



Welsh Bulletin

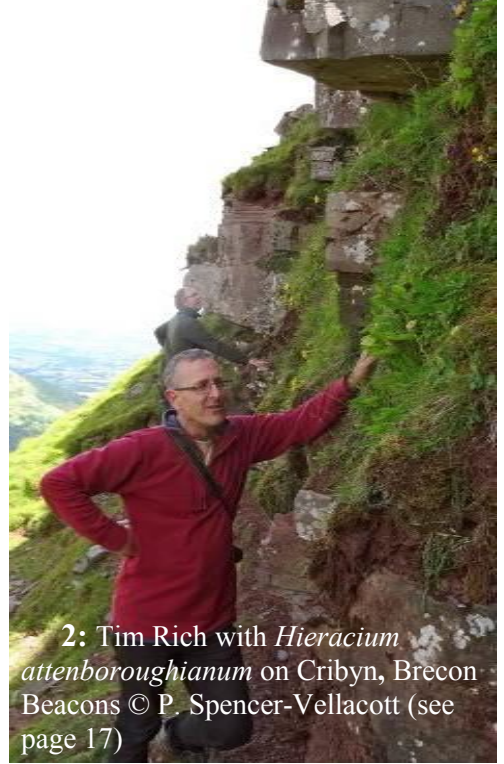
**No. 99
February 2017**



Editors: Richard Pryce, Sally Whyman & Katherine Slade



1: On Llangorse Lake at 2016 AGM.
© J.R. Crellin (see page 16)



2: Tim Rich with *Hieracium attenboroughianum* on Cribyn, Brecon Beacons © P. Spencer-Vellacott (see page 17)



3: *Dryopteris aemula* at Cwm Silyn. © W. McCarthy (page 32)



4: *Ranunculus* cf *sardous* at Dingestow, v.c.35 in 2016. © S.D.S. Bosanquet (see page 45)

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Items for inclusion in the next Welsh Bulletin should be sent to Richard Pryce by **1st May 2017**: Pryceeco@aol.co.uk

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See www.bsbi.org.uk/wales.html for back issues. Printed versions of some back issues are still available on request @ £2.50 per issue; please contact Sally Whyman or Katherine Slade. Cheques are payable to BSBI (the BSBI Wales bank account has now closed). Future issues are available to BSBI members living outside of Wales by sending £2.50 in advance.

Welsh Officer's Update

POLLY SPENCER-VELLACOTT

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This year really seems to have flown past – unfortunately when only working three days a week, the weeks seem to vanish especially with a meeting or visit – so apologies to anyone who is still waiting for me to respond to anything.

I was very pleased with the response of members – both vice-county recorders and others – who sent in copies of Threatened Plants Project forms for species including *Trollius* (Globeflower), *Antennaria* (Mountain Everlasting), *Vicia orobus* (Wood Bitter-vetch) and *Hammarbya* (Bog Orchid). There were a few great finds across Wales this year, which will no doubt be detailed by the vice-county recorders. I also received forms for various other species that are nationally rare, scarce, threatened or listed in Section 42 – on and off SSSIs! Having members fill in these forms is wonderful, as it helps us to deliver on the grant from Natural Resources Wales, which funds my job and allows me to provide various types of support to recorders and members.

An area which has taken up a lot of my time and thoughts this year is the development of the County Rare Plant Registers (RPR) – as many of you will know who saw my talk at the Welsh AGM or the different angle at the Annual Exhibition Meeting in Wallingford. Wales still expects to be the first country in the world to be able to publish a RPR for every county – in fact, draft versions (at least) exist for every county already, but we hope to publish the outstanding few early in 2017. An understanding of the value of RPRs is now spreading across Britain and Ireland – there are now over 50 counties with RPRs, more than half of which have been published since 2012 – Wales is really leading the way. I am hoping to support a number of vice-county recorders who may be preparing updates as well this winter, so we expect a busy time.

On a more seasonal note, and inspired by an idea from Ireland (see www.biodiversityireland.ie/record-biodiversity/winter-heliotrope-challenge/), is *Petasites fragrans* (Winter Heliotrope) well recorded in Wales? A map suggests (see figure 1 below) it has not been recorded in many 10km squares since 2000 - so if you are out and about this winter, try and spot some – and send the records in to your local vice-county recorder.

My second species for you to keep an eye out for is *Urtica dioica* (Common

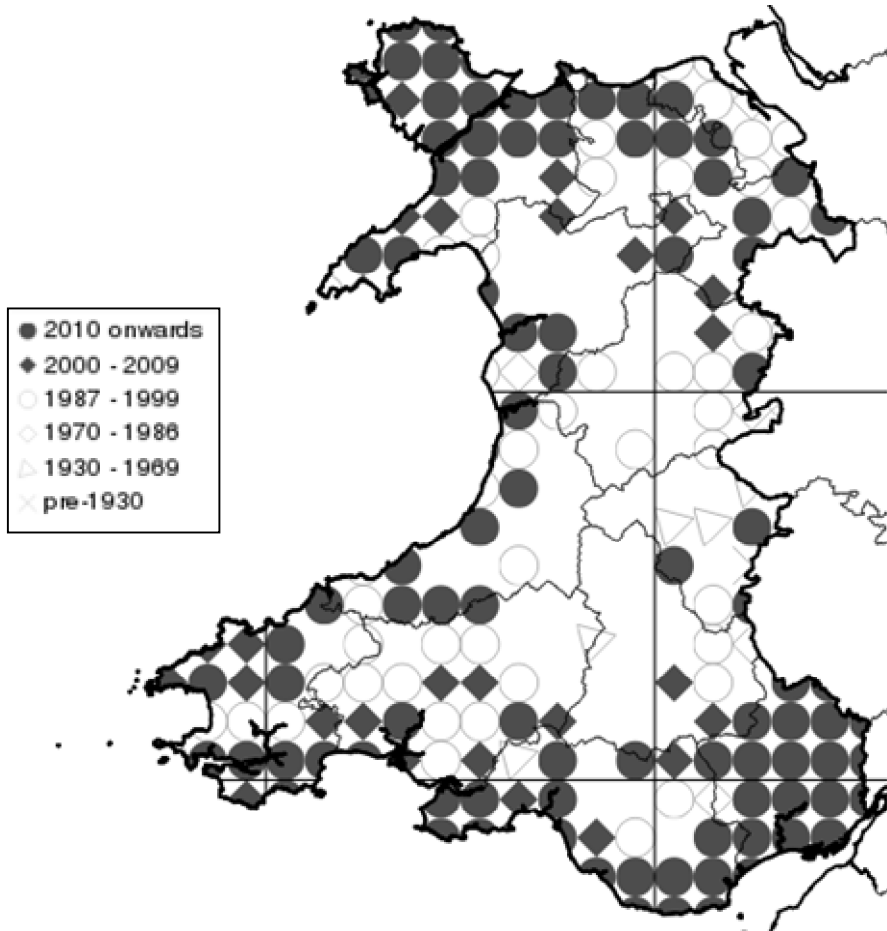


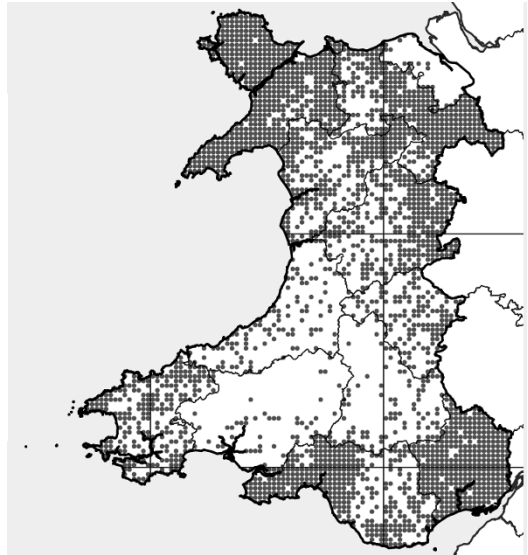
Figure 1: Map showing *Petasites fragrans* (Winter Heliotrope) recorded in 10km squares in Wales by BSBI date class. See page 5. Data for map extracted from bsbidb.org.uk November 2016.

Nettle) – well covered in 10km squares, but the tetrad map shows the coverage is less even (see figure 2 below). Some of the gaps are due to missing data (records that exist but are not yet on the BSBI Distribution Database). There may be some tetrads, especially in the uplands, where there are no nettles. However, many of the gaps suggest that the tetrad has not been well-recorded in recent times, and the county recorder may welcome some assistance if you are able to visit a square and look out for some Nettles (and more)!

As always, please feel free to contact me on any Welsh botanical matters... or check my blog (bsbicymru.blogspot.co.uk) though it is less active in winter.

Figure 2: Map showing *Urtica dioica* (Common Nettle) recorded in 2km squares in Wales since 2000.

(Data for map extracted from bsbidb.org.uk November 2016).



Celebration of the 100th Edition of the Bulletin

With the next issue, the Welsh Bulletin reaches its 100th edition. The Welsh Regional Committee first met on 20th October 1962 and were responsible for the introduction of the Bulletin just over a year later. The editors therefore invite the whole readership, particularly those of long-standing, for contributions particularly concerning their recollections of BSBI meetings or other botanical highlights from the past 53 years. Please send articles, short notes or snippets to the receiving editor by the 1st May.

Reissue of R.H. Robert's Atlas of the Flowering Plants and Ferns of Anglesey

The *Atlas of the Flowering Plants and Ferns of Anglesey* was first published by R.H. Robert as a limited edition with a print run of 12 in 2002. His daughter has kindly given John G. Kelcey permission to have it reprinted. John is making it available at cost plus postage and packing (£13.00). If you are interested in buying a copy, please contact Sally Whyman (address on contents page).

Ian Bonner gives some background on the flora: *“The maps are based mainly on the records R.H. Robert collected while BSBI vice-county recorder and entered onto BSBI species cards. The bulk of the records are from c.1955 until his Flora was published in 1982, though it will include later records as he was active up to the late 1980's, with smaller numbers of records made through the 1990's, mainly by R.H. Robert in conjunction with Mattie Davies.*

“The dots do not differentiate date classes and the maps are at the tetrad scale. I understand David Evans helped collate the information and prepared a way of producing the maps electronically, but that in the end R.H. Robert entered all the dots by hand - a mammoth task. The maps provide a useful snapshot of the period described, but much more up to date detail is freely available on the BSBI Database.”

All RH Roberts field notebooks are lodged at the National Library of Wales in Aberystwyth and are available to view by prior arrangement. An original copy of the flora is also available for reference at the National Museum Cardiff – please contact either Sally Whyman or Katherine Slade.

BSBI Field Meetings Wales - 2017

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Many thanks to everyone who has offered to lead field meetings in 2017.
Please keep your ideas coming - you do not need to be a vice-county recorder,
though it is a good idea to talk to your local recorder first. Full details of all
meetings are in the BSBI Yearbook for 2017.

T = Training meeting (at differing ability levels)

R = Recording meeting

G = General interest

Wednesday 1 March [T]

Euphrasia workshop
National Museum Cardiff,
Leader: Chris Metherall

Saturday 4 March [T]

Workshop on BSBI database (DDb),
Coed y Brenin Visitor Centre,
Merionethshire
Leader: Polly Spencer-Vellacott

Monday 5 - Friday 9 June [G]

Welsh Annual Summer Meeting
See details on page 19.
Organiser: Gail Quartly-Bishop

26 June - 3 July (Monday to

Monday) [R/T]

Glynhir Recording Week,
Carmarthenshire
Leaders: Kath and Richard Pryce

Sunday 16 July [T]

Plant Families identification training
Alyn Waters Country Park, Wrexham
Leader: Delyth Williams

Friday 21 - Monday 24 July [R]

Caerdeen Residential, Merioneth
Leader: Sarah Stille

Friday 21 - Sunday 23 July [T]

Tudweli, Caernarvonshire
Leader: David Earl

Saturday 29 July [G/R]

Abergwesyn Commons, Breconshire
Leader: John Crellin

Saturday 19 August [T]

Roses, Montgomeryshire and
Shropshire
Leader: Kate Thorne

Friday 1 - Sunday 3 September (T)

Dryopteris training weekend,
Caernarvonshire and Denbighshire
Leader: Fred Rumsey

Minutes of the 2016 BSBI Wales Annual General Meeting

The 54th AGM of BSBI in Wales, held at the Barn, Brecon on Wednesday 13th July 2016 at 9.30am.

