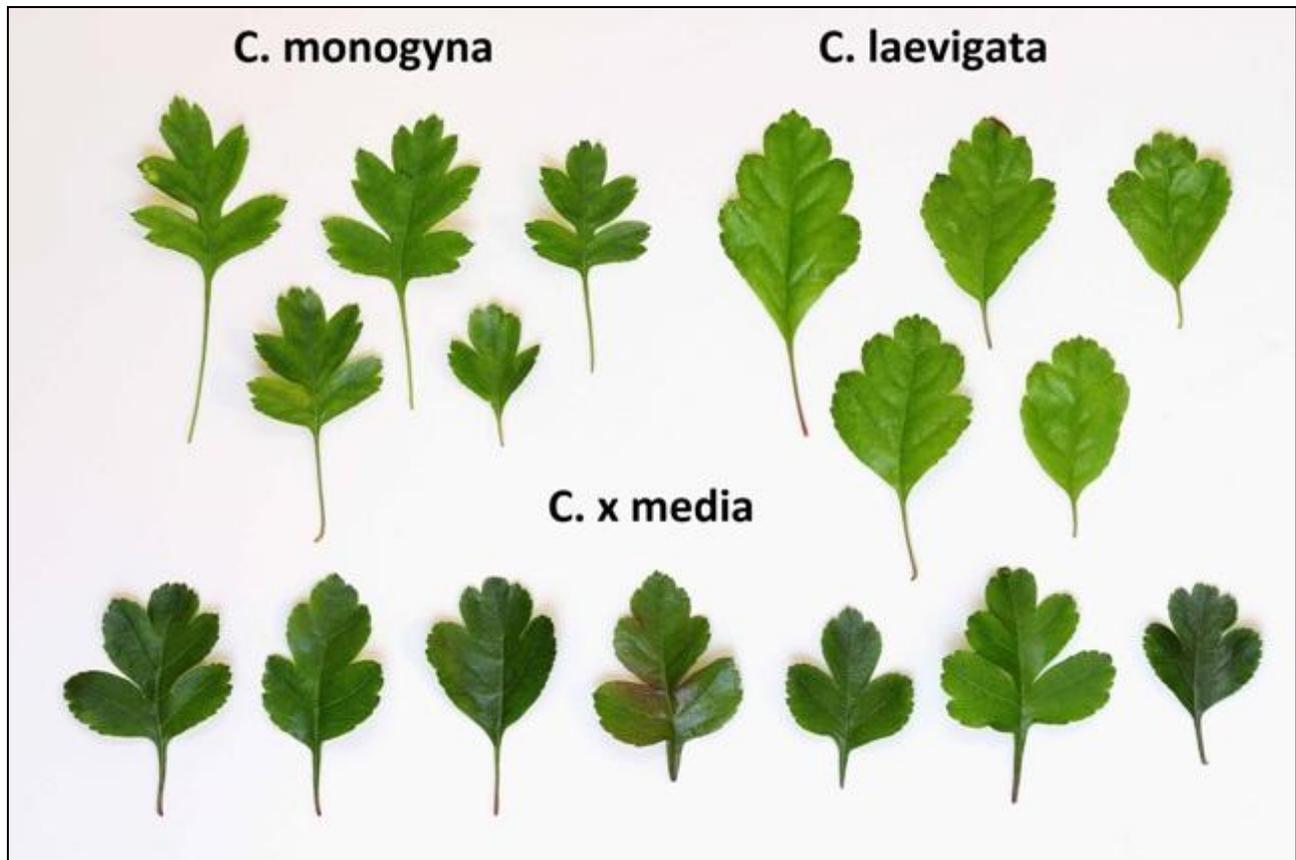


Photo by Liam Rooney

Hawthorns (*Crataegus*)

Ilse Hendriks-Beven gave a presentation to our 2017 AGM, seeking input from KBRG members for her Masters dissertation on Hawthorns. It is gratifying to know that this dissertation, **The hybridisation status and morphometric characteristics of native *Crataegus* species in Kent**, achieved a rating of distinction from Manchester Metropolitan University. An electronic copy is available on request from the editor, or from Ilse. Whilst Ilse tells us much about Hawthorn in the county, and shows that *Crataegus laevigata* (Midland Hawthorn) may be more in need of conservation than we thought, she also has some interesting comments on the difficult question of how you tell apart the hybrid (*Crataegus x media*), which she found generally more common than *Crataegus laevigata* and locally more abundant than *Crataegus monogyna* (Hawthorn). The following extract is taken, with permission, from the dissertation.

