PRESIDENT'S LETTER

As our editor Anne Kell will know, I nearly did not get a message in on time for this edition of the magazine. I was away from writing and using my computer for a while after cataract surgery. I am glad to say it has gone splendidly well and the world is looking much brighter. This has drawn my attention to the colours of flowers. The Dahlias in the garden look so vivid now. There is still a Scarlet Pimpernel in flower beside the garden path and it looks so bright and beautiful. Until I had this done I did not know how much the colours around me had dimmed. The white Heather is now truly white instead of cream coloured.

Because I am alarmed about where we are going, I have been giving a lot of lectures about climate change recently and its effects on plants and animals. Even in the UK it has been a strange year for our wild flowers with a long drought in some areas and exceptionally heavy rain at other times. The wildflowers and the birds do not know what to do with it and it

is altering flowering and migration times. I am particularly worried about our alpine flowers, which I loved and studied in Scotland as a boy. Some of our upland species become evermore threatened because the warmer climate is causing the lowland vegetation to gradually ascend and replace the alpine species. Species like the Highland Saxifrage (Saxifraga rivularis) are becoming more and more threatened. I recently went to an interesting lecture at the Bridport Literary Festival on the pockets of snow that remain in the Highlands throughout the year or at least they used to. These pockets of snow in gullies are important for the survival of several of our alpine species, but there is less snow lasting through the summer and the alpine flora is slowly becoming replaced by lowland grasses. I will continue to do all I can to encourage the world to halt the causes of climate change.

GHILLEAN PRANCE

EDITORIAL

What a busy year we have had with some outstanding meetings, several of which are reported on elsewhere in this magazine. Janet John produced an excellent programme for us in 2018 and has surpassed herself with a quite outstanding programme for 2019, details of which you should find in the accompanying Yearbook. There is something in there to appeal

to everyone, whether you fancy an extended holiday in Scotland searching for some of the Scottish specialities, or just a day in the countryside enjoying some of our beautiful flowers in a variety of habitats. Take your new diaries, fresh out of those Christmas stockings, and transfer the dates now so the events don't pass you by.

September saw a very successful AGM at Slapton, Devon, which is reported on in this magazine. One suggestion made at this meeting was for the introduction of a new hunt, the One Kilometre Square Study. This should appeal to everyone but most specifically we hope that it will act as a good introduction to recording for those new to botany, to aid them in learning the more common species in their local area. Details are provided below and in the Yearbook.

Another change agreed at the AGM is to the format of the photographic competition. From 2019 entries can be digital as well as in the final printed form. We hope that by

simplifying the entry system more of you will be encouraged to enter. The deadline for entries will be published in the Spring issue of the magazine.

Finally, as you will see opposite, the committee has decided to streamline our contact details, including WFS Alert. If you hold our previous e-mail addresses in your address book please can you change these now and make any future contact using the new addresses. We will continue to use our old addresses for a while to ensure a smooth transition but these will slowly fall out of use.

ANNE KELL

NOTICES

Changes to Branch Secretaries

As a reminder, those submitting Valhalla Record Books need to send these to their local Branch Secretaries as from this year.

Steve Parker has decided to step down from the role of Branch Secretary for Branch T as from 2019. However, he is happy to receive your 2018 Record Books for review. Tim Purches has kindly agreed to take over responsibility for the new Branch T, which will now comprise Cornwall, Devon and Dorset. Ro FitzGerald will be adding Somerset and Wiltshire to her current Branch P. Our thanks go to Steve Parker for the contribution he has made to managing Branch T over the years.

The 1KM Square Study

This is a new addition for 2019 and arose from a suggestion from Gareth Bursnall at the Branch Secretaries meeting. The study is designed to encourage people to become familiar with their local area by choosing a 1km square of the Ordnance Survey grid that is local to them and recording the flowering plants and ferns, which are wild and unplanted, within that area over the space of a year. Further finds can be added in future years and, if you enjoy the challenge, further 1km squares can be surveyed. Results of this hunt should be sent to your Branch Secretary by the 31st January of the following year.

Changes to e-mail addresses

We have decided to streamline the e-mail addresses for members of the committee and, from the New Year, we can be contacted using the following addresses:-

Chair wfs.chair@gmail.com Peter Llewellyn General Secretary -Sheila Wynn wfs.gensec@gmail.com Treasurer -Robin Blades wfs.finances@gmail.com Editor -Anne Kell wfs.magazine@gmail.com Meetings Secretary -Janet John wfs.meetings@gmail.com Publicity Secretary -Nichola Hawkins wfs.publicity@gmail.com wfs.alert@gmail.com Alert Messages -Nicola Dixon

Other committee members:-

Roger Heath-Brown

Jill Oakley

Nicola Dixon

wfs.rheathbrown@gmail.com

wfs.joakley@gmail.com

wfs.ndixon@gmail.com

WFS e-mail alerts is changing.....wfs.alert@gmail.com

From January 2019, the service will continue to provide details of upcoming meeting dates, notice of additional meetings and opportunities not listed in the year book, information on late availability of places and any last minute changes to the advertised programme. The service will also now advertise volunteer opportunities within the society when they are available.

If you would like to continue to receive these e-mails, please e-mail expressions of interest to the new alert e-mail address below. Please note the e-mail address is now <u>alert</u> rather than **alerts** with an s.

Due to the expansion of the service, those previously subscribed will not automatically be signed up to the new service. To continue to receive e-mail alerts you will need to sign-up again. All requests will be confirmed with a welcome e-mail.

Your details will be retained solely for Wild Flower Society purposes and will never be made available to any third parties.

Contact wfs.alert@gmail.com to have your details removed or changed at any time.

2018 SUBSCRIPTIONS

With this mailing you should find a form for the renewal of your subscription. If you do not already pay by Standing Order please complete this and return it to the membership secretary, Sue Poyser, at your earliest opportunity to ensure the continuity of your membership and future mailings of the Wild Flower Magazine.

WFS MEMBERS' WEEKEND AND AGM 31st AUGUST - 3rd SEPTEMBER

The 2018 Members' Weekend was based at the Field Studies Council centre at Slapton Ley on the south Devon coast. With many members taking up the opportunity to stay at the Centre, a small group set out on the Friday morning to explore the local area in advance of the main meeting and seek out the specialities of Slapton. This was followed by the Branch Secretaries' meeting which was held at the Centre on the Friday afternoon.

Before the formal proceedings of the AGM on the Saturday, members had the opportunity to explore Slapton and Strete Gate ably led by our retiring chairman, John Swindells. Reports of this, and the other field meetings over the weekend, can be found on pages 10 - 16.

In a break with tradition we then had a sumptuous buffet lunch at the Centre to replace our usual afternoon tea.

AGM

The AGM was attended by 54 members. Only the main points will be covered here, with the full AGM minutes appearing on the website. If you are unable to access these via the website and would like to see a full copy please contact Sheila Wynn, our General Secretary, sending a stamped, self-addressed A5 envelope.

Each of the officers of the Society presented their reports.

Robin Blades, our Treasurer, summarised the 2017 accounts. which were published with the summer issue of the Wild Flower Magazine. He reported on the grants given in 2018 which have supported two publications, Atlas 2020 recording and Wildlife Trust Study days, as well as FSC bursaries and individual research projects. The Executive Committee has reviewed our Reserves Policy and agreed that, in addition to spending the balance of Dr Chicken's legacy, we will aim to spend around 2% of our investments each year on our charitable aims. Robin thanked Sue Poyser for the excellent job she does as Membership Secretary including the extra work this year to meet the General Data Protection Regulation (GDPR) requirements. Membership was 620 at 31/12/17, up by 15 in the year, and is currently up to 641. Robin also thanked Bob Holder for carrying out the independent examination of the 2017 accounts and proposed his re-election. This was agreed. Robin went on to express his sorrow to hear of the death in May at the age of 91 of Tom Fowler who was our Independent Examiner for 19 years.

Anne Kell, the Magazine Editor, reported that the most significant change this year was the introduction of the separate Year Book which has been well received and will continue into future years. She thanked her proof-readers, John Swindells and Rodney Burton, as well as all the

contributors. Anne apologised to those people whose articles have had to be held over due to the constraints of magazine size but asked that they keep the articles coming, especially those of a more general nature.

Janet John, our Meetings Secretary, reported that it had been another successful and enjoyable year for WFS meetings. The eight Main Meetings of two or three days were all well supported. The 28 one-day Meetings in general attracted more local support and are often where new members start their Field Meeting experience, gaining confidence and getting to know us. She went on to express her gratitude to all the leaders and encouraged anyone who has never attended a meeting to do so. They are always memorable, relaxed, supportive and open to all abilities.

Janet thanked everyone who had responded to her request at last year's AGM for suggestions of locations and leaders and said that this year she was again hoping to receive ideas and offers.

Nichola Hawkins, our Publicity Secretary, reported that the membership leaflet has been reprinted to take account of the requirements of GDPR. She asked members to destroy any old ones they still have and to pick up new ones during the weekend. Nichola reported that she had again exhibited our materials for children's activities at the BSBI Annual Exhibition Meeting last November and would be doing so again this year. She reminded members that if they would like to run a stall at an event near them, she could provide materials for plant-related quizzes and children's activity worksheets.

Sheila Wynn, our General Secretary, thanked all those involved in leading meetings over the weekend, notably Andy Byfield, John Swindells, Tim Purches, John Day and Roger Smith. Following Chris Pogson's retirement as Secretary for Parnassus 1, Rodney Burton has taken over his role. Ted Pratt has taken over from Rodney as Parnassus 2 Secretary. Sheila thanked Chris, all the Branch Secretaries and the Competition Secretaries for all that they do. They perform an invaluable role in maintaining contact with members as well as helping them to improve their botanical skills.

Sheila then went on to pay tribute to John Swindells for everything he has achieved during his eleven years as Chairman. (This tribute is printed on page 7.) John Swindells then thanked members of the Executive Committee, Branch and Competition Secretaries, Meeting Leaders and writers of magazine articles for all their contributions. He also reported the sad news of the death in August of Rosemary Booth. She was one of our longest-standing members, having been enrolled in 1932 at the age of three by her mother, Violet Schwerdt, who was the daughter of the founder of the WFS. (Her obituary appears on page 42.)

Ken Southall, our Photographic Secretary, thanked the nine members who had submitted 73 photographs for the competition and commented on the high standard of entries. He announced that the Violet Schwerdt Cup for the best entry had been awarded to David Rich for his photo of Hazel catkins (*Corylus avellana*), which appeared on the back cover of the autumn issue of the magazine.

He said that there was a good number of entries this year for the 'Shoot and Show' category. The winner was Gareth Bursnall for his picture of Fortune's Holly-fern (Cyrtomium fortunei).

