

PRESIDENT'S LETTER

I am writing this letter about my current activity rather than about wild flowers, but it is connected to climate change a phenomenon that is threatening the wild flowers we love so much. It is at the last minute before the Magazine goes to press because I am pleased to say that I am back in Brazil on a research and lecturing trip. This is particularly pleasing to me because after a few months of various health problems I am now fit to travel again. In fact yesterday I spent the day on quite a strenuous hike through the Atlantic rainforest of Brazil and it went well.

I am in Brazil to give a lecture on an important topic, *Biodiversity and climate change*, at a symposium of the same name, at a fairly new Institution in Brazil called Inhotim. It is a botanical tourist attraction rather like the Eden Project in Cornwall that has a fantastic collection of art and I am glad that they are also addressing such a vital topic as climate change. I will be talking about the evidence from biology that demonstrates that the world climate is changing seriously. One of the pieces of evidence is that the flowering time of many plant species is changing in many parts of the world. Vegetation is creeping nearer to the poles in both the Arctic and the Antarctic and on many mountains the lowland

vegetation is gradually moving upwards causing major changes in plant distributions. This is a threat on mountains in the UK because they are not very high and as the lowland vegetation moves upwards it will threaten some of our precious alpine flora. I will be speaking about rainforests and coral reefs and many other topics where climate change is a concern to living things.

One of my activities here in Brazil was to visit the Reserva Ecológica Guapiacu with which I have been associated since it began. This reserve, near Rio de Janeiro, is gradually purchasing land for forest conservation and some of this land is deforested. I was looking at these areas where the reserve has planted a lot of trees and I was happy to see how well they are growing. These new reforested areas will be fixing back some of the carbon released by the destruction of the forest. Tree planting is one of the most important ways that we can help to reduce the growing amount of carbon dioxide in the atmosphere that is the principal cause of climate change. I will be mentioning about this tree planting in my lecture as it is so important to offer solutions and not just criticise those who are causing climate change.

GHILLEAN PRANCE

**Copy date for Spring magazine
1st February, 2018**

EDITORIAL

As you can see we have had a break with tradition with this issue of the magazine, which is now split into two parts. The thinking behind this move is to have a Yearbook which contains all the events for the year, a list of the primary activities of the Society and details of people you may wish to contact, notably the Branch Secretaries, co-ordinators of the various Hunts and officials of the Society. This can be a useful reference book, which you can keep readily to hand throughout the year.

The magazine itself, slightly reduced in length, contains all the usual articles with an emphasis on the AGM meeting in Llandudno and the field meetings associated with it. You will also find details of the winners of the Photographic Competition and some of the images that took the honours. As Ken Southall suggests, why not consider entering yourself next year. Members submit photos to me for inclusion in the magazine which could easily be considered for the competition, so I know there is a lot of talent out there. The criteria and categories can be found in the new Yearbook. Go on, give it a go!

Reports of several other field meetings are also included in this issue. The one recurring theme of these meetings, the AGM included, is the rain. It's good to see that members seem to be made of sterner stuff and are undeterred by adverse weather conditions. So despite the

rain, necessary for all plant growth, we have had some excellent meetings. A very big "thank you" to all who have led meetings for the Society. Our new meetings secretary has put together a fantastic programme for 2018. There is something for everyone there from one day meetings in beautiful flower-filled meadows to slightly more adventurous forays into the mountains in search of alpine rarities. Enter the dates into your diaries now and plan your year.

One date I do hope you will put into your diaries is the Spring Week Hunt, which gives you the opportunity to record all those plants you find in flower during the first week of March and really heralds the start of the flowering year. Derek and Lorna Holland have very ably organised the results of this Hunt for the last 17 years but have now decided to step down from the role. We should like to offer our sincere thanks to them for such sterling work. Pauline and Richard Wilson have kindly offered to take over the role and results from your Hunt should be sent to them in the future. Their contact details can be found in the Yearbook.

So, however you botanise, I wish you a productive and enjoyable year. I look forward to reading of your exploits.

ANNE KELL

THE REVISED REGULATIONS AND WHERE TO SEND YOUR DIARY (RECORD BOOK) OR LIST

The draft revised Regulations distributed with the summer magazine were approved at the Society's AGM in September. They become effective for all recording in 2018 and onwards.

Members currently in Valhalla should send their 2017 lists to the appropriate Valhalla Division Secretary for the last time by 31 January 2018. They retain their Valhalla status but should send future lists to their Regional Branch Secretary.

Also from 2018 onwards members who have previously completed cumulative lists in Regional Branches will automatically have Valhalla status and may record plants not in flower. They should continue to send their lists to their Regional Branch Secretary.

New members record only plants in flower. After completing two annual record books (diaries) they may, with the agreement of their Regional Branch Secretary, qualify for Valhalla status and start cumulative recording. They may then record plants not in flower. They should continue to send their lists to their Regional Branch Secretary.

Although members are normally regarded as belonging to the regional branch covering the area in which they live they may, in fact, join any branch. Any member wishing to belong to a different branch should approach the Branch Secretary of the region of their choice.

To avoid Regional Branch Secretaries with Valhalla status being their own Secretaries, they should, from 2018, send their lists to John Swindells.

SHEILA WYNN

2018 SUBSCRIPTIONS

With this mailing you should find a form for the renewal of your subscription. 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

1st – 4th SEPTEMBER 2017

Our annual Members' Weekend was based at Llandudno. It followed the, now well established, pattern of a Branch Secretaries' meeting on the Friday afternoon, followed by a short field visit. Then a longer field visit held on the Saturday morning preceding the AGM and tea party in the afternoon. Finally, two full day field meetings concluded the weekend on the Sunday and Monday.

At the Branch Secretaries' meeting the implications of the changes to the branch structure were discussed. A reminder of these changes and where you should send your Field Record Books is printed on page 3. All the Branch Secretaries felt we should try to encourage more members to submit their records and participate in one of the key elements of the Society, namely the Field Record Book (or its equivalent electronic form). This meeting was

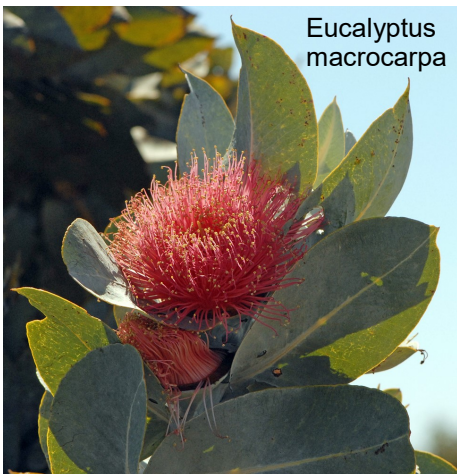
followed by a short excursion to the West Shore in Llandudno. One special find was the Blue Lettuce (*Lactuca tatarica*).

