



Editors: Richard Pryce, Sally Whyman & Katherine Slade

Rare Plant Register for v.c Monmouthshire
2023 edition



Pale pink form of *Anacamptis morio*

Compiled by Stephanie Tyler and Elsa Wood

Edited by Marily Dunkelman

Dedicated to Trevor G Evans
1924-2023

Recorder for v.c 35 for 40 years, whose commitment
to recording the plants of Monmouthshire
has made this task so much easier.

Image 2 above: The cover of the new Rare Plant Register for vice-county 35, Monmouthshire, compiled by Steph Tyler and Else Wood. The image is of *Anacamptis morio* (Green-winged Orchid) taken by Gemma Wood. See article on page 29.

Image 1 on the front page shows a stunning display of *Epipactis palustris* (Marsh Helleborine) at Aberffraw Dunes, Anglesey SH360.680 in early July 2023. © Adam Cross. See Anglesey 2023 article starting on page 33.

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Contributions from all BSBI members are very welcome.

Please send to the corresponding editor, Richard Pryce by 1st Aug 2024 for the next Welsh Bulletin. Email: PryceEco@aol.com.

Please see the webpage bsbi.org.uk/wales for back issues. Printed versions of some back issues are still available on request from Katherine Slade.

Katherine Slade (katherine.slade@museumwales.ac.uk), Dept. Natural Sciences, Amgueddfa Cymru-Museum Wales, Cathays Park, Cardiff, CF10 3NP.

Editorial *Richard Pryce*

Many naturalists, including BSBI County Recorders in Wales, have relied in the past on the services provided by Amgueddfa Cymru – Museum Wales, NMW herbarium, although these have progressively diminished over the decades. We have always considered, and still consider, NMW as the best repository for lodging important Welsh plant specimens such as voucher material of first county records. We relied heavily on the advice of the expert staff for identification and commentary on botanical queries but the expertise available in the Museum has already been severely depleted due to budget reductions in recent years. NMW houses one of the most important herbaria in Britain and Ireland (on a par with Kew, the Natural History Museum and RBG Edinburgh) but its continued curation (or even existence) is again under threat.

The Museum collections are a very important resource for conservation, research and education but despite the Welsh Government declaring a Nature Emergency, the Museum is facing further cuts to its funding of some 10-22%. To effectively address the Nature Emergency the Museum requires additional investment and not sweeping cuts. It cannot survive further cutbacks and continue to fulfil the essential services it has provided. Please see the petition on page 5 opposing these cutbacks. I urge you to sign and if possible, write to your Senedd Member asking that, in the present ongoing crisis, funding for the Museum needs to be substantially increased and not reduced.

Recently, I came across a website referencing Sir Joseph Banks' visits to Carmarthenshire. You may recall that Banks accompanied Captain Cook on his around-the world voyage on the Endeavour in 1768-1771. Banks' 1773 Carmarthenshire visit, accompanied by Rev. John Lightfoot, has been well documented but I was unaware of any details of his 1767 visit, the year before the voyage of the Endeavour. Banks' journal written during this earlier journey has now been transcribed and is posted on the Sir Joseph Banks Society's website: joseph-banks.org.uk. This has resulted in earlier first Carms records of 17 species and caused me to again lament the moribund nature of the Herbaria@Home website from which, in the past, I have gleaned several other first and early records.

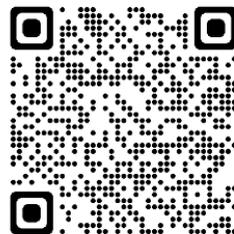
The Welsh AGM and associated field meetings and workshops will be held at the new Swansea University, Swansea Bay campus on 5-7 July: see page 11 for the provisional programme. This event will take brownfield sites as its main theme and it promises to be extremely popular. Early booking is advised. I look forward to seeing you there or at one or more of the other meetings arranged this year.

Cuts to Amgueddfa Cymru – Museum Wales

Amgueddfa Cymru - Museum Wales curates extensive Natural Sciences collections including botany. The NMW herbarium contains around 750,000 plant, fungi and algae specimens which are an important resource for conservation, research, and education. The experience and expertise of staff is essential to facilitate access and efficiently retrieve specimens, archives, and related data.

The Museum is facing immediate, heavy cuts to its budget which will impact these collections through staff cuts. The details have not yet been finalised, but the funding reduction is likely to range between 10 – 22% with an estimated 90 staff to go across the organisation. This compounds years of underfunding and previous substantial cuts to Natural Sciences. As part of the restructure, we are saying a sad goodbye to one of our Botany Curators and co-editor, Sally Whyman who has written a goodbye message below. Her botanical expertise and creativity will be truly missed in the department.

The restructure and cuts are fast paced, so please sign and share the petition linked below. The petition states the case for safeguarding the Heritage sector budget including Amgueddfa Cymru, as well as the National Library of Wales and Royal Commission which are facing similar levels of cuts. By 24 April, 11,000 people had signed and petitions with more than 10,000 signatures will be considered for a debate in the Senedd. The closing date is 19 August 2024. You are eligible to sign if you live outside of Wales.



Scan the QR code to go to the petition.

petitions.senedd.wales/petitions/246088

A goodbye from co-editor Sally Whyman

It is with a touch of sadness that I report I am stepping down as co-editor of the BSBI Welsh Bulletin and leaving the bulletin in the capable hands of Katherine Slade and Richard Pryce. After twenty-four years as a Botany Curator at National Museum Wales in Cardiff, I decided to leave to pursue other interests. I hope to have some time for field botany, getting out there instead of reading about others exploits and their findings.

Committee for Wales Chair's Report

John Palmer

Croeso/Welcome to all to BSBI Wales 61st AGM and my first as Chair. As you are aware this meeting was due to be held at our meeting at Gregynog in June until the venue cancelled the meeting at two days' notice. Kate Thorne and Gill Foulkes had put an enormous amount of work into ensuring that we would have had a great meeting, and I would like to thank them for their commitment and commiserate with them that the meeting was aborted. We also thank them for dealing with the aftermath of the cancellation in such a professional way.

I would like to thank my predecessor Stephanie Tyler for handing over affairs in Wales in such fine fettle. Thanks also go to Anne Griffiths, who is stepping down from her role as Secretary at this AGM, for her support in what has been a very busy year!

The launch of the Atlas in Wales involved significant effort over a period of around six months and a subgroup of the committee was set up to manage this. I am very grateful to the members of that subgroup for their hard work, together with that of BSBI staff, in ensuring a successful launch on March 17th at the National Botanic Garden of Wales (NBGW). In particular I would like to thank Kevin McGinn, NBGW rep. on the BSBI Committee for Wales (CfW), for his organisation, both leading up to the launch and on the day, ensuring that the event was a success. Thanks also go to Julia Hanmer, BSBI CEO for introducing the event, our speakers Trevor Dines and Ray Woods, and Kevin Walker, BSBI's Head of Science, for providing a valuable contribution by Zoom in the Q&A session. Despite the weather we had around 60 people attending, including some unable to travel but linking by Zoom. Last but not least we are especially grateful to Ian and Pippa Bonner for providing a magnificent celebratory cake.

We also saw the appointment of James Harding-Morris as Country Support Officer. James has attended our committee meetings since his appointment and facilitated a meeting of those VCRs interested in producing floras in Wales. Subsequent to that meeting a subgroup of the Science and Data committee has been formed to address issues around flora production with Richard Pryce representing CfW on that subgroup. James has also initiated a WhatsApp group for VCRs in Wales to share interesting finds and support each other with identification, along with requests for advice around aspects of the VCR role following a successful model in Ireland.

We welcome the appointment of Fiona Gomersall as Joint Recorder for Montgomeryshire. Fiona takes over from Gillian Foulkes who fulfilled that role for the last 7 years. We are very grateful to Gill for her commitment in this role.

We also congratulate Martyn Stead who received a BSBI Award for outstanding contribution to botany for his sustained contribution of reliable and meticulous records over long periods in North Wales and Northwest England.

I would like to re-iterate Steph's thanks to Richard Pryce, Katherine Slade and Sally Whyman for their continued work in producing the Welsh Bulletin and thanks are also due to Kath Pryce and Anne Griffiths for their support to the committee over the year. We are also grateful to the observers on the committee from external organisations, Kevin McGinn (NBGW), Lizzie Wilberforce (Plantlife) and Julian Woodman (NRW), for their support and valuable insights.

A number of Wales VCRs attended the Recorders' conference in Preston Montford in October 2022 and representatives of CfW also took part in the 2nd BSBI forum, by Zoom, in April. The Forum addressed two topics: *How do we best support Vice County Recorders?* and *How do we best plan and support a cohesive BSBI events programme? (field meetings, indoor/online conferences & events)*. A report on the forum was published in late May and contains a number of suggested 'next steps' for members and committees to consider. The forum report is available through the members' area of the BSBI website.

Our core work of recording and making our records accessible through the Distribution Database (DDB) and published material, and of training new botanists and enthusing people about plants continued. All VCRs and many other individuals worked hard to fill gaps in coverage or re-find rare species. Most VCRs run local flora or botany groups with regular field meetings and provide assistance to NRW, local authorities and other bodies with surveys and represent BSBI at third-party meetings e.g. MoD Conservation Groups, County Nature Partnerships and County Meadows Groups.

Many people contributed to the 2023 New Year Plant Hunt although there was a slight decrease of the number of lists submitted in Wales compared with 2022, a trend also seen in all other countries of the UK.

The committee also took part in a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) of its role in Wales. There was good consistency in responses which have been shared with the Committee and a summary shared with the Board of Trustees.

A number of actions were suggested as a result of the analysis of which the key ones are:

1. Improved succession planning and recruitment of members/VCRs/committee members. This was also a recommendation of the BSBI Forum referred to earlier.
2. Understanding what BSBI require of VCRs post Atlas. Since then, BSBI have launched a consultation paper on future Science strategy which should provide some assistance to understanding what BSBI ask of VCRs post Atlas.

So, in conclusion, there's much for us to consider as we move forward, and I would like to thank our committee, recorders and members for their support.

Field Meetings in Wales 2024, and more generally

Andy Jones, Field Meetings Secretary for Wales

Next year there will be, once again, a relatively limited range of Field Meetings in Wales. Apart from the long-running residential week at Glynhir and the Glamorgan AGM, there are just two other scheduled meetings: in Brecknockshire and Cardiganshire (see the list beginning on page 10). This is roughly the same number of field meetings as advertised for the last four years, but it is a dramatic decline on the long-term average. Looking back on the period 2013-2018, for instance, there were consistently 10 or more field meetings per year in Wales, and in 2018 there were 15 meetings between January (Conifers Workshop) and September (Dyfi Saltmarsh). Since then, however, we have come down to just 4 meetings a year, and this has been the pattern ever since.

It is tempting to associate this trend with Covid, but that cannot be the only reason because numbers were also down in 2019, before the pandemic. The main factor, I think, is the loss of our BSBI Welsh Officers, who did so much to engage with the membership (amongst other things). Every year between 2012 and 2018, Polly Spencer-Vellacott and Paul Green contributed significantly to the number of field meetings, and so too did Barbara Brown after they left, although with much less time and resources. It is possible, therefore, that field meetings will return to the previous high numbers if, as we hope, Wales gets a

replacement BSBI Officer.