Peter Llewellyn, our Website Manager, reported that the website had been updated so that it was now more secure and mentioned that, if anyone had saved links to the website, these may no longer work. He encouraged members to join the new WFS Facebook page which now has over 500 members. Peter was then elected unopposed as the new Chairman. The rest of the committee were also re-elected and Roger Heath-Brown and John Swindells were elected unopposed to fill the vacancies caused by the retirement of Judith Cox and the resignation of Jackie Hardy respectively.

The final event of the AGM proceedings was the presenting of the Presidents' Award by Sir Ghillean Prance to Rosemary Parslow and Ian Bennallick for their excellent book, *The NEW Flora of the Isles of Scilly*.

Post meeting

The meeting was followed by two outstanding talks. Firstly, Bethan Stagg, who has previously received grants from the WFS for her work, gave a fascinating talk about 'Plant Blindness', outlining the difficulties

educators have in trying to enthuse their pupils about plants. Part of this research is reported on elsewhere in this magazine – see page 17.

Our second talk was given by Andy Byfield on 'Saving Rare Plants in the South-west'. As Andy was the organiser of the weekend walks this gave us a real insight into the diversity of plants that Devon and its surrounding counties had to offer. He highlighted some of the conservation measures undertaken, notably the effect of grazing and the value of carefully managed roadside verges. Andy also described some of the work of Plantlife at Kenfig National Nature Reserve, which is one of the few sites for the dune form of the Fen Orchid (Liparis loeselii var. ovata). It is fascinating how an area can be rejuvenated with careful management, even as drastic as bringing in the bulldozers and stripping the whole surface bare to reinstate the dune habitat.

Stephen Clarkson provided his usual challenge of a plant identification quiz, largely based on the plants we had seen over the two days. A good test of our powers of observation. There was a sale of books given by Tom Fowler, Rosemary Booth and others.

Sunday and Monday gave us the opportunity to explore parts of southern Devon in a range of contrasting habitats and the reports on these meetings follow on page 10.

The 2019 AGM meeting will be held in Wolvercote, Oxford from 6th – 9th September. Put the date in your diary now.

Photo: Anne Kell

THANKS TO JOHN

John Swindells has been our Chairman for eleven years. During that time he has achieved a great deal and as our former Magazine Editor, Pippa Hyde, said, "John will be a hard act to follow."

His willingness to make a contribution beyond what is strictly required of a Chairman has led to his being involved in a number of innovations. Together with Peter Llewellyn, he has updated and revised the Record Book and he has also been responsible for several revisions of our Regulations with the aim of rationalising and simplifying them, making them more relevant to today's members.

The process of modernisation is never easy, but under John's leadership some controversial changes have been achieved comparatively smoothly and more than one member has commented that, since John became Chairman, the Wild Flower Society has become more accessible and inclusive.

John is also an active member of the BSBI and his contacts within that organisation have been very helpful to the WFS. He has always encouraged us to support the BSBI's work on the distribution and conservation of wild plants.

Last year, together with our President Sir Ghillean Prance, he was responsible for arranging for the Magazine Archive, donated by Rosemary Booth, to be lodged in the Linnean Society Library. John has been an excellent Chairman. Meetings run smoothly and efficiently; everyone is given the opportunity to express their opinion, but he doesn't allow us to get too bogged-down or go off on too many tangents, which some of us are very likely to do, given half a chance! He is also good at diffusing potentially heated situations.

In addition to everything else, John has helped with the organisation of Members' Weekends and has always been willing to be a leader of the Saturday morning walks before the AGM. The walks he led at the 2014 Members' Weekend in London along





the East London Canals and at Mudchute Farm were enjoyed by all. John's contributions to the running of the Society extend beyond his role as Chairman. He has also been Branch Secretary of one of the largest Valhalla Branches and is one of the Magazine proof-readers. I'm pleased

that he will continue to make a contribution to the running of the Society as a General Member of the Executive Committee.

Personally, I have enjoyed working with John. When there are matters to discuss, his responses are always measured and thoughtful. He has always been very supportive and helpful to make the property of the major my role on Congress.

to me in my role as General Secretary and for that, I am very grateful.

For all your years of service and commitment to the Society, I would like to say, "Thank you, John."

SHEILA WYNN

PHOTOGRAPHIC COMPETITION 2018: RESULTS

This year, eight members submitted their entries to the Photographic Competition and I thank them for so doing.

Once again, Carol and Bill Hawkins and Stella Taylor very kindly agreed to help me by being the judges. I was seeing 'fair play' at the judging and, looking at the seventy-three photographs spread across the table. it was clear that they were faced with a very difficult task. The overall quality of the entries was very good indeed. The photograph which clearly stood out amongst the rest was the close-up of a female and male hazel flower. A superbly taken picture by David Rich; crisply in focus and showing the usually difficult to see female flower against the blurred background. David was justly awarded the Violet Schwerdt cup for best in show 2018 and

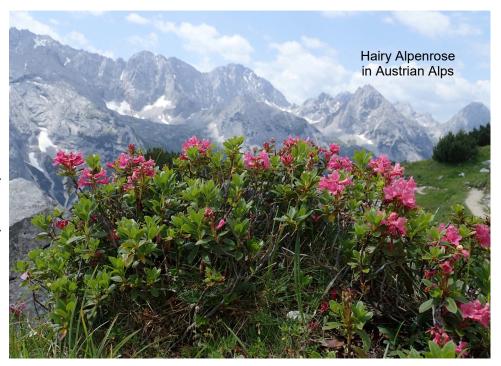
congratulations go to him.

The "Shoot and Show" class was very successful this year with 68 photographs being on show. It was lovely to see the large increase in entries from 2017. The winner, chosen by those present at the AGM, was (for the second year running) Gareth Bursnall and his photo appears on the back cover of this issue. Congratulations Gareth.

During the year, several members asked me if they could submit their entries electronically. A lot of thought has gone into this and I am pleased to report – with approval at the 2018 AGM – that this will be introduced for 2019. Please see the amended Competition rules which are published in the 2019 Year Book.

KEN SOUTHALL





Class 1 Habitat:

1st Anne Kell Forked Spleenwort (Asplenium septentrionale)

2nd Stephen Clarkson Sea-kale (*Crambe maritima*)
3rd David Caals Wild Gladiolus (*Gladiolus illyricus*)

Class 2 Plant Portrait:

1st David Rich Sea Pea (*Lathyrus japonicus*)

2nd Sue Grayston Alpine Mouse-ear (*Cerastium alpinum*)

3rd Stephen Clarkson Larch cones (*Larix decidua*)

Class 3 Close-up:

1st Dennis Kell Borage (Borago officinalis) 2nd David Rich Hazel (Corylus avellana)

3rd David Rich Goat's-beard (*Tragopogon pratensis*)

Class 4 Foreign Fields:

1st Sheila Wynn Hairy Alpenrose (Rhododendron hirsutum)
2nd Sheila Wynn White False-helleborine (Veratrum album)
3rd Dennis Kell Lady's-slipper (Cypripedium calceolus)

Class 5 Human Element:

1st Anne Kell "Pavement Artists"

2nd Dennis Kell "Consulting With The Locals"

3rd Stephen Clarkson "Where Is It?"

"Shoot and Show" Winner

Gareth Bursnall Fortune's Holly-fern (Cyrtomium fortunei).

WFS AGM and MEMBERS' WEEKEND WALKS, SEPTEMBER 2018

SATURDAY 1st SEPTEMBER: SLAPTON LEY AND SHINGLE BEACH.

Our large party of almost 50 members assembled at the Field Studies Centre from where we set off for the walk down the road to Slapton Ley, the freshwater lake separated from the sea by only a shingle bar. Here, our leader, John Swindells, pointed out the Strapwort (*Corrigiola litoralis*) at its only native site in Britain. The gravel beach where it grows had been cleared recently and the Strapwort was doing well. Growing with it were Red Goosefoot (*Chenopodium rubrum*) and Dwarf

Mallow (*Malva neglecta*). There was much discussion about a pink-flowered bindweed which didn't look quite right for Hairy Bindweed (*Calystegia pulchra*) as its pedicels didn't have a wavy margin and it was only very sparsely hairy. John Day, a local botanist who had joined us for the walk, took away a sample for further consideration and later confirmed that it was an atypical form of *C. pulchra* rather than Large Bindweed (*C. sylvatica*) or any of the possible hybrids.

From here we set off for the mile-long trudge along the shingle beach to



Photo: Anne Kell

Strete Gate. This was much less vegetated than it used to be as a result of last winter's storms, but we saw some fine plants of Yellow Horned-poppy (Glaucium flavum) in full flower. Further on, self-seeded in the shingle by the side of the road, was a Shrubby Hare's-ear bush (Bupleurum fruticosum) with its umbels of yellow flowers. Nearby were some Mayweed plants. To identify these we first examined the receptacle, which wasn't hollow. This ruled out Scented Mayweed (Matricaria chamomilla). Next we looked at the oil-glands on the achenes which were distinctly elongated rather than circular which meant that it was Sea Mayweed (Tripleurospermum maritimum) not Scentless Mayweed (*T. inodorum*). Closer examination of the whole plant revealed that its stems were deep red and its terminal leaf-segments were guite dense. This meant that it was T. maritimum ssp. vinicaule which is much more common than ssp. maritimum in Southern England.

Arriving at Strete Gate, the location of the star attraction was made evident by the circle of admiring botanists surrounding it! Here was Sea Daffodil (Pancratium maritimum), luckily still flowering. This has also appeared at a couple of sites in Cornwall and there was speculation about how it had arrived, with the idea that the seeds could have come across the Channel from Normandy being the favourite.

After looking around at the other plants growing on the shingle, it was time to head back along the beach to Slapton for our buffet lunch.

SUNDAY 2nd SEPTEMBER: TAVISTOCK RAILWAY LINE, ROBOROUGH DOWN, **DEWERSTONE ROCKS AND** JENNYCLIFF, MOUNT BATTEN.

More than 45 members and guests gathered in sunshine at Kilworthy Park, formerly North Tavistock Station, to explore the path along the old railway gorge, with a remarkable microclimate due to the high Devonian shale walls and wet cliffs. Andy Byfield explained the site's ecology and led us to the first find of Tall Mouse-ear-hawkweed (Pilosella praealta ssp. praealta) growing on the bridge from the car-park to the gorge. Next was another alien. Himalayan Honeysuckle (Leycesteria formosa), in flower with drooping pink flowers.

Once within the gorge, we inspected a large fern from the wrong side of a large ditch, until John Swindells leapt across the dark muddy water to retrieve a specimen. It was then identified as Scaly Male-fern (Dryopteris affinis ssp. affinis morphotype paleacea). Further along we found Diaphanous Bladder-fern (Cystopteris diaphana) at one of its only two sites in Britain. The delicate plants were growing on a vertical dripping cliff face and many crossed the ditch to inspect it more closely, paying particular attention to the veins which ended in the notches between the pinnule teeth rather than ending at the apices of the pinnule teeth as in Brittle Bladder-fern (C. fragilis). This damp habitat of the Diaphanous Bladder-fern differs from that of Brittle Bladder-fern which is found on dry limestone walls (and SHEILA WYNN only at one site in Devon).

