



2



3



Contents

Editorial – <i>Richard Pryce</i>	4
2019 Annual Reports from Welsh vice-counties	5
Margaret Perring – a fond recollection - <i>Kath Pryce</i>	10
The latest botanical finds from The Nature of our Village - <i>Chloe Griffiths</i>	11
Plant communities 1: Acid grasslands - <i>Kate Thorne</i>	13
Botanical Recording in Cardiganshire in 2019 - <i>Steve Chambers</i>	17
A Busy Final Atlas Year for Brecknock - <i>John Crellin</i>	20
Annual Report 2019 for Flintshire (v.c.51) - <i>Gail Quartly-Bishop</i>	23
Two Interesting Species: Welsh Mudwort, <i>Limosella australis</i> and Limestone Woundwort, <i>Stachys alpina</i> on the GB Vascular Plants “Waiting List”- <i>Andy Jones</i> .	24
Welsh Plant Records 2019 Part 1: January to July	28

Image 1 (front cover): Irish Lady's-tresses (*Spiranthes romanzoffiana*) recorded in 2019 at the Dyfi National Nature Reserve. © Annette Williamson. See page 17.

Image 2 (page 2): Mossy Stonecrop (*Crassula tillaea*) found in April 2019 by Arthur Chater and Ray Woods at Llanrhystud (SN535693). © S.P.Chambers, photo taken in May 2019. See page 17.

Image 3 (page 2): The Devil's Fingers (*Clathrus archeri*), a second record for this fungus in Ceredigion © Chloe Griffiths. See page 11.

Items for inclusion in the next Welsh Bulletin should be sent to Richard Pryce by **1 Dec 2020**: Pryceeco@aol.co.uk

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See bsbi.org.uk/wales for back issues. Printed versions of some back issues are still available on request.

Editorial

As I write this, some easing of the Covid-19 lockdown has been announced but, certainly from my own viewpoint, the last couple of months has been a dead-loss as far as recording is concerned. My co-editors and I do not advocate unnecessary travel but it may be possible to record species seen while in your garden or on daily exercise – in fact, I've received a number of interesting urban back-lane records from one intrepid explorer, apparently adamant that his daily exercise should take-in a different part of the town each day!

You could also get involved in the various lockdown recording schemes introduced by the Local Record Centres, such as SEWBReC's #AlphabetRecordingChallenge. Each week you are asked to record species starting with a different letter, then post your records on Twitter or the LERC Wales app.

There are a multitude of ways to stay connected with recording communities or with nature online. Try searching for #NatureNeighbours on Twitter. You could also help crowdsource data from herbarium specimens via sites such as Herbaria@Home, DoeDat or Zooniverse. I've just quickly searched v.c.44 on the H@H website having not done so for a couple of years, and found important uploads of herbarium specimens such as that of *Malva verticillata* (Chinese Mallow) collected by James Motley from Llanelli in 1847 and now lodged in the South London Botanical Institute. This is presumably a duplicate of the specimen in Motley's herbarium at the Royal Institution in Swansea which was destroyed during the Blitz. I also came across a sheet of *Cuscuta epithymum* (Dodder) collected by Augustin Ley at Glynhir in 1897, the third Carms record, the only others being those of R.V. Innes from two sites in Llanelli dating from c.1840.

It is sad to report that, due to the insecure state of NRW grant funding, we have lost Barbara Brown, our Welsh Officer, who was in post over the last year or so. Barbara contributed much to outreach and education as well as supporting Vice County Recorders and we miss her help and advice. We wish her well in her new job.

The lockdown situation has meant the cancelling of all BSBI field meetings until at least the end of June and residential or indoor meetings to the end of July. This, of course, means that we will not now be able to hold either the Glynhir or Cae Duon recording meetings this year which is a great disappointment to the regulars and others who had booked. Let's hope for a normal year next year!

When you do venture out, please follow the government's current regulations and advice and always record in a safe way keeping socially distant.

Richard Pryce with website contributions by Katherine Slade, 31st May 2020

2019 Annual Reports from Welsh vice-counties

This is a collation of the Annual Reports submitted by Welsh Vice-counties for 2019 by April 2020. It is fascinating to read how different vice-counties tackled the final year of Atlas 2020 and about some of their most notable highlights. However, it is the great variety of other botanical activities carried out by Recorders and members that is most impressive. A huge thank you to all involved. - *Jim McIntosh*

Monmouthshire (v.c.35)

Stephanie J Tyler and Elsa Wood

We spent on average two to three days a week recording in poorly covered tetrads for Atlas 2020 and amassed over 19,000 records. All our records have been entered on MapMate and sent to the DDb. We have also received many records from our local environmental records centre (SEWBRc) and most of these have now been validated. All except several border tetrads have more than 200 species recorded and many now over 400. Seventeen of our 25 10km squares have between 700 and 900.

We added over 70 new hectad records this season, many of them neophytes that are becoming established in the wild. The main highlight was *Arabis glabra* (Tower Mustard) - a new county record (assuming an apparent earlier record by Mary Gillam was an error). *Polygonum rurivagum* (Cornfield Knotgrass) found by Mike Ogden was also a new county record as were eight species of neophyte found by us 'in the wild'. We are also involved with carrying out surveys and advisory reports for both Gwent Wildlife Trust and Monmouthshire Meadows Group.

Glamorgan (v.c.41)

Julian Woodman

This year saw the transfer of thousands of records from the local environmental records centre SEWBRc into the DDb for which we are most grateful. Though this has given us quite a verification burden. Throughout the year David Barden and Karen Wilkinson have been inputting records of their own and the Glamorgan Botany Group. They are now joint recorders with Julian for East Glamorgan. In the west, Barry Stewart continues to provide comprehensive coverage with the help of Charles and Hilary Hipkin.

Brecknock (v.c.42)

John Crellin

The Brecknock Botany Group had 64 outings in 2019 covering all months of the year and adding Atlas records right up to the end including, for example, *Carduus nutans* (Musk Thistle) near Hay in December. One welcome development was that a county recorder was not present at all events, such is regular members' increased confidence. We are all improving in our ability to record accurately out of season. The strategy remained a combination of chasing up "not yet refound" species and

getting whole county coverage up to a good level. We have also had an eye on as yet unrecorded areas, such as the limestone moorland around a major road south that has attracted little attention in the past.

An analysis of county coverage, after submission of over 10,000 records for the year, now shows only a few “not spots” for the county – two entirely predictable – the Army Range Impact Area and the back of the Black Mountain. All records marked “needs validation” have been validated and work continues on reviewing other highlighted validation queries – notably the county produces a high number of “records near the maximum of their (inferred) altitudinal range”.

The most notable find of the year was *Persicaria mitis* (Tasteless Water-pepper), by the Wye near Hay, spotted on a Sunday stroll. It is the second county record (1927 previously). We have continued to work with other organisations, notably the Wildlife Trust of South & West Wales; Biodiversity Information Service for Powys & Brecon Beacons National Park; Caring for God’s Acre and the Elan Valley Links Project.

Radnorshire (v.c.43)

Liz Dean

During 2019 the main effort went into recording for Atlas 2020. This involved covering unrecorded areas or looking for specific species which had been seen prior to 2000 but not since. Often the missing species for the different hectads were the same. For example, *Sisymbrium officinale* (Hedge Mustard) and *Viola riviniana* (Common Dog-violet) and it will be interesting what regional and national trends are revealed by the Atlas 2020 data. Thanks must go to Barbara Brown, the Welsh Officer, who, with friends and on her own, visited unrecorded squares and to Ray Woods who hunted for missing species whilst recording his downy mildews.

After the recording, work has continued on completing the inputting for Atlas 2020. An unknown cache of over 3,000 records came from Anthony Vaughan and a significant number from Ray Woods’ notebooks. Many others including the Hereford Botanical Society, the Radnorshire Wildlife Trust and our local environmental records centre (BIS), also contributed records.

Barbara Brown did several sessions introducing beginners to botany and we are very sorry to be losing her as Welsh Officer after her significant contributions in the year. At the very end of the year, Barbara started updating the Radnorshire Rare Plant Register and we are very grateful to NRW for funding this work. Sue Spencer has retired as joint recorder and I would like to record my thanks to her for her hard work over past years. Sue will continue recording and assisting me with identification problems (especially on the garden escapes) and computer inputting.

Our constantly updated post-2000 tetrad species-total map dictated where VCR recording effort was to be concentrated in 2019. Early in the year this was combined with expanding *Taraxacum* collections in previously unworked areas. All recording continued at 10m or 1m precision. A few interested people living in the county also made valuable contributions by recording in their areas. Both the BSBI Welsh AGM field excursions and the annual Carmarthenshire Glynhir Recording Week contributed new records with the latter concentrating on tetrad bashing and rare species monitoring.

The target of recording a reasonable number of species in every tetrad for the period 2000-20 was largely achieved, although a few peripheral part tetrads have not been visited since 2000. Amalgamated into hectad records, the coverage of recording for the Atlas was considered to be satisfactory. All field data received was entered onto the Carmarthenshire database before 31/12/2019 and checked. It was then submitted to Pete Stroh for uploading to the DDb.

Progress with updating the RPR and writing the County Flora continued through the year. Several local groups continue to welcome our input such as Llanelli Naturalists, Carms LBAP partnership, WWBIC and Carmarthenshire Meadows Group. A number of conservation-minded landowners took up our offer to record on their land and offer management advice if requested. They have each been provided with a report of our findings. The vice-county submission to Welsh Plant Records will detail all new vice-county and hectad records.

Montgomeryshire (v.c.47)*Kate Thorne*

About 32,000 records have been submitted to the DDb in 2019 as our main focus was to improve tetrad coverage. As well as individual recording we had ten days of flora group recording and a *Rubus* weekend with expert Dave Earl. The latter provided a major boost with over 300 new bramble records comprising 28 different species.

Notable finds have included:

- i) The first confirmed records in the county for *Potentilla x mixta* (*P. anglica x reptans*). *Betula celtiberica*, in open wood pasture, *Dactylorhiza x venusta* (*D. fuchsii x purpurella*), on a road bank in the Vyrnwy area close to both parents and some *Hieracium* species: *H. aviicola*, *salticola*, and *spilophaeum*, identified by Tim Rich & David McCosh.
- ii) A second confirmed record for *Rorippa islandica* (Northern Yellow-cress).
- iii) Second records for the post 2000 period for *Scleranthus annuus* (Annual Knawel) and *Botrychium lunaria* (Moonwort).
- iv) A single plant of *Galeopsis speciosa* (Large-flowered Hemp-nettle), the seventh post-2000 record for this declining species.

- v) *Trollius europaeus* (Globeflower) and *Vicia orobus* (Wood Bitter-vetch), (both priority species) at new sites in the west.
- vi) Two non-native species appearing for the first time along our waterways - *Impatiens capensis* (Orange Balsam) along the Montgomery Canal and *Lathraea clandestina* (Purple Toothwort) near rivers in the west.
- vii) A post 2000 increase in the numbers of locations of *Equisetum telmateia* (Great Horsetail) and *Rorippa amphibia* (Great Yellow-cress), both rare/scarce species.

The final year of recording also brought more records for some of the harder to identify species e.g. *Circaea x intermedia* (Upland Enchanter's-nightshade), *Euphrasia* species (confirmed and/or identified by Chris Metherell), *Dryopteris cambrensis* (Scaly Male-fern) and *Equisetum x litorale* (*E. fluviatile* x *arvense*, Shore Horsetail).

Merionethshire (v.c.48)

Jo Clark

I have taken over the role of Recorder for Meirionnydd from the inimitable Sarah Stille, who retired in December 2019. As I wasn't aware that I would need to write a report like this so soon into my tenure, I must apologise as I am not yet on top of how to extract data such as new county records etc. from MapMate. By next year I will be better prepared!!

In 2019 on the whole we concentrated on tetrads with few records and collected a grand total of 8,000 records towards the Atlas. Amongst many enjoyable field visits, a memorable day was held on the Berwyn Hills in June, where we found *Asplenium viride* (Green Spleenwort) and *Neottia ovata* (Common Twayblade) nestling by a stream in the midst of a conifer plantation and had a fabulous view of some red deer. In August, Sarah and I set forth onto the Migneint in appalling weather and struggled to find 40 species before giving up due to being too wet to even remove our waterproofs!

In 2020 we are intending to go to sites which are notified as SSSI's in particular grassland sites and try to re-find old records of rarer species such as *Saxifraga granulata* (Meadow Saxifrage) on the banks of the River Dee, *Gentianella campestris* (Field Gentian) at Morfa Dyffryn and *Ophioglossum vulgatum* (Adder's-tongue), *Botrychium lunaria* (Moonwort) and *Coeloglossum viride* (Frog Orchid) above Harlech.

Caernarvonshire (v.c.49)

Wendy McCarthy

Progress with recording for Atlas 2020 took priority for the year, focusing on species which needed updating from the previous date class. Caernarvonshire Recording Group met for a programme of six monthly meetings and in addition a small core of loyal supporters went out together at least once weekly. Individual recorders also sent some excellent records. Julian Driver found new sites for

Hammarbya paludosa (Bog Orchid) and *Asplenium obovatum* (Lanceolate Spleenwort) and also discovered two new sites for the gametophyte stage of *Trichomanes speciosum* (Killarney Fern). (Being a bryologist, he is ideally placed for the latter species when searching dark chasms and damp fissures!)

A small group of recorders visited Cors Gyfelog where Andrew Graham collected a bladderwort belonging to the *Utricularia intermedia* aggregate. Fred Rumsey was able to determine this from Andrew's excellent photographs as *U. stygia* (Nordic Bladderwort). Visits are planned in 2020 to the remaining fens in the county to see if the plants long known from there are the same species. Visiting botanists are always very welcome and Geoffrey Kitchener sent 299 records from his Llyn Peninsula holiday, including 5 *Epilobium* hybrids, 14 *Rumex* hybrids and *Juncus x surrejanus* (*J. acutiflorus* x *articulatus*) found with parents on coastal dunes at Abererch. Roger Maskew also visited the peninsula and sent some *Rosa* records.

Denbighshire (v.c.50)

Delyth Williams

The overall target by 2020 was to have full records from 2000 in at least one monad, preferably more, in each tetrad in v.c.50. The aim in 2019 was to 'mop up' outstanding monads and tetrads. The Denbighshire Recording Group met on over 20 occasions in a final attempt to cover as many tetrads as much as possible. Several other recorders contributed significantly as part of a programme that attempted to avoid duplication of effort. Finally, 25,000 records were submitted to the DDB and a 99% coverage has been achieved. Of 550-odd tetrads, about 200 surveyed since 2000 have fewer than 200 taxa recorded and of these 60 yielded less than 100 taxa. Some of these tetrads are part-tetrads, most are moorland or upland.

There were no remarkable re-finds and only three new vice-county records were native: *Carduus acanthoides* (Broad-winged Thistle), *Bromus diandra* (Great Brome), *Epilobium parviflorum* x *ciliatum* (*E. x floridulum*). *Ophrys apifera* var. *chlorantha* (Bee Orchid) was a nice find and an ever-increasing number of NCRs were flourishing garden escapes and seed-mix introductions e.g. *Symphotrichum lanceolatum* (*Aster lanceolatus*, Narrow-leaved Michaelmas-daisy) had clearly been dumped, *Buddleja globosa* (Orange-ball-tree) was running wild around some allotments and *Dipsacus laciniatus* (Cut-leaved Teasel) introduced in an embankment seed-mix. All meetings were instructional, some more than others depending upon group member demand. All Denbighshire records have been digitised, including those from our local environmental records centre, COFNOD, and attempts were made to complete validation requests as per the 'My County' section of the DDB and BSBI *eNews*.

Flintshire (v.c.51)

Gail Quartly-Bishop

In 2019 the Flintshire BSBI group enjoyed six field meetings. April's meeting was put back to May due to poor weather, so in mid-May we met on consecutive

weekends and enjoyed some of the best of the county's ancient woodlands, searching for our nemesis, *Chrysosplenium alternifolium* (Alternate-leaved Golden-saxifrage). Once again, this plant eluded us, but many other ancient woodland specialists were in full effect, including plenty of one of our favourite plants, *Sanicula europaea* (Sanicle). In June and July, we investigated typical Flintshire landscapes of pasture, copse and hedgerow and in August, for a change, had a trip to the seaside to the salt marsh at Bagillt. September's meeting at Buckley was led by Julian Laidler and included a variety of urban and arable finds.

Altogether, we generated and received 6,650 records over the course of the year. Once again, the top individual recorder in the county was Jonathan Shanklin. Significant finds included new sites for *Allium oleraceum* (Field Garlic), *Bromus secalinus* (Rye Brome), *Centaureum littorale* (Seaside Centaury), *Neottia nidus-avis* (Bird's-nest Orchid), *Parapholis incurva* (Curved Hard-grass), *Petrosedum* (*Sedum*) *forsterianum* (Rock Stonecrop), *Scabiosa columbaria* (Small Scabious), *Sorbus rupicola* (Rock Whitebeam) and *Stachys arvensis* (Field Woundwort). Thank you to everyone who contributed records in 2019.

Anglesey (v.c.52)

Nigel Brown

Please see Ian Bonner's full report in the Welsh Bulletin No. 105, May 2020 and on the BSBI Anglesey webpage: <https://bsbi.org/wp-content/uploads/Anglesey-Plants-2019-for-website.pdf>

Margaret Perring – a fond recollection

During last year's BSBI Welsh AGM based in Llanelli, Margaret told us how much she was enjoying her visit to Carmarthenshire. We subsequently received a card thanking us for "organising a happy meeting" (can one "organise" happiness?), saying that it was two years since she had been botanising and "the naps in the meadows and the superb food in the hotel I will remember a long time". It certainly helped to make the effort of being involved in organising an AGM worthwhile.

So the recent sad news that Margaret has died was tempered by the knowledge that she had enjoyed the meeting so much. On reading the article written in memory of her on the Wildlife Trust of South and West Wales website, I learned that, despite meeting her at a number of BSBI meetings over the years, I had not realised the extent of her expertise and accomplishment throughout her life, or that she had been ill, so we feel fortunate that she attended the AGM.

At one of the Welsh AGM field meetings, I was aware of Margaret and one of our close friends in deep conversation and assumed they must already know one another. However, our friend was saddened to learn that Margaret had died, saying that they had not met before and was so glad that she had spent some time with Margaret. Her comments included "an inspirational lady", "she has done so much",

“she was so approachable, modest and one of those people who fill you with joy”, “she made my day”. A lasting memory I’m sure.

Kath Pryce 20th May 2020

The latest botanical finds from The Nature of our Village

CHLOE GRIFFITHS

In response to recent figures showing massive losses in our natural world, *The Nature of our Village* project aims to massively increase how much we know about wildlife in Penparcau, a village of over 3,000 people and covering 190 hectares in Ceredigion. It began in November 2015 as a partnership between the Penparcau Community Forum, the West Wales Biodiversity Information Centre and the Wildlife Trust of South and West Wales. The project is run by Chloe Griffiths, an Ecologist living in Penparcau. We are working to keep the knowledge of species distribution updated and to help to inform climate change science.

We start by acknowledging the excellent plant records for Penparcau, thanks to Arthur Chater’s Flora of Ceredigion, and the hard work of many talented local botanists. In 2016 we carried out flowering plant surveys with the Wildlife Trust of South and West Wales on a Roadside Verge Nature Reserve next to a busy road and were pleased to be able to observe an increase of 20 new plant species from the 56 previously recorded there. We repeated this survey with volunteers and the Reserves Manager Em Foot every year since, and can now observe that since then, we have seen a variety of plants appear, including for 2019 Keeled-fruited Cornsalad (*Valerianella carinata*), Changing Forget-me-not (*Myosotis discolor*) and Hedge Mustard (*Sisymbrium officinale*). We hope that this increased biodiversity of a total of 95 species ever recorded on this small site demonstrates the value of Ceredigion County Council’s adoption of the management approach of mowing and removing the arisings once a year only.

CADW have been working on proposals for a management plan of the Scheduled Ancient Monument which forms the top of Pen Dinas, a large hillfort which is part of our survey area. We provided comments on their report and recommendations on habitat improvement and removal of the encroaching gorse and bracken which is reducing the area that our wild-flowers, like the Harebell, can take root in. We were pleased to comment on how small changes to what CADW proposed could substantially improve this area for wildlife.

Whilst running botanical sessions on Pen Dinas we paid particular attention to the ruins of an old farmhouse, Pant-yr-Allt. We have begun to manage this area for the benefit of wildflowers, as they were being lost to scrub, working as volunteers in partnership with the Wildlife Trust, Greener Aberystwyth Group and the Penparcau

Community Forum. We noticed that our habitat conservation work had increased the number and variety of species at Pant yr Allt, and in 2019 we noted 10 new species, bringing the total of species ever recorded at this tiny site to 46. New species for this year included Hairy Tare (*Vicia hirsuta*), Wall Rue (*Asplenium ruta-muraria*) and Heath Speedwell (*Veronica officinalis*).

On the southern flank of Pen Dinas we were interested to spot a single plant of Himalayan Honeysuckle (*Leycesteria formosa*), which we hadn't seen previously. We checked Arthur Chater's Flora, which notes that this species had been possibly planted on the nearby Tanybwllch area between 2002-2007. Mr Chater responded to our query about where this plant might have come from and suggested that our specimen was likely to have been bird-sown. Steve Chambers also responded to our find: "There are various plants of *Leycesteria formosa* naturalised about the Aber area and it is perhaps increasing but I have not seen it on Pen Dinas so a good find and I will make sure it gets on MapMate!"

Further surveys were carried out to refresh records in a small woodland called Llwyn yr Eos, however in 2019 we noted that quite a few of the species we had previously recorded were not found. Most of those we did not find were small, low-growing flowering plants which may be disappearing as the woodland edge scrubs over and coarse grasses win through. We did however manage to find eight new species in 2019, including Lesser Burdock (*Arctium minus*) and an odd find of Lemon Balm (*Melissa officinalis*), perhaps from fly-tipped garden plant material.

The project also re-surveyed a path known as Nanny Goat's Walk as the western half is within our area of interest. We noted an extra 11 new species in 2019 including Lesser Skullcap (*Scutellaria minor*) and Wild Carrot (*Daucus carota*) and re-found 46 previously-noted plants.

Fungi are not of course plants, but we must give a brief mention here to a very peculiar-looking find – Devil's Fingers (*Clathrus archeri*). See image 3 on page 2. This village first, (only the second time it has ever been found in the whole of Ceredigion) appeared on the southern boundary of Penparcau in early November 2019. It is a rare find in the UK, and known in the USA as Octopus fungus, it has scarlet "arms" like octopus tentacles, emerging from a white ball. It is known for producing a vile smell, although we did not notice this on the cold day we found it. First discovered in the UK in 1914, it is native to Australia and New Zealand. Arthur Chater noted "It is extraordinary that single specimens appear so very rarely and so far apart." And Steve Chambers wrote "The aliens have landed."! We shared this finding with the British Mycological Society on social media and were amazed to have 114 people like it and make 32 comments.

Turning to our plant gall work, we were pleased to make a village first in 2019 with the Cola-nut Gall (*Andricus lignicola*) which Arthur Chater had found previously elsewhere in the vice-county in 1991. Finding the gall also alerts us to

the presence of the gall causer, in this case a gall wasp. Another village first was Pocket Plum (*Taphrina pruni*), a fungus which distorts the fruits of some of the Blackthorn on Pen Dinas. Even more exciting was making a County First, with *Euura testaceipes* on Willow (*Salix* sp.). Louise King and I worked the specimen through the Aidgap Plant Galls book which was kindly bought for us by the local Co-op, and when we opened the gall, the larvae of the Sawfly was inside it. As Louise noted, “it keys out so easily and you start thinking, but is it really that simple...brilliant!...inspiration to keep on looking.” To take our interest further, the project made a visit to the National Museum Cardiff to view the Welsh National Herbarium plant gall collection, which was a fantastic opportunity to improve our knowledge of what these galls can look like by consulting the pressed plant specimens. We thank Sally Whyman for allowing us access to the material.

Current funding allows the recording project to continue for one more year, and if anyone would like to come along on one of our surveys, you would be most welcome. You can get in touch with the project by contacting chloe.griffiths.ecology@gmail.com.

Reference: Chater, A.O. (2010). *Flora of Cardiganshire*. Cambrian Printers, Aberystwyth.

Editors note: Access to the Welsh National Herbarium at National Museum Cardiff can be given to researchers by contacting Sally Whyman for the vascular plants and Katherine Slade for the lower plants and fungi.

Plant communities 1: Acid grasslands

KATE THORNE, 25th April 2020

In v.c.47 (Montgomeryshire), we had planned 2020 to consider plant communities. As many of you will know, all of our native plants live in well recognised communities. These were documented by John Rodwell in the early 1990s.

On April 28th our first outing was going to be to the hills around Llanfyllin (SJ11) to look at an acid grassland community called U1. ‘U’ stands for ‘upland’ and there are a number of U grasslands in the UK. Some are not strictly upland but are on acidic sites. Much of Montgomeryshire is acidic and it supports acid grassland and heathland in abundance.

The most widespread acid grasslands in Montgomeryshire are probably U4, U20 (*Pteridium*-dominated) and U5 & U6 (both dominated by *Nardus* or *Juncus squarrosus*). The most interesting ones botanically are U4 and the more localised U1.

Each plant community has some basic ingredients. For U1 these are Sheep's Fescue, Common Bent and Sheep's Sorrel. For U4, they are Sheep's Fescue, Common Bent and Heath Bedstraw. So the full title of U1 is 'U1 *Festuca ovina* - *Agrostis capillaris* - *Rumex acetosella* grassland'.

U1 *Festuca ovina* - *Agrostis capillaris* - *Rumex acetosella* grassland

U1 is quite widespread in Montgomeryshire (and Shropshire). Interestingly, U1 was originally described for the Brecklands where it occurs on flattish, sandy ground but in the west of the UK it appears to be largely found in localised patches on steep banks facing south or south-east, where the soil is shallow. Summer desiccation is crucial in its 'management' together with sheep and/or rabbit grazing. As with most other National Vegetation Classification communities, U1 has sub-communities. The sub-community we as botanists in Montgomeryshire are most interested in is the annual sub-community, the '*Erodium cicutarium* - *Teesdalia nudicaulis* sub-community', which supports several tiny annuals. *Erodium cicutarium* (Common Stork's-bill) itself is uncommon in the county but some of the annuals are more widespread. The most diverse areas tend to be in the east of the county; *Teesdalia nudicaulis* (Shepherd's Cress) has been found almost exclusively in the east (SJ and SO hectads) with one single pre-2000 record in SH80.

The following are the annuals (and a few perennials) you may find in the Montgomeryshire (and Shropshire) U1. This list (and other comments) is based on field work in v.c.47 and detailed quadrat work in v.c.40, largely on the Long Mynd (SO49).

Aphanes australis (Slender Parsley-piert)

Aira praecox (Early Hair-grass)

Teesdalia nudicaulis (Shepherd's Cress)

Moenchia erecta (Upright Chickweed)

Trifolium dubium (Lesser Trefoil) and, much less commonly, *Trifolium micranthum* (Slender Trefoil)

Trifolium striatum (Knotted Clover)

Ornithopus perpusillus (Bird's-foot)

Montia fontana (Blinks)

Erophila verna (Common Whitlow-grass)

Veronica arvensis (Wall Speedwell)

Myosotis discolor (Changing Forget-me-not)

Cerastium glomeratum (Sticky Mouse-ear) and *Cerastium semidecandrum* (Little Mouse-ear)

Sedum anglicum (English Stonecrop)

Umbilicus rupestris (Wall Pennywort)

'Lesser Dandelion'

Pilosella officinarum (Mouse-ear-hawkweed)

Geranium molle (Dove's-foot Crane's-bill)
Stellaria pallida (Lesser Chickweed)

Of the above a few are either not listed in the original (Breckland) U1 description or are 'replaced' by a similar species in the same genus. Examples of the former are *Moenchia erecta* and *Montia fontana* and, of the latter, *Myostis discolor* replaces *M. ramosissima*, *Cerastium semidecandrum* & *C. glomeratum* replace *C. arvense*, *Aphanes australis* replaces *Aphanes arvensis* and some of the *Cladonia* species (see below) are different.

U1 also supports some lichens (species of *Cladonia* and *Peltigera* (Dog-lichen)) and small mosses (*Polytrichum piliferum* & *P. juniperum* plus *Ceratodon purpureus*). There is a lichen sub-community where the lichens dominate. This is clearly present on the higher ground on the Long Mynd.

Where the grassland becomes less acidic, the following may be present in the *Anthoxanthum odoratum* – *Lotus corniculatus* sub-community, veering towards a CG (calcareous grassland community): *Lotus corniculatus* (Bird's-foot Trefoil), *Galium verum* (Lady's Bedstraw), *Thymus polytrichus* subsp. *britannicus* (Wild Thyme) and *Aira caryophylla* (Silver Hair-grass).

Craig Breidden (SJ21) is specifically mentioned in the original U1 account and some of its rarities are considered to be a component of the U1 *Hypochaeris radicata* sub-community: *Silene viscaria* (Sticky Catchfly), *Pilosella peleteriana* subsp. *subpeleteriana* (Shaggy Mouse-ear-hawkweed) and *Veronica spicata* subsp. *hybrida* (Western Spiked Speedwell). These are not present in the annual sub-community which may be seen on slopes around the nearby Rodney's Pillar (on Craig Breidden) and the other Breidden hills, but grow on the south crags of Craig Breidden (more or less within the quarry), with *Ulex europaeus* (Gorse) and *Erica cinerea* (Bell Heather).

Other county/regional rarities include *Scleranthus annuus* (Annual Knawel), *Spergularia rubra* (Sand Spurrey), *Potentilla argentea* (Hoary Cinquefoil), *Ranunculus parviflorus* (Small-flowered Buttercup), *Logfia minima* (Small Cudweed) and *Myosotis ramosissima* (Early Forget-me-not).

Finally, U1 also has a 'typical sub-community' and a *Galium saxatile* – *Potentilla erecta* sub-community – the latter often grades into U4. The Long Mynd quadrat data, when analysed using MATCH, often falls within the 'typical sub-community' although some patches clearly belong to the annual or the lichen sub-communities; any species that are different from the documented ones will not 'score' in the analysis. It is likely, however, that many of the widespread small patches of species-poor U1 fall into this sub-community.

Other than cessation of grazing, Gorse is probably U1's worst enemy. As an example, the U1 on the Long Mynd (Shropshire) is often in scattered small locations within vast stands of Gorse. Bracken, which is frequent on the same slopes, is less likely to invade the U1 because it needs a deeper soil. The National Trust try to control the Gorse on the Long Mynd, e.g. by burning, but the U1 slopes are in the eastern valleys near habitation/Church Stretton.

NRW organise Gorse clearance on the south crags on Craig Breidden but the terrain is rocky and steep.

U4 *Festuca ovina* – *Agrostis capillaris* – *Galium saxatile*

U4 *Festuca ovina* – *Agrostis capillaris* – *Galium saxatile* may be found higher up slopes or on slopes close to U1 where the aspect becomes less southerly facing. This can support Heather and/or Bilberry, and often merges into heathland; with cessation of grazing it can turn into/revert to heathland.

U4 also supports *Potentilla erecta* (Tormentil) and *Deschampsia flexuosa* (Wavy Hair-grass) as do other acid grasslands and heathland. In fact, any one plant may favour more than one community. U4, however, is probably the only plant community in Montgomeryshire to support *Viola lutea* (Mountain Pansy).

What can botanists do whilst in isolation?

1) You may be able to reach some acid grassland on your daily walk, and check it out. 2) You can help to convert any *Aphanes arvensis* agg. records to a species - most likely *Aphanes australis* in v.c.47.

Have you noticed how often uncommon plants closely resemble and hide amongst another more common plant? Image 7 on page 75 shows *Moenchia erecta* (Upright Chickweed) with flowers closed, and *Aira praecox* (Early Hair-grass) just before the inflorescence has emerged.

***Aphanes* species**

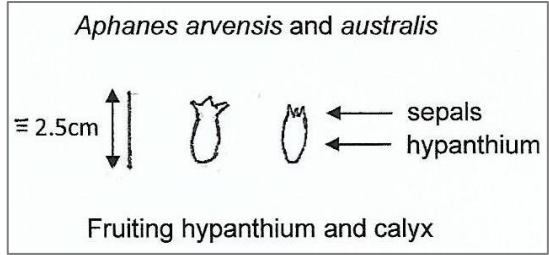
Stipules (= leaf-like appendages where leaves meet the stems). At the flowering nodes the stipules are fused into a cup in *Aphanes*. The 'cup' has lobed ends. The length of the lobes (or free portions) are as long as the cup (fused portion) in *A. australis* but only half as long in *A. arvensis*. The flowers peep out above the top of the stipules of *A. arvensis* but not in *A. australis*. A constriction between the hypanthium and sepals is a feature of *A. arvensis*. The sepals are described as converging in *A. australis* and 'continuing the curved outline of the hypanthium'. The sepals are divergent in *A. arvensis*.

The features above can be a bit difficult. The free lobes of the stipules are often of different lengths and there is invariably a bit of a 'waist' between the hypanthium and the sepals in *A. australis*, and the sepals are very often not converging.

Remember: *A australis* is a slender plant and is rarely on base-rich soils or arable land. *A. australis* loves the steep sunny dry acid slopes of many of the Montgomeryshire (and Shropshire) hills. The size of the plant, but also the size of the fruiting flowers, may be the easiest way to confirm the species.

The fruiting flower (base to tip of sepals) is 2.0-2.6mm in *A. arvensis*. Of this 0.6-0.8mm is sepal.

The fruiting flower (base to tip of sepals) is 1.4-1.9 mm in *A. australis*. Of this 0.3-0.5mm is sepal.



Reference: Rodwell, J.S. (1992). *British Plant Communities, Grasslands and montane communities*. Cambridge University Press.

Botanical Recording in Cardiganshire in 2019

STEVE CHAMBERS, Recorder of Cardiganshire (v.c.46)

The stellar find of the year was Justin Lyons' (Natural Resources Wales, Senior Reserve manager) amazing discovery of a small colony of *Spiranthes romanzoffiana* (Irish Lady's-tresses) at the Dyfi National Nature Reserve, an orchid new for Wales (see image on front cover). As remarked by Justin it was, 'the find of a lifetime'. The discovery, unsurprisingly, attracted media interest, featuring in a Natural Resources Wales press release on BBC Wales, in the local newspaper (Cambrian News) in October and was also mentioned in the Wales country roundup column in *British Wildlife* 31(1) October 2019. Irresistible 'origin myth' speculation inevitably follows fast on the heels of such a find. In this regard arrival by seed carried on, or a seed capsule inside (endophoresy), one of the wild goose species (*Anser* spp.) known to stop-over on the Dyfi estuary area seems plausible. Birds satellite-tagged on the Dyfi also visit places in western Scotland, including Islay and Coll. It will be exciting to see if the plants appear again in 2020.

On route to the railway station in February, Arthur Chater (AOC) spotted several juvenile plants of *Echium pininana* (Giant Viper's-bugloss) growing along the base of a wall in a sheltered alleyway in Aberystwyth, the first vice county record. I grow this stately species in my garden in Capel Bangor, where young plants are highly sensitive to and are killed by only a few degrees of frost, so the brick walls

and hard-surfacing of the alleyway environment probably provide a protective mini-urban heat island effect. Two different age cohorts were present, pointing to more than one recruitment event.