At the same time, however, there could be other factors that affect field meetings in Wales, such as the low levels of attendance at national meetings and the success of local Flora and Recording Groups. Several leaders have reported a poor response to national meetings recently, with sometimes just one or two people showing up on the day – although these often proved to be very interesting and enjoyable meetings as well. By contrast, there seems to have been generally good attendances at locally arranged meetings, perhaps because people get to know the organisers and can have more say in the arrangements.

There are many other advantages to local Flora and Recording Groups, but it would be a shame if we lost out completely on more widely advertised meetings. Many of us had our formative botanical experience (and made lasting botanical friendships) at field meetings outside our area, and many meetings have undoubtedly benefitted from the perspectives that national specialists or simply non-local botanists brought to the situation.

The answer, I think, is for local Flora and Recording Groups to advertise their annual meetings programme on the BSBI county web pages (as some already do) or, better still, on the GB and Ireland Field Meetings and events web pages. Best of all, perhaps, would be to list a few local meetings here in the Welsh Bulletin, if they could be planned this far in advance. For now, however, I just draw members' attention to this significant resource, and urge them to seek out some local (as well as national) meetings if possible. For the increasing number of new BSBI members, and for others of more long standing, these could be a necessary – and enjoyable – botanical experience.

List of Field Meetings in 2024

Check the individual county webpages throughout the year for details about field meetings run by local flora and recording groups: bsbi.org/wales

Monday 27 May to Monday 3 June

Glynhir Recording Week (Residential), Carmarthenshire (v.c.44)

The week-long annual Carmarthenshire Recording and Monitoring Meeting will include visits to sites around the county. The meeting will cater for both experienced and less proficient botanists and will provide an opportunity for the informal development of identification skills. Arrangements will be flexible, some days the group may stay as one body, other days smaller groups will visit different sites to monitor rare or scarce species or update grid squares not visited recently. Day outings will be tailored to individual needs to cover all fitness abilities.

Glynhir Mansion is located about 2km east of Llandybie on the western flank of Mynydd Du (the Black Mountain) at SN640151. The River Llŵchwr runs through the estate and at one point plunges over a 10m waterfall into a humid, rocky gorge where *Dryopteris aemula* (Hay-scented Buckler-fern), *Hymenophyllum tunbrigense* (Tunbridge Filmy-fern) and *Asplenium trichomanes* subsp. *trichomanes* (Maidenhair Spleenwort) are among the ferns growing on the cliffs. There will be ample opportunity in the timetable to visit the site. Large parkland trees provide the setting to the mansion, including *Tilia cordata* (Small-leaved Lime), and there remains much scope for further discoveries to be made in the vicinity.

The cost of the week from lunchtime on 27th May to breakfast on 3rd June, including bed, breakfast, packed lunches and evening meals, will be approximately £600 and will be limited to about 15 participants. Accommodation for part of the week will be charged pro rata. A limited number of ensuite rooms are available on a first-come first-served basis. Participants not requiring accommodation will also be welcome on a day-to-day basis. A 35% deposit will be required by Glynhir on booking.

Leaders: Kath & Richard Pryce

Contact: Initial bookings, as soon as possible, please, to Kath and Richard Pryce mobile 07900 241371. There is further information on the Carmarthenshire web page.

Friday 5 to Sunday 7 July: Wales Annual General Meeting, Glamorgan (v.c.41)
Venue: Swansea University, Bay campus, SA1 8EN.

The theme will be brown field and coal spoil habitats, otherwise known as open mosaic habitat on previously developed land (OMHoPDL) or perhaps in the old days and less generously, 'wasteland'. OMHoPDL includes some of the most diverse habitat, not just for flowering plants but also invertebrate and fungi diversity is likewise very high at many sites.

As well as the Welsh AGM, the preliminary programme includes:

- Friday pm: Visit to Crymlyn Burrows SSSI to look at some dune habitat next door to the University campus to see *Matthiola sinuata* (Sea Stock) and look at some of the management / restoration work here.
- Field visit to Baglan (and possibly Port Talbot). A vast area of currently undeveloped brownfield with some amazing juxtapositions of species from wet and dry habitats with a sprinkling of dune species. Expect to see some of the largest amounts of *Clinopodium acinos* (Basil Thyme), you will ever see and other species such as *Trifolium arvense* (Hare's foot Clover), *Galium parisiense* (Wall Bedstraw) etc. We should have time to look at Baglan dunes as well on this day.
- On the other day we will visit some of the most diverse coal spoil sites in the South Wales Valleys where we should see *Logfia minima* (Small Cudweed), *Anaphalis margaritacea* (Pearly Everlasting), *Dactylorhiza praetermissa* (Southern Marsh Orchid) and hybrids. Also, possibly some oddities like *Sisyrinchium bermudiana* (Blue-eyed grass) and *Pyrola rotundifolia* (Round-leaved Wintergreen).

- Evening talks including a keynote talk by Kevin McGinn of the National Botanic Garden Wales, and workshops including Andy Jones on *Myosotis*.



Image 3: The setting of the 2024 Welsh AGM and field meetings. Swansea Bay looking towards Baglan and Port Talbot.

- Exhibits and posters prepared by members. This is a valued part of any AGM and I encourage you to contribute.
- We also hope to have a book stall.

Booking and online Payment is possible via the Wales AGM webpage (Wales Annual Meeting & AGM – Botanical Society of Britain & Ireland (bsbi.org/welsh-agm)) in due course. Accommodation is reserved at the Bay Campus, booking deadline 30th April.

A final programme will be available on the website in due course and will be e-mailed to participants prior to the event. Evening meals and breakfast will be on the campus. A bar is available, a small shop and a coffee shop (Costa), use of a gym can be arranged. The campus is right on the coast with access to Swansea Bay and Crymlyn Burrows SSSI (see image 3 on page 12). Thirty single occupancy en-suite rooms have been booked, adjoining rooms can be arranged, as can a requirement for ground floor room or increased accessibility.

Organiser: Julian Woodman, VCR v.c.41 (east).

Saturday 13th July 2024

Brecknockshire (v.c. 42) Craig y Nos and Craig y Rhiwarth

Recording and general meeting to explore the scree, limestone outcrops and (for the less adventurous) other nearby habitats around Craig y Rhiwarth and Allt Rhongyr. A great range of possible species, including *Antennaria dioica*, *Carex montana*, *Sorbus leptophylla*, *Geranium robertianum* subsp. *celticum*, *Botrychium lunaria* and many more.

Leader: Steph Coates (email S.Coates@welshwildlife.org)

Saturday 20th July 2024

Cardiganshire (v.c. 46) Ystrad Fflur and Llyn Gynon

Recording and general meeting to explore the Afon Mwyro valley mires (*Cirsium dissectum*, *Wahlenbergia hederacea* etc). For more energetic members of the party, Llyn Gynon (*Luronium natans*, *Nitella gracilis* and historical *Pilularia globulifera* etc).

Leaders: Steve Chambers & Andy Jones (email: aberystwyth1234@gmail.com)

BSBI Recorders' Meeting, 28-30 October 2022, Preston Montford, Shropshire (v.c.40)

Jonathan Shanklin

During the 2022 BSBI Wales AGM in Bangor, members suggested that they would welcome a get-together for recorders. Then at the Annual Summer Meeting at the Field Studies Council (FSC) Malham Tarn centre, the site manager said that all the FSC centres offered broadly the same rate. It seemed an opportunity to see if a Recorders' Meeting could once again be held at Preston Montford and it turned out that there was a possible date at the end of October. It needed quick organisation, so once the BSBI agreed to the concept, I took on the organisation as a committee would only delay things. This is an abbreviated report about what was a very successful and enjoyable event for the fifty participants. Talks were not recorded at the request of the presenters, however in many cases they were amenable to their presentation images being made available as a pdf, and these are on the Recorders' Meeting web page (bsbi.org/recorders-conference). A detailed report appeared in the 2023 English Botanical News (bsbi.org/wp-content/uploads/dlm_uploads/2023/06/England-Newsletter-2023.pdf), and this version has been revised to give a Welsh dimension.

Preston Montford is reasonably convenient for both English and Welsh recorders and some from Ireland and Scotland also participated. The meeting started with an "icebreaker" with attendees trying to identify *Cotoneaster* specimens, which proved an interesting challenge. I provided a crib sheet which listed all 18 species known from East Pit in Cambridge where I had collected the majority of specimens. All specimens had been determined by Alan Leslie and often refereed by Jeanette Fryer. Despite this, some groups identified additional *Cotoneaster* species, which shows how difficult members of the genus can be to identify. The DDb lists 54 species or aggregates known from Wales, with *Cotoneaster horizontalis* (Wall Cotoneaster) the most commonly encountered, followed by *C. simonsii* (Himalayan Cotoneaster) and *C. microphyllus* (Small-leaved Cotoneaster).

After a tea break, which included FSC cakes we moved on to hear about non-native ferns from Fred Rumsey. There are over 38 species of non-native ferns in the country, with two-thirds spreading by spores. Most are in urban areas, partly due to sources from gardens and partly because some are half-hardy. Visiting local garden centres is a good horizon-scanning exercise as they are often a source for local plantings and potential escapes. Fred then took us on a tour of

some of the more common species. There are keys in his presentation, which is worth looking at.

Mark Duffell then took us through some aquatic Invasive Non-native Species (INNS). Eight such INNS are known from Shropshire (v.c.40), with a further six species listed in Schedule 9 of the Wildlife and Countryside Act that are currently absent. He described the species in groups, beginning with floating species and showing specimens of them all. *Elodea canadensis* (Canadian Waterweed) was once more common but its population is declining with *Elodea nuttallii* (Nuttall's Waterweed) now far more common. In Wales there are substantially more records of the former, even post 2000, though many people record the aggregate. *Lagarosiphon major* (Curly Waterweed), where the leaves spiral round the stem, is quite widespread (including in Wales), but the plants are only female.

After the usual FSC two course dinner John O'Reilly gave us a talk about the work that he has been doing in monitoring the populations of rare plants in upper Teesdale. This area has a significant population of several very rare plants and many nationally rare or scarce species, along with many that are on the England Red List with a significant threat status. There are also "Northern" species at the southern edge of their range and "Southern" species that are at the northern edge.

The meeting programme started up again after breakfast with Ian Denholm telling us about "What are referees asked about orchids?". He started by saying that the BSBI needs to increase the profile of its referees (there were quite a few in the audience) as they are an under-recognised resource. The orchid referees (himself and Richard Bateman) have received about 1000 meaningful queries over 15 years. He then described some of the more topical issues they have been asked about. Some species are increasing their range within Britain. During the Bangor ASM in 2013 Ian had predicted that *Dactylorhiza praetermissa* (Southern Marsh-orchid) would soon arrive in Anglesey, and the very next day it was found! This species has increased considerably in recent years in northern England, colonising sites occupied by *D. purplella* (Northern Marsh-orchid). Considerable genetic introgression is being reported as a result.

The second talk in this session was from Chris Metherell telling us about the origins of botanical nomenclature and explaining why plant names change. Most of it boils down to similarities with the legal system [Chris is a lawyer], which often works on the basis of precedents. Once you understand why some name changes occur they may seem less threatening. Genetic studies can also lead to name changes.

We broke for coffee, a quick look at Summerfield Books, more discussion and an assessment of the weather forecast. My decision was that we should take the chance of going on the excursions now and this proved correct – we had a short spell of light rain towards the end of the walks, but if we'd postponed to Sunday we'd have had a heavy shower or two. The group split into several parties each going in different directions. One went to Nesscliffe Hill Country Park, with the objective of re-finding *Dryopteris cambrensis* (Narrow Scaly Male-fern), which had been recorded there in 1999. Another group set off for some nearby churchyards, whilst others walked from the Centre, northwards, westwards or around the Centre grounds. Overall, the groups made 866 records of 349 species, with 9 species being on all the cards and 177 only seen once.

