



**KENT BOTANICAL RECORDING
GROUP NEWSLETTER No. 8
October 2015**

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Front cover: *Ajuga reptans*. Photo by Lliam Rooney, 27 April 2015.

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Sunday 12 April 2015: Shellness, Isle of Sheppey

The first KBRG Field Meeting of 2015, with Sue Buckingham and Owen Leyshon, was set up with the aim of recording spring annuals and of having a look for possible *Mibora minima* (Early Sand-grass) which is recorded in sand dunes as close as Northern France. Due to its size and early flowering, it might have been overlooked in the county at coastal sites in the past, so hence the meeting.

Everyone met along the sea wall at Leysdown-on-sea and the group of 15 of us walked off south heading the two miles down to Shellness. Progress was steady along the sea wall with emphasis on getting to grips with *Cerastium* species (Mouse-ears) in particular. *Honckenya peploides* (Sea Sandwort), *Glaucium flavum* (Yellow Horned-poppy), *Euphorbia paralias* (Sea Spurge) and *Crambe maritima* (Sea-kale) were recorded along the sea wall and high tideline towards Shellness.

Big patches of *Allium vineale* (Crow Garlic) and dominant *Smyrniolum olusatrum* (Alexanders) stretched along the grassy sea wall, while *Poa infirma* (Early Meadow Grass) was found behind the tea kiosk next to the concrete steps. A quick scoop out with a stick (as none of us had brought a grapnel) of the brackish ditch behind the sea wall produced *Potamogeton pectinatus* (Fennel Pondweed) and a clump of *Ranunculus* (Crowfoot species) which was not flowering and was taken away for its bucket cultivation challenge and hopefully ID.

After we passed the first set of houses, the dunes opened up and here and along the shingle embankment, effort was made to look for a number of spring annuals; but it was noticeable that we struggled to find any *Myosotis* species (Forget-me-not) and it was really too early for *Trifolium* (Clovers). However, *Veronica arvensis* (Wall Speedwell), *Erodium cicutarium* (Common Stork's-bill) and widespread *Erophila verna* (Common Whitlowgrass) were recorded.

Is Botany classed as general recreation?
Photo by Owen Leyshon.



The Nudist Zone was skirted around and at the entrance to the Shellness Estate we diverted out to the beach and had lunch sheltered on the High Water Mark from the now very strong westerly wind in bright sunshine. We then walked around the Estate which adjoins the saltmarsh, recording *Cochlearia anglica* (English Scurvygrass), *Artemisia maritima* (Sea Wormwood) and

Inula crithmoides (Golden Samphire). Then a more concerted look was made along the main sandy path to the pillbox for *Mibora*, which drew a blank, but produced other finds such as *Silene uniflora* (Sea Campion), *Cynoglossum officinale* (Hound's-tongue), *Poa bulbosa* (Bulbous Meadow-grass) and *Phleum arenarium* (Sand Cat's-tail). A Short eared Owl was disturbed from the long grass and Marsh Harrier and Common Buzzard were noted hunting out on the saltmarsh, with the odd Swallow passing through as well.

Just south of the Pillbox (which, by the way, had a wonderful male Hen Harrier painted on it), we all took in the large solitary bush of *Suaeda vera* (Shrubby Sea-blite) and we tried to work out whether the rooting sprigs adjacent were part of the same bush or new plants. A decision was then made to return to the Estate and then walk back along the sandy tideline, which is always a challenge if it is through the Nudist Beach. Further plants of *Eryngium maritimum* (Sea-holly) were recorded and a somewhat brisk walk back got us back to the cars by mid afternoon. Luke-warm tea and coffee (due to a faulty urn), but delicious cake were supplied and eaten on the sea wall to finish off the day.

In summary, no *Mibora* was found during the day, but a total of 10 Kent Rare Plant Register species was recorded, with a number of spring annuals as well in several monads.

O.L.

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Sunday 17 May 2015: Tunbridge Wells

Twenty botanists, coming from as far afield as Hove and London, gathered at Tunbridge Wells for our annual joint Kent/Sussex recording meeting, which was led by Helen Proctor (Sussex Botanical Recording Society) and Geoffrey Kitchener (KBRG). The route covered roughly equal proportions of territory on either side of the vice county boundary which, close in to Tunbridge Wells, was not coincident with the local authority county boundary, but instead followed the River Grom towards Groombridge. It was also paralleled by the Spa Valley Railway, so the walk was frequently punctuated by the passage of steam trains packed with waving passengers.



Yew rooting into gulls, plus those botanists who had not got lost.

We spent the morning in Friezland Wood, in botanical East Sussex, which is largely owned by the Woodland Trust. At the outset, Helen showed us some patches of *Symphytum tuberosum* (Tuberous Comfrey) in the woodland behind a housing estate; some further influence from the estate was shown by an odd plant of *Aucuba japonica* (Spotted-laurel). We then walked through the woodland, with its spring flora of *Hyacinthoides non-scripta* (Bluebell) and *Allium ursinum* (Ramsons), to the River Grom and botanised along its banks. For the Kent contingent, this had the advantage of a better view of the sides of the far bank

(vc16) than could be obtained of the Sussex bank along which we were walking, although Stephen Lemon also assisted us by walking along the river bed. In this habitat, we recorded Kent plants of *Geranium phaeum* (Dusky Crane's-bill), *Meconopsis cambrica* (Welsh Poppy) and *Tellima grandiflora* (Fringecups), all surprising given that the terrain in general appeared quite 'natural' woodland, but presumably these introductions were established from material washed down the river (albeit that it is largely in tunnel in Tunbridge Wells itself). We also found two Scaly Male-fern species, *Dryopteris borreri* on the Kent bank and *Dryopteris affinis* sensu stricto later on in Sussex. A scramble brought us to a short section of river bank where *Cardamine*

amara (Large Bitter-cress) was flowering on both sides, demonstrating its purple anthers; it also turned up in marshland on the Kent side in the afternoon.

For lunch, we stopped under the spectacular sandstone outcrops approaching High Rocks, where large Yew trees, *Taxus baccata*, appeared to be growing on the bare rock, with massive roots flowing over the rock and into the vertical gulls or clefts which are of national geomorphological significance. Unfortunately, we became detached from five of our party who did not spot the move to lunch and so spent the rest of lunchtime looking for us, eventually with success. Our afternoon route took us across the railway to High Rocks Lane, where both *Carex spicata* (Spiked Sedge) and *Carex divulsa* subsp. *divulsa* (Grey Sedge) lined the road. Crossing the Grom, we came into botanical Kent. High Rocks Lane is known for the presence of *Cardamine bulbifera* (Coralroot), a plant of Kent/Sussex borders which we have encountered before on our joint county meetings, and we examined the site, which is a Kent Wildlife Trust roadside nature reserve. We counted some 400 spikes, largely over flowering, but carrying the blackish bulbils by which the plant spreads: we saw no fertile seed capsules. Apart from this main population, we also found two further distinct colonies, respectively with c.50 and over 100 spikes.

Continuing along High Rocks Lane, we found *Ribes nigrum* (Black Currant) and a diminutive specimen of *Alchemilla mollis* (Garden Lady's-mantle); also an apparently self-sown *Prunus cerasifera* var. *pissardii* (Cherry Plum) in which the red colouration was somewhat muted. Near the junction with Cabbage Stalk Lane, a bush of *Crataegus x media* obligingly showed not only a range of intermediate shaped leaves to demonstrate hybridity, but also flowers with styles varying from one (cf. *C. monogyna*, Hawthorn) to two (*C. laevigata*, Midland Hawthorn). Where the lane terminates at Tunbridge Wells Common, we reached another *Cardamine bulbifera* (Coralroot) colony, but this was largely hidden by grass and had been counted recently, so we did not attempt a re-count. We returned via a footpath between the railway and Summervale Road, in Sussex, where *Rumex x pratensis* (the hybrid between *R. crispus*, Curled Dock, and *R. obtusifolius*, Broad-leaved Dock) was seen. The uncertainties of recorded (as planted) planted tree specimens was brought home by a large *Aesculus carnea* (Red Horse-chestnut), which had clearly been grafted onto *Aesculus hippocastanum* (Horse-chestnut), whose leaves were sprouting from the graft junction.

Tea, cakes and scones were kindly provided by Sarah Kitchener, who also acted as Kent scribe during the meeting.

G.K.

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Saturday 6 June 2015: Farningham Wood

Fifteen KGRG members (and a dog) gathered at the north eastern edge of Farningham Wood in Calfstock Lane car park, near Swanley, for the purpose of acquiring more general records for this large SSSI woodland with its remarkably mixed geology; its soils deriving from chalk, sand and gravels.

Led by Rodney Burton we began our exploration on the high ground, recording acid lovers such as *Calluna vulgaris* (Heather), *Deschampsia flexuosa* (Wavy Hair-grass), *Carex pilulifera* (Pill Sedge) and *Danthonia decumbens* (Heath Grass). It seems that the latter may not be recorded before from this wood. A sunken track led us down the hill with fine patches of *Luzula sylvatica* (Great Wood-rush) and *L. forsteri* (Southern Wood-rush) on its banks and patches of *Convallaria majalis* (Lily-of-the-valley) under the coppice lower down. A patch of Asparagus seedlings by the path was a surprise and we were to find a second later in the day.

The path winds down to the old Button Street car park which was closed some years ago due to various unsociable activities. Here the party split for a short while with one small group searching for *Scleranthus annuus* (Annual Knawel) which was last recorded from a sandy bank above the car park in 2011, whilst the remainder botanised the margins of cultivated fields and grassy banks below. *Scleranthus* could not be found under the growth of bramble but *Ornithopus perpusillus* (Bird's-foot) and *Aphanes australis* (Slender Parsley-piert) were located; the larger group recorded a good list of arable weeds on the light soil including *Thlaspi arvense* (Field Penny-cress) and *Papaver rhoeas* (Common Poppy). A low pile of logs provided an ideal place to have lunch.

Polygonatum multiflorum (Solomon's-seal) was doing really well along the western edge of the wood under coppice, along with *Daphne laureola* (Spurge-laurel), *Ruscus aculeatus* (Butcher's-broom), and *Sanicula europaea* (Sanicle), but a search for *Sedum telephium* (Orpine) which has been known here in fairly recent years was unsuccessful.

The party split once more along the southern edge in order to make the most of our recording capacity with those on the outside of the wood intent on recording and counting *Dianthus armeria* (Deptford Pink) plants and the remainder just inside hoping to add to the list of woodland species. The *Dianthus* was just beginning to flower and when we met up again the pink-counters had a total of approximately 1,500 plants. They had also discovered a patch of *Artemisia verlotiorum* (Chinese Mugwort) and beside it a second patch with a distinct difference. On investigation Rodney was unable to match either with the hybrid *A. x wurzellii* but proposed to return later in the year to investigate further with better specimens. Those just inside the wood recorded *Tilia cordata* (Small-leaved Lime) and a large quantity of *Conopodium majus* (Pignut).

The image shows a screenshot of the BBC News website. At the top, there is a navigation bar with the BBC logo, a 'Sign in' button, and links for News, Sport, Weather, iPlayer, and TV. Below this is a large red banner with the word 'NEWS' in white. Underneath the banner is a secondary navigation bar with links for Home, UK, World, Business, Politics, Tech, Science, Health, Education, and Entertainment. Below that, there is a sub-navigation bar with 'England' and 'Regions'. The main headline of the article is 'Outbreak of Asian wasps found in Kent sweet chestnuts'.



A gradual climb took us back up through some recently worked coppice to the more acidic upper plateau. On the way we discovered an isolated patch of *Dianthus armeria* amidst colourful patches of rare plant register (RPR) species, *Veronica officinalis* (Heath Speedwell) and *Potentilla erecta* (Tormentil), with *Hypericum humifusum* (Trailing St John's-wort) and *Lysimachia nemorum* (Wood Pimpernel). *Carex pallescens* (Pale Sedge) was a good find to finish with, in the damp ruts of a coppice track. As well as recording nine RPR species we added a remarkable 400 general records, a very worthwhile day.