In April, stopping by the filling station on the A487(T) in Llanrhystud, AOC and Ray Woods chanced upon several patches of *Crassula tillaea* (Mossy Stonecrop) growing along the roadside verge (see image 2 on page 2). This is a remarkable discovery of a species only once recorded before in the vice-county as a casual at Ynys-las dunes in 1947, though a more recent report in 2017 from the dunes is currently under investigation. The species has been popping up in other Welsh vice counties recently, for example in touring caravan parks, etc, so, risking more speculation perhaps, it hitched a lift on the wheels of a caravan or similar vehicle.

AOC turned up a number of other interesting first vice-county records during the year including several plants of *Rapistrum rugosum* (Bastard Cabbage) on a disturbed dune at Penyrergyd (SN14U) (with John Poland (JPP)); also *Securigera varia* (Crown Vetch) naturalised on a roadside bank near Rhydyfelin, SN594794) (determined by JPP) and a large colony of *Impatiens capensis* (Orange Balsam), over 30m x 10m, in a fen south-southwest of Elerch church, (SN682862).

In early May, Dr David Lloyd (Institute of Biological, Environmental & Rural Sciences (IBERS), Aberystwyth University) via Pete Stroh emailed news of a sighting of two flowering spikes of *Anacamptis morio* (Green-winged Orchid). They were found on a piece of grassland by a car park on the IBERS Plas Gogerddan campus (SN630835). After a bit of follow-up sleuthing, Steve Chambers (SPC) and Helen Clow (HFC) established that the plants had very likely seeded from a large colony growing on a nearby ‘green roof’ and therefore were neither native nor natural colonists. The popularity of ‘wildflower seed mixes’ and fashionable ‘green roofing’ means such occurrences are likely to only increase in future and have the potential to disrupt and dilute ecological meaning, especially of such important axiophytes. *A. morio* has also been reported ‘appearing’ on green roofs in London, for example see the article in Plantlife magazine no. 84, pp. 12-13, summer 2019. During the visit, an enormous carpeting population of *Saxifraga tridactylites* (Rue-leaved Saxifrage) forming a pink haze of tens of thousands of plants, was found on gravelly dry tracks and banks between the IBERS glasshouses, new for the hectad. The number of these plants was crudely extrapolated from counting 100 individuals in one square foot alone. Could this be the largest population in Wales?

On the topic of ‘mega-populations’ the new colony of *Orobancha hederæ* (Ivy Broomrape) first noticed in 2018 by HFC on Ffordd Sulien in Llanbadarn Fawr (SN58V) when it comprised nine spikes, had in 2019, increased to an incredible 200+ spikes forming a forest-like, monoculture of plants tightly packed-in under their drape of *Hedera hibernica* (Atlantic Ivy).

Exploring north-west of Llangeitho in SN66A in May, it was especially pleasing to discover a new site and tetrad for the rapidly declining *Genista anglica* (Petty Whin). A single plant was seen in an extensive *Molinia*-dominated rhos pasture at SN606602, accompanied by *G. tinctoria* (Dyer's Greenweed), *Carum verticillatum* (Whorled Caraway) and *Serratula tinctoria* (Saw-wort), here on the western edge of its vice-county core range. In the same tetrad later in the month, a new site and hectad was found for another native axiophyte, *Tilia cordata* (Small-leaved Lime). A single tree, half-fallen out from a streamside rock face was present in a narrow arm of Atlantic ravine Oakwood below Allt Tan-caebanal (SN609612).

SPC had email discussions with Roger Golding concerning *Dryopteris affinis* (Scaly-male fern) morphotypes that SPC had seen a few years previously in a wood in SN35Y near Cross Inn, south-west of New Quay. Following these discussions, Roger Golding visited and reported two forms of *D. affinis*; a new hectad record for *D. x complexa s.s.*; and three distinct forms of *D. borrieri*, including a rather congested one having some *D. kerryensis*-like characters.

In September a colossal *Ulmus* sp. (elm) with a girth of 477cm was found on a roadside bank near Pontsiân (SN44I), seemingly the largest ever noted in the vice-county. Its identity is being investigated.

Calcicoles of dry, neutral/base-rich grassland are infrequent in the vice-county away from the coast. However, surveying the Capel y Bryn (Rhydypennau chapel) burial ground (SN628863, 68I) near Bow Street in September, Annette Williamson found a rich set of such. They were all new for the tetrad, including *Galium mollugo subsp. erectum* (Upright Hedge Bedstraw), *Polygala vulgaris* (Common Milkwort) and *Silene vulgaris* (Bladder Campion).

New sites discovered during the year for selected plants uncommon in the vice-county included:

- *Cotoneaster sternianus* (Stern's Cotoneaster) (SPC; SN66A; 6th VCR)
- *Epilobium x fossicola* (a hybrid willowherb) (SPC; flush in the Twyi Fechan forestry, SN781626, the 3rd VCR)
- *Picris echioides* (Bristly Oxtongue) (SPC, Morfa Mawr farm, SN56C)
- *Helleborus foetidus* (Stinking Hellebore) (SPC; north-west of Brongest, SN34C; 2nd location for the south of the v.c.)
- *Jacobaea erucifolia* (Hoary Ragwort) (SPC; roadside bank at SN432543, east of Synod Inn)
- *Leucanthemella serotina* (Autumn Oxeye) (Matt Sutton (MDS); rubble pile by caravan park, Cross Inn, SN35Y; the 2nd VCR)
- *Linaria x sepium* (a hybrid toadflax) (SPC; roadside bank south of Llanarth, SN45H, with *L. vulgaris* but without *L. repens*)
- *Neottia ovata* (Common Twayblade) (SPC; SN34H)

- *Primula x tommasinii* (False Oxlip) (SPC, 'wild type' with both parents, Bryngwyn chapel, SN34C)
- *Rubus cockburnianus* (White-stemmed Bramble) (MDS; building site, Lampeter, SN581486; the 3rd VCR)
- *Spergularia marina* (Lesser Sea-spurrey) (MDS; SN68F, A44(T) roundabout at Lovesgrove, the most inland site to-date & a new hectad record)
- *Symphytum grandiflorum* (Creeping Comfrey) (SPC; SN34C; 3rd VCR)
- *S. x hidcotense* (Hidcote Comfrey) (SPC; SN34C; sole extant v.c. site)
- *Verbena bonariensis* (Argentinian Vervain) (SPC & HFC; SN57Z, Llanfarian; 3rd VCR and very close to where the 2nd record was made in 2009).

Of increasing invasive non-native species ('INNS'), a number of new sites were found for *Tellima grandiflora* (Fringecups), including a small colony in the corner of one of the upper fields at the Caeau Llety-Cybi SSSI Wildlife Trust of South and West Wales reserve near Llangybi (SN602534). Of the vice-county's invasive alien plants this one is currently showing the greatest propensity to infiltrate and persist in semi-natural habitats, including grassland and woodland. This is especially when source plants are growing directly adjacent in cottage garden situations, as at Caeau Llety-Cybi.

Probably the most unusual non-native for the year was *Abies koreana* (Korean Fir), a tree grown for ornament in gardens but seemingly unreported before in Wales from a wild situation. A single tree bearing the remains of female cones was found on a scrubby bank west of Blaenwaun farm (SN632693), north-northwest of Bronnant. It may have originated as a planted-out Christmas tree.

I extend my thanks and gratitude to all the local and visiting botanists who sent in or verified records this year, namely Arthur Chater (AOC), Helen Clow (HFC), Brian Dockerill, Roger Golding, Chloe Griffiths, Carolyn Lynn, Justin Lyons, John Poland (JPP), Will Strange, Matt Sutton (MDS), Annette Williamson & Ray Woods.

A Busy Final Atlas Year for Brecknock

JOHN CRELLIN

Normally when I compile the list of notable plant records for the Welsh Bulletin in the spring I know what to expect on the list and have fond memories of the finds. However, this year the initial search list from the DDB was a reminder of almost forgotten days, such has been the panic of our final Atlas year. (I confess to having been somewhat startled to realise that this was it – the very last year.) We had a great year and here are the highlights that I sometimes had to look up in my diary to remember:

The very first new find for the vice-county, was *Crocus tommasinianus* (Early Crocus) at Gilwern in February, reported by Heather Colls. Not a species I have encountered in the wild but familiar from my gardening days.

I first noticed an unusual *Erophila* a few years back in a car park at Brecon, decided it was probably *Erophila glabrescens* (Glabrous Whitlowgrass) and had that confirmed by the referee. Once seen it becomes easier and it turned up almost outside my house a year later, so no surprise really that we saw it at Sennybridge when doing an early survey around the town and the edge of the Army Camp area. We still haven't managed to find any *E. majuscula* (Hairy Whitlowgrass) – despite a herbarium specimen collected long ago in the county being re-determined as this. (Illustrating the value of herbaria!)

Cochlearia danica (Danish Scurvygrass) has extended its range along our roads, making a new hectad record for Libanus on the way to Storey Arms. I'm getting much better at "Botanist stops" on the road as well!

Urtica urens (Small Nettle) turned up in April in a botany group member's garden which meant we recorded it and learnt about it. Most Brecknock gardeners no doubt are frequently putting it in their garden waste bin.

It's always welcome to get a report from a neighbouring county about something I have missed near our borders and it helps when they are used to the "new to Brecknock" plant already. This was the case for *Cardamine quinquefolia* (Whorled Coralroot) at Llangattock reported by Steph Tyler in April. Quite a few of our new species take the A40 route into the county from the east.

We saw some dead material from obviously Campion Family plants on a rich road verge in Pontsticill late in 2018 and, returning there in June I was surprised to find *Agrostemma githago* (Corncockle). It must be introduced but is well established. I had been hoping for White Campion!

I didn't mind stepping into a boggy patch up to my thigh at Gors Llyn near Coelbren as it brought me face to face with *Galeopsis bifida* (Bifid Hemp-nettle), Gors Llwyn, in late July. This was a first for the hectad. See image 10 on back cover.

By August some members of my regular group had decided to go out on their own account in between our planned meetings. Their trip to the recently drained Neuadd Reservoir behind Pen y Fan was miserable in weather terms but very productive (the monads they did were practically unrecorded) and *Scutellaria minor* (Lesser Skullcap) was one of the finds which was new for the hectad. No doubt it had been inhabiting the shores of the reservoir for years.

Sometimes it is good to take a break from Atlas recording and I did exactly that when taking a walk out of Hay-on-Wye along the river with my wife one Sunday

in August. There was plenty of *Persicaria hydropiper* (Water-pepper) (mental note to record it when back) but what was that rather different one in the long grass? Closer examination showed long whiskers on the ochrae which I had a vague idea was significant, so I tasted a leaf and after the usual wait – nothing. A sample went home, and it did seem, after consulting the books, that I had *Persicaria mitis* (Tasteless Water-pepper). This wasn't quite a first for the county as A.E. Wade had recorded it down in the far south-west of the county in 1927 – with no records since. I went back over the next few days and found more plants near the original site – which was just as well as the original plant in long grass was gone (I had only taken a small sample!). Seeds from these plants confirmed the identification. See image 8 on page 75.

It neatly rounds off the *Persicaria* history of my time in the county as Paul Green had found *Persicaria minor* (Small Water-pepper) near Llangorse Lake soon after I started being recorder. He thought at first it was *P. mitis* (a very rare mis-step!) but was soon emailing me to say it must be *P. minor* and asking me to check seeds. This was again a second-ever record (same location 1975) and more populations were found in the county of the next two years (mainly by Paul).

I've walked the path by the *P. mitis* site near Hay several times every year since living here – this is an elusive species and our record is the highest ever up the Wye (there is plenty much lower down in Monmouthshire), but I suspect there may be populations higher up that sent seed down to our site.

If anything significant appears really near to where I live it often takes someone else to point it out. In the previous year it was *Cerastium semidecandrum* (Little Mouse-ear) found by Ray Woods and this last year it was *Nicandra physalodes* (Apple-of-Peru) in a car-park that I pass every day, reported by Mark Atkinson in early August.

Datura stramonium (Thorn-apple) turned up in September on an estate near Brecon, spotted by the owner and reported to me.

Andy Shaw found a plant that's not even in my books in mid-August. *Polemonium pauciflorum* (Fewflower Jacob's-ladder) was growing as a weed at a Holiday Park near Builth. There were many plants growing on bare ground underneath a cypress tree. No likely source was found in the local area of the holiday park which is dominated by mowed grass. See image 9 on page 75.

Still recording full tilt at the end of October I was challenged by my companions to determine a to-all-intents-and-purposes-dead plant just under the edge of the A40 by-passing Brecon through the woodland in which we were. I did pronounce it to be an orache judging from the fruits that were still just discernible. *Atriplex littoralis* (Grass-leaved Orache) was my best guess from examination of the

material but I think we will have to find a better plant this year to be certain. The proximity to the A40 makes it at least possible.

One quirky find was *Carduus nutans* (Musk Thistle) found under Hay Bluff in December. It's not new for the hectad as it has been seen before in Herefordshire but it is Atlas significant and new for the county in that hectad. We had been looking for *Carlina vulgaris* (Carline Thistle) and identified a suitable looking habitat in the distance (an area of disturbance probably from quarrying). Such was my determination to find the Carline for the Atlas that I at first was trying to make the rather stunted, out-of-season plant fit that mould. This was obviously wrong (and pointed out to me by companions as such). So, we never found the Carline but found something new instead!

The final new for hectad record was of *Callitriche brutia* (Pedunculate Water-starwort) at Twmpath near Erwood on 18th December.

A final note. I have been very pleased to find that some of my loyal companions are ready to fledge and work alone. The last eight years have been a learning experience for me and, it seems, created a few more new botanists.

Annual Report 2019 for Flintshire (v.c.51)

GAIL QUARTLY-BISHOP

In 2019 the Flintshire BSBI group enjoyed six field meetings. April's meeting was put back to May due to poor weather, so in mid-May we met on consecutive weekends and enjoyed some of the best of the county's ancient woodlands, searching for our nemesis, *Chrysosplenium alternifolium* (Alternate-leaved Golden-saxifrage). Once again, this plant eluded us, but many other ancient woodland specialists were in full effect, including plenty of one of our favourite plants, *Sanicula europaea* (Sanicle). In June and July, we investigated typical Flintshire landscapes of pasture, copse and hedgerow and in August, for a change, had a trip to the seaside to the saltmarsh at Bagillt. September's meeting at Buckley was led by Julian Laidler and included a variety of urban and arable finds.

Altogether, we generated and received 6,650 records over the course of the year. Once again, the top individual recorder in the county was Jonathan Shanklin. Significant finds included new sites for *Allium oleraceum* (Field Garlic), *Bromus secalinus* (Rye Brome), *Centaureum littorale* (Seaside Centaury), *Neottia nidus-avis* (Birds-nest Orchid), *Parapholis incurva* (Curved Hard-grass), *Sedum forsterianum* (Rock Stonecrop), *Scabiosa columbaria* (Small Scabious), *Sorbus rupicola* (Rock Whitebeam) and *Stachys arvensis* (Field Woundwort).

Thank you to everyone who contributed records in 2019.

Two Interesting Species: Welsh Mudwort, *Limosella australis* and Limestone Woundwort, *Stachys alpina* on the GB Vascular Plants “Waiting List”

ANDY JONES, *Email: Aberystwyth1234@gmail.com*

Conservationists face a range of problems in trying to define ‘native’ and ‘alien’ plants. Apart from the practical difficulties, there is a risk of downplaying the cultural and ecological significance of recently arrived species in favour of long-established plants. In Wales there are naturally – or unnaturally – several questionably native plants but we are also fortunate in having had some early scientific attention here, especially by Dr Quentin Kay at the University of Wales, Swansea.

In looking at the molecular genetics of plants, as in several other aspects of botany (Hipkin, 2018), Quentin Kay was well ahead of his time, and his use of these techniques to research the native status of *Draba aizoides* Yellow Whitlowgrass (Kay & John, 1990) was an undoubted milestone. It subsequently led to equally ground-breaking studies in other scarce and declining lowland plants (Kay & John, 1994; 1995).

The case of *D. aizoides* is instructive since, to the sceptics (e.g. Clapham *et al.*, 1952), it seemed very much like a non-native plant, with its relatively late first record (1795) from the walls of Pennard Castle and a curious distribution, confined to a small part of south Gower and nowhere else in Britain – despite similar habitat in, say, south Pembrokeshire and Berry Head in Devon etc. But, in fact, as Kay and his Ph.D student Rosemary John showed, the population showed significantly more genetic variability than would be predicted in a relatively recent arrival and it was therefore much more likely to be a long-established native.

By contrast, their follow-up work on scarce plants in Wales found a few species including *Cotoneaster cambricus* (*C. integerrimus*) Wild Cotoneaster or *Stachys alpina* Limestone Woundwort and *Limosella australis* Welsh Mudwort with very limited genetic variation, suggesting that they might not in fact be native.

But a lack of genetic diversity is not such good evidence for native or non-native status as its presence and the conservation agencies have been slow to incorporate these results – not least because all three species were legally protected under Schedule 8 of the Wildlife and Countryside Act! Eventually, after more than 15 years, new morphological, historical and molecular data swung the argument in favour of *C. cambricus* as a native (thus restoring much-needed funds from the UK Biodiversity Action Plan) but, so far, there has been nothing similar to improve our understanding of *Stachys alpina* and *Limosella australis*. They remain on the GB

Vascular Plants Red Data “Waiting List”: in effect, fully protected but not quite fully approved.

Stachys alpina does not seem to have been thought of as a non-native before Kay & John’s research but the idea was quickly taken up (Walker, 2002), with supporting evidence from its ecology (Pearman, 2007). On these grounds, it is suggested, the species lacks the “spatial coherence”, or presence in similar suitable habitat, of a native – although this does tend to assume that we know what the “suitable habitat” is for a plant when we see it.

Conversely, *Limosella australis* has long been thought introduced (Jones, 1991) but, even after the Kay & John findings, these doubts were generally dismissed (e.g. Horsfall, 2002). As if to prove this, the species recently displayed its spatial coherence by colonising (to the consternation of town councillors and flood engineers) a new mudbank in Pwllheli harbour, some 20km west of its former core habitat (Shaw, 2015).

This view of *Stachys alpina* as an introduction and *Limosella australis* as a native seems to be forming the consensus (Stace, 2019) but why should there be such different perceptions of two species with similar, narrow genetic profiles and almost identical histories (both, remarkably, first recorded here in the same year: 1897)? After all, the ‘neophyte-naturalized.’ *Stachys alpina* seems fairly close here to the continuous European distribution in Belgium and northwest France (Fitter, 1978), whereas the ‘native’ *Limosella australis* has deeply southern hemisphere affinities: the type specimen, for instance, comes from Kangaroo Island, South Australia and *L. australis* was collected by Charles Darwin in Patagonia over 60 years before it was first found in Wales (Barker, 2007; Porter, 1986). Its seeds are found in the subfossil gizzard contents of extinct New Zealand moas (Rawlence et al, 2011).

The reasons for this discrepancy are probably to be found in the two species’ relative mobility. For their proximity to the continuous *S. alpina* in Europe, the west British sites are still markedly disjunct. The seeds lack any long-distance dispersal mechanism (Pinfield et al, 1972), and the gap in this species distribution (its lack of “spatial coherence”) is difficult to explain.

A glance at the world map for *Limosella australis* (see image 6 on page 75), on the other hand, shows that it has reached some of the most isolated spots on earth (van der Putten et al, 2008). And any species that occurs naturally in highland south Africa, Bolivia and the Indian Ocean tundra ecoregion – and, nearer home, Greenland and NE America – does not need a human agency to explain its occurrence on the coast of Wales.

Ultimately, these factors might all be enough to remove *Stachys alpina* and *Limosella australis* from the GB Vascular Plants Red Data “Waiting List”, in line

with the latest Floras. But it could still be interesting to look again at their molecular genetics with newer and more powerful techniques (perhaps as a student project?). Any previously undetected variation may be significant in *Stachys*, as it was in *Draba aizoides*, but this is less likely for the *Limosella* population, that could easily have been founded with just a single seed.

But there is still the possibility that a genetic ‘signature’ in Welsh *L. australis* can help to identify its source, and that could also be particularly interesting. This would obviously be a comparative exercise, requiring material from other populations in the species’ range but we could perhaps start with the north Atlantic (from where photographs show similar-looking plants).

Ultimately though, we cannot wholly exclude natural vectors for either species – even from Australasia (Clements, 2010)! – and nor, nowadays, does this distinction really have much use: the terms ‘native’ and ‘alien’ are both relative in the Anthropocene. And so too, it seems, is the term ‘neophyte’. Faced in the last few years with newly-arrived or -discovered plants like *Serapias parviflora*, *Zannichellia obtusifolia* and *Stenogrammitis jamesonii* it may not help to move the boundaries of this category, as has recently been proposed (Marren, 2019). It might be preferable simply to conserve plants and animals that we find ‘scientifically interesting’ (though perhaps not just in the narrow sense used in designating sites). That surely could be used to describe both *Stachys alpina* and *Limosella australis*.

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Welsh Plant Records 2019 Part 1: January to July

The Welsh Plant Records for 2019 will be published in two parts – part 1 in this issue cover January to July 2019 and Issue 107 will contain records from August to December 2019. This is to be able to include all the articles sent to the editors.

Welsh Plant Records are compiled by Stephen Coker, Mountain Grove, Clarboston Road, Haverfordwest, Pembrokeshire, SA63 4SG, from reports of BSBI vice-county Recorders to whom records should be sent. Plants are listed for each vice-county in the order of D.H. Kent's *List of Vascular Plants of the British Isles* (1992) and *Supplements 1, 2 & 3* (1996 & 2000) the number in those lists preceding the name so that names changed since 1996 can be given without giving the former name. Latin names follow the 3rd edition of C.A. Stace's *New Flora of the British Isles* (2010) or, if not in that Flora, E.J. Clement & M.C. Foster's *Alien Plants of the British Isles* (1994). T.B. Ryves, E.J. Clement & M.C. Foster's *Alien Grasses of the British Isles* (1996) or Sell & Murrell's *Flora of Great Britain and Ireland* (1996-2009). Authorities for Latin names are not given unless the name is not in any of these works. English names are those in Stace (2010) or *English Names of Wild Flowers* ed. 2 (1986) by Dony *et al*, or, if not in either of those, Clement & Foster (1994), Ryves, Clement & Foster (1996) or Sell & Murrell (1996-2009). English names enclosed by square brackets do not occur in any of these books but have been used elsewhere. Welsh names are those in *Planhigion Blodeuol, Conwydd a Rhedyn*, published by Cymdeithas Edward Llwyd (2003).

The following symbols are used:

- * to indicate a new v.c. record; ⊗ to indicate an updated VCCC record; ℞ to indicate a record demonstrating the rediscovery of a taxon published as extinct in the VCCC
- + to indicate a new hectad record; ⊕ to indicate an updated hectad record; ⊖ to indicate a new tetrad record
- † indicates archaeophyte; ‡ indicates neophyte; © indicates casual.
- †‡© before the species number: to indicate that the species is regarded as an archaeophyte, neophyte or casual at least somewhere in the British Isles.
- †‡© after the species number: to indicate that the species is regarded as an archaeophyte, neophyte or casual generally within the vice county, different from that of the British Isles.
- †‡© before the record: to indicate a species which although a native, archaeophyte or neophyte at least somewhere in the vice county, is not so in the locality recorded.
- [] to indicate that the record, previously published in error, should be deleted.
- ⊠ to indicate an update to a rare or scarce taxon.
- ∅ to indicate that the taxon is now believed to be extinct in the locality cited.
- N, S, E, W indicate points of the compass.

In general, only records which update the *Vice-county Census Catalogue* [VCCC] (2003) or the *New Atlas of the British & Irish Flora* (2002) will be listed. Other records are included at the discretion of the vice-county recorder. The minimum grid reference is to a hectad but, if supplied by the recorder, more precise grid references may be included. A letter in parentheses following a grid reference indicates a tetrad.

The Vice-county Recorders from 2019 are:

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BRECON, v.c.42; Mr Mike Porter, Aberhoywy Farm, Cyffredyn Lane, Llangynidr, near Crickhowell, Powys NP8 1LR; mikechris1@btinternet.com & Dr J.R. Crellin; jrc@crellin.org.uk (all correspondence to Mr Porter).

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MONMOUTH, v.c.35 (comm. S.J. Tyler & E. Wood)

- +c1-1-glo **Chara globularis** (Fragile Stonewort). Penycod, ST16 99, E.Wood & S.Tyler, 12th July 2019; (+) Trellech Beacon, SO51 05, E. & A.Wood, 27th May 2019, pond on top of the beacon.
- +017/1.1x2. **Polystichum x bicknellii**. Llanmartin, ST39 89, E. & A.Wood, 23rd March 2019.
- *‡017/2.1. **Cyrtomium falcatum** (House Holly-fern) (Gwrychredynen-y-Celyn y Tŷ). Tintern, ST523 003, E.Wood, 15th May 2019, growing on wall by footpath.
- ⊗026/2.1. **Nuphar lutea** (Yellow Water-lily) (Lili'r-dŵr Felen). Rhyd-y-meirch, SO31 06, E. & A.Wood, 29th July 2019, canal -first record since 1970 in this hectad.
- +027/1.1. **Ceratophyllum demersum** (Rigid Hornwort) (Cyrnddail Caled). Abergavenny, SO29 12, S.Tyler, 8th July 2019, Grove Farm pond.
- +027/1.2. **Ceratophyllum submersum** (Soft Hornwort) (Cyrnddail Meddal). Ebbw vale, SO14 09, E.Wood & S.Tyler, 18th April 2019, pond.
- +028/13.12 **Ranunculus lingua** (Greater Spearwort) (Llafnlys Mawr). Llanyrafon, ST312 958, E. & A.Wood, 3rd May 2019, stream on edge of woodland.
- ⊕‡043/1.05. **Chenopodium glaucum** (Oak-leaved Goosefoot) (Troed-yr-wydd Dail Derw). Llanowell, ST382 999, E.Wood & S.Tyler, 24th July 2019, farmyard.
- +046/17.3. **Spergularia marina** (Lesser Sea-spurrey) (Troellig Arfor Bach). The Warrage, SO42 08, S.Tyler, 29th May 2019, roadside.
- ⊕+047/8.13.c. **Rumex crispus subsp. uliginosus**. Rumney, ST212 794, E.Wood & S.Tyler, 14th May 2019, edge of the Rumney river.

- +†053/1.7. **Malva neglecta** (Dwarf Mallow) (Corhocysen). Blackwood, ST17 97, E.Wood & S.Tyler, 30th May 2019; (+) Brynhedydd, ST253 878, E.Wood & S.Tyler, 4th July 2019, base of farmyard wall.
- +‡053/4.1.© **Alcea rosea** (Hollyhock) (Hocysen Fendigaid). Mynydd Garnclochdy, SO29 07, S.Tyler, 23rd June 2019. A4810 south west of Magor; (+) Mynydd Garnclochdy, SO29 07, S.Tyler, 23rd June 2019.
- +057/1.01.a **Viola odorata var. dumetorum**. Llanvair Kilgeddin, SO35 07, S.Tyler & E.Wood, 7th March 2019, hedgerows.
- +057/1.01. **Viola odorata var. imberbis** (Sweet Violet) (Fioled Bêr). Lower Ochryth, ST255 887, S. Davidson, 10th March 2019, lane bank; (+) Bishton, ST38 87, E. & A.Wood, 23rd March 2019, hedgerows; (+) Tintern, SO51 00, E. & A.Wood, 17th March 2019, hedgerows outside the village.
- +057/1.04×05. **Viola** ×**bavarica** (**V. riviniana** × **V. reichenbachiana**). Fourteen Locks, ST28 88, E. & A.Wood, 25th May 2019, hedgerows; (+) Prescoed, ST35 99, E. & A.Wood, 17th March 2019, hedgerows; (+) Blackcliff, ST52 98, E. & A.Wood, 21st April 2019, woodland edge and forestry tracks; (+) Hoadalbert, SO39 23, S.Tyler & E.Wood, 2nd April 2019, hedgerows.
- ⊗062/15.2.© **Arabis glabra** (Tower Mustard) (Berwr y Cerrig). Talygarn Farm, Llangovan, SO456 057, J.Jarret, det. E.Wood & S.Tyler, 8th June 2019, alongside newly laid limestone track on farm.
- +‡062/33.2. **Diploxys muralis** (Annual Wall-rocket) (Roced-y-muriau'r Tywod). Treowen, SO46 10, S.Tyler, 16th June 2019, on piles of earth by buildings.
- +063/1.3. **Reseda lutea** (Wild Mignonette) (Melengu Wylt Ddi-sawr). Blackwood, ST17 97, S.Tyler & E.Wood, 30th May 2019.
- +066/1.3. **Pyrola rotundifolia** (Round-leaved Wintergreen) (Glesyn-y-gaeaf Deilgrwn). Dukestown, SO145 108, S.Arnold, Aug 2019, edge of the cycle track.
- ⊗075/09.13×14. **Potentilla** ×**suberecta**. Trellech Beacon, SO51 05, D.Green, 22nd June 2019, alongside track on top of beacon.
- +‡075/32.39. **Cotoneaster franchetii** (Franchet's Cotoneaster) (Cotoneaster Franchet). Kingcoed, SO42 05, S.Tyler, 20th January 2019; (+) Watery Lane, SO49 13, S.Tyler, 17th January 2019.
- +084/1.02×08 **Epilobium** ×**floridulum**. Rockfield farm, SO46 14, E.Wood & S.Tyler, 25th July 2019, forestry track.
- +‡102/1.04. **Oxalis exilis** (Least Yellow-sorrel) (Suran Felen Fach). Rumney, ST21 79, E.Wood & S.Tyler, 14th May 2019; (+) Crosskeys, ST23 90, E. & A.Wood, 16th April 2019, Dan-y-graig cemetery.
- *102/1.10.cor. **Oxalis debilis var. corymbosa**. Llangattock Lingoed, SO36 20, S.Tyler & E.Wood, 23rd January 2019.
- +‡103/1.17. **Geranium macrorrhizum** (Rock Crane's-bill) (Pig-yr-aran Wreiddfawr). Gwehelog, SO38 04, S.Tyler & E.Wood, 6th May 2019, naturalised in hedgerow.
- +†107/21.1. **Foeniculum vulgare** (Fennel) (Ffenigl). A449, ST38 95, E.Wood, 1st July 2019, all along the dual carriage way in 3 tetrads (ST3996 & ST3998).
- +©110/8.ros. **Solanum rostratum** (Buffalo-bur) (Codwarth yr Ychen). Llandogo, SO52 04, C.Titcombe, 6th July 2019, pile of earth in the village.
- *‡116/NON.lut. **Nonea lutea** (Yellow Nonea). Mynydd Garnclochdy, SO28 07, S.Tyler, 25th June 2019, around farm buildings at Hendre farm.
- +125/1.1. **Lathraea squamaria** (Toothwort) (Deintlys). Sebastopol, ST299 996, S.Williams, 21st March 2019, along the Afon Lwyd.
- +125/2.08. **Orobanche hederæ** (Ivy Broomrape) (Gorfanhadlen Eiddew). East of Caerleon, ST347 918, E. & A.Wood, 13th April 2019, hedgerow along lane under ivy.
- +130/6.05.b. **Galium palustre subsp. elongatum** (Great Marsh-bedstraw). Hendre lake, ST24 80, E. & A.Wood, 13th June 2019, around edge of lake.

- +†133/1.2. **Valerianella carinata** (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffrwythau Rhychog). Blackwood, ST17 97, E.Wood & S.Tyler, 30th May 2019, several places in pavement cracks; (+) Rumney, ST21 79, E.Wood & S.Tyler, 14th May 2019.
- +135/26.3. **Crepis biennis** (Rough Hawk's-beard) (Gwalchlys Garw). Ebbw Vale, SO17 09, M.Kilner, 9th June 2019; (+) Nant-y-dery, SO33 06, S.Tyler, 10th May 2019.
- +135/43.flo. **Erigeron floribundus**. Blackwood, ST17 96, E.Wood & S.Tyler, 30th May 2019.
- +‡138/6.1. **Lagarosiphon major** (Curly Waterweed) (Ffugalaw Crych). St Arvans, ST50 97, E. & A.Wood, 16th July 2019, pond; (+) Skirrid, SO32 16, S.Tyler & E.Wood, 19th June 2019, pond in NT car park.
- *‡147/1.1.2. **Acorus gramineus** (Slender Sweet-flag) (Gellesgen bêr Fain). Allt-yr-yn Nature Reserve, ST296 887, E.Wood, 13th July 2019, pond below meadow - the golden variegated variety.
- +151/1.25×26. **Juncus ×diffusus** (Diffuse Rush). Rockfield farm, SO46 14, E.Wood & S.Tyler, 25th July 2019, wet forestry track.
- +152/16.08. **Carex muricata** (Hesgen Ysbigog). Fourteen locks, ST28 88, Monmouthshire Botany Group, 13th July 2019, hedge by the top pond.
- +152/16.09. **Carex divulsa** (Hesgen Lwyd). Rumney, ST20 79, E.Wood & S.Tyler, 14th May 2019.
- +153/21.1. **Catapodium rigidum** (Fern-grass) (Gwenithwellt Caled). Skirrid South, SO33 16, S.Tyler & E.Wood, 19th June 2019.
- +153/21.2. **Catapodium marinum** (Sea Fern-grass) (Gwenithwellt y Morfa)). M4, ST419 879, B.Stewart, 12th July 2019, motorway verge; (+) M4, ST489 873, B.Stewart, 12th July 2019, motorway verge.
- +153/24.2×4. **Glyceria ×pedicellata** (**G. fluitans** × **G. notata**) (Hybrid Sweet-grass) (Melyswellt Croesryw). Fourteen Locks, ST29 89, E. & A.Wood, 25th May 2019, edge of canal.
- +‡153/38.5.© **Phalaris paradoxa** (Awned Canary-grass) (Pefrwellt Coliog). Watery Lane, Monmouth, SO49 13, H.Colls, 26th June 2019, on dumped soil north of the new Rockfield estate.
- +154/1.1.c. **Sparganium erectum subsp. neglectum**. Penycloed, ST17 98, E.Wood & S.Tyler, 12th July 2019.
- *‡159/01.1. **Libertia formosa** (Chilean-iris) (Gellesgen Chile). Park Wood, ST25 86, E.Wood & S.Tyler, 4th July 2019, well established next to track in the woodland.
- +‡159/02.5. **Sisyrinchium striatum** (Pale Yellow-eyed-grass) (Sisirinciwm Melyn Mawr). Caerwent, ST479 903, M.Sutton, 5th June 2019.

GLAMORGAN, v.c.41 (comm. J.P. Woodman & B. Stewart)

- +017/3.03b. **Dryopteris cambrensis**. Brynna Woods, SS986 829, Barry Stewart, 7th May 2019.
- +†030/1.5.b. **Papaver dubium subsp. lecoqii** (Yellow-juiced Poppy). Monacre 5 (west), SS413 875, Barry Stewart, 26th Jul 2019.
- +046/10.7.b. **Sagina filicaulis**. Llantwit Major (east), SS97 68, Glamorgan Botany Group, 19th May 2019.
- +051/1.06×07. **Hypericum ×desetangsii** (**H. perforatum** × **H. maculatum**) (Des Etangs' St John's-wort) (Eurinllys Des Etangs). Llantrisant Common, main area of access land, ST04763 84416, David J.Barden, 13th Jul 2019.
- +051/1.14. **Hypericum hirsutum** (Hairy St John's-wort) (Eurinllys Blewog). Coed Trecastell, Pontyclun, deciduous woodland by Nant Melyn, ST0227 8235, David J.Barden, 1st Jun 2019.
- +‡062/11.4. **Barbarea verna** (American Winter-cress) (Berwr-y-gaeaf cynnar). Afon Bargod Taf, ST10 97, Kee Ai-Lin, 28th Apr 2019.
- +062/12.1×2. **Nasturtium ×sterilis** (Hybrid Water-cress) (Berwr-y-dŵr Croesryw). Coly Uchaf, SO09 02, 22nd Jun 2019.
- +062/22.2. **Erophila verna** (Common Whitlowgrass) (Llyisiau'r-bystwn Cynnar). Afon Bargod Taf, ST10 97, Kee Ai-Lin, 24th Feb 2019.
- +©062/9.1. **Malcolmia maritima** (Virginia Stock) (Murwyll Virginia). Cardiff Bay area, ST19 74, Julian Woodman, Mike Jones & Tim Rich, 1st Jan 2019.