Present: 19 members who were resident in Wales and two Welsh vice-county recorders (VCRs) not resident in Wales, eligible to vote, and 4 members resident in England and 3 non-members.

1. The Chairman welcomed everyone to the meeting.

2. **Apologies for absence** were received from John Faulkner (BSBI President), Arthur Chater, Kate Thorne, Liz Dean, Sue Spencer, Richard & Kath Pryce.

3. **Minutes of the 53rd AGM** held at Plas-Tan-y-Bwlch on 11 July 2015 were signed by the Chairman as a true record of proceedings. All were in agreement with this.

4. There were no **matters arising**.

5. **Chairman's report:** Julian Woodman began by thanking John Crellin and the staff at the Barn for arranging an excellent AGM and venue. He also extended thanks to the field leaders, exhibitors, those who lead the field excursions and the excellent talks in the evenings.

He reported that this had been a full year for Polly Spencer-Vellacott in post as Welsh Officer and thanked her for all her support for the vice-county recorders. He also reported that the Society now has a new part-time Finance officer and Publicity and Communications Officer

The BSBI continues to go from strength to strength with its job of recording for Atlas 2020.

By the end of the year, it is hoped that Wales will have a full complement of Rare Plant Registers.

The Chairman said how important the work of the BSBI is especially in the current national climate where nature conservation is low on the agenda.

He concluded by reminding members that they were eligible to a free drink with the evening meal, courtesy of the John Topp legacy.

6. Hon Secretary's report: Elsa Wood began by echoing the Chairman's thanks to all who helped arrange this AGM.

She also thanked those who worked so hard to produce the Welsh Bulletin, namely Richard Pryce, Kath Slade and Sally Whyman as editors and to Stephen Coker for assembling Welsh Plant Records. She also reminded those who live outside Wales that the Bulletin was available at £2.50 per copy.

7. Welsh Officers Report: Polly Spencer-Vellacott reported that she returned from maternity leave in August so has been in post for almost a full year. In that time she has set the priorities for her post and is able to provide continued support for the Welsh VCRs. This includes IT and other Atlas related matters. There were two Map-mate workshops for both north and south Recorders. There were also successful training workshops for *Euphrasia* and Grasses and there will be the *Dryopteris* workshop in Oct 2016, which has proved to be popular.

Atlas recording in Wales is progressing well and the number of records input post 2000 will probably exceed those input during the 1987-2000 period. To date over 145,000 unique hectad-taxon ('smarties') records have been submitted since 2000.

When the Glamorgan and Pembrokeshire RPRs are complete, there will be a complete coverage. Several VCRs are also updating theirs.

Rare Plant Monitoring, part of the requirement by Natural Resources Wales (NRW), has concentrated on the four species: *Trollius europaeus* (Globeflower), *Vicia orobus* (Wood Bitter-vetch), *Antennaria dioica* (Mountain Everlasting) and *Hammarbya paludosa* (Bog Orchid). All members, not just the recorders, were invited to participate in the scheme.

Polly also made a commitment to update her blog on the website, and concluded by thanking the VCRs for the work that they do.

8. Election of officers and Committee members:

Officers: The Secretary reminded members that as the finances for Wales are now administered centrally, there was no longer the need for a Treasurer. The incumbent Chairman, Vice-Chairman and Hon Secretary had expressed their willingness to continue.

Committee members: The following were due to retire and expressed their willingness to continue for a further 3 years: Sarah Stille, Delyth Williams, John Crellin, Kate Thorne, Stephen Evans, Liz Dean and Sue Spencer.

It was proposed that the Officers and Committee members be re-elected *en bloc*. This was proposed by Mike Porter and seconded by Andy Jones.

9. AOB: None

Report of the 54th Welsh AGM 12-15 July 2016

JOHN CRELLIN, POLLY SPENCER-VELLACOTT, JULIAN WOODMAN,
STEPH COATES, JOAN MILLARD AND ANDREW JONES

This is the first BSBI Welsh AGM to be held in Brecknock for many years. It was based near to Brecon with views of the Beacons and easy access to the canal and River Usk. The Barn at Brynich made us very welcome and many delegates stayed in the excellent self-catering accommodation provided, with others in guesthouses nearby or in the adjacent camping / caravan site.

Exhibits

There was a rich variety of members' exhibits which are summarized here:

Hedge Brambles in Brecknockshire; 11 blackberries from *Rubus* section *Corylifolii* – exhibit by Mike Porter.

Often abundant in hedges and woodland margins, these are early, rapid colonisers of “waste” ground and banks along roads and rivers; section *Corylifolii* has been the Cinderella of the *Rubus* genus.

11 of the 23 taxa found in Britain have been recorded in Brecknockshire with more to come once ongoing research is completed.

Brecknock Botany Recording Group – exhibit by John Crellin.

A summary of the recent work of the group with several photos, including:

Sibthorpia europaea (Cornish Moneywort),

Anaphalis margaritacea (Pearly Everlasting),

Chrysosplenium alternifolium (Alternate-leaved Golden-saxifrage),

Persicaria mitis (Tasteless Water-pepper),

Erophila glabrescens (Glabrous Whitlowgrass),

Campanula patula (Spreading Bellflower),

Trollius europaeus (Globeflower),

Viola lutea (Mountain Pansy).

A selection of living plants – exhibit by Andy Shaw.

Apium repens (Creeping Marshwort) from Spain.

Apium repens from Port Meadow, Oxford.

Apium repens x *A. nodiflorum* – F1 hybrid from Port Meadow, Oxford.

Apium repens x *A. nodiflorum* – F2 hybrid (F1 backcross with its *A. repens* parent).

Berula erecta x *Apium nodiflorum* (Lesser Water-parsnip x Fool's-water-cress).

Apium bermejoi x *A. nodiflorum* (Apid den Bermejo x Fool's-water-cress).

Apium bermejoi - from Minorca.

Apium x *moorei* = *A. nodiflorum* x *A. inundatum* (Fool's-water-cress x Lesser Marshwort).

Nymphaea thermarum (Pygmy Rwandan Water Lily) – the smallest (and rarest) waterlily in the world, and the only *Nymphaea* to grow in damp mud rather than water.

And the following 20 plants all originating from the British sites:

Alisma gramineum (Ribbon-leaved Water-plantain)

Anogramma leptophylla (Jersey Fern)

Baldellia ranunculoides (Lesser Water-plantain)

Chenopodium chenopodioides (Saltmarsh Goosefoot)

Chenopodium glaucum (Oak-leaved Goosefoot)

Corrigiola littoralis (Strapwort)

Cyperus fuscus (Brown Galingale)

Damasonium alisma (Starfruit)

Eleocharis parvula (Dwarf Spike-rush)

Juncus capitatus (Dwarf Rush)

Juncus pygmaeus (Pygmy Rush)

Limosella aquatica (Mudwort)

Limosella australis (Welsh Mudwort)

Ludwigia palustris (Hampshire-purslane)

Ophioglossum azoricum (Small Adder's-tongue)

Polycarpon tetraphyllum (Four-leaved Allseed)

Rorippa islandica (Northern Yellow-cress)

Saxifraga cernua (Drooping Saxifrage)

Saxifraga cespitosa (Tufted Saxifrage)

Sibthorpia europaea (Cornish Moneywort)

Mistletoe Distribution in Wales and beyond - exhibit by John Crellin.

Notes and graphical plots about the temperature requirements for *Viscum album* (Mistletoe) and whether a correlation with temperature maxima and minima holds true.

***Trollius europaeus* in Wales – exhibit by Polly Spencer-Vellacott.**

Thoughts on the distribution of *Trollius europaeus* (Globeflower) in Wales – particularly the threats – grazing, predation of seedlings by slugs, and a strong mutualistic association with a pollinating *Chiastocheta* fly.

Missing Parents – exhibit by Sarah Stille.

Maps showing the distributions of hybrids with one common parent and one and one parent almost unknown from the area.

Nuphar x spenneriana (Hybrid Water-lily) (*N. lutea* x *N. pumila*)

Circaea x intermedia (Upland Enchanter's-nightshade) (*C. alpina* x *C. lutetiana*)

Trichophorum x foersteri (*T. cespitosum* x *T. germanicum*)

The *Polypodiums* of Flintshire – exhibit by Martyn Stead.

Showing how *Polypodium vulgare* (Polypody), *P. interjectum*

(Intermediate Polypody) and the hybrid *P. x mantoniae* are distinguished microscopically by spore characters, and also how the species are mapped in Flintshire (v.c.51) showing a huge increase in records since 2000.

Surveyors needed for Welsh Pillwort (*Pilularia*) sites – exhibit by Hannah Shaw, Freshwater Habitats Trust.

Showing the Freshwater Habitats Trust's survey and inviting volunteers to join the scheme.

Exhibit by Brecknock Wildlife Trust.

Information about the work of the Brecknock Wildlife Trust and some of their sites.

AGM 2016 Field Excursions

Tuesday

A few who arrived on the Monday or early on the Tuesday went out for a day on Brecknock's limestone pavement. Others took a more leisurely stroll near the venue in the afternoon.

Recording with Polly Spencer-Vellacott at Ogof Ffynnon Ddu National Nature Reserve. Polly writes: As a member of the South Wales Caving Club and a voluntary warden on the nearby Allt Rhongyr Wildlife Trust reserve, Sue Goodhead acted as guide for the trip to Ogof Ffynnon Ddu NNR near

Penwyllt. After driving us from Brecon, she let us into the caving hut to use the facilities before and after our trip. After a short walk up the path and disused tramway, we passed an entrance to Ogof Ffynnon Ddu, the deepest cave in the UK and second longest in Wales (31 miles). Very nearby we spotted the first plant of *Asplenium viride* (Green Spleenwort) which excited us, until we continued to find it in nearly every grike from then on. We entered the enclosure, where grazing has been restricted, and straight away found *Carex montana* (Soft-leaved Sedge), in yellow-green patches. Martyn Stead told us he had never personally found *Antennaria dioica* (Mountain Everlasting) although he had seen it several times elsewhere. We meandered through the reserve, found *Convallaria majalis* (Lily-of-the-valley) and *Genista pilosa* (Hairy Greenweed), and enjoyed many other lovely limestone plants. Armed with only a 1km square grid reference for the *Antennaria*, we were tempted to wander out of the enclosure, but it soon became apparent that this way the rock was much more acidic so we returned – and then finally, *Antennaria* was found by Megs Rogers very near to where we had started. The weather was bright and the *Antennaria* was the icing on the cake of a lovely day out, with well over 100 records for the main monad. Sue commented how good it was to spend time with knowledgeable people who were happy to share their expertise.

Afternoon walk: We didn't get as far as I (John Crellin) had expected to but this was only because those who volunteered to record were finding so much to discuss and record. We looped out through the home farm of the venue down to the canal and eventually to the shore of the River Usk. Updated records for the area since 1999 included *Hypericum hirsutum* (Hairy St John's-wort).

Wednesday

Stanner Rocks: Andy Shaw took a small group to this unique site in nearby Radnorshire where *Veronica spicata* (Spiked Speedwell) was giving a great show (see image 8 on inside back cover). The other specialities of the location were also seen (apart from *Gagea bohemica* (Early Star-of-Bethlehem) – quite invisible at this time) and general records were made by Jean Wynne-Jones.