Dryocosmus kuriphilus gall. Photo by Daphne Mills

During the course of this meeting, some members of the party discovered a gall on *Castanea sativa* (Sweet Chestnut) which when identified was found to be caused by the Oriental Sweet Chestnut Wasp *Dryocosmus kuriphilus*, which is a notifiable pest species. The Animal and Plant Health Authority collected the specimen for confirmation, and once it was confirmed the Forestry Commission were informed and the infected trees felled and burnt to try to halt the spread of the wasp. It is the first record in Britain of this species, but not one to be celebrated. It made the national news! (See <http://www.bbc.co.uk/news/uk-england-33267528>)

S.B.

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Saturday 13 June 2015: Old Swan Farm, Lamberhurst Quarter

At this meeting we were joined by Kent Field Club members, and fifteen of us set off on a relatively cold day which subsequently brightened and warmed up. The area to be covered was not extensive, as we concentrated on five or six fields lying in two monads (TQ6438 and TQ6538), just edging into another (TQ6439). The botanical quality of the habitat was excellent: the sort of largely unimproved neutral and slightly acid grassland which has been lost in so much of the county, each field containing some classic old meadow species, but in different combinations.

Stephen Lemon guided us by the farmstead, past a young Common Toad and some *Ophrys apifera* (Bee Orchid), down a slope where a change in declivity and some wet flushing indicated a likely change in geology, probably where the Tunbridge Wells Sand Formation meets Wadhurst Clay. We began here with *Carex laevigata* (Smooth-stalked Sedge) and *C. leporina* (Oval Sedge) and then both *C. demissa* (Common Yellow-sedge) and *C. caryophyllea* (Spring-sedge) where the ground was more open and eroded. We were subsequently to see this last sedge in several locations, a change for those accustomed to seeing it on the Kent chalk downland. Having explored the slope and a pond margin below, we worked up towards the spring line again, where Stephen showed us several plants of the rare plant register species *C. echinata* (Star Sedge). These were threatened to be shaded out by the growth of *Alnus glutinosa* (Alder) in the damp conditions, but some openness had been preserved by cutting back vegetation due to the presence of power lines overhead.



Briza media (Quaking-grass) habitat. Photo by Geoffrey Kitchener.

We then moved into a second grassy field, where *Danthonia decumbens* (Heath-grass) and *Briza media* (Quaking-grass) were growing. It was a pleasure to see the latter away from the chalk in Wealden non-calcareous grassland, a habitat which would appear to have declined rapidly in recent years, judging by the number of Wealden *Briza media* records in the *Atlas of the Kent Flora* (1982) and their virtual absence from the *New Atlas of the Kent Flora* (2010). The lower part of the field descended to woodland with a small stream, where the wide leaves of *Carex strigosa* (Thin-spiked Wood-sedge) were apparent amongst the more common *Carex sylvatica* (Wood-sedge).

We lunched on rising ground in a third field, west of the stream valley, with more *Briza media* present. Exploration of this field yielded *Potentilla anglica* (Trailing Tormentil) and its hybrid with *P. reptans* (Creeping Cinquefoil), *P. x mixta*. Into a fourth field, we were soon confronted with *Genista tinctoria* (Dyer's Greenweed), just coming into flower and present in two well separated colonies in different monads at opposite ends of the fields. Not in flower, and very difficult to spot in leaf only, was *Achillea ptarmica* (Sneezewort) nearby. Similarly, the presence of *Viola canina* (Heath Dog-violet), unsuspected here until this year, was not easy to detect whilst non-flowering. Our ability to cover the entire field was curtailed by the need to keep a respectful distance from an apparently newborn fawn which Stephen chanced upon. This lay still and well hidden in the grass. We did not

see the mother, which could have been well distant, feeding up to replenish her milk. From the lack of woodland understorey and an evident browse line in some places, it is evident that deer have an effect on the vegetation of the farm.



Flora and fawn-a. Photo by Geoffrey Kitchener.

Our transition to a fifth field resulted in the detachment of some of our party, who eventually caught up with where we had been looking at a small colony of *Carex pallescens* (Pale Sedge). Nearby was the hybrid between *Salix caprea* (Goat Willow) and *S. cinerea* (Grey Willow), *S. x reichardtii*, showing appropriately intermediate characters. A brief foray by some of us into a sixth field confirmed the presence of *Betonica officinalis* (Betony), and there were a few rosette of *Orchis mascula* (Early-purple Orchid) in the adjoining woodland. Also in this vicinity, Daphne Mills located a Truffle Gall attached to a main root of mature *Quercus robur* (Pedunculate Oak), indeed resembling a truffle and containing many cells with developing grubs of the gall wasp *Andricus quercusradicis*. The landowner had joined us in the latter stages of this exploration and now offered a lift back to the starting point in his land rover to those who were most weary (or in the case of Maggs, the dog, those who had the shortest legs). Sarah Kitchener kindly provided refreshments to finish the day (and also acted as scribe throughout for the records). We are most grateful to the landowner, Paul Stewart, for giving permission and encouragement to survey his farm.

Carex spp. habitat. Photo by Sue Buckingham.



G.K.

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Thursday 18 June 2015: Boxley Warren

A total of 12 KBRG members met with the leader Sue Buckingham near the railway line on the lower slopes looking up onto Boxley Warren Local Nature Reserve. At the parked cars, a patch of *Pimpinella major* (Greater Burnet Saxifrage) on the opposite chalky bank was popular with attendees and then the stroll took us up past some dwellings and farm buildings where some white *Geranium pyrenaicum* (Hedgerow Crane's-bill) plants were noted on a wall, with *Galium cruciata* (Crosswort) and several specimens of *Silybum marianum* (Milk Thistle) against a barn.

On the shaded hedgerow path as we continued to walk upwards to the Warren, *Sinapis alba* (White Mustard) was seen as well as *Rhamnus cathartica* (Buckthorn) before appearing on the Pilgrim's Way below Boxley Warren. The ensuing walk along the Pilgrim's Way was rewarding with good patches of *Astragalus glycyphyllos* (Wild Liquorice) in the hedgerow banks.

Upon entering Boxley Warren itself, we were given a short introduction by the volunteer warden, John Bengier, on the past history of the site and we then quickly spread out, ignoring the reseeded lower slopes, and headed for the relic patches of chalk grassland and rabbit-disturbed banks on the higher slopes, where large scale scrub work has been carried out over the previous winters.

A reasonable assortment of plants was quickly found including *Helianthemum nummularium* (Common Rock-rose), *Cynoglossum officinale* (Hound's-tongue), *Geranium columbinum* (Long-Stalked Crane's-bill), *Polygala calcarea* (Chalk Milkwort), *Carlina vulgaris* (Carlina Thistle), *Carex caryophyllea* (Spring Sedge), with plenty of *Asperula cynanchica* (Squinancywort) and *Cirsium acaule* (Dwarf Thistle). On the disturbed chalky steep slopes *Ajuga chamaepitys* (Ground Pine) was soon discovered and a

number of plants were found scattered across the first compartment, which was encouraging. *Filipendula vulgaris* (Dropwort) in flower was also seen and along the scrub border *Helleborus foetidus* (Stinking Hellebore) and *Daphne laureola* (Spurge Laurel) were noted. Lunch was taken with views across Maidstone.



Extract from meeting notification: "We will need to walk about three quarters of a mile uphill from our parking place to reach the Warren where we will explore the chalk slopes which are both very steep and uneven in places...". Photo by David Steere.

After lunch we spread out again and continued to make our way westwards and soon afterwards stumbled across a marvellous clump of flowering *Marrubium vulgare* (White Horehound), which excited most of the group. This was for many the highlight of the day; and with all the extensive scrub works on the steep chalk bank, the seed being long-lived and a history (prior to the last 40 years or so) of the plant

at Boxley dating back a long time, this probably makes the record one of the better candidates for *Marrubium* being native in Kent.

Marrubium vulgare (White Horehound). Photo by Owen Leyshon.

We dropped down into the dense *Taxus baccata* (Yew) woodland and after negotiating the gate and low fencing, we moved into another chalk grassland compartment which had some sheep grazing. *Centaureum pulchellum* (Lesser Centaury) was found, as was *Dactylorhiza fuchsii* (Common Spotted Orchid), some rosettes of *Gentianella amarella* (Autumn Gentian), a fine cluster of ten *Ophrys apifera* (Bee Orchids), *Briza media* (Quaking Grass) and *Trisetum flavescens* (Yellow Oat-grass), before we dropped back onto the Pilgrims Way and down the shaded path to the cars.



End of day refreshments were provided with a large urn of hot water for tea and coffee in mugs plus high quality biscuits.

Ten rare plant register species in total were noted through the day (not including the White Horehound!).
O.L.

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Friday 26 June 2015: Cliffe Pools (Grasses Day)

Fourteen people attended this meeting, led by Mervyn Brown and Sue Buckingham, which was primarily to learn about and record grasses. The weather was hot and sunny and we were so occupied by various common species, that it took us almost an hour to leave the RSPB car park! Mervyn patiently explained the structure of *Agrostis* and began by helping us to familiarise ourselves with *Agrostis stolonifera* (Creeping Bent). Common species such as *Holcus lanatus* (Yorkshire-fog), *Arrhenatherum elatius* (False Oat-grass), *Cynosurus cristatus* (Crested Dog's-tail) and *Poa trivialis* (Rough Meadow-grass) were all carefully examined.

We spent some time looking at a *Bromus* whose pedicels appeared to be too long for *Bromus hordeaceus* (Soft-brome). The anthers were small and Mervyn named it *B. commutatus* (Meadow Brome). *Bromus racemosus* (Smooth Brome) which has smaller spikelets but longer anthers was recorded a little later. Both are listed as separate species by Clive Stace in his *New Flora*

of the British Isles (2010). However, in Cope and Gray's *Grasses of the British Isles* (2009), *B. commutatus* is included in *B. racemosus*. The justification for combining them is because it is possible for the two extremes to grow together in a population along with every possible shade of intermediate and in such cases only a few plants can be assigned with certainty to one species or the other. We found the two extremes today and chose to name them according to Stace.



Some very tiny plants of rare plant register (RPR) species, *Polypogon monspeliensis* (Annual Beard Grass), just 3 or 4 cm tall were growing on the very dry bare path and just as we left the car park three non-grass RPR plants, *Chenopodium glaucum* (Oak-leaved Goosefoot), *Cynoglossum officinale* (Hound's-tongue) and *Carex divisa* (Divided Sedge), were spotted.

Botanici lineares. Photo by Lliam Rooney.

The warm wind had some of us sneezing uncontrollably with pollen from the flowering grasses on the sea wall. *Phleum bertolonii* (Smaller Cat's-tail), *Hordeum secalinum*, (Meadow Barley) and *Trisetum flavescens* (Yellow Oat-grass) were all in full flower and Mervyn explained their differences. *Elytrigia repens* (Common Couch), *E. atherica* (Sea Couch) along with their hybrid *Elytrigia x drucei* were identified by Mervyn. *Elytrigia x drucei* has leaf ribs and sheath-margin hairiness intermediate between its parents. It is sterile with indehiscent anthers and empty pollen. *Carex otrubae* (False Fox-sedge) and *C. spicata* (Spiked Sedge) were also present. The party then became a little

strung out until Lliam discovered a patch of *Chenopodium vulvaria* (Stinking Goosefoot) which got us all back together again to admire it and its remarkably powerful fishy smell.

The next discovery was non-botanical but it surprised us all - a number of jelly-fish swimming by the shore in one of the large pools!

Chenopodium vulvaria (Stinking Goosefoot) responds to botanists' feet. Photo by Sue Buckingham.

We had lunch on the sea wall prior to a short detour to examine the contents of a nearby brackish dyke and to admire flowering *Potamogeton pectinatus* (Fennel Pondweed), *Zannichellia palustris* (Horned Pondweed) and *Ruppia maritima* (Beaked Tassel-weed), whose flowers were visible in their sheathing buds. A small amount of *Puccinella* was spotted by a saline pool, with its lemmas measuring more than 3 mm and stolons present, Mervyn identified it as *P. maritima* (Common Saltmarsh-grass). *Spartina anglica* (Common Cord-grass), *Triglochin maritima* (Sea Arrowgrass) and *Aster tripolium* (Sea Aster) were close by.



An interesting alien shrub of *Sorbaria* had established itself on a dry open area. It had some flower buds and a sprig was collected for possible identification at a later date¹. Several large shrubs of *Philadelphus* were flowering beautifully along the pathside on our return to the cars and were identified as *P. x virginialis* from the books we had with us. On checking with Stace (Third Edition), a better name is probably *Philadelphus 'Lemoinei Group'* (Hairy Mock-Orange). The day finished back at the car park with customary tea and cake.