On the Saturday morning our field meeting found us scrambling over the Great Orme in search of its specialities. Read the report on page 17. This was followed by the AGM and the minutes follow this report. Ken Southall put on a spectacular display of the entries to the photographic competition, all beautifully mounted and displayed on easels. The results (see page 13) were announced with Sue Grayston taking the honours and being awarded the Violet Schwerdt Cup. Peter Llewellyn then gave us a fascinating talk about the flora of Western Australia. It certainly whetted my appetite to visit. The adaptations of the different plants to a unique environment were amazing – natural selection in the raw. His photographs of these spectacular plants were delightful. This was followed by a handsome tea and another of Stephen Clarkson's intriguing and challenging quizzes.

The Sunday and Monday provided two very contrasting field meetings, (see pages 19 - 21 for reports). All in all, it was a very successful members' weekend.

Why not put 31st August to 3rd September in your diary now and join us at Slapton for the 2018 Members' Weekend?

ANNE KELL



*Eucalyptus
macrocarpa*

Photo: Peter Llewellyn

'Soft rain' in the Gwydyr Forest
Members' Field Meeting on Sunday 3rd September
Photo: Dennis Kell



MINUTES OF THE ANNUAL GENERAL MEETING HELD AT 2 p.m. ON SATURDAY 2nd SEPTEMBER 2017 AT THE HOLY TRINITY CHURCH HALL, TRINITY SQUARE, LLANDUDNO

John Swindells welcomed members to the Members' Weekend in Llandudno and thanked Sheila Wynn, Wendy McCarthy, Ted Phenna and Peter Llewellyn for their help with the organisation of the weekend.

Present: John Swindells (Chairman), Robin Blades (Treasurer), Sheila Wynn (General Secretary), Anne Kell (Magazine Editor), Janet John (Meetings Secretary), Nichola Hawkins (Publicity Secretary), Judith Cox, Nicola Dixon, Jan Armishaw and Jill Oakley (Committee Members) and 38 other members.

Apologies for absence: David Albon, David Bevan, Rodney Burton, Julie Clarke, Ro FitzGerald, Doug Grant, Susan Grimshaw, Catherine Haines, Bill & Carol Hawkins, Roger Heath-Brown, Bob & Julia Holder, Pippa Hyde, Helen Jackson, Peter Jepson, Geoffrey Kitchener, Steve Little, Lizzie Maddison, Stephen Parker, John Poland, Sue Poyser, Ted Pratt and Rachel Rabey

Minutes of the AGM held on 1st September 2016: The minutes published in the Winter 2017 *Wild Flower Magazine* were approved as a true record.

Matters Arising: None

Financial Matters:

Robin Blades reported that in 2016, general fund receipts were down and

our investment income fell. The 10% reduction in subscription income is largely a timing matter. General fund receipts still covered expenditure. The figure of £8,342 for grants made was probably our highest ever. As a result total payments exceeded receipts by £6,419 compared with excess payments of £2,659 in 2015. This results from the policy of spending the legacy received from Dr Chicken in 2012 over a period of around five years. Support for BSBI Atlas 2020 recording in remote areas really got going in 2016 and will continue at a rate of around £2,000 a year for three years. Our grants for study days for volunteers with Wildlife Trusts continued and support for young people attending FSC courses increased following improvements in promotion.

The value of our investments at 31/12/16 was up by 8.2% compared with 31/12/15.

In 2017 the regular grants have continued. We have also given £500 to support the publication of the results of the BSBI's Threatened Plants project and £250 for research on why Himalayan Balsam is so competitive. The EC will be reviewing the Society's reserves policy. In 2017 our investments have continued to increase in value and, even though we have sold £3,000 worth, their value of £135,906 is more than at 31/12/16.

Robin thanked Sue Poyser for the excellent job she does administering our subscriptions and membership records. Membership was 613 at 31/12/16, down by 15 in the year, and is currently 602.

The meeting approved the adoption of the accounts.

Following last year's AGM, Tom Fowler retired as our Independent Examiner after 19 years. Robin thanked Tom for all his help and said that it had been a great pleasure to work with him. Bob Holder was appointed to fill the vacancy and he carried out the examination of the 2016 accounts. Robin thanked him for taking on the role and proposed his reappointment for the next year. This was agreed.

John then read out some remarks from Bob saying he'd found that Robin keeps the books in such an exemplary state that his job was extremely straightforward. Knowing the time and effort involved in being Treasurer, as Robin has now been for 18 years, he was aware of the great debt of gratitude the society owes to Robin.

Priscilla Nobbs paid tribute to Sue Poyser, saying what a good job she does and how time-consuming the work is.

Officers' Reports

Editor:

Anne Kell said that this year had been a steep learning curve for her, as she'd never edited a magazine before. She thanked all those who have contributed; without them there would be no magazine. She also

thanked Rodney Burton and John Swindells for their patience and help. An analysis of postage costs had shown that it would be more economical to have four smaller magazines instead of three larger ones. Members should now receive copies at the beginning of January, April, July and October with the Meetings Programme in the January issue so that members can plan their diaries for the year.

Anne outlined her plan for the content of the magazine with the 'business' of the Society appearing in the winter and summer issues, leaving the spring and autumn issues to contain a greater diversity of articles, including reports of field meetings. She would like to include more articles about the ecology of specific plant species or genera and places of botanical interest. She also wants to have aids to identification and botanical terminology on the centre pages so they can be removed and used in the field, as in her first three issues.

She then requested material for these centre pages, saying she would love to hear from anyone with an interest in a specific group of plants willing to write a 'Plant Profile' or produce a key to aid identification. She would also like people who write reports of field meetings to include some of the leaders' insights into the key features to look for when identifying a species and, if possible, take some photos to exemplify the points made.

Anne said that because the magazine is restricted to a maximum of 44 pages, some material will have to be held over for a later issue. She

apologised to contributors for any delay between their submission of an article and its appearance in the magazine. She finished by reminding us that the magazine is only ever going to be as good as the articles WE submit!

Meetings Secretary:

Janet John reported that there had been a successful season of field meetings in 2017. She reminded us that all members, whether expert or novice, are welcome and she had noticed that, since being with enthusiasts is infectious, those who go to meetings don't stay novices for long.

Main Meetings this year have taken place in Skye, the Burren, Teesdale, Exmoor, the New Forest and Selworthy, and now North Wales. One Day Meetings, which included recording meetings, hunts for specific flowers and joint meetings with local botany groups, took place all over the country. Janet thanked all the organisers and leaders of meetings - without them the Society couldn't function in the way we want it to. She reported that for next year she has already got Main Meetings in Brecknockshire, Gloucestershire, Lancashire, Northumberland and Kent pencilled in and is now finalising the One Day Meetings. She asked members to let her know if they have ideas for good botanical locations as well as potential leaders, reminding members that they don't need to be an expert as, if they are prepared to suggest a location and organise a meeting, then knowledgeable people will turn up.

Janet then reported that Branch Secretaries had reviewed the Advice to Leaders of Meetings, and Advice to Participants and minor alterations have been made. These will appear in the magazine in due course. She finished by thanking Sheila for her patient help in getting her started as the new Meetings Secretary.