Vicarage Meadows (Brecknock Wildlife Trust Reserve): Steph Coates and Sue Goodhead write: It was great to show 22 people the meadows with the Dyer's Greenweed (*Genista tinctoria*) in luxuriant full bloom and the small white orchids just going over. Unfortunately, this year the Butterfly-orchids (*Platanthera* spp.) have not appeared. Tim Rich and others kindly led the recording and showed us the difference between *Dryopteris carthusiana*

(Narrow Buckler-fern) and *D. dilatata* (Broad Buckler-fern) which were growing side by side in the tussocky *Molinia* (Purple Moor-grass) area.

There was plenty of Bog Asphodel (*Narthecium ossifragum*), and the Dyer's Greenweed was in full flower amongst Devil's-bit Scabious (*Succisa pratensis*), Betony (*Betonica officinalis*) and Great Burnet (*Sanguisorba officinalis*). Fragrant Orchid (*Gymnadenia* sp.) smelled really spicy and it was good to see the *Carex montana* (Soft-leaved Sedge) that we had seen on the Ogof Ffynnon Ddu Reserve.

Cwm Cadlan National Nature Reserve: Julian Woodman writes: The site was looking great and thanks must be extended to Jon Wohlgemuth who showed us around and gave us some interesting talks about the issues in managing this site.

The flushes had lots of good species such as *Carex dioica* (Dioecious Sedge) and *Gymnadenia conopsea* (or *G. densiflora*?) (Fragrant-orchid). We were able to compare *Eriophorum angustifolium* (Common Cottongrass) with *E. latifolium* (Broad-leaved Cottongrass). Some clambered over a fence: this is what was required to see the best *Trollius* field at the site.

For me one of the highlights was found by Martyn Stead - a patch of *Carex canescens* (White Sedge) in what I thought was slightly atypical habitat.

The original Glyn Perfedd field was looking stunning with lots of *Pedicularis palustris* (Marsh Lousewort) and *Epipactis palustris* (Marsh Helleborine). There were a few *Dactylorhiza* species (marsh-orchids) and a good mix of hybrids too.

Thursday

Llangorse Lake: Most took the walk around the lakeshore and the meadows that surround the west of the lake.

Joan Millard writes: I suppose the highlight really, was the joy the delegates had in walking around Llangorse Lake, totally engrossed in the flora of the area. So many plants to delight the senses in hedgerows, ditches and around the water's edge. Always with Mynydd Troed rising high above us all the way round and then at the end beautifully reflected in the lake. Plant-wise of course, it has to be the Flowering Rush (*Butomus umbellatus*), followed closely by the Greater Spearwort (*Ranunculus lingua*). Both spectacular plants!

Despite being regularly visited by botanists in recent years, BSBI members managed to find species around the lake which had not been previously

recorded this century. Late in the day, Ray Woods refound the *Hippuris vulgaris* (Mare's-tail) on the lake margin, a species that has not been recorded for some time.

Boating (Andrew Jones writes) (see image 1 on inside front cover): The [boating] visit to Llangorse was, for me, an absolute highlight of the AGM. Species recorded in the lake:

Butomus umbellatus - only observed rarely (but possibly overlooked) near the *Typha* (Bulrush) zone, along the west shore.

Ceratophyllum demersum (Rigid Hornwort) - rare: only observed once, between the bird hide and Llangasty church within / under the Nymphaeid zone.

Elodea nuttallii (Nuttall's Waterweed) determined subsequently as this species from two unlocalised specimens was collected in the morning (on the south and west shore) but is apparently widespread, especially on the edge of the Nymphaeid zone - submerged and abundant / occasional on the south, north and west shores.

Lemna minor (Common Duckweed) - abundant / locally frequent amongst the Nymphaeid zone on the west, south and north shore; rare in mid lake.

Lemna trisulca (Ivy-leaved Duckweed) - submerged frequent / locally abundant, throughout the Nymphaeid zone on the west, south and north shore but only as drift specimens in mid lake.

Myriophyllum spicatum (Spiked Water-milfoil) - abundant / locally dominant around the whole lake margin, especially near the boathouse, in patches across the middle of the lake and at the edges of the Nymphaeid zone.

Nitella translucens (Translucent Stonewort) - rare / occasional, in gaps within the Nymphaeid zone on the south shore, near to Llangasty church (determined subsequently from a single specimen collected in this area).

Nuphar lutea (Yellow Water-lily) - abundant / locally dominant within a distinct marginal (Nymphaeid) zone along the west and south shores, scattered on the north.

Nymphaea alba (White Water-lily) - more occasional / locally abundant than the previous two species within a distinct marginal (Nymphaeid) zone along the west and south shore.

Nymphoides peltata (Fringed Water-lily) - abundant / locally dominant within a distinct marginal (Nymphaeid) zone along the west and south shore.

Potamogeton berchtoldii (Small Pondweed) (determined subsequently from one specimen collected on the second survey, probably near the north shore) - submerged, and apparently locally abundant / locally dominant throughout the west, south and north shores but especially between the bird hide and Llangasty church and more rarely in mid lake, on return to the boathouse.

Potamogeton lucens (Shining Pondweed) - very locally frequent, occasionally flowering, in gaps within the Nymphaeid zone along the south shore, between Llangasty church and the bird hide; also non-flowering just at the entrance to the boathouse on the north shore.

Potamogeton pectinatus (Fennel Pondweed) - locally abundant throughout the south and north shore and even occasional in mid lake. Not noticed on the west shore but possibly overlooked.

Potamogeton perfoliatus (Perfoliate Pondweed) noted immediately at the exit to the boathouse, then occasionally along the west shore, especially at the edge of the Nymphaeid zone and more frequently on the south shore between the bird hide and Llangasty church. Not in the middle of the lake returning to the boathouse but locally dominant on the north shore where several specimens had very large leaves.

Spirodela polyrhiza (Greater Duckweed) - rare / occasional, amongst the Nymphaeid zone on the south shore.

Typha angustifolia (Lesser Bulrush) - dominant / abundant fringe, emergent on the western arm of the lake, as a marginal zone, merging into *Phragmites* (Common Reed) and *Salix* (Willow) swamp. Not noted elsewhere.

Chara spp. (Stoneworts) were dominant in the submerged zone throughout the lake, along with *Elodea* (Waterweeds), *Potamogeton* cf. *berchtoldii*, *P. pectinatus* and *Myriophyllum spicatum*.

Nitellopsis obtusa (Starry Stonewort) was subsequently confirmed from new samples taken a few weeks later, having been suspected among samples taken on the day. (Previously reported by Dr Tristan Hatton-Ellis, Natural Resources Wales.)

Cribyn and Cwm Sere Circuit: Polly writes: A small but intrepid group led by Tim Rich and Joe Daggett from the National Trust set out to view *Hieracium attenboroughianum* (Attenborough's Hawkweed) (see image 2 on inside front cover). An easy walk but steep climb up the ridge was rewarded with the chance to move across the north face of Cribyn and appreciate the spectacular ledge communities (including *Sedum rosea*, (Roseroot), *Silene uniflora* (Sea Champion) and *Saxifraga oppositifolia* (Purple Saxifrage). Some

of us ventured close enough to touch the Attenborough's Hawkweed. We then crossed over to the northeast face of Pen-y-Fan and were rewarded with a few more beautiful ledges before we began our descent into Cwm Sere. On the way down we found *Hymenophyllum wilsonii* (Wilson's Filmy-fern), and then continued down the valley, hoping for quality bogs. We found many beautiful waterfalls, including one surrounded by *Geum rivale* (Water Avens) and a huge display of *Pinguicula vulgaris* (Common Butterwort) in fine flower, but sadly none of the much-hoped-for *Hammarbya paludosa* (Bog Orchid)! With lists for three upland monads it felt a very worthwhile day.

Friday

Henallt Common: John Crellin showed a small group around this common above Hay-on-Wye. The location of the only site in Wales for *Blysmus compressus* (Flat-sedge).

Over the meeting at least 1200 records were made of which 35 are updates for the 2000+ and 11 are new records for the area they were found.

Talks at the Wales AGM 2016

Before dinner, Tuesday

- The Geology of the Beacons and Black Mountains. James Cresswell, local geologist.

After dinner, Wednesday

- Rare Plant Registers in Wales - a Domesday Book of Welsh Plants? Polly Spencer-Vellacott.
- Recording in Brecknock. Mike Porter.

After dinner, Thursday

- The conservation of wild plants and fungi in Wales. Ray Woods.

BSBI Annual Summer Meeting

and

55th Welsh AGM & 35th Welsh Exhibition Meeting

Monday 5 – Friday 9 June 2017
Stamford Gate Hotel, Flintshire

The 2017 Annual Summer Meeting is to be based at the Stamford Gate Hotel, near Holywell, Flintshire and will offer a mix of site visits, talks, workshops and recording. All members are welcome: there will be something for everyone, and it is a great social occasion as well as an unmissable botanical meeting.

Flintshire has a diverse landscape with hills reaching 554m and lowlands around the coast and in the east, where the vice-county borders the Cheshire Plain. A range of habitats can be found: dunes, saltmarsh, limestone grasslands, disused lead mines, woodlands, lakes, rivers, moorland and post-industrial sites.

The meeting will open with a local walk and an after-dinner talk on Monday to set the scene. On Tuesday, there will be a choice of excursions by coach to local habitats of interest.

Wednesday, Thursday and Friday are recording days when participants can split up into smaller teams to record suggested tetrads and there will be opportunities in the evenings for identification sessions.

The Welsh AGM will take place on Tuesday evening.

Possible sites to be visited

Halkyn Mountain SAC

Halkyn Mountain lies between about 200 and 290 metres so whilst it is rough going, there is not much elevation change. The many old lead and zinc mine workings give rise to an unusual community of plants with *Minuartia verna* (Spring Sandwort).

Prestatyn Dunes and Graig Fawr

The morning will be spent on the coastal sand dunes. After lunch, the group will move on to Graig Fawr, a limestone escarpment with plants such as *Helianthemum oelandicum* (Hoary Rock-rose).

Point of Ayr

This is a large, brown field site of a former colliery, with a huge variety of plants including *Anchusa azurea* (Garden Anchusa), *Cerastium diffusum* (Sea Mouse-ear) *Blackstonia perfoliata* (Yellow-wort) and *Trifolium ornithopodioides* (Bird's-foot Clover).

Flint Marshes

These coastal Dee marshes have a wide range of salt-marsh plants and we may find county rarities such as *Parapholis strigosa* (Hard-grass) and *Ranunculus baudotii* (Brackish Water-crowfoot). There are also brownfield areas to provide the unexpected.

Exhibits

Exhibits will be most welcome and there will be plenty of space at the Hotel. Please book your space on the booking form.

Accommodation

There are a few rooms at The Stamford Gate Hotel which are reserved for BSBI members. You should book directly with the Hotel, quoting BSBI 17. The discounted rates for B&B are £60 for a single room and £80 for a double/twin. Contact Stamford Gate Hotel, Halkyn Road, Holywell, Flintshire CH8 7SJ. Grid ref: SJ190749. Phone: 01352 712942. Email: info@stamfordgatehotel.co.uk

Other accommodation is available in the neighbourhood and details can be found on the ASM website www.bsbi.org/annual-summer-meeting and on the flyer to be sent out with the January 2017 BSBI News mailing. This will also have full details of the booking process. There will be a conference fee of £25 for all delegates.

Dinner for residents and non-residents will be available at the Hotel and it is hoped that most delegates will want to stay on for the evening sessions.

Botanical highlights in 2016 in Monmouthshire

STEPH TYLER & ELSA WOOD, *vice-county recorders for Monmouthshire*,
v.c.35

Another field season is almost over – where did the year go? We have been active surveying poorly covered tetrads and with some exciting records from other botanists, we have entered over 19,000 records this year within vice-county 35.

