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Front cover, image 1: A remarkable variant of *Succisa pratensis* (Devil's-bit Scabious), one of many species found during intensive survey on Llantrisant Common. © D. Barden. See page 35.

Image 2: *Hieracium prenanthoides* site with *Rosa spinosissima* and *Geranium sylvaticum*, Tarren yr Esgob, 30 August 2020. © T. Rich. See page 9.

Image 3: *Hieracium prenanthoides* at Craig Cwm-du, August 2016. © T. Rich. See page 10.

Image 4: Southern Marsh-orchid (*Dactylorhiza praetermissa*), Brynsiencyn, 3rd site for Anglesey. © Ian Hawkins. See page 17.

Image 5: Llantrisant Common, the subject of an intensive survey by David Barden from 2011–2020. © D. Barden. See page 31.

Items for inclusion in the next Welsh Bulletin should be sent to Richard Pryce by May **2021**. Editors: *Richard D. Pryce*, Trevethin, School Road, Pwll, Llanelli, Carmarthenshire, SA15 4AL PryceEco@aol.com. *Sally Whyman* (sally.whyman@museumwales.ac.uk) and *Katherine Slade* (katherine.slade@museumwales.ac.uk), Dept. Natural Sciences, Amgueddfa Cymru-National Museum Wales, Cathays Park, Cardiff, CF10 3NP. See bsbi.org.uk/wales for back issues. Printed versions of some back issues are still available on request.

Message from the Chair

Steph Tyler

2020 was indeed a strange year but botanists are a resilient lot and although many field meetings were cancelled, individuals or small groups of botanists throughout Wales were still actively recording with the discovery of many exciting natives and neophytes in new places. Elsa Wood and I were gratified by the response to our request for records for the BSBI Bulletin Cymru section and enjoyed reading of the notable finds from Anglesey to Breconshire.

In my own vice-county of Monmouthshire several of us have been out together regularly especially once lockdown ended in May and I am also privileged to be able to visit land belonging to new members of our local Meadows Group. The Group started back in 2003 before meadows became more fashionable, we are able to offer all members a free initial survey and management advice. Despite Phase I surveys and many grassland surveys by the local wildlife trust, it is amazing that many new sites worthy of SSSI status and certainly Local Wildlife Site status continue to surface. In 2020 several such grasslands were found hidden away on various smallholdings as in the Cas Troggi and Trothy valleys and also high on the slopes of the Bloreng.

I must congratulate my Vice-county Joint Recorder, Elsa Wood and also, Meadow Group members Jon and Marilyn Dunkelman, who have done a vast amount of work in 2020 producing a revised second edition of their excellent grassland fungi book. Waxcaps, pinkgills and spindles are always a joy to find and usually denote good quality flower-rich grassland too and in Elsa and Jon's book all are beautifully illustrated and described. If you haven't a copy already you really should buy one. They are available from NHBS (the Natural History Book Service).

Editorial

Richard Pryce

I know you will echo my hearty congratulations to Dr Steph Tyler on being awarded the honour of MBE in the Queen's New Year's Honours List for services to nature conservation in the UK and Africa. After her PhD at Cambridge, Steph went to live first in the UAE and then in Ethiopia and other African states, carrying out various ornithological researches. In the 1980s, back in this country, she settled in Monmouthshire, working for the Gwent Wildlife Trust and then the RSPB, becoming its Wales Conservation Officer. She researched and co-wrote, the

standard volume on Dippers, together with numerous authoritative papers highlighting the impact of acid rain and forestry on water quality, insects, as well as the Dipper, in the Welsh uplands. At that time, acidification in the uplands became a major concern and Steph was instrumental in bringing the facts into the open that subsequently brought about essential environmental improvements.

She has also been and remains very active in the voluntary conservation world including her continued work for the Gwent Wildlife Trust and has been involved in local ornithology since settling in the county, including serving on the Committee of the Gwent Ornithological Society, as BTO Regional Rep and as co-organiser and author of both Gwent breeding bird atlases. She was a trustee of the Welsh Ornithological Society and editor of the WOS' journal, *Birds in Wales*, culminating in 2015, when she won the WOS Lifetime Achievement Award. She is also Chair of the Monmouthshire Meadows Group – indeed it was Steph who was the inspiration behind the formation of the very successful Carmarthenshire Meadows Group which has led to similar groups being formed in other counties.

