



# Sussex Botanical Recording Society

## Newsletter

No. 69

<http://www.sussexflora.org.uk>

January 2010

### President's Message

As the year turns again it is time to assess SBRS and, as reported at our Autumn Get-together, more progress with the *New Flora* has been achieved in 2009. Many members have sent large numbers of records, and a few more have written many species accounts and taken a large part in the production of the *Flora*. Our thanks to them all. As well as this the Society has again promoted good fellowship and friendship while improving plant recognition skills for all those taking part in the field meetings.

This year there has been a bonanza in publication of new books for the field botanist. A BSBI Handbook, No. 13, updates our well-thumbed copies of *Grasses* by C.E. Hubbard, first published in 1954. We now have *Grasses of the British Isles* by Tom Cope and Alan Gray. This handsome book is enhanced by the delicate drawings by Margaret Tebbs, and is published in association with Kew and the Centre for Ecology and Hydrology. A new approach to identification is provided by John Poland and Eric Clement in *The Vegetative Key to the British Flora*. The helpful illustrations include some by SBRS member Rosalind Bucknall. Several members have told me that they have been making good use of this book, some adding in a rather surprised tone – it works! *Collins Flower Guide* by our member David Streeter is the most recent title in Collins' field natural history series. It is illustrated, and has David's informative ecological comments in the text, well known to us from his earlier books.

We send congratulations to Rene Folkard on her recent 90<sup>th</sup> birthday; we send good wishes to her in her new home, and thank her warmly for the gift of her botanical books, some of which were auctioned at the Get-together.

Very sadly we report that Betty Bishop died, just before her 90<sup>th</sup> birthday. Beryl Clough has written her Obituary for us.

Writing cards is now not easy for me so may I take this opportunity to wish you all well for 2010, with a good season of plant recording for you all.

Mary Briggs

### Secretary's Note

#### Dates for your Diary

##### Saturday 6<sup>th</sup> March 2010

The Annual General Meeting will be held at 2.00 p.m. at Staplefield Village Hall followed by a showing of members' photographs and finishing with tea and cake or biscuits. The hall will be available from 1.30 p.m. The present officers and committee members are willing to stand again and elections will take place at this meeting. If you know anyone who would like to join us on the committee, or if you would like to become a committee member or an officer please send nominations to the Secretary by the 27<sup>th</sup> February 2010.

##### Saturday 6<sup>th</sup> November 2010

The Autumn Get-together will be held in Staplefield Village Hall. The doors will be open from 10.00 a.m. and the meeting will start promptly at 10.30 a.m. There will be reports of field meetings and interesting records and an illustrated talk. Please remember to bring a packed lunch; tea or coffee and biscuits and cakes will be available. Members are invited to bring books and plants for sale, any items of interest or specimens for display, and digital photographs or slides to show in the afternoon.

Rita Hemsley

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#### Newsletter Editor

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## Treasurer's Note

The subscription for the calendar year 2010 remains at the same rates as for 2009, which is £5 for a single membership and £7 for joint membership at one address, with part of the subscription going into the fund for the new flora. Payment may be made to me at the AGM or the Autumn Get-together or sent to me at my home address: Westfield House, Church Road, Crowborough, East Sussex, TN6 1EE

**Trevor Lording**

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### Obituary: Betty Bishop 1919-2009

by Beryl Clough

Although I am sure by now you have heard that our dear friend Betty Bishop died on 20<sup>th</sup> July last year, I would like to give a brief picture of her very interesting life.

Betty was born in Cornwall in 1919; her father, a naval officer, was stationed there. They then moved to Heathfield, where Betty and her brother Harry spent their early childhood. In 1934 their parents bought a house in Shoreham, where Betty lived for the rest of her life. She became an art teacher at Charmandean Girls' School.

During the war years Betty was Commander of the Shoreham Unit of the Women's Junior Air Corps, but all the time developing her love of painting and of natural history, with botany being the most important subject. Betty met her husband George at the Southwick Art Club. George was also interested in the botanical world and his knowledge of mosses and lichens was immense. They were ardent supporters of the Sussex Wildlife Trust from its early days, with a real 'hands on' attitude. They looked after Borrer's Garden, which had been set up at Woods Mill to commemorate the life of the well known botanist William Borrer (1781-1862) who had a large garden at Henfield. Betty and George had a delightful daughter Helen, who as a youngster accompanied her parents on all these happy occasions, and consequently she also has a very good knowledge of the botanical world.

Betty enlarged her knowledge of botany by attending Oliver Buckle's evening classes. This led to Betty and George carrying out many surveys, the most well known being the West Dean Woods Survey, which lasted for 25 years. This was set up in 1985 in conjunction with the Sussex Wildlife Trust, and they were known as the West Dean Recording Group. As you can imagine, the records were meticulously kept and will always be available for future interest.

In 1984 Betty and George wrote a booklet called *Flora of Shoreham-by-Sea* which was very informative and well-illustrated. Betty updated this *Flora* in 2003. Another point I must mention is that in the 1960s Betty rediscovered the *Trifolium stellatum* (Starry Clover) on Shoreham Beach, which in 1943 Wolley-Dod had thought to be extinct. Betty was a prolific contributor

to the *Sussex Plant Atlas*, which was published in 1980, and was just as enthusiastic about our *New Flora*.

Betty was wonderful at sharing her knowledge, always pointing out the relevant parts of a plant. These identification tips were written up and copies handed out on our botany trips. I am sure that we all agree that we shared so much with our delightful friend.



Photo. Margaret Patrick

Above: Betty Bishop Below: Coppice workers sketched by George Bishop, probably while recording in West Dean Woods with Betty



## ***The Vegetative Key to the British Flora* by John Poland & Eric Clement**

Review by Alan Knapp

Uniquely, this book aims to allow the field botanist to identify the vast majority of vascular plants, both native species and introductions, when in their vegetative state. It contains a mass of information which is either not covered at all or hardly mentioned in other UK floras. The keys are set out in a very clear manner which minimises the number of steps required to identify a plant. There are also many excellent illustrations (a number by SBRS member Rosalind Bucknall) to assist in the use of the keys. However, some of the terms and features are unfamiliar to those of us used to more conventional floras. It can take a little time to become familiar with these terms, although they are clearly described and some are illustrated in a comprehensive glossary and list of symbols and abbreviations at the back of the book. It is also important to read the introduction before using the keys. When you first use the book it is a good idea to take a number of species whose identity you know with certainty and work through the keys in order to gain experience and check whether you are using the characters correctly.