Everyone was back in time for tea, particularly as it was again accompanied by FSC cakes. Participants also had another chance to browse the wide selection of books and other accessories that Summerfield Books had brought, which were on display in the Wenlock classroom. Many people were tempted and made purchases. After tea we had a session devoted to computer linked issues, beginning with MapMate, which causes problems for some Welsh recorders. The BSBI is developing an in-house recording app, which should be ready for general release in early 2024. This will not have the analysis and mapping functions of MapMate. The DDb or GIS systems such as QGIS could then be used for mapping and these were demonstrated.

This took us through to dinner time, when the FSC catering staff served us with a fine roast turkey meal. After dinner we reassembled for a discussion which had been primed to ask the questions “What should BSBI be doing for recorders” and what might BSBI have to stop doing to make space for this. We had a panel consisting of Helena Crouch (Trustee), Chris Miles (Chair of Trustees), John Palmer (Chair CfW) and Jonathan Shanklin (Chair CfE). Chris, Helena and I all took notes, and these are given in detail in the 2023 EBN (Available at www.bsbi.org/wp-content/uploads/dlm_uploads/2023/06/England-Newsletter-2023.pdf), with just a few points presented below.

When teaching courses, it is desirable to use the taxonomic names given in the books that participants are using as it is confusing to have to chop and change. The DDb does have synonyms for all current names, so it is possible to keep using “old” ones, though it is necessary to be careful when taxa have been more recently split. Valid name changes are straightforward, but some can be a matter of opinion. Many recorders use Common Names, and it is therefore helpful to have an equivalence list that includes these, something provided by MapMate.

It was generally felt that VCRs in countries with a Country Officer feel better supported. In Ireland, the presence of a Country Officer, and the use of social media started by Maria Long, has had a noticeable effect regarding recruitment of VCRs. Paul Green reported that about a quarter of Irish VCRs are under 30. It was pointed out that BSBI has recruited a new Countries Support Manager which should help. New VCRs in particular need more support, including face-to-face support to help assess their needs. This is patchy at present especially if they are relatively new to recording. This is or will be an important role for the Country Officers and the database team once established. The idea of recording apprentices was also suggested as a way of giving people a feel for the VCR role before committing themselves. There were thoughts that in some vice-counties changing from the model of a single VCR to a loose group with several members of a team having different skills might make the role of VCR more manageable. There are varying models of engagement between VCRs, Local Environmental Record Centres and local councils and it may be necessary to have something bespoke in each county.

The existence of local recording groups is considered very important for recruiting and supporting members and other botanists, who can then support the VCR. Again though, the existence and activity of such groups is patchy. BSBI should consider what help it can give such groups including any support for meetings. Provided a local meeting is under the clear control of the BSBI it is covered by the BSBI third party insurance. Such local groups are a good way of letting people who are not currently BSBI members know about our field meetings. However, some local groups want to remain separate from the BSBI.

National field meetings in Wales have become less frequent, partly due to Covid. Perhaps we should push the value of field meetings as part of continuing professional development for ecological consultants. This could increase demand for field meetings and perhaps boost membership too. We could set differential registration rates for residential meetings, for example having a student/VCR rate, a member rate and a non-member rate.

County pages are a great way to publicise the existence of these groups, but only if people look at the website! Ireland and Scotland seem better off as they have external funding for the Country Officer posts. There is the possibility of including local group meetings in the overall BSBI meetings diary, but this will require additional technical work to make it possible.

There was much support for and relief that BSBI has taken on the running of Identiplant and FISCs. In particular many young people are doing Identiplant and this is a group that we need to recruit. It was noted that BSBI does need to

provide training for the more expert botanists too, as well as support those involved in botanical training. Note that there may be a “Training the Trainers” meeting in autumn 2024.

The appetite for botanical training is growing amongst young people. It was reported that there were 22 teams participating in Botanical University Challenge this year. This could be extended to include college garden teams as well as students. One idea was that we might engage with the RHS to offer training to reach horticultural students to develop interest in wild plants.

BSBI has carried out a Science Review (both of science and staffing), and there will be no major projects until after that is published. VCRs, referees and members have had a chance to feed into this.

Following the discussion, participants again headed to the bar for a convivial evening. Sunday was another half-day event, and our first session was led by Paul Green, the BSBI Irish Officer, who had kindly come across to give us a briefing on *Atriplex* (Oraches). Paul had run workshops in Ireland in 2017 and 2018 and had become enthusiastic about what others referred to as “ugly plants that don’t flower”. He was now the referee and was about to convince us otherwise on both counts. 18 species, aggregates or hybrids are known from Wales, with *Atriplex prostrata* (Spear-leaved Orache) and *Atriplex patula* (Common Orache) being by far the most common. Of the coastal species *Atriplex portulacoides* (Sea-purslane) is common, whilst some of the hybrids are probably under-recorded. See image 4 on page 19 of *Atriplex longipes*.

After a coffee break, we moved on to look at *Euphrasia*, where Chris Metherell had brought a selection of herbarium sheets which were laid out on tables in another classroom. In diploid species the long glandular hairs are obvious, whereas tetraploid species do not have them. The most stable character is height (node) of flowering. By contrast corolla length can be very variable. Chris is in the process of writing a monograph on the genus, which will be informed by genetic analyses. This will reduce *Euphrasia* to around eight species, with groups of well-defined entities within each species.

Changing topic, Steve Woodward then took us on a tour of Grace Dieu, a Leicestershire hotspot, with over 600 plant species. It is the site of an old priory on the west edge of Charnwood Forest, which was perhaps historically a small

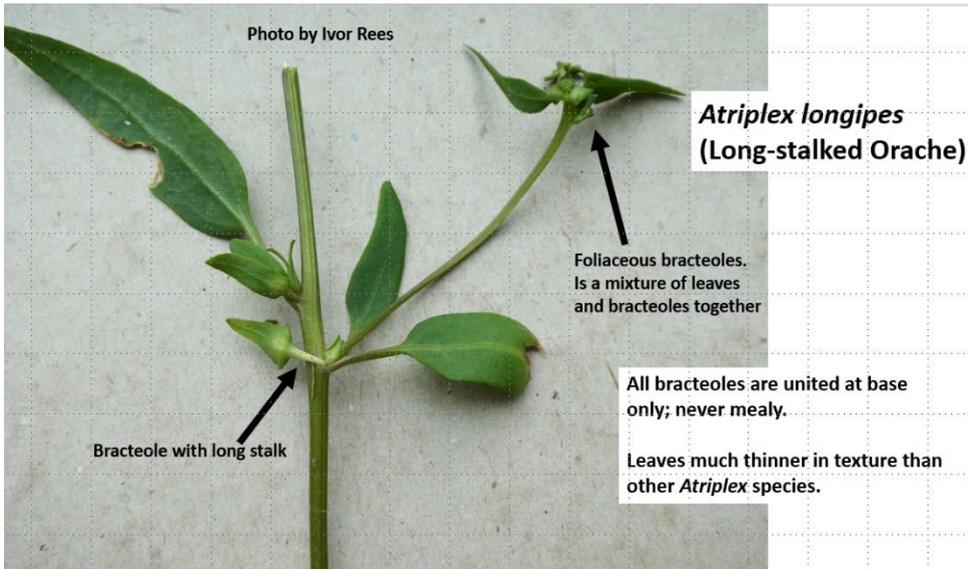


Image 4: *Atriplex longipes* (Long-stalked Orache) (Ivor Rees)

version of the New Forest, most of which is privately owned. The county has no well-known botanical sites, although records for *Rosa x irregularis* (*Rosa arvensis* x *canina*), formerly *R. x verticillacantha*, are concentrated around Leicester due to recorder effort, as A.L. Primavesi, one-time *Rosa* referee, had lived there.

Our final spot of the weekend was given over to Ken Adams who took us through the grass families, with tips on how to separate them. Ken had started recognising plants early in his career, having started tractor driving on a farm at age five and got to know his cornfield weeds using the little '*A Flower Book for the Pocket*' by Maccgregor Skene, 1935. When Stanley Jermyn died, Ken was left with the task of producing the Flora of Essex in 1974. His Essex recorders are now working through the county, recording every monad.

He had found that making side by side species diagrams were often a great help to him in learning identification. He first took us through how he learnt the parts of grasses, followed by understanding how grass plants grow, before moving on to particular characteristics, particularly spikelets and ligules. Some grasses have spikelet/ligule combinations that are unique, making identification straightforward. He produced beginners' keys, then keys to genera and keys to particular frequently mis-recorded species. He also produced diagrams to help distinguish between reeds and non-grasses such as *Acorus*, *Iris*, *Sparganium* and

Typha. You can find many of his keys at Ken's Keys (available at: www.kenadams.org.uk/esb/ken%27s%20Keys.htm)

After the talk, those not rushing back home ate a leisurely packed lunch on the veranda of the Darwin classroom in the afternoon sunshine. We ran a second Recorders' Meeting in early October 2023, which will be reported in a future issue of the Welsh Bulletin, and another is planned for April 2024.

Marsh Orchid density maps for Glanymor, Pembrokeshire

Stephen Evans, VCR for Pembrokeshire, v.c.45

At Glanymor Farm in Pembrokeshire, we recorded 2507 flowering spikes in 2023 down from 4330 in 2021. A drought effect was seen in 2023 as many plants were smaller, and increased shading from woody growth is definitely having a negative impact around some field edges. The species are predominantly *Dactylorhiza purpurella* plus one hybrid with *D. maculata* and some that seem to merge into *D. praetermissa* (at one time I thought they might have been mainly *D. incarnata* ssp. *pulchella*). It is also interesting that the flowers are a deeper purple in 2023.

I have been able to follow colonisation patterns and persistence of some clumps and recruitment of extra blinds alongside flowering plants. It is certainly possible to learn a lot from having them on the doorstep!

The density maps will be posted in higher definition on the BSBI Pembrokeshire webpage.

Figure 5: Time series: Marsh Orchid density maps for Glanymor, Pembrokeshire produced in Biorecs by Stephen Coker

Please see pages 21 to 22 for the time series covering 2018 to 2023 using the key below.