Over the past few years BSBI's Welsh activities have benefitted from Steph's prominent role as Chair of the BSBI Committee for Wales and, of course, she has been, and continues to be, very active as Joint Vice-county Recorder, with Elsa Wood, in recording the Monmouthshire flora, whilst also continuing to encourage and mentor local BSBI members. Her constant and consistent energy is reflected in the number of articles she produces for the Welsh Bulletin.

Steph is such a modest person, but, over the years, has influenced many aspects of nature conservation, as well as many people, both in Wales and in Africa. Despite my prior knowledge of her involvement in many aspects of conservation, a brief look online highlighted more of her achievements which I for one, feel humbled by. I'm sure you will agree that she fully deserves this new honour.

In addition to Steph's contributions to this Bulletin, we have accounts of botanical recording in 2020 in Anglesey and Breconshire. We also have an article by Tim Rich on the status of *Hieracium prenanthoides* and Chloe Griffiths' account of progress with the *Nature in our Village Project* in Aberystwyth. The final article is Dave Barden's summary of his detailed work at Llantrisant Common culminating in the publication of his very authoritative book which I can thoroughly recommend. This issue concludes with the second part of the 2019 Welsh Plant Records.

I and my co-editors, wish all members and friends a Happy New Year and hope that we are all soon able, once again, to get out into the field to carry-on recording without restriction.

BSBI Wales Annual Meeting and AGM Bangor (v.c.49)

Friday 2nd - Sunday 4th July 2021

The 2021 BSBI Wales Annual Meeting, exhibition and AGM together with the associated field excursions will be based at the Reichel Hall, Bangor University, Ffriddoedd Rd, Bangor LL57 2TW. Accommodation will be in *en suite* single-occupancy rooms.

A preliminary programme has been prepared which will include:

- Field visits to local sites of botanical interest on Friday afternoon, Saturday and Sunday
- Talks on local botany and other topics of interest on Friday and Saturday evenings
- The BSBI Wales AGM on Saturday morning
- Display of books for sale
- Exhibits and posters prepared by members
- Help table: you are invited to bring specimens that you would like experts to identify

The programme will include a range of field visits to reflect this diverse and spectacular part of North Wales. Preliminary plans include Treborth Botanic Gardens and carboniferous limestone grassland of the Great Orme together with options such as the coastal reserve, Morfa Aber, at Abergwyngregyn, Eithinog (Brewery Fields), wet grasslands at Moelyci community farm at Treborth and upland around Cwm Idwal.

An important part of the meeting will be the exhibition of posters prepared by members and we are encouraging as many people as possible to contribute.

Because of the uncertainty over whether Covid-19 restrictions will still be in place next July we have decided to review the position in April 2021. We are therefore asking for expressions of interest only, up until 15 April 2021. It is very important that those who wish to attend but have not already booked should express interest so that we can properly assess the viability of the meeting. Should we decide to proceed, those who have expressed interest will then be asked to book and pay, preferably via the web page.

More details will appear on the Welsh AGM webpage in due course. Organiser: John Palmer, email: jpp@totalise.co.uk.

AGM 2020

Because of COVID 19 the AGM was conducted by email this year. It was not entirely satisfactory and was a steep learning curve. The outcomes were:

1. The minutes of the 2019 meeting in Llanelli were deferred to the Bangor meeting in 2021.
2. The Chairman's report was circulated and is included below.
3. The Officers and committee for 2020-21 were approved en bloc - proposer Paul Baxter and seconder Richard Pryce.

Committee for Wales, 2020-2021

Chairman: Stephanie Tyler

Vice Chairman: John Palmer

Hon Sec: Elsa Wood

Treasurer: Liz Dean

Field meetings Sec: Andy Jones

5 other voting members are:

1. Steve Chambers
2. Gail Quartly-Bishop
3. Ray Woods
4. Delyth Williams
5. Chloe Griffiths

Also in attendance:

Joint Bulletin Editor: Richard Pryce (non-voting)

Minuting Secretary: Kath Pryce (non-voting)

NRW Rep: Julian Woodman

Other non-voting members who also attend the Committee: Stephen Evans, John Crellin, Kate Thorne

Corresponding members: Natasha de Vere, Sally Whyman, Katherine Slade

Chairman's Report 2019/2020

I am only sorry that I cannot welcome you all in person to our 58th AGM in Wales. Circumstances however, sadly dictate otherwise. I very much hope that you all have survived lockdown and have managed to get out and botanise during this strange period. I very much regret to say that Margaret Perring who attended and enjoyed the last Welsh AGM, has died not from Covid 19 but from a long illness.

