



Sussex Botanical Recording Society

Newsletter

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January 2014

President's message

How lovely to have good news of the progress of our Flora! Writing a county Flora is a considerable task, as we have discovered, so it is very encouraging to hear plans for the completion of ours in the not-too-distant future.

I was very sorry not to be with you at Staplefield when this was reported, but pleased that you had a good meeting. I was particularly sorry not to be with you as I had intended to record a special thank you for all the lovely cards which you sent to me for my birthday. The postman trundled in with bundles of them. My living room was a picture. All the messages were read and the pictures described to me, and I do thank you all for remembering and sending such a lovely selection.

During the summer I became a Great Granny and Alexander Hamish was brought to see me when he was two months old, but already dressed in a little corduroy outfit, looking as if he was ready for his first field meeting.

The field meetings are a valuable activity of the Society, helpful in encouraging new members to join us, and a very good way to learn more about our plants. We have also this year a change in field meeting organisers as Pat Donovan is resigning after very many years. She has planned excellent programmes and also shared with us her skill as a botanical artist. Her painting on the cover of *The Flora of Ashdown Forest* is one of the loveliest wild flower pictures I have ever seen. Helen Proctor will now be taking over as the Field Meeting Convener for East Sussex – she has already been filling in the gap with some excellent meetings.

All good wishes to you all, and hope for a rewarding and enjoyable recording season ahead.

Mary Briggs

For CONTENTS: see page 2

Secretary's Note

Dates for your Diary:

Saturday 1st March 2014

The Annual General Meeting will be held at 2.00 p.m. at Staplefield Village Hall. The committee have been busy redrafting the SBRs constitution and the new final revised version will be put to the members' vote for acceptance at the AGM. A copy of this new constitution is available on the website or I will send a copy to anyone unable to access the website if you forward me your name and address. After the AGM, there will be details of this year's field meetings, a progress report on the new Flora and details of interesting records received. Please bring your digital photographs or slides of Sussex plants to show to the meeting, which will finish with tea and biscuits. The hall will be available from 1.30 p.m. if you wish to bring any books or plants for sale.

I can email the latest address list to any member who would like one but, for reasons of confidentiality, this list is not available on the website. Please let me know, if you have not already done so, if you are willing to receive the newsletter electronically as this saves the Society money which will be used for publication costs of the new Flora.

Saturday 1st November 2014

The Autumn Get-together will be held at Staplefield Village Hall. The doors will be open from 10.00 a.m. and the meeting will start promptly at 10.30 a.m. Please remember to bring a packed lunch; tea or coffee 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. Offers of homemade cakes are always welcome and prove very popular, and the sale of them boosts our funds.

Please remember to put this date in your diary now, so you do not forget to come to this very enjoyable day.

Rita Hemsley

<u>Contents</u>	
President's message	1
Secretary's note	1
Treasurer's note	2
SBRS Constitution: proposed changes..	2
Newsletter news	2
Field meeting reports 2013: W. Sussex.	3
Field meeting reports 2013: E. Sussex..	4
Autobryography	6
Culpeper and Sussex.....	8
Six fiendish questions	9
Recording changes in 2014	10
Recording in 2013 and 2014	11
Field meetings 2014	12

Treasurer's Note

Welcome to 2014 and being closer to the time of the publication of the eagerly awaited new Flora! I hope to be able to tell you in the next Newsletter more about the current funding position, but in the meantime if anyone wishes to send me any donations for the Flora they will continue to be greatly appreciated.

It appears that subscriptions for 2014 will remain as for 2013 i.e. £8 for an individual and £11 for two people at the same address and receiving one copy of the mailings as they arise. Subscriptions may be sent to me at my home address, paid at the AGM in March or at the Autumn Get-together in November. If anyone has not paid their subscription for 2013 - please now so do if you wish to remain a member.

Trevor Lording

SBRS Constitution: proposed amendments

by Nick Sturt, Chairman

A routine review of the SBRS constitution undertaken by Committee members in 2013 has led to a small number of proposed amendments to be put to the membership at the AGM in March 2014. In most cases these are in line with arrangements already made by comparable societies and arise from a need to update certain procedures. The prime example of this is the section Dissolution which was previously missing from the Constitution. I should emphasise that the Society is flourishing – we have a steady intake of new members as well as the usual sterling support of established ones – but procedures in the event of Dissolution should be formalised in the constitution of any society. One or two other minor modifications tighten up procedures for meetings and the nomination of candidates for election to office. Conversely, under Officers and Management the rules governing the ‘job description’

of some of the officers have been made deliberately less specific in order to create a more flexible Committee for the continued efficient running of the Society. Finally, under Activities there is clarification about the ‘ownership’ of plant records which the County Recorders submit to the BSBI.

I am grateful to Mike for his considerable work behind the scenes. He and I both looked at the Constitutions of societies of which we had some knowledge and then the proposed changes were discussed and fine-tuned by the full Committee. I recommend these changes to you: some are necessary in order to bring the Constitution up to date, others desirable in order to ensure that the Society continues to run efficiently and so serve the Membership to the best of its ability.

A copy of the Constitution with the amendments has been posted on the website. If you do not have access to a computer and would like to examine the document before the AGM please send a SAE to the Secretary: Rita Hemsley, 32 Dumbrells Court, North End, Ditchling, West Sussex BN6 8TG.

Newsletter News

by Frances Abraham, Editor

After many years, Arthur has decided to resign his job on the Newsletter. He designed the current format of our Newsletter, and has assembled it, arranged the printing of it, packed it and mailed it. As Editor, I have always been relieved to know that he would pick up on plant names misspelt and similar bloomers, and would cope with electronic horrors which baffled me. It has been Arthur who ensured that all went smoothly and that you received your Newsletters on time. Thank you, Arthur, from all of us. And thanks, too, to Kathryn Knapp, who has gallantly agreed to take over Arthur's role.

Upon another Newsletter matter - we have asked before if **ALL** those members who have email would please agree to receive their copies by this means rather than by snail mail. Sending by email saves us precious time, as well as the costs of printing and posting. Your email address will **NOT** be publicly available. There is a further advantage to email. At present just over half our members receive the Newsletter electronically. Once the great majority of members do so, and once the new Flora is out of the way, we hope to increase the size. It would be wonderful to be able to include colour photos, fuller lists of interesting records, and more detailed articles on Sussex plants, places and botanists.