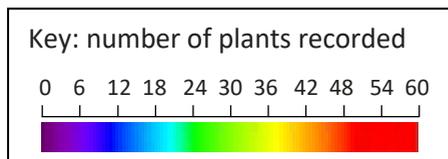


Figure 5 (see key on page 20):

2018: Marsh Orchid density map, Glanymor, Pembrokeshire



2021: Marsh Orchid density map, Glanymor, Pembrokeshire



Figure 5 continued (see key on page 20):

2022: Marsh Orchid density map, Glanymor, Pembrokeshire



2023: Marsh Orchid density map, Glanymor, Pembrokeshire

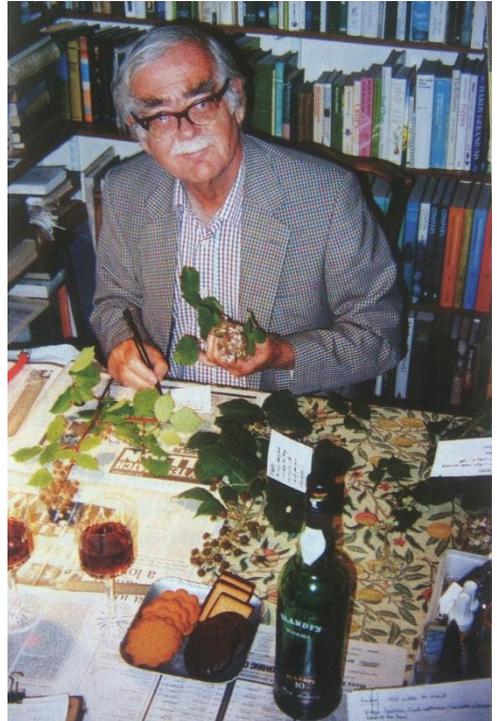


David Allen in Cardiganshire

Arthur Chater

One of the greatest pleasures when I was working on my Flora of Cardiganshire was the visit every year from 1994 to 2003, each of nearly a week, by David Allen to record and identify the *Rubus* species. He was a well-known expert, with a special interest in regional *Rubus* floras, and identified a total of 78 named species in the county. In the process we added some 39 species to the existing total and made collections of all the rare or undescribed species. To the 39 or so undescribed ones we gave provisional informal nicknames, such as *Rubus* “Rheidol white” (with white petals, growing in the Rheidol valley) or *R.* “Roman pink” (with pink petals, growing along Sarn Helen, the Roman road). We covered 259 tetrads, more than half the vice-county’s total.

David always had a well-organised day. After breakfast he had to complete The Times crossword, usually a 20-minute job – fortunately I had the paper delivered early. After our picnic lunch he would have a 20-minute sleep, usually sitting in the car, while I went for a short walk. One very hot day at Mynachty he slept instead on the road verge behind the car. When I came back, I found a shooting party gathered round him, trying to see if he was alive. He woke up in some alarm. After an afternoon’s collecting, he would like a cream tea. These were not easy to get in the county, and his favourite ones were at the New Quay Honey Farm, at a café in Lampeter, and at Cwrcoed Farm near Coedmore in the extreme south-west of the county. We often made substantial detours to such places, and the last-mentioned was perhaps influential in having made the close-by Coed Newydd plantation the



David Allen in July 1999, getting down to work © Arthur Chater

second richest bramble site in the county.

At each site we would walk along the hedges or around wooded or scrubby areas, David reciting all the species and I making the relevant notes. From any rare, unknown or uncertain species he would clip off an inflorescence and a stem piece and drop them into a double-thickness plastic bag, unlabelled. Back home he would never start work until after supper and the wine had been finished, and then, armed with a glass of Madeira, he would extract the specimens one by one. Amazingly to me, he would know which stem belonged to which inflorescence, and where each came from: "Ah, this is the one from where the horse was by the gate", "This is the one I thought might be *largificus* from by the signpost at the crossroads", and so on. He would usually dictate descriptions for the unidentifiable ones.

In the field he was extremely concentrated, and I had to keep a close eye on him as he sometimes wandered into gardens or other private places if there were brambles there. Once, at a farm near Henfynyw, he strode determinedly across the yard and the farmer came out and asked what we were doing. I explained, and to our astonishment he said: "Well, if you want to see a lot of different-looking brambles, then go on to the hedges round the next field", and he was right. He also told us that he had named his daughter Bramble, because Henfynyw was, according to Giraldus Cambrensis, Hen Meneu in old Welsh, i.e. Vetus Rubus where St. David was brought up (see Chater 2010, *Flora of Cardiganshire*, p.338-339, Thomas & Howlett 2003). If David saw *Rubus hastiformis* he would signal it to me by pretending to throw a spear, and he was remarkably forgiving and tolerant when I did not remember a species we had seen the previous day.

He was very interested in to what extent the number of bramble species in a hedge might indicate its age, and without my telling him he identified parts of the old road from Aberystwyth to Cardigan correctly. Whether this is really of more general application I do not know, but it is of course akin to the hedge-dating techniques.

David died at the age of 91 on 14 July 2023 and I remember his visits with vivid gratitude. Happy the county Flora-writer who has such a person to visit and help.

Up the Garden Path?

David Elias

Four years ago, I moved to Machynlleth in Montgomeryshire, v.c.47; I had never lived in a town before. Shortly after moving, Covid and attendant lockdowns arrived which meant, like many others, I turned to whatever was close at hand. As Machynlleth is slap in the middle of tetrad SH70K I set about gathering plant records within easy walking distance – including from my garden. Due to my previously rural life, I had somehow missed that (generally speaking) garden records are not acceptable to the BSBI, so some of these records were politely rejected by my VCRs. However, they have been very patient with the strange denizens of pavement cracks I regularly send in.

I am beginning to think that gardens are a missed opportunity. As much of our countryside has become so impoverished over the last 50 years most of the farmed and afforested land out there (90% of Wales) is, yard for yard, less diverse in wild plants than my garden.

Perhaps reservations against recording in gardens comes partly from the need to prioritise our native flora in its cherished plant communities and habitats. After a career in nature conservation, I say amen to that. However, our precious ‘semi-natural’ pastures, hay meadows, woodlands and moorlands have what could be described as ‘accidental’ floras that arose as a by-product of human activity over centuries. Extending from that I have come to see wild growing plants as culturally valuable and interesting in their own right, wherever they are. In the 21st century with so much countryside degradation and increased urbanisation, might it not be more ‘ecologically complete’ to fully embrace the rich and rumpled flora (and fauna) of human-created and disturbed habitats: the graveyards, allotments, urban parks, construction sites, arable fields, market gardens, and even our own backyards?

Of course, I appreciate the difficulties of distinguishing plants that have been deliberately planted (or derived from such) from those that spring up unbidden, but with some common-sense guidelines perhaps that could be overcome. Sometimes I am at a loss to see any real distinction between recording in gardens and the more generally accepted allotments, graveyards, and arable fields.

Our colleagues in ornithology and entomology recognise the wildlife value of gardens, there are even bespoke garden recording schemes for birds, moths,

butterflies, and hoverflies. Plantlife now has the very popular No Mow May and encourages people to record the species of plants in their lawns and, judging by the pages of BSBI News, neophytes are of great interest to some. Gardens clearly engage a lot of enthusiasts and can be seen as a wildlife asset – even if the boundaries are a little trickier for botanists.

In my own suburban garden (a modest quarter-acre plot) I have some relict native species from when this hillside was a heathy pasture 35 years ago i.e. *Calluna vulgaris*, *Erica cinerea*, *Ulex europaeus*, *Gallium saxatile*, *Hypericum humifusum*. There are also small populations of *Carex muricata* subsp. *pairai* and *Circaea lutetiana*. None of these are plentiful in the tetrad. One or two less common native species such as *Reseda luteola* and *Silene latifolia*, and *Aethusa cynapium* have appeared, perhaps from soil imported during garden work. Similarly, archeophytes/neophytes such as *Chaenorhinum minus*, *Viola arvensis*, *Veronica agrestis* and *Melilotus officinalis* have also occurred in the last four years. Gardens may be refuges for such species, that were previously common in disturbed conditions associated with farming. It would seem a shame not to include plants such as these because they are in a garden.

Might not the ‘margin of error’ between recording those planted (or derived from) versus naturally arising be very small in the bigger picture? At present the inclusion of garden records by VCRs in Wales seems to be uneven and inconsistent, ranging from (my favourite) a recent county first ‘in a plant pot with a dead conifer’ to not accepting garden records at all.

There is obviously some interest in garden recording amongst the BSBI and its members as shown by the one-off Garden Wildflower Hunt that ran during lockdown, which included 40 participants from Wales. Perhaps the time has come to grasp the nettle (sorry) of what is wild or not and value wild plants wherever they grow, including in our gardens. Could we start by recording natives and archaeophytes and aim for more consistency amongst the VCRs in Wales?

Editor's response:

I for one, and, I'm sure, many others have always recorded weeds as well as any species obviously not planted or sown in gardens, even if only first generation seedlings following a previous year's sowings. After all, if users of the data wish to disregard these records, they are quite at liberty to do so but if the records were not made in the first place, we would never know if such species had occurred at all. Applying a similar principle, it begs the question as to the justification for recording native woodland trees knowing them to have been

planted during parkland landscaping or enlightened gentry forest plantings carried out centuries ago. My philosophy is to record as much information as you can when 'on-site' - you never know if it might be required or be useful at a later date: if the data is never collected, it can never be retrieved! - RDP

Wales Seed Banking Summary 2023

*Kevin McGinn, Curator for Seed Bank and Herbarium,
National Botanic Garden of Wales (NBGW)*

In 2023, NBGW has been a partner on two of the Millennium Seed Bank's projects: the UK Threatened Flora Project and the UK Tree Seed Project. We reached a total of 26 successful collections from across Wales, in addition to doing the groundwork for a range of potential future collections – a big thank you to all who assisted, especially VCRs!

Four of these collections were from orchids. These can be amongst the trickiest collections to make as orchid spikes tend to blend into the surrounding vegetation once their eye-catching flowers fade. Local contacts are invaluable to aid relocation and to monitor ripeness, and offers of assistance were thankfully received. At Vicarage Meadows, v.c.42, two Wildlife Trust volunteers kindly marked *Pseudorchis albida* spikes during flowering and accompanied for the fieldwork; and at Minera Quarry v.c.50, local contacts monitored and joined fieldwork for *Dactylorhiza viridis*. The Glynhir recording group also observed fruiting spikes viable for collection at a localised population of *Neottia nidus-avis* at Carmel v.c.44.

The first trip of the season was to Kerry v.c.47 in May, with VCR Kate Thorne and members of the Montgomeryshire Flora Group to check on a recently discovered colony of *Cephalanthera longifolia*. Landowner permission is always needed before seed collections can take place, and the landowner was thrilled to have such a special species on his land and was keen to contribute to ex-situ conservation. The land had been allowed to naturally regenerate into broadleaf woodland since he purchased it as clear-felled conifer plantation in the '70s. Dedicatedly, he sent weekly photo updates. This highlighted how the capsules take a surprisingly long time to ripen up – four and a half months from flowering to the development of the first ripe capsules. As with all collections, the amount of seed sampled is capped at a maximum of 20% so not to compromise natural regeneration – just two capsules were sampled, but this is still a great collection for conservation, comprising thousands of seeds.

Also amongst most challenging collections of 2023 are two aquatics, *Hottonia palustris* from Cors Ddyga v.c.52 and *Groenlandia densa* from Dunraven v.c.41. Although *Hottonia palustris* is abundant at the collection site, fruiting spikes were hard to locate, and those we managed to collect needed some after ripening. The spikes had capsules of different maturities, so were kept in water for a couple of weeks to give younger capsules a chance to ripen up. For *Groenlandia densa*, the dry June meant the water level in the pond was very low by the time the seed had ripened in July. Much of the plant had died off and we had to resort to sieving silt samples to extract seeds – not the most pleasant job, but we got there in the end!

Three collections were made from *Salsola kali* – Llandudno v.c.50, Newborough v.c.52 and Baglan v.c.41. The aim of the UK Threatened Flora Project is to build seed collections from multiple populations of threatened species to capture and conserve genetic variation across the UK. Together with a 2022 collection from Pembrey v.c.44, *Salsola kali* now has good Wales-wide coverage in seed banked material.