My report will understandably be very brief but I would like to draw attention to the fact that our Wales Officer, Barbara Brown, has very reluctantly had to leave her post, entirely because of the lack of funding. We are grateful to NRW for the funds that enabled Barbara to be in post for 16 months but we do need longer-term commitments as in Ireland and Scotland from the statutory conservation bodies. I did write to Clare Pillman at NRW on 25 March this year but as yet have had no response. Barbara did an amazing job in the short time she was with the BSBI and

we would love to have retained her as the Wales Officer but wish her well in her future life.

Since the last AGM your Committee for Wales had held two committee meetings, in October 2019 in Newtown and in early March 2020 in Aberystwyth just before lockdown was imposed. We were delighted to co-opt two new members at the March meeting. Firstly, Chloe Griffiths, who organises the Aberystwyth Botanical Society and is a key player in ‘The Nature of our Village’ project at Penparcau in Ceredigion. Secondly Professor John Warren, who is chair of the BSBI Training and Education Committee. We were sad to say goodbye to Sarah Stille who retired as Vice -county Recorder for Merioneth in December 2019 but she has found Jo Clark to take on this task. I welcome Jo and wish her all the best in her new role.

I need to thank a number of people. Firstly, I would like to thank our efficient secretary, Elsa Wood, who does a lot of work behind the scenes making everything run smoothly (and she also provides delicious cakes and biscuits for committee meetings). Andy Jones has been a great help organising meetings in Wales though sadly all to no avail this year and we appreciate all the advice that Julian Woodman gives us. I am very grateful to Richard and Kath Pryce who organised 2019’s very successful and enjoyable AGM in Llanelli and to Richard for all the work he does in ensuring that our much-loved Welsh Bulletin sees the light of day. He solicits and edits articles for the Bulletin, whilst the co-editors, Sally Whyman and Katherine Slade of Amgueddfa Cymru - National Museum Wales edit and do all the unglamorous back-room work of collating and making ready for publication. [Eds – we also want to thank Gwynn Ellis this year for taking delivery and posting the bulletins]. Another person who deserves our thanks is Stephen Coker who quietly and painstakingly formats all the VC Recorders’ contributions to Welsh Plant Records – no mean task.

I thank too John Palmer for all his efforts in organising the AGM at Bangor, only to have the event cancelled because of Covid 19. There is a lot of work sorting venues, outings, preparing fliers and programmes and general house-keeping tasks for an AGM so many thanks John for all that you did and also Wendy McCarthy and Delyth Williams for their help. At least it won’t be wasted as hopefully, the 2021 AGM will be in Bangor. Finally, I thank all Committee members and those attending Committees as non-voting members for all their contributions to the work of the BSBI in Wales.

Stephanie J. Tyler, Chair

Hieracium prenanthoides in Wales

Tim Rich

Hieracium prenanthoides Rough-leaved hawkweed is a rare species in Wales. It is easily distinguished as a tall hawkweed with many stem leaves with clasping bases, small flower heads with densely glandular involucre bracts and peduncles, and pale seeds.

In Wales, it was mapped in four hectads by Sell & West (1968), in three hectads by Rich & McCosh (2011) and in two hectads in Rich & McCosh (2018). To clarify its status in Wales further, I have now undertaken a more detailed study combined with field work and summarise the details of the three localities below, all of which occur in two hectads in v.c.42 Brecon.

Tarren yr Esgob (SO23)

Augustin Ley first found *H. prenanthoides* in Breconshire on 25 September 1874 on “mountain cliffs, near Llanthony, in plenty, though on a very restricted spot, about a rill of strongly petrifying water” (BM, CGE) and he cultivated and distributed duplicates in 1877 (CGE). A second specimen collected at Tarren yr Esgob on 25 August 1880 was added to the 1874 specimen and annotated “growing with *Rosa spinosissima* (Scotch Rose) and *Geranium sylvaticum* (Wood Crane’s-bill) and a mountain form of *Poa nemoralis* (Wood Bluegrass) for about 15 yards of the cliffs which was quite golden with the bloom” (CGE). Ley also collected it on 12 August 1903 (BM) and from the ‘highest part’ 17 September 1907 (BM). As far as I can interpret, all these records refer to one site in hectad SO23; hectad records for SO22 arose from plotting the location as ‘Llanthony’ rather than Tarren yr Esgob.