Paper copies will always be sent to those who do not have access to a computer, but we beg you to let us know if you would move to email. Please let me know at fab@inmycloud.net.

Field meeting reports 2013

West Sussex VC13 by Nick Sturt

April 27th Woolbeding Common and environs

Not all of the nine who gathered on Older Hill had previously admired the breath-taking view out west over verdant undulations to the purplish chain of the Downs, but there was not much time to stand and stare as Dynamic Dawn bid us depart in three groups. The area – Woolbeding, Redford, Milland – had been covered quite well, but each band returned at 1.30 with some useful additions to the score-sheet, mainly early woodland species such as Pignut (*Conopodium majus*) and Woodrushes (*Luzula forsteri* and *L. pilosa*). Hail bouncing off winter clothing was tolerable at lunch-time but then an April shower sent members scuttling to their cars: a clearing sky dispelled doubt about the afternoon session and SU82T was tackled in sunshine. Steven, still reeling from the ‘host of golden daffodils’ (*Narcissus pseudonarcissus*) seen in his morning jaunt with Frances, could not believe that there were more – this time a large colony of the double form. At the end of an inspiring first West Sussex meeting of the season everyone expressed their thanks to Dawn as they savoured the coconut fragrance of Common Gorse (*Ulex europaeus*) and the sublime panorama from Older Hill.

May 12th Hurstpierpoint

Rita had done her homework and soon dispatched the seven members to three different tetrads with the injunction to be back for lunch at 1.00. And before you could say Jack or indeed Richard Robinson it seemed we were tucking into our picnics, exchanging problematical specimens and comparing notes. It was clear that Ady and Helen had had the best of the morning, adding no less than 34 species to TQ21S including a good tally of woodland plants and some naturalised *Eranthis hyemalis* (Winter Aconite). The traditional plenary afternoon session followed, starting with a stroll along Manor Road on the west side of Hurstpierpoint where *Geranium lucidum* (Shining Crane’s-bill) entertained. Some allotment holders of the town were willing to admit the party to their plots but the standard of weeding was such that treasures were hard to come by – a little *Myosotis discolor* (Changing Forget-me-not) was the Weed of the Day. In the fields the early meadow grasses were beginning to make a stand and a small patch of *Carex nigra* (Common Sedge) compensated those looking in vain for its missing cousin *C. flacca* (Glaucous Sedge). The proceedings ended just before the promised rain arrived from the West and in time for the author to attend a splendid concert in Amberley church put on by Richard Robinson’s London choir Concordia.

July 14th Crawley Down

By 10.45 it was already hot under a shimmering Summer sky. As Arthur, Frances, Steven and Sue stepped gallantly forth along the Worth Way, we the other party (Kathryn, Elisabeth, Richard and the author) had no idea that they would never see them again. At least not for lunch. For our part we focused on the tetrad missing list and gradually added a plant here and a plant there, at length reaching some good water where many SPA species were re-discovered despite the attentions of a proprietorial swan – *Callitriche platycarpa* (Various-leaved Water-starwort), *Carex paniculata* (Tussock Sedge) and *C. pseudocyperus* (Cyperus Sedge) probably the pick. Moving into the next tetrad we soon fell upon a dung-heap and plundered it, with *Chenopodium glaucum* (Oak-leaved Goosefoot) arguably the prize. Richard did indeed argue, pointing to a rose cultivar which he confidently claimed to be ‘Champagne Moment’; we were more than a little impressed with his identification until we noticed the nursery tag still attached. It would have needed a quick march to reach the lunchtime rendezvous even if we had not taken a wrong turn and so at length we sat down under the shade of an oak and over a sandwich or two wondered why we had not exchanged telephone numbers with a grown-up in the other group. We learned the tale of that group over drinks outside the Royal Oak later. They too had prospered well – *Epipactis purpurata* (Violet Helleborine) in flower and a smorgasbord of *Potamogeton*: *P. berchtoldii*, *P. crispus* and *P. natans* (Small, Curled and Floating Pondweeds). Kathryn’s organisation of the day was predictably impeccable and it is only fair that the author owns up to the map-reading error. A total of 46 species was added to TQ33N, 18 to TQ33T and 9 to TQ33U: a highly satisfactory day.

July 28th Henfield area

Sylvia was unable to join us but she sent two eager new recruits in the form of Helen and Malcolm. They survived a fairly challenging morning with the author around the industrial estates and southern margins of Partridge Green slowly accumulating additions to TQ11Z. Meanwhile Frances, Rita and Bob set about TQ11Y where pickings were similarly hard to come by, especially as Bines Green has declined in botanical interest due to lack of management – one recalls also the case of Oreham Common, reported here last year. Elisabeth, Carol and Sue tackled Jolesfield Common in the hope of eroding TQ12V’s quite substantial SPA missing list. Honours for the morning were about even – 18 to 20 species added to each – with the prize awarded for Sue’s *Muellenbechia*. Helen caught up with the party at lunchtime after something of an odyssey from East Sussex. Her reward was an afternoon luxuriating in a five-star damp meadow recently discovered near Henfield. Such floral treats as *Cirsium dissectum* (Meadow Thistle), *Pedicularis*

sylvatica (Lousewort), *Scutellaria minor* (Lesser Skullcap) and *Veronica scutellata* (Marsh Speedwell) were matched with a bounty of sedges including *Carex echinata* (Star Sedge), *C. nigra* (Common Sedge) and *C. panicea* (Carnation Sedge).