The rest of 2023's threatened species collections included *Stellaria palustris* and *Oenanthe fistulosa* from Wern v.c.47; *Euphrasia rostkoviana* from Newgrove Meadows v.c.35; *Viola lactea* from Gower v.c.41 and South Stack v.c.52; *Ononis reclinata* from Port Eynon v.c.41; *Oenanthe fistulosa* from Ffrwd Fen v.c.44; *Vicia orobus* from Tafarn y Bwlch v.c.45 and Vicarage Meadows v.c.42; *Hypochaeris glabra* at Gwbert v.c.46 and Kenfig v.c.41; and *Hypochaeris maculata* and *Silene nutans* from Y Gogarth v.c.50.

As for trees, we made collections of *Juniperus communis* from Llandudno v.c.50, *Acer campestre* from Gower v.c.41, and *Populus tremula* and *Sambucus nigra* from Coedmor v.c.46. The UK Tree Seed Project is building genetically diverse seed collections from all native trees and shrubs for research and conservation, and the current project is targeting gaps in the collections at the Millennium Seed Bank. Collection sites need to be from unplanted populations, ideally within or close to semi-natural ancient woodland, so can be difficult to find.

Funded through a kind donation from the estate of Swansea-based botanist Quentin Kay, NBGW now has additional capacity for seed banking work through the creation of a new part-time two-year role, the Quentin Kay Research and Collections Assistant. Early career conservationist, Elyn Baker, started in the role in October. She has been busy processing this year's collections and will soon begin a germination testing programme for NBGW's seed bank.

Some botanical news from Monmouthshire, 2023

Stephanie J. Tyler and Elsa Wood, Joint VCRs for Monmouthshire, v.c.35

We have worked hard on the revision of our v.c.35 Rare Plant Register (see image 2 on page 2) and the illustrated pdf is available now on the BSBI website and also through SEWBReC and the Monmouthshire Botany Group. Now our attention is turning to a revision of Trevor Evans' excellent Flora of Monmouthshire and to further recording for this.

The 2023 field season has yielded a few excitements. Tim Rich found the alien bittercress *Cardamine occulta* (Cryptic Bittercress) in a plant pot at St. Mellons garden centre ST240819 on 4th August, a new record for the vice-county (see image 8 on page 30). Also, subsequently on gravel at the Usk Garden Centre ST3799.

Lowri Watkins found a flowering spike of *Orobanche rapum-genistae* (Greater Broomrape) at Gwent Wildlife Trust's Springdale Farm reserve ST4099, only the second post 2000 record for Monmouthshire (see images 6 & 7 below).



Image 6 & 7: *Orobanche rapum-genistae* (Greater Broomrape) © Lowri Watkins

Carex hostiana (Tawny Sedge) found by us in a boggy area on a hill farm on the Blorenge SO2710 was a new hectad record as was *Euphrasia micrantha* (Slender Eyebright) growing on a forest track on Mynydd Machen ST2190. Two plants of *Senecio sylvaticus* (Heath Groundsel) were found by us and Adrian Wood (AW) along a woodland ride on Mynydd Machen ST2190 in mid-July, a new post 2000 hectad record for this apparently scarce plant in the vice-county. A day in early September searching for *Wahlenbergia hederacea* (Ivy-leaved Bellflower) on the Cas Troggy Brook and in The Forest near Coed-y-paen (where Trevor Evans had records) was fruitless but a quick visit that day to Chain Bridge SO3405 added a number of good tetrad records including *Panicum capillare* (Witch Grass), and then driving back through Usk SO3700, EW spotted a finger-grass growing at the pavement edge so SJT stopped as soon as she could and EW went back for a specimen. It turned out to be *Digittaria ischmaemum* (Smooth Finger-grass), only the second post 2000 record for this species in the vice-county (the first we found in Abergavenny on an urban plants course organized by SEWBRc in



Image 8: *Cardamine occulta* (Cryptic Bittercress) from St. Mellons garden centre. ©Tim Rich. Article Monmouthshire news.

2022). *Setaria pumila* (Yellow Bristle-grass) in Monmouth SO5012 was also a new hectad record. *S. verticillata* (Rough Bristle-grass) and *S. pumila* occasionally turn up in maize crops and where bird seed is scattered, with records in nine and eleven tetrads respectively.

We found some large patches of *Mentha x villosonevata* (Sharp-toothed Mint) on the bank of the River Usk and on nearby shingle in the river at The Bryn SO3209 on 30th August, only the second vice-county record since 2000 of this triple hybrid between *M. spicata* (Spear Mint) and *M. x verticillata*, the latter a hybrid between *M. aquatica* (Water Mint) and *M. arvensis* (Corn Mint).

Other new hectad records were *Salix x holosericea* (Silky-leaved Osier), the hybrid between *Salix viminalis* (Osier) and *Salix cinerea* (Grey Willow), growing by the River Usk at Gobion SO3408 on 30th August, determined by EW, and *Salix purpurea* (Purple Willow) found by Brian Mahoney and SJT in Manor Wood at The North SO5206. Also, *Panicum milliaceum* (Millet) noted by EW and SJT in Rogiet allotments and *Diplotaxis muralis* (Annual Wall Rocket) locally frequent at the roadside of the A48 near Five Lanes ST4391 and at Rogiet allotments ST4687 on 18th October. *Erodium maritimum* (Sea Storksbill) has spread along this road between Chepstow and Newport where it can be locally abundant as, for example, where it was found by SJT and EW growing with *D. muralis* on 18th October at ST4391, new to the tetrad. A day in November checking many lay-bys along main roads for halophytes including the A49 dual carriageway between Newport and Raglan, was quite productive despite lorries roaring past too close for comfort. There were three new hectad records: *Sagina maritima* (Sea Pearlwort) was found in two locations and *Spergularia media* (Sea Spurrey) in SO40 and *Catapodium marinum* (Sea Fern-grass) in one lay-by in ST39, as well as more widespread halophytes such as *Plantago coronopus* (Buckshorn Plantain) and *Cochlearia danica* (Danish Scurvy-grass).

Numerous new tetrad records have been made in 2023 – too many to note here but they included Sam Bosanquet's *Euphrasia nemorosa* (Common Eyebright) at Talycoed SO4116 and his record of *Trichomanes speciosum* gametophyte (Killarney Fern) on Manor Brook SO5206 during the bioblitz there in June. *Carex vesicaria* (Bladder Sedge) was seen in profusion by SJT and EW in a drying-out pond at Y Graig Pond SO2516 on 26th July: the nearest other record in the Abergavenny area is at the Punchbowl Lake on The Bloreng. A turnip field at Mitchel Troy in SO4809 had thousands of plants of *Galinsoga quadriradiata* (Shaggy Soldier) as well as many of *Nicandra physalodes* (Apple-of Peru) in early October.



Image 9: *Epipactis leptochila* (Narrow-lipped Helleborine) © Anne Griffiths

All the *Gymnadenia* (fragrant-orchids) plants recorded to date in the county, such as at Henllys Bog SSSI ST2692, were, we believed, *Gymnadenia conopsea* (Chalk Fragrant-orchid). However, the species growing at Llanmartin SSSI ST3889 has recently been determined by Richard Bateman as *Gymnadenia densiflora* (Marsh Fragrant-orchid). Seven flowering spikes of *Epipactis leptochila* (Narrow-lipped Helleborine) were noted this year by Anne Griffiths and Ceri Goring at the site near the Wyndcliff ST5197 where the species was re-discovered in 2022, see image 9 above.

Anglesey (v.c. 52) Annual Botanical Review, 2023

Nigel Brown, Joint vice-county recorder for Anglesey

Weather-wise, 2023 will be remembered for being a year of two halves, the first being dry, the second very wet leading to a total of c.1125mm by the end of November which is above average for Anglesey. The year included two notably dry spells, the first of which, late January until early March produced a run of 45 days without appreciable rain! The second dry spell lasted from early May until mid-June and was accompanied by high temperatures, reaching 26.1°C on 14th June with a mean daily maximum that month of 21.2°C, a record for June. Remarkably, there was a spell of cloudless skies from 29th May until 9th June. By contrast it started to turn wet in mid-June and remained consistently wet thereafter with significant monthly totals e.g. July (155mm), August (112mm), September (175mm) and October (157mm). My thanks as ever to Charles Aron for the provision of local meteorological data.

Botanically it proved an interesting year and the records entered so far into Mapmate for 2023 include 17 new vice-county records and 47 new hectad records representing a significant increase on recent years (see table below). The complete list will appear in the 2023 Welsh Plant Records (BSBI Welsh Bulletin 114).

	2020	2021	2022	2023
New taxa for v.c. 52, Anglesey	9	7	7	17
New hectad records	51	30	32	47

Table showing new plant records for Anglesey between 2020 and 2023.

It is a sign of the times that of the new vice county records only one species might be regarded as native – *Allium oleraceum* (Field Garlic). In early August visiting botanist, Lucy Watts found a thriving colony of about fifty plants with flowers, fruits and bulbils at Newborough Forest SH3963 on the edge of an open forest track on sandy soils roughly 100m from the sea (see image 10 on page 34). *A. oleraceum* is a perennial bulbous plant concentrated in a fairly narrow band running from S. Devon, N. Somerset, Lower Severn Valley, north to Derbyshire, Nottinghamshire, Yorkshire and Cumberland (Stroh *et al.* 2019). It is rare in Scotland, Ireland and Wales. Here in North Wales, it is only known from a

single site in Flintshire. There are no historic records of the species on Anglesey, so Lucy's record is a significant extension of its range. At Newborough it probably benefits from the calcareous sandy substrate and recent thinning of pines which has created more open conditions. The big question is how long has it been present at Newborough and indeed on the island? It is fairly easily detectable and Newborough is well visited so it seems unlikely that it has been overlooked in either the recent past or historically. If it is of recent origin has it



Image 10: *Allium oleraceum* in Newborough Forest, Anglesey on 5th August 2023 at SH396.637. © Lucy Watts.

arrived naturally or has it been wittingly or unwittingly introduced? These questions are important given the national scarcity of *Allium oleraceum* in Britain (and indeed rarity in Wales). If it is genuinely native and somehow overlooked, then Lucy's find is very significant. If it is a recent natural coloniser then it has considerable ecological merit. If it is a recent introduction then it is of lesser interest though it will still be fascinating to see how it performs on the island. Whatever its status, Lucy's new find will be closely monitored from now on and it is a reminder to us all that new species can turn up anywhere, anytime, always posing interesting questions.

The remaining new vice-county records are non-native species and include three species of conifer (*Cunninghamia lanceolata*, *Thujopsis dolabrata*, *Cephalotaxus fortunei*), seven species of other trees and shrubs (*Pieris japonica*, *Rhododendron arboreum*, *Erica lusitanica*, *Deutzia scabra*, *Phlomis fruticosa*, *Pyrus salicifolia*, *Olearia traversii*), one woody climber (*Muehlenbeckia complexa*), one biennial flowering plant species (*Isatis tinctoria*), one bulbous flowering plant (*Crocus tommasinianus*), one grass (*Cortaderia richardii*) and one fern species (*Blechnum cordatum*). Finally, among the new vice-county records for Anglesey, Richard Birch's discovery of *Gypsophila repens* on the sea wall at Beaumaris (SH6075) is the first time this attractive alpine flowering plant from the mountains of central Europe has been recorded in the wild in Wales.

The new hectad records are also dominated by non-native species (at least 35) of which one is a conifer, ten are flowering trees and shrubs, seven are herbaceous perennials, seven are annuals, one aquatic, one bulbous species, four grasses, and four evergreen to semi-evergreen perennials.