Species new for the vice-county included Chaffweed (*Anagallis minima*), seen by Julian Woodman in gateways on private land above the Usk Valley near Llanlowell [SO4100] (see article on page 22). The hybrid between Pale Toadflax (*Linaria repens*) and Yellow Toadflax (*L. vulgaris*) was noted by Heather Colls in August at Rogiet Countryside Park [ST48T]. In addition, Upland Enchanter's-nightshade (*Circaea x intermedia*), the hybrid between *C. lutetiana* and *C. alpina*, was found by Elsa Wood and Adrian Wood near Crumlin [ST2099] and at Cwmcarn [ST2295]. Then in a barley and adjacent maize field [SO5108] at Penallt, Steph Tyler found Lesser Red-knotgrass (*Polygonum arenarium*), apparently new for the vice-county but probably previously overlooked. Maize and barley fields can be rewarding especially for alien grasses. Cockspur (*Echinochloa crus-gallii*) and Rough Bristle Grass (*Setaria verticillata*) were both found, the former at several sites and the latter near Talycoed [SO4115] and Llantilio Crossenny [SO3915], whilst another alien grass, Water Bent (*Polypogon viridis*), is turning up everywhere along roadsides and edges of gardens even in towns as at Underwood [ST3688]. Another grass, Reflexed Saltmarsh-grass (*Puccinellia distans*) is also turning up along the A48 as a result of all the road salting and was found in Monmouth [SO51B] in September by the road.

The first record for *Euphrasia tetraquetra* (Western Eyebright) was found in a limestone quarry near Upper Ochrywth [ST2389], its identification confirmed by the national referee.

After attending stonewort workshops, we have tried to find these plants but have been unsuccessful finding any in reens on the Gwent Levels. However, *Tolypella glomerata* (Clustered Stonewort) and *Chara contraria* (Opposite Stonewort) were found in some shallow pools in Penhow quarry [ST4291].

The sight of great swathes of Cow Wheat (*Melampyrum pratense*) under oak trees near Penmaen [ST19Y and 19Z] was memorable. Not a rare species but such abundance was remarkable. Oakdale and Penmaen also rewarded us with species-rich damp pastures full of sedges, Sneezewort (*Achillea ptarmica*),

Saw-wort (*Serratula tinctoria*), Meadow Thistle (*Cirsium dissectum*), Pale Lady's-mantle (*Alchemilla xanthochlora*), Ivy-leaved Bellflower (*Wahlenbergia hederacea*), Heath Spotted-orchid (*Dactylorhiza maculata*) and many other 'goodies'.

In an abandoned sandy field off Offa's Dyke near Monmouth [SO4813] two plants of Lesser Centaury (*Centaureum pulchellum*) were found among many Common Centaury (*C. erythraea*) plants and several Yellow-wort (*Blackstonia perfoliata*).

The alien Shaggy-soldier (*Galinsoga quadriradiata*) was identified in Monmouth [SO5012] by Heather Colls and probably this species at Rassau [SO1411] by Roger James as well as a long-established patch in Trevor Evans' vegetable garden in Chepstow [ST5293] in the late autumn. On a roundabout at Abergavenny [SO2814] Sam Bosanquet alerted us to a *Galinsoga* which we recently collected and it proved to be *Galinsoga parviflora* (Gallant-soldier).

Finding Heath Groundsel (*Senecio sylvaticus*) in November on the Little Skirrid [SO3113] near Abergavenny made us realise just how scarce this species has become. Apart from a handful of records on heathland on the Trellech Plateau there are just two post 2000 records further west.

East Glamorgan (v.c.41, east) 2016

JULIAN WOODMAN, *vice-county recorder for East Glamorgan, v.c.41*

Much of my botanising has been with the Glamorgan Botany Group outside of work. A fuller write up of the year's excursions can be found on the BSBI website: <http://bsbi.org/glamorgan>

This article, though, will pick up on my personal favourite and key finds this year within the eastern half of the vice-county.

One of the key finds this year was another colony of *Poa bulbosa* (Bulbous Meadow-grass) (see images 11 & 12 on back cover), in a coastal car park. This was spotted by one of the group as an unknown grass to them and quickly identified as *Poa bulbosa* by Tim Rich there and then. This find at Newton Burrows car park, Porthcawl [SS837769] adds to the recent discovery of a large colony in a similar situation at Port Eynon, Gower in 2014. These two colonies differ from the struggling colony at Cold Knap which is the viviparous form.

Moving then to the final excursion of the year in September, I was unfortunately unable to attend this day. One of the exciting finds was a colony of *Persicaria minor* (Small Water-pepper) on the edge of Merthyr Common, [SO074090]. As David Barden says in the excursion report for 2016 “this mirrors the final excursion in 2015 which in some fields north of Cardiff a large colony of *Persicaria minor* was found then.”

Outside of this within work time a couple of nice finds stick in my mind including *Botrychium lunaria* (Moonwort), in a hay field near Marcross in the Vale of Glamorgan [SS932705]. This was a most unusual habitat, not the nutrient poor short grassland I usually see it in. I was pleased to discover a large colony of *Centunculus minimus* (Chaffweed) in a few fields near Usk [SO4100], v.c.35, which I was surprised to see is a new vice-county record. With my colleague, Sue Westwood, we were able to confirm its presence in five locations at the site. Some quite luxuriant plants of the Chaffweed were seen on the edge of some areas that had been ploughed and sprayed some months earlier. Over to you Steph & Elsa... [see article on page 21].

Highlights of recording in Carmarthenshire 2016

RICHARD PRYCE, *Vice-county recorder for Carmarthenshire, v.c.44*

The following text includes a few 2016 highlights and some interesting records but is by no means comprehensive. In due course, a full list of all new vice-county hectad records will be included in *Welsh Plant Records* and an account of this year's Glynhir meeting will be published in the *BSBI Yearbook*.

Ian Morgan (IKM) and Rob Shaw (RPCS) monitored the *Drosera intermedia* (Oblong-leaved Sundew) population at Cors Helyg, Cefn-bryn-brain SN740136 on 5/7/16 but were unable to refind *Hammarbya paludosa* (Bog Orchid) after a long walk to its only known Carms site in the Twrch valley. *D. intermedia* was also recorded at Disgwylfa Bog SN511092 by Sam Bosanquet on 24/8/16, the 7th vice-county record and a new hectad record, where he also recorded *Rhynchospora alba* (White Beak-sedge), another new hectad record. *R. alba* was also at Cwm Pedol on 10/7/16 where the Glynhir recording group made the first hectad records from two tetrads SN698159 & SN698160. The party also made the first hectad record of *Euphrasia anglica* (English Eyebright) from a grazed acid grassland slope at SN698154. Several plants of the hybrid sedge *Carex x fulva* were in a nearby flush at SN698155 and *Carum verticillatum* (Whorled Caraway) was frequent in NVC M23b rush

grassland fields at SN697156 with *Juncus foliosus* (Leafy Rush) in a nearby wet gateway, another new hectad record.

The *Euphrasia* collected by Laura Gravestock (LAG), Bron Wright (BJW) and David Wright from north of Llansadwrn SN695331 on 7/7/16 was later determined by Chris Metherell as *Euphrasia arctica* (Arctic Eyebright), the first post 2000 hectad record. There were two records of *Agrostis vinealis* (Brown Bent) from SN52 new to the hectad, the first made by Richard & Kath Pryce (RDP & KAP) at Pyllau-cochion SN500267 on 21/6/16 and the other a couple of weeks later by LAG, Geoffrey Hall (GSH) and Richard Gowing from north of Llanfynydd SN564289 on 8/7/16. A new site for *Platanthera chlorantha* (Greater Butterfly-orchid) was discovered in a neglected field at Idole SN421158 where several plants were found by RDP & KAP on 20/6/16, also a new hectad record.

A contingent from the Glynhir group embarked upon an expedition to the extensive Bryn Arau Duon plantation owned by Tilhill Forestry where a previously unknown population of *Vicia orobus* (Wood Bitter-vetch) was frequent along about 20m of the vegetated bank beside a forestry track near Penrhiwiar (SN759477 & SN760478) which extends into two tetrads. Although previously known lycopod sites within the plantation were visited, only *Huperzia selago* (Fir Clubmoss) was re-found, the *Diphasiastrum alpinum* (Alpine Clubmoss) and *Lycopodium clavatum* (Fir Clubmoss) plants last seen in 2004, seemingly having been lost to dense vegetation succession.

Coastal highlights included the discovery of the hybrid St.John's-wort *Hypericum humifusum* x *H. linariifolium* on the cliffs near Ragwen Point SN222074 by Andy Jones, Martyn Stead (MOS) and RPCS (the first v.c. record and confirmed by Dr. Norman Robson, January 2017), where they also reported the third vice-county record of *Scilla verna* (Spring Squill) (extraordinary that it doesn't occur more frequently along the west Carmarthen cliffs!). Also, they re-found *Asplenium obovatum* (Lanceolate Spleenwort) growing in company with *A. marinum* (Sea Spleenwort) and *Spergularia rupicola* (Rock Sea-spurrey). In total, they found three small populations of *A. obovatum* in the screes on the eastern side of Ragwen Point and western side of Morfa Bychan in additional locations to IKM's plants seen in 2009.

On 8/7/16 Arthur Chater (AOC), RDP, KAP and BJW came across a few plants of *Erodium lebellii* (Sticky Stork's-bill) on bare sand at the seaward end of the Concrete Road through Pembrey Forest SN377025, the first record for Tywyn Burrows. The dunes were yellow with an abundance of evening-primroses, mainly *Oenothera glazioviana* (Large-flowered Evening-primrose) but also *O. cambrica* (Small-flowered Evening-primrose) and the hybrid

Oenothera xfallax the latter being the first hectad record. No *O. biennis* was identified.

The following day almost the whole Glynhir party visited the RAF Range on Tywyn Burrows where *Ranunculus circinatus* (Fan-leaved Water-crowfoot) was found in the ponds by the inner control tower (SN375049), another first hectad record. Large stands of *Juncus subnodulosus* (Blunt-flowered Rush) and *Carex disticha* (Brown Sedge) were present in an area not previously visited by the group and 20-30 plants of *Gymnadenia densiflora* (Dense-flowered Fragrant Orchid) were scattered nearby (SN3604) although mostly past their flowering best. Also of note were the several hundred *Parentucellia viscosa* (Yellow Bartsia) plants in full flower by the tarmac-road. Earlier in the year (13/5/16), 598 flowering spikes of *Anacamptis morio* (Green-winged Orchid) were counted by Ruth Harding, RDP & KAP in the vicinity of the bombing targets, not seen here in such a number since the mid 1980s, and obviously benefiting from the regular mowing of the dune grassland now being undertaken by the RAF. Several plants of *Sisyrinchium bermudiana* (Blue-eyed-grass) were also in flower and, later in the year (26/8/16), about a dozen *Spiranthes spiralis* (Autumn Lady's-tresses) were found in the same area, a part of the Range where they had never been recorded before, presumably also responding to the introduction of regular mowing. However, no *S. spiralis* or *Gentianella* species could be found at their classic helipad site elsewhere on the Range, the area apparently having not been mown for perhaps two years.

Lynne Farrell, Graeme Kay, GSH and Mary Smith (MFS) visited Penrhynwgwyn in South Llanelli SS5097 and SS5197 on 6/7/16 where they recorded new hectad records of the hybrid evening-primrose *Oenothera x fallax* and *Calystegia sepium* ssp. *roseata* (Pink Hedge Bindweed).