- +066/1.1. **Pyrola minor** (Common Wintergreen) (Glesyn-y-gaeaf Bach). Park Pond Nature Centre, Tondy, SS881 842, Barry Stewart, 27th Apr 2019.
- *073/1.1. **Crassula tillaea** (Mossy Stonecrop) (Corchwyn Mwsoglog). Pennard Golf Course, SS5483 8829, Mark Duffell & John Hadley, 19th May 2019.
- +075/09.13×15. **Potentilla erecta** × **P. reptans** = **P. ×italica**. Llantrisant Common, main area of access land, ST05359 84244, David J.Barden, 24th Jul 2019.
- +‡075/32.22. **Cotoneaster hjelmqvistii** (Hjelmqvist's Cotoneaster) (Cotoneaster Hjelmqvist). Rhos, SN74 03, Charles Hipkin & Hilary Hipkin, 16th Jun 2019.
- +‡089/1.1×per.© **Ilex ×altaclerensis (I. aquifolium × I. perado)** (Highclere Holly) (Celynnen Highclere). River Taff at Llandaff North, ST14 79, Tim Rich, 8th Apr 2019.
- +103/1.04.© **Geranium rotundifolium** (Round-leaved Crane's-bill) (Pig-yr-aran Grynddail). Rheola Forest, SN82 03, Charles Hipkin & Hilary Hipkin, 7th May 2019; (+) Upper Boat, grassy plot SE of roundabout, ST106 870, David J.Barden, 28th Jun 2019.
- +†107/10.1. **Smyrniolum olusatrum** (Alexanders) (Dulys). Tirfounder fields, Aberdare, SO01 01, M.Evans, 20th Mar 2019.
- +107/29.2. **Petroselinum segetum** (Corn Parsley) (Perllys yr Yd). The Vile, Rhossili, SS409 876, Corrinne Benbow, 25th Jul 2019.
- +118/01.5×6. **Stachys ×ambigua (S. sylvatica × S. palustris)** (Hybrid Woundwort) (Briwllys Croesryw). Llantrisant Common, main area of access land, ST05109 85154, David J.Barden, 13th Jul 2019.
- +124/20.05. **Euphrasia arctica** (Arctic Eyebright) (Effros yr Arctig). Cwm Col-huw NR (south-west), SS95 67, Glamorgan Botany Group, 19th May 2019.
- +125/2.10.fl.a. **Orobanche minor var. flava**. Baglan, SS733 915, Barry Stewart, 24th May 2019.
- +135/25.07.60. **Taraxacum duplidentifrons** (Double-toothed Dandelion). Cwm Cedfyw, SS89 88, Glamorgan Botany Group, 27th Apr 2019.
- +135/25.08.85. **Taraxacum boeckmanii** (Bokman's Dandelion). Cwm Cedfyw, SS89 88, Glamorgan Botany Group, 27th Apr 2019.
- +135/25.09.111. **Taraxacum ancistrolobum** (Few-lobed Dandelion). Cwm Cedfyw, SS89 88, Glamorgan Botany Group, 27th Apr 2019.
- +135/25.09.126. **Taraxacum dahlstedtii** (Dahlstedt's Dandelion). Llantwit Major (east), SS97 68, Glamorgan Botany Group, 19th May 2019.
- +135/30.1. **Filago vulgaris** (Common Cudweed) (Edafeddog Lwyd). Taff Bargoed Centre, ST10 99, Martin Bell, 21st Jul 2019.
- +151/1.06. **Juncus foliosus** (Leafy Rush) (Brwynen Ddeiliog). Clyne Common, SS6005 9014, Mark Duffell & John Hadley, 19th May 2019; (+) n. of Llanharan Concrete, SS999 823, Barry Stewart, 6th Jul 2019.
- +151/1.13×14. **Juncus articulatus** × **J. acutiflorus** = **J. ×surrejanus**. Welsh St. Donat's, ST02 76, Glamorgan Botany Group, 21st Jul 2019.
- +152/16.44×46.c. **Carex hostiana** × **C. viridula subsp. viridula**. Clyne Common, SS59 89, Mark Duffell & John Hadley, 17th May 2019.
- +153/18.06. **Poa angustifolia** (Narrow-leaved Meadow-grass) (Gweunwellt Culddail). Llantwit Major (east), SS97 68, Glamorgan Botany Group, 19th May 2019.
- +†153/39.2. **Agrostis gigantea** (Black Bent) (Maeswellt Mawr). Welsh St. Donat's, ST02 76, Glamorgan Botany Group, 21st Jul 2019.
- +153/39.8. **Agrostis vinealis** (Brown Bent) (Maeswellt-y-cŵn y Mynydd). Hensol Forest (west), ST03 76, Glamorgan Botany Group, 21st Jul 2019.
- +‡153/46.2. **Polypogon viridis** (Water Bent) (Barfwellt y Dŵr). Gelliwastad Road, Pontypridd, ST071 902, David J.Barden, 17th Jun 2019.
- +153/56.1×2. **Elytrigia ×drucei (E. repens × E. atherica) [E. ×oliveri]**. Whiteford Burrows, SS452 961, Barry Stewart, 19th Jun 2019.
- +153/56.2. **Elytrigia atherica** (Sea Couch) (Marchwellt Arfor). Cwm Col-huw NR (south-west), SS95 67, Glamorgan Botany Group, 19th May 2019.

- +‡159/02.1. **Sisyrinchium bermudiana** (Blue-eyed-grass) (Sisyrinciwm Glas Gwyddelig). Clyne Common, SS594 897, Mark Duffell, 29th Jul 2019.
- +162/18.2×4. **Dactylorhiza ×hallii** (**D. maculata** × **D. praetermissa**). Bwlch Meadows, SS76 95, Charles Hipkin & Hilary Hipkin, 3rd Jun 2019; (+) Blaendulais Meadow 3, SN815 082, Charles Hipkin & Hilary Hipkin, 11th Jun 2019
- BRECON, v.c.42 (comm. M. Porter & J. Crellin)
- ©020A/SQD.gig. **Sequoiadendron giganteum** (Wellingtonia) (Welingtoniâu). Builth Wells, SO0417 5110, John Crellin, 12th Jul 2019.
- ©020A./SEQ.sem. **Sequoia sempervirens** (Coastal Redwood) (Cochwydden Califfornia). Craig-las Wood, SO116 220, John Crellin, 27th May 2019
- +028/03.1. **Helleborus foetidus** (Stinking Hellebore) (Crafanc-yr-arth Ddrewllyd). Irfon Bank, SO032 513, Ray Woods, 9th May 2019.
- +‡029/1.9. **Berberis darwinii** (Darwin's Barberry) (Pren Melyn Darwin). Pen-y-bont, SN92 28, John Crellin, 13th Mar 2019, car park.
- +‡029/1.9×emp. **Berberis ×stenophylla** (**B. darwinii** × **B. empetrifolia**) (Hedge Barberry) (Pren Melyn Culddail). Cwm Crogau, SN97 58, John Crellin, 20th Feb 2019.
- +030/2.1. **Meconopsis cambrica** (Welsh Poppy) (Pabi Cymreig). Coedcae, SN98 50, John Crellin, 1st May 2019.
- +‡036/1.2. **Urtica urens** (Small Nettle) (Danhadlen Fach). Private garden near Brecon, SO067 277, John Crellin, 12th Apr 2019.
- *‡045/1.1. **Portulaca oleracea** (Common Purslane) (Porpin). Penywaun, SN975 053, Barry Stewart, 10th Jun 2019.
- +046/10.7. **Sagina apetala** (Annual Pearlwort) (Corwlyddyn Unflwydd). Llanilltyd, SN98 27, John Crellin, 17th Jul 2019.
- *‡046/19.1. **Agrostemma githago** (Corncockle) (Bulwg yr Ŷd). Pontsticill, SO055 109, John Crellin, 17th Jun 2019, abundant in road verge. Seen late 2018 as dead material.
- +‡047/4.3. **Polygonum arenastrum** (Equal-leaved Knotgrass) (Y Canclwm Manddail). Llanilltyd, SN98 27, John Crellin, 17th Jul 2019.
- +057/1.01. **Viola odorata** (Sweet Violet) (Fioled Bêr). Nant Melyn Wood, SN979 057, Barry Stewart, 10th Jun 2019.
- +057/1.05. **Viola reichenbachiana** (Early Dog-violet) (Fioled y Coed). Coed Cowyn Farm, SN987 499, John Crellin, 1st May 2019, one largish patch near the stream ford.
- +061/1.3. **Populus nigra** (Black-poplar) (Poplysen Ddu). Mynachdy, SN99 42, John Crellin & Ray Woods, det. John Crellin, 18th Jun 2019, fallen tree regenerating by the Honddu.
- 061/2.21. **Salix herbacea** (Dwarf Willow) (Helygen Fach). Pen y Fan and Craig Cwm Sere, SO011 215, John Crellin, conf. John Crellin, 23rd Jun 2019, reported by Robert Glenister and first seen by Katherine Newbert. First hectad record since 1970.
- *‡062/14.qui. **Cardamine quinquefolia** (**Bieb.**) **Schmalh.**. Llangattock, SO20 17, Stephanie Tyler, 15th Apr 2019, on the Onneu. Approx date.
- +‡062/17.1. **Lunaria annua** (Honesty) (Swllt Dyn Tlawd). Pen-y-garn, SO05 10, John Crellin, 26th Feb 2019.
- +062/22.3. **Erophila glabrescens** (Glabrous Whitlowgrass) (Llysiâu'r-bystwn Llyfn). Pen-y-bont, SN92 28, John Crellin, 13th Mar 2019, pavement edges, Sennybridge, previously recorded as *E. verna* sens lat.
- +062/23.5.‡ **Cochlearia danica** (Danish Scurvygrass) (Llwylys Denmarc). Libanus road edge, SN99523 26022, John Crellin, 1st Apr 2019.
- +‡062/31.2. **Lepidium didymum** (Lesser Swine-cress) (Olbrain Bach). Brynbolgoed, SN97 25, John Crellin, 17th May 2019.
- *‡065/02.2. **Rhododendron luteum** (Yellow Azalea) (Rhododendron Felen). Wye Bridge, SO01 58, John Crellin, 3rd Jun 2019.

- +†073/5.14. **Sedum album** (White Stonecrop) (Briweg Wen). Llanwrtyd, SN86 47, John Crellin, 29th May 2019, wall around church.
- +073/5.16. **Sedum anglicum** (English Stonecrop) (Briweg y Cerrig). Tonyfildre, SN86 10, John Crellin, 24th Jul 2019, farm walls.
- +‡074/07.1. **Tolmiea menziesii** (Pick-a-back-plant) (Crydlys). Hodrid, SN98 62, John Crellin, 6th Mar 2019.
- +‡074/08.1. **Tellima grandiflora** (Fringecups) (Clychau'r Clawdd). Battle End Farm, SO00 31, Sue Goodhead, 22nd May 2019.
- +075/19.09. **Alchemilla xanthochlora** (Intermediate Lady's-mantle) (Mantell-Fair Ganolig). Llanwrtyd, SN86 47, John Crellin, 29th May 2019.
- +077/19.13. **Trifolium micranthum** (Slender Trefoil) (Meillionen Hopysaidd Eiddil). Quarry below Cadair Fawr, SN976 128, John Crellin, 26th Jul 2019; (+) Mynachdy, SN99 42, John Crellin & Ray Woods, det. John Crellin, 18th Jun 2019.
- ⊗‡091/2.05. **Euphorbia dulcis** (Sweet Spurge) (Llaethlys Pêr). Irfon Bank, SO032 513, Ray Woods, 9th May 2019.
- +103/2.3. **Erodium cicutarium** (Common Stork's-bill) (Pig-y-crêyr). Car park near Llywel - Tirabad road, SN885 399, Ray Woods, 10th Jul 2019.
- +‡105/1.4. **Impatiens glandulifera** (Indian Balsam) (Jac y Neidiwr). Millbrook Mill field, SO084 169, Stephanie Coates, 28th Jun 2019.
- +†118/05.1. **Lamium album** (White Dead-nettle) (Marddanhadlen Wen). Pont ar Clun, SN98 25, John Crellin, 17th May 2019.
- +118/06.5. **Galeopsis bifida** (Bifid Hemp-nettle) (Y Benboeth Holt). Gors Llwyn, SN854 110, John Crellin, 24th Jul 2019.
- +118/23.2×3.‡ **Mentha aquatica** × **M. spicata** = **M. x piperita** (Peppermint) (Mintys Poeth). Mynachdy, SN99 42, John Crellin & Ray Woods, det. John Crellin, 18th Jun 2019.
- *‡122/1.3. **Buddleja globosa** (Orange-ball-tree) (Coeden-fêl Peli Oren). Cwm Crogau, SN97 58, John Crellin, 20th Feb 2019.
- *‡124/04.2×cup. **Mimulus x burnetii** (**M. guttatus** × **M. cupreus**) (Coppery Monkeyflower) (Blodyn-mwnci Copraidd). Gwrywne Fawr valley, SO249 288, Heather Colls, 2nd Jul 2019, at the water's edge on the east bank about 20 or 30 yds south of a wooden footbridge.
- *©131/2.far×gra. **Viburnum x bodnantense** (**V. farreri** × **V. grandiflorum**). Hedge by path near Primary School, Forest Road, SO229 420, John Crellin, 24th Feb 2019.
- +†133/1.2. **Valerianella carinata** (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffrwythau Rhychog). Brynbolgoed, SN97 25, John Crellin, 17th May 2019.
- †135/28.07.arg. **Hieracium argillaceum** (Southern Hawkweed). Quarry below Cadair Fawr, SN976 128, John Crellin, det. Tim Rich, 26th Jul 2019, first hectad record since 1970.
- +†135/48.1. **Tanacetum parthenium** (Feverfew) (Y Wermod Wen). Pen-y-garn, SO05 10, John Crellin, 26th Feb 2019.
- +‡147/5.2. **Arum italicum** (Italian Lords-and-Ladies) (Pidyn-y-gog Eidalaid). Comin Coch, SN997 544, John Crellin, 27th Mar 2019.
- +‡148/2.4. **Lemna minuta** (Least Duckweed) (Llinad Bach). Wern Iago, SO19 38, John Crellin, 8th May 2019, Wern Iago.
- +151/1.06. **Juncus foliosus** (Leafy Rush) (Brwynen Ddeiliog). Penywaun, SN974 053, Barry Stewart, 10th Jun 2019.
- +151/1.25. **Juncus inflexus** (Hard Rush) (Brwynen Galed). Mynachdy, SN99 42, John Crellin & Ray Woods, det. John Crellin, 18th Jun 2019.
- +152/16.25. **Carex acutiformis** (Lesser Pond-sedge) (Hesgen -y-dŵr Fach). Cefniolo, SN88 40, John Crellin & Ray Woods, det. John Crellin, 10th Jul 2019.
- +152/16.29. **Carex vesicaria** (Bladder-sedge) (Hesgen Chwysigennaidd). Banwen Gwyn, SN79 18, Stephanie Coates, 29th Jun 2019.

- +‡153/47.6. **Alopecurus myosuroides** (Black-grass) (Cynffonwellt Du). Dol-Iago Farm Llanwrthwl, SN972 637, Ray Woods, 30th May 2019.
- +‡158/12.2. **Lilium pyrenaicum** (Pyrenean Lily) (Lili Ddrewllyd). A40 Verge, SN843 322, Malcolm Liddell, det. John Crellin, 31st May 2019.
- +‡158/18.umb. **Ornithogalum umbellatum** (Garden Star-of-Bethlehem). Llandefalle, SO107 354, Joan Millard, 19th May 2019.
- +‡158/24.07. **Allium triquetrum** (Three-cornered Garlic) (Garleg Trionglog). Battle End Farm, SO00 31, Sue Goodhead, 22nd May 2019.
- +158/24.16. **Allium vineale** (Wild Onion) (Nionyn Gwylt). Bailea, SN85 30, Ray Woods, 12th Mar 2019.
- ‡159/08.2. **Crocus tommasinianus** (Early Crocus) (Saffrwm Cynnar). Gilwern, SO24838 15265, Heather Colls, 12th Feb 2019.

RADNOR, v.c.43 (comm. E.R.Dean)

- *‡062/14.cor. **Cardamine corymbosa** (New Zealand Bitter-cress) (Berwr Chwerw Seland Newydd). Llanbadarn Fynydd, SO09 77, R.G.Woods, 31st Mar 2019, edge of lawn by road.
- ⊕+074/05.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage) (Tormaen Tribys). Dolau Railway Station, SO13 67, E.R.Dean, 22nd Jul 2019.
- *‡075/04.1. **Aruncus dioicus** (Buck's-beard) (Barf y Bwch). Bleddfa, SO20 68, E.R.Dean, 22nd Jun 2019, churchyard and village.
- *084/4.1×3×3. **Oenothera ×fallax**. Presteigne, SO31 64, E.R.Dean & S.M.Spencer, 2nd Jul 2019, industrial site to west of by-pass.
- 084/6.1×2. **Circaea ×intermedia** (Upland Enchanter's-nightshade) (Llysiu-Steffan yr Ucheldir). Penglaneion, SN91 62, R.G.Woods, Jul 2019, upland woodland.
- +‡116/04.6. **Symphytum orientale** (White Comfrey) (Cyfardwf Wen). Clyro, SO20 42, B.Brown, 1st Jun 2019.
- *‡124/11.3. **Cymbalaria hepaticifolia** (Corsican Toadflax) (Trwyn-y-llo-dail-eiddew Corsica). Llansantffraed Cwmdeuddwr, SN967 677, R.G.Woods, 28th Jul 2019, pavement edge by triangle, Cwmdeuddwr.
- *‡129/1.9. **Campanula portenschlagiana** (Adria Bellflower) (Clychlys Adria). Knighton, SO28 72, R.G.Woods, 7th Jul 2019.
- *‡129/7.2.© **Lobelia erinus** (Garden Lobelia) (Bidoglys yr Ardd). Aber-main, SO13 67, E.R.Dean, 22nd Jul 2019, dolau station.
- *‡159/02.5. **Sisyrinchium striatum** (Pale Yellow-eyed-grass) (Sisirinciwm Melyn Mawr). Presteigne, SO31 64, E.R.Dean & S.M.Spencer, 2nd Jul 2019

CARMARTHEN, v.c.44 (comm. R.D. Pryce)

- +011/1.1×2. **Polypodium ×mantoniae**. The Grove, Pont ar Gothi, SN509 266, R.N.Stringer & R.G.Woods, 7th May 2019.
- *012/2.1. **Histiopteris incisa** (Bat's-wing Fern). Tyrwaun, Pwll, SN469 013, I.K.Morgan, det. G.Hutchinson, 1st Nov 2008, prothalli found in 2005 on a bought *Dicksonia antarctica* grown outdoors in the garden. The unprotected plant grew for several years but the very cold winter of 2008-09 killed it, **Herb.NMW**
- +015/2.5.a. **Asplenium trichomanes subsp. trichomanes** (a subspecies of Maidenhair Spleenwort). Morfa Bychan, SN22352 07560, BSBI meeting, det. M.O.Stead, 9th Jul 2019, adjacent to concrete strip under galvanized pipe up cliff slope; (+) Drefach, Meidrim, SN29 21, M.O.Stead, 12th Jul 2019, confirmed under microscope by MOS on 12/7/19.
- +016/5.1. **Cystopteris fragilis** (Brittle Bladder-fern) (Ffiolredynen Frau). Abernantyffin forestry track, SN5517 3235, M.O.Stead, 10th Jul 2019, two plants on north side of forestry track leading to ford and road. Another plant on side of ditch on east side of road at SN55383234.

- +017/3.03b. **Dryopteris cambrensis**. Parcgywn, Llansaint, SN3990 0941, R.D.Pryce & K.A.Pryce, 11th Jul 2019, bank at side of wooded track to house; (+) Plwmp, Dolgran, SN4272 3575, R.D.Pryce & K.A.Pryce, 1st Jun 2019, trackside bank with intermittent trees and low hedges; (+) Penllifau Forest entrance, SN7274 3823, R.D.Pryce & K.A.Pryce, 15th Jun 2019, acid roadside bank with hedgerow trees and narrow woodland/tall-herb strip on south-east side of road.
- +017/3.05. **Dryopteris aemula** (Hay-scented Buckler-fern) (Marchredynen Bêr). Pen-y-Back, SN19720 14558, R.N.Stringer & D.Harries, det. R.N.Stringer, 10th Apr 2019, four plants in steep-sided, wooded valley with moss-covered slopes and another about 20m away to the north. First record for vc44 part of hectad.
- +©028/05.1. **Nigella damascena** (Love-in-a-mist) (Glas y Niwl). Felin Pandy, SN3017 2348, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, waste ground.
- +028/12.1. **Clematis vitalba** (Traveller's-joy) (Barf yr Hen Wŷr). Bethel Chapel, Church Lane, Newcastle Emlyn, SN3082 4071, R.D.Pryce & K.A.Pryce, 28th Jun 2019, boundary wall of chapel on south side of road.
- +028/13.25. **Ranunculus penicillatus** (Stream Water-crowfoot) (Crafanc-y-frân y Nant). Cae Delyn, Llanedi TN1913, SN5942 0617, Llanelli Naturalists meeting, det. R.D.Pryce, 8th Jun 2019, occasional in Afon Llchwyr. Also recorded in river at SN 5893 0612 and SN 5987 0659 during BSBI meeting on 14/7/2019.
- +‡029/1.2. **Berberis thunbergii** (Thunberg's Barberry) (Pren Melyn Thunberg). Blaenpanteg nr Llanglydwen, SN1974 2500, M.O.Stead, 9th Jul 2019, roadside hedge.
- +031/5.05. **Fumaria muralis** (Common Ramping-fumitory) (Mwg-y-ddaeare Amrywiol). Ysgubor, Llangunnor, SN45827 19329, Llanelli Naturalists meeting, det. R.D.Pryce, 28th Apr 2019, gravelly area NW of new house.
- +‡036/1.2. **Urtica urens** (Small Nettle) (Danhadlen Fach). Pembrey Burrows LNR, SS4204 9940, BSBI Welsh AGM field meeting, 23rd May 2019, also several plants by cattle crush at SS 4207 9941.
- +‡040/2.2.© **Alnus incana** (Grey Alder) (Gwernen Lwyd). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G. & T.Moss, 11th Jul 2019, planted. New record for Carms part of hectad.
- +040/3.1.© **Carpinus betulus** (Hornbeam) (Oestrwydden). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G. & T.Moss, 11th Jul 2019, originally planted. First record for Carms part of hectad.
- +046/01.1.a. **Arenaria serpyllifolia subsp. serpyllifolia** (Thyme-leaved Sandwort). Brynceirch Farm, Blaenycloed, SN3396 2798, A.O.Chater, R.D. & K.A.Pryce, 12th Jul 2019, sand surfaced yard, also in adjacent tetrad at SN 33972800.
- +046/20.04×05. **Silene vulgaris** × **S. uniflora**. Grillo site, Burry Port TN1955, SN446 002, R.D.Pryce, det. R.D.Pryce & Barry Stewart, 5th May 2019, frequent over demolished zinc oxide works including SN446 003, SN446 004, SN447 002, SN447 003, SN447 004 and SN448 004. Second VC record.
- +‡047/3.1. **Fagopyrum esculentum** (Buckwheat) (Gwenith yr Hydd). Pembrey Burrows, SS4148 9944, BSBI Welsh AGM field meeting, 23rd May 2019, many seedlings germinated in bare sand by fence.
- +047/.4.? **Polygonum polycnemiforme** (Bushy Knotgrass). Brynceirch Farm, Blaenycloed, SN3396 2798, A.O.Chater, R.D. & K.A.Pryce, det. A.O.Chater, 12th Jul 2019, southern part of sandy surfaced plant yard; (+) Blaencynllaeth, north-west of Cynwyl Elfed, SN3535 2860, R.D.Pryce, G.M.Kay & A.Copping, det. R.D.Pryce, 13th Jul 2019, farm yard; (+) Nantyrast, SN7071 4825, R.D.Pryce & K.A.Pryce, 21st Jul 2019, trackway. Also on shingle shoal of upper Cothi at SN 7071 4832.
- +047/4.bel. **Polygonum agrestinum** (Red-knotgrass). Brynceirch Farm, Blaenycloed, SN3401 2798, A.O.Chater, R.D. & K.A.Pryce, det. A.O.Chater, 12th Jul 2019, farmyard surfaced with stone chippings.
- +047/4.cha. **Polygonum chamaechyton** (A Knotgrass). East of Pantygwr, NE of Meidrim, SN314 223, A.O.Chater, T.E.Greenaway & R.G.Woods, det. A.O.Chater, 11th Jul 2019, gateway; (+)

- Garden Cottage Golden Grove, SN5960 2035, BSBI meeting, det. A.O.Chater, 8th Jul 2019, eastern part of gravel surfaced yard.
- +047/4.mic. **Polygonum microspermum**. Pendine sea front promenade, SN23507 07940, BSBI meeting, det. A.O.Chater, 9th Jul 2019.
- +‡049/1.off. **Paeonia officinalis** (Garden Peony) (Rhosyn-y-mynydd y Gerddi). Llanelli, Pentrepoeth Road, SN5066 0145, I.K.Morgan, 19th Apr 2019, presumed garden throw-out established on side of cycle track (former mineral railway line).
- +‡051/1.01. **Hypericum calycinum** (Rose-of-Sharon) (Rhosyn Saron). Capel Ffynnon Bedr, NE of Meidrim, SN3140 2251, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, hedgebank.
- +055/1.1. **Drosera rotundifolia** (Round-leaved Sundew) (Gwlithlys). Nantycastell, Cynwyl-Elfed, SN3453 2972, R.D.Pryce, G.M.Kay & A.Copping, 13th Jul 2019, three small patches at edge of Sphagnum-dominated bog pool comprising 1, 2 and 12 plants over total area c.1.5m x 0.5m.
- +‡061/1.3×del. **Populus ×canadensis** (Hybrid Black-poplar) (Poplysen Ddu Groesryw). Caermalwas, Rhydcymerau, SN5616 4038, West Wales Biodiversity Information Centre recording meeting, 13th May 2019, mature hedgerow field boundary.
- *061/2.09×12. **Salix ×fruticosa** (Shrubby Osier) (Helygen-wiail Brysgwyddog). Pendine Burrows, N of Witchett Pool, SN2838 0788, Barry Stewart, 2nd Jul 2019, adjacent to (east side of) road between Witchett Pool and range barrier. NCR made during the Sands of Life survey.
- +061/2.10×12. **Salix ×capreola**. Brynceirch Farm, Blaenycloed, SN3406 2824, A.O.Chater, R.D.& K.A.Pryce, 12th Jul 2019, in hedge. Also in riparian woodland strip at SN 3409 2783; (+) Parcgywyn, Llansaint, SN4012 0932, M.O.Stead, R.D.& K.A.Pryce, 11th Jul 2019, hedgerow; (+) Garn Ganol, Crwbin, SN4740 1259, R.D.Pryce & K.A.Pryce, 25th May 2019, edge of Waun Pella wet, acid grassland field.
- +061/2.11×12. **Salix ×multinervis**. Delta lakes, Machynys, SS507 985, R.N.Stringer & R.G.Woods, 4th Jul 2019, on waste ground. Also recorded at Machynys Golf Course SS 515 980, by R.N.Stringer, A.O.Chater, K.McGinn & T.E.Greenaway on 10th Jul 2019; (+) Brynceirch Farm, Blaenycloed TN1924, SN3409 2783, A.O.Chater, R.D.& K.A.Pryce, 12th Jul 2019, riparian woodland strip. Also recorded by G.M.Kay at Nant y Castell, Cynwyl Elfed SN346 296 on 13/7/2019.
- *062/14.1. **Cardamine bulbifera** (Coralroot) (Deintwraidd). N of Glan-y-Rhyd, Felindre, SN68674 30642, R.D.Pryce & K.A.Pryce, det. J.P.Poland, T.C.G.Rich & G.M.Kay, 7th Apr 2019, edge of woodland on bank of tributary of the Afon Marlais, three plants established at foot of bank at edge of cobble shoal on west side of river, presumably washed down from a garden upstream. First VC Record, **Herb.NMW**
- +‡062/33.1. **Diplotaxis tenuifolia** (Perennial Wall-rocket) (Roced-y-muriau Meinddail). Melin Pandy, Station Rd., Newcastle Emlyn, SN3154 4052, R.D.Pryce & K.A.Pryce, 29th Jun 2019, weed in vegetable garden.
- +‡062/35.2. **Sinapis alba** (White Mustard) (Mwstard Gwyn). Garden Cottage, Golden Grove, SN5963 2034, BSBI meeting, det. R.D.Pryce, conf. G.M.Kay, 8th Jul 2019, on boundary at north edge of vegetable garden.
- +062/42.1. **Raphanus raphanistrum** (Rhuddygl). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record from Carms part of hectad.
- +‡073/5.19. **Sedum hispanicum** (Spanish Stonecrop) (Briweg Sbaen). The Green, Llansteffan, SN35439 10686, Barry Stewart, 5th Jul 2019, well naturalized.
- +‡073/5.7. **Sedum spurium** (Caucasian-stonecrop) (Briweg y Cawcasws). Dyffryn tetrad 2km NE of Meidrim, SN32b, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019.
- +‡074/08.1. **Tellima grandiflora** (Fringecups) (Clychau'r Clawdd). Caermalwas, Rhydcymerau, SN5609 4028, West Wales Biodiversity Information Centre recording meeting, det. R.D.Pryce, 13th May 2019, bank below house.

- +‡075/03.1×3. **Spiraea ×pseudosalicifolia** (Confused Bridewort) (Ffug Erwain-dail-helyg). Ffynnon-las Uchaf, Blaenwaun, SN219 278, G.M.Kay, A.Copping, B.J.& D.J.Wright, det. G.M.Kay, 12th Jul 2019.
- +075/09.14×15. **Potentilla ×mixta** (Hybrid Cinquefoil) (Pumnalen Groesryw). West of Dyffryn, NE of Meidrim, SN3085 2249, A.O.Chater, T.E.Greenaway & R.G.Woods, det. A.O.Chater, 11th Jul 2019, hedgebank.
- +‡075/17.3.b. **Poterium sanguisorba subsp. balearicum** (Fodder Burnet) (Bwrned Ebran). Llanmilo, SN24729 08506, BSBI meeting, det. R.D.Pryce & G.M.Kay, 9th Jul 2019, roadside bank, north side of road.
- +075/20.2. **Aphanes australis** (Slender Parsley-piert) (Troed-y-dryw Main). Abermangoed Bridge, SN67084 42931, R.D.Pryce & K.A.Pryce, 6th May 2019, verge edge at north-west end of bridge, south side of road. New record for Carms part of hectad.
- +‡075/22.03. **Prunus cerasifera** (Cherry Plum) (Coeden Goeg-geirios). Torcoed Quarry, SN4963 1401, R.D.Pryce & K.A.Pryce, 9th Mar 2019, one bush in flower in plantings north of main entrance, west side of road.
- +‡075/32.21. **Cotoneaster horizontalis** (Wall Cotoneaster) (Cotoneaster Asgwrn). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record for Carms part of hectad.
- *076/1.vern. **Acacia verniciflua var. graveolens** (Varnish Wattle). Tyrwaun, Pwll, SN469 013, I.K.Morgan, det. G.Hutchinson, 1st Nov 2008, tiny seedlings appeared on a planted Dicksonia in about 2005 which, after growing-on, were identified by George Hutchinson. The unprotected plant grew for several years but the very cold winter of 2008-09 killed them, **Herb.NMW**
- +077/14.08. **Vicia tetrasperma** (Smooth Tare) (Ffachysen Lefn). Garden Cottage, Golden Grove, SN5963 2034, BSBI meeting, 8th Jul 2019, by track on north edge of vegetable garden. Also in small weedy area at SN 5982 2030.
- *077/14.14. **Vicia bithynica** (Bithynian Vetch) (Ffachysen Ruddlas). Nr. Loughor Bridge, SS5518 9814, Barry Stewart, 20th May 2019, a sprawling cluster of plants on side of track on east side of boardwalk where the track crosses it; (+) Llanelli, North Dock Spit LNR, SS49827 99064, I.K.Morgan, 21st May 2019, several clumps in close proximity on a steep, east-facing sand-dune bank alongside the main path. Second VC record.
- *077/18.2.a. **Medicago sativa subsp. falcata** (Sickle Medick) (Maglys Corniog). Burry Port Harbour, SN4421 0027, BSBI Welsh AGM field meeting, conf. J.P.Poland, 21st May 2019, flat dry disturbed dune area.
- +‡077/19.04. **Trifolium hybridum** (Alsike Clover) (Meillionen Sweden). North of Sugar Loaf, SN840 433, G.M.Kay, 15th Jul 2019, road verge at forest fringe.
- +077/19.08. **Trifolium fragiferum** (Strawberry Clover) (Meillionen Fefusaidd). Machynys Golf Course, SS5194 9855, BSBI meeting, det. G.M.Kay, 10th Jul 2019, unmown grass-dominated bank.
- +077/19.20. **Trifolium striatum** (Knotted Clover) (Meillionen Rychog). Pembrey Burrows LNR, SS4208 9942, BSBI Welsh AGM field meeting, det. A.O.Chater, 23rd May 2019, locally frequent on sparsely vegetated gravelly substrate on south edge of track.
- +079/2.4. **Myriophyllum alterniflorum** (Alternate Water-milfoil) (Myrdd-dail Blodau Bob yn Ail). Machynys Golf Course TN19019, SS5191 9817, R.D.Pryce & K.A.Pryce, 26th Jun 2019, abundant in drainage pill. First record for Carms part of hectad; (+) Drefach, Meidrim, SN29 21, M.O.Stead, 12th Jul 2019.
- +084/1.07. **Epilobium roseum** (Pale Willowherb) (Helyglys Gwelw). Parcgwyn, Llansaint, SN3989 0940, R.D.Pryce & K.A.Pryce, 11th Jul 2019, sparsely vegetated gravelly ground by shed and caravan.
- +‡084/4.4. **Oenothera cambrica** (Small-flowered Evening-primrose) (Melyn-yr-hwyr Mân-flodeuog). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record for Carms part of hectad.