Identification of challenging hybrid specimens

The following checklist summarises the characteristics of difficult hybrid specimens based on the field observations of this study.

Multiple leaves and, if available, flowers should be examined (a minimum of 5 each is recommended). Leaves should be taken from the short-shoots of 2-3 year old branches.

Hybrids that are morphologically close to *C. monogyna*

- The number of styles is, in most cases, unhelpful, since both *C. monogyna* and *C. x media* can have 1 style. If the specimen does have a mixture of 1 and 2 styles, it can be recorded as a hybrid.
- *C. x media* often has a more obviously broad lower leaf lobe.
- The leaf lobe apex is often sub-obtuse to rounded, but can also be acute.
- The overall leaf shape may appear more rounded.

- The leaf margin is often serrate, with coarser or slightly more irregular teeth than in *C. laevigata*, sometimes extending more than halfway from the tip of the lobe to the apex of the petiole. However, the leaf margin can also be entire.
- Leaf indentation is, on the whole, shallower than for *C. monogyna*, but this is not always an obvious feature and in many hybrids indentation will be more than halfway to the midrib.
- Vein curvature is a useful feature. Veins are often straight and leaves on the same plant will often have a mixture of curvatures; most commonly downward and straight, but sometimes upward.
- Average flower diameter for *C. x media* is mostly larger than for *C. monogyna* (the average for specimens in this study is 17.1mm). However, more importantly, a hybrid specimen will often have flowers of obviously different sizes on the same plant, with differences of up to 4-5mm.

- *C. x media* flowers slightly earlier than *C. monogyna*; *C. x media* should have open flowers whilst *C. monogyna* is still in bud.
- The habitat and growth habit of the specimen can be helpful. *C. monogyna* is unlikely to flower in shaded conditions and will grow as an erect tree, seeking the light. In such situations *C. x media* tends to flower well and is more likely to grow as a spreading shrub.
- A minor feature is leaf colour; hybrid leaves are often darker green and more glossy than those of *C. monogyna*.
- A subjective feature is the overall appearance of the plant. *C. x media* is often 'prettier'. This is difficult to describe, but it may appear less haphazard or 'messy'.

Hybrids that are morphologically close to *C. laevigata*

- The number of styles is important; often the hybrid will have 1 style or a mixture of 1 and 2 (rarely 3) styles.
- Leaf indentation is, on the whole, deeper than for *C. laevigata*.
- The lower leaf lobe is often less broad and longer than in *C. laevigata*.
- Vein curvature is a useful character; veins are often straight and leaves with all three curvatures (up, straight

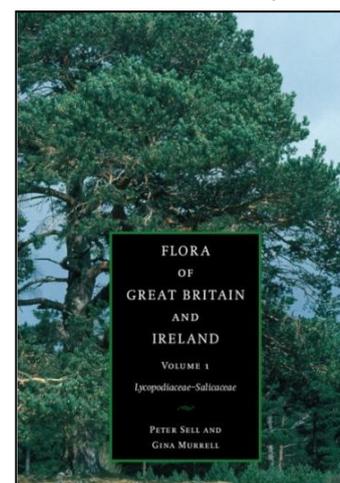
and sometimes down) will often occur on the same individual.

- The leaf margin is often serrate, but the extent of serration is often very similar to *C. laevigata* and hence this feature is not very reliable. Teeth may appear slightly coarser
- The leaf lobe apex is often sub-obtuse. This is most obvious when it can be compared with a good specimen of *C. laevigata* in which the lobe apex will be more bluntly rounded.
- The overall leaf shape is often less rounded compared with *C. laevigata*.
- A hybrid will often have 3-7 leaf lobes, whereas *C. laevigata* mostly has 3-5 lobes.
- The average flower diameter is smaller than for *C. laevigata*, but this character displays a wide variety. A more useful character is the occurrence of flowers of significantly different sizes (up to 4-5mm) on the same plant.
- *C. x media* tends to flower slightly later than *C. laevigata* and may still have all flowers intact whilst *C. x laevigata* flowers are degrading.
- The overall appearance of the individual can be a useful character in mature specimens; the branches and leaves of hybrids often appear less lax and the plant appears more robust than mature specimens of pure *C. laevigata*.