Publicity Secretary:

Nichola Hawkins said that the WFS had been represented at two events this summer. She thanked Alison Watt for running our stand at the Bioblitz on the Penryn University campus on May 6th. Nichola had run a stand at the 'Pollinators in the Park' event in Stevenage on May 31st. Over thirty children had completed the flower identification quiz, with younger visitors taking stickers and colouring sheets.

She reported that she had again exhibited our materials for children's activities at the BSBI Annual Exhibition Meeting and said that if members knew any primary school teachers or brownie/cub leaders who were interested, she could provide materials for plant-related activities. Nichola reminded members that the PowerPoint presentation that she has put together is still available to anyone who is interested, to use as a basis for a talk on the WFS, their local flora, a special site or a botanical trip.

General Secretary:

Sheila Wynn expressed her appreciation to all Branch Secretaries and Competition Secretaries for everything they do on behalf of our members, saying how much their

contribution is valued.

She reported that earlier this year Lorna and Derek Holland retired as Spring Hunt Secretaries, after holding the position for 17 years and this year had also seen the retirement of Chris Westall as Exotics Secretary. She thanked Lorna, Derek and Chris for everything they have done over the years.

She also thanked Pauline and Richard Wilson who have offered to take over from Lorna and Derek and Dr Stephen O'Donnell who has taken on Chris's role. She encouraged members to make use of Stephen as Exotics Secretary. He'd like to receive reports of any interesting plants you see which are not in 'Stace' or 'Kent'.

She went on to thank Anne for the splendid job she's doing of editing the magazine, saying that she had received lots of positive feedback from members. Sheila expressed her heartfelt thanks to Janet who, very soon after being elected to the Committee last September, had offered to take on the role of Meetings Secretary.

There are two changes to the General Committee Members this year. Jill Oakley has replaced Janet John. Jan Armishaw, who has now resigned from the Committee, was thanked for all her contributions. Jackie Hardy has agreed to stand for nomination to take her place. Nicola Dixon was thanked for running the WFS Alerts e-mail service which has proved very popular and now has over 100 members. Sheila then finished by thanking John Swindells

for everything he does for the Society and, especially this year, for all the time and effort he has put into producing the revised regulations.

Chairman:

John Swindells said that for him the most significant event this year was Rosemary Booth's gift to the society of a bound set of all the magazines published by the WFS from 1897 – 2016. Rosemary is the granddaughter of Edith Dent, who founded the WFS in 1886. The Linnean Society has agreed that the magazines can be deposited in its library where they will be available for consultation.

Photographic Secretary:

Ken Southall thanked the nine members who had submitted fifty three photographs for the competition and commented on the high standard of entries. This year the photographs were judged by a panel consisting of Bill and Carol Hawkins and Stella Taylor. He announced that the Violet Schwerdt Cup for the best entry had been awarded to Sue Grayston for her photo of Caucasian-stonecrop (*Sedum spurium*).

He said that, disappointingly, there were fewer entries this year for the 'Shoot and Show' category. Almost twenty photos were on display and members attending the AGM were asked to vote for their favourite. Ken had donated a small prize, the winner of which was Gareth Bursnall for his picture of Broad-leaved Everlasting-pea (*Lathyrus latifolius* f. 'Blushing Bride').

Website:

Peter Llewellyn said that he felt its main functions were to publicise the Meetings Programme and make the winning entries to the Photographic Competition accessible to all members.

He said that a unique feature of the website is the list of all British plants which is one of the most comprehensive available. It includes approximately 7,800 plants recognised by the B.S.B.I. which have at some time been recorded in Britain.

At present, Peter is in the process of updating the names of hybrids, based on the new Hybrid Flora. He has set up a new WFS Facebook page which currently has over 70 members. He also mentioned the Facebook page, 'Wild Flowers of Britain and Ireland', which has over 16,000 members and is a forum for beginners to communicate with some very experienced botanists. He encouraged members to join.

Election of Officers:

The following were re-elected unopposed:

President: Sir Ghilleen Prance,
Chairman: John Swindells,
Treasurer: Robin Blades,
General Secretary: Sheila Wynn,
Magazine Editor: Anne Kell,
Meetings Secretary: Janet John
Publicity Secretary: Nichola Hawkins.

Election to the Executive Committee:

Jill Oakley and Jackie Hardy were elected unopposed to fill the vacancies caused by Janet John's

move to Meetings Secretary and the resignation of Jan Armishaw respectively.

Proposed Changes to Valhalla and Local Branches

John outlined the existing system and explained that the aim of the changes was to simplify the system and that it was hoped that retaining the expertise of Valhalla members within the local branches would help to strengthen them.

He said that in rewriting the regulations he had tried to simplify them and explain our activities more clearly, with the emphasis on encouraging members to take part. He commented that the new regulations mentioned at the previous A.G.M. had been arrived at after lengthy discussions with Branch Secretaries and by the Executive Committee and he recommended their adoption. A majority of members voted to accept the new regulations.

A.O.B. None**Date and venue of next meeting:**

The 2018 meeting will be held in Slapton Ley Field Studies Centre, South Devon from 31st August to 3rd September.

SHEILA WYNN

Winner of the Violet Schwerdt Cup

Caucasian Stonecrop
Taken by Sue Grayston



PHOTOGRAPHIC COMPETITION 2017: RESULTS

Very many thanks to the nine members who submitted pictures for the competition classes. The numbers only increased by one from last year and it would be lovely to see more members enter next year.

This year I was privileged that our good friends and fellow members Carol and Bill Hawkins and Stella Taylor kindly agreed to be the judges. Also, another keen-eyed

person (a non-member) agreed to help with the judging. Because my partner was very keen to enter, it was only right and fair that I took no part in the actual judging.

Sue Grayston's beautiful picture of Caucasian Stonecrop (*Sedum spurium*) was judged to be the best picture of all and therefore Sue was awarded the Violet Schwerdt cup.

Many congratulations Sue.

The sharp-eyed among you will realise that Sue's picture wasn't shown in the placings listed over. This is because there was some confusion as to which Class it belonged. Three out of the four judges were so impressed with the entry that they felt it should be awarded the prestigious prize. None of the judges knew the identity of the entrant.

2017 was the second year of the "Shoot and Show" class but with only nineteen pictures entered, I was quite disappointed. There were forty last year. This class is just a bit of fun and I urge more of you to bring along a picture (or more) for the table next year.