- +094/1.1. **Linum bienne** (Pale Flax) (Llin Culddail). Machynys Golf Course, SS5158 9787, R.D.Pryce & K.A.Pryce, 26th Jun 2019, locally abundant in neutral grassland on north side of track. First record for the Carms part of hectad.
- +094/1.4. **Linum catharticum** (Fairy Flax) (Llin y Tylwyth Teg). Capel Ffynnon Bedr, NE of Meidrim, SN3142 2255, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, chapel graveyard.
- +107/28.4. **Apium inundatum** (Lesser Marshwort) (Dyfrforonen Fach). Machynys Golf Course, SS515 980, R.N.Stringer, A.O.Chater, K .McGinn & T.E.Greenaway, det. R.N.Stringer & R.G.Woods, 10th Jul 2019.
- +108/3.2. **Centaurium erythraea** (Common Centaury) (Y Ganrhi Goch). Brynceirch Farm, Blaenycod, SN3376 2754, A.O.Chater, R.D.& K.A.Pryce, 12th Jul 2019, one plant on grassy path through scrub woodland by zig zag bend.
- +111/2.1.arv. **Convolvulus arvensis f. arvensis**. Burry Port Railway Bridge, SN44539 00729, R.D.Pryce, 23rd Jul 2019, large patch inside fence on SW side of bridge on corner with bus-station. First hectad record for form.
- *111/2.1.qui. **Convolvulus arvensis f. quinquevulnerus**. Morfa Bychan, SN22373 07576, BSBI meeting, 9th Jul 2019, foot of concrete slope on west side of bay. Also recorded on the same day by the same recorders on undercliff at Pendine SN2331107881. First VC records for form.
- +‡111/3.4.dis. **Calystegia silvatica subsp. disjuncta**. Machynys Golf Course, SS5155 9833, BSBI meeting, det. G.M.Kay, 10th Jul 2019, by gravel track.
- +118/04.1. **Lamium galeobdolon** (Yellow Archangel) (Marddanhadlen Felen). Salem Chapel, Pumsaint, SN6500 4220, R.D.Pryce & K.A.Pryce, 6th May 2019, roadside bank. Probably garden origin.
- +‡118/04.1.c. **Lamium galeobdolon subsp. argentatum**. Llanerch-hindda, SN80746 42798, R.D.Pryce & K.A.Pryce, 22nd Apr 2019, established garden throw-out, west side of road west of bridge over Afon Bran.
- +118/10.2. **Scutellaria galericulata** (Skullcap) (Cycyllog). Waun Lwyd, SN80 24, C.Cheffings, G.& T.Moss, 14th Jul 2019, near Nant Sychnant.
- +118/18.4. **Clinopodium vulgare** (Wild Basil) (Brenhinllys Gwylt). West of Fron isaf, east of Llanglydwen, SN1915 2674, M.O.Stead, 9th Jul 2019, roadside bank. Also at SN19242665.
- +118/20.1. **Origanum vulgare** (Wild Marjoram) (Penrhudd). Meidrim, SN29 20, M.O.Stead, 12th Jul 2019, roadside.
- +‡118/23.3. **Mentha spicata** (Spear Mint) (Mintys Ysbigog). Garden Cottage, Golden Grove, SN5959 2037, BSBI meeting, 8th Jul 2019, weed in garden; (+) Cwm Einon Fawr, SN6353 3919, R.D.Pryce & K.A.Pryce, 15th Jun 2019, by track across ford under mature woodland.
- +‡124/07.1. **Antirrhinum majus** (Snapdragon) (Trwyn y Llo). Dyffryn tetrad, SN32b, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, 2km NE of Meidrim.
- +‡124/08.2. **Chaenorhinum minus** (Small Toadflax) (Trwyn-y-llo Bach). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record for Carms part of hectad.
- +‡124/13.3. **Linaria purpurea** (Purple Toadflax) (Llin-y-llyffant Porffor). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record from Carms part of hectad.
- *124/13.4x5. **Linaria xcornubiensis**. Burry Port, SN4472 0026, R.D.Pryce, 10th May 2019, occasional plants in rubble of demolished Grillo zinc oxide works, both parents frequent in the vicinity. Also at SN 4476 0026.
- +‡124/16.19. **Veronica agrestis** (Green Field-speedwell) (Rhwyddlwyn-y-maes Gwyrdd). Pantygwr, NE of Meidrim, SN3114 2220, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, a few plants in farmyard.
- +‡124/16.24.a. **Veronica hederifolia subsp. hederifolia**. Abermangoed Bridge, SN67084 42931, R.D.Pryce & K.A.Pryce, 6th May 2019, roadside. Also in Salem Chapel graveyard at SN 64962 42274. First hectad records for subsp; (+) Llanerch-hindda, SN80739 42784, R.D.Pryce & K.A.Pryce, 22nd Apr 2019, west side of road, south-west of bridge over Afon Bran.

- *124/20.06×07. **Euphrasia tetraquetra** × **E. nemorosa**. Morfa Bychan, SN2270 0751, BSBI meeting, det. A.O.Chater, 9th Jul 2019, gully on east side of bay, collected by Matt Sutton, confirmed by AOC. First confirmed VC record.
- +130/6.05.b. **Galium palustre subsp. elongatum** (Great Marsh-bedstraw). Machynys Golf Course, SS5169 9846, BSBI meeting, det. A.Copping, 10th Jul 2019, large stand on bank of 'moat' forming northern boundary of golf course.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle) (Bachgen Llwm). Maesyrfhaf, Blaenwaun, SN22 27, G.M.Kay, A.Copping, B.J.& D.J.Wright, 12th Jul 2019, roadside.
- +‡131/6.1. **Lonicera pileata** (Box-leaved Honeysuckle) (Gwyddfif Llorweddol). Meidrim, SN29 20, M.O.Stead, 12th Jul 2019, roadside; (+) Pleasant View, Meidrim, SN3085 2121, M.O.Stead, 12th Jul 2019, south side of road near gate.
- +‡133/1.2. **Valerianella carinata** (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffrwythau Rhychog). Felin Pandy, SN3022 2349, A.O.Chater, T.E.Greenaway & R.G.Woods, det. A.O.Chater, 11th Jul 2019, roadside.
- +135/16.1.cor. **Scorzoneroideis autumnalis var. coronopifolia**. Cae Delyn, Llanedi, SN5874 0630, Llanelli Naturalists meeting, det. R.D.Pryce, 8th Jun 2019, a few plants in upper farmyard east of house. First record of var. in Carms part of hectad; (+) Nantyrast, SN7071 4832, R.D.Pryce & K.A.Pryce, 21st Jul 2019, on shingle shoal in upper Afon Cothi. Also scattered in various other locations in the area.
- +135/16.3. **Leontodon saxatilis** (Lesser Hawkbit) (Peradyl Bach). Newcastle Emllyn, SN30909 40355, R.D.Pryce & K.A.Pryce, 28th Jun 2019, west boundary wall of Ebenezer Chapel, Ebenezer Road.
- +‡135/22.1. **Lactuca serriola** (Prickly Lettuce) (Letusen Bigog). 1, Ebenezer Street, Newcastle Emllyn, SN30937 40345, R.D.Pryce & K.A.Pryce, 28th Jun 2019, two plants in front forecourt of small house. Another two plants on opposite sides of turning off Ebenezer Street at SN 31009 40364. First records for Carms part of hectad.
- *135/25.01.18. **Taraxacum proximiforme** (Straw-fruited Dandelion). Caermalwas, Rhydcymerau, SN55921 39922, West Wales Biodiversity Information Centre recording meeting, det. A.J.Richards 11/2019, 13th May 2019, **Herb.NMW**
- +135/25.04.35. **Taraxacum faeroense** (Faeroes Dandelion). Caermalwas, Rhydcymerau, SN56124 40274, West Wales Biodiversity Information Centre recording meeting, det. A.J.Richards 11/2019, 13th May 2019, also at SN 56162 40285, **Herb.NMW**.
- +135/25.07.55. **Taraxacum bracteatum** (Dark-green Dandelion). Caermalwas, Rhydcymerau, SN55951 40049, West Wales Biodiversity Information Centre recording meeting, det. A.J.Richards 11/2019, 13th May 2019, **Herb.NMW**
- +135/25.07.56. **Taraxacum britannicum** (British Dandelion). Penhill, Capel Isaac, SN65 26, T.C.G. Rich, 14th Apr 2019.
- +135/25.07.59 **Taraxacum celticum** (Celtic Dandelion). New museum construction site, Pendine, SN23603 08021, R.D.Pryce, det. A.J.Richards 11/2019, 18th Mar 2019, **Herb.NMW**; (+) 57 Station Road, Llangennech, SN56308 01532, K.A.Pryce, det. A.J.Richards 11/2019, 26th Mar 2019, **Herb.NMW**
- +135/25.07.60. **Taraxacum duplidentifrons** (Double-toothed Dandelion). Garn Ganol, Crwbin, SN4698 1264, BSBI Welsh AGM field meeting, det. T.C.G. Rich, 22nd May 2019, **Herb.NMW**; (+) Tynyllwyn, Llandoverly, SN77610 30343, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +135/25.07.64. **Taraxacum gelertii** (Gelert's Dandelion). Penhill, Capel Isaac, SN65 26, T.C.G. Rich, 14th Apr 2019.
- +135/25.07.73. **Taraxacum oellgaardii** (Ollgaard's Dandelion). East of Llanllwni Church, SN51480 30293, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th Apr 2019, **Herb.NMW**; (+) E of Tir-y-fan, SN66803 31777, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 7th Apr 2019, **Herb.NMW**; (+) Llandoverly; Felin-fran Bridge, SN77522 29727, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**

- +135/25.07.78. **Taraxacum porteri** (Porter's Dandelion). Plwmp, Dolgran, SN42542 35754, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 1st Jun 2019, **Herb.NMW**
- +135/25.07.80. **Taraxacum subbracteatum** (Dark-bracted Dandelion). Garn Ganol, Crwbin, SN46895 12619, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 27th Mar 2019, **Herb.NMW**; (+) Furnace Pond, Llanelli, SN5044 0194, BSBI meeting, det. T.C.G. Rich, 22nd May 2019.
- +‡135/25.08.100. **Taraxacum spiculatum** (Sagittate-lobed Dandelion). Garnant, Felen Road, SN68279 14246, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 27th Apr 2019, **Herb.NMW**
- +135/25.08.101. **Taraxacum subhamatum** (Large Hook-lobed Dandelion). Pant-y-meillion, SN35499 35349, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 23rd Mar 2019, also at SN 35499 35349, **Herb.NMW**; (+) Coed Cwm-du-bach, SN58290 37673, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th Apr 2019, **Herb.NMW**
- +135/25.08.84. **Taraxacum atactum** (Narrow-bracted Dandelion). N of Glan-y-Rhyd, Felindre, SN68585 30692, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 7th Apr 2019, **Herb.NMW**; (+) Tynyllwyn, Llandovery, SN77662 30334, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +135/25.08.85. **Taraxacum boekmanii** (Bokman's Dandelion). W of Penlantelych, Llandovery, SN77984 33286, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +‡135/25.08.86 **Taraxacum fusciflorum** (Brown-striped Dandelion). Penrhiw, Llansawel, SN61936 37139, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th Apr 2019, second VC record, **Herb.NMW**
- +135/25.08.87. **Taraxacum hamatiforme** (Asymmetrical Hook-lobed Dandelion). Penrhiw, Llansawel, SN61935 37114, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th Apr 2019, **Herb.NMW**
- +135/25.08.89 **Taraxacum hamatum** (Hook-lobed Dandelion). Abermangoed Bridge, SN67239 42883, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th May 2019, **Herb.NMW**
- +135/25.08.90. **Taraxacum hamiferum** (Dark Hook-lobed Dandelion). Cilgattw, Felingwm, SN51608 26424, T.E.Greenaway, R.D.& K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +‡135/25.08.92. **Taraxacum lamprophyllum** (Lustrous-leaved Dandelion). Glanamman, Grenig Road, SN67806 12011, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 27th Apr 2019, **Herb.NMW**
- +‡135/25.08.93. **Taraxacum lancidens** (Spear-toothed Dandelion). Sifigwm Forestry Car Park, SN55177 39379, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th Apr 2019, **Herb.NMW**; (+) S of Gwernfelen, Llandovery, SN79726 32612, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +135/25.08.94. **Taraxacum marklundii** (Marklund's Dandelion). Ffynnon-y-gog, Brechfa, SN53683 33431, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th Apr 2019, **Herb.NMW**; (+) Glanamman, Grenig Road, SN68039 11861, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 27th Apr 2019, **Herb.NMW**
- +‡135/25.08.97. **Taraxacum pruinatum** (Pruinose Dandelion). Llysnewydd Layby, SN35250 40060, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 23rd Mar 2019, first record for Carmarthen part of hectad, **Herb.NMW**; (+) Glanamman, Grenig Road, SN67947 11928, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 27th Apr 2019, **Herb.NMW**
- +135/25.08.98. **Taraxacum pseudohamatum** (False Hook-lobed Dandelion). Llanerch-hindda, SN80739 42784, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 22nd Apr 2019, **Herb.NMW**
- +135/25.08.sah. **Taraxacum sahlinianum** (Sahlin's Dandelion). S of Ewlon, Pumsaint, SN63271 44063, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th May 2019, **Herb.NMW**

- +‡135/25.09.102 **Taraxacum aberrans** (Apiculate-lobed Dandelion). Salem Chapel, White Mill, SN46559 22605, R.D.Pryce, det. A.J.Richards 11/2019, 3rd May 2019, **Herb.NMW**
- +‡135/25.09.106. **Taraxacum aequilobum** (Twisted-bracted Dandelion). Tynyllwyn, Llandovery, SN77576 30324, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +135/25.09.108. **Taraxacum alatum** (Green Dandelion). Salem Chapel, Pumsaint, SN64998 42178, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th May 2019, **Herb.NMW**
- +135/25.09.120. **Taraxacum cophocentrum** (Rounded-lobed Dandelion). W of Fachrhos, Abergwili, SN44862 22961, R.D.Pryce, det. A.J.Richards 11/2019, 3rd May 2019, **Herb.NMW**; (+) Nr Fferm Cwm-y-Glo, Cefneithin, SN54296 13433, R.D.Pryce, det. A.J.Richards 11/2019, 18th Apr 2019, **Herb.NMW**; (+) Penhill, Capel Isaac, SN65 26, T.C.G. Rich, 14th Apr 2019.
- +135/25.09.123. **Taraxacum crociflorum** (Orange-flowered Dandelion). Abermangoed Bridge, SN67101 42901, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th May 2019, **Herb.NMW**
- *‡135/25.09.129. **Taraxacum dilaceratum** (Lacerate-leaved Dandelion). Llanerch-hindda, SN80746 42798, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 22nd Apr 2019, **Herb.NMW**
- +135/25.09.130. **Taraxacum dilatatum** (Grassland Dandelion). Salem Chapel, Pumsaint, SN65009 42219, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th May 2019, **Herb.NMW**
- +135/25.09.131. **Taraxacum ekmanii** (Ekman's Dandelion). Nantgeredig Bridge, SN49310 20324, R.D.Pryce, det. A.J.Richards 11/2019, 3rd May 2019, first confirmed hectad record, **Herb.NMW**
- +‡135/25.09.136. **Taraxacum fagerstroemii** (Fagerstrom's Dandelion). Ysgubor, Llangunnor, SN45798 19132, Llanelli Naturalists meeting, det. A.J.Richards 11/2019, 28th Apr 2019, **Herb.NMW**
- *‡135/25.09.142. **Taraxacum incisum** (Incise-leaved Dandelion). S of Ewlon, Pumsaint, SN63281 44038, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th May 2019, **Herb.NMW**
- +‡135/25.09.146. **Taraxacum lacerifolium** (Jagged-leaved Dandelion). West of Penlantelych, Llandovery, SN77969 33305, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +135/25.09.151. **Taraxacum latisetum** (Broad-lobed Dandelion). N of Glan-y-Rhyd, Felindre, SN68627 30602, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 7th Apr 2019, **Herb.NMW**
- +‡135/25.09.160. **Taraxacum lunare** (Lunar-lobed Dandelion). NE of Penlangerrig, SN35590 37225, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 23rd Mar 2019, first post 2000 record, fourth VC record, **Herb.NMW**
- +‡135/25.09.179. **Taraxacum pallidipes** (Grey-bracted Dandelion). S of Lletty Stud Farm, Alltyferin, SN52575 22258, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 27th Mar 2019, **Herb.NMW**
- +‡135/25.09.194. **Taraxacum rhamphodes** (Robust Dandelion). Glanamman, Grenig Road, SN67959 11916, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 27th Apr 2019, second post 2000 record, fourth VC record, **Herb.NMW**
- +135/25.09.199. **Taraxacum sinuatum** (Sinuate-lobed Dandelion). Glynhir, SN64268 15543, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 19th Apr 2019, **Herb.NMW**
- +‡135/25.09.208 **Taraxacum sublongisquameum** (Roadside Dandelion). Cilgattw, Felingwm, SN51638 26329, T.E.Greenaway, R.D.& K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, third VCR, **Herb.NMW**; (+) Ffynnon-y-gog, Brechfa, SN53667 33418, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 6th Apr 2019, second VCR, **Herb.NMW**
- +135/25.09.209. **Taraxacum lepidum** (Pruinose-bracted Dandelion). NW of Penllwyn, SN33318 39541, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 23rd Mar 2019, **Herb.NMW**
- +135/25.09.217. **Taraxacum undulatum** (Wavy-leaved Dandelion). Llysnewydd Layby, SN35211 40069, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 23rd Mar 2019, **Herb.NMW**
- +135/25.09.220. **Taraxacum xanthostigma** (Ochre-styled Dandelion). Cilgattw, Felingwm, SN51611 26415, T.E.Greenaway, R.D.& K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**

- +‡135/25.09.anc. **Taraxacum anceps**. Garn Ganol, Crwbin., SN46820 12590, R.D.Pryce & K.A.Pryce, det. A.J.Richards 11/2019, 20th Apr 2019, first post 2000 record, **Herb.NMW**
- *‡135/25.09.sun. **Taraxacum sundbergii** (Sundberg's Dandelion). Cilgattw, Felingwm, SN51602 6422, T.E.Greenaway, R.D.& K.A.Pryce, det. A.J.Richards 11/2019, 13th Apr 2019, **Herb.NMW**
- +135/27.2.mic. **Pilosella officinarum subsp. micradenia** (a subspecies of Mouse-ear-hawkweed). Penllifau Forest entrance, SN7274 3823, R.D.Pryce & K.A.Pryce, 15th Jun 2019, acidic roadside bank. First hectad record for subsp.
- +135/27.2.off. **Pilosella officinarum subsp. officinarum** (a subspecies of Mouse-ear-hawkweed). Cae Delyn, Llanedi, SN5938 0688, Llanelli Naturalists meeting, det. R.D.Pryce, 8th Jun 2019, on small sandstone outcrops in body of semi-improved neutral grassland field. First record for Carms part of hectad for subsp; (+) Ffaldybrenin Chapel, SN6368 4459, R.D.Pryce & K.A.Pryce, 6th May 2019, in part of graveyard west of chapel. First record for Carms part of hectad for subsp.
- +135/27.2.trso. **Pilosella officinarum subsp. trichosoma** (a subspecies of Mouse-ear-hawkweed). Pencraig area, SN3509 2892, R.D.Pryce, G.M.Kay & A.Copping, 13th Jul 2019, acidic road bank by farm entrance. First hectad record for subsp; (+) Burry Port, SN4476 0039, R.D.Pryce, 5th Jun 2019, low rubble mound on site of demolished Grillo zinc oxide works. Also at SN 4474 0039.
- +‡135/59.1. **Matricaria chamomilla** (Scented Mayweed) (Amranwen Bêr). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record for the Carms part of hectad.
- +‡135/62.1.8. **Senecio viscosus** (Sticky Groundsel) (Creulys Ludlog). Felin Panddy, SN3022 2349, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, roadside waste ground.
- +‡135/73.1.© **Calendula officinalis** (Pot Marigold) (Melyn Mair). Felin Panddy, SN3017 2348, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, waste ground.
- +©135/GUI.ab. **Guizotia abyssinica** (Niger) (Guizotia). Garden Cottage, Golden Grove, SN5959 2037, BSBI meeting, 8th Jul 2019, abundant seedlings self-sown below bird feeder in garden.
- +‡138/4.2. **Elodea nuttallii** (Nuttall's Waterweed) (Ffugalaw Nuttall). Brynceirch Farm, Blaenycloed, SN3406 2801, A.O.Chater, R.D.& K.A.Pryce, 12th Jul 2019, small pond covered with dense Potamogeton natans.
- +‡138/6.1. **Lagarosiphon major** (Curly Waterweed) (Ffugalaw Crych). Brynceirch Farm, Blaenycloed, SN3406 2801, A.O.Chater, R.D.& K.A.Pryce, 12th Jul 2019, small pond covered with dense Potamogeton natans; (+) Pond, Stradey Woods, Llanelli, SN48949 01647, I.K.Morgan, det. R.D.Pryce, 2019, abundant in lake enlarged about five years previously, **Herb.NMW**; (+) Ysgubor, Llangunor, SN4576 1911, Llanelli Naturalists meeting, det. R.D.Pryce, 28th Apr 2019, in lake constructed 3-4 years ago. Also recorded at SN 4578 1912.
- +146/1.2. **Zostera noltei** (Dwarf Eelgrass) (Gwellt-y-gamlas Bach). Extensive area in intertidal zone off Llanelli Beach., SN486 004, Barry Stewart, 15th May 2019, Zostera bed extending c.700m over intertidal zone aligned WNW - ESE, also including SN487 003, SN488 002, SN48 003, SN489 002, SN490 001, SN491 000, SN491 001 and SN492 000.
- +152/05.1 **Scirpus sylvaticus** (Wood Club-rush) (Clwbfrwynen Bengron). Cae Delyn, Llanedi, SN5891 0612, BSBI meeting, det. R.A.Jones et al, 14th Jul 2019, extensive in wet rank area overgrown with other fen vegetation and becoming colonised by encroaching scrub. Difficult to estimate extent of stand but probably several clumps over area of c 20m x 10m; (+) Ty Uchaf, Lladybie, SN61655 14166, Dave Reed, conf. Julian Woodman, 10th Jun 2019, in a damp corner of a field abutting bramble scrub and woodland.
- +152/16.07. **Carex spicata** (Spiked Sedge) (Hesgen Ysbigog Borffor). Eithin Tewion, Cilycwm, SN74378 41354, R.D.Pryce & K.A.Pryce, 15th Jun 2019, one plant on bank of Afon Gwenlais bounding western field.
- +152/16.08.b. **Carex muricata subsp. pairae** (Small-fruited Prickly-sedge). Drefach, Meidrim, SN29 21, M.O.Stead, 12th Jul 2019.

- +152/16.09.a. **Carex divulsa subsp. divulsa** (Grey Sedge). Machynys Golf Course, SS5153 9801, BSBI meeting, 10th Jul 2019, small pond, west side. First record for Carms part of hectad.
- +152/16.29. **Carex vesicaria** (Bladder-sedge) (Hesgen Chwysigennaidd). Cae Delyn, Llanedi, SN5975 0663, Llanelli Naturalists meeting, det. R.D.Pryce & K.A.Pryce, 8th Jun 2019, stand c.2m x 2m in western part of Llchwyr flood plain marsh.
- +153/12.02. **Schedonorus arundinaceus** (Tall Fescue) (Peiswellt Tal). Newcastle Emlyn, Melin Pandy, Station Rd., SN3154 4050, R.D.Pryce & K.A.Pryce, 28th Jun 2019, on stream bank.
- +153/17.1. **Briza media** (Quaking-grass) (Crydwellt). Capel Ffynnon Bedr, NE of Meidrim, SN3142 2255, A.O.Chater, T.E.Greenaway & R.G.Woods, 11th Jul 2019, chapel graveyard.
- +153/18.05. **Poa pratensis** (Smooth Meadow-grass) (Gweunwellt Llyfn). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record for Carms part of hectad; (+) Waun Lwyd, SN80 24, C.Cheffings, G.& T.Moss, 14th Jul 2019.
- +153/18.12. **Poa nemoralis** (Wood Meadow-grass) (Gweunwellt y Coed). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, first record for Carms part of hectad.
- *153/18.13. **Poa bulbosa** (Bulbous Meadow-grass) (Gweunwellt Oddfog). Burry Port, SN4416 0028, BSBI Welsh AGM field meeting, det. Julian Woodman, 21st May 2019, locally frequent, desiccated plants along scuffed paths across flat, dry disturbed dune area west of harbour.
- +153/21.2. **Catapodium marinum** (Sea Fern-grass) (Gwenithwellt y Morfa)). A48 between Nantycaws and Llanddarog, SN462 180, Barry Stewart, 3rd Jul 2019, thousands of plants growing along stretches of the central reservation and carriageway edges of the A48 between Nantycaws and Llanddarog, also at SN481176, SN484175 and SN489173. Also all along the A48 and M4 south-eastwards to the county boundary at Hendy.
- +153/25.2. **Melica uniflora** (Wood Melick) (Meligwellt y Coed). Abernantyffin, SN5524 3240, M.O.Stead, 10th Jul 2019.
- +†153/28.3. **Avena fatua** (Wild-oat) (Ceirchen Wylt). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G.& T.Moss, 11th Jul 2019, new record for Carms part of hectad.
- +‡153/28.5.© **Avena sativa** (Oat) (Ceirchen). Entrance to Parc Johnson, Newcastle Emlyn, SN30971 40349, R.D.Pryce & K.A.Pryce, 28th Jun 2019, street weed.
- +153/32.1.b. **Deschampsia cespitosa subsp. parviflora** (Small-flowered Hair-grass). Drefach, Meidrim, SN29 21, M.O.Stead, 12th Jul 2019, first VC record for subsp.
- +153/35.2. **Aira praecox** (Early Hair-grass) (Brigwellt y Gwanwyn). Bethel Chapel, Church Lane, Newcastle Emlyn, SN3082 4071, R.D.Pryce & K.A.Pryce, 28th Jun 2019, on boundary wall of chapel on south side of road. New record for Carms part of hectad.
- +†153/39.2. **Agrostis gigantea** (Black Bent) (Maeswellt Mawr). Pentroity track: Pencraig area, SN3522 2893, R.D.Pryce, G.M.Kay & A.Copping, 13th Jul 2019, on uncut verge. *Agrostis gigantea* confirmed in lab by Arthur Copping.
- +153/39.8. **Agrostis vinealis** (Brown Bent) (Maeswellt-y-cŵn y Mynydd). Morfa Bychan, SN2260 0761, Arthur Copping, 9th Jul 2019, sides of Coast Path climbing up hill eastwards to summit of Gilman Point.
- +153/50.2. **Bromus commutatus** (Meadow Brome) (Pawrwellt y Ddól). South of Furnace Pond, Llanelli, SN5040 0193, BSBI meeting, det. T.C.G. Rich, 22nd May 2019, locally frequent in grassland on east side of track; (+) Penlan Cottage, Glynhir Road, SN6315 1457, Arthur Copping, 8th Jul 2019, growing by eastern vehicular entrance to cottage.
- +‡153/50.5. **Bromus lepidus** (Slender Soft-brome) (Pawrwellt Main). Pembrey Burrows LNR, SS4143 9937, BSBI Welsh AGM field meeting, 23rd May 2019, dune grassland in various locations also including SS41489944, SS420 9941 and SS42369943. First records for Carms part of hectad.
- *153/51.4. **Bromopsis inermis** (Hungarian Brome) (Pawrwellt Hwngaria). Pendine E11 Range, SN3218 0776, Lucia Ruffino, det. Barry Stewart, 2nd Jul 2019, record made during the Sands of Life survey.
- +‡153/52.1. **Anisantha diandra** (Great Brome) (Pawrwellt Mawr). South of Penybont, SN3804 2264, G.M.Kay, A.Copping, B.J.& D.J.Wright, 11th Jul 2019, .

- +153/54.1.‡ **Brachypodium pinnatum** (Heath False-brome) (Breichwellt y Calch). Morfa Bychan, SN22260 07390, BSBI meeting, 9th Jul 2019, occasional on head deposits on west side of bay. Also occasional in sward in gully on east side of bay at SN22690752 and SN22700751. Collected by M.O.Sutton and confirmed by Arthur Copping.
- +‡153/60.1.© **Triticum aestivum** (Bread Wheat) (Gwenith). Felin fach, Cwm Twrch, SN753 117, C.Cheffings, G. & T.Moss, 11th Jul 2019, First record for Carms part of hectad.
- +‡153/62.1. **Cortaderia selloana** (Pampas-grass) (Peithwellt). Glynhir, SN64140 15419, R.D.Pryce & K.A.Pryce, 19th Apr 2019, smallish plant of variegated form established on left bank of Afon Llchwyr presumably washed down from a garden upstream.
- +155/1.1×2. **Typha ×glauca**. Garden Cottage, Golden Grove, SN5976 2026, BSBI meeting, conf. M.O.Stead, 8th Jul 2019, first confirmed VC record: locally abundant in densely vegetated pond.
- +158/20.2×3.‡ **Hyacinthoides ×massartiana** (Clychau'r-gog Croesryw). Salem Chapel, Pumsaint, SN6500 4220, R.D.Pryce & K.A.Pryce, 6th May 2019, garden throw-out on roadside.
- *158/24.03.ros. **Allium roseum var. roseum**. Pembrey Old Harbour, SN4380 0021, I.K.Morgan, 9th May 2019, about 15 flowering stems covering an area of c.60cm x 60cm in dune grassland alongside rough track down to foreshore.
- +‡158/31.1. **Leucojum aestivum** (Summer Snowflake) (Eiriaidd yr Haf). ESE of Stradey Castle, SN4937 0148, I.K.Morgan, 25th Jan 2019, clump c.8ft x 4ft amongst brambles etc on lower, south side of drive.
- +‡158/32.1. **Galanthus nivalis** (Snowdrop) (Eirlys). Llanerch-hindda, SN80739 42784, R.D.Pryce & K.A.Pryce, 22nd Apr 2019, bank on west side of road south-west of bridge over Afon Bran.
- *‡158/32.1×2. **Galanthus nivalis** × **G. elwesii**. Bronwydd, SN41799 24063, R.D.Pryce & K.A.Pryce, 9th Mar 2019, patch naturalized on roadside bank opposite Riverlea.
- +‡159/08.2. **Crocus tommasinianus** (Early Crocus) (Saffrwm Cynnar). Stradey Woods, SN487 018, I.K.Morgan, 14th Feb 2019, many plants (200+ counted), including some in flower, in area of dumped garden soil at crest of hill adjacent to minor road between Cwmbach and Pwll.
- +‡159/13.1. **Crocossia paniculata** (Aunt-Eliza) (Modryb Leusa). Dolgran, SN4302 3437, R.D.Pryce & K.A.Pryce, 1st Jun 2019, a few naturalised plants established on disused railway embankment.

PEMBROKE, v.c.45 (comm. S.B. Evans)

- 004/1.4×5. **Equisetum ×litorale** (Shore Horsetail) (Marchrawnen y Glennydd). Hodgeston, SS035 987, Matt Sutton, 14th Jun 2019, semi-improved grassland.
- +015/2.5.a. **Asplenium trichomanes subsp. trichomanes** (a subspecies of Maidenhair Spleenwort). Rock face NW of Cwm Morgan, SN2931 3503, Howard Williams, 21st Jan 2019, much time spent searching for this subspecies and this striking red-stemmed plant seems to be the most distinctly different from subsp. quadrivalens. Howard states that he has 'tried to measure the spores and they seemed to be about 30 micrometres long - I'd put it no stronger. The two plants at this site seem to do well on the features the Atlas Notes emphasise (on bare rock, spore-measurement ignoring the perispore/exospore complication, shape of pinnae and redness and persistence of rachises). Some of my other six examples in SN23 of *A. trichomanes* growing on natural rock may also be subsp. *trichomanes* but this one seems the most distinctly different from subsp. *quadrivalens*.' Specimens held.
- +‡020/2.1. **Pseudotsuga menziesii** (Douglas Fir) (Ffynidwydden Douglas). Cwm Sidan, Glan Teifi road, north of Abercych, SN2406 4244, Howard Williams, 15th Feb 2019, a small singleton on the edge of a lane into private forestry.
- +‡021/2.1.© **Chamaecyparis lawsoniana** (Lawson's Cypress) (Cypreswydden Lawson). The Bennet, Newport Dunes, SN05185 40060, Stephen & Ann Evans, 23rd Jun 2019, a ca. 50cm high small sapling was on bare sand with *Ammophila arenaria*.
- +‡021/3.1. **Thuja plicata** (Western Red-cedar) (Cedrwydden Goch). Castell Malgwyn woods, Cilgerran, SN2128 4318, Howard Williams, 21st May 2019,

- +©028/05.1. **Nigella damascena** (Love-in-a-mist) (Glas y Niwl). Glenfield, Manorbier, SS06538 98025, Stephen & Ann Evans, 25th Jun 2019, a flowering plant was growing out of the tarmac at the base of a limestone wall at the entrance from the road to Glenfield.
- +028/13.17.b. **Ficaria verna subsp. verna** (a subspecies of Lesser Celandine). West of entrance to Underwood, Lower Quay Road, Hook, SM9870 1195, Stephen Evans, 25th Apr 2019, it was abundant all along the sides of the sunken tarred road in the roadside slight gutters up the minor hill from Underwood entrance to the start of the houses.
- +028/13.18. **Ranunculus hederaceus** (Ivy-leaved Crowfoot) (Crafanc-y-frân Dail Eiddew). The Nab Head, West of St. Bride's Haven, SM79071 10924, Stephen Evans, 16th Apr 2019, in the short shallow wet flush line north-west of the coast path that quickly reaches the cliff lip. Also in flushes above; all winter pony grazed.
- +030/2.1.‡ **Meconopsis cambrica** (Welsh Poppy) (Pabi Cymreig). Buildings around the Green, Caldey, SS141 966, S.B.Evans, A.E.Evans, H.H.Evans & Emma Evans, 10th Jun 2019, self-sown alongside a building downpipe.
- +031/5.03.hib. **Fumaria bastardii var. hibernica**. Edge of field by drive to Capel Cilfowyr, Carregwen, SN2212 4195, Howard Williams, 13th Jun 2019, arable field.
- +031/5.05.b. **Fumaria muralis subsp. boraei**. Pencraig ruins, Aber Clawdd Pridd, Pencaer, SM91747 40693, Stephen Evans, 19th May 2019, growing on wall ruins.
- +‡031/5.07. **Fumaria officinalis** (Common Fumitory) (Mwg-y-ddae'r Cyffredin). South of Tower Point, St. Bride's Haven, SM79087 10721, Stephen & Ann Evans, 8th Jul 2019, with *Chenopodium album* by rabbit holes on the cliff top.
- +033/1.1×3×4.‡ **Ulmus ×hollandica** (Dutch Elm) (Llwyfen yr Iseldiroedd). Pen-troydin-fawr, Llanddewi Velfrey, SN1506 1730, Matt Sutton, 28th May 2019, one small/medium tree at edge of old oak woodland. Early OS maps show that there were conifers in this woodland strip mixed in with the deciduous trees.
- +‡039/4.3. **Quercus ilex** (Evergreen Oak) (Derwen Fythwyrdd). Picton Ferry, Slebech, SN009 121, Stephen & Ann Evans, 3rd Jun 2019, a sapling had self-sown on the Coal Measures cliff just to the west of Picton Ferry Point.
- +040/2.1. **Alnus glutinosa** (Alder) (Gwernen). Ciliau Moor stream down to the sea, Pant y Dwr, Pencaer, SM9362 4021, Stephen Evans, 18th May 2019, just below where the coast path passes over the easternmost stream.
- +043/3.02. **Atriplex prostrata** (Spear-leaved Orache) (Llygwyn Tryfal). Clarbeston Road Station, SN0157 2095, Stephen & Ann Evans, 7th Jul 2019, disturbed ground.
- +043/3.03. **Atriplex glabriuscula** (Babington's Orache) (Llygwyn y Tywod). The Nab Head, St. Bride's Haven, SM7904 1104, Stephen & Ann Evans, 8th Jul 2019, a few plants in a very unusual area where storms had and were continuing to erode away all topsoil down to bedrock. Winter grazed by ponies.
- +045/3.1. **Montia fontana** (Blinks) (Porpin y Ffynnon). The Nab Head, West of St. Bride's Haven, SM79074 10917, Stephen Evans, 16th Apr 2019, with *Ranunculus hederaceus* in the flush cum springhead inland of the wall and coast path.
- +046/05.3. **Stellaria pallida** (Lesser Chickweed) (Gwlyddyn-y-dom Bach). Old sand school, Tycanol, SE of Glynæron, Rosebush, SN1142 2950, Matt Sutton, 11th Mar 2019, one of 3 sand-loving plant species that are not normally found so far inland. The sand came from Trefigin Quarry in North Pems.
- +046/07.10. **Cerastium diffusum** (Sea Mouse-ear) (Clust-y-llygoden Arfor). Old sand school, Tycanol, SE of Glynæron, Rosebush, SN1142 2950, Matt Sutton, 11th Mar 2019, one of 3 sand-loving plant species that are not normally found so far inland. The sand came from Trefigin Quarry in North Pems. He also found hundreds of plants of an uncommon liverwort - *Fossombronina incurvata* - which had first been found in Pems at Trefigin.
- +046/10.7.b. **Sagina filicaulis**. Clarbeston Road Station, SN0157 2095, Stephen & Ann Evans, 7th Jul 2019, disturbed ground.