Just eleven native species were recorded in new hectads this year of which the stand-out find was a very large population of *Ophioglossum vulgatum* (Adder-tongue Fern) found by Adrienne Stratford and Reg Thorpe at Wylfa Head, a fine area of maritime heath and grassland on the north coast of the island at SH3594. John Harold's discovery of a single spike of *Orobanche hederæ* (Ivy Broomrape) on a roadside at Lleiniog just east of Beaumaris was new for SH67.

For the Anglesey Flora Group (AFG) the year began with an informal get-together of eleven of us for coffee in the Anglesey Arms in Menai Bridge in February followed by a gentle field trip in the immediate area, finding a new plant of *Daphne laureola* (Spurge Laurel) by the Belgian Promenade but noting severe die-back in another specimen. *Muehlenbeckia complexa* (Wireplant), a New Zealand native and new for Anglesey, was noted scrambling vigorously over shrubs and the lower branches of trees within a few metres of the Anglesey Arms, an escape no doubt from the pub garden which was originally very well

stocked with plants. We continued making a useful early-season monad list for SH5572, one of several monads in the town of Menai Bridge (Porthaethwy) recording 111 species in a couple of hours. Menai Bridge is remarkably varied in its habitats and botanical mix boasting over 350 native and naturalised plant species.

A week later we were in the market town of Llangefni in the centre of the island again with coffee in mind and then some more gentle botanising. The weather was not so kind as the previous week for the nine of us who gathered on a chill, cheerless early March day but nevertheless we recorded 100 plant species in just an hour or so in one of the town's central monads including *Clematis vitalba* (Old Man's-beard), *Erophila verna* and *E. glabrescens* (Whitlow-grass), *Saxifraga tridactylites* (Rue-leaved Saxifrage), *Adoxa moschatellina* (Town Hall Clock), *Barbarea verna* (American Winter-cress), *Caltha palustris* (Marsh-marigold) and several species of pre-vernal woodland plants such as *Sanicula europaea* (Wood Sanicle) and *Anemone nemoralis* (Wood Anemone). All the fore-mentioned were in bloom.

A very fine day in early April saw 21 members of the AFG at Plas Newydd, a glorious estate along the central section of the Menai Strait now looked after by the National Trust (NT). Again, it all started over coffee and then a more rigorous exploration of the Strait-side woodlands which are a beautiful mix of native and introduced hard and soft wood trees growing over Pre-Cambrian rocks and glacial till of varied pH. 125 species were recorded in SH5270 including plentiful *Viola reichenbachiana* (Early Dog-violet) as well as a fine patch of *V. odorata* (Sweet Violet) beneath a large specimen Sycamore by the main house. We made a point of visiting Anglesey's largest colony of *Helleborus viridis* (Green Hellebore) which appears to be expanding and Martyn Stead pointed out *Deschampsia cespitosa* subsp. *parviflorum*, the diploid form of Tufted Hair-grass beneath mature Beech. This is the first county record for this subspecies which is regarded by many ecologists as an indicator of continuous canopy cover (McAllister, 1988). Several introduced species were evident in the woodland including *Trachystemon orientalis* (Abraham-Isaac-Jacob). This attractive ground cover plant originates from Bulgaria, the Caucasus and Turkey and has been cultivated in Britain since the 18th century. It was first noted in the wild in 1844 at Keswick in the Lake District (Stroh *et al*, 2023) since when it has spread slowly but surely and appears to be a long-lived herbaceous perennial in wild situations. In Wales it is still generally scarce though in some lowland parts of south-west Wales it is more frequently met with. Here on Anglesey, it is restricted to just two monads by the Menai Strait despite having been known on the island since 1967. Another woodland congener and introduction, this time

from South America, is a striking evergreen fern known as Greater Hard-fern (*Blechnum cordatum*). We found it, new to Anglesey, establishing strongly in damp shaded woodland over poorly drained glacial till by the side of a streamlet.

We stayed close to the Menai Strait for our next field trip later in April when twelve members of AFG met at Coed Mor, a former arboretum now managed by the NT, situated between the Menai Suspension Bridge and the Britannia Bridge. On a glorious spring day, as well as plentiful vernal plants, we enjoyed the sight and sound of recently arrived migrant birds using the Strait as a migratory highway – Common Sandpiper, Whimbrel, Sandwich Tern and Willow Warblers.

Coed Mor was given to the then University College of North Wales in 1960. The Forestry Department immediately started planting a range of conifers and broadleaved trees including one of the first plantation-sized blocks of various provenances of *Cupressus x leylandii* (Leyland Cypress). Single specimens of a wide range of trees were already established when AFG member, Pat Denne started work in the Forestry Department in 1968 and Coed Mor became a valuable teaching resource. But by the 1990s it was increasingly difficult for the University to manage due to the pressures of public access and declining resources. It was sold to the NT in 1998 since when there have been no additional plantings (Hetherington, J., 2004; Denne, M.P., personal communication). Yet many interesting plantings remain and some of the conifers are of particular note. These include less familiar species from eastern Asia such as *Cunninghamia lanceolata* (Chinese Fir), *Thujaopsis dolabrata* (Hiba) and *Cephalotaxus fortunei* (Chinese Plum Yew), all formally recorded for the first time for the Anglesey Database during our visit. In total we recorded 190 species in SH5471 including *Sedum dasyphyllum* (Thick-leaved Stonecrop) growing on a roadside wall in good quantity. This population, first found in 2021 by Hugh Knott is still the only known site on Anglesey for this attractive neophyte from the Mediterranean which shows a patchy distribution in southern and western Britain with little sign of recent expansion (Stroh *et al*, 2023). It will be interesting to see how *S. dasyphyllum* fares on Anglesey in the future.

May saw the AFG in action three times. Firstly, we visited Wylfa Head along the northern-most section of the island's coast where eleven of us were welcomed by Steve Roberts, Environmental Manager at Horizon Nuclear Power which oversees the management of this fine Pre-Cambrian promontory. Our walk took us through pasture clouded with blooms of *Ranunculus bulbosus* (Bulbous Buttercup), always a happy sight. Then on to short pastures under an increasingly maritime influence where *Scilla verna* (Spring Squill) dominated broad swathes of thin-soiled grassland and heath, framing the whole peninsula

in a border of Cambridge blue, interspersed with the delicate yellow flowers of *Genista anglica* (Petty Whin). Where a gentle dip in the headland offered shelter and deeper soils, Steve showed us the recently discovered colony of *Ophioglossum vulgatum* (Adder's-tongue Fern) numbering c.10,000 fronds! Changes in land management at Wylfa Head appear to be working well for plant and bird diversity and involve year-round grazing, restricted to a handful of cattle in the summer months. This helps create the short swards favoured by many maritime plants as well as foraging Chough.

A glorious afternoon in mid-May saw fifteen of us botanising at Bwrdd Arthur, a fine, natural, elevated limestone plateau overlooking Red Wharf Bay and Penmon in the south-east of the island. Dave Thorpe and Ifan Hywel from Natural Resources Wales (NRW) were on hand to explain recent changes in management of this botanically important SSSI. Winter clearance of encroaching scrub had resuscitated the limestone heath and grassland communities as demonstrated by the resurgence of *Scilla verna*, *Poterium sanguisorba* subsp. *sanguisorba* (Salad Burnet) and *Orchis mascula* (Early Purple-orchid) in good quantity. A particularly welcome find was *Botrychium lunaria* (Moonwort) not seen at Bwrdd Arthur since 1961: John Bratton's keen eye located a single frond in an area of rough calcareous grassland previously covered in bramble and gorse. On the south facing limestone crags we compared *Helianthemum nummularium* (Common Rock-rose) and *H. oelandicum* subsp. *incanum* (Hoary Rock-rose), the latter rarity at its only remaining Anglesey site. *H. oelandicum* has been known on the island since 1788 when Thomas Pennant wrote, '*The Rev. Hugh Davies pointed this out to me on the W side of Bwrdd Arthur*' and this is re-affirmed by Davies in his *Welsh Botany* (1813). Later that century, Griffith noted it at nearby Mariandyrys as well as Bwrdd Arthur but sadly it has disappeared from the limestone plateau and crags of Mariandyrys. While over 600 plants were recorded in flower in 1991 its numbers at Bwrdd Arthur have been dwindling in recent years due largely to scrub encroachment resulting from lack of grazing. The decisive action undertaken recently to cut and remove scrub using a powerful Ryetec flail collector will hopefully improve the rock-rose's fortunes. The intention is to follow the machine work with re-instatement of a prescribed grazing regime to maintain open areas of crag and limestone grassland.

Other plants which we found about the crags in small quantities which should all benefit from such pro-active management include *Trifolium striatum* (Knotted Clover), *Inula conyzae* (Ploughman's Spikenard) and *Arabis hirsuta* (Hairy Rock-cross). The last mentioned was first recorded on Anglesey by Hugh Davies in 1813 as growing around Penmon Church and elsewhere in the vicinity, then by

Griffith in 1895 who found it at Bwrdd Arthur as well as Penmon and Porthamel. R.H. Roberts (1982 and 2002) cites a wider range of localities on limestone in the south and east of the island covering 11 tetrads. In recent years however, *A. hirsuta* has only been seen in four monads and displays one of the most marked declines of any native species on Anglesey. The only population of any size is the one on Bwrdd Arthur.

Also benefiting from scrub clearance at Bwrdd Arthur is the Brown Argus, a limestone grassland butterfly, several of which were observed on our visit along with Dingy Skipper, Wall Brown and Small Heath.

At the end of May, seven of us enjoyed yet more fine weather, this time at the Range, South Stack (SH2180) where areas of cut-over maritime-heath supported at least 250 plants of *Viola lactea* (Pale Dog-violet), living proof of the benefits of pro-active heathland management by the RSPB. Closer to the sea we estimated 750 *Tephrosieris integrifolia* subsp. *maritima* (South Stack Fleawort) in a small area of short, cliff top turf. It appears to have had a good year and many flower-heads bore fruitful capitula. A damp depression threading its way down towards the cliff edge held one mature plant of *Osmunda regalis* (Royal Fern) with several fertile fronds and seven immature plants which was very encouraging.

The fine weather continued into June leading to desiccated habitats right across the island. Nowhere was this more evident than on the limestone plateau at the North Wales Wildlife Trust's (NWWT) Mariandyrys reserve in the south-east of the island (SH6081). Here, seventeen of us met on the evening of 7th June and were joined by Matt Cole and Luke Jones, the local NWWT wardens, who explained the management of the reserve and helped find plants of particular interest including *Filipendula vulgaris* (Dropwort) at its last remaining island site. Work is a-foot to clear invasive scrub to re-instate more open calcareous grassland for this species and many other calcicoles. Two years ago, Tim Blackstock re-discovered *F. vulgaris* at Mariandyrys after an absence of about 10-15 years and it seems to be slowly responding to scrub clearance. During our visit we saw two small populations and happily discovered a third, new colony which boasted five inflorescences. In the glorious evening light, we took the chance to admire one of the finest views on Anglesey, taking in the cluster of small ripening fields below, the magnificent Menai Strait and the mountains of Snowdonia beyond, to the east, the rosy-white headland of the Great Orme where Dropwort thrives in short limestone turf in a situation similar to Mariandyrys. Hopefully, one day Dropwort will flourish once more at Mariandyrys and other calcareous sites in this part of the island. Perhaps even *Helianthemum oelandicum* will re-assert itself and flower alongside Dropwort as

it does on the Orme, 125 years after Griffith reported both species at Mariandryys.