August 18th Knepp Estate

Clouded Yellows were out and about in the sunshine at Knepp, challenging the splendour of Fleabane and Ragwort: the pleasant task to survey the 're-wilding' project with the focus on TQ12Q and F. Frances led her seven off into the swampy territory south of the Millpond while the author swept his six along the east drive and then down to the Adur in sight of the motte and bailey. It was a happy morning enjoyed by all and a rough calculation over lunch suggested comfortably in excess of thirty new species, the majority re-finds to cross off the SPA list. Among the bag Frances' group brought back were two sedge desiderata, *Carex pseudocyperus* (Cyperus Sedge), *C. vesicaria* (Bladder Sedge), while the other group boasted *Butomus umbellatus* (Flowering-rush), *Lemna gibba* (Fat Duckweed) and Marsh Ragwort (*Senecio aquaticus*) from the Adur. A united effort in the afternoon, further south and west in the estate among some exciting damp areas – firstly a pond with an abundance of *Hottonia palustris* (Water-violet) and *Rumex hydrolapathum* (Water Dock). From there a wander along one of the 'laggs' rich in other wet-loving species. Such was the reluctance of the group to leave that it was after 5 o'clock before the cars were regained. The Society is most grateful to Sir Charles Burrell for welcoming its members onto his land to enjoy and help monitor his very exciting project.

East Sussex VC14 by Helen Proctor (unless noted otherwise)

April 20th Marklye area

Three members met at Great Marklye in TQ52W, where we explored woodland and the old railway bank. Two more members joined us in the afternoon. Down the lane, a profusion of *Anemone nemorosa* (Wood Anemone) and *Primula vulgaris* (Primrose) carpeted the steep banks. At Orchard Farm a very brambly wet meadow produced young leaves of *Lychnis flos-cuculi* (Ragged-robin) and under trees a large patch of *Chrysosplenium oppositifolium* (Opposite-leaved Golden-saxifrage) was flowering.

18th May Beechen Wood

The main objectives were to record plants for the landowner and to re-find missing *Sussex Plant Atlas* species in TQ42K. With a cold Spring the Bluebells were still at their best, providing a dense blue carpet through this semi-natural ancient woodland. Several plants of *Dactylorhiza fuchsii* (Common Spotted-orchid) and one non-flowering *Orchis mascula* (Early-

purple Orchid) with unspotted leaves were seen. Further on, subtle changes in the geology and more open rides produced different species. Progress was slow as identification skills were ably shared with the two enthusiastic new members. After lunch, we walked to the Shortbridge stream where *Cardamine amara* (Large Bittercress), some in flower, overhung the stream bank for several metres. Fifteen species, including seven SPA missing species, were added. The eleven members who came enjoyed a dry, mild day with some sunshine in the afternoon.

June 9th Lamberhurst

Nine SBRS members and six members of the Kent Botanical Recording Group met at Lamberhurst car park on a dry, cool and overcast day. Although Lamberhurst lies in Kent, the River Teise in the centre of the village marks the vice county boundary. The objective was to collect records for border tetrads as well as helping our Kentish friends to obtain monad records, north of the Teise. As TQ63T only had 36 records, blank cards were given to four teams which scattered in different directions. This resulted in the collection of 145 new records, inevitably including casual and well-established garden escapes, such as *Chaetonorrhinum organifolium* (Malling Toadflax "Blue Dream"), which had spread onto a roadside bank. Crossing the Teise, we studied arable weeds. In woodland, *Cardamine bulbifera* (Coralroot) was found in fruit. Back in VC14, we added fourteen new records to TQ63S. The afternoon route included the river valley. TQ63Y gained 62 new records, including *Hesperis matronalis* (Dame's-violet) in white and lilac forms and *Cardamine amara* (Large Bittercress).

June 15th Eastbourne downland (by Roy Wells)

When planning a field meeting in the middle of June there is a slight worry that the day may turn out to be blisteringly hot. No such worries on the 15th this year, when a strong gale blasted the Downs all day. This was undoubtedly the reason why only four of our keenest members turned up. Recording this year has concentrated on those species that we are really keen to re-find. *Tephrosia integrifolia* (Field Fleawort) is one of these little blighters. Propelled headlong from Butt's Brow by the aforementioned gale we dropped down onto the very steep north-eastern escarpment and immediately found shelter, spending several hours of super botanising on the sun-warmed slopes. Many downland favourites were found including *Briza media* (Quaking Grass), showy *Polygala* sp. (a Milkwort), *Helianthemum nummularia* (Common Rock-rose) and humble *Plantago media* (Hoary Plantain). *Thymus* sp. (Thyme) and *Origanum vulgare* (Marjoram) scented our path. After lunch we ascended once more to search for the *Tephrosia* in full exposure of the blast but, alas, found it not. Then down again to explore an abandoned chalk pit where Adonis Blues were flying.

Ascending once more, we battled our way back in the teeth of that unrelenting gale. We were pleased with our eighteen new records for the day, considering that each of our two tetrads already had at least 350 records.

June 29th Broadwater Warren

Three members met at the RSPB reserve. The objective was to refind heathland species, following extensive clearance of conifer forest. However, establishment of a good heathland flora was yet to happen. Decoy Pond proved to be much more profitable and initiated an impromptu study session of sedges. In all, eight sedge species were seen including *Carex echinata* (Star Sedge) and *C. demissa* (Common Yellow-sedge). The pond was the ideal lunch spot as it was sunny and sheltered and we could watch Emperor dragonflies darting back and forth. *Trichomanes speciosum* (Killarney Fern) was searched for but could not be found. Fourteen species were added to TQ53N, including six SPA species.

July 6th Ouse Valley and downland (by Peter Smith)

Eleven hardy botanists gathered at Rodmell to brave what proved to be grilling heat and to visit tetrad TQ40I on the Lewes levels. With 418 species already recorded, we did well to add six more, including *Puccinellia rupestris* (Stiff Salt-marsh Grass) and *Groenlandia densa* (Opposite-leaved Pondweed). We also enjoyed looking at previously recorded sites for wetland species such as *Catabrosa aquatica* (Whorl-grass), *Trifolium squamosum* (Sea Clover), *Potamogeton pectinatus* (Fennel Pondweed) and *Ceratophyllum demersum* (Rigid Hornwort). After lunch by the river, a reduced group adjourned to the equally shadeless downland tetrad of TQ40B near Telscombe. Here we were rewarded with good sightings of *Valerianella dentata* (Narrow-fruited Cornsalad) and *Legousia hybrida* (Venus's-looking-glass). Fifteen new tetrad records were added.