Andy showed us a non-variegated Japanese Laurel (Aucuba japonica) naturalised in the gorge. Several cotoneasters were inspected and samples taken. Later that evening Stephen Clarkson led us in working through Stace and Poland to identify the samples. After examining hairiness of leaves, whether or not the secondary veins were indented, leaf length and fruits, a near consensus was reached: Cotoneaster rehderi, C. rotundifolius (formally nitidus) and C. tengyuehensis. The last has not been recorded in Devon before, perhaps because no one has keyed it out.

The next stop was at Roborough Down, South of Yelverton. This is a 10 km crescent of moorland on shale and particularly metamorphic shales, which are more mineral-rich giving a slightly different habitat and ecology. This metamorphic area is called the Dartmoor Aureole.

We parked on a road verge and stepped out onto a chamomile lawn (Chamaemelum nobile). Andy led us along grassy paths through the gorse and bracken, explaining the geology and grazing. He was delighted to find for us a Devon Whitebeam (Sorbus devoniensis), at a site not previously recorded. This is one of the apomictic Sorbus species, this one characterised by brown fruits and leaves which are somewhere between the maple shaped leaves of S. torminalis and the serrated edged but entire leaves of S. aria. We had already heard from Andy's talk at the AGM about the difficulties of tree regeneration in grazed areas, so there was great excitement when no fewer than seven Sorbus seedlings

were found around the tree, perhaps protected by gorse as a mother plant.

We walked further into the moor, past occasional white Eyebright (*Euphrasia spp.*), until Andy showed us some small clearings where we found the taller plants of Cornish Eyebright (*Euphrasia vigursii*), characterised by usually purple flowers and long glandular hairs, though not all plants seemed hairy to all. We had a fruitless search for Soft Sedge (*Carex montana*) before returning to the chamomile lawn and our cars for a picnic lunch.

HELEN DIGNUM

After lunch we drove a short distance to Dewerstone Rocks in the River Plym valley at Shaugh Prior. What a typical Devon scene of boulders, steep valley sides and, for our purposes, many ferns flourishing in

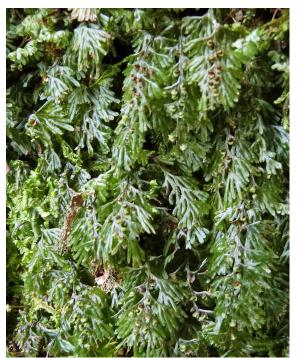


Cornish Eyebright

Tunbridge Filmy-fern

the shady, damp atmosphere. There were a number of common species, but of the rarer species two stand out: Tunbridge and Wilson's Filmy-ferns (Hymenophyllum tunbrigense and H. wilsonii) which could be examined under the lens to see the differences in these almost transparent fronds. Again, the position of the ends of the veins was important. In H. tunbrigense the veins end before reaching the leaf margin whereas in H. wilsonii they usually extend right up to the margin. The indusium also differs between the two species. In *H. tunbrigense* its upper edge is toothed whereas that of H. wilsonii is entire. Some of the group also found plants of Lemon-scented Fern (Oreopteris limbosperma) and a single Hay-scented Buckler-fern (Dryopteris aemula).

Then it was back over the boulders and for some a visit to the ice cream van in the car park, followed by a brief stop in Shaugh Prior village to admire plants of Lanceolate Spleenwort (Asplenium obovatum) in the earth-core walls here before our next journey to Jennycliff, Mount Batten, on the eastern edge of Plymouth. From the grassy cliff top, with a panoramic view of part of Plymouth Sound, we saw a stand of Danewort (Sambucus ebulus) which seems to crop up in various places. As we descended steps down the cliff the smell of rotting seaweed wafted upwards. On the way down, Wild Madder (Rubia peregrina), Restharrow (Ononis repens), Wood Sage (Teucrium scorodonia) and Privet (Ligustrum vulgare) tumbled down the cliffs. At the bottom, looking upwards we viewed a major colony of Maidenhair Fern (Adiantum capillus-



veneris) clinging to the cliffs. Although the Devonian shales are largely acid, percolating through is lime-rich seepage. This creates a habitat suitable for this delicate little fern.

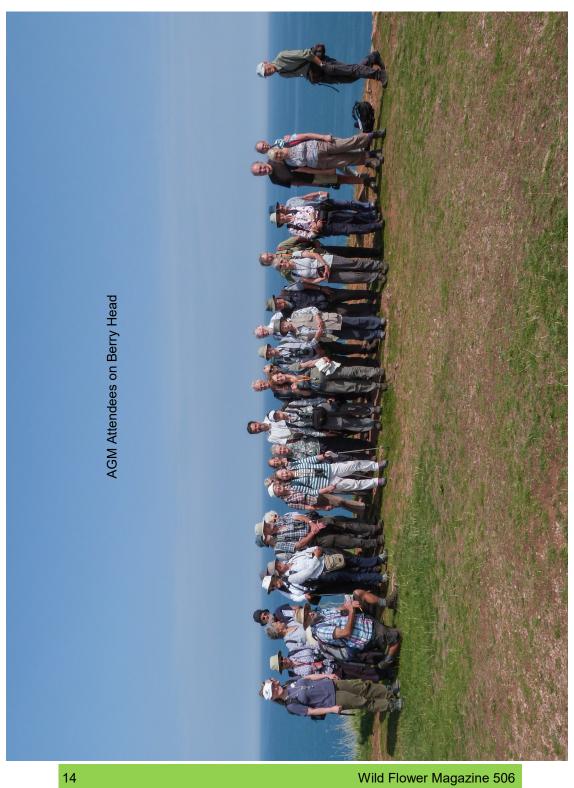
Then it was time to climb back and catch the café for such welcome tea and toasted teacakes before our journey back to Slapton.

What a long day, especially for the drivers, but what a lot of ferns, which we were able to identify with the help of patient experts on hand.

PAULINE WILSON

3rd SEPTEMBER: BERRY HEAD.

Again the weather was perfect as we assembled under blue skies at Berry Head. Whilst awaiting the last members to arrive we admired a



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Mullein which we thought was *Verbascum densiflorum* as it appeared to have a spathulate (spoon) -shaped stigma. Roger Smith later determined it as the commoner Great Mullein (*V. thapsus*) as, on closer examination, its stigma was capitate (spherical).

We were led by local botanists Andy Byfield (Plantlife's Plant Conservation Advisor) and Roger Smith (Vice - County Recorder for South Devon). Andy introduced the headland as the finest remaining expanse of Devonian Limestone habitat in the UK and as one of Britain's greatest botanical sites, famed for its abundance of rare plants and fine views. He also warned us of the impending dangers of adders, wasps and cliff edges before we set off towards Mudstone Bay.

On the roadside we passed Ivy Broomrape (Orobanche hederae) before dispersing to enjoy the cliffslope grassland. Scrub clearance higher up the slope is preserving this rich mesotrophic turf, distinct from the more maritime habitat further down the slope. A widespread colony of Goldilocks Aster (Aster linosyris) was in full bloom. Andy pointed out that this Aster, distinguished by its absence of ray florets, is found only on seven limestone headland sites in Western Britain. It is the food plant of the tiny larvae of the rare moth Coleophora linosyridella, for which we searched (unsuccessfully) amongst its narrow leaves. Many typical grassland and coastal flowers were thriving, including Restharrow (Ononis repens), Horseshoe Vetch (Hippocrepis comosa), Sea Plantain (Plantago maritima), Thrift (Armeria

maritima), Saw-wort (Serratula tinctoria), Betony (Betonica officinalis) and Dropwort (Filipendula vulgaris) as well as the rare Autumn Squill (Scilla autumnalis). Here also, Andy showed us the waxy grey-green leaves of ten Honewort (Trinia glauca) plants. This dioecious member of the carrot family grows only on short grass on limestone rocks in SW Britain.

Admiring the cliffs and seascapes as we returned northwards, we soon reached a flatter area of short grassland known as the Rabbit Lawn where we discovered the spiralling white flowers of Autumn Lady'stresses (Spiranthes spiralis), White Rock-rose (Helianthemum apenninum) and Squinancywort (Asperula cynanchica).

Onwards over rocks we stopped along the path to view Common Gromwell (*Lithospermum officinale*) with its pearly stone-like seed which Andy likened to shiny enamel false teeth.

We took a break for lunch amongst the remains of the Napoleonic South Fort and absorbed the stunning cliff top views. Afterwards we proceeded on the cliffs above breeding Guillemots to see (very dead) Small Restharrrow (Ononis reclinata) present on a ledge with precarious access. Roger bravely ventured down, followed only by Alanna Cooper, to see this diminutive rarity that we were told shares its habitat with White Stonecrop (Sedum album). The rest of us contented ourselves with the more accessible, bristly, bright blue Viper's Bugloss (Echium vulgare) while Andy



explained that the high cliff top plateau for which we were heading had once been the sea bed. Back on the path we examined the leaves of Lesser Meadow-rue (*Thalictrum minus*), found only on a few sites in England and a member of the Berry Head 'assemblage' of things that make the place special.

Arriving at North Fort we embarked on a hands and knees quest for (dried out) Nit Grass (Gastridium ventricosum), but all in vain. Instead a debate ensued nearby between Andy, Roger and others about a specimen of Mint. Could it be Mentha x gracilis or M. x piperita or M. x smithiana? These hybrids all contain Spearmint (*M. spicata*) in their make up with the other parent being M. arvensis, M. aquatica or M. verticillata. The only consensus that could be definitively reached was that it was a Mint hybrid containing M. spicata. (Roger subsequently confirmed it as Tall Mint (M. x smithiana) the triple hybrid M.arvensis x M.aquatica x M. spicata).

White Rock-rose

With views across to Torquay on the cliff edge we found Common Parsley (Petroselinum crispum) at the extremity of Berry Head. On nearby trampled short grassland we were once again prostrate in a search for the tiny Bulbous Meadow grass (Poa bulbosa). On finding a two cm square tuft of dry grass with the pear-shaped thickening at the base of shoots visible through a hand lens, Andy declared this the highlight of the day! Slightly more conspicuous were the close-by bright apple-green round patches of leaves of next year's Suffocated Clover (Trifolium suffocatum), the darker green leaves of Bird's-foot Clover (T.ornithopodioides) and the darkblotched leaves of Spotted Medick (Medicago arabica).

Moving on to a path through deeper vegetation we encountered Narrow-leaved Everlasting-pea (*Lathyrus sylvestris*) with its distinctive winged stems. Finally, we inspected a clump of Lace Aloe (*Aloe aristata*), thought to have been introduced by a local, over for this season but with its characteristic rosettes of fleshy dark green leaves thickly covered with white bristles. Still basking in warm sunshine we found refreshments at the site café, reflecting on a grand last meeting that lived up to Andy's introductory promises.

Very many thanks to Andy for all his work in organising the two days as well as his excellent leadership of the walks and the many insights he provided into the plants and their habitats.