S.B.

¹ Once it had developed flowers and follicles, the *Sorbaria* keyed out to *S. tomentosa* (Himalayan Sorbaria).

JULY 2015						
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Wednesday 8 July 2015: Great Watersend Farm, Temple Ewell

This meeting at a working farm near Temple Ewell was a late addition to the programme. It was attended by thirteen members and friends and we met up at the farm house, beginning the session with a brief introduction from Dan Tuson, Natural England Stewardship Advisor. Dan explained the value of recording sessions such as ours for the farms that he works with. Through our conducting surveys and providing species lists, farmers get to see that what they do is paying off and that wild plants, insects, birds, etc. are benefiting. This is the second such KBRG farm meeting.

Great Watersend is on the south side of the Dour Valley and opposite Lydden Temple Ewell National Nature Reserve. It's a large stock farm on the chalk with two valleys, some particularly good chalk banks and a large arable field currently with a cereal crop for silage to feed the cattle. The broad margins are unsprayed and thinly sown with oats. The views along the valleys were magnificent.

We began by recording from the arable field, first both *Chenopodium rubrum* (Red Goosefoot) and *Chenopodium ficifolium* (Fig-leaved Goosefoot), then a number of common arable weeds; and as we progressed up the slope where the soils were much thinner, the weed flora became more interesting with two rare plant register (RPR) species, namely a huge population of *Anthemis cotula* (Stinking Chamomile) and some *Mentha arvensis* (Corn Mint). *Fumaria densiflora* (Dense-flowered Fumitory) was also abundant along the margin, though the flowers were mostly gone over, and we found a few plants of *Kickxia elatine* (Sharp-leaved Fluellen) and *K. spuria* (Round-leaved Fluellen). In the very top corner a single plant of (apparently) *Valerianella dentata* (Narrow-fruited Cornsalad) was spotted. However without fruits we were unable to record it. Where the arable finished, there was a good chalk flora with *Knautia arvensis* (Field Scabious), *Dactylorhiza fuchsii* (Common Spotted-orchid), *Anacamptis pyramidalis* (Pyramidal Orchid), *Galium verum* (Lady's Bedstraw) and *Origanum vulgare* (Wild Marjoram), with *Arctium nemorosum* (Wood Burdock) at a woodland edge.

We had our lunch near the farmhouse and then explored the rest of the farm. A single white-flowered plant of *Verbascum nigrum* (Dark Mullein) was growing by the railway line in an adjacent field, well away from any cultivation, and had a good claim to being wild.

We set out for a very fine chalk slope known as Adder Bank on the north side of the farm, and kept lightly grazed by the farm's herd of cattle. On the way a few tufts of *Carex spicata* (Spike Sedge) were growing on a bank by the track and just here we experienced a heavy rain shower.

Recording in progress.
Photo by Sue Poyser

On the chalk bank the following RPR species were recorded: *Helianthemum nummularium* (Common Rock-rose), *Carlina vulgaris* (Carlina Thistle), *Briza media* (Quaking grass), *Plantago media* (Hoary Plantain), *Succisa pratensis* (Devil's-bit Scabious) and *Veronica officinalis* (Heath Speedwell), giving us a total of nine for the day. As far as general records were concerned, we added a total of 130 species to two monads. As far as the farmer was concerned, Dan Tuson passed on to him our records of 198 plants, a number of birds, butterflies and other insects.



The day finished with tea and ginger bread men biscuits.
S.B.

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Sunday 12 July 2015: Angley Wood

A forecast for rain today may have put some off joining the small group of ten KBRG members who met in a residential road alongside the A229 close to the entrance to Angley Wood, Cranbrook. Led by Stephen Lemon and Sue Buckingham, the meeting was planned in order to add to the list of general records for this ancient woodland site and particularly to find some of the 14 species of sedge and 19 species of fern which have been recorded there. *Thelypteris palustris* (Marsh Fen) was once known from Angley Wood but there are no recent records; the last seems to be from 1957.

Angley Wood, privately owned but managed by the Woodland Trust, in the High Weald of Kent is a large site on soils largely derived from Tunbridge Wells Sand and Weald Clay. Gills in the south of the wood run north-eastwards into a series of boggy flushes where *Thelypteris* was known. The ground ranges from very acidic, both dry and wet, to more calcareous and therefore there is a very varied woodland flora.

We soon spotted *Potentilla erecta* (Tormentil), *Veronica officinalis* (Heath Speedwell), *Mentha arvensis* (Corn Mint), *Ranunculus flammula* (Lesser Spearwort), *Succisa pratensis* (Devil's-bit Scabious), *Calluna vulgaris* (Heather) and *Erica cinerea* (Bell Heather) for the rare plant register (RPR). Some other interesting plants were *Frangula alnus* (Alder-buckthorn), *Stellaria alsine* (Bog Stitchwort) and both subsp *multiflora* and subsp *congesta* of *Luzula multiflora* (Heath Wood-rush) with *Danthonia decumbens* (Heath-grass).

A sprig of likely *Quercus x rosacea*, the hybrid between Pedunculate and Sessile Oaks, was collected for closer examination at home and later confirmed as such; and Brian Woodhams spotted *Betula x aurita*, the Downy Birch/Silver Birch hybrid, with all four parents of these two crosses seen during the day. We initially admired *Gaultheria shallon* flowering on a dry bank but were soon to witness the invasive spread of this North American alien. It was originally introduced as cover and food for pheasants and apparently was first recorded growing in the wild in Britain in Surrey by Ted Lousley in 1914.

Alder swamp with ferns and sedges.
Photo by Sue Buckingham.



We reached a boggy flush with tussocks of *Carex paniculata* (Great Tussock-sedge), abundant *C. laevigata* (Green-ribbed Sedge) and (for the RPR) *C. vesicaria* (Bladder Sedge). *Potamogeton polygonifolius* (Bog Pondweed) was frequent in the peaty stream alongside both *Scutellaria minor* (Lesser Skullcap) and *S. galericulata* (Skullcap), but in spite of a thorough search we failed to find Marsh Fern. However, Stephen Lemon found some *Carex acuta* (Slender Tufted-sedge)² although without flower or fruit and we also came across a single plant of RPR species, *Carex echinata* (Star Sedge). Brian confirmed *Viola x bavarica*, the hybrid between Early Dog-violet and Common Dog-violet. The fruit contained transparent, empty seeds.

After lunch it began to drizzle a little and we headed off in a southerly direction to another boggy flush where a strangely depauperate fern was found on a mat of Sphagnum. Having taken a closer look at home at the specimen (which had no spores) and considering its pale scales without a central dark line and its position on a bed of Sphagnum, it would appear most likely to be *Dryopteris carthusiana* (Narrow-Buckler Fern). A large colony of *Dryopteris aemula* (Hay-scented Buckler Fern) was recorded

² *Carex acuta* was not included on the list for the day but its identity was confirmed later by Stephen.

in March 2013 in a nearby gill and the party finished the day by successfully re-finding it. Interestingly, it was more difficult to find during the summer months amidst all the other woodland ferns.

During the course of the day, we found a total of 13 *Carex* species (from the 14 recorded), including *Carex binervis* (Green-ribbed Sedge), *C. demissa* (Common Yellow-sedge), *C. pilulifera* (Pill Sedge) and *C. pallescens* (Pale Sedge), six fern species and we added a good number of general records. The threatened rain hardly came to anything and we benefited from the shelter of this lovely old wood.

S.B.

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Thursday 16 July 2015: The Dowels

The day was fair with a moderate wind blowing across the Dowels. Owen Leyshon and Lliam Rooney were to lead this meeting and were joined by eleven other botanists who had travelled here to survey, primarily the ditches, within a small area of sheep grazed pasture between the Royal Military Canal and the Ashford to Brighton railway line just east of Appledore. This particular area of the Dowels is a Site of Special Scientific Interest (SSSI) and is farmed by Mr Body who had given us special permission to survey his land, which otherwise is private.

Once we were all assembled and briefed we headed off in a north easterly direction towards the Blackman's Arm, which may sound like we were heading off to the local pub; it is in fact the name of the first dyke we were going to survey.

We were barely away from our parked cars when we began unravelling grapnels in an attempt to fish out the first pondweeds of the day. The first to be untangled from the prongs and examined was the not so common *Potamogeton trichoides* (Hairlike Pondweed) which diagnostically has a prominent thickened midrib on the underside of the leaf which itself has a gradually tapered tip and obscure veins. Other pondweeds we quickly came across were *Potamogeton lucens* (Shining Pondweed) which could be easily determined from the bank, as could *Potamogeton natans* (Broad-leaved Pondweed).

Further along we fished out another grass-leaved pondweed which, due to its obvious marginal veins on a very narrow leaf-blade with an acute tip, showed promise for being the notoriously difficult and certainly under recorded *Potamogeton pusillus* (Lesser Pondweed). This particular pondweed needs to have the stipules dissected transversely to ascertain whether they are

whole or open; a determination made more difficult by the stipules splitting with age. In this case however, it was possible to determine the former rather than the latter and so it was the Rare Plant Register (RPR) pondweed we were hoping for and in good supply within the ditch.

A potential supplement for our grapnels at the Dowels.
Photo by Owen Leyshon.



Other RPR plants soon encountered were *Sium latifolium* (Greater Water-parsnip) flowering by the ditch side, *Wolffia arrhiza* (Rootless Duckweed) showing budding propagules rather than flowers and always a pleasure to see, *Hottonia palustris* (Water-violet) which has now been added to our Rare Plant

Register. Another pondweed we were hoping to see due to it being known from the Dowels was *Potamogeton acutifolius* (Sharp-leaved Pondweed) and it wasn't long before we were rewarded with a patch in good quantity and fruiting well. Some non-RPR plants worthy of note were *Alisma lanceolatum* (Narrow-leaved Water-plantain), *Sagittaria sagittifolia* (Arrowhead), *Scutellaria galericulata* (Skullcap) and *Ranunculus circinatus* (Fan-leaved Water-crowfoot).

By now we had already swung round westward and were starting to head in a more southerly direction. The ditches here didn't disappoint and we were again finding *Potamogeton acutifolius* (Sharp-leaved Pondweed) and *Wolffia arrhiza* (Rootless Duckweed), but to add to our list we also had *Myriophyllum verticillatum* (Whorled Water-milfoil) which can be distinguished

from the rest of the genus when in its vegetative state by the formation of clavate turions which it uses for perennation. With this we also had more *Hottonia palustris* (Water-violet) and our first sighting of *Utricularia australis* (Bladderwort) which, whilst not in flower here, was in flower further along.

One plant we were hoping to find was *Eleogiton fluitans* (Floating Club-rush) which had been recorded here in a ditch in the early 1980s. Despite our best efforts and determination and despite it being once frequent in this locale, we couldn't find it and so in Kent it remains now still confined to one pond within the Bedgebury National Pinetum.

Now back in the monad we started in, we began to head towards the B2080 which along with the Engine Sewer formed the southern boundary. On the way there, Joyce Pitt had pointed out to us how the leaves of *Butomus umbellatus* (Flowering-rush) were distinctly twisted, making it easy to identify any non-flowering plants and appreciate the numbers present in the local population. Other RPR plants to be found were *Hydrocharis morsus-ranae* (Frogbit) which was pretty much frequent throughout, *Nymphoides peltata* (Fringed Water-lily) expectedly abundant, especially in the Engine Sewer, *Oenanthe fistulosa* (Tubular Water-dropwort) making some photogenic clumps, more *Wolffia arrhiza* (Rootless Duckweed) and some unexpected *Triglochin palustris* (Marsh Arrowgrass) growing on the north bank of the Sewer. With its ligule-like outgrowth prominent from the apical part of the leaf-sheath it was easy to identify *Potamogeton pectinatus* (Fennel Pondweed). Whilst a very common grass-leaved pondweed and almost expected to be encountered, it did conclude our list of pondweeds for the day, making it a list of six species.

With grapnels put away and some final plants recorded for the monad we had time to enjoy some tea and cake for our efforts and not before long, as an approaching thunderstorm crept towards us.

L.R.