Experience has shown that identifying a completely unknown species from scratch can be difficult and, in a significant number of cases, you arrive at the wrong final identification; it all depends on what the species is. If you are using the book in this way it is therefore important to be extremely careful. If you have any problems or uncertainties at any point in the route through the keys, be prepared to accept that the specimen cannot be identified with certainty. If you do reach a final conclusion then you should carefully examine all the information you have available, including things like habitat, and check that everything fits with your final identification. Because of these uncertainties, if you submit records of plants identified in this way, we ask you to state that this is how it was identified.

Having noted these issues with identifying a completely unknown species from scratch, there is another way to use the book which is extremely valuable and much easier. It is also a much more likely use for botanists with a reasonable level of experience. If you have a rough idea what the plant is and want to decide amongst a small number of species it is much easier and the results are much more reliable. The reason the book is so useful here is that it contains so much information that is not available or hard to find elsewhere and it is all gathered together in one place. This extra information also makes the book useful in confirming the identification of a plant determined using more conventional keys (e.g. Stace).

There are some characters which are clearly problematic. One is the presence or absence of latex. The problem here is that, in a number of species, the latex can be hard to see and this problem is worse if

the sample is old or damaged. Therefore, if you come to a branch point in a key using this character and decide latex is absent, be prepared to go back and check the "latex present" branch as well. Another character which can cause problems is the presence or absence of stomata on one or other surface of the leaves. Even with a x20 lens these can be hard to see and, for species where this is important, it is far better to use a low power (x30 or x40) microscope - they are then clearly visible. With experience this character gets a lot easier so try it out on a plant whose identity you know.

Overall we thoroughly recommend this book - it is an excellent work containing a mass of new information which will prove to be invaluable to anyone involved in serious recording in the UK.

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*The Vegetative Key to the British Flora* by John Poland & Eric Clement, published by John Poland in association with the BSBI, 2009. ISBN 13:978-0-9560144-0-5.

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## ***Collins Flower Guide* by David Streeter**

Review by Frances Abraham

Thank goodness for an illustrated field guide which includes everything: flowers, trees, grasses, sedges, ferns – the whole bang shoot in one not so very heavy volume – hurray. The keys are clear and easy to use, and the text concise but helpful, benefiting from David's knowledge of the needs of students in plant identification. The illustrations are variable - the paintings of ferns and grasses are beautifully crisp and clear, although of some other groups less so; many have useful detailed drawings of key characters alongside the main pictures. All in all this will be an invaluable book for the car, if not the rucksack.

*Collins Flower Guide* by David Streeter. HarperCollins 2009. £30.00. ISBN 978-0-00-710621-9.

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## **West Sussex Field Meeting Reports**

by Nick Sturt

### **Durleighmarsh Farm, 10th May**

A warm sun bathed the first meeting of the season, as 24 members wallowed in fruit beds and asparagus fields on the sandy foothills just west of Rogate. It was the first outing too for several copies of *The Vegetative Key* and, happily, we were in the company of the co-author and one of the principal illustrators. The purchase was soon paying off as we keyed out such species as *Galeopsis tetrahit* (Common Hemp-nettle), *Senecio aquatica* (Marsh Ragwort) and even *Epilobium obscurum* (Dull-leaved Willowherb) from mere scraps of leaves. There was a whoop of joy as some of Rosalind's drawings of leaflet apices and stipules led

us surely to *Vicia tetrasperma* as opposed to *V. hirsuta*. The morning passed profitably enough but Dawn had bigger ambitions. Harting Pond more than made up for the irritation of being situated at the intersection of three tetrads by some good plants, for example quantities of the county-scarce *Carex rostrata* (Bottle Sedge) and one or two specimens of *Salix triandra* (Almond-leaved Willow). Reed Warblers scratched their pleasant song as Alan plied his trusty (and indeed rusty) grapnel to gain *Callitriche brutia* (Water-starwort) and *Potamogeton crispus* (Curled Pondweed). The party dispersed almost visibly glowing and all will join with me in thanking our leader Dawn, the owners of Durleighmarsh Farm, and Eric and Rosalind, not to forget the absent John Poland, for their various contributions to the day.

## Bignor Hill, 7th June

Last time the leader (Nick Sturt) convened a meeting on top of the Downs thunderbolts rained down and so, with storms forecast again, it was perhaps surprising how many turned out to support him. In the event it was a bright and occasionally sunny day with the views North over the Weald and South to the Solent from the *agger* of Stane Street offering compensation for some pretty routine tetrad bashing. In terms of special treats for the 22 legionaries in the cohort of Sturticus there were few, although a tiny *Arenaria serpyllifolia* ssp *leptoclados* (Thyme-leaved Sandwort) on the wall of Gumber Bothy pleased. It was disappointing to see how the embankment of the Roman road at its northern end had deteriorated from a fine sward to a less exciting grassland dominated by *Bromopsis erecta* (Tall Brome). Further South some ancient and spreading specimens of *Sorbus aria* (Whitebeam) were appreciated, one already, alas, split in half and languishing, the other probably doomed to the same fate; looking on impassively was an unusually large *Rhamnus cathartica* (Purging Buckthorn) in full, golden flower. After lunch just inside our second tetrad we moved into woodland and for a time the species were coming thick and fast, including three species of *Dryopteris* (Buckler Ferns) and *Athyrium filix-femina* (Lady Fern). Meanwhile, the more observant had noticed that the entire walk thus far had been downhill... Straggling back up into the first tetrad morale was good, except for a possible case of delirium – Helen chanting an incantation of the words ‘Brussels sprouts’. At the end the party was heartily commended for its discipline and the splendid haul of some 350 records.