Flora of Great Britain and Ireland, volume 1: what's in it for Kent?

The first volume of 'Sell and Murrell' was published in March 2018, 21 years after the appearance of volume 5 (they came in reverse order). This series looks carefully at varieties and subspecies, and in this respect is far more fulsome than any other British Flora. The names given to species are not always in accord with those in common use; and this is especially because of a wish to make clear the degree of variation in plants, which may result in a plant being called a species in this Flora, which may be treated as a subspecies (or less) in another Flora. So, while it looks as though there are more species to look out for, it does not follow that all botanists will want to recognise them as species. However, the following will, or may, have relevance for Kent.

- **Scaly Male-ferns.** We have now maybe got used to separating *Dryopteris borrieri* from *D. affinis*; but Sell & Murrell also separate *Dryopteris paleaceolobata* from *D. affinis*, and *Dryopteris robusta* from *D. borrieri*. We may have all these, plus *Dryopteris lacunosa*. You can see photos of *paleaceolobata* (as a subspecies of *affinis*) and *lacunosa* on Roger Golding's website at: http://www.ferns.rogergolding.co.uk/ferngenus/dryopteris/affinis_agg.html. *D. robusta* is not there, and is perhaps best treated cautiously as a name which has been used in different senses at different times; but (with *paleaceolobata*) it has illustrations and a description in the second edition of Ken Trewen's *Some Taxa within the Dryopteris affinis complex* (2014) – an excellent booklet now, alas, out of print.
- **Goldilocks Buttercup.** This in the UK has been treated as one species, *Ranunculus auricomus*, but you could treat it the same as Dandelions, split into lots of microspecies: the Nordic countries have over 600. The Sell & Murrell account (written by Alan Leslie, following his 1976 PhD thesis) splits the British species into 58 microspecies; there are probably hundreds undescribed. From Kent there are these microspecies:
 - *Ranunculus rectilobus* (Downs Goldilocks Buttercup) from woodlands and tracksides on the North Downs in west Kent;

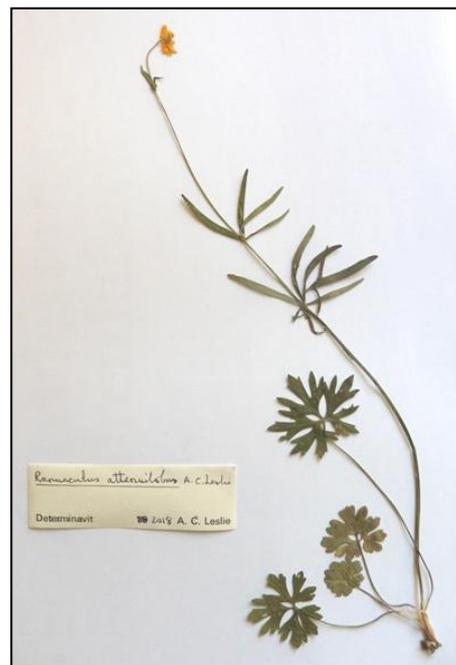


- *Ranunculus calvitorus* (Wrotham Goldilocks Buttercup) from roadside woodland south of Cooper's Wood near Wrotham;
- *Ranunculus notauricomus* (Weald Goldilocks Buttercup) from roadsides and trackside, in damp woods and on river banks in central and southern Surrey extending into west Kent;
- *Ranunculus attenuilobus* (Beautiful Goldilocks Buttercup) from woodlands along or just to the south of the North Downs in eastern Surrey and western Kent.

With the benefit from Alan Leslie of some further locational detail, Sarah and I had a look for a couple of these microspecies. One Wrotham site appeared to have changed for the worse since the 1970s and we could not find plants. Another Wrotham site is probably extant, as David Steere recorded *R. auricomus* in the area last year, but we could not locate it. However, we got to the Crockham Hill site where in 1976 Alan found what he later named as *Ranunculus attenuilobus*, and there it was (subsequently confirmed by Alan). Like brambles and dandelions, I think that the Goldilocks Buttercups must be an acquired taste; but unlike those groups, the chances are much greater that one finds a local population which lacks recognition and a name.