On 21 September 2014 whilst collecting *Sorbus stenophylla* (Llanthony Whitebeam) fruit, I found a patch of *H. prenanthoides* about 1 m long on a narrow ledge difficult to access which agreed with Ley’s description but I did not take exact details. On 30 August 2020, I went to count the population but could not re-find my 2014 plants. Instead, I found three plants (one vegetative, one in flower, one in fruit) over 20 m on a steep, tiered, slippery cliff face adjacent to *Rosa spinosissima* and *Geranium sylvaticum* immediately south-east of the obvious tufa waterfall at SO23833153 (see image 2 on page 3). This was clearly Ley’s site; further searches at peak flowering time in mid-summer will probably reveal more plants.

Craig Cwm-du, Senni Valley (SN92)

H. prenanthoides was first recorded on ‘Craig-du’ by A. Ley on 13 June 1893 (BM), and again on 24 July 1899. B.A. Miles recorded it from the east end of the cliffs at

SN948213 at 520 m altitude on 22 August 1964 (CGE) and G. Motley, M. Porter and T. Rich recorded as frequent on rocks on 22 July 2004 (NMW).

On 31 July and 26 August 2016, I carried out a more detailed survey when collecting seed for the Millennium Seed Bank. Four subpopulations were found with a total of about 50 plants (10+ plants on eastern-most low crag at SN94912148; 20-30 plants on low crag east of main face at SN94712133; 10 plants over 30 m at the east end of the main cliff face at SN/94612130; 6 plants on the main cliff face by a big larch tree SN94492128; K; see image 3 on page 3). The removal of sheep has benefitted much of the flora of the National Nature Reserve and allowed the development of many flowers and herb-rich ledges.

Craig Cerrig-gleisiad (SN92)

There are records of *H. prenanthoides* for Craig Cerrig-gleisiad (c. SN9621) by W. A. Shoolbred on 16 August 1894 (NMW) and by R. M. Harley in July 1961 (NMW). I have not re-found it in eight visits looking for *Hieracium* since 1999 though there is plenty of suitable habitat.

Discussion

Hieracium prenanthoides is currently known in two out of three Welsh sites, with a good population at Craig Cwm-du. I have not traced any records for hectad SN82 (Sell & West 1968). The sites are at the southern limit of its distribution in Britain, though it occurs widely in the European mountains to the south.

References

- Sell, P. D. & West, C. (1968). *Hieracium* L., in Perring, F. H. ed., *Critical Supplement to the Atlas of the British flora*. Botanical Society of the British Isles, London.
- McCosh, D. J. & Rich, T. C. G. (2011). *Atlas of British and Irish Hawkweeds (Pilosella Hill and Hieracium L.)*. Botanical Society of the British Isles, Bristol.
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Filago minima (Small Cudweed) in eastern Monmouthshire

Stephanie J. Tyler

Filago minima (Small Cudweed) is not a common plant in Britain and Ireland, where Preston *et al.* (2002) noted that it was undergoing a continuing slow decline. Its Welsh strongholds from the New Atlas were in the vice-counties of Glamorgan and Monmouthshire. In Glamorgan it is still quite frequent on old spoil tips especially in the Neath Port Talbot area (Julian Woodman, *in litt.*). In Monmouthshire, Evans (2007) reported the species from 56 tetrads, the majority (46) of these being on coal waste in the west. Two more tetrads were at industrial sites near Newport, six scattered in the southern part of the vice-county including MOD Caerwent and two in the east in SO40Z and SO50E.

F. minima is still quite common on old coal tips in the west of the vice-county although, since 2000, it has been found in only 27 coalfield tetrads as well as in two more tetrads in industrial areas near Newport. However, it does appear to have declined in the vice county possibly because so many coal tips are now too well vegetated. None have been found recently in Wentwood or in MOD Caerwent or, despite searches, in the two eastern tetrads noted by Evans (2007). There are post 2000 records however, from two 'new' eastern sites in one tetrad, SO50D near Trellech.