August 3rd Great Maxfield, Brede Valley (by Judy Clark)

Philip Newton, owner of Great Maxfield in the Brede Valley, has been restoring wetland for 25 years. The aim of this excursion was to record missing species and to see just what can be achieved when a landowner attempts conservation on a landscape scale. It was a perfect day for botanising, warm with sunny intervals and a light breeze. The turn-out was terrific, with seventeen arriving from far and wide. Philip and Maria were most welcoming, giving us permission to wander wherever we wanted. We began by looking in TQ81H at an area of damp meadow and ponds that had been established on previously arable land after all the topsoil had been removed. The sale of the soil paid for the restoration. Some meadow species had been introduced by spreading locally collected seeds, including *Oenanthe pimpinelloides* (Corky-fruited Water-dropwort), which is now relatively abundant.

Eight new records were added. We moved on to Doleham Halt. After lunching in a field with a magnificent view of the Brede Levels, we split up into groups to record the ditches and damp pastures of TQ81I and N. Restoration has involved raising water levels and using sheep, Highland cattle and a small herd of Konik ponies for managed grazing. TQ81N, containing more recently restored areas, provided 24 new records, including *Potamogeton obtusifolius* (Blunt-leaved Pondweed), *Sparganium emersum* (Unbranched Bur-reed) and *Hippuris vulgaris* (Mare's-tail). Eight new species were spotted in TQ81I.

August 24th East Guldeford (by Judy Clark)

An excursion to parts unknown in the very easternmost part of East Sussex, with a focus on ditches: what botanist could resist? Perhaps a forecast threatening thunder and lightning and heaven knows what else acted as a deterrent, for only five fortitudinous souls turned up. The clouds began to darken as we set off for a ditch by Brooks Bridge in TQ92G, where new records included *Butomus umbellatus* (Flowering-rush), which we in East Sussex don't see much, and *Triglochin palustris* (Marsh Arrow-grass). With the sky growing ever more menacing we moved on to the banks of the Union Channel, where Jacqueline spotted tiny sprigs of *Glaux maritima* (Sea-milkwort) in some incipient salt marsh. And then, did the rain come down! But we did not forsake the cause, seeing an opportunity to eat lunch while it poured, pause, and then have a chance to visit a nearby cafe for hot drinks, when it poured some more. Eventually, it sort of stopped raining and we ventured forth once more, this time southwards to TQ92F and K. Species that we don't see every day included *Lemna gibba* (Fat Duckweed), *Ceratophyllum submersum* (Soft Hornwort), *Veronica catenata* (Pink Water-speedwell) and *Samolus valerandi* (Brookweed). We were rewarded not only with new records but also with another soaking. At 4 o'clock we decided that it was time to abandon what can only be described as a truly aquatic experience!

August 31st Beechen Wood and Barcombe Mills

On one of the last fine weekends of the summer, ten members met at Beechen Wood for a second visit at the request of the owner Bob Peters. The wood area is small but, on our first visit in May, we recorded a total of 110 species. This time, our access was often obstructed by dense brambles or bracken, so that we only added eighteen species to the list for the owner. Moving on to Barcombe Mills, we continued tetrad recording in two areas, first to TQ41H down the west side of the River Ouse. It is an area of grazed meadows, intersected by deep drainage ditches, now dried out. However, with such an enthusiastic group, we were gratified to add a further 32 species, bringing the tetrad total to just over 400. Continuing southwards, we entered TQ41G which includes Culver Farm, whose

owners had requested a species list. The old Lewes to Uckfield railway line runs through the tetrad. This produced some oddities flowering on heaps of chalk rubble. A small field which had been sown with bird seed three years ago, then abandoned until lightly harrowed last winter, was now full of exotic, brightly coloured flowers, some of which had spread beyond the field edges. A further 21 species were added. In all a very pleasant and rewarding day, so our thanks to all involved.

September 15th Glynde Estate (by Rita Hemsley)

On a blustery day nine people gathered to record on the beautiful Glynde Estate. The weather remained dry but heavy rain was promised by 4.00 p.m. Starting with a patch of waste ground we found *Euonymus europaeus* (Spindle) and *Sorbus aucuparia* (Rowan) before walking along the north bank of Glynde Reach. With the help of Roy and his grapnel and his eagerness to run up and down the steep banks, we added *Spirodela polyrhiza* (Greater Duckweed) and *Myosotis laxa* (Tufted Forget-me-not). After a search of a damp meadow in TQ40U produced no new records, we returned to TQ40P and Glynde village. Here, although it was already well recorded, we were able to add *Aubrieta deltoidea* (Aubretia) and *Cyclamen hederifolium* (Sowbread), well established on a grassy bank. In the churchyard we found *Onopordum acanthium* (Cotton Thistle) and there was an interesting patch of chalk turf with many familiar chalk grassland species. After lunch on the banks of Glynde Reach, we set off to record on the south bank of the Reach and adjacent meadows and streams. We found *Bolboschoenus maritimus* (Sea Club-rush) in both tetrads and two good patches of *Carex pseudocyperus* (Cyperus Sedge). In a hedgerow Roy found *Rhamnus cathartica* (Buckthorn) and some planted specimens of *Viburnum opulus* (Guelder-rose). We arrived back at the cars just as the rain started.

Acknowledgements are due to Lord Hampden for allowing access to the Glynde Estate.

Autobryography: 30 years' bryology, mainly the Sussex years 1983-2013

by Howard Matcham

Leaving school in 1958 aged fifteen without formal qualifications was not the disaster it would be today as every school-leaver found a job. As my father was a shepherd it was decided by my secondary school that O levels would be a waste of time as I would work on the farm! I did so, but at eighteen had had enough and yearned to see more than the back end of a cow. I joined the Royal Navy. My twentieth birthday was celebrated in Sabah, North Borneo and an opportunity arose to spend a few hours in tropical rainforest. An incredible journey through life had begun!

In 1970 I re-trained as a welder as submarine detection was a tad difficult in Civvy Street; 1973 and my father wished to retire, but not easy to do so on a farm where he lived in a tied cottage, so aged thirty I left The British Steel Corporation and moved in with my father to take his place on the farm. I had returned to my roots. I began to study botany and Louise, who was to become my wife, gave me Keble Martin's *The Concise British Flora in Colour*. We went for long walks over the downs looking at wild flowers; for the subsequent decade I studied vascular plant botany in Sussex. As a farm labourer at Poling I had ample opportunity to study the plants found on the farm.