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Wednesday 22 July 2015: Stodmarsh National Nature Reserve

Twelve members attended this meeting which was planned to visit a part of the reserve which is normally closed to the public. We were very kindly given permission by Natural England to access the site which is on part of the spoil heap from the old Stodmarsh colliery. Some remarkable species were recorded there last year including *Bupleurum tenuissimum* (Slender Hare's-ear), *Filago vulgaris* (Common Cudweed) and *Dactylorhiza x grandis* (the hybrid between Southern Marsh and Common Spotted-orchid). The day was led by Alex Lockton, Sue Buckingham and Alfie Gay. Alex had recently completed a checklist of the vascular plants of Stodmarsh, viewable online at our BSBI-hosted Kent web-page.

As we set off from the car park, Alex pointed out *Ulmus minor* (Small-leaved Elm) in the hedge line. The upper surface of its leaves was quite smooth unlike the rough leaves of *Ulmus procera* (English Elm), which was seen later. A great heap of soil and rubble at a field corner aroused interest with the usual weeds but including flowering *Solanum tuberosum* (Potato) and an unusual *Chenopodium* (Goosefoot) which was taken with a hope it might be determinable at a later stage.

Vulpia myurus (Rat's-tail Fescue) was seen in profusion along an arable margin with an RPR species, *Bromus secalinus* (Rye Brome), nearby; and here Alex pointed out *Lolium x bouchianum*, the hybrid between the perennial *Lolium perenne* (Perennial Rye-grass) and the annual *Lolium multiflorum* (Italian Rye-grass). The hybrid was shortly awned and was producing tillers which you would not expect to see on an annual.

Lysimachia vulgaris (Yellow Loosestrife), *Lythrum salicaria* (Purple Loose-strife), *Rorippa palustris* (Marsh Yellow-cress) and *Persicaria lapathifolia* (Pale Persicaria) and *P. amphibia* (Amphibious bistort) were seen alongside a ditch just before the gate into the private part of the reserve. *Valeriana officinalis* (Common Valerian), *Galium palustre* (Marsh Bedstraw), *Rumex hydrolapathum* (Water Dock), *Phalaris arundinacea* (Reed Canary-grass) were fringing the reed bed a short distance inside the gate, where we began an exploration of the area. Unfortunately it proved to be disappointingly dry with most plants quite shrivelled and burnt after the very long spell of dry weather.

However, two hybrids were identified, *Calystegia x lucana* the hybrid between *C. sepium* (Hedge Bindweed) and *C. silvatica* (Great Bindweed) which had the robust climbing habit of *C. silvatica* and large flowers but with bracts which were only

marginally overlapping each other and exposing the sepals beneath. *Typha angustifolia* (Lesser Bulrush) and *T. latifolia* (Bulrush) were visible in the reed bed below the spoil bank and Geoffrey and Liam took on a successful search for the hybrid *Typha x glauca*, whilst the rest of us enjoyed excellent views of Bearded Tits.

After a concentrated search Alfie re-found *Bupleurum tenuissimum* (Slender Hare's-ear) in the ruts of the main track and once shown, everyone was able to find a plant. The plants were however very small as a result of the drought and *Filago* (Cudweed) plants were unrecognisably shrivelled.

Homeward bound.

Thinks: tea & cakes,
tea & cakes...

Photo by Owen Leyshon.



Pyracantha rogersiana (Asian Firethorn) was presumed to be bird sown and also a large patch of *Vitis vinifera* (Grape Vine). Large areas of scrub made up principally of *Pinus sylvestris* (Scots Pine), *Betula pendula* (Silver Birch) and *Crataegus monogyna* (Hawthorn) have developed unaided on parts of the spoil and are developing into woodland, particularly alongside the River Stour. There we found some flowering *Epilobium lanceolatum* (Spear-leaved Willowherb) and fruiting *Dactylorhiza fuchsii* (Common Spotted-orchid). *Urtica dioica* subsp *galeopsifolia* (Stingless Nettle) was bravely identified on the banks of the Stour along with *Potamogeton pectinatus* (Fennel Pondweed), *Sagittaria sagittifolia* (Arrowhead) and a flowering ragwort which looked very like *Senecio*

aquaticus (Marsh Ragwort) on the far bank but which couldn't be positively identified. The site is very close to the known vc 15 monad for it and so it was either the species or a hybrid.

Tea and cake were enjoyed back at the car park.

S.B.

AUGUST 2015						
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Saturday 1 August 2015: Brabourne Lees

We joined members of the British Pteridological Society for an afternoon session, the BPS having spent the morning near Capel le Ferne, hoping to break the all-time world record for the longest *Asplenium scolopendrium* (Hart's-tongue) fern. The results were displayed to us on Brabourne Lees village green, although with ostensible shrinkage between collection and final measurement, it appeared that initial optimism had declined to a view that the record had only been equalled, not surpassed. There were half a dozen members from each society, the numbers no doubt influenced by the need to negotiate the traffic complications resulting from Operation Stack.

There were already quite a few general botanical records for the three monads through which our route led. Accordingly, although we recorded as we went, we added only 49 new records, and concentrated on ferns. Our first encounter was with *Pteridium aquilinum* (Bracken), which demonstrated its invasiveness by pushing up through tarmac. We crossed pasture and followed the public footpath dropping down into a small swampy valley with alder woodland, below the aptly named Bog Farm. This site held many alien plants (see Kent Botany 2014 for its discovery) of somewhat mixed status, some appearing planted, others appearing as though escaped from an adjoining garden by following wet flushes from the valley sides towards the stream at the bottom. The most substantial fern spread was by *Matteuccia struthiopteris* (Ostrich Fern) and *Onoclea sensibilis* (Sensitive Fern). *Osmunda regalis* (Royal Fern) was also present – a native, but appearing planted here with limited spread.

BPS members showed us *Athyrium filix-femina* (Lady-fern), *Dryopteris dilatata* (Broad Buckler-fern) and *Dryopteris carthusiana* (Narrow Buckler-Fern) and explained the differences between them. A candidate for a hybrid between the last two of these was seen and had 20-30% sterile/misshapen spores (as subsequently confirmed by Roger Golding), but this may not be enough to confirm hybridity. Some nearby drier ground held *Dryopteris affinis* (Scaly Male-fern) and some very variable *Dryopteris filix-mas* (Male-fern).



Athyrium filix-femina (Lady-fern) and admirers. Photo by Geoffrey Kitchener.

Before we left the lower ground, we stopped to admire a well-naturalised clump of *Nectaroscordum siculum* (Honey Garlic) – no longer in flower, but with distinctive erect seed capsules, whereas the flowers are pendulous. On the way back, we stopped to look at some large ferns in shade which provoked much discussion. These belonged to the *Dryopteris affinis* complex, but it was pointed out to us

that they shared characters with *Dryopteris borrieri* (Scaly Male-fern), which has been carved out of that complex as a separate species. Nonetheless, they were unusually foliose, without the neatly cut pinnule-ends which would normally be expected; so this debate was of assistance in gaining an understanding of infraspecific variation. Apparently, they had already been checked for infertile spores which might indicate *Dryopteris x critica* (*D. filix-mas* x *borrieri*), but with negative results.

Roger Golding explains the *Dryopteris affinis* complex. Photo by Geoffrey Kitchener.



The meeting concluded with tea, cakes and cheese scones provided by Sarah Kitchener, to whom we are grateful, as also Paul Ripley and Pat Acock for arranging for us to join the pteridologists.

G.K.

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Thursday 6 August 2015: Haxted, Edenbridge



Recruiting strength before setting forth across the Surrey terrain. Photo by Sarah Kitchener.

This was a joint meeting with Surrey Botanical Society, led by Caroline Bateman for Surrey and Geoffrey Kitchener for Kent, arranged in order to explore territory which was marginal to both counties and which was largely lacking any recent records. We gathered in equal numbers, nine botanists per county, at a residential estate on the fringes of Edenbridge and headed for the county border. Rather surprisingly, the usual street weeds were supplemented by *Kickxia elatine* (Sharp-leaved Fluellen).

The first field to be encountered was relatively unimproved grassland, and the sprinkling of docks present gave us records for *Rumex x dufftii* (the hybrid between Broad-leaved and Wood Docks) and *Rumex x pratensis* (the hybrid between Curled and Broad-leaved Docks). We crossed some abandoned golf club land, where some probably planted willows prompted discussion, resumed later in Surrey where there were clearer examples. However, nearer the county boundary, Joyce Pitt found *Salix x reichardtii* (the hybrid between Goat and Grey Willows). The boundary comprised a rather overgrown Kent Brook, but a more accessible habitat was provided by a small lake with a flora which included *Eleocharis palustris* (Common Spike-rush), *Elodea nuttallii* (Nuttall's Waterweed) and, regrettably, *Crassula helmsii* (New Zealand Pigmyweed). A Bulrush with leaves of intermediate width between the usual ranges of *Typha latifolia* and *T. angustifolia* left us puzzled as to whether it could be the hybrid, but subsequent examination showed no other hybrid characters, and it is taken to be *T. latifolia* with somewhat narrow leaves. We took lunch here, with a calling turtle dove nearby.



Left, normal *Fluellen* flowers; right, *peloric* flower.
Photos by Linda Pipkin.

In a Kent report, the Surrey plants would not ordinarily call for much mention, but it was with Kentish help, thanks to Stephen Lemon, that the star discovery of the day was made, *Wolffia arrhiza* (Rootless Duckweed) in a large pond which gave every appearance from a distance of being just a pea-soup of *Lemna minuta* (Least Duckweed). There are no other recent Surrey records, and apparently no historic records for this locality, so this find was greeted with great enthusiasm by the Surrey botanists. Other interesting Surrey plants included *Bromus ramosus* subsp. *benekenii* (= *Bromopsis benekenii*, Lesser Hairy-brome) and *peloric* flowers of *Kickxia spuria* (Round-leaved *Fluellen*) in which the usual snapdragon-like appearance was replaced by a symmetrical star-like shape.

We re-crossed a diminished Kent Brook, on the way back which involved a series of traverses across golf club greens. The golfers were not particularly numerous, however, and the ponds, soil mounds and rough areas provided plenty of interesting sightings, such as the garden escape *Verbena bonariensis* (Argentinian Vervain), *Rapistrum rugosum* (Bastard Cabbage) with its ribbed round fruits, and *Rumex x sagorskii* (the hybrid between Curled and Wood Docks). We were side-tracked by a general wish to sample the delicious fruits of *Rubus armeniacus* (the Himalayan Giant Blackberry), an appetiser to the tea, cakes and scones provided by Sarah Kitchener and awaiting us at the end of the expedition.



Stephen Lemon shows that this is no ordinary Duckweed.
Photo by Geoffrey Kitchener.

We had passed through three Kent tetrads during the day. Two of them had no Kent records for 2010 onwards; the other had eleven. To these, we added a total of 301 records, which have considerably improved our coverage of this corner of the county.

G.K.

AUGUST 2015						
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Sunday 23 August 2015: Swanscombe peninsula

In the face of an adverse weather forecast, fifteen botanists assembled at Manor Way for a meeting open also to Kent Field Club members, although all of us belonged to KBRG and many to both groups. It was an opportunity to explore a large brownfield area which is likely to change considerably in view of current planning designations and the expectation of a planning application

by London Paramount for a theme park attracting 15 million visitors a year. Although we had a number of records for the peninsula since 2010, the group was able both to confirm many of these and add over 75 more.

We worked along Manor Way, a rather scruffy industrial road, with many ruderal species and some interesting grasses: *Anisantha diandra* (Great Brome), *Lolium x boucheanum* (the hybrid between Perennial and Italian Rye-grasses) and *Polypogon monspeliensis* (Annual Beard-grass). We looked in vain for the hybrid of the latter with *Agrostis stolonifera* (Creeping Bent), with which it was growing. A footpath took us into waste land, where sightings of sparrowhawk and clouded yellow provided a distraction. Leaning across the path was *Rosa x dumalis*, the hybrid between *Rosa caesia* (Glaucous Dog-rose, not present as a wild plant in Kent) and *Rosa canina* (Dog-rose), a hybrid which behaves as a species and which has only recently been recognised as being the commonest rose in many parts of Kent. We encountered this again and again in the course of our exploration.



Why don't the swans come? Photo by Sue Buckingham.