Ranunculus attenuilobus. Photo by Geoffrey Kitchener

- **Sea-lavenders.** The usual treatment of the Rock Sea-lavenders has been to treat the Kent cliff plants as *Limonium binervosum* subsp. *binervosum* and subsp. *cantianum*. Sell & Murrell have these species:
 - *Limonium calcicola* (Chalk Sea-lavender), from Sussex to south Kent as far as St Margaret's Bay.
 - *Limonium sanctamargaritense* (St. Margaret's Bay Sea-lavender), the only species on the cliff at the south end of the harbour of St Margaret's Bay, also at Oldstairs Bay;
 - *Limonium cantianum* (Kent Sea-lavender), the same as *Limonium binervosum* subsp. *cantianum*, growing at the back of the Promenade, Broadstairs (there are two distinguishable sea-lavenders growing here, but both treated as *L. cantianum*);
 - *Limonium binervosum* (Rock Sea-lavender), from east Sussex and South Kent, especially around Dover (so overlapping in range with *Limonium calcicola*).



GK

'New' Kent historic first records

If you wish to find when a plant was first recorded in Kent, Hanbury and Marshall's *Flora of Kent* (1899) is the best initial port of call, thanks to the inclusion in the *Flora* of the researches of Benjamin Daydon Jackson (1846-1927), curator of the Linnean Collections. However, 'new old' records turn up from time to time, and a couple are given in 'Wild and cultivated plants in Cambridge, 1656-1657. A re-examination of Samuel Corbyn's lists' by Chris Preston, in *Huntia* (2018) **16(2)**: 95-124.

In 1656 Samuel Corbyn of Trinity College sent a letter (recipient unknown) with a list of Cambridgeshire plants. This later became associated with another list, of 1657, both surviving in what is probably a transcription by the botanist John Goodyer. In the second list, as well as Cambridgeshire plants, there are references to Kent occurrences of what appear to be *Ribes nigrum* (Black Currant) and *Sorbus aria* (Common Whitebeam). The Black Currant reference is to *Ribesium sylvestre*, (which sounds very much like *Ribes sylvestre*, a later name for Red Currant, and G.C. Druce had supposed that this was what was intended), but Chris Preston makes a case for Black Currant being the plant in question. *Sorbus aria* is given (with an unidentifiable *Salix* sp.) as found in Sandrish in Kent. Hanbury and Marshall give a later 'first record' for *Sorbus aria*, as from Sandwich, cited from Christopher Merrett's *Pinax* (1666), which refers to the record being at Sandrish and contributed by John Goodyer. Chris Preston rightly observes that Sandrish is more likely to be Sundridge (formerly called Sundrich or Sundrish); *Sorbus aria* is to be expected on the Greensand in the south of the parish. It looks as though Merrett's reference originally derived from Goodyer having copied Corbyn's 1657 list, and Hanbury and Marshall (with B. Daydon Jackson) were responsible for mistakenly assuming that the place name was Sandwich.

We know relatively little about Corbyn, who studied at Trinity College, Cambridge, where he became one of five college chaplains in 1655. However, the Kent records may not be his at all, but rather the product of gathering information from fellow collegians. Chris Preston suggests that, at least as regards those from 'Sandrish', the ultimate source was John

Nidd, a senior fellow of the same college who died in 1659. Nidd was highly regarded by the botanist John Ray and came from Sundridge, being probably related to Gervase Nidd, rector of Sundridge 1615-29.

GK

**Minutes of the Kent Botanical Recording Group
Annual General Meeting
2.00 p.m., Saturday 7 April 2018**

This meeting was held at Tyland Barn, headquarters of the Kent Wildlife Trust, Chatham Road, Sandling, Maidstone ME14 3BD. Thirty one members of the Group and guests attended the meeting including the Chairman and Vice County Recorder for Kent, Geoffrey Kitchener, and Mary Smith, the daughter of Hector Wilks.