Winner of Class 1
A plant in its habitat

Bog Asphodel
Taken by Sue Grayston



Class 1 Habitat:

| | | |
|-----------------|---------------------|--|
| 1 st | Sue Grayston | Bog Asphodel (<i>Narthecium ossifragum</i>) |
| 2 nd | Marion Chappell | Marsh St John's-wort (<i>Hypericum elodes</i>) |
| 3 rd | Dr Stephen Clarkson | Male Fern (<i>Dryopteris felix-mas</i>) |

Class 2 Plant Portrait:

| | | |
|-----------------|---------------------|---|
| 1 st | Dr Stephen Clarkson | Bluebell (<i>Hyacinthoides non-scripta</i>) |
| 2 nd | David Rich | Perennial Centaury (<i>Centaureum scilloides</i>) |
| 3 rd | Dr Stephen Clarkson | Trumpets (<i>Sarracenia flava</i>) |

Class 3 Close-up:

| | | |
|-----------------|---------------------|---|
| 1 st | Sue Grayston | Unbranched Bur-reed (<i>Sparganium emersum</i>) |
| 2 nd | Peter Whitcomb | Chicory (<i>Cichorium intybus</i>) |
| 3 rd | Dr Stephen Clarkson | Stinking Iris (<i>Iris foetidissima</i>) |

Class 4 Foreign Fields:

| | | |
|-----------------|--------------|---|
| 1 st | Sue Grayston | Pink Cinquefoil (<i>Potentilla nitida</i>) |
| 2 nd | David Rich | Lady's-slipper (<i>Cypripedium calceolus</i>) |
| 3 rd | Sue Grayston | Alpine Aster (<i>Aster alpinus</i>) |

Class 5 Human Element:

| | | |
|-----------------|---------------------|--|
| 1 st | Sue Grayston | "The Old Men Of Storr" |
| 2 nd | Dr Stephen Clarkson | "What have they found, let's catch up!" |
| 3 rd | David Rich | "Members will go to any length to botanise without getting their feet wet" |

Shoot and Show section (voted by those present at the AGM)

Winner – Gareth Bursnall

Lathyrus latifolius "Blushing Bride"

KEN SOUTHALL



2nd in Close-up
category

Chicory
Taken by
Peter Whitcomb

KEY TO THE COMMON VIOLETS

The genus *Viola* includes both the pansies and the violets. The key difference between the two subgenera is that the pansies have leaf-like stipules and their two lateral petals face upwards (to give the appearance of a face), while the violets have ovate to linear-lanceolate stipules and the two lateral petals spread horizontally. There are nine species of violets in the U.K and this key only deals with distinguishing the six most commonly occurring. Hybrids between these species also occur, showing intermediate characteristics.

Overlapping petals
giving square outline
to flower

Common Dog-violet



Photos: Ken Southall

Pointed sepals



Notched spur,
paler than petals

Sepal
appendage

Leafy
flowering
stems

Spur darker
than petals

**Early
Dog-violet**

| Violets with leafy flowering shoots | | | |
|-------------------------------------|--|--|---|
| Character | Early Dog-violet (<i>V. reichenbachiana</i>) | Common Dog-violet (<i>V. riviniana</i>) | Heath Dog-violet (<i>V. canina</i>) |
| Flower colour | Pale violet, often with reddish tinge Little branched veins on lowest petal | Blue-violet Much branched veins on lowest petal | Bluish to bluish-grey |
| Flower spur | Straight Darker than petals Not notched at apex | Curved Paler than petals Notched at apex | Yellowish >2x as long as sepal appendages |
| Sepal shape/size | Pointed Appendages<1.5mm | Pointed Appendages>1.5mm | Pointed |
| Growth form | Central non-flowering rosette and leafy flowering shoots | Central non-flowering rosette and leafy flowering shoots | No central non-flowering rosette Leafy flowering shoots |
| Leaf shape | Longer than broad, cordate, pointed at tip Few scattered hairs on upper surface | As broad as long, cordate, pointed at tip Glabrous/slightly hairy | Triangular , longer than broad, truncate to shallowly cordate Glabrous/slightly hairy |
| Petiole | Glabrous | Glabrous | Glabrous |
| Typical habitat | Woodland, hedge banks, avoids acid soils | Woodland, hedge banks, grass heaths | Grassy heaths, commons, coastal dunes |
| Additional features | Upper petals twisted back giving 'rabbit's ears' appearance | Overlapping petals giving square outline to flower | |



Yellow spur

Heath Dog-violet



Photo: Peter Llewellyn

| Violets with leaves and flowers arising separately from base of plant | | | |
|--|--|---|--|
| Character | Sweet Violet (<i>V. odorata</i>) | Hairy Violet (<i>V. hirta</i>) | Marsh Violet (<i>V. palustris</i>) |
| Flower colour | Variable Typically a rich violet occ. white, lilac, pink | Blue-violet | Pale lilac with dark veins on lowest petal |
| Flower spur | Lilac Slightly hooked upwards | Greenish-purple | Short, blunt, same colour as flower |
| Sepal shape/size | Blunt | Blunt | Blunt |
| Growth form | Creeping stolons Clump forming | No stolons Tufted habit | Creeping rhizome |
| Leaf shape | Broadly ovate, deeply cordate, rounded at tip Short patent hairs on both surfaces | Ovate, shallowly cordate, occ. truncate Spreading hairs on underside of leaves | Rounded or kidney shaped, cordate, rounded at tip |
| Petiole | Deflexed hairs | Long, patent hairs | Glabrous or variably hairy |
| Typical habitat | Wood margins, hedge banks, calcareous soils | Calcareous pastures, open scrub | Acid bogs, marshes, wet woodland |
| Additional features | Fragrant | | |

Key features written in bold

Hairy Violet



Marsh Violet



Sweet Violet



Long patent hairs

Pale lilac, dark veins on lowest petal

Blunt sepals

WFS AGM and MEMBERS' WEEKEND WALKS, SEPTEMBER 2017

FRIDAY 1ST SEPTEMBER: WEST SHORE, LLANDUDNO

After completing the business of the Branch Secretaries' Meeting, we assembled on Llandudno's West Shore Car Park, where we met Wendy McCarthy and Ted Phenna to enjoy a stroll along the edge of the sand dunes in the glorious afternoon sunshine. Amongst a variety of coastal plants including Ray's Knotgrass (*Polygonum oxyspermum* ssp. *raili*) with its glossy chestnut-brown fruits protruding from the remains of the flowers, Sea Rocket (*Cakile maritima*) and the coastal form of Curled Dock (*Rumex crispus* ssp. *littoreus*), we saw the bright blue flowers of Blue Lettuce (*Lactuca tatarica*). This can be distinguished from the Blue-sowthistles by its leaf-shape and beaked achenes. Moving back into the more established dunes, we checked the fruits of a *Medicago* with blue flowers. These had two complete spirals, which meant it was Lucerne (*Medicago sativa* ssp. *sativa*). Nearby were some Sea Buckthorn bushes (*Hippophae rhamnoides*), which were looking splendid with their covering of bright orange berries. Someone commented that these little oranges were good to eat, so some of us tested them and they did indeed taste rather like very sour little oranges. Later research confirmed that I hadn't eaten anything toxic (!) and the berries are in fact said to be edible and nutritious. Wendy then led us through the dunes to see two different willows, Siberian Violet-

willow (*Salix acutifolia*), which has violet-brown stems which are pendant at the ends, and *Salix x mollissima*, the hybrid of Almond Willow (*S. triandra*) and Osier (*S. viminalis*). By now it was getting late so it was time to return to our cars.