- +046/16.1.† **Spergula arvensis** (Corn Spurrey) (Troellig yr Ŷd). Gateway by old tarred access track to former coastguard lookout, Strumble Head, SM8987 4114, Stephen Evans, 22nd Jun 2019, gateway into former arable field.
- +046/17.4. **Spergularia rubra** (Sand Spurrey) (Troellig Arfor Coch). Track to Carreg Wastad Point, Pencaer, SM92271 40252, Stephen Evans, 19th May 2019, growing on a very large but low rock outcrop in a field corner adjacent to the track. Also in the centre of the single tracked tarred road NW of Tresinwen, Pencaer at SM9003440709 on on 22nd Jun 2019 with *Trifolium ornithopodiodes*.
- +046/20.09.† **Silene latifolia** (White Champion) (Gludlys Gwyn). East of Trwyn Llwyd, Pencaer, SM92209 40665, Stephen Evans, 19th May 2019, sea-cliff; (+) Track to Penparceithin Farm, Manordeifi, SN2278 4263, Howard Williams, 6th Jun 2019, hedgerow.
- +046/20.09×01. **Silene ×hampeana** ([Pink Champion]). Track to Penparceithin Farm, Manordeifi, SN2278 4263, Howard Williams, 6th Jun 2019, hedgerow.
- +‡051/1.03×04. **Hypericum ×inodorum** (Tall Tutsan) (Dail-y-Beiblau Tal). Corner of graveyard, Llwyn-yr-hwrdd Chapel Yard, Tegryn, SN2291 3261, Howard Williams, 13th Jul 2019, the *Hypericum* had persistent sepals, which, according to Stace distinguish this hybrid from *H. hircinum* which was obvious on this visit.
- +051/1.07. **Hypericum maculatum** (Imperforate St John's-wort) (Eurinllys Mawr). Rear of Nevern Churchyard, SN0835 4002, Stephen & Ann Evans, 6th Jul 2019, neutral grassland.
- +†053/1.7. **Malva neglecta** (Dwarf Mallow) (Corhocysen). Track east of Tresinwen, Pencaer, SM90307 40606, Stephen & Ann Evans, 22nd Jun 2019, growing in the cattle track/ancient lane. *Artemisia absinthium* was nearby in a field gateway just east of the farmyard where it has been known since 1965.
- +†061/2.04. **Salix triandra** (Almond Willow) (Helygen Dribrigerog). Wood edge, Pentre, west of Abercych, SN2324 4084, Howard Williams, 5th Jun 2019.
- +061/2.10×11. **Salix ×reichardtii**. Edge of field above Gallt Clynhercyn, Carreg-wen, SN2241 4214, Howard Williams, 23rd May 2019, arable field.
- +†062/01.7. **Sisymbrium officinale** (Hedge Mustard) (Roced y Berth). Ancient track between Tresinwen and St.Degan's, Pencaer, SM9034 4058, Stephen & Ann Evans, 22nd Jun 2019, side of cattle track along ancient trackway east of Tresinwen.
- +†062/25.1. **Capsella bursa-pastoris** (Shepherd's-purse) (Pwrs y Bugail). Track to Carreg Wastad Point, Pencaer, SM92248 40248, Stephen Evans, 19th May 2019, on the north side of the open track edge just west of a huge low boulder. Also at SM90364057 by an ancient hedged lane from Degan fields to Tresinwen.
- +062/4.1. **Arabidopsis thaliana** (Thale Cress) (Berwr y Fagwyr). Pwllderi cliffs, St. Nicholas, SM890 382, Matt Sutton, 9th Apr 2019, large patch on ledge in rocky gully.
- +069/1.1×3. **Primula ×polyantha** (False Oxlip) (Briallen Groesryw). Field 4, Mountain Meadows, Penffordd, SN06314 22065, Stephen & Anne Coker, 3rd May 2019, a cluster of the hybrid has been known for many years from the same part of the field near the eastern hedgerow. Spreading out into the field and growing with both parents and back-crossing seems now to be occurring.
- +069/6.1. **Anagallis tenella** (Bog Pimpernel) (Gwlyddyn-Mair y Gors). Pen-troydin-fawr, Llandewi Velfrey, SN1501 1735, Matt Sutton, 28th May 2019, tiny relict springhead in degraded rush-pasture.
- +‡071/1.1. **Philadelphus coronarius** (Mock-orange) (Ffug-oren). Cwm Blaen Bwlan, Capel Newydd, SN2313 3792, Howard Williams, 22nd Jun 2019, wood near houses.
- +‡072/2.4. **Ribes sanguineum** (Flowering Currant) (Llwyn Cwrens Blodeuog). Llwyn-celyn, Crosswell, SN13031 35076, Nigel Lee, 30th Mar 2019, footpath hedgerow. Also found in another hedgerow at SN1077835563 at Frosty Hill, Brynberian.
- +073/1.1.‡ **Crassula tillaea** (Mossy Stonecrop) (Corchwyn Mwsoglog). Llanion Reach Car Park, Pembroke Dock, SM982 041, Matt Sutton, 26th May 2019, abundant with *Galium murale* between the paving slabs of the car park.

- +‡073/5.10. **Sedum rupestre** (Reflexed Stonecrop) (Briweg Felen). Freystrop Cemetery, south of Merlin's Bridge, Haverfordwest, SM9538 1278, Stephen & Ann Evans, 25th Apr 2019, around headstones; (+) St. James the Great, Manorbier Churchyard, SS065 976, Stephen & Ann Evans, 25th Jun 2019, around the headstones; (+) Molleston Baptist Chapel, Templeton, SN0944 1184, Stephen & Ann Evans, 28th Jun 2019, chapelyard graves.
- +073/5.12. **Sedum acre** (Biting Stonecrop) (Briweg Boeth). North end of old runway, Templeton Airfield, SN09808 11610, Stephen & Ann Evans, 28th Jun 2019, therophyte plants growing in the crevices on the runway were recorded in one small area.
- +†073/5.14. **Sedum album** (White Stonecrop) (Briweg Wen). St Marcellus' Churchyard, Martletwy, SN0327 1059, Stephen & Ann Evans, 28th Jun 2019, churchyard graves and paths.
- *‡073/5.8. **Sedum stoloniferum** (Lesser Caucasian-stonecrop) (Briweg-y-Cawcasws Fach). Llawhaden Churchyard, SN0752 1748, Stephen & Ann Evans, 28th Jun 2019, large stands on the western bank of the churchyard under the roadside wall. This was where the churchyard was cut less often.
- +‡074/05.08×09. **Saxifraga ×urbium** (Londonpride) (Balchder Llundain). Baptist Chapel Cemetery, Croesgoch, SM8422 3092, Stephen & Ann Evans, 15th Jun 2019; (+) Horeb Chapel, Pope Hill, Haverfordwest, SM9380 1230, Stephen & Ann Evans, 14th May 2019, several large patches.
- +‡074/08.1. **Tellima grandiflora** (Fringecups) (Clychau'r Clawdd). East of Cwm-Cenau, Nevern, SN07502 41017, Stephen & Ann Evans, 4th May 2019, a clump on the NE side of the minor road in woodland.
- +075/08.0.07. **Rubus idaeus** (Llwyn Mafon). Llawhaden CY, SN0752 1748, Stephen & Ann Evans, 28th Jun 2019, river bank of Eastern Cleddau.
- +075/13.1×2. **Geum ×intermedium** (Hybrid Avens) (Mapgoll Groesryw). Top of Gelli Fawr Woods, SN06031 34493, Stephen & Ann Evans, 21st Apr 2019, two big clumps on the upper side of the 'cut and fill' path.
- +075/15.2. **Agrimonia procera** (Fragrant Agrimony) (Llyisiau'r-dryw Pêr). Track below Glanpwlldu Farm, Boncath, SN2165 3784, Howard Williams, 20th Jul 2019.
- +‡075/19.15. **Alchemilla mollis** (Garden Lady's-mantle) (Mantell-Fair y Gerddi). Wolfscastle Cemetery., SM9590 2633, Stephen Evans, 25th Apr 2019, self-seeding in grassland of cemetery; (+) Car Park edge, Trewent holiday houses complex, SS01472 97694, Stephen & Ann Evans, 9th May 2019, a garden escape.
- +†075/26.3. **Pyrus communis** (Pear) (Coeden Ellyg). Newport Dunes, SN05254 40203, Stephen & Ann Evans, 8th Jun 2019, a ca.2m high wind-pruned pear had self-sown into the sand dunes which are increasingly turning to scrub with thick Rubus. It was spread over a large area and had large spines.
- +†075/27.2. [**Malus pumila**] = **M. domestica** (Apple) (Coeden Afalau). Pencraig ruins, Aber Clawdd Pridd, Pencaer, SM91747 40693, Stephen Evans, 19th May 2019, a small but long-established apple bush in the shelter of the NE corner of the old garden wall had been severely browned off by Storm Hannah.
- +077/15.03. **Lathyrus linifolius** (Bitter-vetch) (Ytbysen y Coed). Skrinkle Haven, Manorbier, SS07931 97243, Stephen Evans, 25th Jun 2019, open areas near the base of disused steps down the unstable sea-cliff.
- +‡077/18.2.c. **Medicago sativa subsp. sativa** (Lucerne) (Maglys Rhuddlas). South of Tower Point, St. Bride's Haven, SM79050 10297, Stephen Evans, 8th Jul 2019, seaward edge of grass ley with arable plants along a narrow strip where it had been ploughed but not sown.
- +077/19.01. **Trifolium ornithopodioides** (Bird's-foot Clover) (Corfeillionen Wen). Road NW of Tresinwen, Pencaer, SM90034 40709, Stephen & Ann Evans, 22nd Jun 2019, with Spargularia rubra in the centre of the tarred single-track road to Strumble Head Lighthouse.
- +077/19.11. **Trifolium campestre** (Hop Trefoil) (Meillionen Hopysaidd). Base of old coastguard lookout, Strumble Head, SM89895 41246, Stephen & Ann Evans, 22nd Jun 2019, it was frequent on the rabbit and pony-grazed stony base of the demolished and cleared old coastguard lookout and on the bedrock alongside.

- +‡084/4.5. **Oenothera stricta** (Fragrant Evening-primrose) (Melyn-yr-hwyr Pêr). High Mews, Spittal, SM9754 2299, Trevor Theobald, 17th Jun 2019, plentiful in a wildlife garden and has naturalised at the base of the roadside wall/pavement since at least 2004. Encouraged for the moths.
- +‡094/1.2.© **Linum usitatissimum** (Flax) (Llin). Side of track to house from highway, Mountain Meadows, Penffordd, SN06205 22107, Stephen Evans, 2nd Jul 2019, a single flowering plant was growing on the edge of the free-draining track along with *Myosotis discolor*. The flax seems likely to have come in with bird seed - either spilt when unloading the car or from feeding small birds.
- +094/2.1. **Radiola linoides** (Allseed) (Llin Gorhadog). Penanglas, Goodwick, SM94942 40424, Stephen & Ann Evans, 30th Jun 2019, a small population on the bare soil of a narrow livestock/people track in coastal heathland with bracken on the upslope side of the path.
- +102/1.03.cor.atr. **Oxalis corniculata var. atropurpurea**. Molleston Baptist Chapel, Templeton, SN0944 1184, Stephen & Ann Evans, 28th Jun 2019, grassland.
- +‡102/1.08. **Oxalis articulata** (Pink-sorrel) (Suran Ruddgoch). Grassy bank on the east side of Newport Golf Course Car Park, SN0573 4067, Stephen & Ann Evans, 7th May 2019, a single small clump in flower.
- +‡103/1.02. **Geranium versicolor** (Pencilled Crane's-bill) (Pig-yr-aran Resog). Roadside verge, Llanfyrnach, SN2199 3123, Howard Williams, 13th Jul 2019.
- +103/1.15. **Geranium pusillum** (Small-flowered Crane's-bill) (Pig-yr-aran Fân-flodeuog). Hodgeston, SS035 987, Matt Sutton, 14th Jun 2019, semi-improved grassland.
- +107/05.3. **Chaerophyllum temulum** (Rough Chervil) (Gorthyfai Garw). Ancient hedged lane from Degan fields to Tresinwen, Pencaer, SM90642 40587, Stephen & Ann Evans, 22nd Jun 2019, edge of hedged lane.
- 107/34.2. **Carum verticillatum** (Whorled Caraway) (Carwy Droellennog). Wetland on edge of Newton Court Farm, Manorbier Newton, SS0459 9924, S.B.Evans & Jonathan Hughes, 17th Jul 2019, grazed damp heathy grassland with *Pedicularis sylvatica* that has recently been partly drained by small surface ditches.
- +107/43.1. **Torilis japonica** (Upright Hedge-parsley) (Troed-y-cyw Talsyth). Corner of Potato field by Tower Point, St. Bride's Haven, SM7912 1072, Stephen & Ann Evans, 8th Jul 2019, NW corner of a potato field alongside the coast path.
- +108/4.1. **Blackstonia perfoliata** (Yellow-wort) (Y Ganrhi Felen). Car Park, Newport Dunes, SN05442 40495, Stephen & Ann Evans, 21st Jul 2019, a single flowering plant was south of the RNLI/Surf/Cafe at Newport Dunes car park. There are no other records in north Pembrokeshire. It was growing on the sandy edge at the base of the sleeper wall dividing the southern car park from the southern beach access. Did it arrive on car tyres or did it come in with the chippings used to surface this, the overflow car park?
- +116/15.02. **Myosotis secunda** (Creeping Forget-me-not) (Sgorpionllys Ymlusgol). Small pond in Southern linear field, The Glen, Manorbier Newton, SS0455 9929, S.B.Evans & Jonathan Hughes, 17th Jul 2019, in the very small shady and muddy corner pond. Also found at Hodgeston by Matt Sutton at SS035987 on 14th Jun 2019.
- +116/15.04. **Myosotis laxa** (Tufted Forget-me-not) (Sgorpionllys Siobynnog). Channel under Canaston Bridge water works access road, SN0646 1473, Stephen Evans, 27th Jun 2019, frequent to abundant in the broad Welsh Water discharge channel that takes surface and flood water under the access road to the water pumping/abstraction station just to the north.
- +116/15.10. **Myosotis discolor** (Changing Forget-me-not) (Sgorpionllys y Amryliw). East of cliff top flush above Maen Jaspis, N. of Ciliau Moor, Goodwick, SM93940 40363, Stephen Evans, 18th May 2019, flowering on a large flat boulder top just below the stepping stones above the eastern flush and in this pony/cattle-grazed cliff top flush. Also in Tresinwen, Pencaer farmyard at SM90184060 on 22nd June 2019.

- +‡116/16.1. **Omphalodes verna** (Blue-eyed-Mary) (Mari Lygatlau). Paths of Haverfordwest Priory herb garden, SM9571 1521, Stephen & Ann Evans, 14th May 2019, self-sown down onto the fine slate chippings paths around the herb beds.
- 118/23.1. **Mentha arvensis** (Corn Mint) (Mintys yr Âr). Field corner, Great Canaston Farm, Canaston Bridge, SN0676 1480, Stephen & Ann Evans, 28th Jun 2019, a large clump in a narrow corner by the gateway to a barley crop on clay soil.
- +121/1.1. **Plantago coronopus** (Buck's-horn Plantain) (Llyriad Corn Carw). North end of old runway, Templeton Airfield, SN09808 11610, Stephen & Ann Evans, 28th Jun 2019, therophyte plants growing in the crevices on the runway were recorded in one small area.
- +‡124/12.1. **Kickxia elatine** (Sharp-leaved Fluellen) (Llysiâu-Llywelyn). South of Tower Point, St. Bride's Haven, SM79050 10297, Stephen Evans, 8th Jul 2019, seaward edge of grass ley with arable weeds along a narrow strip where it had been ploughed but not sown. Also west side of The Moors in the barley stubble of a field corner at SM79981003.
- +‡124/13.3. **Linaria purpurea** (Purple Toadflax) (Llin-y-llyffant Porffor). Opposite the Gate, Manorbier, SS0660 9788, Stephen & Ann Evans, 25th Jun 2019, also by the roadside to Manorbier Camp at SS074975.
- +124/16.09. **Veronica scutellata** (Marsh Speedwell) (Rhwyddlwyn Culddail y Gors). Wetland on edge of Newton Court Farm, Manorbier Newton, SS0459 9924, S.B.Evans & Jonathan Hughes, 17th Jul 2019, grazed damp heathy grassland that has recently been partly drained by small surface ditches.
- +‡124/16.23. **Veronica filiformis** (Slender Speedwell) (Rhwyddlwyn Main). Side of track between old vicarage and Nevern Churchyard, SN0828 4005, Stephen & Ann Evans, 6th Jul 2019, also in Nevern Churchyard.
- +128/2.1. **Utricularia vulgaris sens. lat.** (Greater Bladderwort) (Chwysigenddail Mawr). Main pond in front of house, Mountain Meadows, Penffordd, SN0619 2211, S.B.Evans & S.Coker, 2nd Jul 2019, *Utricularia vulgaris* had been introduced from the Witchett Pool at Pendine into the tiny ornamental pond by the conservatory years ago where it flowered on occasions. In ca. 2016 it appeared in this much larger clay lined pond ca. 4m away from the tiny ornamental pond. On 2nd July 2019 it was forming dominant patches in this pond. It has also spread to the old ornamental pond at the rear of the house and in about 2018 it appeared in the new adjacent clay lined pond also at the back of the house. No other aquatic plants have been knowingly introduced. Mallard frequent the ponds.
- +‡129/1.10. **Campanula poscharskyana** (Trailing Bellflower) (Clychlys Ymlusgol). Vigilant House, Manorbier, SS06508 98085, Stephen & Ann Evans, 25th Jun 2019, it was frequent above and below Vigilant House as far as the Gate. Also in the lower churchyard at Manorbier at SS0650697687.
- +‡129/1.9. **Campanula portenschlagiana** (Adria Bellflower) (Clychlys Adria). West Williamston, SN03465 05806, Stephen Evans, 18th Apr 2019, on a low wall at the front of a house with *Myosotis sylvatica* and *Hyacinthoides hispanica* below the wall.
- +130/6.mur. **Galium murale** (Small Goosegrass). Llanion Reach Car Park, Pembroke Dock, SM982 041, Matt Sutton, 26th May 2019, abundant with *Crassula tillaea* between the paving slabs of the car park.
- +130/7.1. **Cruciata laevipes** (Crosswort) (Llysiâu'r Groes). Roadside of A477, Coshaston, SN004 027, Matt Sutton, 27th May 2019, a single patch on the roadside where a major road scheme had been completed a few years ago. (This species is not believed to be a native plant in VC45 so its survival by the Trunk road will be of interest).
- +130/8.1. **Rubia peregrina** (Wild Madder) (Cochwraidd Gwyllt). Traeth Godir-coch, Cemaes Head, SN127 491, Matt Sutton, 23rd Mar 2019, in and around a *Salix cinerea* patch on the high slumping cliff slope.
- +131/2.2. **Viburnum lantana** (Wayfaring-tree) (Gwifwrnwydden). Orton Lane, Clarboston Road, SN01154 20532, Stephen & Ann Evans, 7th Jul 2019, a single shrub was in the wooded hedge on the north side of Orton Lane. It had a few compressed fruits. Possibly bird-sown as it is well away

- from any gardens. There is a native population on low limestone cliffs at Pembroke SM977019 and SM978020 and one other self-sown plant is known from a low sea wall at Pembroke Dock.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle) (Bachgen Llwm). The Gate, Manorbier, SS06602 97918, Stephen & Ann Evans, 25th Jun 2019, roadside; (+) St. Marys Churchyard, Walton East, SN0223 2338, Stephen & Ann Evans, 7th Jul 2019, there were two small plants growing out of the mortar of the front wall to the churchyard.
- +‡135/27.6. **Pilosella aurantiaca** (Fox-and-cubs) (Clust-y-llygoden Euraid). Baptist Chapel Cemetery, Croesgoch, SM8422 3092, Stephen & Ann Evans, 15th Jun 2019, around headstones.
- +135/28.02.6. **Hieracium umbellatum** (Umbellate Hawkweed) (Heboglys Culddail). Lawrenny Wood south, SN009 066, Stephen & Ann Evans, 12th May 2019, low cliff edge to ancient oak woodland.
- +‡135/43.1. **Erigeron glaucus** (Seaside Daisy) (Amrhydlwyd Arfor). Porth Maen, East of Penfathach, Goodwick, SM9425 4033, Matt Sutton, det. John Poland, 7th Mar 2019, found when canoeing round the cliffs. It was up from a rather distinct boulder scree and below a steeper cliff section.
- +‡135/43.4. **Erigeron karvinskianus** (Mexican Fleabane) (Amrhydlwyd y Cerrig). Poundwalls, Manorbier, SS06598 97984, Stephen & Ann Evans, 25th Jun 2019, abundant along the edge of the road at Poundwalls and below on the other side at Withy Hay. Also elsewhere at Manorbier by Vigilant House at SS0650898085 and by the tarred access track to Manorbier Church at SS0647497643.
- +†135/50.3. **Artemisia absinthium** (Wormwood) (Y Wermod Lwyd). Paths of Haverfordwest Priory herb garden, SM95719 15205, Stephen & Ann Evans, 14th May 2019, Present in the herb beds and had self-sown down onto the fine slate chippings paths.
- †135/59.1. **Matricaria chamomilla** (Scented Mayweed) (Amranwen Bêr). SW of Conaga Dingle, Minwear, SN03985 12514, Stephen & Ann Evans, 28th Jun 2019, gateway to an arable field on the east of the minor road.
- +‡135/71.4. **Petasites fragrans** (Winter Heliotrope) (Alan Pêr). Cil-fodyn, Canaston Wood road, SN0904 1376, Stephen & Ann Evans, 27th Apr 2019.
- +137/4.1. **Alisma plantago-aquatica** (Water-plantain) (Llyriad y Dŵr). Main pond in front of house, Mountain Meadows, Penffordd, SN0619 2211, S.B.Evans & S.Coker, det. Stephen Evans, 2nd Jul 2019, growing in a clay-lined pond but not knowingly introduced. Mallard frequent the ponds.
- +142/1.15. **Potamogeton berchtoldii** (Small Pondweed) (Dyfrillys Bach). Newport Dunes pool, SN05364 40197, Stephen & Ann Evans, 8th Jun 2019, pool in the dunes dug many years ago for a watering system for the golf course.
- +‡147/1.1.© **Acorus calamus** (Sweet-flag) (Gellesgen Bêr). Bluestone Lake, Minwear, SN06665 13572, Stephen Evans, 27th Jun 2019, this was one of the introductions to the emergent vegetation of this new lake. Others included *Butomus umbellatus*, *Carex pseudocyperus*, *Glyceria maxima* and *Sagittaria sagittifolia*.
- +‡147/2.1. **Lysichiton americanus** (American Skunk-cabbage) (Pidyn-y-gog Americanaidd). Mill Pond Road/Brook Lane path, Narbeth, SN11481 14022, Nigel Lee, 22nd Apr 2019, 10 plants, some in flower with yellow spathes in a woody/boggy area.
- +‡147/5.2.b. **Arum italicum subsp. italicum**. Sandy Haven, SM8545 0754, Stephen & Ann Evans, 14th May 2019, two clumps at the ivy covered outside base of a garden wall.
- +151/1.04. **Juncus gerardii** (Saltmarsh Rush) (Brwynen Gerard). St. Bride's Haven, SM80245 10965, Stephen & Ann Evans, 8th Jul 2019, a patch in damp crevices on a ledge low down on the low cliff in the bay.
- +151/1.07. **Juncus bufonius** (Toad Rush) (Brwynen y Llyffant Du). The Nab Head, St. Bride's Haven, SM7909 1097, Stephen & Ann Evans, 8th Jul 2019, spoil of ponds created for drinking water for ponies.

- +151/1.15. **Juncus bulbosus** (Bulbous Rush) (Brwynen Oddfog). The Nab Head, St. Bride's Haven, SM7909 1097, Stephen & Ann Evans, 8th Jul 2019, spoil of ponds created for drinking water for ponies.
- +151/1.27. **Juncus conglomeratus** (Compact Rush) (Brwynen Bellennaidd). Golf course, Newport Dunes, SN05598 40184, Stephen Evans, 8th Jun 2019, damp hollow in sand dunes in golf course 'rough'.
- +151/2.5. **Luzula campestris** (Field Wood-rush) (Milfyw). South of Tower Point, South-West of St. Bride's Haven, SM79111 10575, Stephen Evans, 16th Apr 2019, in flower on the edge of the coast path.
- +‡152/11.2.© **Cyperus eragrostis** (Pale Galingale) (Ysnoden-Fair Welw). Redberth, Tiers Cross, SM90342 10992, Hamilton, Jean, det. Stephen Evans, 27th Mar 2019, growing in a marsh where 'spoil' had been dumped.
- +152/8.2. **Isolepis cernua** (Slender Club-rush) (Clwbfrwynen Fain). Mountain Meadows, Penffordd, SN06190 22096, Stephen Evans, 2nd Jul 2019, in the centre of the stoned single-track access from the highway to the house.
- +152/16.31 **Carex pendula** (Pendulous Sedge) (Hesgen Bendrom). Nevern Churchyard, SN083 400, Stephen & Ann Evans, 4th May 2019, neutral grassland.
- +152/16.34. **Carex strigosa** (Thin-spiked Wood-sedge) (Hesgen-y-coed Benfain). West side of lane north of Llwyngwair, Nevern, SN07218 39794, Stephen & Ann Evans, 5th May 2019, in the centre of the wooded lane/track and on its edges. Also just in this hectad at SN08303999 on the streamside of the old vicarage garden at Nevern on 06072019.
- +†153/14.3. **Vulpia myuros** (Rat's-tail Fescue) (Peisgwelw y Fagwyr). Open area opposite Manorbier station, SS0691 9940, Stephen Evans, 25th Jun 2019, disturbed stony Network Rail land to the west on the south side of the rail line; (+) Barn,Llandigwinnet, Sageston, SN0667 0428, Matt Sutton, 13th May 2019, stoned area by barn; (+) West wall, Manordeifi Old Church, SN2280 4317, Howard Williams, 1st Jun 2019, wall top.
- +153/21.2. **Catopodium marinum** (Sea Fern-grass) (Gwenithwellt y Morfa)). Centre of A4076, east of main Greens Roundabout, Haverfordwest, SM9576 1566, Stephen Evans, 18th Apr 2019, amongst spring annuals growing between the upstanding rounded cobbles of the central concrete traffic flow separation strip.
- +153/24.3. **Glyceria declinata** (Small Sweet-grass) (Melyswellt Llwydilas). The Nab Head, St. Bride's Haven, SM7909 1097, Stephen & Ann Evans, 8th Jul 2019, ponds created for drinking water for ponies; (+) Wetland on edge of Newton Court Farm, Manorbier Newton, SS0459 9924, S.B.Evans & Jonathan Hughes, 17th Jul 2019, grazed damp heathy grassland that has recently been partly drained by small surface ditches.
- +†153/28.3. **Avena fatua** (Wild-oat) (Ceirchen Wylt). South of Tower Point, St. Bride's Haven, SM7913 1050, Stephen & Ann Evans, 8th Jul 2019, arable weeds were growing on the seaward field edge of a grass ley where it had been ploughed but not sown. Avena fatua was also nearby in the seaward corner of a potato field at SM79121072.
- +153/32.1. **Deschampsia cespitosa** (Tufted Hair-grass) (Brigwellt Garw). The Nab Head, West of St. Bride's Haven, SM79109 11015, Stephen Evans, 16th Apr 2019, a small trampled patch by the lower pond that had been recently part dug out as a water hole for ponies.
- +153/50.2. **Bromus commutatus** (Meadow Brome) (Pawrhollt y Ddôl). Rough grassland in gateway, Hodgeston, SS0358 9869, Matt Sutton, 14th Jun 2019, at least 2 plants in rough grassland in gateway. They were 1.2m tall.
- +‡153/59.1.© **Hordeum distichon** (Two-rowed Barley) (Haidd Dwyrwesog). Cliffs at Castle Sands, Tenby, SN13692 00402, Stephen Evans, 10th Jun 2019, in a crevice of the first limestone sea-cliff promontory with Petroselinum crispum and Erigeron glaucus at the south side of Castle Beach below Lexden Terrace.
- +©153/59.vul. **Hordeum vulgare** (Six-rowed Barley) (Haidd Chwerhesog). Johnston, SM93 10, Jane Hodges, 6th Jun 2019, 3 plants by pavement/wall.

- +153/64.1. **Phragmites australis** (Common Reed) (Corsen). Small reedbed, Llanddewi Velfrey, SN125 165, Matt Sutton, 23rd May 2019.
- +158/14.1×2. **Polygonatum ×hybridum** (Garden Solomon's-seal) (Llyisiau-Solomon yr Ardd). Woodland edge, Llanddewi Velfrey, SN1379 1693, Matt Sutton, 23rd May 2019.
- +158/20.2×3. ‡ **Hyacinthoides ×massartiana** (Clychau'r-gog Croesryw). Scrub, Freshwater East Dunes, SS01651 97792, Stephen & Ann Evans, 9th May 2019, also at Hodgeston Churchyard at SS029993 and Penuel Baptist Chapel, Jameston at SS06679891; (+) Nevern Churchyard, SN083 400, Stephen & Ann Evans, 4th May 2019, neutral grassland.
- +‡158/24.07. **Allium triquetrum** (Three-cornered Garlic) (Garlleg Trionglog). Wolfscastle Cemetery, SM9590 2633, Stephen Evans, 25th Apr 2019, well established in cemetery.
- +158/35.1. ‡ **Ruscus aculeatus** (Butcher's-broom) (Celynnen Fair). Nevern Churchyard, SN08397 40039, Stephen & Ann Evans, 23rd Jan 2019, scattered short shoots were spread over 2 x 2m on sloping ground by the back/north wall of the churchyard. The ground of the shaded bank had been cleared of scrub a few years before and the *R. aculeatus* shoots were being cut at least annually.
- +†159/13.1.×3×aur. **Crococsmia paniculata** × **C. pottsii**. West of Skomar, Skrinkle Haven, Manorbier, SS08347 97575, Stephen & Ann Evans, 25th Jun 2019, uncut grassland on the edge of scrub at the top of the sea-cliff. *Crococsmia* × *crococsmiiflora* also present.
- +162/03.4. **Epipactis helleborine** (Broad-leaved Helleborine) (Y Galdrist Lydanddail). Cnocell-y-coed paddock, Llanfallteg, SN1509 1930, Jonathan Spencer, 20th Jul 2019, about 15 plants in a hedgerow under trees, mainly oak and ash. They started appearing about 3 years ago. The first one flowered in 2018.
- *165/SCH.coc. **Schizostylis coccinea** (Kaffir Lily) (Lili Kaffir), The Bennet, Newport Dunes, SN0521 4005, David and Richard Hughes, 19th Jun 2019, one or two plants in flower and many more spreading along the small paths in the *Ammophila arenaria* dominated dunes. Located 35 paces from the estuarine edge and 50 paces north from the tip of the dune spit.

CARDIGAN, v.c.46 (comm. S.P. Chambers)

- 015/3.1. **Asplenium ceterach** var. **crenatum** (Rustyback) (Duegredynen Gefngoch). Bryngwyn chapel, SN300 449, S.P.Chambers, 6th Apr 2019, several clumps with var. *ceterach* on exterior side of E-boundary wall.
- +†017/3.03.pal. **Dryopteris affinis** subsp. **paleaceolobata** (T. Moore) **Fraser-Jenk.**. Coed Allt Llanlas, Llanerchaeron, SN481 603, B.Dockerill, conf. R.Golding, 27th Jul 2019, one plant in riverside woodland.
- +028/03.1. ‡ **Helleborus foetidus** (Stinking Hellebore) (Crafanc-yr-arth Ddrewllyd). Yr Hen Ysgol, c. 400 m NW of Brongest, SN316 456, S.P.Chambers, 12th Apr 2019, one plant naturalised on grass verge below old wall.
- +‡045/2.2. **Claytonia sibirica** (Pink Purslane) (Porpin Pinc). By the Mill c. 200 m NNW of Brongest, SN320 456, S.P.Chambers, 12th Apr 2019, locally frequent along wet riparian woodland floor. Extending for at least 400m.
- +046/17.3. **Spergularia marina** (Lesser Sea-spurrey) (Troellig Arfor Bach). A44(T) Lovesgrove roundabout E of Aberystwyth, SN633 811, M.D.Sutton, 27th Jul 2019, locally frequent on edge of carriageway. At 5.25km from the coast the most inland VC location to-date & new hectad.
- 046/20.10.lac. **Silene dioica forma lactea**. About 1.75 km SE of Llyn Fanod, SN613 624, S.P.Chambers, 31st May 2019, a mixed colony with pink and pale pink-flowered plants on roadside bank. New hectad for the forma.
- +‡049/1.off. **Paeonia officinalis** (Garden Peony) (Rhosyn-y-mynydd y Gerddi). Bryngwyn chapel, SN300 449, S.P.Chambers, 6th Apr 2019, one clump in grassland by headstone of burial plot.
- +052/1.2. **Tilia cordata** (Small-leaved Lime) (Pisgwydden Dail Bach). W end of Coed Allt Tancaebanal, c. 2 km NW of Llangeitho, SN609 612, S.P.Chambers, 28th May 2019, a single tree, part-fallen across stream but still rooted, on streamside rockface in old woodland.