The Trellech Plateau between Monmouth and Chepstow is capped with Quartz Conglomerate (pudding stone) overlying normal sandstone layers of the Old Red Sandstone. Much of this acidic rocky, former heathland on the plateau was planted with conifers in the 1950s/60s and more recently two areas (Beacon Hill and Broadmeend) have been restored as heath although birch scrub has rather taken over.

Many of the forest tracks are well vegetated, shaded or covered with limestone chippings with various calcicoles such as *Blackstonia perfoliata* (Yellow-wort) growing along them but very few areas have open, bare, sandy or gravelly substrate. Two tracks on Beacon Hill do still boast this habitat and there, localised species such as *Aira praecox* (Early Hair-grass), *Ornithopus perpusillus* (Bird's foot) and *Spergularia rubra* (Sand Spurrey) occur sparingly. One other excellent bare open sunny area of sand and gravel is at a former quarry on Trellech Hill. This quarry, with its steep slopes and dips, is a favourite area for motor-bike scrambling which has resulted in much of the quarry being kept as bare sand and gravel with scattered patches of Eared Willow (*Salix aurita*) and *S. cinerea* (Grey Sallow) and

hybrids, *Betula pubescens* (Downy Birch) scrub and heather and deep ruts and pools.

On 15 August 2008 I found several plants of *Filago minima* in the Trellech Hill quarry at SO504069 at the edge of the bike tracks where lichen, mosses and other plants were growing. I also noted several plants of *Carlina vulgaris* (Carline Thistle) which seemed strange on such an acidic substrate. On 10 September 2013 I again noted about five *F. minima* plants as well as other dry, acid-loving species such as *Senecio sylvaticus* (Heath Groundsel). Elsa and Adrian Wood visited the quarry on 29 June 2014 and noted about 25 plants of *F. minima*.

On 24 September 2013 I found about 24 small plants of *F. minima* along a dry gravelly track on Trellech Hill near a car park at SO508063, uphill from the Trellech Observatory. This colony persisted for another year or two but I haven't seen any there since.

On 23 July 2020 I returned to the Trellech Hill quarry with two botanist friends, Anne Griffiths and Lauri Maclean, specifically to look for *Filago minima* and ensure it was still there. Almost as soon as we climbed up a track into the quarry Lauri found a single large plant on a sparsely covered bank among *Fragaria vesca* (Wild Strawberry). Further exploration of the quarry revealed at least four areas close to bike tracks where there were numerous small plants of the cudweed. One patch had over 200. Other species growing with *Filago minima* were *Aira praecox*, *Rumex acetosella* (Sheep's Sorrel), *Sagina procumbens* (Procumbent Pearlwort), *Luzula multiflora* (Heath Wood-rush), *Aphanes arvensis* (Parsley-piert), much *Hypericum humifusum* (Trailing St John's-wort), *Veronica serpyllifolia* (Thyme-leaved Speedwell), *V. officinalis* (Heath Speedwell) and *Centaureum erythrea* (Common Centaury). We estimated that there were in excess of 300 plants of *F. minima* in the quarry in July 2020.

In slightly better vegetated areas, we found two flowering *Carlina vulgaris* plants and two old flower heads from the previous year. Apart from on limestone in the south-east of the vice-county and on western hills the only other site in the east of v.c.35 for *C. vulgaris* was at Craig y Dorth in SO4909 in June 2014 (SEWBReC Wildwood consultancy record), in the tetrad SO40Z mentioned by Evans (2007) for *F. minima*. In damper areas in the quarry there were a few plants of *Epilobium brunnescens* (New Zealand Willowherb) and in water-filled pools abundant *Lythrum portula* (Water Purslane); these two species are more associated with the west of the vice-county.

Filago minima appears to have a healthy population at Trellech Hill quarry and so long as the quarry is kept disturbed and open by motorbikes, this small annual should persist there. Sadly, *Filago vulgaris* (Common Cudweed) has virtually disappeared from the east of the vice-county, the last record being of one weak plant seen by Mark Kitchen and Trevor Evans on 16 July 2000 by a small parking area north of Cotland, Trellech at SO511048. I saw it there that year but, despite searches, not since. It is still locally abundant on the MOD Caerwent base in two tetrads along roads and the old railway line; elsewhere in v.c.35 it has been found post 2000 in eight tetrads in the coalfields of western Monmouthshire. Evans noted it in just three western tetrads, in the two at MOD Caerwent and the Trellech tetrad SO50C, so possibly this species has actually increased.