Eventually the path ran alongside a steep shaded chalk bank, damp below, growing down which was a scattering of the rare plant register (RPR) species *Pyrola rotundifolia* (Round-leaved Wintergreen), still in flower. Liam Rooney subsequently reported that his photographs showed this to be subsp. *maritima*, a taxon generally of western distribution in the British Isles. Beyond here we emerged up onto the embankments lining the Thames, with a splendid view of the Dartford Crossing bridge. As we were on the brink of a hectad boundary line, and the adjoining monad lacked recent saltmarsh records, we took advantage of the

low tide: a few of us scrambled through the flotsam, making a list of plants. The flora consisted of the usual suspects, including *Limonium vulgare* (Common Sea-lavender), about as far up the Kent side of the river as it normally reaches.

The group then turned inland to a flat, semi-bare calcareous waste area formed from the detritus of former cement kilns. Lucerne was in evidence here, as widely elsewhere, and during the day we came across a wide range of colour forms, including light and deep mauve flowered *Medicago sativa* subsp. *sativa*, yellow flowered *M. sativa* subsp. *falcata* (Sickle Medick) and the cross between them, *M. sativa* nothosubsp. *varia* (Sand Lucerne), which varied in shade within the same inflorescence. We gave much attention to a curious assemblage of hortal plants on waste ground without clues to their origin there, of which the best naturalised appeared to be *Spartium junceum* (Spanish Broom) and *Dorycnium hirsutum* (Canary Clover). A tasting session began (perhaps inadvisably) with an unidentified ornamental crab (*Malus* sp.) and moved on to two other casual Apples, *Malus pumila*, both surprisingly good.

Teatime by waste land. 'Summer surprised us...With a shower of rain' (The Waste Land, T.S. Eliot). Photo by Sarah Kitchener.

With our ensuing discovery of RPR species *Lathyrus aphaca* (Yellow Vetchling), rain began to fall, somewhat earlier than expected. We sheltered for lunch under some *Salix caprea* (Goat Willow) with a view of the estuary, and then cut short the session, heading back to the cars. Once we were back, the rain lifted enough for us to enjoy refreshments.

G.K.



SEPTEMBER 2015						
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Wednesday, 23 September 2015: Shellness point, Sandwich Bay

The last meeting of the 2015 programme was held on autumn equinox, a beautiful clear sunny day, ideal for our exploration of this remote spot. Led by Lliam Rooney and Sue Buckingham and attended by six other members, the meeting was primarily to look for *Salicornia*, (Glasswort) species. We met up in the car park of SBBO, Sandwich Bay Bird Observatory, from where Sue's husband John very kindly gave up some bird-ringing time in order to drive us in the Observatory's Land Rover into the dunes about three miles to the north, thus saving us a great deal of time and energy.

This very northern section is owned by a wildlife partnership which includes National Trust and Kent Wildlife Trust. We had previously obtained permission from the KWT warden to bring a vehicle up this far and to walk into the area which, apart from the public footpath, is normally out of bounds to the public.

Because of the recent rainfall the dune vegetation was remarkably green with lots of plants still in flower as we bounced along the bumpy track. We chose to begin our survey from the beach and then walk north and inland to make the most of the time. Rare Plant Register (RPR) species *Euphorbia paralias* (Sea Spurge) and *Eryngium maritimum* (Sea-holly) were much in evidence with plenty of *Salsola kali* subsp *kali* (Prickly Saltwort) growing on the sandy drift-line. Various species of *Atriplex* (Oraches) were fruiting alongside the Saltwort, the most attractive and obvious being *Atriplex laciniata* (Frosted Orache) with its silver leaves and red stems; but we needed to observe how far the fruiting bracts were split and examine the seeds in order to differentiate between similar-looking *A. glabriuscula* (Babington's Orache) and *A. prostrata* (Spear-leaved Orache). We couldn't help but admire a beautiful large-flowered form of *Centaureum erythraea* (Common Centaury) in the dunes behind. *Leymus arenarius* (Lyme-grass) has been recorded from this area in the past and we all kept an eye out for it but without any success.

The storm surges of the last couple of winters have created an interesting series of elongated hollows in the sand at the top of the beach here. Small lagoons have formed in them, resulting in the development of saltmarsh vegetation with *Salicornia ramosissima* (Purple Glasswort), *Suaeda maritima* (Annual Sea-blite), *Atriplex portulacoides* (Sea-purslane) and *Spergularia media* (Lesser Sea-spurrey) all well established.

As we progressed further north, the top of the sandy beach merged into larger areas of saltmarsh and *Limonium binervosum* (Rock Sea-lavender) was growing there on the drier parts. Two subspecies are mentioned in Eric's Atlas but we saw only the common subsp. *binervosum* with leaves less than 10mm wide. This seemed to be a fairly recently formed saltmarsh with a very large extent of glasswort plants, all of which proved to be the RPR species *Salicornia pusilla* (One-flowered Glasswort). This appears to be a new record for the Pegwell Bay area. Lliam soon came up with the hybrid *Salicornia pusilla* x *ramosissima* but there was little *S. ramosissima* in evidence. There was however plenty of *Carex extensa* (Long-bracted Sedge), Pegwell Bay being the only area for this species in Kent.



New Zealand Spinach. Photo by Sue Buckingham.

In the meantime Owen discovered a few plants of *Tetragonia tetragoniodes* (New Zealand Spinach) mingled with the flotsam and jetsam on the drift-line and we opted to have lunch at that point with a fine view across to the chalk cliffs of Ramsgate. NZ Spinach is also native to Argentina, Australia, Chile and Japan and this is the third location in Kent where it has recorded in the last year, all in similar coastal locations. It's also known as Botany Bay Spinach, or Cook's Cabbage as it was used by Captain Cook to help fight scurvy among the crew of the *Endeavour*.



Spinach (arrowed) Sandwich.

Photo by Sue Buckingham.

After lunch we wandered into the saltmarsh at the mouth of the River Stour, finding plentiful *Sarcocornia perennis* (Perennial Glasswort) and a large expanse of *Salicornia fragilis* (Yellow Glasswort) at the lowest point and close to an area of *Spartina anglica* (Common Cord-grass). As we turned south we walked through more pristine *Salicornia* saltmarsh, this time with large expanses of *S. europaea* (Common Glasswort). This species is like *S. ramosissima* in its beaded stems but with a much narrower angle to the tip of its bracts and unlike *ramosissima* doesn't develop any purple colouring. There are large areas of *Juncus acuta* (Sharp Rush) in the

stabilised dunes alongside the saltmarsh here and we were pleased to see a migrant Grasshopper Warbler moving through. Wasp spiders were frequent; we had a view of the seals out on the mud and were fortunate to catch a single late flower on *Dianthus armeria* (Deptford Pink) at its known site in the dunes.

John drove up and collected us for our return drive to the observatory car park at the end of a most enjoyable day. We were very grateful to him, to SBBO for allowing us to use the Land Rover and to Tony, the KWT warden for giving us permission to be there. We saw a total of five species of *Salicornia* and one hybrid with eleven other RPR plants.

S.B.



Recording Roses

Roses will feature in Kent Botany 2015, following a visit to Kent by Roger Maskew, the BSBI referee for *Rosa*. It is worth drawing attention to a major implication of his discoveries, however, even though rose recording season has now more or less finished (the best time for recording is from the last week in July to the end of September, so that both foliage and hips are available).

We have probably all thought that *Rosa canina* (Dog-rose) is the commonest rose species to be found in Kent, reinforced by Eric Philp's *New Atlas of the Kent Flora* (2010), which gives it in 947 tetrads, out of 1043. Neither the New Atlas nor its predecessor Atlas gave any current records for the hybrid between *Rosa canina* and a rose not found wild in Kent, but with a northern distribution, namely *Rosa caesia* subsp. *vosagiaca* (Glaucous Dog-rose). This hybrid is known as *Rosa x dumalis* and has been confirmed from historic gatherings in Kent. It was also claimed by John Palmer in 1979 from near Longfield, according to the BSBI database.

It now transpires that *Rosa x dumalis* is often as frequent, or more frequent, than *R. canina* in our county. This assessment is consistent with findings by Roger Maskew in Surrey/North Hampshire/West Sussex in 2009. It is a fully fertile hybrid which behaves in the county as though a species **From now onwards Kent recorders should record *Rosa canina* only when sure the plant is not *Rosa x dumalis*; otherwise it would be safer to record as *Rosa canina* agg.**

<i>Rosa x dumalis</i>	<i>Rosa canina</i>
Head of stigmas always hairy to some degree	Head of stigmas generally not hairy, but occasionally slightly so
Wine-red pigmentation usual in stems	Wine-red pigmentation normally absent from stems
Some short pedicels and large foliose bracts, often partly hiding them	Pedicels generally longer, bracts smaller and less conspicuous
Leaflets often have a tendency to fold, dark green and smooth on the upper side and slightly glaucous on the under side	Leaflets not folded

Minutes of the Kent Botanical Recording Group Annual General Meeting

2.00 p.m., Saturday 28 March 2015



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 BSBI project manager, Alex Lockton.

1 WELCOME

The Chairman began by thanking everyone for coming along to the meeting and Sue Buckingham for agreeing to take the minutes.

2 APOLOGIES FOR ABSENCE had been received from Jan Armishaw, Rodney Burton, Sue Cooper, Alfie Gay, Peter and Pauline Heathcote, Jackie Langton, Priscilla Nobbs, John Puckett, Chris Rose, Ian Sapsford and Elizabeth Winterbourne.

3 MINUTES OF AGM held on 29 March 2014

These were published in newsletter no 7 which was circulated to all members at the time 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 from those minutes were twofold.

The first was with regard to trialling a draft list of Axiophytes (those plants considered to be 'worthy' and indicators of habitats of conservation value), for which Sue Buckingham had taken on preliminary responsibility. Sue reported that she had marked her draft species on to a recording card, ticked those found at each of the 2014 field meetings and then produced a list from each site. As expected, those meetings which were held on SSSIs and Local Wildlife sites had produced the highest number of trial axiophytes whilst sites with little good habitat produced only a few. These results were encouraging but Sue wished to continue to work on fine-honing the list for another year until, at the next AGM, she would invite input from other KBRG members with good knowledge of the county and its plants and she asked those present to consider if they might like to become involved.

The second matter arising was an action for the Chairman to e-mail to membership a county map which had been shown as a slide and which gave the total number of species recorded for every tetrad for the period from 2010 to early 2014. This was e-mailed out and also included in our newsletter.

4 REPORTS FOR THE YEAR

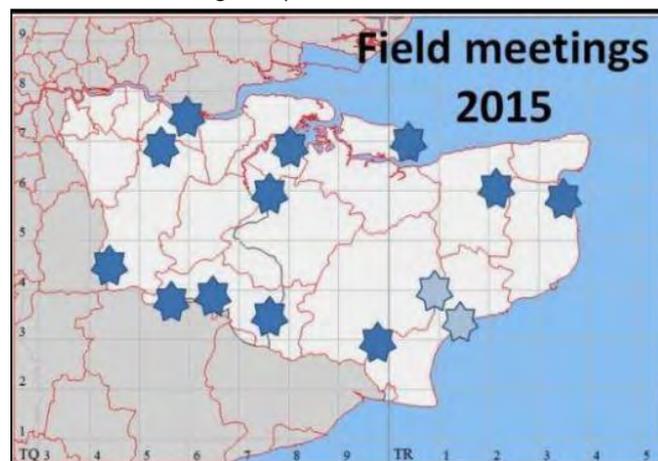
Most of the following reports were delivered by the Chairman and he illustrated them with slides for which he thanked Liam Rooney and David Steere, whose photographs had contributed towards these.

Membership

The Chairman reported that membership had risen further from 95 in 2014 to 106, thus breaking the 100 barrier.

Meetings

Regarding 2014 and in addition to the AGM at Tyland Barn, twelve meetings were scheduled (although one was cancelled due to the remnants of a hurricane) and there were reciprocal arrangements with the Kent Field Club (KFC) for their botanical meetings. The Chairman thanked all the meeting leaders and those who attended KFC meetings and passed on records.