- +‡062/16.1. **Aubrieta deltoidea** (Aubretia) (Cynfas Biws). Below pavement kerb at edge of residential cul-de-sac road, Bro Gorwel, Bryngwyn, SN300 450, S.P.Chambers, 6th Apr 2019, patch c. 25 x 10 cm self-seeded from adjacent garden.
- *062/40.1. **Rapistrum rugosum** (Bastard Cabbage) (Bresychen Ddeilgrech). Penyregyd, Gwbert, SN161 488, A.O.Chater & J.P.Poland, 11th Jun 2019, several plants on disturbed area on dunes.
- +073/1.1. **Crassula tillaea** (Mossy Stonecrop) (Corchwyn Mwsoglog). NW-side of the A487(T), Llanrhystud, SN535 693, A.O.Chater & R.G.Woods, 13th Apr 2019, several small patches along open dry verge behind roadside kerb edge. The 2nd VCR & the first for 72 years since the 1947 record from Ynys-las, though a more recent report from Ynys-las is currently being investigated.
- +074/05.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage) (Tormaen Tribys). Aberystwyth University IBERS campus, Plas Gogerddan, SN629 835, S.P.Chambers & H.F.Clw, det. S.P.Chambers, 4th May 2019, tens of thousands of plants producing a pink haze over an area at least c. 30 x 40m on stony pathsides & gravelly ground between buildings and glasshouses. The largest known population in the VC.
- +‡074/08.1. **Tellima grandiflora** (Fringecups) (Clychau'r Clawdd). Caeau Llety-Cybi, About 0.75km WNW of Llanybi, SN602 534, S.P.Chambers, 23rd Jun 2019, c. 3 plants over c. 1 x 1m, escaped from cottage garden of adjacent property, on ground disturbed by scrub control in corner of pasture.
- +‡075/32.40. **Cotoneaster sternianus** (Stern's Cotoneaster) (Cotoneaster Stern). SW side of minor road c. 1 km NW of Llangeitho, SN609 608, S.P.Chambers, 28th May 2019, one bush in roadside hedge. The 6th VCR.
- *‡077/13.1. **Securigera varia** (Crown Vetch) (Ffacbysen Goronog). By the B4340 at Gwar-y-felin, Rhydyfelin, SN594 794, A.O.Chater, det. J.P. Poland, 7 iv 2019, 4th Apr 2019, naturalised along 5 m of roadside bank.
- 077/14.12. **Vicia lathyroides** (Spring Vetch) (Ffacbysen y Gwanwyn). Dry coastal grassland slope, above Cribach Bay, MoD (QinetiQ) Aber-porth base, SN248 522, A.O.Chater & Aberystwyth Botanical Society, det. A.O.Chater, 5th May 2019, new tetrad record for VC-scarce plant.
- 077/25.4. **Genista anglica** (Petty Whin) (Cracheithinen). NW of Allt Cwmsisyllt, c. 1.25 km NW of Llangeitho, SN606 602, S.P.Chambers, 25th May 2019, a single plant in rather dry Molinia tussock rhos pasture. Associated with *Trocdaris verticillata*, *G.tinctoria* & *Serratula tinctoria*. New site & tetrad for this declining plant but within its core VC-range.
- 084/1.08×09. **Epilobium ×fossicola**. About 80 m S of the Nant Rhyd-y-meinth, Twyi Fechan forestry plantation, SN781 626, S.P.Chambers, 15th Jul 2019, two plants, with both parents, in mire flush on side of forestry track. The 3rd VCR.
- *‡116/02.4. **Echium pininana** (Giant Viper's-bugloss) (Gwiberlys Mawr). Between Greenfield St and Maesyrafon, Aberystwyth, SN585 813, A.O.Chater, conf. J.P. Poland, 14th Feb 2019, c. 11 self-sown plants along wall base in alleyway.
- +‡116/04.1×2×4.© **Symphytum ×hidcotense** [**Symphytum 'Hidcote Blue'**] (**S. officinale** × **S. asperum** × **S. grandiflorum**) (Hidcote Comfrey) (Cyfardwf Hidcote). About 200 m SW of Dolgoch, c. 3/4 km SW of Brongest, SN316 444, S.P.Chambers, 19th Apr 2019, two patches, one in flower, on trackside verge under trees. The 2nd VCR.
- +‡116/04.4. **Symphytum grandiflorum** (Creeping Comfrey) (Cyfardwf Lusg). About 200 m SW of Dolgoch, c. 3/4 km SW of Brongest, SN316 444, S.P.Chambers, 19th Apr 2019, several patches, about 3 in flower, on trackside verge under trees. The 3rd VCR.
- +‡116/09.1. **Borago officinalis** (Borage) (Tafod yr Ych). Rough slope below garden, beside the Afon Arth, Aberarth, SN478 640, S.P.Chambers, 11th Mar 2019, one plant; (+) Bryn Eglur, Llanfarian, SN590 780, S.P.Chambers & H.F.Clw, det. S.P.Chambers, 7th Jul 2019, three plants on disturbed ground of prepared but undeveloped housing plot.
- ‡117/1.bon. **Verbena bonariensis** (Argentinian Vervain) (Ferfain yr Ariannin). Bryn Eglur, Llanfarian, SN590 780, S.P.Chambers & H.F.Clw, det. S.P.Chambers, 7th Jul 2019, single plant on disturbed ground of prepared but undeveloped housing plot. The 3rd VCR. In the same general area as the 2nd VCR in 2009.

- +‡118/01.2. **Stachys byzantina** (Lamb's-ear) (Clust yr Oen). MoD (QinetiQ) Aber-porth base, SN242 521, S.P.Chambers & Aberystwyth Botanical Society, det. S.P.Chambers, 5th May 2019, several tufts of leaves along a 15 m length of gravelly kerbside verge by roadway.
- 118/06.4. **Galeopsis tetrahit** (Common Hemp-nettle) (Y Benboeth). Twyi Fechan forestry plantation, SN784 624, S.P.Chambers, 15th Jul 2019, scattered plants in damp Molinia vegetation above forestry track. New VC alt limit of 430m.
- 124/02.2. **Scrophularia auriculata** (Water Figwort) (Gwrnerth y Dŵr). Pound Place, Aberystwyth, SN587 818, S.P.Chambers & H.F.Clow, det. S.P.Chambers, 30th Mar 2019, one young clump growing foot of slate step in front of doorway on pavement. The first record as a pavement plant in the VC; Aberystwyth University IBERS campus, Plas Gogerddan, SN629 835, S.P.Chambers & H.F.Clow, det. S.P.Chambers, 4th May 2019, several clumps over c. 2 x 2 m on roadside verge. A new site for this increasing plant.
- +‡124/07.1. **Antirrhinum majus** (Snapdragon) (Trwyn y Llo). Llanrhystud village hall, SN535 694, S.P.Chambers & H.F.Clow, det. S.P.Chambers, 4th May 2019, a few clumps at base of wall.
- +124/20.05.b. **Euphrasia arctica subsp. borealis**. Peaty pasture, Cors Fochno (Borth Bog), Dyfi NNR, SN6--9--, S.P.Chambers, 29th Jul 2019.
- 125/2.08. **Orobancha hederæ** (Ivy Broomrape) (Gorfanhadlen Eiddew). Ffordd Sulien, Llanbadarn Fawr, SN599 808, H.F.Clow & S.P.Chambers, det. S.P.Chambers, 4th Jul 2019, an estimated 200+ massed spikes on grass verge by wall under curtain of Hedera hibernica. A dramatic increase from 9 spikes in 2018 & now the largest colony by far in the VC.
- †135/17.1. **Helminthotheca echioides** (Bristly Oxtongue) (Tafod-y-llew Gwrychog). By barn at edge of farmyard, Morfa Mawr farm, c. 1.5 km SW of Llan-non, SN503 657, S.P.Chambers, 11th Feb 2019, numerous rosettes over an area c. 10 x 5 m. A new site for this uncommon archaeophyte in the VC.
- ‡135/43.1. **Erigeron glaucus** (Seaside Daisy) (Amrhydlywd Arfor). Shingly slope behind beach, S of Twyni Mawr, Ynys-las, SN605 928, S.P.Chambers, 15th Jun 2019, massive colony c. 3 - 4 x 1.5m, the biggest single naturalised colony yet found in the VC.
- 137/4.1. **Alisma plantago-aquatica** (Water-plantain) (Llyriad y Dŵr). Shallow pool in sheep pasture, c. 1.5 km NE of Abermeurig, SN575 575, S.P.Chambers, 9th Feb 2019, the 1st post-1970 record for the tetrad.
- +‡148/2.4. **Lemna minuta** (Least Duckweed) (Llinad Bach). Artificial pond on coastal slope, MoD (QinetiQ) Aber-porth base, SN247 524, S.P.Chambers & Aberystwyth Botanical Society, det. S.P.Chambers, 5th May 2019, previously unrecorded hence likely recently arrived in butyl-lined pond dug in the mid-1990s.
- +‡153/17.3. **Briza maxima** (Greater Quaking-grass) (Crydwellt Mawr). Opposite roadside cottages by the Nant Ffynnon Geitho, c. 1.75 km N of Llangeitho, SN619 617, S.P.Chambers, 31st May 2019, abundant plants forming a continuous colony extending for c. 30m along base of hedgebank beside minor road; (+) farmyard, Melindwr Farm, Eglwys Fach, SN693 962, A.O.Chater & WWBIC recording meeting, det. A.O.Chater, 23rd Jul 2019.
- +‡158/05.1. **Hemerocallis fulva** (Orange Day-lily) (Lili Undydd Oren). By Nanteos Lake, SN614 784, J.P.Poland & A.O.Chater, 7th Apr 2019, sizeable colony naturalised under recently cleared scrub and bramble along northern-verge of driveway. The 4th VC record.
- ‡158/32.1. **Galanthus nivalis** (Snowdrop) (Eirlys). The SE corner of the main farmyard, Morfa Mawr Farm, c. 1.5 km SW of Llan-non, SN503 656, S.P.Chambers, 11th Feb 2019, small colony growing c. 4ft up on the crumbling top of an old mortared wall. A novel habitat for the VC.
- *162/07.3. **Spiranthes romanzoffiana** (Irish Lady's-tresses) (Troellig Wyddelig). Cors Fochno (Borth Bog), Dyfi NNR, SN6--9--, J.P.Lyons, conf. A.O.Chater & J.P.Poland, 27/7/2019, 26th Jul 2019, a small colony of c. 8 plants, c. 4 flowering, in peaty pasture. New to Wales.
- 162/20.3. **Anacamptis morio** ([Green-winged Orchid]) (Tegeirian y Waun). Aberystwyth University IBERS campus, Plas Gogerddan, SN630 835, D.Lloyd, conf. S.P.Chambers & H.F.Clow, 4/5/2019, 30th Apr 2019, two flowering plants on piece of neutral grassland between access road

and car park . A new site for this VC-scarce axiophyte, but likely seeded from large colony of introduced plants growing on nearby green roof

MONTGOMERY, v.c.47 (comm. A.K. Thorne)

- +004/1.4×5. **Equisetum ×litorale** (**E. fluviatile** × **E. arvense**) (Shore Horsetail) (Marchrawnen y Glennydd). Pen-y-rhynau (S of Clywedog), SN89 88, G.Foulkes, conf. G.Foulkes, 29th Jun 2019, bank of Clywedog reservoir.
- +004/1.7. **Equisetum sylvaticum** (Wood Horsetail) (Marchrawnen y Coed). Afon Ystwyth, SN8504 7570, T.Knight, conf. T.Knight, 17th Jun 2019, close to county boundaries, locally frequent on bank of Afon Ystwyth.
- +011/1.2. **Polypodium interjectum** (Intermediate Polypody) (Llaredynen Ganolig). Llys Hill (Llangedwyn), SJ17422 22260, S.Swindells, conf. M Stead, 15th Jan 2019.
- +015/2.5.a. **Asplenium trichomanes subsp. trichomanes** (a subspecies of Maidenhair Spleenwort). Clochnant (Hirnant), SJ04 22, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 11th Jul 2019, growing on NE-facing rocks in Ceunant Clochnant.
- +015/3.1. **Asplenium ceterach** (Rustyback) (Duegredynen Gefngoch). Kerry Hill, SO14 86, J.Clayfield, conf. J.Clayfield, Aug 2019.
- +017/1.1. **Polystichum setiferum** (Soft Shield-fern) (Gwrychredynen Feddal). Dolguog (Machynlleth), SH76 01, G.Foulkes, conf. G.Foulkes, 5th Mar 2019; (+) Aberangell (nr), SH85 10, G.Foulkes, conf. G.Foulkes, 6th May 2019, verge of A470 and bank behind on E side.
- +017/3.03b. **Dryopteris cambrensis**. Tryfel (Cwm Twrch, Foel), SH97 16, J.Clayfield & MFG, conf. J.Clayfield & MFG, 20th Jun 2019; (+) Coed Cwmgolog (Kerry), SO18 87, A.K.Thorne & W.I.J.Thorne, det. M. Godfrey, conf. M. Godfrey, 25th Jan 2019, bank under old hedgerow.
- +017/3.05. **Dryopteris aemula** (Hay-scented Buckler-fern) (Marchredynen Bêr). Kerry Ridgeway (Turbarry), SO22 88, J.Clayfield, det. M.Godfrey, conf. M.Godfrey, 2019.
- +017/3.c. **Dryopteris borrieri**. Neuadd Bridge (Gweunydd Ger Fronhaul SSSI), SJ096 087, A.K.Thorne, conf. A.K.Thorne, 22nd May 2019, woodland; (+) Coedway (Pecknall Coppice), SJ35 13, A.K.Thorne, conf. A.K.Thorne, 11th Apr 2019, woodland.
- +028/13.24. **Ranunculus peltatus** (Pond Water-crowfoot) (Crafanc-y-frân y Llyn). Llandrinio (Haughton), SJ31 18, A.K.Thorne, conf. A.K.Thorne, 28th May 2019, pool, likely to be an old oxbow.
- +†030/1.4. **Papaver rhoeas** (Common Poppy) (Pabi Coch). Kerry Ridgeway (Upper Castlewright), SO26 89, J.Clayfield, conf. J.Clayfield, Jun 2019.
- +030/1.5. **Papaver dubium s.s.** (Pabi Hirben). Aberhafesp, SO06 92, A.K.Thorne, conf. A.K.Thorne, 17th Jul 2019, river bank/river.
- +031/4.1. **Ceratocarpus claviculata** (Climbing Corydalis) (Mwg-y-ddaeear Dringol). Crew Green, SJ32 14, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 16th Jun 2019, acid grassland.
- +031/5.05. **Fumaria muralis** (Common Ramping-fumitory) (Mwg-y-ddaeear Amrywiol). Esgair-y-llyn (Aberhosan), SN81 95, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 6th Jun 2019.
- +040/1.1×2. **Betula ×aurata**. Tryfel (Cwm Twrch, Foel), SH97 16, P.Foulkes, J.Clayfield & R.Meade, conf. P.Foulkes, J.Clayfield & R.Meade, 20th Jun 2019.
- *040/1.2.c. **Betula pubescens subsp. celtiberica** (Iberian white birch). Coed Ceunant Melin-y-Grug, SJ04 07, A.J.Hotchkiss, conf. A.J.Hotchkiss, 25th Jun 2019, regeneration, mature bark characters not yet evident but 'leaves and twigs look spot on'; (*) Llanfihangel-yng-Ngwynfa, SJ0867 1638, A.J.Hotchkiss, det. A.O.Chater, conf. A.O.Chater, 25th Jun 2019, several mature native trees in oak-birch open wood pasture. Verified by AOC from photographs.
- +043/3.02. **Atriplex prostrata** (Spear-leaved Orache) (Llygwyn Tryfal). Llanbryn-mair, SH90 02, G.Foulkes, conf. G.Foulkes, 10th May 2019, road verge of A470; (+) Bishop's Moat, SO27 89, J.Clayfield, conf. J.Clayfield, Jun 2019.
- +043/3.07. **Atriplex patula** (Common Orache) (Llygwyn Culddail). Aberangell (nr), SH85 10, G.Foulkes, conf. G.Foulkes, 6th May 2019, verge of A470 and bank behind on E side.

- +046/05.4. **Stellaria neglecta** (Greater Chickweed) (Gwlyddyn-y-dom Mawr). Neuadd Bridge (Brynglas), SJ08 09, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 11th May 2019, road verge/hedgerow; (+) Neuadd Bridge (Dolgead), SJ09 08, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 11th May 2019, road verge/hedgerow.
- +046/10.7. **Sagina apetala** (Annual Pearlwort) (Corwlyddyn Unflwydd). Y Fan, SN94 89, A.K.Thorne, D.Milborrow, C.Milborrow, L.Beaure & R.Meade, conf. A.K.Thorne, D.Milborrow, C.Milborrow, L.Beaure & R.Meade, 18th Jun 2019, track verge/hedge.
- +046/17.3. **Spergularia marina** (Lesser Sea-spurrey) (Troellig Arfor Bach). Dolfor south, SO10 86, Liz Wilson, conf. Liz Wilson, 3rd Jul 2019, road verge; (+) Garthmyl, SO19 98, J.Clayfield, conf. J.Clayfield, Aug 2019, road verge on river bridge; (+) Churchstoke, SO27 93, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 5th May 2019, road verge.
- +047/8.14. **Rumex conglomeratus** (Clustered Dock) (Tafolen Fair). Llanidloes (Coed y Gaer), SO00 84, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 20th Jul 2019, road verge/hedgerow/ditch.
- +051/1.10. **Hypericum humifusum** (Trailing St John's-wort) (Eurinllys Ymdaenol). Afon Dillw (Elan watershed), SN84 76, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 20th Jul 2019.
- +057/1.05. **Viola reichenbachiana** (Early Dog-violet) (Fioled y Coed). Cefn Coch (Ty Hir), SJ02 00, R.Meade, conf. R.Meade, Jul 2019; (+) Llanfair Caereinion (SW of), SJ09 05, R.Meade, conf. R.Meade, 6th Jul 2019; (+) Llangyniew, SJ11 09, G.Evans & A.Evans, conf. G.Evans & A.Evans, 14th Apr 2019.
- +057/1.12. **Viola tricolor** (Wild Pansy) (Trilliw). Bishop's Moat, SO27 89, J.Clayfield, conf. J.Clayfield, Jun 2019.
- +†057/1.13. **Viola arvensis** (Field Pansy) (Trilliw'r Tir Âr). Afon Llechwedd-mawr, SN7592 8973, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 9th Jul 2019, 7 flowering plants on W side of track presumably brought in by stock feeding (grazing cattle nearby).
- *060/1/1 **Bryonia dioica** (White Bryony) (Bloneg y Ddaear). Aberhafesp, SO06 92, A.K.Thorne, conf. A.K.Thorne, 17th Jul 2019, road verge/hedgerow.
- +061/1.3.a. **Populus nigra subsp. betulifolia** (a subspecies of Black-poplar). Llanfair Caereinion, SJ089 056, R.Meade, conf. R.Meade, 6th Jul 2019.
- +061/2.01. **Salix pentandra** (Bay Willow) (Helygen Bêr). Pool Quay, SJ25 10, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 31st Jul 2019, several female trees along top edge of wooded river bank.
- +061/2.9×11. **Salix ×smithiana**. Llanidloes (Bryncoch), SO00 83, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 20th Jul 2019, hedgerow/ditch.
- +062/12.6. **Rorippa amphibia** (Great Yellow-cress) (Berwr Melyn Mawr). Garthmyl, SO19 98, A.K.Thorne, conf. A.K.Thorne, 17th Jul 2019, under Caerhowel Bridge.
- +062/23.5.‡ **Cochlearia danica** (Danish Scurvygrass) (Llwllys Denmarc). Cwmbiga, SN866 893, G.Foulkes, conf. G.Foulkes, 29th Jun 2019, many unusual casuals on cable-trenched verge at SN86608929 due to so-called wild flower seeds?; (+) Pentre- Dulas (S of Llanidloes), SN95 82, G.Foulkes, conf. G.Foulkes, 21st May 2019, verge of A470; (+) A470, Dolwen, SN99 85, A.K.Thorne, conf. A.K.Thorne, 10th Apr 2019, non-native road verge site; (+) A458 Bwlch y Fedwen (W of Foel), SH93 13, G.Foulkes, conf. G.Foulkes, 1st May 2019, road verge (recently disturbed) and ditch; (+) A470, Llandinam, SO00 85, A.K.Thorne, conf. A.K.Thorne, 10th Apr 2019, non-native road verge site; (+) Llandinam, SO02 87, A.K.Thorne, conf. A.K.Thorne, 10th Apr 2019, non-native road verge site; (+) Churchstoke, SO27 93, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 5th May 2019, road verge.
- +‡062/31.2. **Lepidium didymum** (Lesser Swine-cress) (Olbrain Bach). Cwmbiga, SN866 893, G.Foulkes, conf. G.Foulkes, 29th Jun 2019, many unusual casuals on cable-trenched verge at SN86608929; (+) Dolfor, SO10 87, Liz Wilson, conf. Liz Wilson, 3rd Jul 2019; (+) Coed Brwynen (Hirnant), SJ03 22, R.A.Dawes, conf. R.A.Dawes, 11th Jul 2019, forest track; (+)

- Llanfair Caereinion (Primary School), SJ1053 0674, A.J.Hotchkiss, conf. A.J.Hotchkiss, 12th Jul 2019, trampled path edges at primary school.
- +062/34.5. ‡ **Brassica nigra** (Black Mustard) (Mwstard Du). Newton (Middle Scaffell), SO08 90, A.K.Thorne, conf. A.K.Thorne, 17th Jul 2019, roadside bank.
- +†062/35.1. **Sinapis arvensis** (Charlock) (Mwstard Gwyllt). Llandrinio, SJ31 16, A.K.Thorne, conf. A.K.Thorne, 21st May 2019, road verge/hedgerow.
- +†062/35.2. **Sinapis alba** (White Mustard) (Mwstard Gwyn). Bishop's Moat, SO27 89, J.Clayfield, conf. J.Clayfield, Jun 2019.
- +062/4.1. **Arabidopsis thaliana** (Thale Cress) (Berwr y Fagwyr). Machynlleth (SW of), SN73 99, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 8th Mar 2019; (+) A458 Bwlch y Fedwen (W of Foel), SH93 13, G.Foulkes, conf. G.Foulkes, 1st May 2019, road verge (recently disturbed) and ditch; (+) Llanerch, SO30 93, A.K.Thorne, conf. A.K.Thorne, 3rd May 2019, driveway; (+) Hyssington, SO31 94, A.K.Thorne, conf. A.K.Thorne, 17th Feb 2019, driveway.
- +065/12.5. **Erica cinerea** (Bell Heather) (Grug y Mêl). Glyn Wood WS, SJ182 027, T.Stretton & MWT volunteers, conf. T.Stretton & MWT volunteers, 6th Jun 2019, central GR for site, woodland.
- +069/1.1×3. **Primula vulgaris** × **P. veris** = **P. xpolyantha** (False Oxlip) (Briallen Groesryw). Y Fan, SN94 87, A.K.Thorne, conf. A.K.Thorne, 10th Apr 2019, single plant in scrub with *Pri ver*, near east end of pool. Likely to have arisen spontaneously here.
- +069/6.2.a. **Anagallis arvensis subsp. arvensis** (Scarlet Pimpernel). Cwmbiga, SN866 893, G.Foulkes, conf. G.Foulkes, 29th Jun 2019, many unusual casuals on cable-trenched verge at SN86608929.
- +072/2.1. ‡ **Ribes rubrum** (Red Currant) (Llwyn Cwrens Coch). Aberangell (nr), SH85 10, G.Foulkes, conf. G.Foulkes, 6th May 2019, verge of A470 and bank behind on E side.
- +074/09.2. **Chrysosplenium alternifolium** (Alternate-leaved Golden-saxifrage) (Eglyn Bob yn Eilddail). Carno (Cwm Cerniog), SN94 95, E.Beare & S.Southam, conf. E.Beare & S.Southam, 25th Jun 2019, woodland Cwm Cerniog; (+) Ceri Forest (Sarn), SO209 888, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 25th Jan 2019, small colony amongst abundant *Chr opp* by stream.
- *‡075/08.05.134. **Rubus armeniacus**. Montgomery Canal, N of aqueduct, SJ262 207, R.A.Dawes, det. D.P.Earl, conf. D.P.Earl, 17th Jul 2019, by canal towpath, joint first record.
- +075/08.06.163. **Rubus vestitus**. Llanidloes (Nant Feinion), SO01 83, A.K.Thorne & W.I.J.Thorne, det. D.P.Earl, conf. D.P.Earl, 20th Jul 2019, roadside hedge, pink flowers.
- +075/15.2. **Agrimonia procera** (Fragrant Agrimony) (Llysiau'r-dryw Pêr). Llanbryn-mair, SH89 03, G.Foulkes, conf. G.Foulkes, 13th Jun 2019; (+) Aberhafesp, SO07 92, A.K.Thorne, conf. A.K.Thorne, 17th Jul 2019, field side of road hedgerow.
- +‡075/22.03. © **Prunus cerasifera** (Cherry Plum) (Coeden Goeg-geirios). Twymyn (Pennant), SN87 97, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 30th Apr 2019, several small trees in hedge at corner of track leading to Ceulan.
- +077/14.06. **Vicia hirsuta** (Hairy Tare) (Ffachysen Flewog). Llangadfan, SJ00 11, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 16th Jul 2019.
- +077/14.08. **Vicia tetrasperma** (Smooth Tare) (Ffachysen Lefn). Machynlleth, SH76 00, G.Foulkes, conf. G.Foulkes, 6th Jul 2019.
- +081/1.3. **Lythrum portula** (Water-purslane) (Troed y Gywen). Llandrinio (Haughton), SJ31 18, A.K.Thorne, conf. A.K.Thorne, 28th May 2019, old oxbow.
- +084/1.07. **Epilobium roseum** (Pale Willowherb) (Helyglys Gwelw). Melinbyrhedyn (North of), SN81 99, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 13th Jul 2019.
- +103/1.18. **Geranium lucidum** (Shining Crane's-bill) (Pig-yr-aran Loywddail). Coed Cae-Heulen and Coed Pant y Bating, SN78 98, G.Foulkes, conf. G.Foulkes, 17th Mar 2019; (+) Llanidloes, SN95 84, G.Foulkes, conf. G.Foulkes, 18th Mar 2019.

- *‡105/1.2. **Impatiens capensis** (Orange Balsam) (Ffromlys Oren). Montgomery Canal, Welshpool, SJ23 07, S.Swindells & R.A.Dawes, conf. S.Swindells & R.A.Dawes, 22nd Jul 2019, scattered throughout this monad.
- +‡105/1.4. **Impatiens glandulifera** (Indian Balsam) (Jac y Neidiwr). Y Fan, SN94 89, A.K.Thorne, D.Milborrow, C.Milborrow, L.Beaure & R.Meade, conf. A.K.Thorne, D.Milborrow, C.Milborrow, L.Beaure & R.Meade, 17th Jun 2019, road verge/hedgerow.
- +107/05.3. **Chaerophyllum temulum** (Rough Chervil) (Gorthyfail Garw). Forge, SN76 99, G.Foulkes, conf. G.Foulkes, 23rd Feb 2019.
- +107/20.1. **Aethusa cynapium** (Fool's Parsley) (Geuberllys). Bishop's Moat, SO28 89, J.Clayfield, conf. J.Clayfield, Jun 2019.
- +110/8.6. **Solanum dulcamara** (Bittersweet) (Elinog). Dolfor east, SO11 87, Liz Wilson, conf. Liz Wilson, 3rd Jul 2019.
- +113/1.1. **Menyanthes trifoliata** (Bogbean) (Ffeuen y Gors). Llanerch, SO30 93, A.K.Thorne, conf. A.K.Thorne, 3rd May 2019, woodland.
- +116/15.04. **Myosotis laxa** (Tufted Forget-me-not) (Sgorpionllys Siobynnog). Staylittle, SN88 92, G.Foulkes, conf. G.Foulkes, 29th Jun 2019, bank of Afon Clywedog.
- +116/15.07.‡ **Myosotis sylvatica** (Wood Forget-me-not) (Sgorpionllys y Coed). Llawr-y-glyn (S. of Afon Trannon), SN94 90, S.Southam & E.Beaure, conf. S.Southam & E.Beaure, 10th Jun 2019, oak woodland.
- +116/15.10. **Myosotis discolor** (Changing Forget-me-not) (Sgorpionllys y Amryliw). Machynlleth, SH76 00, G.Foulkes, conf. G.Foulkes, 29th May 2019.
- +118/01.5×6. **Stachys xambigua** (Hybrid Woundwort) (Briwllys Croesryw). Cae'r-Iloi (W of Foel), SH95 12, J.Clayfield, conf. J.Clayfield, Aug 2019.
- +†118/05.3. **Lamium purpureum** (Red Dead-nettle) (Marddanhadlen Goch). A458 Bwlch y Fedwen (W of Foel), SH93 13, G.Foulkes, conf. G.Foulkes, 1st May 2019, road verge (recently disturbed) and ditch.
- +†118/05.4. **Lamium hybridum** (Cut-leaved Dead-nettle) (Marddanhadlen Dorddail). Bishop's Moat, SO27 89, J.Clayfield, conf. J.Clayfield, Jun 2019.
- +121/1.1. **Plantago coronopus** (Buck's-horn Plantain) (Llyriad Corn Carw). Llanbrynmair, SH90 02, G.Foulkes, conf. G.Foulkes, 20th May 2019, very edge of road verge on N side of A470.
- +124/16.09. **Veronica scutellata** (Marsh Speedwell) (Rhwyddlwyn Culddail y Gors). Llandrinio (Haughton), SJ31 18, A.K.Thorne, conf. A.K.Thorne, 28th May 2019, old oxbow.
- +†124/16.19. **Veronica agrestis** (Green Field-speedwell) (Rhwyddlwyn-y-maes Gwyrdd). Llanfihangel-yng-Ngwynfa, SJ08 16, A.J.Hotchkiss, conf. A.J.Hotchkiss, 27th Jun 2019; (+) Llanfair Caereinion (Dolfa), SJ10 06, A.J.Hotchkiss & I.Hotchkiss, conf. A.J.Hotchkiss & I.Hotchkiss, 24th Jun 2019, fruit lobes spreading & at 45 degrees. Hairs all glandular. Pale blue flower, whitish lower lip; (+) Llangyniew, SJ11 09, G.Evans, det. A.K.Thorne, conf. A.K.Thorne, 7th Apr 2019, woodland.
- +‡124/16.20. **Veronica polita** (Grey Field-speedwell) (Rhwyddlwyn-y-maes Llwyd). Llanfair Caereinion (SW of), SJ09 04, A.J.Hotchkiss & I.Hotchkiss, conf. A.J.Hotchkiss & I.Hotchkiss, 16th May 2019, gate field entrance.
- +‡124/16.21. **Veronica persica** (Common Field-speedwell) (Rhwyddlwyn y Maes). Cwmbiga, SN866 893, G.Foulkes, conf. G.Foulkes, 29th Jun 2019, many unusual casuals on cable-trenched verge at SN86608929; (+) Aberangell (nr), SH85 10, G.Foulkes, conf. G.Foulkes, 6th May 2019, verge of A470 and bank behind on E side; (+) A458 Bwlch y Fedwen (W of Foel), SH93 13, G.Foulkes, conf. G.Foulkes, 1st May 2019, road verge (recently disturbed) and ditch.
- +124/20.01.a. **Euphrasia officinalis subsp. pratensis**. Abercegir, SH817 021, G.Foulkes, conf. C.Metherell, 22nd Jul 2019, in small old borrow pit at SH817021.
- +124/20.03. **Euphrasia officinalis subsp. anglica** (Effros Lloegr). Llanidloes (Brynoch), SO003 830, A.K.Thorne & W.I.J.Thorne, det. A.K.Thorne, conf. C.Metherell, 20th Jul 2019, meadow flanking monads. Eyebright in the drier north at SO0032683016.

- +124/20.05. **Euphrasia arctica** (Arctic Eyebright) (Effros yr Arctig). Esgair-y-llyn (Aberhosan), SN8111 9582, Gillian & Peter Foulkes, conf. C.Metherell, 6th Jun 2019, in damp meadow flush at SN81119582; (+) Coed Brwynen (Hirnant), SJ03 22, R.A.Dawes, det. A.K.Thorne, conf. C.Metherell, 11th Jul 2019, forest track.
- *124/20.05.b×19. **Euphrasia borealis** × **E. scottica** = **E.** × **venusta** **F. Towns.**. Coed Cae-Heulen and Coed Pant y Bating, SN783 984, G.Foulkes, conf. C.Metherell, 1st Jul 2019, growing on road verge. C. Metherell confirmed ID as *E.arctica* × *scottica* (specimen 2019/324).
- +124/20.05×07. **Euphrasia arctica** × **E. nemorosa**. Cwmbiga, SN867 893, G.Foulkes, conf. C.Metherell, 29th Jun 2019, road verge.
- +124/20.07×09. **Euphrasia nemorosa** × **E. confusa**. Pont Llogel, NE of, SJ035 171, M.Lawley & MFG, det. C.Metherell, conf. C.Metherell, 25th Jul 2019, forest tracks/verges.
- +124/20.09. **Euphrasia confusa** (Effros Gliniog). Y Gadfa (NW of Vrynwy), SH9333 2387, Gillian & Peter Foulkes, det. G.Foulkes, conf. C.Metherell, 16th Jul 2019, growing on road verge.
- +124/20.18. **Euphrasia micrantha** (Purple-stemmed Eyebright) (Effros Mân-flodeuog). Llanbryn-mair (Ffridd Fawr), SH94711 03536, A.K.Thorne, G.Foulkes & MFG, det. C.Metherell, conf. C.Metherell, 18th Jul 2019, SH9471103536 in streamside flush with *Narthecium ossifragum* and *Linum catharticum*.
- +125/2.02. **Orobanche rapum-genistae** (Greater Broomrape) (Gorfanhadlen Fawr). Bettws Cedewain (Fron-heulog) central GR for site SO14599799, Tamasine Stretton & Tim Ward, 15th May 2019, under *Ulex europaeus*.
- +129/3.1. **Wahlenbergia hederacea** (Ivy-leaved Bellflower) (Clychlys Dail Eiddew). Aberllefenni, SH77 10, G.Foulkes, conf. G.Foulkes, 28th Jun 2019.
- +130/6.03. **Galium uliginosum** (Fen Bedstraw) (Briwydd y Fign). Garnedd Las, SH94 10, J.Clayfield, conf. J.Clayfield, Aug 2019.
- +132/1.1. **Adoxa moschatellina** (Moschatel) (Mwsglys). Cwm Tafolog (Mallwyd), SH89 11, G.Foulkes, conf. G.Foulkes, 9th Jun 2019.
- +133/2.3. **Valeriana dioica** (Marsh Valerian) (Triaglog y Gors). Llaur-y-glyn (S. of Afon Trannon), SN94 90, S.Southam & E.Beare, conf. S.Southam & E.Beare, 10th Jun 2019, cattle-poached area.
- +‡135/19.1. **Tragopogon pratensis** (Goat's-beard) (Barf-yr-afr). Llanfihangel-yng-Ngwynfa, SJ06 17, A.K.Thorne, G.Foulkes & MFG, conf. A.K.Thorne, G.Foulkes & MFG, 25th Jul 2019, road verge/hedgerow.
- *135/28.02.6.b.bic. **Hieracium umbellatum subsp. bichlorophyllum**. Llanfihangel-yng-Ngwynfa, SJ061 171, A.K.Thorne, G.Foulkes & MFG, det. T.C.G.Rich, conf. T.C.G.Rich, 25th Jul 2019, road verge/hedgerow alongside B4393; (+) Llanfihangel-yng-Ngwynfa, SJ061 171, A.K.Thorne, G.Foulkes & MFG, det. T.C.G.Rich, conf. T.C.G.Rich, 25th Jul 2019, road verge/hedgerow alongside B4393.
- +†135/28.07.arg. **Hieracium argillaceum** (Southern Hawkweed). Boncyn Dolwen (Llanbryn-mair), SH957 089, Gillian & Peter Foulkes, det. T.C.G.Rich, conf. D.McCosh, 23rd Jul 2019, rocky upland stream bluff.
- *†135/28.07.avi. **Hieracium aviicola** (Many-toothed Hawkweed). Llanfechain, SJ17 20, A.K.Thorne, G.Foulkes & MFG, det. D.McCosh, conf. D.McCosh, Jul 2019, steep lane-side. First noted on Oct 18 on MFG outing.
- *‡137/1.2. **Sagittaria latifolia** (Duck-potato) (Saethlys Llydanddail). Y Van, SN943 896, Coral Milborrow, det. A.K.Thorne, conf. A.K.Thorne, 18th Jun 2019, central GR for wetland area, frequent in pool.
- +141/1.1. **Triglochin palustre** (Marsh Arrowgrass) (Saethbennig y Gors). Cwm Cra (NE of Carno), SN99 98, M.Lawley, conf. M.Lawley, 19th Jun 2019.
- +142/1.19. **Potamogeton crispus** (Curled Pondweed) (Dyfrllys Crych). Aberhafesp, SO07 91, A.K.Thorne, conf. A.K.Thorne, 17th Jul 2019, old oxbow/meander; (+) Kerry Hill (Block Wood), SO15 86, J.Clayfield, conf. J.Clayfield, Aug 2019, pool at SO150869.