SHEILA WYNN

SATURDAY 2ND SEPTEMBER: GREAT ORME

The Great Orme is a massive chunk of limestone rising out of the sea and rich in mineral and botanical interest, a wonderful site for our first walk. Our leaders Wendy McCarthy, Ted Phenna and Peter Llewellyn are very familiar with all its flora and have led numerous groups over the years to examine its special plants. With clear blue skies above us and after excellent organisation of car sharing, fifty members met at the appointed grass triangle and were promptly split into two groups to walk a circuit in opposite directions.

My group headed up steps, past Franchet's Cotoneaster (*Cotoneaster franchetii*) and flowering plants of Common Calamint (*Calamintha ascendens*), together with the remains of Ivy Broomrape (*Orobanche hederæ*), which is quite common on the Orme, to see White Ramping-fumitory (*Fumaria capreolata*) and White Mustard (*Sinapis alba*). White Mustard is recognisable by the flat terminal beak and white hairs at the base of the fruit. This grew in a border of planted flowers along with a specimen of

Bullwort (*Ammi majus*), identified by Stephen Clarkson, and which was possibly from a seed mix.

We then headed up onto the Orme with wonderful views to the sea on both sides, passing Western Gorse (*Ulex gallii*), Burnet Rose (*Rosa spinosissima*) and Bloody Cranesbill (*Geranium sanguineum*). Nottingham Catchfly (*Silene nutans*) was identified in seed, along with Carline Thistle (*Carlina vulgaris*) shining in the sun. Yellow was the flower colour of the day with good displays of Common Rock-rose (*Helianthemum nummularium*) and Goldenrod (*Solidago virgaurea*). There were several plants of Entire-leaved Cotoneaster (*Cotoneaster integrifolius*), which is a menace as its prostrate branches root as they spread. Hairy Violet (*Viola hirta*) and Lesser Hawkbit (*Leontodon saxatilis*) flourished on the slope with seedling Strawberry-trees (*Arbutus unedo*). Those wishing to see the pink form of Scarlet Pimpernel (*Anagallis arvensis* ssp. *arvensis* var. *carnea*) and Procumbent Cotoneaster (*Cotoneaster prostratus*) made their way very carefully along the zigzag path past Purple-flushed Hawkweed (*Hieracium pseudoleyi*), which was still in flower, and Barberry (*Berberis vulgaris*), to the Cotoneaster's only site on the Orme. Descending the hill we were able to compare Sweet-briar (*Rosa rubiginosa*) and Small-leaved Sweet-briar (*Rosa agrestis*), the latter with cuneate leaves and fruit with no acicles. (Acicles are slender prickles with scarcely widened bases.)

At this point on the narrow path we confronted the other half of the group and, after some jostling and

exchanges of information, continued on down past Wood Meadow-grass (*Poa nemoralis*), Saw-wort (*Serratula tinctoria*), Firethorn (*Pyracantha coccinea*), Black Spleenwort (*Asplenium adiantum-nigrum*) and flowering Ivy Broomrape (*Orobanche hederaceae*). After a short walk on the lower path, it was up once more past Bearded Couch (*Elymus caninus*) and a fine stand of Leafy Hawkweed (*Hieracium vagum*), together with Rough Hawkbit (*Leontodon hispidus*) and Upright Hedge-parsley (*Torilis japonica*). Further along we found a single plant of Sowbread (*Cyclamen hederifolium*). Then, climbing again



Spiked
Speedwell

Photo: Gareth Bursnall

up a steep slope and narrow path, we arrived at the highlights of the day, Spiked Speedwell (*Veronica spicata*), still just in flower, and Goldilocks Aster (*Aster linosyris*) in fine condition growing among the pink and white Antirrhinum and now spreading down the hill. Once more on the lower path we were able to compare the three species of pine tree growing there: Monterey Pine (*Pinus radiata*) with its asymmetrical cones, Stone Pine (*Pinus pinea*) and Corsican Pine (*Pinus nigra* ssp. *laricio*). Alexanders (*Smyrnium olusatrum*) with its beautiful shiny black seeds grew beneath the trees. Also growing out over the edge of the cliff were three species of Whitebeam, Common Whitebeam (*Sorbus aria*), Swedish Whitebeam (*S. intermedia*) and Orange Whitebeam (*S. croceocarpa*). Then, with a brisk walk back to the cars, it was time for lunch and the main business of the AGM.

MARION CHAPPELL

SUNDAY 3RD SEPTEMBER: GWYDYR FOREST NEAR LLANWRST

Soft rain fell when we met Wendy and Ted at picturesque Llyn Sarnau (Lake of the old tracks) in the Gwydyr Forest. This forest of lakes and mountains in the heart of Snowdonia on mainly acidic Ordovician rocks was a complete contrast to the Great Orme's dry carboniferous limestone. In 1919 the then Forestry Commission had leased the land from the Gwydyr (Gwydir) Castle estate and planted it with a variety of conifers to meet the needs of a country short of timber after WW1. (A most interesting Forestry

Commission booklet No 28 - *Gwydyr Forest in Snowdonia* is available online detailing the tough lives of the pioneer foresters and the history of the site.)

This shaded habitat with its Snowdonian rainfall of 45 to 80 inches per year was ideal territory for the Golden-scaled Male-fern (*Dryopteris affinis* group). We were soon experiencing more of Wendy's expertise and studying the differences between Borrer's Male-fern (*Dryopteris borreii*) and Narrow Male-fern (*D. cambrensis*) side by side, the former having a tall upright shuttlecock, all pinnae in same plane and the outer sharp teeth of pinnules longer and curving inwards; the latter having an untidy shuttlecock, pinnae held at an angle and pinnule teeth rounded. *D. affinis* ssp. *affinis* was also studied.

Fern identification became simpler when we reached one of several old lead mines. Abundant Forked Spleenwort (*Asplenium septentrionale*), a specialty here, was straightforward. This is one of the well-known metallophytes, able to not only tolerate lead, but extract minerals from the rock that would kill other species. (Some species are obligate metallophytes needing the minerals and others are facultative metallophytes able to tolerate the lead.) It was accompanied by Maidenhair Spleenwort (*Asplenium trichomanes* ssp. *trichomanes*) with its fronds arching away from the substrate (unlike the much commoner *A. trichomanes* ssp. *quadrivalens* with its fronds appressed to the substrate). Life must have been getting too easy for us so Mountain



Forked
Spleenwort

Male-fern (*Dryopteris oreades*) was found for us to study. This one is typically found on scree and disturbed rocks with sparse sori only on the inner part of pinnules on the top part of the frond. The indusia (small flaps covering the sori) are tucked under like mob caps in the early stages.