In 1983 I joined the SBRS and met Rod Stern and the late Ted Wallace; both were to introduce me to bryophytes on a field meeting in woodland in the Horsham area later in that year. Ted walking through the wood pointed to a moss and remarked '*Catharinea undulata*.' 'How do you know that?' I asked. 'Experience' was his reply! This moss is now known as *Atrichum undulatum* (Common Smoothcap) and is frequent in woodland on clay and sandy soil. This chance remark was to dominate my life for the following thirty years as with a child's microscope I began to look at bryophytes; I still have that microscope but find it hard to believe that I was ever able to use it; I remember remarking to the late Alan Crundwell, a superb bryologist, on one of the first bryological field visits I attended at Shortheath Common in Hampshire that year, that I felt I would not be able to get to grips with the discipline as I found it difficult and frustrating.

My first vice county record came in 1984 when I looked at a ghyll near Buriton in Hampshire VC11. *Mnium stellare* (Starry Thyme-moss) is exceptionally local in southern England. New Sussex vice county records became more frequent with *Tortella nitida* (Neat Crisp-moss) at its most easterly point in England on the mortar of a flint wall at Halnaker, an exceptional find, as was *Grimmia laevigata* (Hoary Grimmia) on clay roof tiles, a superb habitat for mosses; distribution at that time was restricted in southern and western England to VCs 1, 3 and 4, with a single record from vc 15 in the east. My original record came from SU90 but I had found it in SU80 and SU81 within the month, simply by looking at clay roof tiles. Other members of the Grimmiaceae found in this habitat were *G. longirostris* (North Grimmia), and *G. lisae* (Lisa's Grimmia), both taxa with previously a virtually northern distribution in Britain.

Ted Wallace continued to encourage me and he would bring carrier bags filled with bryophyte duplicates from his travels around the world which stimulated me to attempt to emulate his vast knowledge of the world's bryophytes. Little did I realize in the mid 1980s that I

would travel the world and that the discipline would take me to ten countries in four continents collecting and studying the bryophyte flora.

Louise gave me reference books on birthdays and at Christmas to make my life easier identifying these small but beautiful plants; for the next nine years I recorded diligently in both West and East Sussex in the company of Rod and Francis Rose; occasionally with Malcolm McFarlane, Simon Davy and David Streeter. SBRS meetings in VC14 were particularly productive, with opportunities to visit areas not confined to footpaths through privately owned estates in the far east of Sussex. Travelling to one of these meetings I stopped at a bridge with damp brickwork and discovered the moss *Didymodon umbrosus* (Shady Beard-moss) then *Trichostomopsis umbrosus* which had very few British records known from only eight vice counties no further north in Britain than Cambridgeshire VC29.

During 1993 I met Jeff Duckett, then Professor of Botany at Queen Mary and Westfield College – now Queen Mary University of London, and Jeff is now Emeritus Professor, Scientific Associate at The Natural History Museum. Accepting an invitation to visit Lesotho with him, a new chapter of bryophyte recording began. I have worked closely with Jeff for the past twenty years and currently meet him on alternate Tuesdays when I visit the Museum to work on African collections. Jeff is a cell biologist working with moss protonema and fungi within liverworts, and much of my work in Sussex since 1993 has evolved around the microscopic world, below ground morphology of bryophytes. Visiting a World War II gun emplacement on the top of Halnaker Hill, adjacent to the disused windmill, I collected the common moss *Bryum capillare* (Capillary Thread-moss) which seemed to possess unusual tubers on the rhizoids without the usual cell arrangement associated with these structures. Further examination elucidated that these were in fact chytrid fungi not reported in the literature in Britain on moss rhizoids since a single publication in the 1950s. In collaboration with Spanish bryologists Javier Martínez-Abaigar and Encarnación Núñez-Olivera, together we published in 2005 'Interactions between parasitic fungi and mosses: pegged and swollen-tipped rhizoids in *Bryum* and *Funaria*' (*Journal of Bryology* **27**: 47-53). With Silvia Pressel (BM) who has collaborated closely with Jeff and me for over a decade, we followed this publication in 2007 with 'Studies of protonemal morphogenesis in mosses. XI. *Bryum* and related genera; a plethora of propagules' (*Journal of Bryology* **29**: 241-258).

The year 2005 had been an exciting one for me with newly discovered moss morphology in West Sussex as, in addition to the chytrid fungus at Halnaker, I had collected the extremely local Sussex moss *Ephemerum*

recurvifolium (Strap-leaved Earth-moss) at Maudlin just south of my home on an exfoliated clay raised bank beside the old Arundel road. The bank had been placed there when the Westhampnett bypass had been opened in 1994. Microscopic examination of a freshly collected specimen, and with the hindsight of many years of examining protonemal diversity in mosses, led me to the exciting discovery that the underground system of this species was producing starch-laden tubers, only the third moss species known to do so. I had in 1997 discovered the moss *Micromitrium perexiguum* new to the African continent in East Cape Province, RSA, with rhizoid axes terminating in groups of tubers often filled with a huge, single lipid droplet. In 1997 both of the above species were in the family Ephemeraceae but my discoveries led, along with more recent molecular evidence, to the placing of the above genera into two separate families. The results of our research led to the publication in 2005 of 'Studies of protonemal morphogenesis in mosses. X. Ephemeraceae revisited; new dimensions underground' (*Journal of Bryology* **27**: 311-318).

Having been General Referee for 27 years and VC Recorder for Sussex for 22 years, I handed over these positions to other members of the British Bryological Society in 2012 to concentrate on micro-mycology and dematiaceous (darkly pigmented) hyphomycetes and did not intend to pursue bryology in either field or herbarium studies again! However the chance discovery (serendipity and experience that Ted Wallace had remarked upon all of those years ago) of the moss *Ditrichum pallidum* (Pale Ditrichum) at Goodwood new to Britain in July of this year led me to reconsider. After a two-year sabbatical from seven years of herbarium studies at BM identifying the late Francis Rose's Ugandan collections from his visit in 1961, and publishing two revisions of tropical moss genera, Silvia and Jeff persuaded me to resume herbarium studies and help them identify their recent collections from Ascension Island. I am very pleased that I have been persuaded as exciting species new to Ascension Island have materialised, and morphological differences with spore ornamentation have proved that similar species from Réunion in the Indian Ocean and Ascension Island in the Atlantic as seen under the SEM are one and the same species.