In the sheltered, shaded lane-side skirting the lower reaches of the Reserve we admired a fine population of mature *Daphne laureola* (Spurge Laurel) and were proudly shown a colony of *Ophrys apifera* (Bee Orchid) resplendent in the front 'wild garden' of the former village smithy. The spring-damp village green held a pretty assortment of fresh-flowered *Pinguicula vulgaris* (Butterwort), *Dactylorhiza purpurella* (Northern Marsh-orchid), *Anagallis tenella* (Bog Pimpernel), *Briza media* (Common Quaking-grass) and *Silene flos-cuculi* (Ragged Robin). Tim pointed out a fine, planted specimen of *Tilia cordata* (Small-leaved Lime) overlooking the Green – one of only two known individual trees on Anglesey.

This evening visit having proved popular we did the same again later in June, enjoying the final hours of the summer solstice on a glorious evening at Aberffraw dunes (SH3568) on Anglesey's south-west coast. Eleven of us cherry-picked our way through a mosaic of dune slacks admiring superb displays of *Dactylorhiza purpurella*, two colour forms of *D. incarnata* (Early Marsh -orchid) and countless *Epipactis palustris* (Marsh Helleborine). Drier ground held many *Anacamptis pyramidalis* (Pyramidal Orchid) along with thousands of centauries – *Centaureum erythraea*, *C. littorale* and their hybrid, *C. x intermedium*. *Selaginella selaginoides* (Lesser Clubmoss) was notably frequent and it is clear that *Pyrola rotundifolia* subsp. *maritima* (Round-leaved Wintergreen) is now firmly established at Aberffraw having been first noted here in 1978. The very first records of this wintergreen for Anglesey are from Newborough Warren in 1955 from where it is presumed to have spread to Aberffraw and a number of other coastal sites in south-west Anglesey (Roberts, 1982).

At the end of June, the AFG returned to Wylfa Head. Gone was the pre-solstice heat and sunshine and in its place came low cloud and rain and temperatures struggling to reach 17°C. This half day excursion attended by nine of us was cut short by an impending downpour but was memorable for several botanical finds including a striking show of *Parentucellia viscosa* (Yellow Bartsia), a scarce plant on Anglesey, first recorded by Richard Birch in 2004 on the new A55 road embankment near Caergeiliog and still only known from five monads on the island. The Wylfa Head population has been known since 2011 and fluctuates significantly from year to year which may in part be explained by its annual, hemi-parasitic nature. This year it was clearly doing very well with over 1000 flower heads noted in an area of dampish rough, open grassland. Growing with it was another island scarcity, *Linum bienne* (Pale Flax) - fifty or so flowering

stems were evident. Both of these species are local in Wales, where they have a mainly near-coastal distribution. They are both native, but their natural distribution is somewhat blurred by establishment from introduced seed mixes. Further afield, they share a Mediterranean-Atlantic distribution in Europe (Stroh, *et al*, 2023). *L. bienne* was known from Anglesey in the early 19th century but appears to have always been scarce. In total, it is recorded from thirteen monads but only four of these are post 2000 records. It is likely that both species require disturbance and possibly a neutral to base-rich, free-draining substrate. Close proximity to the sea may be important both for winter warmth and provision of airborne nutrients.

Another memorable sight on this excursion came in the form of a dense, floriferous mix of *Dactylorhiza maculata* subsp. *ericetorum* (Heath Spotted-orchid) and *Pimpinella saxifraga* (Burnet-saxifrage) in an open cliff-top location where a slight depression has accumulated a greater depth of glacial till.

We raced back to the car park at this point as storm clouds loomed over the sea, quickly changed into our wellies and headed out swiftly on to the adjacent SSSI fen known as Tre'r Gof. We passed superb flowering specimens of *Dactylorhiza purpurella* and its hybrids with both *D. fuchsii* (Common Spotted-orchid) and *D. maculata* subsp. *ericetorum*. Here and there were rich flowering colonies of *Narthecium ossifragum* (Bog Asphodel) and a striking double-flowered form of *Silene flos-cuculi* (see image 11, page 42). Our main mission, however, was to see *Thelypteris palustris* (Marsh Fern). Striking out into a more open section of the fen we soon came across the leading edge of an impressive colony of this nationally scarce species. This circumpolar-temperate fern displays a disjunct distribution at both national and international levels (Lockton, 2023; Page, 1997). In the UK, it is concentrated in the Norfolk Broads, New Forest and Somerset Levels, being generally scarcer in the west, including Wales, where its stronghold is Anglesey. Here on the island, it is very locally restricted to peaty wetlands at seven sites covering eleven monads including Tre'r Gof, Llyn Llwydiarth, Cors Goch and the Valley lakes. Interestingly, it can be found as a colonist at early seral stages of a hydrosere as well as persisting in shade within alder and willow carr as seen at Llyn Llwydiarth. As with Wylfa Head, Tre'r Gof is managed for wildlife by Horizon Nuclear Power and Steve Roberts was on hand once again to explain recent work. Willow scrub is controlled by cutting and uprooting along with grazing with cattle. Regular cutting of sections of the herbaceous fen using a flailbot remote-controlled tracked mower helps limit the dominance of *Cladium mariscus* (Great Fen-sedge). These operations all benefit the Marsh Fern. Additional management at Tre'r Gof includes the creation of

shallow pools (scrapes) to encourage smaller colonisers and regular cutting of tracks through the fen sedge to facilitate cattle access.

The AFG met twice in August. On the 19th, six of us visited the attractive and interesting wet and dry heaths at Penrhoslligwy (SH4886 and 4885) just north-west of Moelfre. Our main aim was to see *Gentiana pneumonanthe* (Marsh Gentian), a species which, within Wales, is confined to Anglesey. Its other



Image 11: Double flowered *Silene flos-cuculi* (Ragged Robin) at Tre-r Gof, Anglesey on 28 June 2023. © Richard Glynn Jones ARPS AIPF

strongholds are the New Forest and Dorset heaths. It grows on acid soils, generally pH 4.2-4.6 with a relatively high water-table (Simmonds, 1946). Hugh Davies recorded this species on damp heaths throughout the Lligwy Valley at the beginning of the 19th century where, despite losses to forestry, farming and caravan sites, it can still be found on a few SSSIs in the valley. One such site is known as Boston Sulphur Well or Ffynnon Coch, a chalybeate spring which is still marked by a castellated Grade 2 listed tower erected by Lord Boston in the mid-19th century. This was the focus of our visit, and it was not long before we came across our first fine gentians projecting, spear-like, through a mosaic of three species of heath (*Erica cinerea*, *E. tetralix* and *Calluna vulgaris*) and *Ulex gallii* (Western Gorse) - see images 12 & 13 below.



Image 12 & 13:

Gentiana pneumonanthe
(Marsh Gentian) at
Ffynnon Coch, Anglesey in
August 2023.

© Richard Glynne Jones
ARPS AIPF.



More was to come as we crossed the Afon Lligwy by way of an old limestone clapper bridge and struck out on to another section of heath owned by Jean Mathews and Simon Hunt who kindly joined our group at this point and explained how they manage the site for gentians and other wildlife. And what success they have! - we saw hundreds of Marsh Gentians especially in areas where the heath was thinner. Simon pointed out some non-flowering shoots and even seedlings in the more open areas. Seed is the main means of propagation for this perennial with plants living up to twenty years. Each seed capsule can produce up to 1000 seeds which may remain dormant in the soil for up to five years. Each winter the plant dies back to ground level and remains unperturbed by grazing animals which can be used to create a mosaic of varied thickness of heath (Simmonds, 1946). The cutting of firebreaks also has the same effect. It was good to see how well the gentians had responded to Jean and Simon's pro-active management. A week earlier staff from NRW had counted 1500 gentians in flower on their land, while, in 2019, a survey of both flowering and non-flowering shoots had revealed over 4000. Other species to benefit included *Osmunda regalis* (Royal Fern), *Schoenus nigricans* (Black Bog-rush) and *Myrica gale* (Bog Myrtle).

We thanked Jean and Simon and congratulated them on their commitment and success with gentians before heading south to take a brief look at similar damp heathland at Cae Brych, courtesy of the owner, Mrs Jerdine. Though we failed to find the two Marsh Gentian flowering spikes which the NRW survey the week before had located here, we did find *Oenanthe lachenalii* (Parsley Water-dropwort), abundant lawns of *Anagallis tenella* (Bog-pimpernel) and clusters of *Pinguicula vulgaris*. The site is quite extensive and, with the owner's permission, would surely repay another visit. NRW have implemented suitable grazing management and the future of this attractive mosaic of wet and dry heath looks promising.

The following evening eight members of AFG visited Beaumaris Allotments (SH6076) courtesy of Andrew Dixon and Mike Willis and the other allotment holders who welcomed us to look around their plots. The allotments lie within a slingshot of Edward 1's early 14th century castle. They proved a treasure-trove of likeable weeds (as well as superb home-grown produce!) Highlights included *Polypogon viridis* (Water Bent), *Lipandra polysperma* (Many-seed Goosefoot), *Aethusa cynapium* subsp. *cynapium* (Fool's Parsley), *Euphorbia lathyris* (Caper Spurge), *Thlaspi arvense* (Field Penny-cress) and *Viola arvensis* (Heart's-ease Pansy). It was interesting to see a range of natural dye plants being cultivated in Mike's plot including *Isatis tinctoria* (Woad) which he explained now appears spontaneously in all areas under cultivation there, and *Genista tinctoria* (Dyer's-

greenweed) which had made a sizeable bush and was still in flower. This species is native to the British Isles but now likely extinct on Anglesey, the last record being in 1982 from Porth Diana on Holy Island (SH2578). Mike is also growing the handsome *Salix triandra* (Almond Willow) said to be one of the best willows for basket making. The foliage has a lovely fragrance.

In total the 'weed list' from our brief visit included one new vice-county record (Woad), ten new hectad records and 27 new monad records!

Earlier that evening we had botanised the nearby Green and, pleasingly, found *Trifolium ornithopodioides* (Bird's-foot Clover/Fenugreek), the first record of this diminutive legume from this site since 1989. It is known from 33 monads on the island, mainly along the west coast and has a preference for disturbed open sites which remain damp in the winter, but which become parched in the summer. Hugh Davies knew this plant from the Green in 1813. Amazing to think how it has survived the comings and goings of man and the sea in that time.

Despite good intentions that proved to be the final AFG field trip of the year.

Of the twelve formal field trips the vast majority enjoyed superb weather with only two being rain-affected and neither severely so. Average attendance was eleven with a maximum of 21 and a minimum of six. A total of 45 members of the AFG attended at least one field trip. It seemed appropriate to finish where we started the year, twelve of us enjoying coffee and company at the Anglesey Arms Hotel in Menai Bridge in late November.



Image 14: *Gentianella campestris* from the Anglesey survey this year. From Tywyn Trewan near RAF Valley, Rhosneigr (SH3275) on 1 August 2023. © Trevor Dines

Of course, members of the AFG botanised throughout the year and made significant contributions to the Anglesey Data Base. Several members adopted local monads and scrutinised these areas very effectively e.g. Jane Stevens (Llangristiolus), Hugh Knott (Menai Bridge), Jim Clarke and Mandy Ford (Valley).

Trevor Dines assessed the numbers and distribution of *Gentianella campestris* (Field Gentian) (see image 14, on page 45) at five sites on the island this summer and sadly found a significant decline since the last comprehensive survey in 2019/20 at all sites except one, despite the habitat appearing to be in good condition at most of the localities (see table below).