The rain was still washing the vegetation, making it look nice and fresh, but oh joy, we were allowed to return to our cars for a drying off lunch, dripping all over our tolerant drivers' upholstery. Then it was off in cars along forest tracks with avenues of blue Devil's-bit Scabious (*Succisa pratensis*) to Cors Bodgynydd, carefully avoiding hidden drainage ditches on hard verges. This North Wales Wildlife Trust reserve had a mosaic of open water, streams, wetland, acidic grassland and heathland. The promise of aquatic carnivores was too good to miss and the extensive patch of flowering Lesser Bladderwort (*Utricularia minor*) really had the wow factor. Photography took a long time. There was plenty of Bog-myrtle (*Myrica gale*), but the midges weren't

bothering us. Down to the open water next for Floating Bur-reed (*Sparganium angustifolium*), complete with fruits. In a marshy bit was another *Dryopteris* to round off the day, this time Narrow Buckler-fern (*D. carthusiana*), with narrow two-pinnate fronds, pale brown scales with no darker stripe and a creeping

habit, not a shuttlecock.

Finally, Wendy arranged a stop to see another metallophyte, Alpine Penny-cress (*Noccaea caerulescens*), but my travelling group from Derbyshire decided they had seen plenty of lead-tolerant plants in dry weather so they chose to proceed to a drier place and a welcome cuppa.

RUTH DAWES

Our thanks to Wendy and Ted for leading all these interesting and varied walks for us over the weekend.

MONDAY 4TH SEPTEMBER: CORS GOCH, ANGLESEY.

Under cloudy skies a large group of us gathered for the last day of this year's Members' Weekend. Having largely dried out from the previous day's rain, we were hoping the day would remain dry. We were fortunate in having three leaders, Geoff Radford from the North Wales Wildlife Trust (a Trustee and volunteer), Dr Hugh Knott, the previous Joint Vice-county 52 Recorder and Nigel Brown, Joint Vice county 52 Recorder.

Cors Goch is a National Nature Reserve and SSSI and is one of the North Wales Wildlife Trust's flagship reserves. It has a rich mixture of habitats, including fen, acid grassland, heath, meadow, a little woodland, scrub and surrounding limestone pavements and escarpment.

Along the grass verge before we got into the Reserve were large numbers of Bog Asphodel (*Narthecium ossifragum*) in fruit, their orange seed heads rather striking. Once into the reserve, the first plants of note were the Marsh Gentians (*Gentiana pneumonanthe*) just coming into flower. Walking along a grassy track, we got to a point where we had an excellent view of the fen basin with the large swards of Great Fen-sedge (*Cladium mariscus*) and Common Reed (*Phragmites australis*).

Next was a heavily vegetated limestone pavement, covered with Grass-of-Parnassus (*Parnassia palustris*), Saw-wort (*Serratula tinctoria*), some Mountain Everlasting (*Antennaria dioica*) and one flower spike of Autumn Ladies Tresses (*Spiranthes spiralis*). Autumn Gentians (*Gentianella amarella*) were also in flower, as well as Brookweed (*Samolus valerandi*).

We followed the boardwalk around the edge of the fen and eventually had more excellent views of Lesser Bladderwort (*Utricularia minor*), plus an examination of the bladders and a discussion about what they caught. Many of the bladders were black indicating they were full. Much Bog Pondweed (*Potamogeton polygonifolius*) was nearby. We

passed a limestone escarpment that curiously was covered with heathers and gorse; apparently it has a covering of glacial drift, some of it acidic.

Further on, a search for the tiny Lesser Clubmoss (*Selaginella selaginoides*) was eventually successful. It grows in an area that has many species of orchids that, of course, flower earlier in the year. We then had the opportunity of looking at the contents of Nigel's moth trap; there was a good number of species caught the previous evening/night including the very attractive Copper Underwing and about 50 of the pale yellow Brimstone Moths.

We said goodbye to Nigel at this point and walked along the lanes back to where we had parked. A most enjoyable day in delightful surroundings and it didn't rain! Thanks to our leaders and to Sheila for organising the car parking in Pentraeth and the transfers nearer to the reserve.

PAULINE GRIMSHAW



Photo: Sue Grayston

FIELD MEETINGS 2017

EXMOOR WEEKEND 24 - 25th JUNE

This weekend was meticulously planned by Graham Lavender, our chief leader, who lives in Porlock and knows the botany of Exmoor extremely well, both moors and combes, and the very different habitats of the coast. We believed that the contrast between the Bossington shingle ridge and salt marshes of the first day would contrast splendidly with the peaty moorland habitats of the 'Lorna Doone' country near Robber's Bridge. Showing off our plant treasures was extra important, because so many members wanted to attend that we'd had to restrict numbers to 20! However, fate is always unpredictable, and at several moments we feared plans might go completely wrong. Graham was faced with some serious personal worries and might not have been able to attend at all, let alone be our brilliant leader and, in spite of innocuous weather forecasts on Sunday, Exmoor did what Exmoor does, covering our route with soaking cloud, rain and attendant midges.

Somerset botany gatherings are currently focused mostly on recording for Atlas 20/20, so although these two days were planned to include well-known rarities, such as Babington's Leek (*Allium ampeloprasum* var. *babingtonii*) and the mysterious colony of Large-flowered Butterwort (*Pinguicula grandiflora*) which persists on Exmoor far from its Kerry home, the leaders could not resist 'doing a card' to record everything seen in each 1 kilometre square. No

surprises were expected, but it is always wonderful what new pairs of eyes can reveal and of course the 'visitor syndrome' - resident botanists, needing to go extra slowly while explaining the local flora to members from very different counties, can locate overlooked plants.

This became clear only a few metres from the car park, when we stopped to record Fragrant Evening-primrose (*Oenothera stricta*) established in a pavement crevice. This attractive Chilean species has a well-known naturalised site near Minehead, so although clearly casual here we accepted its presence with pleasure. However, while gathered round this plant, several members speculated about a pretty pink flower growing nearby – was it perhaps a garden-worthy willowherb? Nobody knew and it was only later that evening, after quite a tortuous search through



Photo: Graham Lavender

Rosy
Evening-primrose

books, that it was identified as coming from the genus which had first caught our attention – Rosy Evening-primrose (*O. rosea*), the first species featured in Rosaline Murphy's invaluable new BSBI Handbook! This find means that the WFS visit made South Somerset history, achieving a Vice-county 5 record, and for a plant only very rarely naturalised in Britain.