JOY LYON

Photo: Bethan Stagg

DRAWING ATTENTION TO PLANTS

Do you ever feel like people walk right past the most interesting wild flowers? Or consider animals to be more important than plants? If so, you have probably witnessed 'plant blindness', the inability to notice or appreciate plants, or their importance to humans. Here are some frightening statistics:-

- 86% of A Level biology students in the UK could only identify three or fewer common wild flower species.
- 83% of adults in the UK could not identify an Ash tree.
- 70% of secondary students in Germany said, "Plants are boring".
- 77% of 17-18 year-olds in Thailand preferred studying animals to plants.
- 50% of student science teachers in Hong Kong did not know grasses were flowering plants.

American botanists James Schussler and Elizabeth Wandersee defined the concept of 'plant blindness' in the late 1990s, as part of their educational research and public awareness campaigns. More than a hundred academic articles have been published since, investigating the problem and evaluating educational methods to reduce its effects. In my own research I have explored a variety of approaches for increasing interest in wild plants, including novel identification keys, memory aids, drawing sessions and drama

workshops. In this article I will share approaches that you may be able to test on family and friends.

Memory aids

A mnemonic is a memory aid that helps you to memorise information. You may have used rhymes or acronyms in the past for remembering a list of facts in a particular order, for example colours of the rainbow or the musical notes in a scale. My botanical mnemonics aim to create a vivid mental image that links the appearance of a species with its common name. Many of these mnemonics are funny or ridiculous, which often serves to make them more memorable. In the figure over, you will see some examples I used in a series of botany workshops with adult beginners. 74% of participants preferred the mnemonics to identification keys, for learning plant names.



Using Mnemonics

Plant Species	Mnemonic	Image
Lords and ladies	These leaves are pointed arrows that the lords fire to impress the ladies	*
Cow parsley	This giant sprig of parsley would make a good garnish for a cow's dinner plate	
Red valerian	The long, pointed leaf is Valerie's long, sharp tongue	
Primrose	This leaf is such a prim, disapproving face it's covered in cracks and creases	
Ground ivy	The goblin put ground-up ivy in the King's drink to make his kidneys go green	-
Dog's mercury	At the point where the leaves join the stem are tiny pointed dogs' teeth	
Teasel	The sharp points on the surface of the leaves are the claws of a weasel	Children of the Control of the Contr
Hogweed	Look at the stems; they are the red, rough, hairy skin of a hog	-3-113
Common mallow	In the centre of this leaf nestles a tiny, dark pink marshmallow	-

Image reproduced from Stagg and Donkin (2016) Journal of Biological Education 50 (1); 24-40 Using all the senses
Beginners are often put off
botany by the array of
technical terms that they
encounter when they
attempt to use an
identification key. One
solution is to create an
opportunity to experience
the morphological
complexity of plants with all
the senses first, to stimulate
an interest in botany. As part
of a series of school

workshops, I potted up a suite of wild plants for children to experience with all their senses (see photo page 17).

Examples included Pineapple Weed and Sweet Vernal-grass for their pleasant odours, Fox-and-Cubs for its tactile, silky hairs and Umbrella Liverwort for its curious reproductive structures. Using plant species from the local environment helps to draw children's attention to the plant species they pass every day. 70% of children in interviews said that the workshop had changed how they felt about plants. One child related, "They all had a different touch... every single plant felt a bit different," whilst another said, "I'd never looked at moss long enough to know it had spore capsules."



Plant Crafts

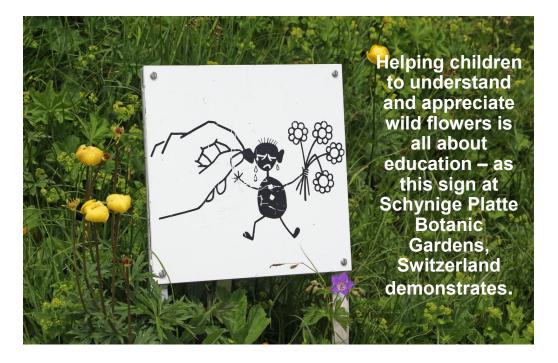
Art and craft activities based on native plants are a highly enjoyable way of introducing people to botany. Weaving and dyeing crafts provide projects that are suitable for all ages, using a variety of common plants, for example Bramble, Ivy, Nettle and Soft Rush. Pressing berries onto fabric to make a picture, or weaving plant fibres into a bracelet, are absorbing activities for young children. Extracting dyes to colour a cotton bag or weaving a wall decoration are popular with older children and adults (see photo). Helping to collect the plants first is a valuable way for workshop participants to learn species identification. A variety of books, websites and courses is available for learning these crafts.

BETHAN STAGG

Further reading

For links to Bethan Stagg's academic papers, visit https://researchgate.net/profile/Bethan_Stagg2

Handmade Baskets from Nature's Colourful Materials by Susie Vaughan Botanical Inks: Plant to Print Dyes, Techniques and Projects by Babs Behan The Wild Dyer: A guide to natural dyes and the art of patchwork and stitch by Abigail Booth



ONE DAY MEETING

ARNSIDE KNOTT 14th APRIL, 2018

The first warm sunny day for many weeks saw sixteen members, led by Julie Clarke, gathered on Arnside promenade and, in true WFS tradition, still only metres from our cars peering at tiny ferns erupting from the stone walls. Rustyback (Asplenium ceterach), Maidenhair Spleenwort (A. trichomanes) and Wall Rue (A. ruta-muraria) were here, while on the seaward side English Scurvygrass (Cochlearia anglica) was flowering. Eventually moving on, the raised walkway along the shore led us to an old limestone quarry. High above us a clump of pink-flowered Winter Heath (Erica

carnea) and its cultivar 'Springwood White' were well established on the rocks and on a nearby cliff several plants of Maidenhair Fern (Adiantum capillus-veneris) grew in cracks where a spring trickled down. After a brief distraction to watch the tidal bore rushing up the River Kent estuary we turned inland up steep steps into a woodland carpeted with spring flowers, amongst them a few clumps of Green Hellebore (Helleborus viridis) and Goldilocks Buttercup (Ranunculus auricomus). From stone walls up the next steep track dangled golden flowers of Lamb's tail (Chiastophyllum

Photo: Ken Southall

oppositifolium), a succulent, native of the Caucasus but well naturalised here. Emerging into a lane edged with tall flower spikes of Butterbur (*Petasites hybridus*) we reached the lower slopes of Arnside Knott, a prominent limestone fell, the summit at 159 metres just qualifying it as a Marilyn (a hill at least 150 metres).

Arnside Knott is known for its rich limestone flora and stunning views across the Kent estuary and Morecambe Bay to the fells beyond. Gazing at this wonderful panorama offered a welcome break in the now hot sunshine and the opportunity to strip off a few layers. Then it was down on hands and knees in open grassland where Blue Moor-grass (Sesleria caerulea) beautifully lived up to its name, the flowers an astonishing iridescent blue in the sunshine, apart from one small patch of the white-flowering form. Onward, pausing only at a Juniper (Juniperus communis) bearing blue berries to discuss its use in gin, we headed for the precipitous grassy slope where grows Teesdale Violet (Viola rupestris), our highlight of the day. All those on Arnside Knott are the whiteflowered form and a dozen or so were in flower, mostly protected by wire cages but a few had escaped and much time was spent prostrate examining downy petioles, scoopshaped leaves and other features of these tiny plants. Efforts to determine whether its hybrid with Common Dogviolet (Viola riviniana) was also there were sensibly abandoned in favour of lunch at this idyllic picnic spot, enjoying cloudless views across Morecombe Bay, with Blackcap and Willow Warbler singing in the woodland behind us.

Finally, heading back, we saw some interesting species in stone walls: the white-flowered form of lvy-leaved Toadflax (Cymbalaria muralis) with pale green leaves and Birch-leaved Bellflower (Campanula betulifolia), a naturalised garden escape with elegant foliage but no flowers yet. Back at sea-level most of the party dispersed but Julie kindly stayed on to show us Celandine Saxifrage (Saxifraga cymbalaria), Red Lungwort (Pulmonaria rubra) and a pinkish-lilac form of Sweet Volet (Viola odorata var. subcarnea) at nearby sites. We thank Julie for her time and expertise in leading such an excellent meeting in this beautiful area.

PAT VERRALL



SNOWDROP VARIETIES



Photo: Bill Hawkins

Snowdrops are by nature very variable and since they reproduce mainly by division any inconsistencies are apt to set up distinctive clonal colonies. *Galathus nivalis*, our most prolific snowdrop, demonstrates a fair few selections that can be found on the average foray. Autumn 2017's article (issue 501) on the Hiemalis group of *G. elwesii* prompted thought of how many actual varieties of snowdrop might be easily recognised by the casual observer.

Pleniform – Double flowers of snowdrop are almost as common as singles in *G. nivalis*. Var. *Flore pleno* is most common but, when growing, some plants get stuck in their

immature phase, where the flowers face upwards and outwards. A number of peculiar, not to say bizarre, examples exist as a result.

Poculiformis – In this variety inner segments are replaced by an extra set of outer ones. This gives rise to an all white flower with two whorls of segments of practically equal length. They were first named at Dunrobin Castle in Sutherland around the 1880 mark and now poculiformis *G. nivalis* is fairly common in the wild. For instance, Walsingham Abbey in Norfolk has many such clones in its vast array. Similar plants of *G. elwesii* (Greater Snowdrop) are very rare and none have been found in *G. plicatus* (Pleated Snowdrop) so far.

Virescent – *G. nivalis* displays forms where the outer segments also show green markings. These come in two types, one where the green markings are near the apex (informally - greentips) and the other where part, possibly most, of the segment is flushed green. Occurrence is not unusual and, in *G. nivalis*, remains fairly consistent year on year. Clones of *G. elwesii* are less so, but both types are about. The incidence of this phenomenon in *G. plicatus* is rarer than either of the above, but again, both types exist.

Yellow Flowers – These form the **Sandersii Group** of *G. nivalis* and are flowers with yellow ovaries and inner segment markings. They are rather frail plants found, usually on the fringes of regular snowdrop

territories, in a few Northumberland woods. In collections, *G. plicatus*, clones, by contrast, are far more vigorous and some quite stunning plants are extant. The photograph shows a cultivar named after Mrs Primrose Warburg (1918 – 1996), at one time an active member of the WFS. *G. elwesii* too offers yellow variant plants but these are vanishingly rare.

As with daffodils, snowdrop varieties are classified by divisions - *G. nivalis* alone has six and these are split into sections - for the guidance of ardent specialists of course. Fellow members might like to seek out varieties from the selection above on their trips around old churchyards, woods and gardens.

A. GALANTHOPHILE



Photo: Bill Hawkins

FIELD MEETINGS 2018

KENT 11th - 13th MAY

Friday 11th May Marden Meadow

MAGNIFICENT Marden Meadow – full of Green-winged Orchids (Anacamptis morio). As one participant said, "The sheet of purple Green-winged Orchids, occasionally jewelled with white and soft pink, was a wonderful sight."