The large stand of *Scirpus sylvaticus* (Wood Club-rush) discovered at Lanlash SN571221 in the Tywi valley west of Llandeilo during a Llanelli Naturalists' meeting on 26/6/16 was a new tetrad and first post 2000 hectad record and Andrew Stevens (AS) reported a large stand at Waunygwiail fach SN449085 on 29/6/16, also a new tetrad record, bringing the total number of post 2000 v.c. records to six. However, on 17/9/16, RDP & KAP failed to refine the species at Glasbury, near Carway SN442063 on the bank of the Gwendraeth Fawr during a survey for Hannah Shaw of the Freshwater Habitats Trust. This location is near where RDP had seen it in 1987 but they did record *Rumex hydrolapathum* (Water Dock), *Potamogeton berchtoldii* (Small Pondweed) and *Schoenoplectus tabernaemontani* (Grey Clubrush) in the ponds.

Second and third v.c. records of the hybrid sedge *Carex x pseudoaxillaris* were made during the Llanelli Naturalists' meeting at the recently declared Morfa Berwig Local Nature Reserve near Bynea SS5498 on 4/6/16, first noticed by AS who is familiar with the taxon as it grows near his farm at Four Roads.

Nr Pont-Tyweli SN410381 a field gateway was host to a population of *Glebionis segetum* (Corn Marigold) discovered by AOC, KAP, MOS and RPCS on 7/7/16 and a single plant of *Mentha pulegium* (Pennyroyal) was recorded by IKM on 10/11/16 from a vegetated soil-mound near the Ashpits Pond electricity sub-station, Burry Port SN460011. At the same site a large near monospecific stand (9m x 10m) of *Dipsacus pilosus* (Small Teasel) was recorded in near darkness by AS during the Llanelli Naturalists' bat meeting on 18/8/16, the 5th v.c. site.

Chenopodium polyspermum (Many-seeded Goosefoot) was recorded by GSH, MFS and RDP at Penycloed SN270182 on 5/7/16. RDP also found a single plant on ground recently disturbed during a pipeline installation at Burry Port Harbour SN442006 on 2/10/16 and two plants in disturbed grassland by the Pendine Museum of Speed SN235079 on 21/10/16. All were new tetrad records.

RDP & KAP visited the holdings of several members of the recently set-up Carmarthenshire Meadows Group. To their surprise, on 9/8/16 at Gelli Uchaf, Rhydcymerau SN5739, where *Scutellaria minor* (Lesser Skullcap), *Veronica scutellata* (Marsh Speedwell) and *Wahlenbergia hederacea* (Ivy-leaved Bellflower) were among the plants growing on the flood plain of the Afon Melinddwr, *Utricularia minor* (Lesser Bladderwort) was abundant in a pond excavated only about 15 years ago, new for the hectad and only the fourth post 2000 v.c. record. *Epipactis helleborine* (Broad-leaved Helleborine) was in one of the fields and *Silene uniflora* (Sea Campion) abundantly naturalized in the garden!

Laurence Brooks from near Trelech SN2927, another member of the Meadows Group, who cultivates a field of cereals on his land each year and encourages the growth of arable weeds from the soil seed-bank, reported *Avena strigosa* (Bristle Oat) (the first v.c. record), *Chenopodium ficifolium* (Fig-leaved Goosefoot), *Fumaria muralis* (Common Ramping-fumitory), *Silene latifolia* (White Campion) (all first hectad records), *Stachys arvensis* (Field Woundwort), *Fallopia convolvulus* (Black-bindweed), *Viola arvensis* (Field Pansy) (all first post 2000 hectad records) and *Spergula arvensis* (Corn Spurrey). In 2016 he also introduced *Silene gallica* (Small-flowered Catchfly), *Bromus interruptus* (Interrupted Brome) and *Papaver rhoeas*

(Common Poppy) and in 2015 *Galium tricornutum* (Corn Cleavers), although it did not recur in 2016 as the field margin where he had sown it was not ploughed.

Records of casuals included the single plant of *Capsicum annuum* (Sweet Pepper) found during the Llanelli Naturalists' annual urban field-meeting on 11/9/16 in a back-lane between James Street and Glenalla Road, Llanelli SN512005, the first record for the v.c., with *Polypogon viridis* (Water-bent) and *Echinochloa crus-galli* (Cock's-spur) growing nearby. *P. viridis* was also found growing at the base of a wall in the St. Peter's Street car-park, Carmarthen SN414203, this species thus having spread to a second urban location in the county. Three flowering plants of self-sown *Phacelia tanacetifolia* (Phacelia) were noticed growing in the angle between the pavement and the forecourt wall outside 10 Pembrey Road, Llanelli SN503006, by RDP & KAP when delayed in a traffic queue on 21/6/16, two having been recently sprayed. This was not a new hectad record but the first of a street weed, most previous v.c. records having been derived from bird seed or pollinator sowings.

A chance brief passing glance by RDP from the car of what appeared to be a bed of abundantly flowering *Glebionis segetum* (Corn Marigold) on a verge in Burry Port SN451007 proved to be *Guizotia abyssinica* (Niger) when the site was revisited a few days later on 5/11/16. It was presumably one of several verges sown earlier in the year by Carmarthenshire County Council with a pollinator seed mix. Not worthy of special mention you might think, but trailing over the *Guizotia* plants were at least three plants of flowering and seeding *Cuscuta campestris* (Yellow Dodder), the third v.c. record, and also a single plant of *Ambrosia artemisiifolia* (Ragweed), the fourth post 2000 v.c. record, both presumably seed contaminants. This prompted RDP to visit several other similarly sown verges in Llanelli on 13/11/16. Most were found to be dominated by *Guizotia* and the number of casuals was disappointing, being limited to a single plant of *Phalaris canariensis* (Canary Grass) in a parkland bed at Y Bwthyn, Pen-y-Bigyn SN512997 and another *A. artemisiifolia* on a verge at Llanerch SN513011, although at the latter, a single plant of *Centaurea cyanus* (Cornflower) was in full flower in the road gutter! Near to an extensive pollinator bed at Gelli-on in the centre of Llanelli SN506006, several tall plants of flowering *Cosmos bipinnatus* (Mexican Aster) were established in the cracks between crazy-paving, having self-sown from the previous year's growth in an adjacent garden bed (first pointed-out by IKM).

The final highlights of the year followed the return of our *Taraxacum* parcel from Prof. John Richards. We had submitted 195 specimens to him at the end of November and within a couple of weeks he was able to report that we had collected *T. aesculosum* A.J. Richards sp. nov. from an ancient woodland site near Blaenycloed SN3425, an as-yet, undescribed species of section *Celtica* close to *T. fulvicarpum*, which he is in the process of publishing. This plant has previously been recorded only from central Ireland where John says it is ‘tolerably common’ but the Carms material is new to Britain! The second species of which he made special mention is *T. berthae* (Bertha’s Dandelion), from the same Tilhill plantation from where the *Vicia orobus* mentioned above was recorded (SN7248). This was the second vice-county record and only the fifth Welsh record, although it is somewhat more frequent in northern England. There was also the first v.c. record of *T. leptodon* (Yellow-styled Dandelion) (SN5730), second v.c. records of *T. acutifrons* (Acute-leaved Dandelion) (SN3637), *T. inopinatum* (Unexpected Dandelion) (SN3637), *T. ochrochlorum* (Winged Dandelion) (SN6839) and *T. stenacrum* (Linear-lobed Dandelion) (SN2731) and a further 72 first hectad records!

During 2016, 1,111 taxa (including Charophytes) were recorded from 2,165 locations, comprising of 28,129 individual taxon records! During Glynhir week alone, 728 taxa were recorded from 426 locations comprising of 6715 taxon records. Furthermore, following delays caused by data cleaning in our local database, we have, at last, sent over 511,000 post-1999 Carms records for uploading to the DDb to contribute to the 2020 Atlas effort. But there are still gaps to fill and we have a further three seasons to fill them!

We again thank all contributors and hope for an equally productive season in the coming year.

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2016 in Meirionnydd (v.c.48)

SARAH STILLE, *vice-county recorder for Merionethshire, v.c.48*

This was the first full year in which the triumvirate of Heather, Jo and Rhiannon have taken over the organising of our Meirionnydd Nats field programme and we had a full schedule of really interesting and well-planned meetings. Polly ran an early workshop in which she introduced the three to Mapmate and in particular the mysteries of syncing to the vice-county recorder. For our first outdoor meeting in February, Heather took us to her home patch in the Dysynni valley near Tywyn [SH60P]. This is rolling, green, well sheep-grazed hill country of slate and mudstone bedrock not particularly tempting for botanists. However, our recording coverage in the hectad was abysmal, so we went – and in the event, our energetic recording that winter day launched us into 2016 with a good number of records.

We visited a lovely mix of other sites including the new Woodland Trust reserve of native oakwood at Cwm Llennyrch [SH63P] and some unimproved fields near Brithdir [SH71Z], where we had the excitement of finding *Carex lepidocarpa* (Long-stalked Yellow-sedge) [confirmed by Mike Porter]. This was a first record since the millennium and the first ever in Meirionnydd away from the coastal dunes. In September, Jo led a walk to Llyn Llagi [SH64P] high up in the Moelwyns where the list of plants was long and included the best of our upland species – all three common clubmosses, *Hymenophyllum tunbrigense* (Wilson's Filmy-fern), *Isoetes lacustris* (Quillwort) and plants of more basic rocks such as *Sedum roseum* (Roseroot) and *Thymus polytrichus* (Wild Thyme).

As vice-county recorder I seem, sadly, to have spent fewer solo recording days in the county – hence there's quite a marked drop in the number of records submitted. I had a fairly desperate day on the Migneint [SH84Q] struggling solo for what seemed hours through fallen trees across the footpath – but eventually the only prudent response was to retreat. I have had some very good days too – although a recent foray was spoilt by losing my spectacles! With Andrew Graham, earlier in the year we noted 150 species near Cors y Sarnau [SH93U] including a field hedge of *Lonicera xylosteum* (Fly Honeysuckle), the first county record for this alien species. Once again, Polly has been a great support and we had a lovely day near Llangower [SH93B] as part of her species-monitoring role, looking to re-record *Trollius europaeus* (Globeflower). We recorded 156 species, including extensive sheets of *Trollius*, giving the lie to rumours of its decline here at this site!

Caerdeon was once again four happy and productive days mixing hard work and botanical excitement. We are so lucky to have this base for our ‘residential’, where we have all the facilities we need and are so well looked after. The star find was *Hammarbya paludosa* (Bog Orchid) in a very wet new site on the Migneint [SH74K]! Not only did Graeme Kay and his party find just a dozen plants of this tiny orchid but they took us unerringly back to the right spot the next day! Another nice record was Andy Jones’ of *Scilla verna* (Spring Squill) in saltings on the Mawddach estuary [SH61N]. Unfortunately, the group which repeated Arthur Chater and Bill Condry’s famous 1994 expedition to the cliffs of Ogof Ddu [SH82V], with Alun and John Hughes and the farmer with 7 sheepdogs, failed to find the best parts of the site because of dreadful visibility. However, Meirionnydd Nats made up for it later when Rhiannon’s group refound its treasures including *Rubus saxatilis* (Stone Bramble) and *Circaea alpina* (Alpine Enchanter’s-nightshade).

As ever, I am so grateful to my “team” of Meirionnydd Nats, who travel long distances to support our field excursions, and to Heather, Jo and Rhiannon and to everyone who has sent in records. Thanks too, to all the landowners, in particular those who have offered us hospitality. It makes all the difference knowing we are welcome on your land. Thanks to all the staff at Caerdeon, to Polly and all BSBI staff members who have helped – and to everyone I have forgotten! Happy 2017!