1 WELCOME

The Chairman began by thanking everyone for coming along to the meeting and Sue Buckingham for agreeing to take the minutes and for arranging the use of the room, courtesy of Kent Wildlife Trust (KWT). The AGM was to be illustrated with slides for the reports and Geoffrey thanked Alfie Gay, Danny Chesterman, David Steere, Mike Robinson, Stephen Lemon and Sue Buckingham for use of their photographs.

2 APOLOGIES FOR ABSENCE had been received from Alfie Gay, Alison Riggs, Elizabeth Winterbourne, Jan Armishaw, Jon Bramley, Margot Godfrey, Mel Lloyd, Owen Leyshon, Priscilla Nobbs, Sandra Darling and Steve Coates.

3 MINUTES OF AGM held on 1 April 2017 were published in Newsletter no. 10 which was circulated to all members and published on our webpage. The Chairman proposed that the minutes should be adopted as a true record of the proceedings which they were with no objections.

Matters arising. Sue Buckingham said that she had followed up Joyce Pitt's suggestion for a meeting venue but unfortunately it had not been possible to obtain permission for the group to visit that particular site. Actions regarding both conservation activities and axiophytes were to be dealt with later in the meeting. Geoffrey reported that as promised, he had circulated by e-mail some maps showing the status of county recording and also some information relating to Ilse Hendriks-Beven's dissertation on hawthorns.

4 REPORTS FOR THE YEAR

Membership. This had risen to 131 members, from 116 in 2017 and beginning with 35 at our inaugural meeting in March 2010. The Chairman said he was surprised that botany in Kent should have attracted so much attention. He referred to what seemed to be a widespread interest in our activities and was proud to show a slide from BSBI national website where we had been featured at the start of a series about local

recording groups and ours was described as one of the most vibrant. He expressed his sadness at the death of founder member Lorna Holland who had contributed records, photos and her part in many of our meetings. Our group was well-represented at her very uplifting memorial service.

Meetings. In addition to the AGM, the group had fifteen field meetings programmed for 2017, one of which had to be deferred and we also had arrangements with Kent Field Club to attend any of their meetings with a botanical flavour. Reports of KBRG meetings including last year's successful targeting of plants such as *Hypericum montanum* (Pale St John's-wort) and *Euphrasia tetraquetra* (Western Eyebright) were included in the newsletter. Geoffrey thanked all of the meeting leaders and also those who attended the Kent Field Club meetings and had passed on records.

The 2018 programme offers sixteen KBRG field meetings with the usual joint ones with Sussex and Surrey, days to learn about grasses and willows and the customary invitation to Kent Field Club meetings of which five appear to have potential botanical content. Geoffrey congratulated Owen Leyshon and Sue Buckingham for putting the programme together and thanked all who had agreed to lead or co-lead meetings.



Publications. Geoffrey listed the following new items which had been circulated to members and/or published on our website since the last AGM.

- Newsletter no.10
- Kent Botany 2017, with all the latest discoveries
- A further instalment of Francis Rose's missing Flora of Kent
- A total of 34 new rare plant register species accounts. Geoffrey had prepared these since the previous AGM and they included 18 accounts under Part P and 14 under Part O. Those had been sent out to members for consultation prior to going onto the website. Already on our website were two more accounts added in 2017 to Part E and in

February 2018 Geoffrey had updated the rest of the register documentation with our new records.

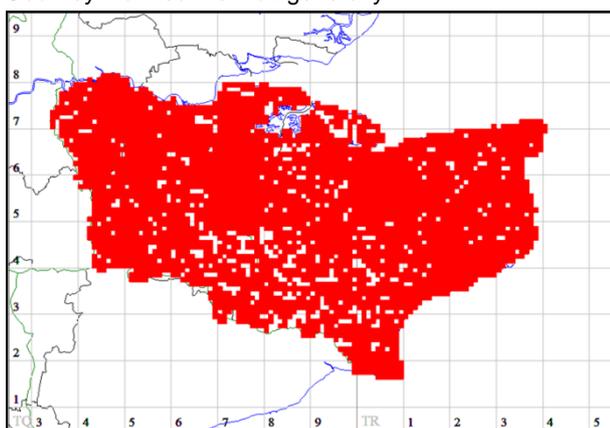
John Badmin thanked Geoffrey for his work on publications and a little later in the meeting, Rodney Burton also congratulated Geoffrey particularly on the depth of information included in the rare plant register accounts. Rodney said how much he enjoyed reading them.