Sussex Bryology 1983-2013 with many new county records, a species new to Britain and exciting microscopic discoveries; African Bryology 1994-2008 with 30+ species new to the African mainland and a species new to science from Lesotho; two species new to South America in 2006. 2013 draws to a close with the huge honour of being elected a Fellow of the Linnean Society of London.

The Life of Nicholas Culpeper and his Sussex records

by Paul Harmes and Christina Hart-Davies

Nicholas Culpeper (1616-1654) was an English botanist, herbalist, physician and astrologer. He published several books in his short life, and these include *The English Physitian* (1652) and the *Complete Herbal* (1653), which contain a rich store of pharmaceutical and herbal knowledge, *Semeiotica Uranica, or An Astrological Judgement of Disease* (1651), which describes the use of astrology in the diagnosis of illness, and *Astrological Judgement of Diseases from the Decumbiture of the Sick* (1655), which is one of the most detailed documents known on the practice of medical astrology.

The book considered here is a later edition of the first of these: *The English Physitian Enlarged: with three hundred and sixty nine medicines, made of English herbs, that were not in any impression until this. Being an Astrologo-physical Discourse of the vulgar herbs of this Nation* (c.1770).

Culpeper is often described as having limited botanical knowledge, an opinion originally expounded by the medical profession of his time, as they disliked his habit of challenging their techniques. In some circles, though, this observation has been perpetuated. He criticised what he considered the unnatural methods of his contemporaries, writing: "This not being pleasing, and less profitable to me, I consulted with my two brothers, DR. REASON and DR. EXPERIENCE, and took a voyage to visit my mother NATURE, by whose advice, together with the help of Dr. DILIGENCE, I at last obtained my desire; and, being warned by MR. HONESTY, a stranger in our days, to publish it to the world, I have done it."

Culpeper came from a long line of notable people, including Sir Thomas Culpeper, the alleged lover of Catherine Howard, wife of Henry VIII. His childhood was spent in Isfield, where he was brought up by his mother. His father, Nicholas Culpeper senior, died shortly before his birth. His maternal grandfather, the Rev. William Attersole, minister of St Margaret's Church, Isfield, had a powerful influence on his early development.

Attersole was author of many theological treatises. He taught the boy Latin and Greek, while instilling a strong puritanical influence and a healthy disrespect for the Crown. Culpeper's radical Puritan and Parliamentary leanings helped to account for his rejection by the College of Physicians and Society of Apothecaries, most of whose members were Anglican and Royalist. They did, however, make his works popular in the New World.

During his formative years he was fascinated by the stars at night. He became increasingly interested in time and time-keeping, being absorbed by his grandfather's collection of clocks. The sundial on the south wall of the church intrigued him, demonstrating the correlation between the movements of its shadow and the activities of village life. His grandfather may also have aroused Nicholas' interest in astrology: Attersole's writings show that he had great respect for astrology. By contrast, it was his maternal grandmother who first exposed Culpeper to the use of medicinal plants. He spent the greater part of his life in the English outdoors, cataloguing hundreds of medicinal herbs.

At the age of ten he started reading astrological and medical texts from his grandfather's library. Sir Christopher Heydon's *Defence of Judicial Astrology* (1603) greatly impressed him. He was fond of reading and looking at the illustrations in William Turner's *New Herball* (1568). From his early teens he was familiar with all the herbs that grew in his part of Sussex. By thirteen he was an avid reader, although his grandfather disapproved of his wide-ranging studies and wished him only to read the Bible.

In 1632, aged sixteen, he was sent to Cambridge University. After this he was apprenticed to an apothecary who, after seven years, absconded with his indenture money, leaving him without employment or funds. At this point he married the daughter of a wealthy merchant, which ensured that he had the financial means to set up his own pharmacy, just outside London in Spitalfields.

Fighting in the civil war, he sustained a bullet wound to the shoulder in the Battle of Reading and is thought to have contracted tuberculosis, from which he died in 1654, aged 37.

Culpeper's Sussex references

Many of Culpeper's notes on plants contain vehement comments on the contemporary medical establishment. He likens the College of Physicians to drones who suck out all the honey gathered by bees.

N.B. The capitals, spelling, italics etc. in the extracts below are exactly as in the c.1770 edition. Square brackets contain authors' comments; round brackets are NC's own.

The Beach-tree

In treating of this tree, you most understand that I mean the great Mast-Beech; which is by way of Distinction from that other small rough sort, called in Sussex the smaller Beech, but in Essex Horn-beam.

Earth Chesnuts

They are called Earth Nuts, Earth Chesnuts, Ground Nuts, Ciper Nuts, and we in Sussex call them Pig Nuts. ...they provoke Lust exceedingly, and stir up to those Sports she is Mistress of....

Coral-Wort

It is also called by some, Tooth-Wort, Tooth-Violet, Dog-Teeth Violet, and Dentaria.

[NC then says there are two sorts of this plant, which he says can be found growing in Britain. He describes the first but, not knowing where to find it, forbears to describe the second]

The first groweth in Mayfield in Sussex, in a Wood called Highread, and in another Wood there also, called Fox-holes.

Goosberry-Bush

Called also Feap-berry, and in Sussex Dew-berry Bush, and in some countries Wine-berry.

The Berries are good to stir up a fainting or decayed Appetite....

Heart-ease

This is that Herb which such Physicians as are licensed to Blaspheme by Authority, without Danger of having their Tongues bored through with an hot Iron, call an Herb of the Trinity: it is also called by those that are more moderate, Three Faces in a Hood, Live in Idleness, Cul me to you; and in Sussex we call them Pansies.

Juniper Bush

They grow plentifully in divers Woods in Kent, upon Warny-Common near Brentwood in Sussex (Essex?), upon Finchly-Common without Highgate, hard by the New Found-Wells near Dullege, upon a Common between Micham and Croyden, in the High Way near Amersham in Buckinghamshire, and many other places.