## Washington Common, 27th June

Led by Frances Abraham, we climbed up from the backwater that is now the old London road into woods and so into TQ11B, where we learned from the warden that reclamation of the heath had involved re-introducing the heather with seed gathered from nearby Sullington Warren. The fourteen-strong team focused its energies on the long glade in the next tetrad with its rabbit-grazed sandy turf, finding miniature

*Cerastium semidecandrum* (Little Mouse-ear) among drifts of *Vulpia bromoides* (Squirreltail Fescue) and *Rumex acetosella* (Sheep’s Sorrel), with scattered *Aphanes australis* (Slender Parsley-piert). Despite Frances’ tempting offer of sixpence, we could not re-find the *Botrychium lunaria* (Moonwort) seen here by Frank Penfold in the 1950s, but people were happy at their work. Pressing on westwards through the leafy Piglands development, a lunch revolt was quashed, although passions ran high and the Hon Sec was heard to accuse Alan of being a ‘Half-past-one-ite’. Sandgate Park occupied the afternoon. We baked on the heath with *Juncus squarrosus* (Heath Rush) and rejoiced in *Anagallis tenella* (Bog Pimpernel) by a muddy crater before suddenly plunging into shade where a tiny stream was the haunt of *Athyrium filix-femina* (Lady Fern), *Blechnum spicant* (Hard Fern), *Oreopteris limbosperma* (Lemon-scented Fern), *Carex echinata* (Star Sedge) and, doubtless, the sort of nymphs who favour such spots. By now Frances’ relationship with the map had broken down irretrievably and she felt that it was time for another to lead the way. Step forward Pat’s daughter Ann, who had been keeping her mother in line splendidly throughout the day. We sailed back through further sylvan habitation (houses among trees), still finding species to interest us until we were back on Washington Common.

## Steyping, 9th August

The morning was a tale of three parties. Frances took eight members to focus on the Adur and its ditches in TQ10Z in the hope of re-finding some of the many species unreported since the *Sussex Plant Atlas*. This group encountered a drastic decline in floristic diversity and only one of the ditches, discovered towards the end of the session, was in good heart, yielding *Groenlandia densa* (Opposite-leaved Pondweed), *Berula erecta* (Lesser Water-parsnip) and *Potamogeton trichoides* (Hairlike Pondweed) among others. Alan’s band of five fared rather better up on the Downs in TQ10N, although good chalk turf was in short supply. Nevertheless some pleasing species were recorded, notably *Fumaria densiflora* (Dense-flowered Fumitory). Nick Sturt, the organiser of the event, took three eager volunteers by forced march into TQ10U, a tetrad whose score of 153 was woefully lower than the *Sussex Plant Atlas* total of over 300. This group fared somewhat better, picking up many missing ‘common species’. Yet here again deterioration of habitat was only too evident, the banks of the track as it rose up onto the down having surrendered to *Brachypodium pinnatum* (Tor Grass); a long chalky slope nearby was similarly blighted, so that choice calcicoles were few and far between. It was on the way back that a small sloping field above a farm was noticed. The owner was happy to allow us to roam on what was our only piece of real chalk turf, sporting a good number of typical species such as *Asperula cynanchica* (Squinancywort), *Reseda lutea* (Wild Mignonette) and *Scabiosa columbaria* (Lesser Scabious), and in profusion also – drawing gasps from Dawn, Helen and Elisabeth – *Clinopodium acinos* (Basil Thyme). Experiences were exchanged over lunch back in

Steyning, and there followed a gentle saunter around the town (TQ11Q), taking in the churchyard with *Salvia verbenaca* (Wild Clary) noted on the bank outside. The day was all about gaining as many tetrad records as possible and as such it was very successful: The leader would like to thank Frances and Alan for their own devolved leadership and all the enthusiastic members who worked so hard, not always in rewarding spots.

## Somewhere N of Horsham 22th August

It was a glorious late Summer day and what better way to spend it than in congenial company on a perambulation of rural North Sussex, led by Alan Knapp? TQ13Y was the concern in the morning: by lanes (where Matthew was quick to supply the desired example of Sessile Oak), across horsy fields, into strips of Hornbeam woodland, some with graceful stands of Small-leaved Lime, and then the crunch of botanical boot upon stubble in a quest for arable weeds – Mike conjured up *Chaenorhinum minus* (Small Toadflax), unusual off the chalk. A rummage through some game cover for *Chenopodia* (Goosefoots) and other delights before dining at a field edge where Arthur recounted truly heroic tales from his bicycling years. Soon after refreshment we were in TQ13X and starting over again with gusto on a new card. As in the morning, the species came quite steadily and kept all ten of the party busy as our leader steered us, gradually and to our amazement, back into the same lane somewhere North of Horsham where we had parked in the morning. A total of 114 new records for the day (67 for TQ13Y, 47 for X) was a fine achievement.

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## East Sussex Field Meeting Reports

by Dawn Nelson, Alan Knapp, Rita Hemsley & Roy Wells

### Bodle Street Green, 23rd May (by RW)

Led by Roy Wells, fourteen people were met by a melee of barking dogs at Watermill Farm in an idyllic rural location for tetrad recording in the Bodle Street Green area, and were blessed with a fine day for their efforts. In the morning we split into three groups each of 4.66 people and dispersed to three different tetrads to set about general recording. *Adoxa moschatellina* (Moschatel) was found in all three tetrads, and *Conopodium majus* (Pignut) in two, both ancient woodland indicator species. Two examples of *Sorbus torminalis* (Wild Service Tree) were found beside lanes on the drier, higher ground. *Briza media* (Quaking-grass) was found in two tetrads, and other grasses included *Bromus commutatus* (Meadow Brome) and *Glyceria declinata* (Small Sweet-grass). In one tetrad Judith Linsell noticed a *flora plena* plant of *Ranunculus acris* (Meadow Buttercup) in a meadow golden with thousands of others of its more usual

brethren. *Lathyrus nissolia* (Grass Vetchling) showed its pretty face. It was a good time to sort out some subspecies such as *Ranunculus ficaria* (Lesser Celandine) into ssp. *bulbilifer* and ssp. *ficaria*.

In the afternoon we set off as one group to walk the damp bottom of a valley beside Christian's River and a millpond. We saw the first *Epipactis helleborine* (Broad-leaved Helleborine) of the year sending up its leaves. *Stellaria uliginosa* (Bog Stitchwort) and *Veronica beccabunga* (Brooklime) garlanded the millpond. Before traversing a short section of sunken lane with nice ferns, we passed a bank of *Luzula forsteri* (Southern Wood-rush).