Finances

Geoffrey reported our position with regard to finance as being unchanged and that we continue to have no material expenditure. We have no subscriptions, no bank account and no income. He said that KBRG members gave freely of their time (and cakes), BSBI provide our website free of charge and Kent Wildlife Trust do not charge for the meeting room. He thanked all of those concerned.

Recording

We added 58,000 records for 2017 to the Mapmate database and so continue to build up a very full picture of the county flora. Geoffrey chose not to give a figure for the total number of records because he was aware of some discrepancy between our totals and those which BSBI consider they have received from us. He said that this would need to be investigated further at some time. He had no doubt that we have secured reasonable general coverage in county recording during the period 2010-18 and he showed a slide of Kent with all of the monads we had visited (3,856 in all) coloured red and the few we that we hadn't were left white. Geoffrey explained that we do not have to visit them all, BSBI regards sampling as appropriate, and one in five squares well surveyed could be a reasonable target. At least 51 people had submitted records in 2017 and Geoffrey thanked them all generally.



*Stephen Lemon asked Geoffrey for a copy of the monad map (Action: G. Kitchener). David Steere said that he was realising the value of recording at different times of the year and most especially in early spring when recorders were perhaps less likely to be in the field. Doug Grant reiterated, explaining that he and Sue Poyser had used the early months to target *Ficaria verna* (Lesser Celandine) which had been missing from his records for many monads in Medway towns.*

Rare plant register

Geoffrey reported that of the nearly 1600 rare plant records which we received in 2017, some were very exciting and added three new species to the register. Those were *Eleocharis quinqueflora* (Few-flowered Spikerush), *Euphrasia tetraquetra* (Western Eyebright) and *Sibthorpia europaea* (Cornish Moneywort). *Teucrium botrys* (Cut-leaved Germander) was rediscovered, though sadly only one plant and in contrast to that, *Poa infirma* (Early Meadow-grass) had spread by over 500 per cent from its limited north coast distribution in 2005.

Axiophytes

Sue Buckingham reported that she had finally produced an Axiophyte list for Kent which had already been sent out to members. The concept of axiophytes and the BSBI criteria for defining them were discussed at the 2014 AGM as mentioned in the minutes of that meeting. Sue used a few slides to remind those present about axiophytes. They are the "worthy" plants, indicators of habitat that is considered important for conservation such as ancient woodlands, clear water and species-rich meadows. Lists of axiophytes can provide a powerful technique for determining conservation priorities, and changes in the number of axiophytes in a site over time can be used for monitoring the outcome of management practices.

There are 373 species on the finished list which is soon to be published on our website. Sue had been trialling it using lists of plants found on our field meetings and comparing the number of axiophytes we found in sites with SSSI (Site of Special Scientific Interest) status to those from LWSs (Local Wildlife Sites) and from other sites with no conservation status. She thanked Geoffrey Kitchener, Stephen Lemon, Alex Lockton, Joyce Pitt and Liam Rooney for their help and advice regarding which species to include. Sue hoped the list would be useful to anyone involved with assessing the botanical value of a site and with its long term management. She added that the list could still be altered and she welcomed comments, to which Rodney Burton asked if there were any non-native species included as he would have liked to see *Campanula medium* (Canterbury-bells) there, considering its connections with the county and its regular presence in railway cuttings in metropolitan Kent.

Rare plant register conservation activities.

Owen Leyshon had been collating information about activities benefiting the conservation of rare Kent plants. Geoffrey explained that although Owen had some information, he was not yet in a position to produce a report and it was likely that the next report from him would cover a two year period. Geoffrey reminded us of the excellence of Owen's first report.