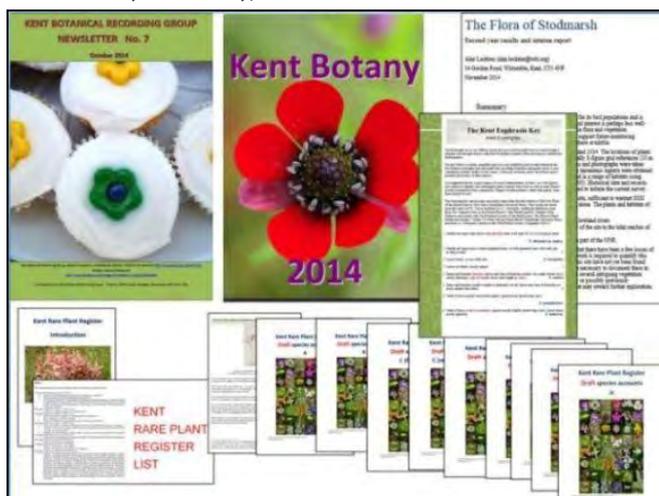
He reported that for 2015, we have twelve main meetings arranged, two probable extras plus an invitation to ten KFC meetings. He congratulated Owen Leyshon and Sue Buckingham for putting together such an exciting programme and thanked everyone else who had agreed to lead or co-lead meetings. The Chairman showed a slide to illustrate the good spread of 2015 meetings across the county and he reminded members that we have joint meetings with Surrey and Sussex again, special meetings to learn more about grasses and glassworts and a very wide range of habitats to explore. He commented on the value of our meetings both for those who want to learn and for providing many pairs of eyes to increase our records. He invited comments on meetings.

Sue Buckingham gave a reminder of the first KBRG meeting two weeks ahead on the Isle of Sheppey and **John Badmin** reminded everyone of two more meetings on Sheppey from the KFC programme to which KBRG members are invited, one of which is joint with British Entomological and Natural History Society to survey behind normally locked gates on the new Great Bells RSPB reserve.

Publications

The Chairman used a slide to illustrate that since the last AGM we have had

- Newsletter no.7, last October
- Alex Lockton's interim report on the Flora of Stodmarsh National Nature Reserve, which is on our webpage
- Kent Botany 2014 with all the latest discoveries
- Liam's online Euphrasia key
- An interim issue of Part H of the rare plant register for consultation in the last few days (not quite complete, but worth getting out before the recording season gets fully under way).



He explained that with regard to existing items, there had been a lot of updating. Everything to do with the rare plant register had been updated in February and that meant the introduction, the lists of rare species, the list of probably extinct species, the accounts of individual plants, Parts A to F, plus G which went on the website last year.

He went on to explain what updating meant.

- First, the material is revised to reflect new records made in the last recording season; this is an annual process and may lead to the status of a rare plant being re-evaluated.
- Secondly, improvements are made to existing accounts, for example, new photos may become available. He said that members may have noticed that he had begun to include archaeological information to supplement the information given about the historic presence of plants within our county and that this is particularly relevant to weeds of early agriculture, such as *Agrostemma githago* (Corncockle) and *Anthemis cotula* (Stinking Chamomile).
- Thirdly, updating this year had meant adding new accounts where the conservation status of English plants has been reassessed and they are newly treated as being at risk or nearly at risk.

He asked for comments on publications and **David Steere** asked if there were plans to publish the rare plant register accounts in book form. The Chairman replied that, once completed, publication could be contemplated, but because of the potential size, which in its current form could eventually amount to around one thousand pages long, we would probably want to change the format, should we opt to go to print. It would then contain much of the information which a county Flora might provide, excluding foreign introductions and excluding also – to which not much is

likely to be added to what Eric Philp's *New Atlas of the Kent Flora* provides – the more general species in the county.

Stephen Lemon said that the good quality of the photographs in the rare plant register accounts lent themselves well to printing and he enjoyed printing off the parts. The Chairman explained that he used only photographs with sufficiently high resolution. **Alex Lockton** added that if the photographs were put directly onto PDF, even any poorer resolution photographs would appear better and he offered to explain how to go about this. Alex also complimented the Chairman on the quality of the rare plant register, adding that no other county was producing anything like it.

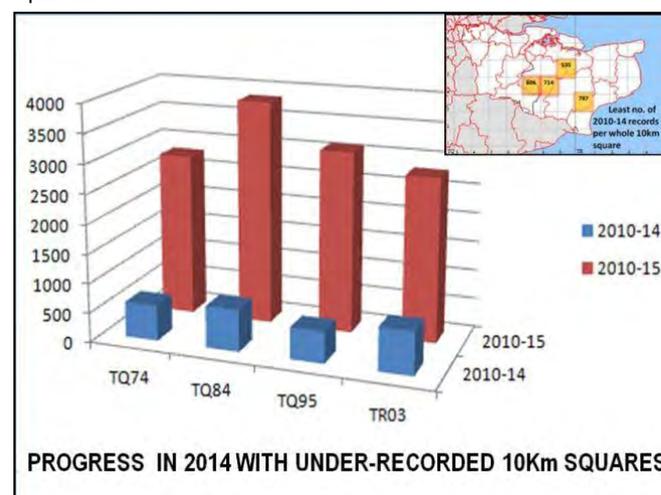
Finances

The Chairman reported that with our website provided free of charge by BSBI, the room for our AGM also kindly provided free of charge from Kent Wildlife Trust and with no material expenses incurred for the Group, there were no finances and we could continue to be subscription-free.

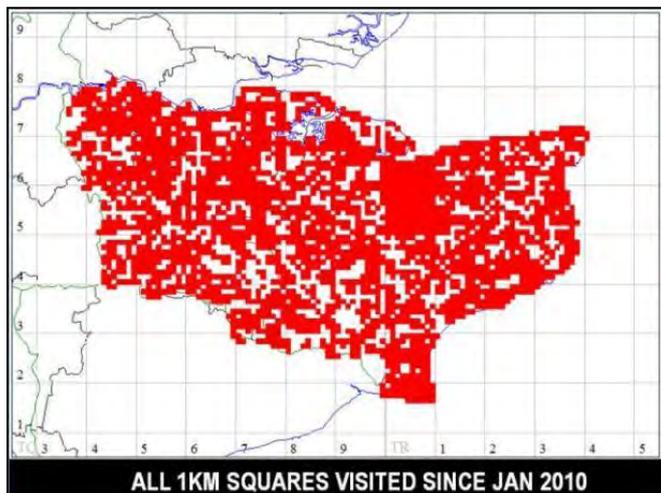
Recording

The Chairman reminded members that in 2014 we adjusted our recording strategy. Previously our emphasis had been on collecting detailed data for our rare plants. Whilst that had continued last year we also increased the priority of general recording so as to achieve reasonable recording across the county for the current ten year recording period, bearing in mind that there was to be another national plant Atlas after then using those records. The position was reported in Kent Botany and the Chairman expressed genuine surprise at how much had been achieved. In terms of overall numbers, at the time of last year's AGM we had just passed 100,000 records in four years. By mid-January of the current year we had input 167,900 records in five years and the current total was just over **175,000**. He thanked everyone who had contributed to this. The total was produced by 213 recorders, or combinations of recorders, not all of whom were members but the majority of records by far had been produced by members.

Last year four 10km squares had been identified (mostly in the Low Weald) which had significantly fewer records than had been achieved elsewhere and so we targeted those in particular. A slide was shown to illustrate the difference we had made since then, with two or three thousand records added for each of those squares.



The next slide showed a county map with a red square for every monad that has been reached by a botanist since 2010 and which illustrated that we have been very thorough in our explorations. The Chairman explained that whilst the map was still useful to find somewhere without recent records, it was no longer such a useful tool – partly because there were now few blank squares remaining, but more so because the map did not show how many records had been made in each square. Out of 2, 881 squares, 8% have only one record and 19% have less than 10. This issue was to be taken up later in the agenda.



Rare plant register

The Chairman reported that in 2014 we had 1,486 rare plant records up to the point when the account in Kent Botany 2014 was prepared. He explained that the large number was tied in with changes in the register mentioned in the last newsletter. The changes relate to the new Red List which gives the conservation status of plants in England (not just Great Britain) and it reveals that many species which are not yet rare, for instance Wild Strawberry, are declining so fast that they are being assessed as Near Threatened, and so worth keeping an eye on for register purposes.

This meant that in Parts A to G, 18 new species were added to the register as a result of these changes, and accounts for them were issued. It had been interesting to see whether or not our information for Kent backs up the national position of decline; and also to see whether, where Eric Philp found changes in frequency, our recording since his two Atlases has backed this up.

One species which bucked the trend was *Eryngium maritimum* (Sea-holly) and the Chairman showed a slide of the species taken off the internet (asking if anyone had Kent photos of plant and habitat for the register). The latest risk assessment for Sea-holly in England shows a decline of about 30% in the latter part of the last century, both as to the overall area in which it is found and as to its frequency. However, Eric, between the two Atlases, found an increase in Kent of 67% and our own recent recording backs this up. To illustrate this, a slide was shown comparing our records with those in Eric's last Atlas; and in five years' recording, we have virtually caught up with Eric's fifteen years, and have found it in new places, thus indicating that this is not a declining plant as elsewhere in England, but is doing better than ever. The Chairman asked for comment on why that should be and **Joyce Pitt** suggested that it was because of the mobile nature of its habitat.

The Chairman then pointed out that more often with these added species, there was a national decline, and also a Kent decline from Eric's data, and that we are still in course of establishing what the current position is. *Campanula rotundifolia* (Harebell) fits this trend and Eric registered a decline of 57% which is more than the national decline, although measured over a different period. He felt that there had been habitat losses with building development and ploughing up grassland. We also know that Harebell is sensitive to the deposit of atmospheric nitrogen and this seems to be a factor as well. **Joyce Pitt** added a further factor that Harebell is hard to find when not in flower.

There were also three other species accounts added for other reasons:

- *Bromus ramosus* subsp. *benekenii* (Lesser Hairy-brome), because we are now confident that we have this plant in Kent, and Mervyn showed it to us in a field meeting;
- *Cuscuta epithymum* (Dodder), because it had been forgotten earlier;
- *Glebionis segetum* (Corn Marigold), for the same reason and the Chairman said that he would welcome Kent photographs of it; the only Kent one he was able to find for the register was a specimen in Maidstone Museum, collected in 1843 and still retaining something of its colour.

Stephen Lemon thanked the Chairman for including the historic records in the RPR tables, who replied that although he had access to more he had chosen generally not to include those from pre-1970 because of space constraints and the risk of distracting from recent data.

Alex Lockton asked if we had considered testing recorders and suggested that in order to improve their skills, we perhaps select three fairly accessible monads and find out who collects the most records for each.

5 FURTHER DEVELOPMENT OF RARE PLANT REGISTER: conservation activities

Owen Leyshon, Romney Marsh Countryside Officer, introduced his proposals for a new link to the Rare Plant Register. He explained that as a conservationist and land manager he has a particular interest in promoting a link between the practical and the monitoring aspect of Kent's rare plants. He said that the Chairman's work and the Group's publications had placed Kent at a high standard nationally but that whilst travelling around the county he had noticed that some plants have disappeared from well-known sites, others are hanging on in rank grassland or have been shaded out in a woodland nature reserve. He felt that more could be done to safeguard these plants by working with the landowner.

He said that he would like to bridge the gap in our knowledge specifically on practical management work across the county and how we present this in the Group's annual botanical publications. This could be a short appendix, supporting the suite of Kent botanical publications and reporting on what practical work has been done, where and for what targeted species. He referred to organisations like Natural England, Environment Agency, Kent Wildlife Trust, Forestry Commission, Woodland Trust, Butterfly Conservation, landowners, farmers, Local Nature Reserve

managers, Countryside Partnerships, Elmley Trust, Bird Observatories, Kent County Council (Country Parks) and District Councils and what they are specifically doing for a rare plant on their landholdings in Kent.

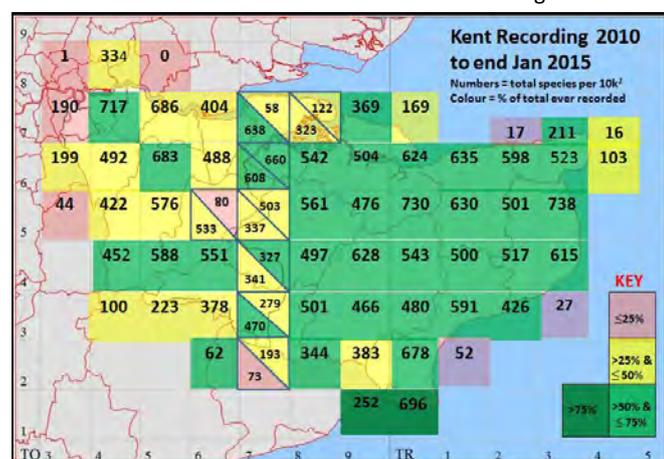
He appealed to members to send him information for 2015 on what individuals, landowners, organisations and partners have done, where, when and a summary of works and for what Rare Plant Register species in Kent.