Over 200 new records were added, and by the end of the day all four tetrads were over the 200 mark.

### Iden area, 20th & 21st June

(by DN, AK & RH)

On the first morning of this two-day meeting, led by Alan Knapp, we split into four groups to record some very under-recorded tetrads east and NE of Rye. We got records from six tetrads, although in one or two cases there were only a few as the groups passed through on their way to another tetrad. It soon became apparent that the lack of records from this area was, at least in part, due to the restricted number of habitats. Those habitats that were present included heavily sheep-grazed pasture and well-sprayed arable. There was some interest in the ditches although the banks of some had suffered from spray drift. Species of interest included *Anthriscus caucalis* (Bur Chervil) and *Carex arenaria* (Sand Sedge) in TQ91Z, *Oenanthe lachenalii* (Parsley Water-dropwort) and *Trifolium ornithopodioides* (Bird's-foot Clover) in TQ92G, *Nymphoides peltata* (Fringed Water-lily) in TQ92H, both *Typha angustifolia* (Lesser Bulrush) and the hybrid, *T. x glauca* in TQ92K, *Glyceria declinata* (Small Sweet-grass) and *Typha angustifolia* in TQ92L, and *Potamogeton pusillus* (Lesser Pondweed) and *P. trichoides* (Hairlike Pondweed) in TQ92M.

In the afternoon we recorded the area NW of Iden (TQ92B) as a single group. As a result of losing the official footpath we found a group of planted willows which proved to be a rather unexpected hybrid of *Salix viminalis* (Osier) and *S. aurita* (Eared Willow): *S. x fruticosa*.

On the second fine and sunny day of this meeting, led by Rita Hemsley, eight people met again and in the morning divided into two groups to record TQ82S and TQ82V. The areas covered were a definite improvement on day one. TQ82S provided *Carex pseudocyperus* (Cyperous Sedge), *Myosotis laxa* (Tufted Forget-me-not) and one of our less frequent aquatic introductions, *Ranunculus lingua* (Greater Spearwort). In TQ82V species of interest included *Carex spicata* (Spiked Sedge), *Rosa micrantha* (Small-flowered Sweet-briar) and *Sedum telephium* (Orpine). Driving back to meet up for lunch one group spotted *Lysimachia punctata* (Dotted Loosestrife) in Rectory



Lane. A lunchtime exploration of the churchyard at Iden revealed *Asplenium adiantum-nigrum* (Black Spleenwort), *Helianthus annuus* (Sunflower) and *Asparagus officinalis* (Asparagus) on the church walls.

In the afternoon we headed to Moat Farm in the NE corner of TQ82W as a single group. The area around the moat threw up a variety of expected moisture-lovers and, more interestingly, *Potamogeton berchtoldii* (Small Pondweed), *Oenanthe aquatica* (Fine-leaved Water-dropwort) and *Ranunculus peltatus* (Pond Water-crowfoot). Orchards and some newly coppiced woodland produced further species and a relief from the relentless sunshine. Finally the addition of a variety of grasses brought the total to 53 species.

This finished off a most enjoyable and useful weekend in which we managed to get new records from ten of our least well-recorded tetrads.

### Plumpton Green, 19th July (by RH)

On a very windy morning about fourteen people, led by Rita Hemsley, met at Plumpton Green, divided into three groups, and set off to record in TQ31T, S and M with instructions to return for lunch by 1.00 p.m. There was a very heavy downpour soon after we departed, resulting in wet recording cards, but the remainder of the day was dry though still windy. Two groups were able to start recording immediately and added records to TQ31T and 31S, *Chenopodium glaucum* (Oak-leaved Goosefoot) being found in both of those tetrads. After the rain those recording TQ31S were rewarded with a roadside bank covered with flowering *Stachys officinalis* (Betony) and, nearby, some *Trifolium medium* (Zig-zag Clover). In TQ31T *Chaenorhinum minus* (Small Toadflax) was found by a railway footbridge and there was also the unusual sight, away from the coast, of a patch of *Trifolium fragiferum* (Strawberry Clover) in a field. Those recording TQ31M had a longer walk through claggy fields but were rewarded with many plants of *Lathyrus nissolia* (Grass Vetchling) and purple stretches of *Stachys palustris* (Marsh Woundwort). Most of us were brave enough to eat lunch huddled against a fence while Alan identified specimens from wet polythene bags, and we all left together in the afternoon to record TQ31N. Here we found *Trifolium fragiferum* in the fields and re-found an old record of *Ononis spinosa* (Spiny Restharrow), increasing the record count for this tetrad by 20 to 271.

### Chiddingly, 25th July (by RW)

Led by Helen Proctor, ten members met at Chiddingly Church for tetrad recording on a fine sunny morning. Our target tetrad was TQ51H but we dawdled through Chiddingly Village in TQ51M beguiled by *Borago officinalis* (Borage), *Mellissa officinalis* (Balm), *Aethusa cynapium* (Fool's Parsley) and *Campanula*

*poscharskyana* (Trailing Bellflower) whilst the whipper-in tried to get us to the right tetrad. Once in TQ51H we immediately found *Prunus domestica* ssp. *insititia* (Bullace) with its fruits containing slightly flattened stones just beginning to take on their purple hue. Peter gamely did the taste test and assured us they were horrible. A slight pursing of the lips convinced us he told the truth. We found *Crassula helmsii* (New Zealand Pygmyweed) surviving well out of water where it had been dumped from some pond. *Spergula arvensis* (Corn Spurrey) and *Kickxia elatine* (Sharp-leaved Fluellen) had survived the herbicide at the edge of a field of barley. We arrived at the right time (so often one doesn't) to demonstrate the non-disarticulation of *Avena sativa* (Oat). All in all a useful morning's recording of worthy plants but nothing to stir the blood of keen members of SBRS.