5. LOOKING AHEAD

Botanical developments in 2018

Geoffrey said that he hoped that David Johnson's book *Wild Orchids of Kent* would be published this year. He

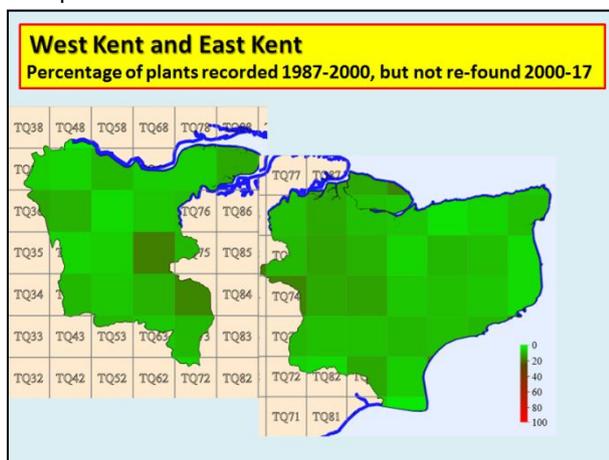
asked Liam Rooney to comment on the progress of his *Illustrated Flora of Faversham and district* and Liam replied that he expected it to take a long time to complete.

The final volume of the Sell & Murrell *Flora of Great Britain and Ireland* had just come out and Geoffrey mentioned that it included some new species for us to look for in Kent. Instead of one Rock Sea-lavender species there were now five in the county and of the 58 named microspecies of Goldilocks Buttercup, Kent is host to Wrotham Goldilocks Buttercup and at least three others. Geoffrey said that this could provide some material for the next newsletter. **(Action: G. Kitchener.)**

Geoffrey also mentioned the task of validating or confirming how far Kent records should go on the new BSBI national atlas, although this only concerned vice-county recorders.

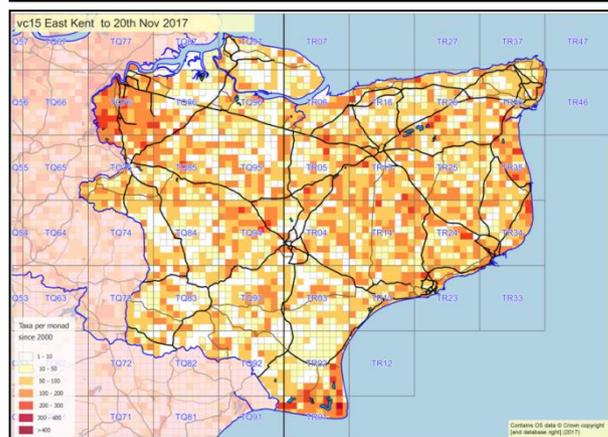
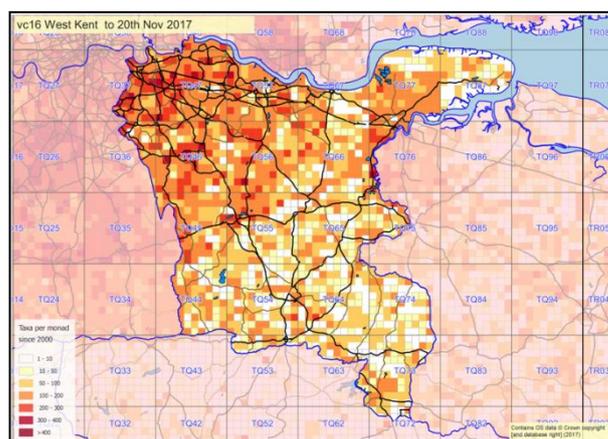
Recording plans for 2018-19

Geoffrey proposed that we continue with our current recording strategy, which is to seek good overall county coverage for the current ten-year cycle while trying to fill in gaps on the maps which will go into the new national atlas. Last year Geoffrey offered lists to fill in some of those gaps to anyone who asked and he thanked those who took up the offer and declared that this offer was still open.



He then showed a slide with a map of the county, coloured to indicate our progress in re-finding plants which were recorded in the last atlas after 1987. The greener the map, the more we had re-found and for nearly all the county we have found around 90%. Those areas needing more attention are in the north east corner of Sheppey; and parts of the Low Weald south of Maidstone; and from Hadlow to Yalding northwards from Wrotham to Ryarsh.