- +152/16.05. **Carex otrubae** (False Fox-sedge) (Hesgen Dywysennog Goesadeiniog). Breidden Hill, SJ31 14, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 16th Jun 2019, road verge/hedgerow/ditch.
- +152/16.39. **Carex laevigata** (Smooth-stalked Sedge) (Hesgen Lefn). Llys Hill (Llangedwyn), SJ17 22, S.Swindells, conf. A.K.Thorne, 9th Jun 2019.
- +152/16.47. **Carex pallescens** (Pale Sedge) (Hesgen Welw). Crew Green, SJ32 14, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 16th Jun 2019, woodland, scrub and grassland mosaic.
- +152/16.51. **Carex caryophyllea** (Spring-sedge) (Hesgen Gynnar). Aberllefenni, SH77 10, G.Foulkes, conf. G.Foulkes, 28th Jun 2019.
- +153/12.02. **Schedonorus arundinaceus** (Tall Fescue) (Peiswellt Tal). Llanbrynmair, SH90 02, G.Foulkes, conf. G.Foulkes, 10th May 2019, road verge of A470.
- +†153/14.3. **Vulpia myuros** (Rat's-tail Fescue) (Peisgwellt y Fagwyr). Melinbyrhedyn (North of), SN81 99, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 13th Jul 2019.
- +153/18.04. **Poa humilis** (Spreading Meadow-grass) (Gweunwellt Ymledol). Afon Bidno (W of Llangurig), SN87 82, J.Clayfield & MFG, conf. J.Clayfield & MFG, 18th Jun 2019; (+) Cwmbelan, SN94 81, J.Clayfield & MFG, conf. J.Clayfield & MFG, 30th May 2019; (+) Gelli-fawr uchaf (Cwm-belan), SN94 82, A.K.Thorne, G.Foulkes & MFG, conf. A.K.Thorne, G.Foulkes & MFG, 30th May 2019; (+) Hopton, SO23 90, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 13th May 2019, old track through grassland.
- +153/25.2. **Melica uniflora** (Wood Melick) (Meligwellt y Coed). Cwm Tafolog (Mallwyd), SH89 11, G.Foulkes, conf. G.Foulkes, 9th Jun 2019.
- +†153/28.3. **Avena fatua** (Wild-oat) (Ceirchen Wylt). Aberhafesp, SO06 92, A.K.Thorne, conf. A.K.Thorne, 17th Jul 2019, arable land in floodplain.
- +153/47.1. **Alopecurus pratensis** (Meadow Foxtail) (Cynffonwellt y Maes). Aberangell (nr), SH85 10, G.Foulkes, conf. G.Foulkes, 6th May 2019, verge of A470 and bank behind on E side.
- +‡158/33.5. **Narcissus pseudonarcissus** (Gweler yr Isrywogaethau yn Unig). Bont Dolgadfan south, SN88 99, G.Foulkes, conf. G.Foulkes, 18th Mar 2019, along road side and bank south of Plas Llwyn Owen so suspect these may have been planted in the Plas grounds some years ago (19th or early 20th century?); (+) Moel y Golfa, SJ2891 1282, T.Knight, conf. T.Knight, 13th Apr 2019, dominating small field.
- *162/18.1×5. **Dactylorhiza ×venusta**. Cefn Bran, Llanfyllin, SJ093 201, R.A.Dawes, det. Ian Denholm, conf. Ian Denholm, 30th Jun 2019, 1 tall plant on road verge (N side). Hundreds of *D. fuchsii* and a few *D. purpurella* in adjacent field.
- +162/18.2×5. **Dactylorhiza ×formosa**. Caerbwla, SJ00 08, S.Backhouse, det. Ian Denholm, conf. Ian Denholm, 2019, unimproved meadows with *D.purpurella*, *D.maculata* and *D.fuchsii*.
- +162/23.3. **Ophrys apifera** (Bee Orchid) (Tegeirian y Wenynen). Llanwddyn, SJ0214 1991, G.Chambers, conf. G.Chambers, 15th Jun 2019, at hotel, on gravelly bit of land near heli-pad. Record sent in by Gethin Elias
- MERIONETH, v.c.48 (comm. S. Stille)
- +016/4.1. **Gymnocarpium dryopteris** (Oak Fern) (Rhedynen Dridarn). Craig yr Aderyn, SH64704 06124, H.M.Garrett, 24th Jun 2015.
- *‡020A/TAX.dis. **Taxodium distichum** (Swamp Cypress). SW of Tanygrisiu Reservoir, SH64R, S.C.Peacock & M.Crittenden, 26th Jul 2019.
- +023A/LIR.tul. **Liriodendron tulipifera** (Tulip-tree). Dolffanog, SH71F, S.E.Stille & Caerdeon group, 28th Jul 2019, 3rd VC record
- +030/1.5. **Papaver dubium agg.** (Pabi Hirben). Roadside, Tan y Garth, SH93M, S.E.Stille, 12th Jul 2019.
- +‡037/1.1. **Juglans regia** (Walnut) (Coeden Cnau Ffrengig). Bird's Rock, SH64 07, P.L.Brown & Caerdeon group, 28th Jul 2019.

- +‡040/2.2. **Alnus incana** (Grey Alder) (Gwernen Lwyd). Parc, SH86 33, C.M.Lovatt, G.M.Kay & H.M.Colls, 27th Jul 2019.
- +046/20.09. **Silene latifolia** (White Campion) (Gludlys Gwyn). Garden wood, Cefn Prys, SH863 300, D.O.Elias, 1984.
- +047/8.15×19. **Rumex ×dufftii**. Roadside, Tan y Garth, SH93M, S.E.Stille, 12th Jul 2019.
- +‡061/1.3×del.© **Populus ×canadensis (P. nigra × P. deltoides)** (Hybrid Black-poplar) (Poplysen Ddu Groesryw). SW of Tanygrisiau Reservoir, SH64R, S.C.Peacock & M.Crittenden, 26th Jul 2019.
- +‡062/31.2. **Lepidium didymum** (Lesser Swine-cress) (Olbrain Bach). Roadside, Tan y Garth, SH93M, S.E.Stille, 12th Jul 2019.
- *073/1.1. **Crassula tillaea** (Mossy Stonecrop) (Corchwyn Mwsoglog). Carpark, Castell y Bere, SH66919 08628, M.O.Stead, 16th Apr 2019.
- +‡073/1.3. **Crassula helmsii** (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Talyllyn, SH72 10, S.E.Stille & Caerdeon group, 28th Jul 2019.
- +074/05.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage) (Tormaen Tribys). Carrog Newydd, SJ12 42, M.O.Stead, 25th Mar 2019, *S. tridactylites* was found in SJ04 pre-1986 so it appears to have moved east along the A5.
- +‡075/13.3.© **Geum macrophyllum** (Large-leaved Avens) (Mappoll Fawr). Dolffanog, SH71F, S.E.Stille & Caerdeon group, 28th Jul 2019, 3rd VC record.
- +075/17.3.a.© **Poterium sanguisorba subsp. sanguisorba** (Salad Burnet) (Bwrned). Penrhyndudraeth, SH61 38, J.M.Langton, 12th Jun 2019.
- 077/19.08. **Trifolium fragiferum** (Strawberry Clover) (Meillionen Fefusaidd). Car park, Arthog OA Centre, SH6251 1335, T.Knight, 18th May 2019, 1st hectad record since 1963.
- 077/19.20. **Trifolium striatum** (Knotted Clover) (Meillionen Rychog). Rocky outcrop, Fegla Fawr, SH6291 1468, T.Knight, 18th May 2019, 1st hectad record since 1963.
- +090/1.1. ‡ **Buxus sempervirens** (Box) (Pren Bocs). Cerrig-llwydion, SH90 33, M.O.Stead, 3rd Mar 2019; (+) Cwm Hirnant, SH95 32, M.O.Stead, 5th Apr 2019.
- ♠+103/1.10. **Geranium columbinum** (Long-stalked Crane's-bill) (Pig-yr-aran Hirgoes). Castell y Bere, SH6677 0853, M.O.Stead, 29th Jun 2019, 1st VC record post-2000.
- +108/3.2. **Centaureum erythraea** (Common Centaury) (Y Ganrhi Goch). Castell y Bere, SH66 08, M.O.Stead, 29th Jul 2019.
- +‡111/3.3. **Calystegia pulchra** (Hairy Bindweed) (Taglys Blewog). Glyndyfrdwy East, SJ15 42, M.O.Stead, 31st Jul 2019.
- *114/1.1. ‡ **Polemonium caeruleum** (Jacob's-ladder) (Ysgol Jacob). Footpath, Cors y Sarnau, SH973 394, D.O.Elias, 1st Jun 1984.
- +‡116/12.2.© **Amsinckia micrantha** (Common Fiddleneck) (Amsincia). Sandy waste tip, Aberdyfi cemetery, SN59Y, Meirionnydd Nats, 25th Apr 2019.
- 118/18.4. **Clinopodium vulgare** (Wild Basil) (Brenhinllys Gwyllt). Glyndyfrdwy East, SJ15 42, M.O.Stead, 31st Jul 2019, 1st hectad record since before 1963.
- *‡122/1.3. **Buddleja globosa** (Orange-ball-tree) (Coeden-fêl Peli Oren). Nant Gwernol, SH6839 0609, T.Knight, 25th May 2019, 1 plant by forestry track.
- ♠+‡124/08.2. **Chaenorhinum minus** (Small Toadflax) (Trwyn-y-llo Bach). Pennal [W], SH6998 0060, C.M.Lovatt, S.E.Stille & H.V.Colls, 29th Jul 2019.
- +‡124/16.20. **Veronica polita** (Grey Field-speedwell) (Rhwyddlwyn-y-maes Llwyd). Pennal West, SH6991 0045, C.M.Lovatt, 29th Jul 2019.
- ♠+130/6.01. **Galium boreale** (Northern Bedstraw) (Briwydd y Gogledd). Foel Cynfal, SH7587 3839, G.Elias & Meirionnydd Nats, 23rd May 2019, miniaturised plants growing in small areas of sheep-grazed turf with *Thymus*, *Carex caryophylla* etc.
- 132/1.1. **Adoxa moschatellina** (Moschatel) (Mwsglys). Castell y Bere, SH66 08, M.O.Stead, 0000, first hectad record post-1986.
- +135/26.1. **Crepis paludosa** (Marsh Hawk's-beard) (Gwalchlys y gors). Tyn-y-craig, SJ15 41, M.O.Stead, 31st Jul 2019.

- +135/28.04.24. **Hieracium scabrisetum** (Scabrous Hawkweed). Rushy meadow, Pont Rhyd y Fen, SH83E, G.M.Kay & H.Colls, det. M.W.Rand, 26th Jul 2019.
- *135/28.07.61. **Hieracium triviale** (Grey-headed Hawkweed). Craig y Benglog, SH80 24, P.L.Brown, M.O.Stead & B.Brown, det. M.W.Rand, 27th Jul 2019.
- ✚+135/30.4. **Filago minima** (Small Cudweed) (Edafeddog Fach). Sandy bank near estuary, Llandecwyn Station, SH6182 3806, J.Langton, conf. S.E.Stille, 13th Jun 2019. **Herb. SES**
- *‡138/6.1. **Lagarosiphon major** (Curly Waterweed) (Ffugalaw Crych). Talyllyn, SH722 105, S.E.Stille & Caerdeon group, 28th Jul 2019.
- +‡147/5.2. **Arum italicum** (Italian Lords-and-Ladies) (Pidyn-y-gog Eidalaid). Llanenddwyn, SH57 23, M.O.Stead, 1st Mar 2019.
- +152/16.18. **Carex dioica** (Dioecious Sedge) (Hesgen Ysgar). Hill bog, Foel Lluestbadlon, SH916 173, D.O.Elias, 1st Jul 1985.
- ✚+152/16.46.a. **Carex lepidocarpa** (Long-stalked Yellow-sedge). Hillside flush, Gelli Grin, SH946 339, D.O.Elias, 1st Jul 2085, **Herb.DOE**
- +153/12.03. **Festuca gigantea** (Giant Fescue) (Peiswellt Mawr). Railway line, Aberdyfi dunes, SN59Y, Meirionnydd Nats, 25th Apr 2019.
- 153/25.1. **Melica nutans** (Mountain Melick) (Meligwellt Pendrwm). Cyfyng y Benglog and Craig y Benglog, SH8098 2429, P.L.Brown, M.O.Stead & B.Brown, 28th Jul 2019, not recorded in this hectad since 1986.
- +‡153/39.2. **Agrostis gigantea** (Black Bent) (Maeswellt Mawr). Bronaber, SH71 32, M.W.Rand, 25th Jul 2019.
- +‡153/47.6. **Alopecurus myosuroides** (Black-grass) (Cynffonwellt Du). Concrete farmyard apron, Parc, SH869 538, C.M.Lovatt, G.M.Kay & H.M.Colls, 27th Jul 2019, presumed introduced with winter feed. 2nd county record.
- +‡158/24.07. **Allium triquetrum** (Three-cornered Garlic) (Garlleg Trionglog). Gellilydan, SH63Z, J.Clark & Meirionnydd Nats, 28th Mar 2019.
- *162/03.dun. **Epipactis dunensis** [**E. muelleri** var. **dunensis**]. Morfa Dyffryn, SH55783 25233, D.Lamacraft, det. M.Waller, conf. M.Lynes 30 Sept 2019, 12th Jul 2015, photos with Recorder [Plantlife] and seen by Andy Jones at the time.
- 162/06.2. **Neottia cordata** (Lesser Twayblade) (Caineirian Bach). Foel Boeth, SH78419 33948, P.S.Jones & E.Jones, 13th Jul 2019, 1st hectad record since 1984.

CAERNARFON, v.c.49 (comm. W. McCarthy)

- +016/4.1. **Gymnocarpium dryopteris** (Oak Fern) (Rhedynen Dridarn). Disused quarry, Dolwyddelan, SH69 49, Julian Driver, 30th Jun 2019.
- +‡020/4.2. **Picea abies** (Norway Spruce) (Sbriwsen Norway). Field edge, Llwyndyrys, SH37 41, Caerns Recording Group, 10th May 2019.
- +020/5.2.© **Larix kaempferi** (Japanese Larch) (Llarwydden Japan). Base of hill above path, Great Orme, Llandudno, SH77 82, Wendy McCarthy, 12th Mar 2019.
- +021/THU.dol. **Thujopsis dolabrata** (Hiba). Churchyard, Henryrd, SH77 73, Wendy McCarthy, 9th Jul 2019.
- +028/03.1.‡ **Helleborus foetidus** (Stinking Hellebore) (Crafanc-yr-arth Ddrewllyd). Lane bank, Trefriw, SH79 57, Wendy McCarthy, 24th Apr 2019.
- ⊗028/13.07. **Ranunculus parviflorus** (Small-flowered Buttercup) (Blodyn-ymenynd Mân-flodeuog). Well-trodden path near spring, Great Orme, Llandudno, SH76 83, Wendy McCarthy, 2nd Jun 2019.
- +‡029/1.9. **Berberis darwinii** (Darwin's Barberry) (Pren Melyn Darwin). Field hedge, Llanbedr y Cennin, SH76 68, Wendy McCarthy, 13th Apr 2019.
- +‡030/1.1. **Papaver pseudoorientale** (Oriental Poppy) (Llygad y Bwgan). Beside coast path, Abergwyngregyn, SH64 73, Wendy McCarthy, 23rd Jun 2019.

- +‡035/2.1. **Ficus carica** (Fig) (Ffigysbren). Sea wall, Hirael, Bangor, SH58 72, Iwan Edgar, 1st Jun 2017, 1 large plant self-sown in sea wall.
- +‡053/4.1.© **Alcea rosea** (Hollyhock) (Hocysen Fendigaid). Grass verge by road, Abergwyngregyn, SH65 73, Wendy McCarthy, M.Roberts & S.Peacock, 29th Mar 2019, 1 large basal rosette.
- +061/1.2. **Populus tremula** (Aspen) (Aethnen). Wet heath, Rhosgadfan, SH49 56, Wendy McCarthy, M.Roberts & L.Ball, 3rd Jul 2019.
- +061/1.3.a. **Populus nigra subsp. betulifolia** (a subspecies of Black-poplar). Parkland, Craig y Don, Llandudno, SH79 81, Wendy McCarthy, 29th Jun 2019.
- +062/12.3. **Rorippa islandica** (Northern Yellow-cress) (Berwr Melyn Gogleddol). Grass bank by track, Afonwen, SH43 35, Wendy McCarthy & M.Stead, 5th Jul 2019.
- +‡062/16.1. **Aubrieta deltoidea** (Aubretia) (Cynfas Biws). Walls & paving cracks, Plas y Brenin, Capel Curig, SH71 57, Wendy McCarthy & M.Roberts, 20th Mar 2019.
- +073/1.1.‡ **Crassula tillaea** (Mossy Stonecrop) (Corchwyn Mwsoglog). Gravelly path, Caernarfon, SH48 61, Mari Roberts, 14th Apr 2019.
- +‡073/3.1. **Sempervivum tectorum** (House-leek) (Llysiu Pen Tai). On road side of field wall, Abergwyngregyn, SH65 72, Wendy McCarthy, M.Roberts & S.Peacock, 29th Mar 2019.
- +‡073/5.kam. **Sedum kamtschaticum** (Kamchatka Stonecrop) (Briweg Camtsiatca). In stonework on railway bridge, Conwy, SH77 77, E.Phenna, 22nd Jul 2019.
- +‡074/03.1. **Bergenia crassifolia** (Elephant-ears) (Clustiau Eliffant). Wood below lane, Bryn Pydew, SH81 79, Wendy McCarthy, 22nd Mar 2019.
- +‡074/07.1. **Tolmiea menziesii** (Pick-a-back-plant) (Crydlys). Beside footpath, Llandudno, SH79 81, Wendy McCarthy, 2nd May 2019.
- +‡075/08.05.134. **Rubus armeniacus**. Roadside bank, Llanllyfni, SH47 52, Wendy McCarthy, 3rd Jul 2019.
- +075/08.14.321. **Rubus caesius** (Llwyn Mwyar Mair). Sand dunes, Pwllheli, SH36 34, Wendy McCarthy, 31st May 2019.
- +‡075/22.03. **Prunus cerasifera** (Cherry Plum) (Coeden Goeg-geirios). Hedge by sports field, Treborth, Bangor, SH54 71, Wendy McCarthy, D.Evans, M.Roberts & L.Ball, 6th Feb 2019, in flower.
- +‡075/22.13. **Prunus lusitanica** (Portugal Laurel) (Coeden Lawrgeirios Portiwgal). By path in wood, Craflwyn, Beddelert, SH60 49, Wendy McCarthy & M.Roberts, 25th Feb 2019; (+) near bridge over river, Abergwyngregyn, SH65 72, Wendy McCarthy, M.Roberts & S.Peacock, 29th Mar 2019.
- +‡075/32.22. **Cotoneaster hjelmqvistii** (Hjelmqvist's Cotoneaster) (Cotoneaster Hjelmqvist). Wall base near houses, Abergwyngregyn, SH65 72, Wendy McCarthy, M.Roberts & S.Peacock, 29th Mar 2019.
- +‡075/32.39. **Cotoneaster franchetii** (Franchet's Cotoneaster) (Cotoneaster Franchet). Self-sown in wall, Llanllyfni, SH47 52, Wendy McCarthy, M.Roberts & L.Ball, 3rd Jul 2019.
- +077/14.08. **Vicia tetrasperma** (Smooth Tare) (Ffacbysen Lefn). Sandy seashore, Afonwen, SH43 36, Wendy McCarthy & M.Stead, 5th Jul 2019.
- +077/19.20. **Trifolium striatum** (Knotted Clover) (Meillionen Rychog). Dry rocky bank, Afonwen, SH43 35, Wendy McCarthy & M.Stead, 5th Jul 2019.
- +079/2.4. **Myriophyllum alterniflorum** (Alternate Water-milfoil) (Myrdd-dail Blodau Bob yn Ail). Stream near Afon Erch, Llwyndyrys, SH37 41, Caerns Recording Group, 10th May 2019.
- +084/1.07. **Epilobium roseum** (Pale Willowherb) (Helyglys Gwelw). Roadside, Llandygai, SH60 70, Wendy McCarthy & M.Stead, 19th Jul 2019.
- +102/1.03.cor.atr. **Oxalis corniculata var. atropurpurea**. Caernarfon, SH48 62, Mari Roberts, 14th Apr 2019.
- +‡103/1.01×02. **Geranium oxonianum** (Druce's Crane's-bill) (Pig-yr-aran Druce). By coast path, Afonwen, SH43 36, Wendy McCarthy & M.Stead, 5th Jul 2019.
- +103/1.09. **Geranium sanguineum** (Bloody Crane's-bill) (Pig-yr-aran Ruddgoch). Sandy seashore, Afonwen, SH44 37, Wendy McCarthy & M.Stead, 5th Jul 2019.

- +‡103/1.23. **Geranium phaeum** (Dusky Crane's-bill) (Gweddw Alarus). Hedge bank, Llanbedr y Cennin, SH76 69, Wendy McCarthy, 13th Apr 2019.
- *116/CER.maj. **Cerinth major** (Greater Honeywort). Just inside field gateway, Bryn Pydew, SH81 79, Wendy McCarthy, 11th Mar 2019.
- +‡117/1.bon. **Verbena bonariensis** (Argentinian Vervain) (Ferfain yr Ariannin). Grass bank by track, Afonwen, SH43 35, Wendy McCarthy & M.Stead, 5th Jul 2019.
- +‡118/16.1. **Melissa officinalis** (Balm) (Balm). Lane bank, Llanbedr y Cennin, SH76 69, Wendy McCarthy, 13th Apr 2019.
- +‡124/04.2×3. **Mimulus ×robertsii** (Hybrid Monkeyflower) (Blodyn-mwnci Croesryw). Stream bank, Rhosgadfan, SH49 56, Wendy McCarthy & M.Roberts, 3rd Jul 2019.
- +130/6.03. **Galium uliginosum** (Fen Bedstraw) (Briwydd y Ffig). Wet heath, Rhosgadfan, SH49 56, Wendy McCarthy, M.Roberts & L.Ball, 3rd Jul 2019.
- +‡131/6.6. **Lonicera japonica** (Japanese Honeysuckle) (Gwyddfifd Japan). Hedge in lane, Bryn Pydew, SH81 79, Wendy McCarthy, 22nd Mar 2019.
- +‡135/28.08.115. **Hieracium scotostictum** (Dappled Hawkweed). Wall in lane, Llanfairfechan, SH69 74, Wendy McCarthy, 9th Jun 2019.
- +‡135/43.4. **Erigeron karvinskianus** (Mexican Fleabane) (Amrhydlwyd y Cerrig). Cracks in wall, Llanbedr y Cennin, SH76 69, Wendy McCarthy, 13th Apr 2019.
- +‡158/11.1. **Fritillaria meleagris** (Fritillary) (Britheg). In paving between bins at roadside, Llanberis, SH57 60, E.Meilleur, 8th Apr 2019.
- +‡158/21.1.1. **Hyacinthus orientalis** (Hyacinth) (Hiasinth)). Bank opposite cottages, Henryd, SH75 74, Caerns Recording Group, 5th Apr 2019.
- +‡158/24.07. **Allium triquetrum** (Three-cornered Garlic) (Garleg Trionglog). Grass bank in lane, Bryn Pydew, SH81 78, Wendy McCarthy, 8th Apr 2019.
- +‡158/31.1.b. **Leucjum aestivum subsp. pulchellum**. Bank opposite cottages, Henryd, SH75 74, Caerns Recording Group, 5th Apr 2019; (+) wooded bank in lane, Bryn Pydew, SH81 79, Wendy McCarthy, 22nd Mar 2019.
- +162/18.4. **Dactylorhiza praetermissa** (Southern Marsh-orchid) (Tegeirian-y-gors Deheuol). Dry grassland at RSPB reserve, Llandudno Junction, SH80 77, Debbie Evans, det. Wendy McCarthy, 26th May 2019, 1st record for vc49 part of reserve

DENBIGH, v.c.50 (comm. D. Williams)

- +015/3.1. **Asplenium ceterach** (Rustyback) (Duegredynen Gefngoch). Rhosddu, SJ33 51, S.R.Hinsley, 15th Jul 2019, north end of Foster Road on a wall.
- +017/3.03. **Dryopteris affinis** (Scaly Male-fern) (Marchredynen Euraid). The Gelli, SJ46 43, M.O.Stead, 3rd Jul 2019.
- +017/3.03b. **Dryopteris cambrensis**. Glas-hirfryn, SJ155 290, Denbs Group (D.Williams), 2nd Jun 2019, several large clumps on east side at bottom of hill. Pinnules overlapping rachis completely.
- +‡020/1.1.© **Abies grandis** (Giant Fir) (Ffyndwydden Fawr). Blaen-y-Cwm, SH8813 4718, Denbs Group (D.Williams), 16th Jun 2019, a few trees in small group.
- +‡020/7.2.© **Pinus nigra**. Trebeddau, SH8516 5162, Denbs Group (D.Williams), 24th Jun 2019, farmyard Trebeddau.
- +‡020/7.mug. **Pinus mugo** (Dwarf Mountain-pine) (Pinwydden y Mynydd). Gopa Wood, SH9377 7664, Denbs Group (D.Williams), 10th Jun 2019, castell Cawr, a cleared, steep escarpment. Single tree at top.
- +‡028/06.1. **Aconitum napellus agg.** Garn Brys, SH895 489, Denbs Group (D.Williams), 16th Jun 2019, lane running south to north, opposite houses in damp shade under conifers. No flowers.
- *‡028/12.4. **Clematis montana** (Himalayan Clematis) (Barf-yr-hen-ŵr Himalaiaidd). Caemawr, SJ1318 2508, S.Swindells, 10th Apr 2019, climbing up into tree near riverbank with dumped dead Mahonia x media.

- ±028/13.07. **Ranunculus parviflorus** (Small-flowered Buttercup) (Blodyn-ymenyn Mân-flodeuog). Rhyd-y-meudwy, SJ13973 51695, Denbs Group (D.Williams), 19th May 2019, a single patch <0.5 x 0.5m below limestone outcrop, **Herb.DW**
- +036/1.1.b. **Urtica dioica subsp. galeopsifolia**. Pentrefelin Glan Conwy, SH8047 7478, Denbs Group (D.Williams), 7th Jul 2019, laneside hedgebank. North side of lane. Single clump.
- +‡045/2.1. **Claytonia perfoliata** (Springbeauty) (Porpin y Gwanwyn). Llan-y-pwll, SJ3647 5169, Tom Knight, 27th Mar 2019, scattered plants in woodland.
- +046/01.1. **Arenaria serpyllifolia** (Thyme-leaved Sandwort) (Tywodlys Dail Teim). Eglwys Cross, SJ47 40, M.O.Stead, 3rd Jul 2019.
- +046/07.10. **Cerastium diffusum** (Sea Mouse-ear) (Clust-y-llygoden Arfor). The Fields, SJ47 36, M.O.Stead & G.Lowden, 14th Apr 2019.
- +046/10.7. **Sagina apetala** (Annual Pearlwort) (Corwlyddyn Unflwydd). Bettisfield, SJ46 35, M.O.Stead & G.Lowden, 18th Jul 2019.
- +046/10.7.b. **Sagina filicaulis**. Moel y Faen, SJ181 479, D.Williams, 29th Jul 2019, track running east to west.
- *‡047/1.02. **Persicaria campanulata** (Lesser Knotweed) (Y Ganwraidd Fach). Llanrhaeadr-ym-Mochnant, SJ1285 2550, S.Swindells, 27th Jul 2019, flowering. Spread over 3 mtr stretch of riverbank.
- +‡061/1.3.del. **Populus ×canadensis (P. nigra × P. deltoides)** (Hybrid Black-poplar) (Poplysen Ddu Groesryw). Castle Wood, SJ110 566, Denbs Group (D.Williams), 7th Apr 2019, woodland Rhyd-y-gaseg planted occasionally; (+) Rhyd-y-meudwy, SJ138 510, Denbs Group (D.Williams), 21st Jul 2019, laneside.
- +‡061/2.02. **Salix fragilis** (Crack-willow) (Helygen Frau). Rhyd-lechog, SH8255 6263, Denbs Group, 26th May 2019, rough track, above stream.
- +061/2.11×12. **Salix cinerea × S. aurita = S. ×multinervis**. Nant-uchaf West, SJ128 494, D.Williams, 4th Jul 2019, laneside hedgebanks around junction.
- +062/22.2. **Erophila verna** (Common Whitlowgrass) (Llyisiau'r-bystwn Cynnar). Kimmel Bay, SH9860 8062, D.Williams, 3rd Apr 2019, close turf on dunes.
- +‡062/34.3.c. **Brassica rapa subsp. Oleifera** (Turnip-rape) (Meipen Rêp). Pontfadog, SJ23 38, M.O.Stead, 30th May 2019.
- +062/40.1. **Rapistrum rugosum** (Bastard Cabbage) (Bresychen Ddeilgrech). Holly Bush, SJ402 445, D.Williams, M.O.Stead & G.Lowden, 20th Jun 2019, garden/land on private property adjacent to west of Orchard Hill. Large plants growing out of bag of delivered topsoil.
- +‡065/02.2. **Rhododendron luteum** (Yellow Azalea) (Rhododendron Felen). Eglwysbach, SH80 71, N.J.Osley & S.K.Osley, 6th May 2019, a number of bushes in Bodnant Garden. Origin at Llyn Syberl??
- +‡069/4.5. **Lysimachia punctata** (Dotted Loosestrife) (Trewyn Brych). The Fields, SJ47 36, M.O.Stead & G.Lowden, 22nd Jun 2019.
- +‡072/2.4. **Ribes sanguineum** (Flowering Currant) (Llwyn Cwrens Blodeuog). Nant Bwlch-y-gwynt East, SH838 606, N.J.Osley & S.K.Osley, 4th May 2019, roadside verge B5113, single bush in old tip by stream.
- *‡074/05.are. **Saxifraga ×arendsii** (Garden Mossy-saxifrage). Ty Mawr Cwm, SH9032 4739, N.J. & S.K.Osley, 22nd Apr 2019, escape from the garden of Cappele.
- +075/13.1×2. **Geum rivale × G. urbanum = G. ×intermedium** (Hybrid Avens) (Mapgoll Groesryw). Pandy Dyffryn Ceiriog, SJ1900 3471, M.O.Stead, 13th Jun 2019, beside track northside.1 plant.
- +‡075/17.3. **Poterium sanguisorba** (Bwrned). Holly Bush, SJ402 445, D.Williams, M.O.Stead & G.Lowden, 20th Jun 2019, garden/land on private property adjacent to west of Orchard Hill.
- *‡075/19.02. **Alchemilla conjuncta** (Silver Lady's-mantle) (Mantell-Fair Ariannaid). Llwynmawr, SJ23422 37934, M.O.Stead, 30th May 2019, opposite houses on wall/road edge. Garden escape.
- +075/21.05. **Rosa spinosissima [R. pimpinellifolia]** (Burnet Rose) (Rhosyn Bwrned). Sydallt South, SJ31 54, S.R.Hinsley, 16th Jul 2019, alyn Waters CP (Gwersyllt).

- +075/21.13.a. **Rosa caesia subsp. caesia** (Hairy Dog-rose) (Rhosyn Rhuddlas). Blaen-y-Cwm, SH8842 4726, Denbs Group (D.Williams), 16th Jun 2019, large bush south side of lane.
- +075/21.13.b. **Rosa caesia subsp. vosagiaca** (Glaucous Dog-rose) (Rhosyn Llwydyrdd). Tan-y-fron, SH954 643, Denbs Group (D.Williams), 14th Jul 2019, lanesides.
- +‡075/22.03. **Prunus cerasifera** (Cherry Plum) (Coeden Goeg-geirios). Caemawr, SJ13 25, S.Swindells, 10th Apr 2019, in hedgerow in lane to Pont Pisle.
- +075/22.03.pis. **Prunus cerasifera var. pissardii**. Ty Mawr Cwm, SH9035 4745, N.J.Osley & S.K.Osley, 23rd May 2019, road verge next to a field gate to the north-west of Cappele.
- *†075/26.sal. **Pyrus salicifolia** (Willow-leaved Pear). Ty Mawr Cwm, SH9035 4745, N.J. & S.K.Osley, 23rd May 2019, var 'pendula'. Planted, well-established on the road verge next to a field gate NW of Cappele.
- +‡075/32.09×01. **Cotoneaster ×watereri (C. frigidus × C. salicifolius)** (Waterer's Cotoneaster) (Cotoneaster Waterer). Marford quarry North, SJ35782 56003, S.R.Hinsley, 15th Jul 2019, marford Quarry.
- +‡075/32.39. **Cotoneaster franchetii** (Franchet's Cotoneaster) (Cotoneaster Franchet). Marford quarry North, SJ35783 56256, S.R.Hinsley, 15th Jul 2019, marford Quarry.
- +077/10.3. **Ornithopus perpusillus** (Bird's-foot) (Troed yr Aderyn). Blaen-y-Cwm, SH8880 4729, Denbs Group (D.Williams), 16th Jun 2019, patches of very small plants in field below wall. Heavily grazed; (+) Pandy Dyffryn Ceiriog, SJ1804 3445, M.O.Stead, 13th Jun 2019, east side of track.
- +077/14.14. **Vicia bithynica** (Bithynian Vetch) (Ffacbysen Ruddlas). Nantclwyd-y-Dre, SJ1228 5812, Joel Walley, 18th Jun 2019, in 2018, 2 seed pods were taken to Nantclwyd-y-Dre, to ensure that there was an ark site for the species as Allt Goch is the last site in Wales where it is recorded. 4 plants germinated in 2019.
- +077/19.23. **Trifolium arvense** (Hare's-foot Clover) (Meillionen Gedennog). Eglwys Cross, SJ4712 4114, M.O.Stead, 17th Jul 2019, east roadside bare area.
- +085/1.1. **Cornus sanguinea** (Dogwood) (Cwyrosyn). Blaen-y-Cwm, SH8985 4758, Denbs Group (D.Williams), 16th Jun 2019, by house.
- +‡091/2.16. **Euphorbia amygdaloides** (Wood Spurge) (Llaethlys y Coed). Gwern Tyno Farm East, SH85 77, B.A.Allen, 2nd Jul 2019, spreading from a garden down the road. Could be subsp. Robbiae.
- +092/1.1. **Rhamnus cathartica** (Buckthorn) (Rhafnwydden). Conwy RSPB Nature Reserve, SH799 770, Laura F.Garthwaite, 26th May 2019.
- +102/1.03.cor.atr. **Oxalis corniculata var. atropurpurea**. Llanrhaeadr-ym-Mochnant, SJ126 259, S.Swindells, det. D.Williams, 21st May 2019, frongoch, several plants edge of pavement on bare soil o/s properties.
- +106/1.2.b. **Hedera helix subsp. hibernica** (Atlantic Ivy) (Iorwg yr Iwerydd). Pandy Dyffryn Ceiriog, SJ18 34, M.O.Stead, 13th Jun 2019.
- *‡107/03.1. **Astrantia major** (Astrantia) (Astrantia). Tai-bach, SJ1518 2862, Denbs Group (D.Williams), 2nd Jun 2019, single large plant on E side of lane, opposite and some distance from nearby gardens where it was growing.
- +‡109/1.3. **Vinca major** (Greater Periwinkle) (Perfagl Fawr). Ty Mawr Cwm, SH90 47, N.J.Osley & S.K.Osley, 22nd Apr 2019, escape from garden of Plas Onn.
- +‡116/03.1. **Pulmonaria officinalis** (Lungwort) (Llysiau'r Ysgyfaint). Nant Bwlch-y-gwynt East, SH8375 6060, N.J.Osley & S.K.Osley, 4th May 2019, roadside verge. Patch of several square metres.
- *116/CER.maj. **Cerinth major** (Greater Honeywort). Burton Green, SJ3461 5852, Jonathan D Shanklin, 14th Jun 2019, open area of rough ground, with old farm vehicles, dumped spoil at the margins.