For the afternoon Helen had arranged with a landowner for us to visit Twenty Acre Wood and Suzanna's Field, a one hectare SSSI, named after the landowner's late wife whose interest had saved it from being drained and improved. Suzanna's Field, which on entering did not inspire, was guarded by a phalanx of *Oenanthe crocata* (Hemlock Water Dropwort) which was going over and looking decidedly tatty but, as we progressed into the field, we found it beflowered with the two *Loti* (or *Lotuses* if you prefer) *Lotus corniculatus* (Common Bird's-foot-trefoil) and *L. pedunculatus* (Greater Bird's-foot-trefoil), *Stachys officinalis* (Betony), *Silene silaus* (Pepper-saxifrage), *Ranunculus flammula* (Lesser Spearwort) and *Achillea ptarmica* (Sneezewort), the latter prompting the smart execution of Arthur's photographic skills. In the ditches we found *Apium nodiflorum* (Fool's Watercress), *Glyceria fluitans* (Floating Sweet-grass) and *Veronica beccabunga* (Brooklime). We had a clutch of rushes, *C. flacca* (Glaucous Sedge), *Conopodium majus* (Pignut) and so on and on until the final tally had reached 77 species. All felt the field had stirred their blood and that it was a jolly good piece of unimproved meadow.

On to Twenty Acre Wood, which didn't seem very interesting at first glance either, as parts had been replanted, but diligent searching revealed many ancient woodland indicator species. *Moerhingia trinervis* (Three-veined Sandwort), *Ribes rubrum* (Redcurrant), *Lychnis flos-cuculi* (Ragged-Robin) and *Hypericum pulchrum* (Slender St. John's-wort) all added interest and we were enchanted by a single specimen of *Epipactis helleborine* (Broad-leaved Helleborine) before time ran out and sent us heading homewards. We added over 80 new records in four tetrads.

### Dr Derek Hill

It is with sadness that we report the death of Derek Hill who died 22-12-2009 after a long illness. An obituary will appear in the May Issue of our newsletter

# Mistletoe in Sussex

by Dawn Nelson

Recent records (2000 and after) show VC13 with *Viscum* in 63 tetrads and VC14 with 23; it is apparent that there is a definite westerly distribution in Sussex, as there is in the rest of Britain. It can be locally abundant, as at Cowdray near Midhurst, but equally there may be just one small plant recorded, with no other nearby records. Male and female are needed near to each other for it to produce fruit and therefore spread.

**Habitat frequency** Oliver Rackham (2006) claims mistletoe is a 'specifically savanna plant', commenting that palynologists (pollen specialists) 'regard it as an indicator of warmth, but it also indicates a habitat. In my experience the British subspecies is exclusively on orchard or freestanding trees, hardly ever in a wood.' It prefers hosts in an open situation and gardens are the commonest Sussex habitat, especially old established ones. It may be more common than is apparent because we seldom see into back gardens. The next most frequent habitat is orchard, followed by parkland, hedgerow, roadside, field, woodland and churchyard. It is most common in areas of human habitation and on cultivated trees.

**Host frequency** *Viscum album* occurs on over 200 species - not often on conifers, though there are subspecies found on *Abies*, *Pinus* and *Larix* in continental Europe. Host trees are usually at least 20 years old and, although their vigour may be affected, they are seldom killed. *Malus domestica* leads as a favorite host. It is also common on *Tilia*, *Crataegus*, *Populus* and *Robinia pseudoacacia*, most of these trees being planted and/or of hybrid origin. *Acer campestre*, *A. pseudoplatanus*, *Salix*, *Malus sylvestris* and *Prunus domestica* are common hosts too. Others include *Ulmus* spp (less common these days), *Aesculus hippocastanum*, *Fraxinus excelsior*, *Sorbus aria*, *S. aucuparia*, *Cotoneaster*, *Amelanchier*, *Betula*, *Chaenomeles*, *Corylus*, *Cupressus*, *Juglans*, *Laburnum*, *Prunus dulcis*, *Syringa vulgaris* and, rarely, *Quercus*.

**Mistletoe on Oak** John Box (2000) confirmed eleven current records of *Viscum album* on *Quercus* in the UK. He compared this with reports of mistletoe-oaks in the 19th and 20th centuries, to 'suggest a population of mistletoe-oaks which is apparently fairly stable in number but with some turnover as losses are compensated by the discovery of new sites.' The existing host oak trees vary in age from 90 to 400 years.

The earliest mention of mistletoe on oak in Britain is in a 13th century poem from Perthshire. There are three 17th century records, from Surrey, Yorkshire, and Staffordshire. Rev. Stukeley (1687-1765) expanded hugely on a 1<sup>st</sup> century tract by Pliny the Elder, who, in his *Naturalis Historia* describes how Druids thought of the oak as sacred and anything that grew on it, and in particular Mistletoe, as being sent from the Gods. Stukeley thus created a frenzy for all things Druidic, and may be responsible for the continuing rarity of mistletoe on oaks. In December 2008 a classified advertisement appeared in The Times, offering £5000 for a 'small sample of oak mistletoe at source.' There is so much legend attached, one wonders if any mistletoe that does appear on oak is harvested to extinction almost immediately, or even the whole branch cut off. Stories of oak branches with mistletoe being cut abound in literature. A large and handsome specimen of oak mistletoe was exhibited in 1837 at the meetings of the Horticultural Society (later RHS) and the Linnean Society. There are only three known records from Sussex. 'The only example I have ever seen on the Oak was brought from Northchapel to Petworth, circa 1845' Arnold (1907). There is a 19<sup>th</sup> century report from an estate near Shopwyke, Chichester, and it was recorded at Lurgashall in 1913 although not re-found in 1915.

**The Mistletoe industry & propagation** Since at least the 18th Century we have propagated mistletoe. W. J. Bean (1914) wrote 'The mistletoe is frequently cultivated in gardens for its interest and associations, nurserymen supply it growing on apple trees.' Many people succeed in sowing mistletoe onto suitable hosts, and it does seem to grow most prolifically near to habitations. A host with a thin bark is preferable, and the ripe berry should be rubbed onto the underside of a strong branch and tied with muslin to keep it in place and mark the spot. The sticky juice soon dries to a hard glue, holding the seed in place while it produces its radicle. This turns towards the host and adheres by means of a sucker-like pad. The root penetrates the host and the mistletoe then produces its first recognizable shoots.