Green-winged Orchid

On a warm sunny day 11 of us met in the tiny car park in one of the

adjacent fields bought in 1999. These 'agriculturally improved' fields in the past are now being restored using hay and seed from the old unimproved meadow. The previous Sunday I had done a recce in blazing heat and was convinced the orchids would be over by the Friday and warned everyone. In the car park we studied the Hawthorns in the hedgerow. We found Hawthorn (Crataegus monogyna) with one style and Midland Hawthorn (C. laevigata) with two styles. Also, hidden behind the cars was Hedgerow Cranesbill (Geranium pyrenaicum). We then set off keeping to a designated path and saw several orchids as a 'taster' with vellow Meadow Buttercups (Ranunculus acris) as a backdrop. We passed Greater Stitchwort (Stellaria holostea) before entering the old meadow and were thrilled to see a carpet of thousands of Greenwinged Orchids (Anacamptis morio), interspersed with the small Adder'stongue fern (Ophioglossum vulgatum), its spore case in a green plantain-like spike.

We continued round to the pond overshadowed by a large Wild Service-tree (Sorbus torminalis) with its distinctive leaves and bark – finely fissured squarish brown plates, thought to be the origin of one of its vernacular English names 'Chequers'. The tree was full of buds and blossom. Sadly, there was no Water-violet (Hottonia palustris) this year. We crossed a wooden bridge

and saw Greater Pond-sedge (Carex riparia) before coming across a fallen Wild Service-tree (Sorbus torminalis), its trunk stretching along the ground. This enabled us all to see and photograph the white blossom. By another pond we found two more sedges – the rare True Fox-sedge (Carex vulpina) and Bladder-sedge (C. vesicaria). We then walked around the railway side of the first meadow back to the car park for a leisurely lunch.

PRISCILLA NOBBS

Saturday 12th May Burham Downs

Burham Downs is a Kent Wildlife Trust reserve protecting valuable chalk downland on the south facing North Downs escarpment. Recent management of the reserve has improved, resulting in a reduction of grass species. This enables a more open habitat allowing chalk downland species to thrive.

Nine members set off from our starting point heading uphill towards the Down. We searched the field edges along the way and were pleased to find White Campion (Silene latifolia), Sainfoin (Onobrychis viciifolia) and, nearer to the downs, Common Rock-rose (Helianthemum nummularium). One eagle-eyed member was delighted to find Dense-flowered Fumitory (Fumaria densiflora) just before we entered some woodland.

In the woodland, sheltered somewhat from the rain, we scrambled up a

steep bank to pay homage and gaze in admiration at the Lady Orchid (*Orchis purpurea*). One member said, "It was worth travelling 300 miles to see this wonderful plant".



We then headed towards the open downland, passing the attractive Common Whitebeam (*Sorbus aria*) and entering the main part of the reserve. We were amazed to see scores of Man Orchids (*Orchis anthropophora*) in all sizes, some about a foot tall. This was the plant of the day for most of us and a new

Photo: Gareth Bursnall

plant to many. In the same area was the uncommon Chalk Milkwort (*Polygala calcarea*) with its false rosette of leaves above the base of the stem and beautiful royal blue flowers.

After lunch we explored the last section of the reserve and were rewarded with a patch of about 15 Fly Orchids (Ophrys insectifera), a perfect end to the day. On the way back we stopped to look at a very lonely, Common Juniper (Juniperus communis) bearing male cones. Finally we enjoyed a nice cup of tea and cake at Tyland Barn, the Kent Wildlife Trust headquarters. Many thanks to Priscilla Nobbs for arranging such a very special day.

GARETH BURSNALL

Sunday 13th May Holborough Marshes

Ten intrepid 'Woofs', shod in wellies (the clue is in the title of the Reserve), set off led by Stephen Lemon, into the Holborough Marshes. This is an interesting nature reserve managed by Kent Wildlife Trust alongside the River Medway. The river is tidal at this point and in the morning the water was flowing upstream and then at lunch time flowing downstream - we actually spotted a seal in the river when we stopped for lunch!

It isn't surprising that sedges, rushes and horsetails featured during the day. Easily recognisable was Greater Pond-sedge (*Carex riparia*) having seen it only two days previously at Marden Meadow. Glaucous Sedge

(C. flacca), with its leaves glaucous underneath, and Carnation Sedge (C. panicea), with leaves glaucous on both sides, could be convincingly compared and identified. Marsh Horsetail (Equisetum palustre) was there in abundance and distinguished from the fewer specimens of Water Horsetail (E. fluviatile) by its solid stem. As for Slender Spike-rush (Eleocharis uniglumis) and Common Spike-rush (*E. palustris*), Stephen explained that Slender Spike-rush has a single lower glume which envelops the stem and a red lower leaf sheath, whilst Common Spikerush has a thicker stem and the two lowest glumes go no further than half way round the stem.

Stephen led us to a huge hybrid orchid with brown blotches on the leaves and pink buds: Dactylorhiza x kernerorum, a cross between Common Spotted-orchid (D. fuchsii) and Early Marsh-orchid (D. incarnata). However the prize for the longest plant name of the day went to Grey Club-rush (Schoenoplectus tabernaemontani) which is going to be a challenge to remember. An interesting and informative day with extra entertainment from the singing and churring of Whitethroat and Cetti's Warbler. Our grateful thanks to Stephen for leading the walk and sharing his knowledge.

JANET JOHN

GLOUCESTERSHIRE 23rd - 24th MAY

Steven Little and David Albon greeted 15 sturdy enthusiasts to the Coombe Hill Nature Reserve near Cheltenham, on a fine sunny morning. Serenaded by songbirds and buzzed by beautiful butterflies, we knew we were in for a brilliant day. Under an Apple tree (Malus pumila) and opposite a Wild Pear (Pyrus pyraster) our leaders outlined proceedings. We were led beside a long-disused canal (used to convey coal to Cheltenham in the 18th century) whose banks were studded with fine Hawthorn blossoms. Two weeks earlier this whole site was two feet under water but much had burgeoned in the intervening days. Grassy banks held Upright Brome (Bromopsis erecta) and Narrowleaved Meadow-grass (Poa angustifolia) to focus our minds before moving on to the Waterdropworts we had been promised. Steven patiently explained the differences between Corky-fruited and Fine-leaved (Oenanthe pimpinelloides & O. aquatica) and it was good to have them ably demonstrated in situ. To recognise Spindle (Euonymus europaeus) in flower instead of by its familiar red berries was a bit of a novelty to some and holding debate over Variousleaved Hawthorn (Crataegus heterophylla) came to an abrupt halt as we arrived at some magnificent meadows. Buttercups formed a golden carpet in the sunshine, while the grasses were in their newest green as a first cuckoo beckoned us in. Sedges on show were many and varied since the underlying Cotswold

soil is limestone. Slender Tufted-sedge (*Carex acuta*) featured by a streamside, but we were all primed to look for True Fox-sedge (*C. vulpina*). (Of course, False Fox-sedge (*C. otrubae*) was also present to distract). Our leaders guided us with ease through the identifying characteristics and we were able to recognise



Photo: David Rich

another patch in a second meadow later on. Small-flowered Wintercress (Barbarea stricta) is very scattered nationwide and we were lucky enough to find one in full flower near a bridge before moving on to more sedges. Then it was back to the canal side and an examination of the ways of willows. A number of species lined the banks for our delectation. Osier (Salix viminalis) is one that hybridises with just about everything else and the crosses with Goat Willow (S. x smithiana) and Purple Willow (S.x. rubra) were amongst those recognised. The day, by now, had drifted into evening and, as a last delight for the day, David and Steven had booked us in for a meal at The Storyteller Inn; aptly named for postmatch analysis.

A new day saw us at the Daneway Banks Reserve near Cirencester. In a smirr of rain we set off up a narrow lane admiring highly scented Sweet Woodruff (Galium odoratum), along with other delights, such as Yellow Archangel (Lamiastrum galeobdolon), Greater Stitchwort (Stellaria holostea) and Hart's-tongue (Asplenium scolopendrium) on the way. The reserve itself is being used for the reintroduction of the Large Blue Butterfly. Set in steeply rolling countryside, the limestone grassland was deemed ideal. Our up and down wanderings showed the diminutive Fly Orchid (Ophrys apifera) and cousin Green-winged Orchid (Anacamptis morio). Hairy Rockcress (Arabis hirsuta) turned up and we were reminded that there is a small variant in Western Ireland on which the hairs are confined to the leaf edges. Climbing steeply, our leaders introduced us to the very rare Slender

Bedstraw (*Galium pumilum*) spending time to point out its defining features before lunch was taken.
Subsequently, we strolled along the top of the reserve, where Mark Kitchen presented the tiny, rarely found, Mat-grass Fescue (*Vulpia unilateralis*). By contrast Deadly Nightshade (*Atropa belladonna*) was huge; two splendid plants in flower, their beauty belying a poisonous nature. The whole plant, particularly its fruit, can prove quite fatal if ingested.

Early afternoon saw us crossing the road into Siccaridge Wood. Our leaders had certainly taken us to some outstanding locations. The under-story reeked of Ransoms (Allium ursinum) but dotted here and there we found Greater Butterflyorchid (Platanthera chlorantha). Bird's Nest Orchid (Neottia nidusavis) and Twayblade (Neotttia ovata). Further on, the ground was a carpet of Lily-of-the-valley (Convallaria majalis) for nearly an acre. Down by a stream we turned up Herb Paris (Paris quadrifolia) and revealed among them Angular Solomon's-seal (Polygonatum odoratum), unfortunately not in bloom. Stephen Clarkson deliberated on the differences between in-situ Russian Comfrey (Symphytum x uplandicum) and White Comfrey (S. orientale). To end the tour we roved back beside another disused canal, happily located right in the wood and full of the largest Water Dock (Rumex hydrolapathum) we had ever seen. Much Marsh-marigold (Caltha palustris) was also on show, conforming to variety 'Cornuta' with petals that did not overlap. Then it was all over with a pub finish.

Photo: Peter Cox

Thanks to Steven and David we had enjoyed two enchanting days in grand countryside with superb company. A hugely successful expedition!

BILL AND CAROL HAWKINS

In addition to the flora we spotted Broad-bodied Chaser dragonflies and four species of damselfly. The reserve had pools and streams in the meadows as well as the canal itself, so lots of damselflies were in evidence. Basking in the warm weather or busily mating, the males with their bright blue colouring obligingly stayed still long enough for the distinctive markings on the leading abdominal segments to be seen. We were able to identify the Azure, the Variable, and the Common Blue, in addition to the distinctive Blue-tailed Damselfly.

GWYN JOHN

LANCASHIRE & YORKSHIRE 7th - 9th JUNE

Thursday 7th June Gait Barrows NNR, Lancs.