Recording in Caernarvonshire 2016

WENDY MCCARTHY, *vice-county recorder for Caernarvonshire*,
v.c.49

Recording is currently aimed at trying to update records for Atlas 2020 and Polly helpfully produced useful lists for each hectad of species recorded in the last date class which need re-finding. In early March I set off, with Mari Roberts and Lesley Ball, to search for *Stellaria pallida* (Lesser Chickweed) in SH24. Ann Conolly had recorded it in all six monads so it is curious that I had never found it as I have visited the delightful Porth Dinllaen area many times. Eventually Mari spotted a tiny patch of plants at the sandy edge of the golf course, proving to be the only sighting that day too. We were pleased also to update *Artemisia verlotiorum* (Chinese Mugwort) as it apparently hadn’t been seen here since Ann first found it in 1978, on a bank by the car park. We spent some time looking at whitlowgrasses (*Erophila* spp.) but could find only *E. verna* s.s. (Common Whitlowgrass). A few weeks later I visited a sandy hill

known as the Vardre in Deganwy SH77 and found a patch of plants along a grass bank which fitted perfectly the description of *E. glabrescens* (Glabrous Whitlowgrass) looking quite different to *E. verna* s/s which was plentiful nearby. Also here was *Vicia lathyroides* (Spring Vetch) with much *Aphanes arvensis* (Parsley-piert) and *Torilis nodosa* (Knotted Hedge-parsley).

Our first recording meeting of the year found us at Porth Ysgaden SH23 on the Lleyn peninsula. The best find here was a small colony of *Inula crithmoides* (Golden-samphire) on rocks above the sea. Debbie Evans found a new site for *Crassula tillaea* (Mossy Stonecrop) in gravel at the edge of a small lay-by. A week earlier Martyn Stead, Mari and I had found a new site at Borth y Gest SH53, making these the 4th and 5th records of this tiny plant which is an alien in v.c.49.

In May, Martyn and I went to Pwllheli SH33 and managed to update records for several species. An unexpected find was a small patch of *Convallaria majalis* (Lily-of-the-valley) in dunes above the beach, undoubtedly a garden throw-out but very attractive none the less. Later that month we were pleased to find hundreds of fronds of *Ophioglossum vulgatum* (Adder's-tongue) in three separate colonies on a grassy slope above the sea at Porth Llanllawen SH22. I had previously made several searches in Ann Conolly's location at Porth Oer in this hectad without success. Another pleasing update was a small patch of *Carex acuta* (Slender Tufted-sedge) almost lost in a sea of *Carex acutiformis* (Lesser Pond-sedge) at Bont Newydd SH22, only the second currently known record for this species.

One of the aims of our recording meeting in May was to check up on *Sanguisorba officinalis* (Great Burnet) in SH85, where it grows on a damp shaded lane bank near Padog. We were pleased to see it thriving, with at least sixty plants counted, as this is one of only two sites in the county. An unexpected bonus on this meeting was a single *Botrychium lunaria* (Moonwort) just pushing through on a bank in the neighbouring square SH84, a new hectad record. All of the party were pleased with good views of a Cuckoo calling on a fence post.

Sedum forsterianum (Rock Stonecrop) and *Vicia sylvatica* (Wood Vetch) were two species which needed updating in SH75. In June we scrambled up a couple of steep gulleys above Llyn Crafnant, finding the first species in one gully, along with *Geum x intermedium* (*Geum rivale* x *G. urbanum*) new to the hectad and *Adoxa moschatellina* (Moschatel) the latter also a good update, and the vetch flowering nicely on a high ledge in the second gully. Further up the hillside, on a single basic rock in otherwise acidic ground, there was a fine

display of *Hieracium carneddorum* (Carnedd Hawkweed) which proved to be another update on checking at home later.

We are fortunate in Wales to have had some excellent training workshops with experts and these of course help us to produce new records with our new-found skills! *Fumaria purpurea* (Purple Ramping-fumitory) is now recorded in eleven monads, four of these found in 2016. *Rubus* (Brambles) records are slowly accumulating, although it should be said that, in my case at least, these are mostly of easily recognisable ones such as *R. lentiginosus*, *R. nemoralis* and *R. incurvatus*. The alien *R. procerus* is turning up all over the place and could prove to be an invasive problem in the future. Two garden brambles were found this year, *R. loganobaccus* (Loganberry) and *R. laciniatus*, in different sites near Caernarfon SH46. Also at Caernarfon, a pond below a derelict farm had *Crassula helmsii* (New Zealand Pigmyweed) and a nearby pool by a stream was full of *Hydrocotyle ranunculoides* (Floating Pennywort), an undesirable third county record. The *Dryopteris* (buckler-fern) training meeting with Fred Rumsey was a great help in learning the differences in the *D. affinis* group. Martyn, Mari and I were fortunate to follow this up a week later with a day out at Nant Gwrtheyrn with BPS local organiser David Hill. He showed us *D. affinis* (Golden-scaled Male-fern), *D. cambrensis* (Narrow Male-fern) and *D. borrieri* (Borrer's Male-fern), all good updates for SH34, and it was good to see these three again, helping to consolidate what we had learned from Fred. Another good *Dryopteris* find was that of *D. aemula* (Hay-scented Buckler-fern): nine plants amongst boulders on the shore of Llyn Cwm Silyn, which proved to be new for SH55 (see image 3 on inside front cover).

In June, I went to some species-rich grassland near Bangor and was delighted to discover seven flowering spikes of *Epipactis palustris* (Marsh Helleborine) new to SH57 and bringing the total of orchid species at this site to eight. *Juncus subnodulosus* (Blunt-flowered Rush) and *Galium uliginosum* (Fen Bedstraw) were also present.

An excellent record of *Neottia cordata* (Lesser Twayblade) was sent from Ian and Linda Fraser, 88 plants in total, some flowering, from the slopes of Tryfan and, rather surprisingly, a new record for SH65. In August I received a message from Lesley to say that she had found 'a huge blue spike' which on checking turned out to be a magnificent specimen of *Echium pininana* (Giant Viper's-bugloss) undoubtedly self-sown in the middle of brambles on a piece of waste ground near Ysbyty Gwynedd, needless to say a new record for SH57. Julian Driver sent a good list of mostly upland species with several

updates, the best of these being *Asplenium obovatum* (Lanceolate Spleenwort) near Yr Eifl SH34, last seen there in 1988.

Our September meeting to explore the village of Llithfaen SH34 was hi-jacked by Iwan Edgar, with promises up a nearby hill of *Hymenophyllum wilsonii* (Wilson's Filmy-fern), *Phegopteris connectilis* (Beech Fern) and *Melampyrum pratense* (Common Cow-wheat), how could we resist? We were pleased to find the first two, along with *Cryptogramma crispa* (Parsley Fern) but dismayed to find that a cairn had been erected at the summit eradicating the third.

My thanks go to everyone who has attended meetings, accompanied me in the field and sent me records.

‘...the best of times, ...the worst of times...’ (Charles Dickens, A Tale of Two Cities)

A short note from Denbighshire

DELYTH WILLIAMS, *vice-county recorder for Denbighshire, v.c.50*

Rather a dramatic way in which to describe Denbs Group recording sessions in v.c.50 this summer? We have had a successful season and on the whole the weather was kind to us. We had many lovely days in many lovely places, mostly in the uplands in the west and south of the county from which we collected thousands of records. No-one got lost, no-one was injured in transit and only one person forgot their lunch. So far, so uneventful, although one day was particularly gruelling, spent trekking for hours through heather and over *Molinia* and around bogs looking for *Carex magellanica* (Tall Bog-sedge) – which we found again at Cefngarw on the Migneint [SH792433] on 21st July.

The RSPB reserve at Conwy [SH7977] continues to yield an astonishing number of plants. This year *Chara vulgaris* var. *papillata* (Common Stonewort), determined by Claudia Ferguson-Smyth, and *Dactylorhiza incarnata* subsp. *coccinea* (Early Marsh-orchid) were found for the first time, both new to the vice-county.

Not new to the county, but by no means common were pleasing reports of 100's of *Spiranthes spiralis* (Autumn Lady's-tresses) in new sites in fields near Llysfaen [SH8976] and a record, new to SH87, of a magnificent stand of *Orobanche rapum-genistae* (Greater Broomrape) ‘all along the verge of the lane’.

One day, though, sticks in the mind. We were to meet in the small village of Pentre-llyn-cymmer [SH9752], just below the dam at the south of Llyn Brenig reservoir in mid-June. The forecast was for ‘rain, clearing later’. It did rain. But it didn’t clear, so in true and optimistic BSBI fashion we persevered in high summer in winter-weight Gore-Tex, hats, wellies, umbrellas, weather-writers and waterproof paper. We only managed to add about another 100 species to the existing list – so was it worth it? Of course it was. We noted a number of large, old *Araucaria araucana* (Monkey-puzzle) trees dotted around the village and along the banks of the Afon Alwen found *Epilobium brunnescens* (New-Zealand Willowherb), still relatively uncommon around here along with *Carex pallescens* (Pale Sedge). *Meconopsis cambrica* (Welsh Poppy) was found along the track, well away from habitation, where it may be native and close to a single, unexpected clump of *Melica nutans* (Mountain Melick) – only the second record for SH95 and otherwise scarce in the vice-county. Sharp-eyed observers found two vegetative patches of *Vicia orobus* (Wood Bitter-vetch), adding to several new recent records of this plant in SH95, its apparent local stronghold. Most delightful was a very large patch of *Sedum forsterianum* (Rock stonecrop), more than likely native, a 1st for SH95, at the side of the road in a small quarry (see image 9 on back cover). By which time fingers were cramped, spectacles fogged and visibility much reduced.

Anglesey Plants in 2016

IAN BONNER & HUGH KNOTT, *Joint vice-county recorders for Anglesey*,
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This has been a year of transition in the way the flora is recorded. Hugh Knott has completed his first full year as Joint Recorder and Ian Bonner his first full year as an absentee recorder and resident of Cinderford in Gloucestershire.

The map on the inside back cover (image 6) shows the current status of post-2000 recording on Anglesey, though not all the data has been processed to the BSBI Distribution database (DDb) at the time of writing. Early in the year a considerable number of new records from Debbie Evans from 2014/15 was added to the DDb, mainly from under-recorded monads inland in the north and west of the island. In 2016 a minimum of 91 monads were visited by Debbie and Hugh, with help from a small number of others, again with the emphasis on those without previous records (or with few or none since 2000), and again mostly in the west and north. As a result some large, previously ‘blank’ areas of the map are being filled in. There do remain some significant gaps in our

coverage, but the previous contrast between a heavily recorded coastal region and under-recorded central area has now been significantly reduced. The objective for 2017 will be to continue to fill in these gaps where possible (some monads have no public access) and to visit other monads with relatively few records. There will also be increasing emphasis on under-recorded areas of semi-natural habitat wherever these can be identified.

Twelve members of the Flora Group met on Newborough Warren on a very sunny 5th June to look particularly at water buttercups in some of the dune pools and confidently recorded *Ranunculus aquatilis* (Common Water-crowfoot) from two pools in SH42.62 and *Ranunculus trichophyllus* (Thread-leaved Water-crowfoot) from pools in SH4363 & SH4364. Also along the way the Group made a good number of additions of common species to several monads in the NNR.

Otherwise, apart from a very useful recording day in the centre of Amwlch, SH44.92, the Flora Group has not been active this year.

Continuing his interest in the coast Ivor Rees has turned his attention to scurveygrass (*Cochlearia* spp.) around Anglesey. Since 2000 there have been over 250 records of *Cochlearia officinalis* sens. lat. (Common Scurvygrass) from roadside banks (a feature of NW Anglesey), rocky shores and salt-marshes, but with little attempt to be more precise. Further progress seems to depend on choice of classification. Following Stace (2010) most plants fit *C. officinalis* L. sensu stricto, which according to Rich (1991) embraces the *C. officinalis* subsp. *officinalis* of Clapham *et al* (1987). However, following Rich (1991) it is possible to fit some salt-marsh specimens to *Cochlearia atlantica* Pobed.

Confusion though follows as Stace (2010) lists *C. atlantica* Pobed as a synonym of *C. officinalis* subsp. *officinalis*!