Even before this thrill became clear, the day was full of good botany. We walked along the famous shingle bar, a bit scorched after the dry spring but with fragments of annual clovers still visible, including the curious Subterranean Clover (*Trifolium subterraneum*) burrowing its arrow-like seed heads into the ground and reached the remaining colony of Babington's Leek with its big clunky bulbil-loaded flower heads (a rarity, but not one for Chelsea Flower Show!). We looked at varied habitats including marshy ground where fresh water and salt meet at a stream outlet and the gradually-increasing salt marsh behind the shingle bar. This is a lesson in 'managed retreat', with this habitat allowed to form when rising sea levels flood former pasture (here following a major storm breaching the shingle ridge 20 years ago). An unforeseen pleasure, on brackish paths by the salt marsh, was seeing the quaint and uncommon little Curved Hard-grass (*Parapholis incurva*) on probably the best day of the year for spotting it. A tiny annual, usually most inconspicuous, today it was waving all its little exerted anthers in the breeze, visibly enchanting! Turning for home (and excellent cake in a Bossington tea

room) some members still had energy for an exciting rummage through some sandy fields supporting the very threatened neutral/acid arable weed community. Star plants here were the delightful Snapdragon relative Weasel's-snout (*Misopates orontium*) and Tall Ramping-fumitory (*Fumaria bastardii*). Here this was living up to its name, billowing up among the crop, though its individual flowers and colour are less striking than many fumitories, being a dim pink and having no dark 'nose' on the



Babington's Leek

Photo: Anne Kell

upper petal. It's a Western speciality, possibly sometimes overlooked, so finding this vigorous population was a treat.

Sunday started badly, with cloud thick over Exmoor, and doubt as to whether Graham would even be able to join us. However, members bravely

gathered under dripping trees in the deep combe by the Weir Water at Robber's Bridge. Uncertainty ruled for a short time because, without Graham, Liz McDonnell and I, far less familiar with the territory, failed to locate the way into the free-to-roam area which was our target. We were muddling about damply, visualising a disgraceful collapse of the meeting, when Graham magically appeared out of the cloud and rescued the morning! In spite of the damp, which gradually relented enough for us to picnic by the stream, we were able to see a wide range of the boggy, peaty plants which made such a contrast to species found on Saturday. The substantial rosettes of the Large-flowered Butterwort had finished flowering but were abundant – curiously the far more familiar Common Butterwort (*P. vulgaris*) is absent from Somerset, though we do have the dainty Pale Butterwort (*P. lusitanica*) in moorland flushes on Exmoor and the Blackdowns.

Weather made it difficult to make the best of Graham's carefully prepared lesson on the critical details of Spike-rushes (*Eleocharis* spp.) as rain smudged our lenses and our feet sank in mires, but as the day brightened a bit it became easier to enjoy some of the delightful characteristic species of this area. This included Bog Pimpernel (*Anagallis tenella*), the curious Flea Sedge (*Carex pulicaria*) and, an Exmoor speciality, Ivy-leaved Bellflower (*Wahlenbergia hederacea*), all in full flower. We also appreciated some of the grassy areas with lovely displays of Heath Spotted-orchid (*Dactylorhiza maculata*) and Ragged-Robin (*Silene flos-cuculi*).

Quite a weary party regained their cars, but members set off for home leaving Somerset enriched by a whole list of good new records, and the resident botanists well pleased with their sharp-eyed visitors!

RO FITZGERALD

ONE DAY MEETINGS 2017

LANGCLIFFE, SETTLE, YORKSHIRE

8th JUNE

The day for our meeting started wet and continued so. The venue for part of the day was the Hoffman Lime Kiln - well worth "googling" for its history. Ten members donned their waterproofs and wellies and wandered to the kiln which was 'awash' with *Hieracia*, not the easiest plant group to identify especially in the rain. However, our expert on *Hieracia*, Brian Burrow, had kindly agreed to come and help us and soon got them sorted out. He carefully described their

characteristics, pointing out that the early-flowering plants always had either no leaves up the stem or just one leaf, mid-season plants one to eight leaves and late-season ones, many leaves. Our first was Weedy Hawkweed (*H. oblongum*). Other plants growing on the walls were Tall Mouse-ear-hawkweed (*Pilosella praealta* ssp. *thaumasia*), Bee Orchid (*Ophrys apifera*) and Confused Eyebright (*Euphrasia confusa*). At this point there was a gap in the rain so we moved on to the Winskill

Stones area where the Mountain Pansy (*Viola lutea*) was in full bloom. Here we saw a Dandelion (*Taraxacum euryphyllum*) and Distinguished Hawkweed (*H. praesigne*). On and up to Horton in Ribblesdale quarry where, despite the rain, we had a good view of the Ribbleshead Viaduct. A train was crossing but unfortunately not a steam one. Within the quarry it was quite a sight to see the water gushing out of the quarry face resulting in a lake forming on the quarry floor. We skirted around this to be shown

Ribbleshead Hawkweed (*H. caesitium*), a scarce Yorkshire Hawkweed, a Spike-rush (*Eleocharis austriaca*) and Mountain Everlasting (*Antennaria dioica*). All the time Brian patiently explained the differences and answered questions. As we were leaving he told us to look on the railway bridge as we drove into Settle for yet another *Hieracium* - Hjelt's Hawkweed (*H. hjeltii*). My grateful thanks to Brian for offering to lead my meeting.

JULIE CLARKE

WOLSTONBURY HILL, WEST SUSSEX 10th JUNE

Five members set off eagerly along the lanes leading to Wolstonbury Hill. Our first exciting find was the maritime grass Sea Fern-grass (*Catapodium maritimum*) at the edge of the railway bridge, probably the result of winter salting of the nearby road. It was soon clear that the recent very hot weather and lack of rain had accelerated the season with most early summer plants already over. However, other species were emerging to compensate. A very large patch of Scarlet Pimpernel (*Anagallis arvensis*) lifted everyone's spirits. We soon spotted the small deep pink flowers of Sweetbriar (*Rosa rubiginosa*) with its apple-scented glandular leaves.

In the first woodland Pat Verrall spotted White Helleborine (*Cephalanthera damasonium*) in fruit. When we reached the chalk downland the diversity of species improved dramatically including Hairy St John's-wort (*Hypericum hirsutum*) and Hound's-tongue (*Cynoglossum*

officinale). Yellow-wort (*Blackstonia perfoliata*) was coming out and the spikes of Common Spotted-orchid (*Dactylorhiza fuchsii*) were a delight to see.

We found a hollow out of the wind to eat our lunch and discussions arose about which Tor-grass we had found. We concluded that, due to the flat leaves and minute prickles on their undersides, this was the Drooping Tor-grass (*Brachypodium pinnatum*). The Small Scabious (*Scabiosa columbaria*) was present here with its 'black needles' hidden in the involucre, unlike the larger Field Scabious (*Knautia arvensis*) we saw earlier.

Wolstonbury Hill is an Iron Age Hill Fort dating from 500 to 250BC and its ramparts usually abound with flowers as it has never been ploughed. We did see some spikes of Chalk Fragrant-orchid (*Gymnadenia conopsea*). Higher up, before we reached the summit, Dropwort (*Fillipendula vulgaris*) with its pretty



Greater
Butterfly-orchid

Photo: Gareth Bursnall

pink buds came into view .

Descending into the woods below we were greeted with hundreds of spikes of Twayblade (*Neottia ovata*) and, here and there, in perfect flower, the ghost-like spikes of Greater Butterfly-orchid (*Platanthera chlorantha*), the highlight of the trip.