A further set of maps was provided, showing the density of species found at monad level ranging from dark colour for lots of species recorded to white for few. Geoffrey said a good target would be mid-brown for one out of four squares; he could circulate copies of the map to the membership. **(Action: G. Kitchener.)**



6 GENERAL DATA PROTECTION REGULATION

Geoffrey felt that he should mention the General Data Protection Regulation, which comes into force in May and affects businesses and societies generally. He said that the best guidance he had seen so far for a group like ours was that being adopted by the Wild Flower Society.

The Regulation affects the processing of personal data and that includes emailing the membership. Our personal data consist mainly of names and contact details on our membership list which is made available to members (and does not include details which members have asked not to appear). Personal data also extends to plant records which include the names of recorders. Plant records are shared with BSBI and Kent and Medway Biological Records Centre. If anyone else requests plant records from us and we agree, then personal details are removed from those records before sharing.

Geoffrey explained that under the Regulation, we have to have a lawful basis for processing data, and the most suitable for us is called 'legitimate interest'. Where you have joined a group which is intended as a network for sharing records and information about Kent plants, then you and the group have a legitimate interest in your personal data being used appropriately for that purpose. There were other lawful bases and Geoffrey mentioned that of 'consent' and as a part of our membership application we have always sought consent for sharing records and personal details with a right for members to withhold any of these contact details. So that we do this as a matter of good practice and this is an extra above

our lawful basis of processing personal data, which is the legitimate interest of all concerned.

The Data Protection Regulation requires personal data to be:

- processed lawfully, fairly and transparently;
- collected and processed for specified legitimate purposes;
- limited to what is necessary for processing;
- accurate and, where necessary up-to-date;
- kept for no longer than is necessary;
- processed securely.
-

Geoffrey said that we ought not to have any issues with these principles. He had recently circulated our membership list which now included a note which he hoped covered what was required, at least for the time being. He asked for comments and no concerns were expressed.

7. ANY OTHER BUSINESS OR COMMENTS

(a) Geoffrey had been asked if anyone might be interested in leading a walk in the Crossness nature reserve in metropolitan West Kent and Rodney Burton volunteered.

(b) Geoffrey had been asked by Joyce Pitt if those present would like to see the starting time for our field meetings change from the current 10.00 a.m. to 10.30

a.m. She felt the later time would tie in with KFC meetings and would avoid traffic on weekdays.

Geoffrey asked the meeting if anyone else would prefer a later start time and two members spoke up in favour. Doug Grant said that traffic congestion in his local area was so bad at school start time that it was very difficult from him leave home to reach distant parts of the county by 10.00 a.m. and Peter Heathcote explained that he had been leaving home progressively later over recent years in order to avoid worsening local traffic. Sue Buckingham said that she and Owen would prefer to keep to the earlier start and Sarah Kitchener suggested maybe commencing meetings at 10.00 a.m. at weekends and at 10.30 a.m. on weekdays. Sue and Owen would look into this for the 2019 programme.
(Action: S. Buckingham, O. Leyshon.)

8. DATE AND PLACE OF NEXT AGM

The next AGM (subject to availability) will be Saturday 6th April 2019 at Tyland Barn.

With no further business, the formal part of the meeting closed at 3.05 pm. There followed a refreshment break with tea and cakes kindly provided and served by Sarah Kitchener. Then followed a well-received presentation by David Johnson, entitled *Wild Orchids of Kent: my orchid odyssey*.

Contributions and photographs for the next newsletter will be welcome!

- The editor will be glad of articles, letters, queries, comments and photographs, etc.
- Whilst KBRG does not produce a research journal as such, there may also be scope to put articles of a substantial nature and other papers onto the website by way of publication, as an alternative.
- If sending photographs for inclusion in the newsletter by email, please provide at reasonably high resolution.
- All contributions should be sent to Geoffrey Kitchener, contact details below.

Thanks to all who led meetings in 2018; to Alfie Gay, Stephen Lemon, Owen Leyshon, Liam Rooney and Sue Buckingham for writing or contributing to meeting reports, and the latter also for the AGM minutes; to Ilse Hendriks-Beven for the extract from her thesis; to Sarah Kitchener for reviewing this newsletter; and to the photographers credited above.

The editor, Geoffrey Kitchener, wishes to draw attention to the fact that neither he, nor the Kent Botanical Recording Group, are answerable for opinions which contributors may express in their articles; each author is alone responsible for the contents and substance of their work.

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