Finally he added that he considered enough to be happening in Kent to try to safeguard our rare plants, but it was information which would be of value and this, if conveyed to him, whether by e-mails, phone-calls or letters, should enable him to put together a Practical Works summary for 2015. Owen had produced a flyer which outlined the project and was available at the meeting.

6 GENERAL RECORDING 2014-19

The Chairman reminded everyone that last year we looked at the strategy of our recording, which was directed towards aiming for good county coverage for the period from 2010 to 2019. This was for the purposes of being able to compare with previous decades so as to detect trends in changing plant distribution and to provide data which will go towards the next national Atlas. We were going to take two approaches.

One was to continue our rare plant register recording, so that we didn't just have a collection of tetrad records with no detail, some of them perhaps 20 years old; but rather, that we have detailed records which would help our understanding of current plant status and potentially help towards conservation. The other approach was at the same time to build up more thoroughly our general records; and so we very effectively encouraged members to think about contributing general records. We looked last year at some slides showing total numbers of species for map squares across Kent, and total numbers of records. These helped us to understand what were likely to be under-recorded areas needing survey but they did not overcome the problem of understanding how we were faring in areas which simply don't have many different species. We needed to be able to identify such areas and how we could know when we had recorded enough.



The Chairman showed a slide which he said should help with this. It gave the total number of species seen since 2010 in each 10km square with colour-coding to show the percentage relationship between the number seen since 2010 and the number ever seen in that square. He explained that if we have seen at least half the number of species which have ever been recorded there, we are doing quite well and those squares are coloured mid-green. Dark-

green indicated over 75%, which he said may be as good as we could hope for. Pink-purple colour indicated less than a quarter and yellow between a quarter and a half. Those squares split into triangles indicated where a square was split between vice counties.

There was discussion as regards what the map told us:

- Evidently we are doing very well at Dungeness with Tim Inskipp and Owen Leyshon having done a lot of work there.
- East Kent as a whole is getting well recorded and better than West. But it is noticeable that the bar is set higher in parts of West Kent, where lots of species have been seen in the past. TQ57 has one of the highest totals, 686 species, but this is still only 39% of the total seen in the past.
- Some of the boundary areas are none too well recorded, but often they are very small areas which need a special effort (and the Chairman thought that sometimes the data about number of past records was not wholly trustworthy but had been aggregated with adjoining vice counties).
- In terms of targeting for this season, the Chairman said that anywhere not very dark green is worth recording, but for special effort anywhere yellow or pink-purple will be valuable to work in. He said that he was happy to circulate the slide to all membership. [Post-meeting note: this was done by email.]

The map produced a lot of interest and comment and the Chairman added that if anyone was thinking of going into a monad to record, he could on request generate a list of species recorded from any monad, tetrad or 10 kilometre square in the county.

Finally the Chairman showed a slide showing how far our field meetings planned for 2015 coincide with priority recording areas with both mapped together.

7 ANY OTHER BUSINESS OR COMMENTS

Doug Grant requested that the e-mail reminders for forthcoming field meetings include the proposed mileage planned for the day.
Action: Chairman/meetings leaders.

Joyce Pitt complimented the Chairman and thanked him for his work.

Liam Rooney had been invited to give an update about what he had been working on and he did this later in the session, using slides to illustrate the various aspects. He began by showing members how to access his photographs via the BSBI web site from the Kent county webpage where there is an invitation to visit Liam's Flickr site. You can view the species of flowering plants from albums arranged in alphabetical order and other groups of plants, such as trees and shrubs, ferns and horsetails, also from their respective albums, laid out alphabetically. Once a species is chosen you can then "See more" photos of the same plant but shown from various angles and showing relevant close ups of fruits, flowers, leaves, etc.

In addition to the excellent videos which Liam has already produced and which you can view from the Kent county webpage

from the BSBI website or direct from his YouTube channel 'BotanyBill1111', he is currently working on production of new videos. He showed us a still from a video for Bluebells which he had recently completed and some more from a series of 'quick guides' where he illustrates the diagnostic differences between two similar species that could perhaps cause confusion in the field: one for *Sagina apetala* and *S. filicaulis* (Annual Pearlwort and Slender Pearlwort); another for the two *Ceratophyllum* (Hornwort) species; and a further one for *Cardamine hirsuta* and *C. flexuosa* (Hairy and Wavy Bitter-cress).

Liam is also producing on-line species accounts which for each species give photographs, flowering times, habitat, status and descriptions. Each account has highlighted words: a popup glossary appears as the cursor is moved over them as well as links to more photos of the species on his Flickr site and also to the Rare Plant Register, where relevant. He has updated his Kent key to *Euphrasia* (Eyebrights) by adding photographs and descriptions which include the links as above.

He showed some winter twig photographs useful for out of season identification and lastly showed slides from his Kent *Carex* Key which will include all the Sedge species and hybrids in Kent with photographs and text which will follow the same pattern.

Everyone was most impressed and grateful to Liam for his excellent work which in time would be become readily available for us all to refer to.

Link to his Flickr site-

<https://www.flickr.com/photos/liam-all-botanical/albums>

Links to his YouTube channel-

<https://www.youtube.com/user/BotanyBill1111/videos>

8 DATE OF NEXT AGM

The next AGM will be Saturday 2 April 2016 at Tyland Barn.

With no further business, the formal part of the meeting closed at 3.00 p.m.



There followed a wide-ranging and thought-provoking presentation by Mervyn Brown on *The Watling Street Thistle – Digging up the past*.

Recording generally

Just by way of reminder, here is a sample of what is needed for a record.

Taxon	Vernacular (optional)	Site	Gridref	Recorder	Date	Comments
Aesculus hippocastanum	Horse-chestnut	Yalding VC15	TQ6951	Grant,D. Poyser,S.	03/07/2015	self-sown



The recorders were conscious of recording near the vice county boundary between East and West Kent and so have made it clear that they were in East Kent, vc15. All our records need to be assigned to a vice county, although usually it will be obvious from the grid reference. If you're not sure where the boundary lies, there are several websites which can show it at high resolution, e.g. <http://www.cucaera.co.uk/grp/?vc=15> For the grid reference, a 1km square, or monad, will normally suffice, as here. A fuller grid reference could be provided for more unusual plants, including rare plant register species, for which population and habitat details would also be useful.

If the plant is an introduced species, it is helpful, as here, to indicate what its status appears to be (e.g. self-sown – this could, however, have been expanded to indicate whether a short-lived seedling or a more fully naturalised sapling, or lots of them in the wild). Such information is particularly relevant when our records are considered in a national context, as the BSBI has this year issued some voluntary guidance as regards where and what to record. This guidance appears likely to result in an increase in records of introduced species which are planted and/or from non-wild contexts; so that it will be harder to identify trends of naturalisation generally, unless the status of finds of introduced species is made clear. A note has been circulated to many recorders about this guidance and how it might be applied in Kent. If anyone else wishes to see this, please email Geoffrey Kitchener. Feedback so far is not particularly enthusiastic as regards recording anything other than wild or naturalised plants, using common sense for guidance.

The BSBI has also just issued (available on their Atlas 2020 webpage) *BSBI Atlas 2020 Notes on identification works and some difficult and under-recorded taxa*. Somewhat late in the day for an Atlas which is to cover records from 2000 to 2019, one might think – however, this has potential for use well beyond 2019! Among issues relevant to our recording are the following, although much of this is already known to some of our recording group:

- *Anthyllis vulneraria* (Kidney Vetch) is native with us, but often sown on roadsides. It is helpful if records indicate status, and attempt to identify to subspecies.

- *Arenaria serpyllifolia* (Thyme-leaved Sandwort) used to include a subspecies *leptoclados*, but this is now a separate species, *Arenaria leptoclados* (Slender Sandwort). If you don't know which your plant is, record *Arenaria serpyllifolia* agg.
- *Centaurea nigra* (Common Knapweed) should only be recorded as *Centaurea nigra* agg., unless you are sure that what you are looking at is not *Centaurea debeauxii* (Chalk Knapweed – but actually not limited to chalk).
- *Conyza*. Take care with records unless you feel able to separate *Conyza floribunda* (Bilbao's Fleabane) from both *Conyza canadensis* (Canadian Fleabane) and *Conyza sumatrensis* (Guernsey Fleabane).
- *Dryopteris affinis* (Scaly Male-fern). Record as *Dryopteris affinis* agg., unless you are confident about distinguishing *Dryopteris borreeri* (Borrer's Male-fern).
- *Hedera helix* (Common Ivy) used to include a subspecies *hibernica*, but this is now a separate species *Hedera hibernica* (Atlantic Ivy). If you don't know which your plant is, record *Hedera helix* agg.
- *Lamiastrum galeobdolon* (Yellow Archangel) has three subspecies, and the garden escape subsp. *argentatum* (with silver splashes on the leaves and in winter a chocolate-maroon central zone) is becoming increasingly common everywhere. It would be helpful always to record this to subspecies level (the usual native form is subsp. *montanum*; we haven't seen subsp. *galeobdolon* in Kent yet).
- *Melampyrum pratense* (Common Cow-wheat) – a reminder that there are two subspecies, *pratense* and *commutatum*, and that it is worth recording to this level. Subspecies *commutatum* grows on chalk. The species is hemiparasitic; it would be interesting to have record of whatever other plants seem to be growing in close association.
- Remember that we have an option, to record as *Poa pratensis* sens. lat. (Smooth Meadow-grass), when not sure if the grass is *Poa angustifolia* (Narrow-leaved Meadow-grass), *Poa humilis* (Spreading Meadow-grass) or (what has been suggested to be UK's most over-recorded plant) true *Poa pratensis* (Smooth Meadow-grass).
- *Salix fragilis* is now a name only to be used for what used to be called *S. fragilis* var. *decipiens*. All other '*S. fragilis*' is now *S. x fragilis*. If you are not comfortable with recognising the former var. *decipiens*, then record all '*fragilis*' as *S. x fragilis* sensu lato. Here is a table of old and new names:

'Old' name	(2009) 2011 onwards name
<i>Salix fragilis</i> var. <i>fragilis</i>	<i>Salix x fragilis</i> (<i>S. euxina x alba</i>)
<i>Salix fragilis</i> var. <i>furcata</i>	<i>Salix x fragilis</i> (<i>S. euxina x alba</i>)
<i>Salix fragilis</i> var. <i>russelliana</i>	<i>Salix x fragilis</i> (<i>S. euxina x alba</i>)
<i>Salix fragilis</i> var. <i>decipiens</i>	<i>Salix euxina</i>
<i>Salix fragilis</i> (not named to var.)	<i>Salix x fragilis</i> sens. lat.
<i>Salix alba</i> var. <i>alba</i>	<i>Salix alba</i> var. <i>alba</i>
<i>Salix alba</i> var. <i>vitellina</i>	<i>Salix alba</i> var. <i>vitellina</i>
<i>Salix alba</i> var. <i>caerulea</i>	<i>Salix alba</i> var. <i>caerulea</i>
<i>Salix x rubens</i> (<i>S. fragilis x alba</i>)	<i>Salix x fragilis</i> (<i>S. euxina x alba</i>) [can be recorded as <i>Salix x fragilis</i> sens. lat.]
<i>Salix x rubens</i> nothovar. <i>basfordiana</i> (<i>S. fragilis x alba</i> var. <i>vitellina</i>)	<i>Salix x fragilis</i> nothovar. <i>basfordiana</i> (<i>S. euxina x alba</i> var. <i>vitellina</i>) [can be recorded as <i>Salix x fragilis</i> sens. lat.]

- *Valeriana officinalis* (Common Valerian) is worth recording to subspecific level – subspecies *collina* may be found in dry grassland or scrub; subspecies *sambucifolia* on damper soils.