Wall-Rew, or ordinary White Maiden-Hair

It groweth in many places of this Land, at Dartford, and the Bridge at Ashford in Kent; at Beaconsfield in Buckinghamshire; at Wolly in Huntingdonshire, on Framingham-Castle in Suffolk, on the Church-Walls at Mayfield in Sussex, in Sommersetshire, and divers other Places of this Land; and is green in Winter as well as in Summer.

Rag-wort

It is also called St. James-wort and Stagger-wort, and Stammer-wort, and Segrum in Sussex we call it Rag-weed.

Viper's Bugloss

[NC describes Viper's Bugloss, then]: There is another sort little differing from the former, only in this, that it beareth white Flowers.

The first groweth wild almost everywhere. That with white Flowers about the Castle-Walls in Lewis in Sussex.

Wold, Weld, or Dyer's-Weed

It groweth every where by the Way-sides, in moist Grounds as well as dry, in Corners of Fields and By Lanes, and sometimes all over the Field. In Sussex and Kent they call it Green-Weed.

Bibliography

Culpeper, N. (c.1770). *The English Physician Enlarged*.

Culpeper, N. (1971). *The Complete Herbal*.

Davis, D.W. (1994). Nicholas Culpeper, Herbalist of the People. *The Traditional Astrologer*. Issue 5

Six Fiendish Questions **set by Sylvia Bucknall**

Sylvia and Rosalind moved to Sherborne shortly before Christmas and we wish them very happy botanising in their new county - Sussex's loss is Dorset's gain. Sylvia has compiled this intriguing quiz for us. Answers are at the bottom of page 11.

1. Which member of the family Rosaceae is anemophilous?
 2. Which species in the British Isles has the largest single flower?
 3. Which tree of parks and gardens bears bright pink flowers directly on the trunk as well as on the main branches and twigs?
 4. Which species has a terminal flower that is tetramerous and lateral flowers that are pentamerous?
 5. Which shrub has three stigmas inserted directly on to its ovary, thereby lacking styles?
[Clue: it produces a berry.]
 6. Which flowering plant has an umbel of cymes not an umbel of umbels?
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Recording changes in 2014 by Mike Shaw & Paul Harmes

As most of you who attended the Autumn Get-together are aware we aim to adopt plant names used in 'Stace 3' (Stace's *New Flora of the British Isles*. 3rd edition. 2010) for recording in 2014 onwards. The SBRS Committee has deferred introducing the name changes in Stace 3 to avoid confusion while recording for the new *Sussex Flora* but, as this is nearing completion, now is an appropriate time to do so. The new nomenclature will be used in our *Flora*.

There are two main changes between 'Stace 2' (*New Flora of the British Isles*. 2nd edition 1997) and Stace 3. Firstly there are name changes (299), additions (342) and exclusions (35). Many of the changes are significant, such as the renaming of part of the genus *Festuca* to *Schedonorus*, but the figure quoted underestimates the true number as it doesn't include subspecies and varieties. The lists for both species and hybrids are available to download from the BSBI website using the link <http://www.bsbi.org.uk/taxonomy.html>.

The second change is the major reclassification of families as a result of DNA studies over the last 20 years. For example, large numbers of genera in Liliaceae and Scrophulariaceae have been split off into other families, and unfamiliar families have been introduced.

Not all the name changes affect us and I have produced a list of about 130 relevant to Sussex. This is included as an insert in this Newsletter but can also be downloaded from the SBRS website.

Another difference in Stace 3 is the revision of the status of many plants from Native to Archaeophyte. An Archaeophyte is defined as any plant which was introduced to an area by humans (or arrived naturally, but from an area in which it was present as a human introduction) and became naturalised before 1500AD. Some botanists are not entirely happy with this change but Stace and the BSBI have endorsed it so we must do so as well. There are 133 Archaeophyte taxa which have been recorded in Sussex, and because for many it can be difficult to decide their status, Paul and I have agreed that we should simply assign all of these species the status 'Archaeophyte', which is accepted by MapMate. It is planned that the letter 'A' will be automatically entered when you select one of these species on the Excel recording card (ERC) A list of archaeophytes is included as an insert in this Newsletter but can also be downloaded from the SBRS website.

Much work has gone on during the winter to update the main SBRS database in line with Stace 3, as this is the source of the tetrad species lists which you can view and download from the website. From early 2014 only Stace 3 names will appear on these lists.

Our recording cards, both computerised (ERC) and paper versions, have also undergone major updates as those who were at the Autumn Get-together will have seen. Stace 3 name changes will be incorporated and highlighted in red. Some names have been removed and some added, reflecting the increasing prevalence of certain species over the last decade, and the need to do more recording at infra-specific level. The current ERC has 3 tabs – Instructions, Entry Sheet and Example Sheet. The new one will have additional tabs including the Stace name changes, list of archaeophytes, MapMate taxa list and BSBI referees. It should be available for download from the website by the end of January.

As mentioned at the Autumn Get-together, the MapMate taxa list is the definitive list from which you should select names for any plants not on the ERC. Names (with their BRC if they have one) should be **copied and pasted** to the spreadsheet output by the ERC to avoid spelling errors. On the web site there will be a list of all the taxa ever recorded in Sussex which I hope to update annually. If you record a plant which is **not** in this list it is likely to be a vice-county record (VCR). As such, the record can only be accepted by Paul or me if it is supported by a voucher specimen, which should be expertly determined, preferably by the BSBI referee.

At the Autumn Get-together we said that it had become essential to moderate the number of names entered into the 'Recorder' cell on the ERC because of software limitations. We have now found a way to overcome this so you can continue to enter sets of initials as before, but they must be separated by a "/" symbol, not a comma, underbar or hyphen. There should be no spaces either side of the "/". This will allow a full list of recorders to stay in the database, but when the records are uploaded to MapMate these will be shortened to the name of the first recorder in the list followed (if more than one recorder) by 'et al.'; for more than four recorders 'SBRS' should be used. Please do **not** use the "+" symbol as we requested at the Autumn Get-together.

No doubt there will be teething problems and if you spot any mistakes please make Mike aware of these (by email or letter) and they will be corrected.

References

- Stace, C. (1997). *New Flora of the British Isles (Second Edition)*. CUP.
Stace, C. (2010). *New Flora of the British Isles (Third Edition)*. CUP.