Before 2000, *Cochlearia anglica* L. (English Scurvygrass) was recorded from several muddy salt-marshes around the coast, but recent gatherings have failed to fully match the specimens to the description. Ivor Rees has collected a range of specimens in 2015 and 2016. Dr. Wyse Jackson (BSBI Referee for *Cochlearia*), determined the plants as *C. anglica* x *C. officinalis* = *C. x hollandica*. This hybrid has been quite widely recorded around the coast of Ireland, but these appear to be the first records for Anglesey and indeed for Wales.

The six records are scattered round the west, south and east coasts: from Porth Cwyfan and the Ffraw estuary at Aberffraw in SH33.68 & 35.68 respectively; the upper part of the Braint estuary, near Dwyran, SH44.65; the shore of the

Menai Strait, below Coed Mor, SH54.71; and two localities in Red Wharf Bay in SH54.79 & 52.80.

More detailed notes by Ivor Rees about *Cochlearia* on Anglesey appear on page 40 of this issue.

Cream coloured flowers of *Gentianella amarella* (Autumn Gentian) have been noted in a small area of dune grassland at Tywyn Trewan, SH31.74 since 2010 and were the subject of a note in *BSBI Welsh Bull.* **91**: 20 (January 2013). The number of cream coloured flowers varied from year to year and they are mixed in with pale and the typical dark coloured flowers. Counts have been made over the last six years with about 30-40 most years, peaking at 200 in 2012 but with none seen in 2013.

The site has changed somewhat over the period from having mainly a very short dune slack sward to being dominated by ranker grasses, except on the trampled paths. Numbers have been fewer in recent years but they have spread out more. Only about fifteen of the cream coloured flowers were seen in 2016.

These plants showed a strong resemblance to the northern subspecies *septentrionalis*, which occurs in the Northern Isles, the Outer Hebrides, other N & W coasts of Scotland and on the Northumberland coast around Lindisfarne. Inland they are found in part of the Scottish Highlands and on the limestone of the Pennines. In view of the distance from any the other populations and the variability of gentians there was reluctance to consider that those in Anglesey could really be the northern subspecies.

In July 2011, Tim Rich (BSBI Referee for *Gentianaceae*) visited the site and collected specimens for **NMW**. This August Tim, has been looking at cream coloured gentians in Scotland and is now happy to confirm the Anglesey plants as *G. amarella* ssp. *septentrionalis* (Druce) N.M. Pritch (see image 10, on the back cover). Again, these are first records for Anglesey and Wales.

It is interesting to speculate on the origin of this outlying population – long present native, of recent origin or an introduction? The location is on and beside the Anglesey Coast Path and very close to the RAF Valley Airfield which, until recently, was home to a Search & Rescue Unit with helicopters operating to potentially many remote locations. The ease of accidental introduction was shown when a couple of cream coloured plants spontaneously appeared on thin limestone soil in a garden where specimen collecting bags had been shaken out – though no plants appeared the following year.

Last year we reported on the *Atriplex* Workshop (*BSBI Welsh Bull.* **97**) and the discovery of the rather elusive *Atriplex longipes* (Long-stalked Orache) in tall salt-marsh vegetation, just below the sea wall at Wern, Red Wharf Bay,

SH55.80. It is usually just one of the parents in the widespread hybrids *A. x gustafssoniana* (Kattegat Orache) and *A. x taschereaui* (Taschereau's Orache). However further searches in 2016 by Ivor Rees have led to the discovery of *Atriplex longipes* elsewhere in tall salt-marsh vegetation in Red Wharf Bay, closer to Llanddona, SH56.80 and further north in Traeth Dulas, SH48.88. Also in SH48, a new hectad record was made of the hybrid *A. x taschereaui* (*A. glabriuscula* x *A. longipes*) at Porth y Mor, SH49.88.

Look out for a separate note Ivor Rees is preparing for *BSBI News* about some of the difficulties in identifying *Atriplex* using bracteole characters.



Image 5: *Salicornia ramossissima* (Purple Glasswort) with broad scarios margins.

Another coastal genus causing identification difficulties is *Salicornia* (Glassworts). They are widespread in the many suitable shore habitats around Anglesey, but too few of the records are at species level. This is partly due to phenotypic plasticity, but also the continuing disputes between taxonomic experts over classification schemes. However, *Salicornia ramossissima* (Purple Glasswort) from Traeth Dulas, SH48.88, was a new hectad record. Image 5 on the left shows the broad scarios margins to the bulging segments and the differences in the size of the lateral and central flowers.

Other interesting records of native species are rather few and far between this year – top of the list goes to *Carex punctata* (Dotted Sedge) from the cliff at the western edge of The Range, SH20.80. A very useful addition to the species list for the RSPB Reserve. This is only the fourth Anglesey record, three on coastal rocks and one, unusually, on a sandy bank under Corsican Pines (*Pinus nigra* ssp. *laricio*) in Newborough Forest, Arthur Chater again providing confirmation from a photograph of a fruiting spike.

Hugh Knott collected *Symphytum officinale* (Common Comfrey) from just east of Llanfechell, SH38.91, which Bob Leaney confirmed as subspecies *officinale* var. *purpureum*. This a distinctly uncommon species on Anglesey with only four post 2000 records and almost certainly not truly native on the island.

Chenopodium rubrum (Red Goosefoot) continues to spread with new records from three additional hectads, SH28, 37 & 38. It was growing in the entrance to a potato field in SH29.80; a road verge in SH39.75; a field in SH33.80 and a road verge in SH34.82, a change from the more usual shore and manure heap habitats. There are now 14 post-2000 monad records, whereas only a single locality was given by Roberts (1982).

The *Carex punctata* record highlights another recording issue. There is only a tiny piece of shore in SH20.80 and originally the few records were included in the list for SH21.80 to the east. A similar situation exists along the breakwater around Holyhead harbour which extends across three monads containing no other land. A third example is the refuge tower on Ynys Dulas off the east coast near Moelfre, should a botanist visit, the records will be in SH59, a hectad in which there is no other land!

RSPB continue to record the performance of *Tuberaria guttata* (Spotted Rockrose) and *Tephrosieris integrifolia* subsp. *maritima* (South Stack Fleawort) at South Stack and nearby Penrhosfeilw Common nature reserve. Spotted Rockrose is confined to a single monad at South Stack, where the average numbers of plants from 2000-2016 has been 2432, with 1810 counted in 2016. The average number of flowers of South Stack Fleawort spread over 4 monads at the two sites from 2000-2016 has been 4408 per year, with only 2746 in 2016. This year's count was low by comparison, but within the observed variation.

Kathryn Birch has provided data on numbers of *Ophrys insectifera* (Fly Orchid) spikes counted on the fens at Cors Bodeilio and Cors Erddreiniog for each year from 2009/10 to 2016. At Cors Bodeilio, 143 flower spikes were counted, compared with 81 in 2009, showing an upward trend, at least over this period.

At Cors Erddreiniog the figure was 92 flower spikes, compared with 33 in 2010, however this is reflective of steep yearly variation over this period with no trend evident at this site. Thanks to RSPB and NRW for making this information available to the BSBI.

There were a number of new neophyte records, including the first three localised records for *Conyza canadensis* (Canadian Fleabane) from the town centres of Holyhead, SH24.82 and Llangefni, SH45.75 and the Penrhos Retail

Park, Holyhead, SH25.81. Looking at the national distribution and the number of records spreading west along the North Wales coastal belt it is quite a surprise that there have not been more Anglesey localities. Another surprising first record is of *Lobelia erinus* (Garden Lobelia) from a roadside edge in Llanfechell SH36.91. It is such a widespread garden annual and has been well recorded from many other Welsh counties. A more unusual first record is of *Iris xiphium* (Spanish Iris) found by Richard Birch growing along the high-water mark on the east side of the Inland Sea, SH29.76.

A number of second records include *Lepidium draba* (Hoary Cress) from the top of the beach on Breakwater Road, Holyhead, SH24.83; *Rosa virginiana* (Virginian Rose) from a hedge, at Bwchanan, SH36.90 and *Oxalis exilis* (Least Yellow-sorrel) which was very abundant in the tightly strimmed churchyard at Rhosbeirio, SH391.917.

The BSBI Database now includes some impressive analysis of recording progress towards Atlas 2020 county by county. For Anglesey, it shows that over 140,000 records have been added since 2000, with over 10,000 added so far this year.

For the 16 hectads the average percentage of taxa re-recorded since 2000 is 79% (range 72 – 84) and the average number of additional taxa found in each hectad is 115 (range 38 – 173).

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Solution to a *Cochlearia* puzzle in Anglesey salt marshes

E. IVOR S. REES, *Lahti, Mount Street, Menai Bridge, Anglesey LL59 5BW*

As part of progress towards Atlas 2020, Ian Bonner (Co-recorder for v.c.52) asked members of the Anglesey Flora Group to look out for certain taxa recorded previously, but apparently not noticed on the island post-2000. Among these, at March 2015, was *Cochlearia anglica* (English Scurvygrass). The BSBI Distribution Database (DDB) map showed 8 hectads in Anglesey with pre-2000 records of it, totalling ten records up to 1969 and eleven in 1970-99. As this species has obviously cuneate basal leaves and compressed fruits, features well shown in Rich (1991), any plants should be readily distinguishable from other *Cochlearia* taxa. Rich (1991) and Stace (2010) both describe *C. anglica* as favouring wet and muddy salt marsh habitats. Targeted searches were made in the mid-April to early June periods of 2015 and 2016 on parts of the coast where there had been pre-2000 records or the habitat was apparently suitable. In spite of this, no plants were found with the full set of characters for them to be assigned unequivocally to *C. anglica*. Instead, plants were encountered in at least 6 separate salt marsh locations with truncate or rounded basal leaves, so they did not conform to either *C. anglica* or *C. officinalis* sensu stricto (Common Scurvygrass). However, they did have the compressed angustiseptate fruits typical of *C. anglica*. When examined more closely the lower stem leaves were often seen to be lengthened above where they clasped the stem in shapes not fitting the illustrations of either the above taxa. To try to unravel the conundrum, those parts of specimens likely to be critical for determinations were laid out in the style of the standardised illustrations in Rich (1991) and then photographed. The Referee for *Cochlearia* Dr P. S. Wyse Jackson is in the USA, so a selection of photographs rather than actual specimens were sent to him.

The response from Dr Wyse Jackson indicated that, as suspected, the Anglesey plants fit the morphological characters of the hybrid *C. anglica* x *C. officinalis* = *C. x hollandica*. This hybrid has been found in Ireland quite frequently and it is also fertile. The BSBI DDB (at July 2016) showed records of the *C. x hollandica* from 34 hectads spread around the west, south and east coasts of Ireland. Given the proximity of Anglesey to Ireland, it is not unexpected that similar plants should occur in salt marshes on the Welsh side of the Irish Sea, though there appear to have been no previous determinations of it in Wales.

The lack of recent records of *C. anglica* in Anglesey can probably be partly explained by a tendency now to opt for the fall back recording category of *C. officinalis* aggregate. when there is any uncertainty. As to much earlier records, Herbaria@home (viewed Aug 2016) showed two sheets with plants collected from the Menai Strait in May 1911 labelled as *C. anglica*. These appear to have basal leaves too truncate to be a pure form of that species, but fruit shape cannot be discerned on images of old herbarium sheets. Another sheet of plants from near Llanfaelog Station in April 1905 does have cuneate basal leaves, though they are not as elongate as those illustrated in Rich (1991). Notes on this sheet indicate determination was made by G.C. Druce and E.S. Marshall only a couple of days after the plants had been collected in Anglesey. Llanfaelog Station probably refers to a station now called Rhosneigr where the access road is next to the brackish marshes of the Afon Crigyll.