Tired but happy (none of us present were getting any younger) we headed back to our cars.

GARETH BURSNALL &
PRISCILLA NOBBS

SHINGLE STREET, SUFFOLK 11th JUNE

Fifteen of us were treated to a very fine but windswept day along the shingle beach and adjacent percolation lagoons and dunes. Now quite a remote area, Shingle Street was once a small hamlet including a lifeboat station and a pub; both of which were destroyed during World War II. Many war propaganda stories exist about German invasions at Shingle Street but, without any eye-witness accounts, it is thought these stories were used to boost British morale during the war.

As per what has become normal, our initial botanising centred around the car parking area for the first two hours or so. Here, the differences between Bladder Campion (*Silene vulgaris*) and Sea Campion (*S. uniflora*) were discussed; Bladder Campion with its deeply bifid petals and its calyx not as purple in colour as the Sea Campion. Much discussion took place over the three clovers in the area. Rough Clover

(*Trifolium scabrum*) and Knotted Clover (*T. striatum*) were eventually separated out and, because of its tiny size amongst the short turf, even Hare's-foot Clover (*T. arvense*) had most of us confused! We also saw Suffocated Clover (*Trifolium suffocatum*).

Eventually, we moved on to see, amongst other less-common species, Sea Pea (*Lathyrus japonicus*) in good numbers, Yellow-horned Poppy (*Glaucium flavum*) and Sea Kale (*Crambe maritima*). Despite being apparently less frequent in recent years, Yellow Vetch (*Vicia lutea*) was also seen in good numbers. Round-fruited Rush (*Juncus compressus*) and Saltmarsh Rush (*J. gerardii*) are very rarely seen together side by side. We would have expected to see Saltmarsh Rush but to have the two growing together was brilliant as we could then compare them in situ, which greatly helped in sorting out their identification! They

are mainly distinguished by the lowest bract being shorter than the flower cluster in Saltmarsh Rush and longer than the cluster in Round-fruited Rush.

Special thanks to Nicola Dixon and Stephen Clarkson for organising and

leading the day. Thanks also to Lydia Vulliamy for the use of facilities (and lovely cakes!) in her holiday bungalow situated right next to the ever-encroaching North Sea.

KEN SOUTHALL &
SUE GRAYSTON

SYDLINGS COPSE, NEAR OXFORD 28th JUNE

What a start to a meeting! We gathered on the verge opposite a thatched cottage with a baboon (made of straw) on the roof and peacocks crowing and there immediately in the field were Common Poppy (*Papaver rhoeas*), Prickly Poppy (*P. argemone*) and Long-headed Poppy (*P. dubium*). A stroll up to Sydlings Copse gave plenty of interest including Wild Liquorice (*Astragalus glycyphyllos*), Long-stalked Cranesbill (*Geranium columbinum*), Bog Pimpernel (*Anagallis tenella*) and Greater Tussock-sedge (*Carex paniculata*). On reaching Sydlings Copse we also saw Fragrant Agrimony (*Agrimonia eupatoria*), Tall or Golden Melilot (*Melilotus altissimus*), Burnet-saxifrage (*Pimpinella saxifraga*), Fragrant Orchid (*Gymnadenia conopsea*) and a wonderful stand of Sainfoin (*Onobrychis viciifolia*). We also found Zigzag Clover (*Trifolium medium*) which we were able to compare with Red Clover (*Trifolium pratense*). In Zigzag Clover the leaf stipule comes to a very fine point and the head is slightly looser.

The afternoon saw us on The Salt Way. This is an ancient route that was used to transport salt from Droitwich to Princes Risborough and later used as a drovers' road. The Way runs through arable fields at the edges of which we found interesting plants such as Night-flowering Catchfly (*Silene noctiflora*), Narrow-fruited Cornsalad (*Valerianella dentata*), Venus's-looking-glass (*Legousia hybrida*), Small Toadflax (*Chaenorhinum minus*), Sharp-leaved and Round-leaved Fluellen (*Kickxia elatine* and *K. spuria*), Field Penny-cress (*Thlaspi arvense*), Musk Mallow (*Malva moschata*) and, my plant of the day, a beautiful specimen of Downy Woundwort (*Stachys germanica*). This is a very rare plant found only in sparsely grassy places north and west of Oxford. It rounded off the day nicely.

Some members had travelled a considerable distance to attend the meeting and they were not disappointed. Many thanks to Roger Heath-Brown for leading us on such an excellent botanical foray.

JANET JOHN

BOOK REVIEW

Threatened plants in Britain and Ireland. K.J.Walker, P.A.Stroh, R.W.Ellis. BSBI (2017). 153pp, maps & colour photos. £14.95

This is not a detailed review, more a notice to alert any members interested in flora and habitat conservation to this excellent and terrifying little book. Between 2008 and 2013 the BSBI organised a spot check on 50 species thought to be under serious threat. These were not selected from the rarest Red Data Book plants, but from species which used to be really widespread. Many of them feature in the incomparably useful *Scarce Plants in Britain* (eds. A.Stewart, D.A.Pearman, C.D.Preston, JNCC 1994), so they were already suspected to be declining, but as so many threats have seriously increased in the 21st century, proof was needed. Places where target plants have been recorded were preselected and, although it was impossible to search out every one, volunteer botanists visited nearly 4,000 sites. The results, for many species, were extremely disturbing. Increases in intensive farming methods, combined with a decrease in the active management of marginal land, as well as development and the rising pollution of air and water, have caused serious declines. An iconic species such as Green-winged Orchid (*Anacamptis morio*) was only re-found at just over half (57%) of its surveyed sites. Each plant has an entry explaining its habitat and needs (all essential and fascinating information) and an analysis of what is happening to it, with a photo, a map showing its

distribution at various dates and a wonderful side-bar at the end of each entry summarising 'Key findings'. The story is really clearly told.

There is a generous ration of tables and spreadsheet analyses at the end of the book. These things usually completely flummox me, but here they do repay effort, being laid out in approachable and logical forms. The news they give is mostly grim, but we need to know this and do what we can as individuals to ameliorate destructive procedures in our home areas. Government is not doing this for us, but we can probably all charm a local farmer into leaving 'just one strip, just one corner' out of the sprays. Even if the gain is tiny, it might allow a seedbank top-up for a beloved arable weed such as Corn Marigold (*Glebionis segetum*), currently vanishing so quickly.

This is not cosy winter reading. It often confirms one's worst fears, those uneasy feelings when once familiar plants just don't seem to be where they were, but it's an important and gripping book. It's very nicely produced and I found it really worth persisting with the tabular analyses (and the conservation acronyms!), they did make perfect sense in the end. My eyesight is not ideal for the maps – the historic distribution dots are printed in a very pale blue, so I have to reach for the magnifying glass to make sure I see them all – but that's purely personal. If you care about what's happening to our wild flowers, do read this.

Available from the BSBI booksellers, Summerfield Books.

RO FITZGERALD