The group gathered at Gait Barrows NNR which is part of the Arnside and Silverdale AONB. The reserve contains an intricate mosaic of mainly limestone habitats that are home to a rich variety of plants and wildlife. Glen Swainson, the Senior Reserve Manager, explained that this is the prime English site for diversity of plants growing on limestone. He gave us a short account of the reintroduction of the Lady's-slipper (Cypripedium calceolus) which was declared extinct in 1917. A single plant was discovered in a remote location in 1930 and since that time plants have been propagated at Kew Gardens and restored to the wild. After several very dry weeks in this area we were lucky to find two plants still in flower at Gait Barrows. It is hoped that a viable population of this orchid will become established here despite the depredations of both slugs and deer.



We walked across the limestone pavement to find Lily-of-the-valley (Convallaria majalis) and Dark-red

Helleborine (Epipactis atrorubens) growing in the grykes along with Angular Solomon's-seal (Polygonatum odoratum) which is much smaller and more delicate than the garden hybrid. There were lots of dwarf trees growing in the grykes and Limestone Bedstraw (Galium sterneri) was abundant. We went on to examine Lancastrian Whitebeam (Sorbus lancastriensis), which is local to this area. The Duke of Burgundy butterfly occurs here and we came across the Small Pearl-bordered Fritillary before examining a cinquefoil, the hybrid of Tormentil (Potentilla erecta) and Trailing Tormentil (P. anglica) = (P. xsuberecta).

After lunch we drove a short distance to Hawes Water on another part of the reserve. A lot of secondary woodland, which has grown up since grazing by farm stock was stopped. has been cleared and the leaf litter removed down to a marl layer (which looks like wood ash). A small area of Beech (Fagus sylvatica), which is not native to the area, and Scots Pine (Pinus sylvestris), which was dying, has been chopped down in the hope that the carr vegetation, which grows beside the lake, will spread out and cover this area. There was a good display of Bird's-eye Primrose (Primula farinosa) and Great Fensedge (Cladium mariscus) was growing along the lake edge. We then moved into a meadow where there was an abundance of orchids, notably Northern Marshorchid (Dactylorhiza purpurella), Common Spotted-orchid (D. fuchsii) and several hybrids between the two different species.

A very enjoyable flower-hunting day in perfect weather. Many thanks to both Julie Clarke and Sheila Wynn.

JUDITH COX

Friday 8th June Eaves Wood, Lancs.

We were met by Roger Spooner of the Arnside Natural History Society who explained that Eaves Wood used to be part of the garden of a large estate. Conservation work is continuing to remove non-native trees and to return it to its natural state.

It was very nice to see Herb Paris (Paris quadrifolia), which seems to be commoner in the north, as well as the Small-leaved Lime (*Tilia cordata*). There were fine examples of Broad Buckler-fern (Dryopteris dilatata) with the dark central stripe on its scales. For members from southern areas it was exciting to see Bird Cherry (Prunus padus) and for those from more acidic regions there was Spurge Laurel (*Daphne laureola*). The next delightful plant was Solomon's-seal (Polygonatum multiflorum), a species of ancient woodland. The bell-like flowers are waisted in the middle unlike the larger garden hybrid (P. x hybridum).

There were many strange and unusual plants naturalised here such as Turkish Tutsan (*Hypericum xylosteifolium*) and Two-spined Acaena (*Acaena ovalifolia*), a neater and less aggressive cousin to Pirripirri-bur (*Acaena novae-zelandiae*) with only two spines on the hypanthium. The elegant Slender St John's-wort (*Hypericum pulchrum*)

was just coming into flower as was the Lady's Bedstraw (*Galium verum*) which, as its name suggests, used to be put on the rushes on the floor to sweeten them with its smell of new mown hay.

As we gained altitude we emerged onto limestone pavement. What a sight awaited us, the magnificent Fortune's Holly-fern (*Cyrtomium fortunei* var. *clavicola*) (see photo on back cover) with its large bright green fronds emerging from the grykes and the native, rare, blue-green Rigid Buckler-fern (*Dryopteris submontana*) further on.

In the afternoon we explored the lanes and footpaths leading down to Silverdale Cove. Plants escaped from the gardens appeared on hedgebanks and walls. The most striking were Hybrid Plume-poppy (Macleaya x kewensis), Celandine Saxifrage (Saxifraga cymbalaria) and Lamb'stail (Chiastophyllum oppositifolium), which looked rather like a tiny laburnum tree growing out of the wall.

At the cove, though not in flower, were Garden Arabis (Arabis caucasica) and Scorpion Senna (Hippocrepis emerus). On the saltmarsh nearby we were able to compare the Lesser Sea-spurrey (Spergularia marina), with its darker pink petals more or less equalling the sepals, with its larger relative the Greater Sea-spurrey (Spergularia media), with large paler flowers, the petals being much longer than the sepals. Nearby were spectacular sheets of Sea Milkwort (Glaux maritima) in full flower, a very fine sight.

Julie Clarke showed us a Hawkweed (Hieracium stictum) growing on the cliffs after which we wended our way back to the town. Some of us happily ate ice-creams and sat in the shade out of the very hot sunshine. It was well worth travelling many miles to see these amazing plants. Many thanks to Julie Clarke and Sheila Wynn for all their hard work and excellent planning.

GARETH BURSNALL

Friday 9th June Grass Wood and Bastow Wood, Grassington, Yorks.

This was a joint meeting with the Bradford Botany Group, mainly in the sizeable (about 80 ha) Grass Wood SSSI a couple of miles north-west of Grassington on an area of carboniferous limestone. Unusually for the WFS it was a day spent almost entirely in woodland. Grass Wood has a mixed history – originally ancient woodland used in part to provide fuel for local lead mining. Post WWI, part of the woodland was planted with conifers by the Forestry Commission and these have now been replaced by broadleaved trees. The woods contain a diversity of tree species (predominantly Beech, Ash, Pedunculate Oak and Birch, plus some Aspen and Goat Willow) with a diverse understorey. In addition there were areas of calciferous, acid and toxic grassland. One disturbing aspect of the visit was the presence of Ash dieback (Hymenoscyphus fraxineus), an ascomycete fungus. which was fairly widespread in Grass Wood, especially in younger ash trees. This first appears at the end of

twigs and branches, gradually moving inwards to ultimately kill off the whole tree.

grassland was rich in ferns including Lady Fern (*Athyrium filix-femina*), Lemon-scented Fern (*Oreopteris*)

As ever, the initial car park proved a source of interest with a lovely example of Wood Crane's-bill (Geranium sylvaticum), possible Garden Star-of-Bethlehem (Ornithogalum umbellatum) and Garden Lady's-mantle (Alchemilla mollis) in a nearby but inaccessible field. We split into two groups and ours was led by Bruce Brown from the Bradford Group who proved both ebullient and very knowledgeable on the local flora. The difference in bark on established birch was pointed out, with the bronze of Downy Birch (Betula pubescens) contrasting with the verrucose, deeply indented bark of Silver Birch (B. pendula). The understorey contained Dewberry (Rubus caesius), Stone Bramble (R. saxatilis), Purging Buckthorn (Rhamnus cathartica) at its northern limit, Spindle (Euonymus europaeus), Lily-of-the-valley (Convallaria majalis) still with a few flowers, Angular Soloman's-seal (Polygonatum odoratum) and Herb Paris (Paris quadrifolia). Columbine (Aquilegia) vulgaris) and Hairy Violet (Viola hirta) were also present. The Hybrid Geum $(Geum \times intermedium = G. rivale \times G.$ urbanum) was quite widespread in the wood. There were also interesting examples of fasciation in Water Avens (G. rivale).

Other less-common species included the Horseshoe Vetch (*Hippocrepis comosa*) at its northern limit, Stinking Hellebore (*Helleborus foetidus*), Northern Downy Rose (*Rosa mollis*), Nettle-leaved Bellflower (*Campanula trachelium*) and Bloody Crane's-bill (*Geranium sanguineum*). The acid

grassland was rich in ferns including Lady Fern (Athyrium filix-femina), Lemon-scented Fern (Oreopteris limbosperma), Hard Fern (Blechnum spicant) and Buckler Ferns (Dryopteris spp.). The uncommon Downy Currant (Ribes spicatum) was found on toxic grassland near old lead mining.

A hybrid Cinquefoil *Potentilla crantzii* x *P. tabernaemontani* was growing in Bastow Wood. This has been named by Sell and Murrell in *The Flora of Great Britain and Ireland* as the Grassington Cinquefoil (*P. cryeri*). In the open grassland areas of Bastow Wood were the delightful Bird's-eye Primrose (*Primula farinosa*) and Mountain Pansy (*Viola lutea*).

As we neared the car park, a treat at the end of the day was the sight of two perfect specimens of the Bird'snest Orchid (*Neottia nidus-avis*).

We were most appreciative of the Bradford Group for organising the walk, providing their extensive botanical knowledge and excellent company.

BOB CRABTREE AND FREDA MILLER



Herb Paris

BRECKNOCKSHIRE 15th - 16th JUNE

Friday 15th June Llangorse Common

On the Friday we met Anne Griffiths and Joan Millard from Brecknock Botanical Recording Group at Llangorse Common. The Common is adjacent to the largest natural lake in South Wales and is situated in the Brecon Beacons National Park. Sedges and plants that enjoy a damp environment dominated the day. We were able to compare Canadian Waterweed (Elodea canadensis) with Nuttall's Waterweed (E. nuttallii) which has much narrower, more pointed leaves and compare Alternate-leaved Golden-saxifrage (Chrysosplenium alternifolium), with a triangular stem, and Opposite-leaved Golden-saxifrage (*C. oppositifolium*), with a square stem.

We also improved our identification of rushes. We saw Slender Rush (Juncus tenuis), Bulbous Rush (J. bulbosus), Jointed Rush (J. articulatus), Round-fruited Rush (J. compressus) and Flowering Rush (Butomus umbellatus) - OK the latter isn't related to the true rushes but it has crept into the list and was very striking in flower!

At their best on the day were Pink Water-speedwell (*Veronica catenata*) and a lovely plant of Water Chickweed (*Myosoton aquaticum*).

The day ended with an excellent fruit cake, baked by Anne, which was much appreciated.

Saturday 16th June Vicarage Meadows & Cae Pwll y Bo

Saturday saw us meeting up with Steph Coates from Brecknock Wildlife Trust and John Crellin, Vicecounty Recorder for Brecknockshire to visit Cae Pwll y Bo and Vicarage Meadows, two SSSIs near to Abergwesyn in Powys. Cae Pwll y Bo is noted as a site for the Globeflower (Trollius europaeus) and one was happily flowering for us. Moving on to Vicarage Meadows we withstood rain and soggy ground to find Bitter Vetch (Lathyrus linifolius), Wood Bitter-Vetch (Vicia orobus) and Dyer's Greenweed (Genista tinctoria) but unfortunately no Small-white Orchid (Pseudorchis albida), despite our best team efforts to locate it. That will have to be left until another visit.