The taxonomy of the genus *Cochlearia* is still much debated (Stace et al, 2015) and several authors imply that chromosome counts may be needed for confirmation of some taxa, including *C. x hollandica*. There is also uncertainty in Anglesey over the status of plants in some salt marshes that resemble *C. atlantica* as illustrated in Rich (1991). In Stace (2010) and the BSBI DDb, *C. atlantica* is treated as a synonym for *C. officinalis* ssp. *officinalis*. The DDb map of it shows a patchy distribution of records mainly on north-western coasts of Britain and Ireland. This may partly represent where it has been recognized as much as the actual distribution. With the 'atlantica' form being treated as the nominate subspecies rather than *C. officinalis* sensu stricto, opting so often for *C. officinalis* agg. is understandable.

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Found & Lost Again

A Tale of Pennyroyal in v.c.50

RICHARD BIRCH

It will not be the first time a rarity is recorded moments before a site is lost to development or agricultural improvement: I'm sure many a county flora is peppered with anecdotes on that particular theme. So the discovery of Pennyroyal (*Mentha pulegium*) on a development site near Wrexham (SJ325566), on the day site clearance is due to commence, is just another so-so tale of a doomed rarity. Save, that is, for a benevolent mitigation programme that may well preserve it at this new location.

I speak literally. A detailed Phase 1 survey of the site recorded many ecological features worthy of protection, including great crested newt, dingy skipper butterfly and four species of orchid – all data forwarded to Cofnod, the Local Biodiversity Record Centre in North Wales. The mitigation has been designed to preserve and promote the spread of these designated features post-construction. However, the Phase 1 list did *not* include pennyroyal – it was only noticed as the access track for the heavy plant was being constructed (see image 7 on inside back cover).

Research on the status of Pennyroyal reveals that it is rare throughout the UK as a native, although a vigorous non-native form is increasing as an introduction. ‘*Scarce Plants in Britain*’ (1994) says that it has not been recorded in NE Wales post-1970. The most recent Atlas (2002) indicates it was present in just nineteen 10 km squares in the UK, but still no records in North Wales. There is an established site on Anglesey, and the BSBI online map (2016) shows a recent record for coastal Conwy. Tracking back, there has been a steady decline across the UK, and it is now a Priority Biodiversity Action Plan species, listed as Vulnerable.

The location of its recent discovery is textbook habitat for *M. pulegium*: close-cropped grassland on seasonally-inundated heavy clay. The plant is certainly not the gross alien form, being compact in all its parts and with minute leaves. No non-natives have been recorded from elsewhere on site, so one can eliminate a garden throw-out. It shows every indication of being thoroughly native here.

Or at least, it *was*. On the day after its discovery, it was bulldozed to facilitate site access and the construction of a car park.

Moments before disaster struck, the plant was dug up. It consisted of eight separate plantlets. Five of these individuals were translocated to an area of the site designated as a conservation zone. Because this location did not precisely match the habitat requirements of Pennyroyal, a further three plants were potted up, and these will be maintained and replanted post-construction in newly-created habitat on site, tailored to the requirements of this exacting plant.

So all is not lost. Great care has been taken to incorporate habitat conservation and creation into this particular development. Consequently, goodwill between the design and construction team and the ecologist means that, along with Bee Orchid and Twayblade, Pennyroyal can become a conservation objective for the final development.

A brief update on the Sea Pea *Lathyrus japonicus* at Ceibwr in Pembrokeshire 2016

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Lathyrus japonicus had been found at Ceibwr, in North Pembrokeshire in 2010 – see pp. 27-30 of Welsh Bulletin **95**, February 2015.

It has survived and prospered since 2010 and flowered for the first time in June and July 2016 (see image on front cover). It produced several flower spikes and some flowers went on to produce pods with mature seeds by early September. There were 28 trailing stems up to 45cm in length spread over 1.7 x 1.4m so it must have developed a robust root system underneath the beach shingle.

All the sepals, pedicels and flowering stems had dense short hairs, as did the pods.

Hairy Buttercup in Monmouthshire

STEPH TYLER & ELSA WOOD, *Joint vice-county recorders for Monmouthshire (v.c.35)*

Hairy Buttercup (*Ranunculus sardous*) is native to Europe. In the UK it is mainly a coastal species but is scattered inland. It grows in thin turf and on disturbed areas in coastal pastures, by ponds, roads and tracks. The jizz of *Ranunculus sardous* is to us very different from that of *R. bulbosus* (Bulbous Buttercup). The former has a more sprawling or spreading growth form, the flowers are a more yellow-gold colour and leaves a different shape. The stems and leaves of Hairy Buttercup are, of course, hairy and it flowers later in the year than Bulbous Buttercup. It is most common in the south-east, east and

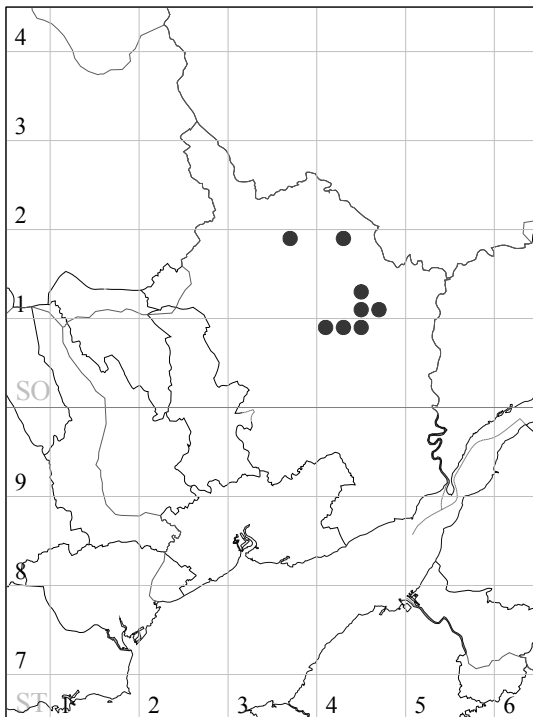


Figure 3: Map showing distribution of Hairy Buttercup (*Ranunculus sardous*) in Monmouthshire (Data from Steph Tyler & Elsa Wood, post 2000).

south-west tip of England but continues north to the Central lowlands of Scotland.

As well as Monmouthshire, in Wales it occurs mainly on Gower, in Pembrokeshire and in Ceredigion. In

Monmouthshire it has a very restricted distribution (see figure 3 on the left) in a small area of the north-east between Raglan and Hendre with odd outliers in ST39, SO10 and SO51 (Evans, 2007) and is now apparently absent from coastal pastures. Wade (1970) lists it as occurring at Nash and Llanwern (no date) but it has not been recorded here for many years. In recent times, it was first recorded by Elsa Wood at Raglan Service Station in 1984, probably arriving on lorry wheels, etc. Evans commented that this annual was nowhere common and needed disturbed ground.

Since 2000, we have found it at several sites within this known area (SO40 and SO41) all on soils overlying Old Red Sandstone. We also found a ‘new’ outlier of more than 25 plants, in SO31, during 2016 on the edges of a gateway and track through pasture at Great Pool Hall. Other sites in its core area included Skenfrith Castle Farm by a muckheap (SO4108); at Hendre Farm in SO4512, again in a gateway between pastures; near Llanfaenor in SO4318; at Treowen in SO4610 in a gateway into an arable crop. It was also found at Jingle Street in SO4610 by Heather Colls in 2012 and again seen by SJT near Jingle Street in SO4710 in 2015 in a gateway to a pasture and at Crown Farm east of Raglan in SO4208 where at least sixteen plants appeared in 2014 in the farmyard. None were evident in 2015 but six re-appeared in 2016. The largest population of *Ranunculus sardous* was in different locations at Dingestow Court during 2016 (see image 4 on inside front cover). More than twenty large plants were found at SO444093/4 by SJT and, at a nearby site straddling monads SO4509 and SO4510, 22 plants were counted (Sam Bosanquet, in litt.) in early July. These Dingestow records were mainly in gateways and along tracks into pastures or arable fields or at the edges of arable fields.

Why is it so restricted in vice-county 35? In the USA and Australia where it was introduced it is common in grassland even in lawns.

References

- Evans, T.G. (2007) *Flora of Monmouthshire*. Chepstow Society, Chepstow.
- Wade, A.E. (1970) *The Flora of Monmouthshire*. National Museum of Wales.

Inside back cover images:

6: Anglesey species recorded per monad 2000-2016. Map from BSBI distribution database (see page 34).

7: Discovery of *Mentha pulegium* (Pennyroyal) on a development site near Wrexham. © R. Birch (see page 42).

8: *Veronica spicata* (Spiked Speedwell) at Stanner Rocks in Radnorshire (v.c.43) seen at the AGM 2016. © A.G. Shaw (see page 14).

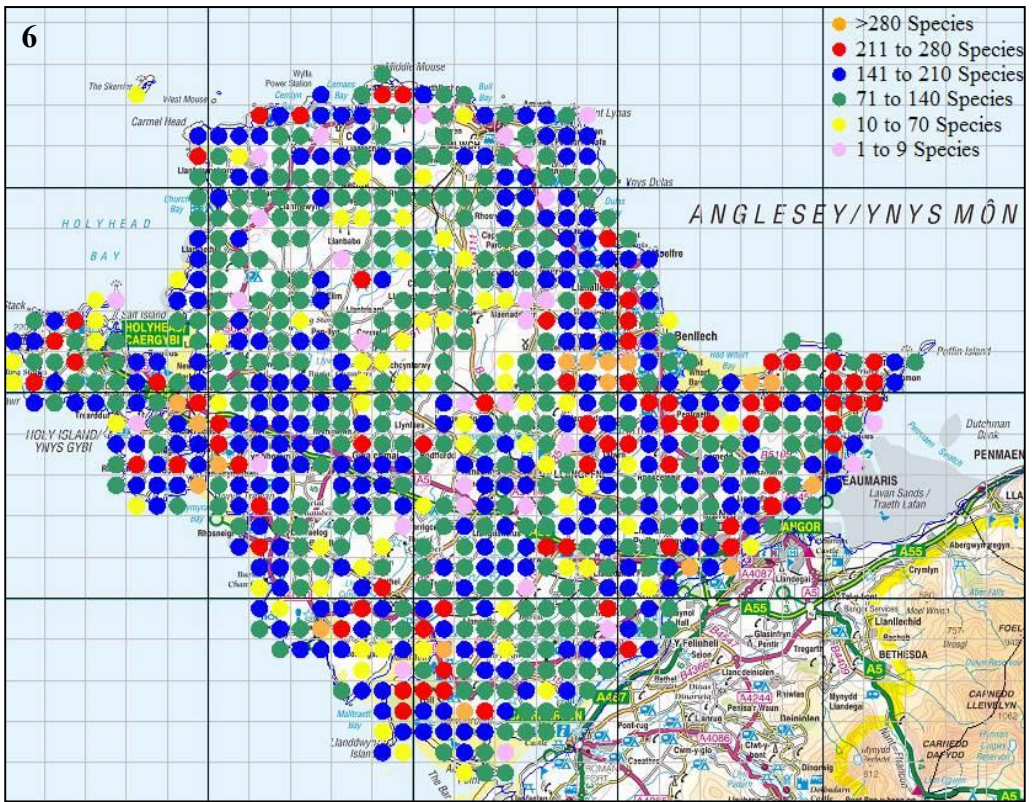
Back cover images:

9: Large patch of *Sedum forsterianum* (Rock stonecrop) near Pentre-llyn-cymmer in Denbighshire. © D. Williams (see page 34).

10: First record for Wales of *Gentianella amarella* ssp. *septentrionale* near Valley in Anglesey. © I. Rees (see page 36).

11: *Poa bulbosa* (Bulbous Meadow-grass) in flower in Newton car park site – SS 837 769, 15 May 2016. © D. Barden (see page 22).

12: *Poa bulbosa* is called ‘Roundup grass’ by a group of botanists in Somerset because at the end of May/June (the timing depending on season dryness and temperature), it looks like it has been sprayed with herbicide. © J. Woodman (see page 22).



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