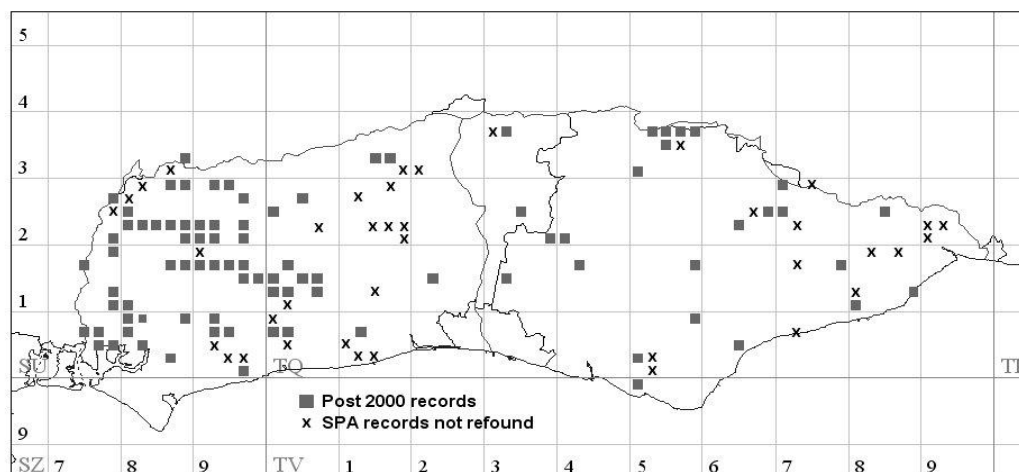
Tenbury Wells in Worcestershire, the mistletoe stronghold in Britain, still holds mistletoe and holly auctions in the run up to Christmas. Fruit growers are now being encouraged to manage their mistletoe crops by harvesting in order to keep this and the fruit trees healthy. Jonathan Briggs is our current exponent of all things 'mistletoe oriented' - he hosts websites, blogs and much more.

The clumps in high branches of tall trees are likely to be native and bird sown but a good many on fruit trees will have been propagated. Some trees in gardens could have been planted with mistletoe already growing on them - they are still offered for sale today.

**Recording Mistletoe** In some cases we will never know for sure whether a specimen is wild or sown by man but, wherever we find it, it always seems to hold some of its special magic. One of the most enjoyable ways to spend a cold clear winter's day is to drive around mistletoe-hunting.

Recording for the *Sussex Plant Atlas* and Supplement (1966-88) produced 65 tetrads with *Viscum*. We have more records now but 39 old ones are still missing. The map below shows recent (2000 and later) records as black squares. The X's show where we have old records that have not been re-found. Can I recruit more of you to see if we can get all the sites in Sussex recorded? Obviously a site name and grid reference are needed, and it is helpful to note the host tree and number of bunches. Perhaps we should also include sex and height if possible.

### *Viscum album*



There is not room here to expound on all mistletoe-related subjects. Legends abound, and it is also used extensively in medicine. More information can be gleaned from the publications listed below, as well as the usual floras.

### References & bibliography

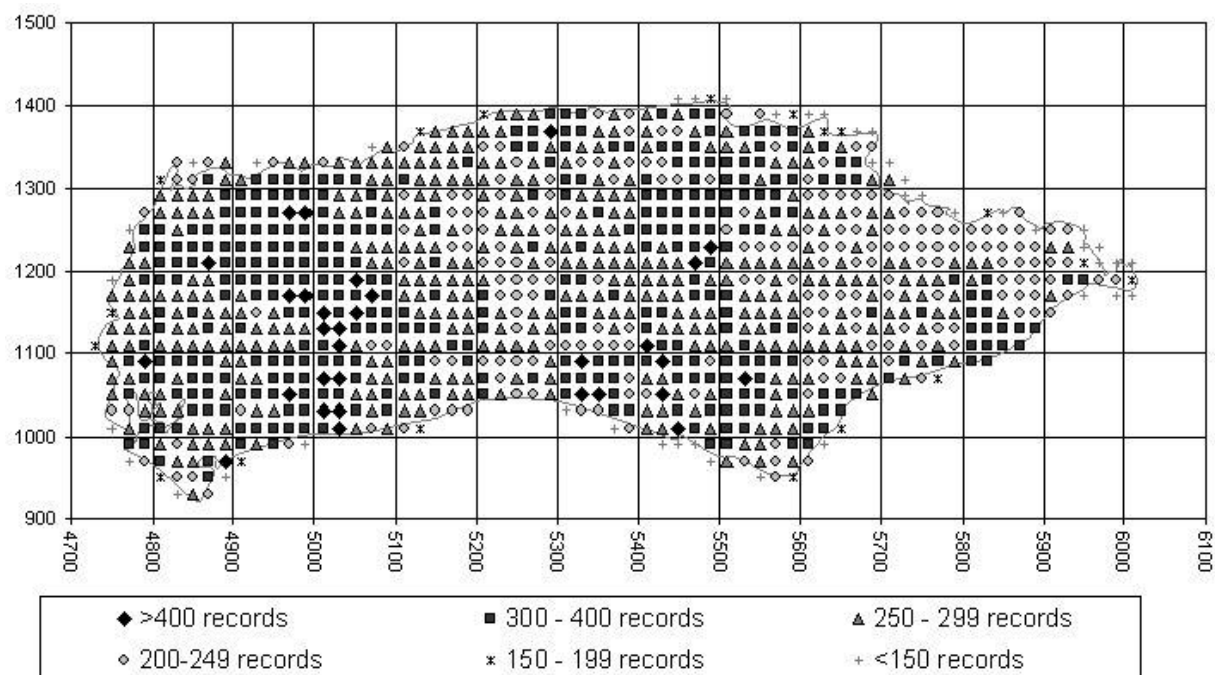
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## Flora progress & Recording Notes by Alan Knapp

Once again, thanks to the efforts of a number of enthusiastic recorders, we have had an excellent year both in terms of the quantity of records and the number of interesting finds that have been made, so once again many thanks to all of you who have contributed. A list of the interesting records will appear in the Spring newsletter. At



the 2009 AGM we listed a number of things we wanted to achieve with our 2009 recording. The first was to reach a total of 280,000 records by the end of the year. This total has not only been met but has been greatly exceeded and the current total now stands at just over 286,000 records. Our second target was to get 200 or more records in every complete tetrad (i.e. those which are not partly in the sea or shared with another county). We have achieved this with the exception of a single tetrad NW of Rye (TQ92K). This area has a very limited range of habitats and most of those are species poor. So, despite two visits during an SBRS field meeting and separate visits by at least two other recorders the total stands at 195 records and it seems unlikely that it will go much higher, although with a further visit we hope it may get beyond 200. Our third aim was to get the number of tetrads with 300 or more records to 400. We have not quite achieved this, the current total being 383. This is mainly because most of the 2009 recording was concentrated on those tetrads with the lowest number of records and, as a result, we have moved the number of tetrads with 250 or more records from around 430 to 776 (over 75%) of the total tetrads). The current situation is summarised in the map below.