Many thanks to Steph, John, Anne and Joan from the local Botanical groups for their time and local knowledge.

JANET JOHN



Photo: Ken Southall

ONE DAY MEETINGS 2018

BETCHWORTH QUARRY, SURREY 21st APRIL

I joined WFS in March 2018 and was impressed by the members' information pack that I received shortly afterwards, together with a letter of welcome to Branch M from Gareth Bursnall. Having studied the Year Book, Betchworth Quarry on 21st April was the first meeting within reasonable travelling distance that I could attend. I contacted Priscilla Nobbs as instructed and was assured that places were available and that, as a novice, new member, I would be very welcome.

So, on an unseasonably warm April Saturday morning I set off with some trepidation for my first meeting. I count myself as an absolute beginner in terms of my knowledge of wild flowers so my main concern was whether I would 'fit in'. My concerns turned out to be completely unfounded and within a few minutes of meeting Gareth and Priscilla I felt reassured that they, and others, would be happy to share their knowledge and answer any questions.

Our route began along the road running up from Betchworth station and immediately flowers were being pointed out, recordings made and discussions taking place about details, which, in my ignorance, I would have missed. Turning off the main road we were soon on the North Downs Way in quieter surroundings, passing through woodland with

glimpses of the views from the Downs.

The main aim of the meeting was to search for the Trumpet Gentian (*Gentiana acaulis*) naturalised here since the 1960's and Gareth led us to the first site to coincide with our lunch stop. It was very warm by this time so the partial shade was very welcome. There was ample opportunity to take photographs of the Trumpet Gentian and other species.

In the afternoon we saw two more sites where Trumpet Gentians could be seen. The most impressive area was just a few metres from the main path. At the time, several groups of energetic youngsters, probably doing their Duke of Edinburgh award, or similar, passed us. I was struck that it is so easy to miss interesting and beautiful flowers by walking too quickly!

I had been trying to note all of the species as we walked and was amazed by the length of my list by the end of the day and I think my brain had reached saturation point. Since this meeting I have been trying to learn the names of more flowers, particularly when I am out walking on the South Downs. On a recent holiday in north Norfolk, I took much more interest in the wild flowers of the area and found I could identify more as the week went on.

Photo: Dennis Kell

I know I will never have the expertise and knowledge of other members but I now feel that it is possible to learn more and this adds a new dimension when out walking or visiting nature reserves. A big thank you to Gareth, Priscilla and everyone else on the walk for making me feel so welcome and for sharing your knowledge so generously. I plan to continue with my membership of WFS and hope to take part in more meetings in the future.



Trumpet Gentian

MARY-JANE NEWMAN

SHOREHAM, SUSSEX 18th MAY

Shoreham Beach is a shingle bar separating the River Adur from the English Channel and runs parallel to the river in its final section before it joins the sea. It was formed by the action of longshore drift. Shoreham Beach is designated as a Local Nature Reserve due to its unique blend of native shingle plants plus many unusual established aliens naturalised from the nearby houses.

We met Dr Jacqueline Woolcock and Joy Daintree at the old Napoleonic Fort. Both are leading lights behind the Friends of Shoreham Beach who remove invasive plants to maintain the interesting flora on the shingle. We explored the grassy banks nearby and admired Beaked Hawk's-beard (Crepis vesicaria) in fine flower with its long inner bracts and short patent outer bracts characteristic of this genus. Nearby was the stately Tree-mallow (Malva arborea) with its velvety leaves and purple flowers. Almost immediately we spotted the Starry Clover (Trifolium stellatum) known here for over 200 years, thought to have arrived with ballast on ships from the Mediterranean area where it is common. The numbers vary from year to year but this year they were in abundance in many parts of the beach I have never seen it in previously. On walls nearby we were curious to see a Common Wall Lizard (Podarcis muralis).



The dominant plant on the shingle is Sea-kale (*Crambe maritima*), used in the past as a vegetable after blanching the leaves by piling shingle over the emerging shoots. Accompanying the Sea-kale were masses of Red Valerian (*Centranthus ruber*), an alien originally from the Mediterranean.

We soon began to spot garden escapes that had 'jumped over the wall' from adjacent houses. Bearded Iris (Iris germanica) looked lovely in the sunshine and the Seaside Daisy (Erigeron glaucus) was just starting to flower. Here and there were patches of Thrift (Armeria maritima). The older members (only me really!) remembered it being shown on the back of the old threepenny bit. Further on was what we thought was Hairy Garlic (Allium subhirsutum) but John Poland who had joined us on the walk later confirmed it to be (Allium trifoliatum) as the petals were flushed with pink. This can be seen

illustrated in *Flowers of the Mediterranean* by Blamey & Grey-Wilson, page 485. The Slender Thistle (*Carduus tenuiflorus*) was just coming into flower but to see many of the other natives you have to visit later in the year when Yellow Horned-poppy (*Glaucium flavum*) and Viper'sbugloss (*Echium vulgare*) make a wonderful display.

Clumps of Snow-in-Summer (*Cerastium tomentosum*) were found among the native Changing Forgetme-not (*Myosotis discolor*). The colour change in the petal colours is said to be caused by the change in the pH of the cell sap in a similar way to litmus. Dewberry (*Rubus caesius*) with its large open flowers and ternate leaves (Bramble has leaflets in fives) was flowering next to Wallflower (*Erysimum cheiri*) and Bittersweet (*Solanum dulcamara* var. *marinum*), a prostrate form growing on shingle.

We came across a massive clump of Italian Catchfly (Silene italica), a perfect excuse to stop for lunch and just gaze in wonder at these magnificent plants. Two spurges were noted further along the beach, namely the smaller Cypress Spurge (Euphorbia cyparissias) and its much larger cousin the Mediterranean Spurge (E. characias), followed by Greater Periwinkle (Vinca major) with variegated leaves and Kidney Vetch (Anthyllis vulneraria). John spotted a self-sown sapling of a Tamarisk, very unusual in its very early flowering time and 4-merous flowers. (4merous indicates there are four parts in each whorl of the flower structure.) This was later confirmed as Tamarix parviflora.

On the last stage of the walk, when we were wilting slightly from the heat and the hard pebbles, we were revived by finding Lesser Meadow-rue (*Thalictrum minus*), Rough Clover (*Trifolium scabrum*) and the very exciting last find of the trip Yellow-vetch (*Vicia lutea*), a scarce plant of shingle and sea cliffs.

Glad to be walking on level ground and very happy at the new plants we

had seen we headed to our cars, buses or trains, the most sensible having a large pot of tea in a nearby café.

Many thanks to John Poland for sharing his expertise and enlightening our experience.

GARETH BURSNALL

SNITTERFIELD BUSHES, WARWICKSHIRE 2nd JUNE

Snitterfield Bushes is one of Warwickshire Wildlife Trust's nature reserves. The woodland was felled in the 1940's and the site used as an airfield during the Second World War. There are traces of the concrete runway through the reserve. Through careful management it has been designated SSSI status.

After several very hot days the morning started cooler with cloud cover, perfect for a meeting. Ten of us, including leader Jackie Hardy and John and Monika Walton from the Warwickshire Flora Group, started off walking along the woodland track. Very soon we found Herb Paris (Paris quadrifolia) in the woodland just off the track, with people keen to take photos of this understated beautiful plant. We also came across Wood Sedge (Carex sylvatica), Wood Millet (Milium effusum) and, further into the wood, John found Scaly Male-fern (Dryopteris affinis), which can be identified by a black spot on the underside of each pinna where it joins the frond's midrib. The wood

opened out into a damper area where we saw Common Figwort (Scrophularia nodosa), identified by a non-winged stem and pointed leaf, and Fragrant Agrimony (Agrimonia procera), identified by glands on the underside of the leaf and by the fact that the plant was much taller and more robust than Agrimony (Agrimonia eupatoria). We then found a small pool covered with Common Spike-rush (Eleocharis palustris). There was a tantalizing glimpse of a flowering plant in the pool but too far away to identify as we had no binoculars!

Continuing on we found Greater Bird's-foot-trefoil (*Lotus pedunculatus*), which has a hollow stem and Marsh Bedstraw (*Galium palustre*) with no mucronate tip and forward-pointing spines on the leaf. Heath Wood-rush (*Luzula multiflora* ssp. *multiflora*) and Dense-headed Heath Wood-rush (*L. multiflora* ssp. *congesta*) were growing together so we could compare them. Water Figwort (*Scrophularia auriculata*),

with winged stems and rounder leaves, Glaucous Sedge (Carex flacca), Heath Speedwell (Veronica officinalis) and Fairy Flax (Linum catharticum) were next. Monika pointed out two woodland grasses that could be confused, Hairy Brome (Bromopsis ramosa), which has hairy leaves and the lower part of the stem has downward-pointing hairs, and Giant Fescue (Schedonorus giganteus), which is hairless and the leaf-auricles are large, reddish and clasping. We stopped for lunch on a grassy area near the entrance which gave us a chance to talk about all the wonderful finds.

Bird's-nest Orchid

After lunch we entered the wood on the opposite side of the road where we were in high hopes of seeing the Bird's-nest Orchid (*Neottia nidus*-

avis). We were not disappointed. Two plants were found hidden in the woodland. Not a showy orchid but very exciting to find! We had already seen Early-purple Orchids (Orchis mascula) and Common-spotted Orchids (Dactylorhiza fuchsii) which were delightfully sprinkled all through the woodland. We later had a discussion about the small pink flowered Crane's-bills and their identification by looking at the hairs on the petioles. Small-flowered Crane's-bill (Geranium pusillum) has very short hairs on the petioles, Dove's-foot Crane's-bill (G. molle) has long and short hairs sticking out and Cut-leaved Crane's-bill (G. dissectum) has long downward pointing hairs on the petiole.

The woodland opened out into fields and an open area of the concrete runway. Here we found several plants including our fourth orchid, Bee Orchid (*Ophrys apifera*), Biting Stonecrop (*Sedum acre*) and Grey Sedge (*Carex divulsa*).

On the return to the car park we saw Dog Rose (*Rosa canina*) and Jackie explained the difference in the styles between this and Field Rose (*R. arvensis*). Field Rose has styles joined into a column and Dog rose has styles that are free.

Many thanks to Jackie for organising such an enjoyable and interesting meeting.

JACKIE ELLIS

CLITHEROE, LANCASHIRE 26th JUNE

On a warm, sunny morning eight members and one patient husband met in Clitheroe. Sheila asked us to gather around her car where she gave each person a grass specimen and proceeded to talk us through the various parts of the plant. After this educational discussion we were given a print-out of the keys to the various grasses we were likely to see and made our way around the car park to search out some of them. We soon found False Oat-grass (Arrhenatherum elatius) and Yellow Oat-grass (Trisetum flavescens) and upon looking at our key learnt that all Oat-grasses have awns arising from the lemma.