- +‡117/1.bon. **Verbena bonariensis** (Argentinian Vervain) (Ferfain yr Ariannin). Llanrheadr-ym-Mochnant, SJ126 259, S.Swindells, 21st May 2019, frongoch, several plants foot of wall/pavement o/s property.
- +118/01.5×6. **Stachys ×ambigua (S. sylvatica × S. palustris)** (Hybrid Woundwort) (Briwlys Croesryw). Rhydymedwly, SJ1332 5094, Denbs Group (D.Williams), 21st Jul 2019, large stand above stream on west side of lane.
- +†118/05.6. **Lamium amplexicaule** (Henbit Dead-nettle) (Marddanhadlen Goch Ddeilgron). Wilderness Wood, SJ33 53, S.R.Hinsley, 16th Jul 2019, rhosrobin Road.
- +118/09.1.‡ **Marrubium vulgare** (White Horehound) (Llwyd y Cŵn). Mynydd Cricor, SJ1406 5171, Denbs Group (D.Williams), 19th May 2019, limestone outcrop. Several plants scattered over thin soil.
- +120/1.6. **Callitriche brutia**. The Fields, SJ47 36, M.O.Stead & G.Lowden, 14th Apr 2019.
- +‡124/01.02. **Verbascum virgatum** (Twiggy Mullein) (Pannog Fain). Holly Bush, SJ403 445, A.Muse, 17th Jul 2019, scrubby bank behind garage. Single plant, seed pods well formed.
- +124/20.05. **Euphrasia arctica** (Arctic Eyebright) (Effros yr Arctig). Bodoryn Bach West, SH96 76, D.Williams, 13th Jul 2019, verge on south side of road, east side of quarry entry; (+) Hafod-yr-Abad, SJ185 481, D.Williams, 29th Jul 2019, probably a hybrid.
- +‡129/1.4. **Campanula persicifolia** (Peach-leaved Bellflower) (Clychlys Meinddail). Borrass, SJ34 52, S.R.Hinsley, 15th Jul 2019, white-flowered.
- +134/1.1. **Dipsacus fullonum** (Wild Teasel) (Cribau'r-pannwr Gwyllt). Bryniau'r Hafod, SH96 56, N.J.Osley & S.K.Osley, 10th May 2019, a few plants on rubble at rideside north-west of Bryniau'r Hafod.
- *135/05.aca. **Carduus acanthoides**. Darland, SJ37 57, J.Styles, conf. Elsa Wood 26 Oct 2019, 17th Jun 2019.
- +‡135/11.2. **Centaurea montana** (Perennial Cornflower) (Y Benlas Luosflwydd). Higher Wych, SJ49 43, M.O.Stead, 5th May 2019.
- +135/16.2. **Leontodon hispidus** (Rough Hawkbit) (Peradyl Garw). Trebeddau, SH8520 5166, Denbs Group (D.Williams), 24th Jun 2019, bank above Trebeddau.
- +‡138/6.1. **Lagarosiphon major** (Curly Waterweed) (Ffugalaw Crych). Coed Ceunant, SJ15426 60337, L.Bointon, det. Kay, G.M., 17th Jul 2019, pond by track south-west of Bwlch Pen Barras. Determined from underwater photo.
- +‡151/1.02. **Juncus tenuis** (Slender Rush) (Brwynen Fain). Overton Bridge, SJ3557 4207, K.K.Bell, 29th Jul 2019, one plant on track nr west entrance to Morris Wood.
- +152/16.09.a. **Carex divulsa subsp. divulsa** (Grey Sedge). Bryniau'r Hafod, SH96 56, N.J.Osley & S.K.Osley, 10th May 2019, a few tufts at rideside.
- +152/16.32. **Carex sylvatica** (Wood-sedge) (Hesgen y Coed). Blaen-y-Cwm, SH885 472, Denbs Group (D.Williams), 16th Jun 2019, lane running west to east.
- +‡153/03.1. **Sasa palmata** (Broad-leaved Bamboo) (Bambŵ Llydanddail). Rhyd-y-gaseg, SJ1091 5682, Denbs Group (D.Williams), 7th Apr 2019, damp ground by river. Single plant. Origin unknown.
- +153/11.1. **Milium effusum** (Wood Millet) (Miledwellt y Coed). Gopa Wood, SH9357 7667, Denbs Group (D.Williams), 10th Jun 2019, single plant in flower at edge of path through wood.
- +‡153/17.3© **Briza maxima** (Greater Quaking-grass) (Crydwellt Mawr). Pentrefelin Glan Conwy, SH802 742, Denbs Group (D.Williams), 7th Jul 2019, lane past houses. Single plant by wall; (+) Garden Village, SJ33090 52364, S.R.Hinsley, 16th Jul 2019, new Road.
- +©153/27.1.b. **Arrhenatherum elatius var. bulbosum** (Onion Couch). Tan-y-gaer, SH972 723, Denbs Group (D.Williams), 9th Jun 2019, roadside.
- +‡153/59.1.© **Hordeum distichon** (Two-rowed Barley) (Haidd Dwyresog). Nant Mill, SJ29 50, M.O.Stead, 25th Jun 2019.
- +153/59.1.s.l. **Hordeum distichon sens. lat.** Llaethwryd, SH946 477, Denbs Group (D.Williams), 30th Jun 2019, road running south-west to river.

- +153/59.4. **Hordeum secalinum** (Meadow Barley) (Haidd y Maes). Llaethwryd SE, SH9563 4734, Denbs Group (D.Williams), 30th Jun 2019, single large clump on junction on north side of track to Dolwerfyl a few m south-west of Pont Moelfre.
- +‡158/05.1. **Hemerocallis fulva** (Orange Day-lily) (Lili Undydd Oren). Moelfre Isaf, SH951 737, N.J.Osley & S.K.Osley, 15th Jun 2019, single clump at roadside. Garden throw out.
- +158/14.1×2.‡ **Polygonatum ×hybridum (P. multiflorum × P. odoratum)** (Garden Solomon's-seal) (Llysiau-Solomon yr Ardd). Coed Llys Aled, SH949 642, Denbs Group (D.Williams), 14th Jul 2019, lanesides by Pwll-mawr. Several plants on verge opposite house.
- +‡158/23.2. **Muscari armeniacum** (Garden Grape-hyacinth) (Clychau Dulas yr Ardd). Bronington East, SJ499 395, K.K.Bell, 31st Mar 2019, conery Lane, by Long Lane Farm.
- *‡158/32.wor. **Galanthus woronowii** (Green Snowdrop). Chirk South, SJ286 374, M.Rand, 18th Feb 2019, Chirk Aqueduct. Planted in a memorial close at N end of aqueduct, but well-naturalised in secondary woodland S of the B4500 on the slopes going down to the canal.
- +158/33.Tet. **Narcissus 'Tête à Tête'**. Bryn-y-maen, SH83 76, B.A.Allen, 5th Mar 2019; (+) Coed Graianllyn, SH83 77, B.A.Allen, 28th Mar 2019.
- +162/18.1×4. **Dactylorhiza ×grandis (D. fuchsii × D. praetermissa)**. Hafod Farm, SJ25722 51969, S.R.Hinsley, 8th Jul 2019, minera Quarry.
- +162/18.4. **Dactylorhiza praetermissa** (Southern Marsh-orchid) (Tegeirian-y-gors Deheuol). Llyn Brenig Sailing Club, SH9642 5520, M.O.Stead, 27th Jun 2019, 1 plant west roadside verge south of gate to forest.
- *162/23.3.chl. **Ophrys apifera var. chlorantha**. Conwy RSPB Reserve, SH80252 76843, I.Fraser, conf. Ian Denholm 26 June 2019, 18th Jun 2019, six plants in stages of flowering. On stream side of path by concrete pipe vertically buried, 1-2m E behind brambles.
- *020A/MET.gly. **Metasequoia glyptostroboides** (Dawn Redwood). Lightwood Green, SJ3835 4054, K.K.Bell, 27th May 2019, wood margin by footpath SE of Lightwood Hall

FLINT, v.c.51 (comm. G. Quartly-Bishop)

- ♣+108/3.3. **Centaureum littorale** (Seaside Centaury) (Y Ganrhi Goch Arfor). Gronant, SJ09 84, Tom Knight, 23rd Jun 2019, new site within dune system supporting known population.
- ♣+134/5.1. **Scabiosa columbaria** (Small Scabious) (Clafrllys Bach). Alyn Valley near Pantymwyn, SJ16X, BSBI Flintshire Group, 9th Jun 2019.
- ♣+158/24.11. **Allium oleraceum** (Field Garlic) (Garleg y Maes). Plas Coch, SJ17 72, Jonathan Shanklin, 22nd Apr 2019.
- ♣+162/05/1. **Neottia nidus-avis** (Bird's-nest Orchid) (Tegeirian Nyth Aderyn). Pen-y-cefn, SJ18 66, Mick Brummage, 2nd Jun 2019

ANGLESEY, v.c.52 (comm. N.H. Brown & I.R. Bonner)

- +011/1. **Polypodium cambricum** (Southern Polypody) (Llawredynen Gymreig). Cemaes (East), SH37 93, David Morris, 11th Jan 2016, on rocks at bottom of steps opposite the Harbour Hotel down to the Afon Wgygr, with *P. interjectum*.
- 015/3.1. **Asplenium ceterach** (Rustyback) (Duegredynen Gefngoch). Llanbadrig, SH37 94, Anglesey Flora Group, 11th Apr 2019, c.30 clumps on limestone rock, probably previously quarried, only the 3rd record from natural rock.
- +017/1.1×2. **Polystichum ×bicknellii**. Cadnant Dingle SSSI (SH5573), SH5583 7383, Anglesey Flora Group, 9th Apr 2019, with both parents.
- +©028/05.1. **Nigella damascena** (Love-in-a-mist) (Glas y Niwl). Menai Bridge central, SH55 72, Jane & Ivor Rees, 21st Jun 2019, several self-sown in small area of waste ground just outside garden fence.
- +‡030/1.1. **Papaver pseudoorientale** (Oriental Poppy) (Llygad y Bwgan). Amlwch, SH446 929, Debbie Evans, 3rd May 2019, rough area.

- +031/5.01. **Fumaria capreolata** (White Ramping-fumitory) (Mwg-y-ddaear Gwyn). SH4676, SH4676, Debbie Evans, 1st Jul 2019, verge, hedgerow & field.
- +031/5.05.b. **Fumaria muralis subsp. boraei**. Llangwyfan-isaf, SH33 69, Jane & Ivor Rees, May 2019; (+) SH3191, SH31 91, Jane & Ivor Rees, 14th May 2019.
- +‡040/2.2.© **Alnus incana** (Grey Alder) (Gwernen Lwyd). Swyn yr Afon, SH50 80, Anglesey Flora Group, 13th Jun 2019, several medium sized trees.
- *©040/OST.car. **Ostrya carpinifolia** (European Hop-hornbeam). Ynys Gaint, SH56 72, Tim Yardley, 2016, single tree. Reported by Pat Denne as still present in 2019.
- *†043/1.13. **Chenopodium ficifolium** (Fig-leaved Goosefoot) (Troed-yr-wydd Dail Ffigys). Rhosbadrig (SH3572), SH354 728, Anglesey Flora Group, 4th Jul 2019, arable field margin.
- +‡045/2.1. **Claytonia perfoliata** (Springbeauty) (Porpin y Gwanwyn). SH2775, SH27 75, Nigel Brown, 11th May 2019, by sandy track at back edge of narrow trip of dunes. 2nd post2000 VCR.
- +047/8.15.san. **Rumex sanguineus var. sanguineus** (Blood-veined Dock). Wylfa Power Station (gen.monad) (SH3593), SH3562 9385, David Morris, 6th Jun 2016, frequent under trees. 2nd VCR.
- +‡051/1.03×04. **Hypericum ×inodorum** (Tall Tutsan) (Dail-y-Beiblau Tal). SH4886 (SH4886), SH488 869, Henry Cook, 3rd Jul 2019, petals longer than sepals and less than 15mm. Near Tyddyn Isaf.
- +051/1.04. **Hypericum hircinum** (Stinking Tutsan) (Dail-y-Beiblau Drewllyd). Tregele (SH3592), SH3560 9258, Debbie Evans, 21st Jun 2019, small amount on verge in village; (+) SH4392, SH43 92, Debbie Evans, 2019, nature reserve.
- +057/1.04×05. **Viola ×bavarica**. Plas Newydd (SH5270), SH5221 7000, Jane & Ivor Rees, 1st Apr 2019; (+) Penmon N.Coast SSSI (part) (SH5982), SH5999 8212, Anglesey Flora Group, 1st May 2019, on coast facing bank.
- +057/1.05. **Viola reichenbachiana** (Early Dog-violet) (Fioled y Coed). Trehinon Nature Reserve (SH4392), SH4396 9279, Debbie Evans, 2019, patch.
- +057/1.06. **Viola canina** (Heath Dog-violet) (Fioled y Cŵn). Fedw Fawr (part), SH60 82, Anglesey Flora Group, 1st May 2019, near cliff edge with Calluna and Potentilla erecta.
- +060/1/1© **Bryonia dioica** (White Bryony) (Bloneg y Ddaear). Ty -du (SH3994), SH3958 9409, David Morris, 30th Jun 2016, scrambling through scrub (willow?) at the edge of the basin. 2nd VCR.
- +‡062/11.4. **Barbarea verna** (American Winter-cress) (Berwr-y-gaeaf cynnar). Amlwch (N), SH44 93, Debbie Evans, 3rd May 2019, seeded behind houses/parking area.
- +062/22.3. **Erophila glabrescens** (Glabrous Whitlowgrass) (Llyisiau'r-bystwn Llyfn). Tregele, SH35 92, Debbie Evans, 21st Jun 2019, verge and hedgerow in village.
- +062/23.1. **Cochlearia anglica** (English Scurvygrass) (Llwylys Seisnig). Ynys Gaint, SH56 72, Anglesey Flora Group, 9th Apr 2019, first recent record for SH57, **Herb.IRB**
- +†062/28.1. **Thlaspi arvense** (Field Penny-cress) (Codywasg y Maes). Amlwch, SH44 92, Debbie Evans, 5th Apr 2019, field.
- +†062/35.2. **Sinapis alba** (White Mustard) (Mwstard Gwyn). Amlwch (N), SH44 93, Debbie Evans, 16th May 2019, edge of car-parking area.
- +†063/1.1. **Reseda luteola** (Weld) (Melengu). Tregele (SH3592), SH3575 9289, Debbie Evans, 21st Jun 2019, one plant on verge.
- *‡070/1.2. **Pittosporum tenuifolium** (Kohuhu) (Llwyn Cohwhw). Ynys Gaint, SH56 72, Anglesey Flora Group, 9th Apr 2019.
- +‡071/HYD.mac. **Hydrangea macrophylla** (Hydrangea) (Trilliw ar Ddeg). SH4183 (SH4183), SH4142 8397, Debbie Evans, 18th Jul 2019, verge near entrance.
- +072/1.1×vir. **Escallonia ×langleyensis**. Ynys Gaint, SH56 72, Anglesey Flora Group, 9th Apr 2019.
- +073/1.1. **Crassula tillaea** (Mossy Stonecrop) (Corchwyn Mwsoglog). Newborough Forest SSSI (part) (SH4064), SH4006 6448, Christopher Dixon, 23rd Jun 2019, numerous plants in middle of bare, sandy, forest track. 2nd VCR, **Herb.CD**

- *‡073/3.1. **Sempervivum tectorum** (House-leek) (Llyisiau Pen Tai). Glan Dwr, Llanfihangel yn Nhowyn (SH3277), SH322 774, Jim Clark, 2019, planted in a stone wall by Jim Clark.
- +073/5.12. **Sedum acre** (Biting Stonecrop) (Briweg Boeth). Cerrig-man, SH45 91, Debbie Evans, 27th Jun 2019, large patch by edge of field.
- +‡075/03.1.agg. **Spiraea salicifolia** agg. Mynydd Bodafon (part), SH46 84, Henry Cook, 24th Jun 2019.
- +‡075/08.0.02. **Rubus tricolor** (Chinese Bramble) (Llwyn Mwyar Trilliw). Menai Bridge central (SH5572), SH5545 7210, Nigel Brown, 14th Apr 2019, by Shell garage in Menai Bridge. 2nd VCR.
- +075/15.2. **Agrimonia procera** (Fragrant Agrimony) (Llyisiau'r-dryw Pêr). Llanbadrig, SH37 94, Anglesey Flora Group, 11th Apr 2019.
- +‡075/17.3.b. **Poterium sanguisorba** subsp. **balearicum** (Fodder Burnet) (Bwrned Ebran). St Nidan Churchyard (SH4867), SH4891 6743, Anglesey Flora Group, 5th May 2019, c.1m tall in churchyard.
- +‡075/17.3.b. **Sanguisorba minor** subsp. **muricata** (Fodder Burnet) (Bwrned Ebran). Amlwch (N) (SH4493), SH445 931, Debbie Evans, 16th May 2019, Water Board field.
- +‡075/19.15. **Alchemilla mollis** (Garden Lady's-mantle) (Mantell-Fair y Gerddi). Brynsiencyn (SH4867), SH4885 6743, Anglesey Flora Group, 5th May 2019, small clump not far from houses.
- +075/20.1. **Aphanes arvensis** (Parsley-piert) (Troed y Dryw). Amlwch, SH44 92, Debbie Evans, 16th May 2019, park. Only A. australis rec. in SH49 before.
- +‡075/22.05.b. **Prunus domestica** subsp. **insititia** (a subspecies of Wild Plum) (Coeden Eirin Bwlas). Cors Goch SSSI (part) (SH5081), SH503 815, Jane & Ivor Rees, 20th Mar 2019, several trees, between the heath and nearby garden.
- +075/22.11.© **Prunus padus** (Bird Cherry) (Coeden Geirios yr Adar). SH4676, SH469 761, Debbie Evans, 5th Jul 2019, woodland near school.
- +‡075/22.14. **Prunus laurocerasus** (Cherry Laurel) (Coeden Lawrgeirios). Amlwch, SH44 92, Debbie Evans, 16th May 2019, chapel graveyard.
- *‡075/28.07. **Sorbus intermedia** (Swedish Whitebeam) (Cerddinen Sweden). Trogog-isaf (SH4292), SH4292 9289, Debbie Evans, 14th May 2019, tree in hedgerow, leaves only. Conf. W.McC & Robbie Blackhall-Miles on leaf shape. Photo. DAE.
- +075/28.09.‡ **Sorbus aria** (Common Whitebeam) (Cerddinen Wen). Tregle (SH3592), SH3560 9259, Debbie Evans, 21st Jun 2019, verge. Confirmed from leaf shape.
- +‡075/32.09. **Cotoneaster frigidus** (Tree Cotoneaster) (Cotoneaster Talsyth). SH5372, SH530 724, Pat Denne, 15th Jul 2019.
- *‡075/32.10. **Cotoneaster salicifolius** (Willow-leaved Cotoneaster) (Cotoneaster Dail Helyg). Ynys Gaint, SH56 72, Anglesey Flora Group, 9th Apr 2019.
- *‡075/32.22. **Cotoneaster hjelmqvistii** (Hjelmqvist's Cotoneaster) (Cotoneaster Hjelmqvist). SH5672, SH56 72, Anglesey Flora Group, 9th Apr 2019, roadside.
- +‡075/32.34. **Cotoneaster bullatus** (Hollyberry Cotoneaster) (Cotoneaster Deilgrych). SH2679 (SH2679), SH2665 7950, G Bridgeland, Aug 2019, established; (+) Mynydd Bodafon (part), SH46 84, Henry Cook, 24th Jun 2019, large tree with broad leaves.
- +077/18.5‡ **Medicago arabica** (Spotted Medick) (Maglys Brith). Bethel, SH39 70, Jane & Ivor Rees, 6th Jun 2019, roadside and adjacent habitats.
- +077/25.5. **Genista hispanica** (Spanish Gorse) (Eithinen Sbaen). Breakwater Quarry C.P. (SH2283), SH228 832, Nigel & Caroline Brown, 13th Apr 2019, dense free-flowering bushes, 2.5m x 3m. Unlikely to have been planted here. 2nd VCR.
- +‡080/1.man.© **Gunnera manicata** (Brazilian Giant-rhubarb) (Rheonllys Mawr Brasil). Swyn yr Afon (SH5080), SH5066 8040, Anglesey Flora Group, 13th Jun 2019, meadow and surrounds.
- +‡085/1.3. **Cornus alba** (White Dogwood) (Cwyrosyn Rhisgl Coch). Llangefni (SH4575), SH4598 7560, Nigel Brown, 3rd Mar 2019, along river bank, by the market place.

- *‡091/2.05. **Euphorbia dulcis** (Sweet Spurge) (Llaethlys Pêr). Cadnant Dingle SSSI (SH5573), SH5586 7380, Anglesey Flora Group, 9th Apr 2019, 1 clump.
- +‡091/2.15. **Euphorbia cyparissias** (Cypress Spurge) (Llaethlys Cypreswydd). Pwll Clai, SH26 76, Anglesey Flora Group, 24th Jun 2019, along approach lane; (+) SH4392, SH43 92, Debbie Evans, 2019, verge in front of house.
- *093/2.2. **Parthenocissus inserta** (False Virginia-creeper) (Dringwr Fflamgoch Ffug). SH4776, SH47 76, Debbie Evans, 11th Jul 2019, established in field hedgerow.
- *‡101A/CHO.ter. **Choisya ternata** (Mexican Orange) (Llwyn Oren Mecxico). Ynys Faelog, Menai Bridge, SH56 72, Anglesey Flora Group, 7th Mar 2019.
- *101.1/SKI.jap. **Skimmia japonica**. Ynys Faelog, Menai Bridge, SH56 72, Anglesey Flora Group, 7th Mar 2019, suckering
- +‡103/1.01. **Geranium endressii** (French Crane's-bill) (Pig-yr-aran Ffrainc). Gorslwyd, SH574 790, Nigel Brown, 1st Jul 2019, 3rd VCR.
- +‡103/1.01×02. **Geranium oxonianum** (Druce's Crane's-bill) (Pig-yr-aran Druce). Pwll Clai, SH27 76, Anglesey Flora Group, 24th Jun 2019.
- +103/1.07.‡ **Geranium pratense** (Meadow Crane's-bill) (Pig-yr-aran y Weirglodd). Amlwch, SH44 92, Debbie Evans, 3rd May 2019, in park.
- +‡103/2.2. **Erodium moschatum** (Musk Stork's-bill) (Pig-y-crêyr Fwsg). Amlwch, SH44 92, Debbie Evans, 27th Mar 2019, growing at entrance to Trehinon NR.
- *‡107/03.1. **Astrantia major** (Astrantia) (Astrantia). Brynsciencyn (SH4867), SH4885 6743, Anglesey Flora Group, 5th May 2019, one clump in trackway.
- +‡116/04.4. **Symphytum grandiflorum** (Creeping Comfrey) (Cyfardwf Lusg). Tyddyn-copyn (SH5478), SH5412 7828, Anglesey Flora Group, 20th Jun 2019, roadside verge.
- +116/15.09. **Myosotis ramosissima** (Early Forget-me-not) (Sgorpionllys Cynnar). Llanbadrig, SH37 94, Anglesey Flora Group, 11th Apr 2019, on ledges on former quarry face.
- +‡118/04.1.c. **Lamiastrum galeobdolon subsp. argentatum**. SH4392, SH43 92, Debbie Evans, 2019, small patch on verge.
- +118/23.2×3.‡ **Mentha x piperita** (Peppermint) (Mintys Poeth). Rhosybol South, SH42 87, Debbie Evans, 28th Jun 2019, verge; (+) Amlwch, SH44 92, Debbie Evans, 3rd May 2019, rough area.
- +‡124/08.2. **Chaenorhinum minus** (Small Toadflax) (Trwyn-y-llo Bach). Bethel, SH39 70, Jane & Ivor Rees, 6th Jun 2019, several at base of roadside garden wall. Not recorded since 1978.
- +124/16.11. **Veronica anagallis-aquatica** (Blue Water-Speedwell) (Graeanllys y Dŵr). Pwll Clai, SH26 76, Anglesey Flora Group, 24th Jun 2019.
- +124/16.12. **Veronica catenata** (Pink Water-Speedwell) (Graeanllys-y-dwr Rhosliw). Pwll Clai, SH26 76, Anglesey Flora Group, 24th Jun 2019.
- *‡124/17.2. **Hebe brachysiphon** (Hooker's Hebe) (Pedwar-ban-byd Hooker). Ynys Faelog, Menai Bridge, SH56 72, Anglesey Flora Group, 7th Mar 2019.
- +‡124/17.ell×spe. **Hebe x franciscana** (Hedge Veronica) (Pedwar-ban-byd y Berth). Rhosmeirch (SH4577), SH4586 7747, Debbie Evans, 5th Jul 2019, planted by gate to field, det. from DAE Photo Jan 2020.
- +124/20.05.b. **Euphrasia arctica subsp. borealis**. Bryngors N & S (SH4976), SH492 767, David Morris, 14th Jul 2017.
- +‡127/1.1. **Acanthus mollis** (Bear's-breech) (Troed yr Arth). SH4392, SH43 92, Debbie Evans, 2019, verge.
- +‡129/1.9. **Campanula portenschlagiana** (Adria Bellflower) (Clychlys Adria). Rhosmeirch, SH45 77, Henry Cook, 20th Jun 2019, roadside.
- +130/6.07.a. **Galium mollugo**. Glasgraig Fawr, SH4173 8828, Debbie Evans, 8th Jul 2019, bank.
- *‡131/6.6. **Lonicera japonica** (Japanese Honeysuckle) (Gwyddfid Japan). Glan Dwr, Llanfihangel yn Nhowyn (SH3277), SH322 774, Jim Clark, 2019, not knowingly introduced – bird-sown?
- +134/1.1.‡ **Dipsacus fullonum** (Wild Teasel) (Cribau'r-pannwr Gwyllt). Amlwch (N), SH44 93, Debbie Evans, 16th May 2019, track/footpath.

- *‡135/01.3. **Echinops bannaticus** (Blue Globe-thistle) (Ysgallen Bengron Las). SH3272 (SH3272), SH320 729, Debbie Evans, 4th Jul 2019, one plant on verge, no houses nearby, but garden escape or throw-out.
- +‡135/11.2. **Centaurea montana** (Perennial Cornflower) (Y Benlas Luosflwydd). Mynydd Bodafon (part), SH46 84, Henry Cook, 24th Jun 2019.
- +‡135/11.3. **Centaurea cyanus** (Cornflower) (Glas yr Ŷd). Glan Dwr, Llanfihangel yn Nhowyn (SH3277), SH322 774, Jim Clark, 2019, from wildflower seed.
- +135/16.2. **Leontodon hispidus** (Rough Hawkbit) (Peradyl Garw). Glan yr afon (monad), SH56 79, Jane & Ivor Rees, 1st Jun 2019, several along wider section of verge.
- +‡135/17.1. **Helminthotheca echioides** (Bristly Oxtongue) (Tafod-y-llew Gwrychog). Llangwyfan-isaf, SH33 69, Jane & Ivor Rees, May 2019.
- +135/62.01×10.‡ **Senecio ×albescens**. Traeth Lligwy, SH49 87, Henry Cook, 3rd Jul 2019.
- +‡135/73.1.© **Calendula officinalis** (Pot Marigold) (Melyn Mair). Rhosmeirch, SH45 77, Debbie Evans, 5th Jul 2019, established on verge.
- +‡135/74.1. **Ambrosia artemisiifolia** (Ragweed) (Bratlys). Glan Dwr, Llanfihangel yn Nhowyn (SH3277), SH322 774, Jim Clark, 2019, from bird seed.
- +‡138/4.2. **Elodea nuttallii** (Nuttall's Waterweed) (Ffugalaw Nuttall). Llyn Llwydiarth, SH54 78, Anglesey Flora Group, 20th Jun 2019.
- +‡147/2.1. **Lysichiton americanus** (American Skunk-cabbage) (Pidyn-y-gog Americanaidd). Plas Newydd (SH5270), SH525 706, Jane & Ivor Rees, 1st Apr 2019, very small patch with Gunnera in Rhododendron garden.
- +‡147/4.1. **Zantedeschia aethiopica** (Altar-lily) (Lili'r Pasg). Swyn yr Afon (SH5080), SH5066 8039, Anglesey Flora Group, 13th Jun 2019.
- +‡147/5.2. **Arum italicum** (Italian Lords-and-Ladies) (Pidyn-y-gog Eidalaid). Amlwch (N), SH44 93, Debbie Evans, 16th May 2019, track/coast path. Houses c. 20m away.
- +151/1.26.sub. **Juncus effusus var. subglomeratus**. Bryngors N & S (SH4976), SH492 767, David Morris, 14th Jul 2017, 2nd VCR.
- +152/11.1. **Cyperus longus** (Galingle) (Ysnoden Fair). Treglele, SH35 92, Debbie Evans, 21st Jun 2019, verge by old abandoned garden.
- +152/16.01. **Carex paniculata** (Greater Tussock-sedge) (Hesgen Rafunog Fawr). Amlwch, SH4444 9292, Debbie Evans, 5th Apr 2019, side of park.
- *‡153/05.1 **Pseudosasa japonica** (Arrow Bamboo) (Bambŵ'r Saethau). Ynys Faelog, Menai Bridge, SH56 72, Anglesey Flora Group, 7th Mar 2019, spreading.
- +‡153/17.3© **Briza maxima** (Greater Quaking-grass) (Crydwellt Mawr). Cemaes (East), SH37 93, David Morris, 30th Jun 2016, numerous plants in paving cracks and pots by The Stag; (+) Mynydd Bodafon (part), SH46 84, Henry Cook, 24th Jun 2019, waste ground by sharp bend at top of hill.
- +‡153/28.3. **Avena fatua** (Wild-oat) (Ceirchen Wyllt). Rhosbadrig, SH35 72, Anglesey Flora Group, 4th Jul 2019.
- +153/54.rup. **Brachypodium rupestre** (Tor-grass). Newborough Forest SSSI (part), SH40 65, Jane & Ivor Rees, 12th Jul 2019, material from known location collected and sent to Mike Wilcox for confirmation.
- +153/59.2. **Hordeum murinum** (Wall Barley) (Haidd y Mur). SH4676, SH46 76, Henry Cook, 25th Jun 2019, largely around the housing estate.
- +‡153/60.1. **Triticum aestivum** (Bread Wheat) (Gwenith). Treglele (SH3592), SH3572 9247, Debbie Evans, 21st Jun 2019, one plant on verge and one at 3570.9280.
- +155/1.1. **Typha latifolia** (Bulrush) (Cynffon y Gath). SH5068, SH50 68, J.H.Bratton, 31st Jul 2017, pond E of Gwrach ddu, Llanedwen.
- *‡158/11.1. **Fritillaria meleagris** (Fritillary) (Britheg). Trehinon Nature Reserve, SH43 92, Debbie Evans, 2019, 2 plants.

- +158/14.1×2.‡ **Polygonatum ×hybridum** (Garden Solomon's-seal) (Llyisiau-Solomon yr Ardd). Brynsiencyn, SH48 67, Anglesey Flora Group, 5th May 2019, well established on wayside.
- +158/18.umb.umb. **Ornithogalum umbellatum subsp. umbellatum**. Breakwater Quarry C.P. (SH2283), SH224 836, Nigel & Caroline Brown, 13th Apr 2019.
- +‡158/23.2. **Muscari armeniacum** (Garden Grape-hyacinth) (Clychau Dulas yr Ardd). Breakwater Quarry C.P. (SH2283), SH224 836, Nigel & Caroline Brown, 13th Apr 2019, single flowering shoot amongst *Calluna* in disused quarry; (+) Amlwch (SH4492), SH4425 9256, Debbie Evans, 30th Mar 2019, bank and verge.
- +‡160/3.1. **Cordyline australis** (Cabbage-palm) (Palmwydden Fresych). Ynys Faelog, Menai Bridge, SH56 72, Anglesey Flora Group, 7th Mar 2019.
- +‡160/4.1. **Phormium tenax** (New Zealand Flax) (Llin Seland Newydd). Tregle (SH3592), SH3546 9282, Debbie Evans, 21st Jun 2019, edge of footpath.
- +162/18.3.b. **Dactylorhiza incarnata subsp. coccinea**. Waun Eurad SSSI, SH50 80, Anglesey Flora Group, 13th Jun 2019.

Images on page 75 and back cover:

Image 6: Range of *Limosella australis* (Welsh Mudwort) from herbarium specimens. www.discoverlife.org/mp/20m?kind=Limosella+australis accessed 02/05/2020 and edited to remove visible error. See page 24.

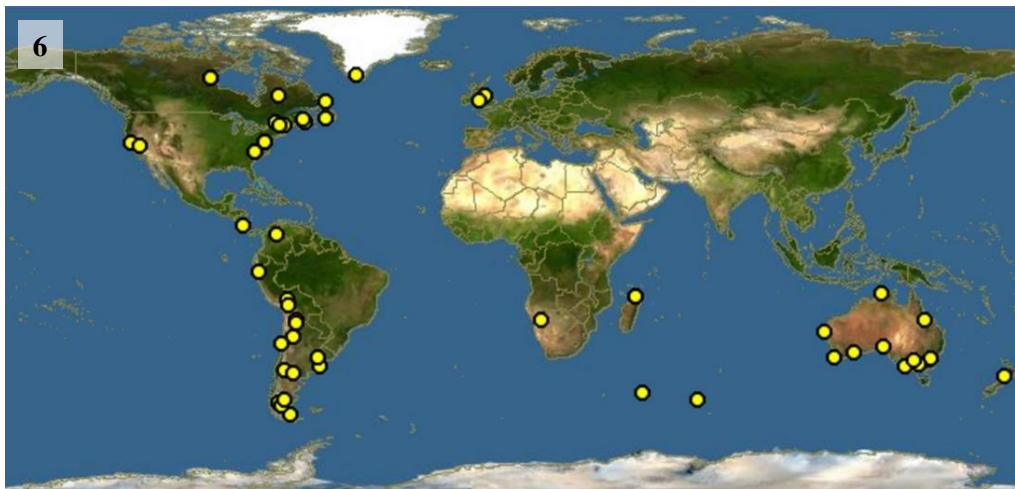
Image 7: *Moenchia erecta* (Upright Chickweed) mixing with *Aira praecox* (Early Hair-grass). © Kate Thorne. See page 13.

For images 8 to 10, see article on page 20.

Image 8: *Persicaria mitis* (Tasteless Water-pepper), a second record in v.c.42, found along the River Wye. © John Crellin.

Image 9: *Polemonium pauciflorum* (Fewflower Jacob's-ladder) found near BUILT. © A.G.Shaw.

Image 10: *Galeopsis bifida* (Bifid Hemp-nettle) at Gors Llwyn near Coelbren. © John Crellin.



10



9