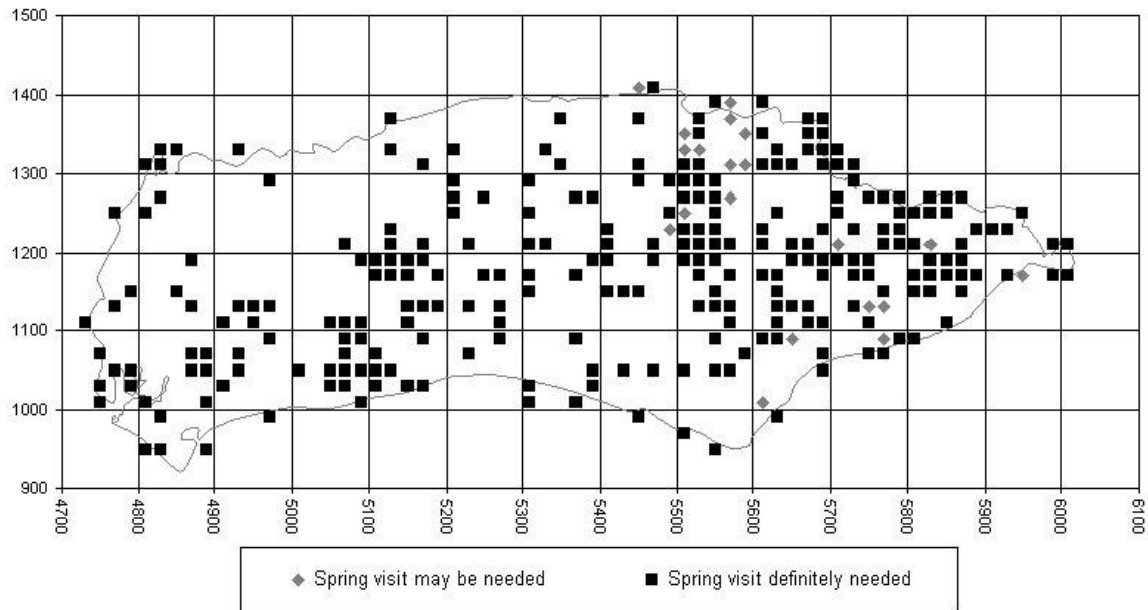


We are also making progress on writing for the flora with 69% of draft species accounts written and a start being made on the introductory chapters.

## Recording in 2010

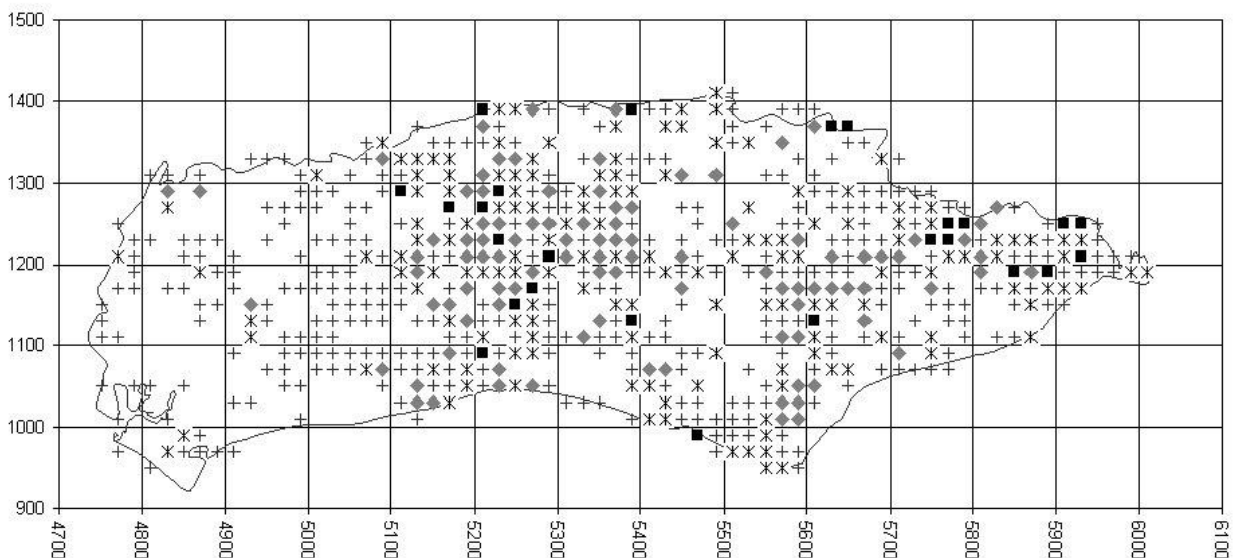
The most important point is that 2010 is the year when we want to complete the bulk of the recording, leaving 2011 for specific final tasks. We will give further details in the Spring newsletter but it is important to make a few comments here, especially about recording in the Spring. There is a group of species, many quite common, including *Carex caryophyllaea*, *Conopodium majus*, *Erophila verna* agg, *Narcissus pseudonarcissus* ssp. *pseudonarcissus*, *Myosotis ramosissima*, *Ranunculus auricomus*, *Ranunculus ficaria*, *Veronica hederifolia*, *Viola hirta* and *Viola reichenbachiana* which can be recorded with ease during the early spring but either disappear or become far harder to find or identify later in the year. There are also a number of introduced bulbous species such as *Crocus* and *Galanthus* species which can only be recorded early on. There are significant gaps in the distribution of a number of these species because there are a number of tetrads which have had little or no recording in March, April or May. The following map shows tetrads which have had little or no Spring recording, and we would like to ask all recorders to make a special effort to visit as many of these tetrads as possible before the end of May.