Recording update 2013 and recording in 2014 by Paul Harmes, Mike Shaw, Arthur Hoare

Firstly, we would like to extend the sincere thanks of the New Flora Working Group (NFWG) to all members who contributed records during the 2013 recording season. In addition we would also like to extend thanks all of you who undertook additional 'desktop' projects. This is all very valuable work, and much appreciated.

This was the third full year of focused recording, designed to search for missing *Sussex Plant Atlas*, *Plant Atlas Supplement*, and *Sussex Scarce Plant Register* species, as well as visiting under-recorded habitats such as wetlands. Precise figures for the success of this diversion of practice are not available but it is apparent that a significant percentage of the 10,000 or so additional records are in these categories, together with a healthy number of species new to Sussex.

There was also a wonderful response to the search for 'critical species', *Hieracium*, *Rubus*, *Callitriche* *Taraxacum* and *Euphrasia* groups in particular. As we have said before, the 'critical species' occurring in Sussex need to be addressed in the new Flora. The NFWG continues to monitor progress in this area. Mike Shaw, David Allen *et al.* have increased the records for West Sussex again this year. David will be preparing the *Rubus* account for the new Flora. Elisabeth Sturt continues to study *Callitriche* and *Euphrasia* and is keen to receive further specimens in 2014.

The Website has been updated on three occasions during the year. If you have not already done so, please do some random checking of records you have sent to Paul during the year. If there appear to be omissions, do please contact him so that the situation can be clarified or rectified. Do please remember that our Master Database has a macro that automatically converts a grid reference of four or more digits to a tetrad, so that you do not have to enter this on the electronic recording card. It is when we run the macro that anomalies are found. The next update for the Website will be in either December or January 2014. I urge you all to ensure that all records from the past season have been sent to Paul. If you still have any paper records, please ensure they are sent to Arthur ASAP.

In the past twelve months our master databases have been purged of duplicates and anomalies. The NFWG has decided that the new Flora will map two date classes. The first is all records from 1966 to 1999 and the second is from 2000 to the present. To this end many random records, card indexes, plant lists, note books etc., together with our various publications, are being systematically worked on alongside all the field work you are all undertaking. Mike and Paul hope to get all this data into the databases by early in 2014, and uploaded to MapMate shortly after this.

In 2014, we will continue to record as we have in 2013. It is particularly vital that our focus is on the missing records, in specific areas. We will advise hectad adopters where this needs to be done, when our analysis of the current position is complete. We also need to ensure that all habitat types within a tetrad have been visited and recorded. Please go over the species lists for each tetrad in your hectad(s) to check that important habitat types have not been missed, and ensure that each has had three or more visits to them at varying times of year. If you would like help with any type of vegetation, such as aquatic species or grasses, do please tell Mike or Paul. If we are not available, tell one of the other members of the NFWG, and we will do all we can to assist. The Field Meeting Conveners will also help if you can't contact anyone else.

(Apologies: we have been unable to include an updated tetrad map in this issue, but it will appear in the May 2014 Newsletter)

Answers to the Six Fiendish Questions on page 9

1. *Sanguisorba minor* (Salad Burnet)
2. *Nymphaea alba* (White Water-lily): >5" diameter
3. *Cercis siliquastrum* (Judas Tree)
4. *Adoxa moschatellina* (Moschatel)
5. *Viburnum lantana* (Wayfaring-tree)
6. *Sanicula europaea* (Sanicle)

Field Meetings 2014

Sunday 27 April Nick Sturt	Midhurst. Early season plants in and around the town. Meet Cowdray Ruins car park off North Street, SU88208.
Saturday 17 May Jacqui Hutson	Streat and Plumpton area, TQ31 M & N. Park past the houses, by track leading west to racecourse, TQ363153.
Saturday 31 May Mike Shaw	Littlehampton area. Enjoy a day at the seaside! Missing SPA species and many interesting plants of this botanically rich area including <i>Silene conica</i> , <i>Geranium purpureum</i> and numerous <i>Trifolium</i> spp. Meet in West Beach car park, TQ028012. Free parking has been arranged.
Saturday 14 June Peter Smith	South of Wivelsfield, TQ31 P & U. Meet at the north end of Blackbrook Wood, TQ341178. We will move on in the afternoon.
Sunday 22 June Bruce Middleton	Blackdown. Bruce is back! Recording ground recently cleared and searching for <i>Pyrola minor</i> . Meet Tennyson's Lane SU912308.
Sunday 6 July Kathryn Knapp	Ashdown Forest. Meet at Hindleap Warren Activity Centre car park, TQ415323. The entrance is on the north side of Legsheath Lane, approximately ¼ mile west of Wych Cross.
Saturday 12 July Bob Platt	Steyning Downs. Meet Steyning Centre Car Park at TQ179112, entrance on Church Street, opposite St. Andrews Church (<u>not</u> the <i>Health Centre</i> Car Park, entrance off Tanyard Lane). We shall walk briskly to the site (c 1km) to survey the Rifle Range and Steyning Coombe initially.
Sunday 10 Aug Geoffrey Kitchener, Jacqueline Rose, Judy Clark and Ellen Campbell	Royal Military Canal TQ92 H, M & N. Joint meeting with the Kent Botanical Recording Group. Meet near Iden Lock, TQ 9362 2444 where the Military Road crosses the junction between the River Rother and the Royal Military Canal.
Wednesday 13 Aug Frances Abraham	WWT Arundel Wetland Centre at 10.45. Park in Centre carpark (free). Meet just outside the entrance to the main Centre building at TQ021081. To look at various habitats, including the river bank. In the afternoon we may move on to Arundel Park (chalk grassland).
Saturday 30 Aug Janice Reynolds	Seven Sisters CP. Meet at Exceat car park (parking charge) TV519994
Saturday 6 Sept Matthew Berry	Eastbourne seafront. Meet at Helen Gardens, near the bowling green, TV601972. Free parking Wellcombe Crescent and 10 minute walk or pay on seafront. Bus 3 and 3a from stop M in Terminus Road to St.Andrews School, Meads and 5 minute walk.

NB There may be a further W Sx meeting, to be announced in the May Newsletter

All meetings start at 10.45 am unless indicated otherwise.

Since some 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.