Site	Field Gentian Counts	
	2019/2020	2023
Newborough Warren	250	9
Aberffraw	965	35
Tywyn Fferam, nr Llanfaelog	12	0
Tywyn Llyn, nr L.Maelog	12	0
Tywyn Trewan, nr RAF Valley	102	350

Table showing Field Gentian counts at sites on Anglesey 2019/20 and 2023.

Trevor's results mirror less strategic counts undertaken by various AFG members in recent years. It is tempting to suggest that the dry spring undermined seedling establishment, yet on the Lizard in Cornwall, an area with free draining soils and which also experienced desiccating conditions in late spring and early summer, *G. campestris* had a bumper year (Stroh and Leach, 2023). But Trevor points out that there have been three dry springs since 2018 and this may compromise the populations in drier sites and subsites such as at Aberffraw. Conditions at Tywyn Trewan where the gentians have increased are generally damper and the main population increases appear to be in the damper dune slacks with *Schoenus nigricans*. *G. campestris* is a biennial which reproduces entirely by seed which requires cold stratification to germinate. Milder winters may not be providing the required low temperature experience for seed germination. It forms a rosette during its first year and overwinters as a tap root topped off at ground level by a single bud. Flowering is variable and seems to be generally less in dry summers. With the plants being monocarpic and with little in the way of a seed

bank, fluctuations in populations are perhaps bound to be expected (Stroh *et al*, 2019). Careful monitoring of populations of scarce and rare species is vital in plant conservation biology and just as Trevor's major assessment of *Tuberaria guttata* (Spotted Rock-rose) in 2022 highlighted major issues in habitat management (Dines, 2022) it is hoped that his latest survey will throw light on a worrying decline in *G. campestris* here on Anglesey and other parts of its British and Irish range, especially in the south.

Juncus capitatus (Dwarf Rush), a Red Data Book species which, at Cymyran on the west coast of Anglesey is at its most northerly known native location (SH 2975) on Earth, has not been seen for four years now. Although this may be down mainly to encroaching rank grassland and scrub at its last known sub-site at Cymyran, it is disappointing that it has not yet responded to proactive management instigated by NRW on other parts of the Cymran site. Nor has it re-appeared at Aberffraw Dunes where NRW has undertaken turf-stripping to recreate areas of more mobile sand within the main body of the dunes. It is interesting to note that Stroh and Leach (2023) report that the Cornish populations of *J. capitatus* appear to have had their best year for two decades this year, success which they attribute to a mild, wet winter followed by a hot, dry spring.

Stroh and Leach (2023) report that, in south-west England at least, various clovers also had a good year including *Trifolium subterraneum* (Subterranean Clover) and this time it is pleasing to report that Anglesey followed suit with excellent numbers of this charming species reported at several well-known sites as well as the discovery of a new site (on the north-west side of Llyn Maeiog (SH3273) which may sustain higher numbers than all the other island populations combined. Nearby in SH3272, Trevor Dines found two new populations of *Crassula tillaea* (Mossy Stonecrop) (see image 15 on page 48), both located in car parking areas near the sea including the Oystercatcher Restaurant. This tiny native succulent seems to be a species on the move in the British Isles demonstrating an explosive expansion in north-east Scotland and significant gains in East Anglia, south-west England and recently, the coastal areas of Wales (Stroh *et al*, 2023). It is a poor competitor and only thrives in disturbed open areas with free draining situations such as car parks on sandy soils. Presumably it is spread by seed and stem pieces on vehicles and footwear. The first record for Anglesey was in 2015 (by Martyn Stead on an AFG meeting and see below) - it has now been recorded in four monads.

Platanthera chlorantha (Greater Butterfly-orchid) also had an excellent year at its main Anglesey locality, the Coronation Meadow at Plas Newydd by the Menai

Strait (SH5169) with 103 flower spikes counted in mid-June. A further 36 spikes were noted by Chris and Andrew Dixon and Janet Buckles on the Old Cricket Pitch site nearby. However, judging by the pitifully few records we receive of *P. bifolia* (Lesser Butterfly-orchid) each year this butterfly orchid species is doing poorly, reflecting the decline seen in many parts of England, especially in the ecotypes associated with calcareous and woodland habitats (Stroh *et al*, 2023). It was therefore pleasing to hear that Tim Blackstock had found ten flowering specimens in coastal heath on National Trust land at Fedr Fawr (SH6081).

Happily, three other orchids appear to be gently expanding. Janet Buckles counted 24 flowering shoots of *Epipactis helleborine* (Broad-leaved Helleborine) in the staff car park at Plas Newydd and it is persisting at a recently discovered site near Menai Bridge in an ornamental wooded garden. *E. dunensis* (Dune Helleborine) continues to surprise by turning up at sites some distance from the sea. Sally and Ian Ellis report a good showing of this rare orchid in their hay



Image 15: *Crassula tillaea* from the sandy car park of the Oystercatcher Restaurant at Tywyn Llyn, nr Rhosneigr SH325.725, 17 May 2023. © Trevor Dines.

meadow at Dwyran (SH4564) where the helleborines are perhaps associated with mycorrhizal fungi attached to far-reaching roots of a boundary poplar tree. The Anglesey Meadows Group reported a fourth island site for *Dactylorhiza praetermissa* (Southern Marsh Orchid).

It was clearly a bumper year for two sand dune orchids. *Epipactis palustris* excelled in the dune slacks along the island's south-west coast with an estimated 10,000 flowering spikes in early July in an area of 50m x 20m in one of the main dune slacks at Aberffraw (SH3568) – see front cover image. A month later it was the turn of *Spiranthes spiralis* (Autumn Ladies-tresses) to bloom in profusion with numbers equalling the bonanza seen in 2019.

Richard Birch reported both *Ophrys apifera* and *Lathyrus nissolia* (Grass Vetchling) both in quantity at several points along the A55 Trunk Road, east-bound roadside verge during routine surveys this summer reflecting the national expansion described for these two species in the Plant Atlas 2020. Previously *L. nissolia* has been regarded as a casual on Anglesey, occurring intermittently and never in quantity so this represents a step-up in its island fortunes. The presence of so much *O. apifera* along the A55 is especially surprising given that along its 32km traverse of the island the trunk road encounters no limestone.

The re-appearance of *Apium graveolens* (Wild Celery) at Red Wharf Bay (SH5479) after a fifty-year absence was cause for celebration – a single well grown plant was noted by Caroline Brown in the upper saltmarsh, close by the Coast Path for Wales. It is scarce on the island, historically only having been recorded in a total of 18 monads, with only four post-2000 monad records.

The benefits of pro-active habitat management work were clearly visible on the semi-mobile dunes at Aberffraw this year where NRW has recently excavated a sizeable wedge through the dune ridge linking the beach with the semi-fixed dunes further inland. Open ground pioneer species such as *Cakile maritima* (Sea Rocket) have rapidly colonised the newly created shifting sands and extended their range on the dunes significantly forming a floriferous wedge of blue of their own, alive with pollinating insects.

It was good to see AFG member Robbie Blackhall-Miles on BBC's Springwatch explaining his role with Plantlife and the Natur am byth! project highlighting efforts to conserve local rarities such as *Sorbus arvonicola* (Menai Whitebeam). Other AFG members contributed to this year's Springwatch including Eve Grayson (Large Mason Bee at Porth Neigwl) and Charles Aron (moth trapping at Church Island.) Later in the year, I was invited to give the annual Bill Condry Lecture in Machynlleth and took the opportunity to explain what Anglesey's

flora tells us about the conservation of plants in Wales.

James Robertson wrote a thought-provoking article for the Transactions of the Anglesey Antiquarians and Field Club on the links between rare plants on Anglesey and historic human activities (Robertson, 2022). Once again, he invites scrutiny of the rationale in distinguishing native and introduced taxa and highlights the additional interest which comes from discovering historic links between people and plants and the ensuing ecological responses of our flora, a theme which is echoed by Robbie Blackhall-Miles' continuing researches on locally rare species such as *Allium ampeloprasum* subsp. *ampeloprasum* (Wild Leek) and *Arbutus unedo* (Strawberry Tree).

After almost thirty years, James has recently stepped down from compiling his '*Flowering plants-Wales*' contribution for British Wildlife magazine. Every one of his pieces has provided not only well-selected botanical fact, but importantly, measured insight and argument expressed with eloquence and feeling. With his own first-hand experience of land management on Anglesey as well as his professional landscape-level and regional perception of plants and habitats in a changing world, he has been the perfect guide to interpreting the story of plants in Wales. In his farewell column he describes it as a '*three decades long love-letter to Welsh plants*' and that phrase sums-up James's writings nicely. We shall miss them. Thank you, James - and we are pleased to know that you will continue to write your equally stimulating and enjoyable '*Flying Kites*' piece for British Wildlife.

Congratulations go to Martyn Stead who has won a newly instigated BSBI Award for outstanding contribution to botany in a given area, in Martyn's case, much of Wales as well as his home city of Chester. Martyn has been visiting Anglesey over many years contributing valuable records such as comprehensive lists of polypody ferns from all over the island. He has attended many field meetings on Anglesey and in his gentle modest way has brought great expertise, enlightenment and benefit to all.

Finally, it is pleasing to report that Anglesey was well represented at the Wales launch of the BSBI Plant Atlas 2020 in March at the National Botanic Garden of Wales when Trevor Dines spoke expertly about plant atlases past and present and Ian and Pippa Bonner marked the occasion with a wonderful home-made Atlas-themed cake and cupcakes! Trevor has recently been elected to the Board of Trustees of BSBI.

My thanks to all the members of the AFG who have made botanising Anglesey such fun this year and to my co-recorder, Ian Bonner who, despite residing

several hundred miles away from the action, is nevertheless somehow ever-present with all things botanical on this fair isle. Ian's diligence with the botanical data base and his depth of knowledge of Anglesey's flora are both exemplary. He has updated and revised many of the draft species accounts for a new Flora of Anglesey during the year and provided advice, comment and inspiration throughout.

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A 1926 record of *Picris* broomrape *Orobanche picridis* in South Wales

Tim Rich

Rumsey & Thorogood (2023) reviewed the occurrence of *Orobanche picridis* (Picris broomrape) in Britain noting the 2021 discovery of substantial populations around Port Talbot in South Wales. They noted it may have been present there since at least 2008 and there was one unconfirmed herbarium specimen from Port Talbot Docks collected by H.J. Riddelsdell in 1910 (BM).

I therefore checked the *Orobanche* collections at NMW and was delighted to find another specimen of *O. picridis* (originally named as Common broomrape *O. minor*) collected at Swanbridge on 11 July 1926 by H. M. Hallett (identification confirmed from photographs by F. Rumsey).

Quite where it occurred at Swanbridge (v.c.41, ST1667) is not known. Given that the host plant Hawkweed oxtongue (*Picris hieracioides*) is a plant of open, calcareous grasslands, it may have been on one of the local limestone outcrops or along the coast. Since 1926 Swanbridge has been extensively agriculturally 'improved' or developed for housing and caravans. The only recent broomrape records in the area are for *O. hederæ* (Ivy broomrape) which is frequent in the coastal woodlands with ivy.

This specimen confirms that *O. picridis* has indeed been present and possibly widespread in South Wales for a long time. It is worth double checking all common broomrape plants as they can be similar (Thorogood & Rumsey 2021).

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