Problems with Pyrus in Kent

During May 2014 I found a Pear tree west of Hever (TQ465455). This offered the opportunity of a comparison with another Pear tree just east of Winkhurst Green (TQ498494). Subsequently I was also provided with details of another two Pear trees, one at Orlestone Forest (TQ978350) and another at Four Elms (TQ476489). Pear records submitted to the Kent Botanical Recording Group are for both *Pyrus pyraster* (Wild Pear) and *Pyrus communis* (Pear). Fewer records exist for *P. pyraster*, to such an extent that it has been placed in the Kent Rare Plant Register. Two further species of Pear are known in the British Isles, *Pyrus cordata* (Plymouth Pear) and *Pyrus salicifolia* (Willow-leaved Pear), but so far neither has been recorded wild in Kent and the four Pear trees examined were not these two species.

The New Flora of the British Isles, Third Edition (Stace) and *The Vegetative Key to the British Flora* (Poland & Clement) take a more or less consistent approach to identification of Pears with both recognising *P. communis* and *P. pyraster* as separate species. This has been standard for British botanists since the First Edition of Stace (1991); previously the *Flora of the British Isles, Third Edition* (Clapham, Tutin & Warburg) had lumped both together, using the name *P. pyraster*. More recently the publication of the *Flora of Great Britain and Ireland Volume 2* (Sell & Murrell) has provided an alternative approach. Sell & Murrell recognise *P. communis* as a species, but not *P. pyraster*. *P. pyraster* is re-classified as one of three subspecies of *P. communis* and re-named *Pyrus communis* subspecies *communis* (Wild Pear). A remark in Stace that *P. pyraster* and *P. communis* are "...perhaps not specifically distinct.", gives some justification to Sell & Murrell seeking an alternative approach. In addition Sell & Murrell provide a way of identifying their subspecies without fruit by reference to how soon leaf hairs are lost. They also recognise another form of Pear: *Pyrus communis* subspecies *achras* (Perry Pear), which has fruit of a similar size to *Pyrus communis* subsp. *communis*. I have attempted to apply the Sell & Murrell approach to my assessment here. The following key to the *P. communis* subspecies is based on detail taken from Sell & Murrell:

1. Leaves soon glabrous after opening or nearly so; spines usually present on spur shoots; fruits 1.3-3.5 x 1.8-3.5 cm, globose or turbinate, often with conspicuous lenticels, hard and gritty to taste

***Pyrus communis* subspecies *communis* (Wild Pear)**

1. Leaves woolly beneath well into the summer
2. Leaves densely hairy beneath throughout the summer; spines sometimes present on spur shoots; fruits 2.5-3.0 x 2.5-3.0 cm, globose or turbinate, hard, gritty and sour to taste

***Pyrus communis* subspecies *achras* (Perry Pear)**

2. Leaves densely hairy at first but slowly becoming glabrous through the summer; spines not usually present on spur shoots; fruits (5-)6-16 x 4-12 cm, subglobose, turbinate, pyriform or oblong, soft and sweet to taste

***Pyrus communis* subspecies *sativa* (Edible Pear)**

Hever and Winkhurst Pears

Both the Hever and Winkhurst Pears grow within farmed countryside, not immediately next to human habitation. Historic imagery from Google Earth back to the 1940s does not show orchards in the fields adjacent to either and earlier Ordnance Survey maps back this up. Neither displays obvious signs of a planted origin. The Hever Pear is a large coppiced tree at the edge of a shaw with an open canopy of three tall trunks, presumably coppiced with the rest of shaw over fifty years ago. In contrast the Winkhurst Pear is a standard tree in a hedge dividing fields, with a short trunk and a dense wide crown. The Winkhurst Pear becomes visible in its hedge on Google Earth's historic imagery from 1960.



Winkhurst Pear



Hever Pear

The Hever Pear has pale green leaves with a dull shine, the edge of the leaf entire and glabrous brown buds. The Winkhurst Pear has dark green leaves with a bright shine, a crenate/serrate leaf edge and hairy brown buds. When visited in April 2015 the newly emerged leaves on both trees were found to have a fairly dense coating of hairs on the underside of the leaf. Both trees had spiny growth on their non-fruit bearing lower branches; much less on the Hever Pear and probably encouraged by cattle grazing on the Winkhurst tree.



Hever Pear (left) and Winkhurst Pear (right), July 2014.

The importance of selecting ripe fruit was demonstrated when considering the size, shape, texture and taste, as these factors changed right up to the time of ripening. A selection of ripe fruit collected from both Pears was between 4 and 5 cm in length, although a single fruit of just over 5 cm was found for the Hever Pear. Neither Pear could be described as having “pear” shaped fruit. The Winkhurst Pear’s fruit had an even spread of tiny white lenticels across the skin and was uniformly globose when first examined in July 2014, widening by the time it ripened in September to become more apple shaped.

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Ripe fruit of Winkhurst Pear (left of ruler) and Hever Pear (right of ruler), 7 September 2014.



Orlestone Pear

In early October 2014 Owen Leyshon provided me with the fruit from another Pear tree on the north side of Longrope Wood at Orlestone Forest. He confirmed that this Pear tree grows a short distance into the woodland from the road and is very tall with a bifurcated trunk and spiny growth. Its fruit resembles the shape of the Hever Pear and like the Hever and Winkhurst Pears is between 4 and 5 cm in length. In contrast its fruit was harder when ripe, but still had a sweet taste.

Ripe fruit of Orlestone Pear, 7 October 2014.



Summary of the Hever, Winkhurst and Orlestone Pears

All three Pears described have the sweet tasting ripe fruit of *P. communis* subsp. *sativa*. However they display an intermediate fruit length, below the lower range of *P. communis* subsp. *sativa* and above the upper range of *P. communis* subsp. *communis*. The densely hairy underside to the leaves of the Hever and Winkhurst trees brings them closer to *P. communis* subsp. *sativa*. The Hever tree's virtual lack of spines suggests that it is closer still to *P. communis* subsp. *sativa*. In contrast the Winkhurst Pear's more obvious spines and globose fruit with lenticels brings it back nearer to *P. communis* subsp. *communis*. The Orlestone Pear's hard ripe fruit and spiny growth also suggests it has some affinity with *P. communis* subsp. *communis*.

The most obvious point from the above is the mix of features displayed by all three trees. With these examples one wonders how far the three Sell & Murrell *P. communis* subspecies hold true in the farmed landscape of Kent? A hybrid origin for these Pears might account for their mixed characters. The recently released *Hybrid Flora of the British Isles* (Stace, Preston & Pearman) refers to many wild Pears being difficult to place and the suspicion that hybridisation is the cause. However it also refers to the lack of studies into *Pyrus* hybrids with no formal records and an unproven existence in the British Isles. In light of this the most appropriate description for these Pears at present seems to be *P. communis sensu lato* (so as not to assign any subspecific name, as used by Sell & Murrell). It is worth noting that the same conclusion was reached when assessing these Pears using Stace and Poland & Clement (so as not to commit to the name *P. pyraster*).

Four Elms Pear

Liam Rooney provided the location of a Pear within a roadside hedge near Four Elms that was originally discovered by Eric Philp and was one of the three *P. pyraster* records given in *A New Atlas of the Kent Flora* (Philp). Google Earth's historic imagery indicates the hedge is all that now remains of a shaw that was grubbed out after 1960. There are some large coppice stools within the hedge from a variety of tree species, but not in the section with the Pear. On visiting the site a second Pear was located five metres from the original. This all suggests the section of hedge with the Pears did not originate from the woodland shaw, but there were no obvious indications of it having been planted. The Pears are both no more than large bushes that lack fruit due to annual cutting, but have substantial spiny growth that is probably encouraged by the annual cutting. The leaves have a similar crenate edge to the Winkhurst Pear but are smaller and almost spherical in shape. Significantly the leaves were glabrous on the upper surface and almost glabrous on the underside when examined in April 2015, with just a few hairs along the veins and leaf edge. A photo of a leaf can be viewed in the Kent Rare Plant Register album on Liam's flickr page: <https://www.flickr.com/photos/liam-all-botanical/4841008547/in/set-72157624>. In lieu of ripe fruit, the prolific spiny growth and the almost hairless leaves soon after opening seem sufficient to place this Pear as *P. communis* subsp. *communis*.

A historical perspective

There is little information to assist as regards the historical status of Pears in Kent and their wildness. The *History of the British Flora, Second Edition* (Godwin) refers to archaeological evidence of Pears in Kent, from the Iron Age Hill Fort at Bigbury Camp near Harbledown and also from nearby Roman Canterbury. However, Godwin throws doubt over the credibility of the evidence, suggesting *Pyrus* references might have followed the older use of this generic name, which formerly included *Sorbus* species. Perry Wood, near Canterbury, appears to correspond to a 1485 reference to Perywode and may derive from the Saxon for pear wood (the place name evidence is summarised in the Perry Wood Archaeology Project Summary Report, 2010); but the derivation is not certain, and leaves open the question as to whether any such naming reflected the presence of one tree or several. Hanbury & Marshall in their *Flora of Kent* (1899) did not consider Pear to be native in the county – “probably always bird-sown”.

The huge atypical Pear trees described in *Ancient Woodland, New Edition* (Rackham) have not been recorded in Kent woodlands to my knowledge and Rackham refers to only five trees, all within East Anglian woodlands. Sell & Murrell provide an interesting short history of *P. communis* in the British Isles. They assert that the Pear tree of Hayley Wood mentioned in Rackham is *P. communis* subsp. *achras*, appearing indistinguishable from the Pears grown for making perry. So far, the Pear records submitted to the KBRG have not described mature fruit of the size and sourness which might indicate that *P. communis* subsp. *achras* is present in the wild in Kent.

One may also conclude that records of *P. pyraster* submitted to the KBRG require re-assessment in the light of this investigation.

I would like to thank Geoffrey Kitchener for assisting with the drafting of this article and for his contributions, including the detail on Perry Wood.

Stephen Lemon

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Requests

Conservation Work in Kent for Rare Plant Register species in 2015

I talked briefly at the Kent Botanical Recording Group AGM in March (with subsequent circulation to members by email) about a request for information on what practical works have been carried out within Kent in helping our Rare Plant Register species in 2015.

So this is my second (gentle) reminder, that I am after any information for 2015 on what individuals, landowners, councils, organisations and partners have done, where, when and a summary of works and for what Rare Plant Register species in Kent.

The aim is to improve communication with land managers and, with a little bit of guidance or knowledge passed to them on a frequent basis, we can make significant steps towards helping our rare plants out, instead of mulling over

very thick and confusing Management Plans or monitoring a local extinction.

I believe enough is going on in Kent to try and safeguard our rare plants in these challenging times, so please email, phone or write to me, so I can put together a comprehensive Practical Works summary for 2015.

I look forward to hearing from you, thank you.

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Kent Botanical Recording Group field meetings 2016

Yes that is right – **2016** and although you might still be wandering around saltmarshes in Kent recording *Salicornias* or mapping the last flowering plants in your local wood, we need to plan early for next year and that is ideally before Christmas - sorry!

Sue, Geoffrey and I try, with help from other members, to co-ordinate ideas, thoughts and specific requests for the Field Meetings programme. We need to balance the number of Field Meetings across the whole of the County, bearing in mind under-recorded areas, and to provide a selection of midweek and weekend events. We also need to co-ordinate with the Kent Field Club over the weekend

meetings; and liaise with the Sussex and Surrey Botanical Groups; and fit into landowner requests and timings and bear in mind when specific plant species are in flower.

This short request is for you to email or phone either Sue or myself with any KBRG Field Meeting ideas as soon as possible. We try to arrange a programme which pleases as many people as we can; but as always we are after new sites, private sites which are difficult to access, ideas over rare plant register species or visiting sites specifically looking for a target species within the County. The underlying principle of these Field Meetings is to share our

knowledge, to expand our understanding of the Kent flora and to assist in the national recording of our plants.

We seek to limit the KBRG programme to around 10-15 events each year including at least one study day on a difficult group.

So over to you; and also if you have any feedback from this year and previous KBRG field meetings, please contact us.

Thank you.

Owen Leyshon

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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 e mail, 300dpi minimum, please.

All contributions should be sent to Geoffrey Kitchener, contact details below.

Thanks to all who led meetings in 2015; to Sarah Kitchener for reviewing this newsletter; to Lliam Rooney, Owen Leyshon, and Sue Buckingham for the meeting reports (and the latter also for the AGM minutes); to Stephen Lemon for sharing his observations on pears; to Roger Maskew for commenting on the Rosa comparison chart; and to the photographers credited above.

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