Hairy Sedge (Carex hirta) and Glaucous Sedge (C. flacca) were also seen and Sheila explained how, when you pull the leaf away from the stem, the ligule is attached to the blade on sedges whereas it is detached on grasses. We then made our way to Cross Hill disused quarry and soon were finding Downy Oatgrass (Avenula pubescens), Meadow Fescue (Schedonorus pratensis) and Heath Grass (Danthonia decumbens), the latter with a ligule of fine hairs.

Bee Orchids (Ophrys apifera) were on the quarry floor and Flattened Meadow-grass (Poa compressa) growing on the rock face. Our well-earned lunch was then taken.

Four alien plants are established on the path above the River Ribble. The first we came across was Wood Ragwort (Senecio ovatus), the three following were White Butterbur (Petasites albus), Common Bluesowthistle (Cicerbita macrophylla) and the hybrid Knotweed (Fallopia x bohemica).



Photo: George Shepherd - Creative Commons

Although we were well into the afternoon we were all game to drive the short distance to Salthill Quarry but before this Sue Riley announced it was her birthday and we all enjoyed a piece of birthday cake. Once at the quarry Marion Chappell's sharp eyes soon spotted Wrinkled Viburnum (Viburnum rhytidophyllum) known to be well established on the rock face. There was also a cultivar of Bloody Crane's-bill (Geranium sanguinium) which we hope to have identified.

Sheila had obviously gone to a lot of trouble to make this meeting so enjoyable and above all informative and I would like to thank her on behalf of us all.

JULIE CLARKE

BOOK REVIEWS

Sussex Botanical Recording Society, *The Flora of Sussex.* 2018. Hardback £45. Pisces Publications. ISBN 978-1-874357-81-0

Sussex is an amazing county for wild plants. From the chalk downs to the Wealden clays, from the Pagham shingles to the grazing marshes of Amberley Wild Brooks, the varied habitats combined with its south coast climate and proximity to the continent give it a really terrific floral range and interest. I was lucky enough to have it as one of 'my' counties when the Rare Plant Surveys started way back in 1985, so it's really thrilling to be given a chance to review this magnificent book. This does seem to be an era of magnificent floras - because of my geographical context those of Devon, the Isles of Scilly and Co Fermanagh already have pride of place on my shelves, so Sussex is most welcome. and these are not the only wonderful works available for counties in England, Ireland, Scotland and Wales.

This book has the main essentials the distribution maps and status summary for each plant - clearly presented. Each entry specifies 'Native' or 'Introduced'; presence in East and/or West Sussex (the huge county is divided into two for botanical recording); a rarity rating if appropriate. Some maps, where it's important, show the extent of the chalk. It's possible to see what's happening at a glance. However this efficient way of presenting distribution data is not unique among modern map floras, and it's sometimes the quality of the introductory information

which really divides 'great' from merely 'good'. In this case I'd go for 'superlative'!

I do admit to bias - having worked there I know and respect many Sussex botanists, and have extremely good memories of both people and places - but some of the introductory chapters do seem to be outstandingly well done. Most are written by members of the editing panel (which includes the late and much missed Mary Briggs and Alan Knapp). There's a fascinating section by Nicholas Sturt on Sussex botanists, from the 17th century to 2014, illustrated with a riveting collection of portraits and photographs. Conservation, and influential changes in land management are examined by Frances Abraham, while the habitat and vegetation review consists of work by Francis Rose (guru and example to so many of us), updated by David Streeter. All these sections, including one on geology and soils, are illustrated with excellent and evocative photographs (which are also scattered throughout the main text to illustrate critical species).

This is a sound and splendid work. It's a large financial investment of course, but for anyone botanising in Sussex, or indeed in south Kent, it really does have everything needed in an accessible and excellently produced form. For collectors of British floras outside their home

county, it is a fine new addition. And for the many naturalists who have become aware of Sussex through recent publicity for the exciting 'rewilding' project at Knepp Castle in West Sussex, looking at this flora would give an excellent wider picture of this county's remarkably rich and varied vegetation, and of its botanical history. I feel privileged and delighted

to have a copy, and foresee using it many times – I may live and botanise in Somerset, but this is the kind of book which has wider importance than its own county, so it will often be relevant to refer to it, and just 'see what they say in Sussex'!

RO FITZGERALD

Christina Hart-Davies, *The Greenwood Trees*. 2018. Paperback £15.99. Two Rivers Press. ISBN 978-1-909747-40-1.

I have never had to review a book without being able to hold it in my hands and I count the feel and weight as part of the way I assess it, but in this case I've only seen a PDF. This has made me very cautious in my opinion, not wanting my old-fashioned ways to cause me to like the book less. Luckily in this case there is no danger of that.

Many of us (especially users of the Collins wild flower guides) must be long-term fans of this wonderful botanical artist and it's her skill and sensitivity to the essential nature of familiar trees that make this new publication so appealing. At 75 pages long, with most of every page given to illustrations, the text is inevitably restricted. The opening section, 'A brief history of trees in Britain', is just that, brief, but it introduces the big topics in our vegetation history. Ice ages, our islands' connection to the European mainland, our earliest tree species, what we learn from pollen records, the concept of the wildwood... all are touched on, and followed by historical summaries from the Normans to now. The same neat

condensation occurs in the other three main sections, 'People and Trees', 'Trees and Beliefs', and 'Things that live in trees', and all contain fascinating detail. Illustrations are of course beautiful and highly individual, not 'just' accurate botanical art. I especially like some pictures laid out like stamps, with details of leaf and fruit and the names, including those from Old English and Celtic usage, in elegant lettering.

From 'Tree spirits and creation myths' to ship-building, lace bobbins, and how some fungi contribute to decorative marquetry, there are snippets to interest everyone who loves trees. This is not a book which is hard work to read, but a book to dip into and enjoy many times — probably on every occasion when you have noticed or enjoyed a special tree species, or lovely woodland. When I have a material copy, it will be kept very close to hand!

RO FITZGERALD

OBITUARY ROSEMARY BOOTH

With the passing of Rosemary Booth the Wild Flower Society has lost its last direct family link with our Founder and first President Edith Vere Dent. Hilda Rosemary Lilla Booth, born in 1929, was the granddaughter of Edith Dent and daughter of Violet V.C. Schwerdt, our third President, and Captain C.M.R. Schwerdt, a Royal Naval officer. She joined the Wild Flower Society in 1932 (or to be more accurate, she was enrolled by her mother). She remained a member until her death in August 2018 - a remarkable 86 years of membership (comparable

with that of her mother who joined in about 1910 and died in 1996).

Rosemary's father retired from the Royal Navy in 1935 to take up a short-term post as Chief of Staff to the Governor of Newfoundland. The family joined him there. Rosemary's father enjoyed fishing as a recreation and her mother, as we know, enjoyed wild flowers. During family holidays father would fish in the river while mother and daughters (Pamela had been born sixteen months after Rosemary) would explore the Newfoundland flora on its banks.



Captain Schwerdt re-joined the Royal and elsewhere. Navy when the Second World War started and became the Naval Officer in Charge, Newfoundland. In 1942 he was seconded to the Royal Canadian Navy and became NOIC at Sydney, Cape Breton Island.

The family returned to England in the summer of 1945 after the War in Europe had ended. Rosemary continued her education at a boarding school and then at a London Secretarial College. A job at University College, London led to her becoming Secretary to the zoologist, Professor J.Z. Young. In 1955 she moved to Oxford University as Secretary to the four Professors of Mathematics. Her sister Pam was teaching at Waterperry Horticultural School at the time.

While at Oxford she carried out various roles - she administered the Department of Mathematics when it was formed, then the Department of Theoretical Chemistry when that was starting. Later she moved to the University Offices where she eventually became an Assistant Registrar. During that time she earned a first class Honours Degree from the Open University. She retired shortly after her 60th birthday.

Rosemary got engaged to Dr David Booth in January 1991 and they married in July 1991. Upon their marriage Rosemary enrolled her husband into the Wild Flower Society and paid his subscription. David's doctorate is in nuclear physics and though he admits to not being a botanist I know that he has enjoyed seeing wild flowers in Switzerland

Attracted by an advertisement for a ten-day "fly-drive holiday" in Newfoundland, Rosemary and David went there in September 1997. Further visits, with Pam joining them, followed in 2000 and 2005. A guide to the wild flowers of Newfoundland, which was amongst Rosemary's books donated to WFS, dates from those visits.

During the time that Violet Schwerdt was President Rosemary assisted her mother in the administration of the Society. A note in the card index of members from that period reads 'Has helped with proof reading, President's Letter and typing, etc., etc. – a lot'. She was our Treasurer from the end of 1984 until December 1988. Another note in that card index states that she 'started in Lotus Eaters in 1976 after having collected at various times since she was 3!' It was at Rosemary's suggestion that we invited Sir Ghillean to be our President.

In 2017 Rosemary presented a complete bound set of the Wild Flower Magazine from its first issue in 1897 to the end of 2016 to the Society. This is now housed in the Linnean Society's library in London where it may be consulted. We owe a particular debt of gratitude to Rosemary because so far as we know this is the only complete set of our magazine.

I am grateful to David Booth for much of the family detail in this obituary and for permission to reproduce the photograph of Rosemary from the

order of service for her funeral. At the funeral her coffin was decorated with flowers including sprigs of Rosmarinus officinalis.

MEMORIES OF ROSEMARY

I first met Rosemary sixty years ago when her mother, Mrs Schwerdt, invited me to tea at their home in Esher. I was then a new junior member and lived fairly near to them. Over the ensuing decades it was always a pleasure to see Rosemary at the occasional field meeting or AGM and, like her mother before her. she was good at remembering people and took a caring interest in members.

Rosemary was a great help and support to her mother during the vears before the WFS became a Registered Charity. In those days Mrs Schwerdt herself fulfilled all the roles now run by a committee (and then with a larger membership!). On Mrs Schwerdt's card index were notes of members that Rosemary visited, some of those past their botanical prime and in Nursing Homes. In short, Rosemary helped to maintain that special 'family' ethos of the WFS which makes it rather special. When Mrs Schwerdt died Rosemary phoned asking if I would like a botanical book from her mother's collection, a kind and thoughtful gesture typical of her. It is sad that, with her passing, the WFS has lost the last direct link with our founding family.

PAT VERRALL

Rosemary Booth was always very supportive of my efforts as Editor of the WFS magazine. I took on the role of Editor very soon after the death of David McClintock and attended his JOHN SWINDELLS memorial service as my first official task. Rosemary and her sister Pamela were there and were extremely kind and encouraging assuring me that I would cope with everything.

> We stayed in regular touch over the years of my Editorship. Rosemary used to write to me or ring me up with details of members who had done something newsworthy so I could mention this in the magazine. Rosemary knew also how interested I was, and still am, in the history of the WFS and was always happy to answer my questions about this.

> Rosemary would be so pleased that the Society continues and is adapting to new ways of recording and encouraging new members.

> > PIPPA HYDE

Copy date for Spring magazine 1st February, 2019