### Tetrads potentially needing spring visits



We have used the data from the *Sussex Plant Atlas* (SPA) to do some further analysis, comparing the number of post 2000 records we have with the number of SPA records for the same tetrad. There are a number of tetrads where the SPA had significantly more records. In a few cases there is a clear reason. For example tetrad TQ23U, which is now largely covered by houses and the Crawley industrial estate, had a number of woodland species recorded in SPA. However woodland is now virtually absent from that tetrad so it is unlikely that we will refind these species. However, in many places, a more likely reason for the difference is that the SPA recording was more thorough. We would therefore like to ask recorders to focus more on the tetrads where SPA had significantly more records. The following map (page 10) shows these tetrads. The map symbols indicate the size of the difference: Blanks: tetrads where we have more records, +: record numbers are very close, \*: SPA has a few more records, ◆: SPA has significantly more records and ■: SPA has a lot more records. The last two groups are the tetrads needing more attention.

### SPA/New Flora comparison 14-12-2009



## **In summary the main requests for 2010 recording are:-**

1. Make spring visits to tetrads which have had little spring recording
2. More recording in tetrads with less than 250 records. Good idea to look at lists on web site to check when they haven't been visited.
3. More recording in tetrads where SPA recording has more records (see map above). A copy of the map which will be updated regularly (probably each month) is also available on the web site.

## **Errors and omissions - important request to all recorders**

For some reason the number of errors and omissions in submitted records has risen this year. Records with errors and omissions take far longer to deal with than those which are accurate and contain all the required information so please take time to check your records before submitting them. The problems are different for those submitting records on paper and by computer:

### **1. Records on paper:**

Over half of the lists of extra records (lists of a few extra species for a tetrad) and also some record cards have at least one important piece of information missing (usually location or species status) for some or all of the records. Remember we need location, tetrad or grid ref., status, and date for every record. Also, record lists are quite often crammed onto small pieces of paper, increasing the likelihood of information being left out and making them harder to read which increases the chance of errors being made when entering the data onto computer. Please don't try to save on paper - submit records in clear, well spaced out lists with the records for different tetrads clearly separated and containing all the relevant information. Also please check that your name is written on every sheet.

### **2. Computer records:**

Of the record files containing GPS grid references we received about 25% have at least one record whose grid ref. has an error - usually an extra digit or a missing digit. It's also quite common for the 100km square letters for SZ and TV to be wrong (replaced by SU & TQ) so we get records for tetrads like SU89U. The other occasional problem is that status information is omitted.

## **Please therefore take time to do 2 things before sending in records:**

- If submitting records on paper take the trouble to write them out clearly with plenty of space and check that all the required information is included.
- If submitting computer records please check that all grid references are valid and really are in the tetrad and that all the required information is present.

## **Warning about accuracy of GPS**

Comparing recent GPS grid references with some earlier ones for exactly the same sites indicates that some of the recent readings are less accurate. This may be because we are getting a little over-confident about using GPS and are not allowing the reading to stabilise before noting the position. Remember that the accuracy figure may not be correct if the readings have not stabilised. My experience has shown that when showing an accuracy of 20m the grid ref. can be well over 100m off from the correct reading. This can occur if you have just switched it on or if you are in, or have only just left an area of weak signal. Always wait for the reading to stabilise before noting the grid ref. - if it is continuously drifting in one direction, even slowly, it has not yet stabilised. When stabilised the readings should be constant or, more often, will vary a bit but will go up and down, not drift in one direction. Also, remember it is very easy to misread the small numbers on the eTrex GPS display, especially 0, 3 and 8, so please check carefully before writing down the figures.

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## 2010 Field Meetings

PLEASE NOTE: There will be some additional meetings organised to work areas which emerge as requiring further attention. Details of these will be posted on the web-site and communicated to local recorders by telephone nearer the time.

<b>Saturday 24 April</b> <b>Roy Wells</b>	Burwash area: Spring recording. Meet at Pound Bridge, W of Witherenden Hill, TQ632264 to record TQ62I. Afternoon: Brock Wood nr Burwash Common, TQ643250.
<b>Saturday 8 May</b> <b>Jacqueline Rose</b> <b>Judy Clark</b> <b>Ellen Campbell</b>	Staplecross. Multi-tetrad recording in SE TQ72. Meet TQ784225 car park E side of church off B2165. Judy has room for two passengers from Hastings station.
<b>Sunday 23 May</b> <b>Rita Hemsley</b>	Near Chailey. Meet car-park in Warr's Hill Lane, North Common TQ393217 for recording in TQ32V, W and perhaps R.
<b>Saturday 5 June</b> <b>Alan Knapp</b>	Fulking Escarpment. In search of <i>Tephroseris</i> as well as general recording on the Down. Park in rough layby N side of minor road W of Fulking, TQ242113.
<b>Saturday 19 June</b> <b>Frances Abraham</b>	Milland. Meet at crossroads in the village, SU838270 to find missing Sussex Plant Atlas species in SU82I and J.
<b>Saturday 24 July</b> <b>Helen Proctor</b>	Recording in TQ51: details in May Newsletter.
<b>Saturday 1 August</b> <b>Alan Knapp</b> <b>Nick Sturt</b>	Multi-tetrad meeting in TQ22. Meet E of A23 at Bolney Crossways, TQ266225, parking on verges. We shall disperse to try to boost totals in low-scoring tetrads.
<b>Sunday 15 August</b> <b>Nick Sturt</b> <b>Alan Knapp</b>	Multi-tetrad meeting in TQ21. Meet in layby/picnic area beside A281 N of Henfield, TQ212179. We shall disperse to try to boost totals in low-scoring tetrads.
<b>21/22 August</b>	To be arranged.
<b>4/5 September</b>	To be arranged.

All meetings start at 10.45. Since some of the venues have limited parking, and for environmental reasons, members are encouraged to share cars whenever possible.

**Those attending SBRS field meetings do so at their own risk.**