References

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Preston, C.D., Pearman, D.A. & Dines, T.D. 2002. *New Atlas of the British and Irish Flora*. Oxford University Press.

Monmouthshire 2020 noteworthy botanical finds

Stephanie J. Tyler and Elsa Wood

Local walks by some members and meadow surveys continued this spring and summer in Monmouthshire v.c.35. Rewards included a new hectad record for *Schoenoplectus lacustris* (Common Club-rush), found by Steph Tyler (SJT) in SO4214 in a pond in the Afon Trothy catchment. Another new hectad record was a colony of about 200 *Epipactis palustris* (Marsh Helleborine) that Lee Gregory found at Garn Lakes in SO2210 in the west of the vice-county. Over 1,100 *E. palustris* were also seen by Martyn Jones at a known site at an old steelworks (former Alpha Steel) near Newport in ST3384.

Osmunda regalis (Royal Fern), considered by Evans (2008) as extinct in the vice-county, continues to turn up at new sites in the Coalfields. Until 2020 there were three records by Elsa Wood, Adrian Wood and me from coal tips and two more along streams that may have originated from gardens. In late June 2020 one plant was found by Steve Williams in acid flushes on a coal tip on Mynydd Varteg (SO2507) (see image 13 on back page) and another on a coal tip at Canada Tips, Blaenavon (SO2410).

Centaureum pulchellum (Lesser Centaury) was in the Monmouthshire Rare Plant Register but we now have 13 post 2000 records for it so it has been demoted. It is however, always a joy to find it and Elsa Wood (EW) and SJT in July 2018 found numerous plants in part of King's Wood near The Hendre. This year it was not re-located in the same area but elsewhere in King's Wood, Anne Griffiths (AG) recorded it in July; a subsequent visit on 30 July by EW, SJT and AG revealed a minimum of between 450 and 500 plants over an extensive area along forest tracks in three monads in SO41R and SO41W.

Lauri Maclean re-found *Eleogiton fluitans* (Floating Club-rush) in a drying pond in Chepstow Park Wood in SO4897, where Dave Green and SJT had seen it in 2010. It is surprisingly rare in Monmouthshire with only one record given by Evans (2007) in a reed on the Gwent Levels. There is an unsubstantiated record too from marshy grassland at Big Pit, Blaenavon in 2004.

Heather Colls (HC) has been tackling the identification of *Hieracium* (hawkweeds) and she has found or re-found plants of *H. cambrense* (*stenstroemii*) and *H. grandidens* (Grand-toothed Hawkweed) in Tintern (SO5200), over 100 *H. subaudum* (Autumn Hawkweed) near Trellech, *H. exotericum* at Troy (SO5011) and *H. consociatum* at Skenfrith Castle (SO4520).

At the Blackcliff (ST530988) Dave Green, when looking for whitebeams (*Sorbus* sp.) in the lower Wye Valley found a new site (and new tetrad) for *Hypericum montanum* (Pale St John's-wort). He noted about 8 plants. Other new tetrad records included *Nitella flexilis* s.l. (Smooth Stonewort) found in a lake at Llanover House by EW & SJT (SO3108), *Barbarea intermedia* (Medium-flowered Wintercress) found by Heather Colls near Treowen (SO4610), *Setaria pumila* (Yellow Bristle-grass) by Mike Ogden near The Bryn ((SO3209), *Erigeron acris* (Blue Fleabane) by AG at Tyla quarry (SO21K), *Linum bienne* (Pale Flax) by Steve Smith in a field near Lasgarn Wood (SO2704) (see image 10 and 11 on back cover) and *Sorbus torminalis* (Wild Service-tree) by SJT along Offa's Dyke near Great Hendre Farm (SO4612).

EW and Adrian Wood reported that the patch of *Diphasiastrum alpinum* (Alpine Clubmoss) at Canada Tips, Blaenavon first recorded by Steve Williams in July 2017, has spread substantially to cover several square metres.

The lack of regular mowing by the local council has been a bonus for many plants including 36 *Anacamptis morio* (Pyramidal Orchids) on a verge in Monmouth (SO5102) and a wonderful display of *Pimpinella saxifraga* (Burnet-saxifrage) flowers at an ironworks site (usually mown as a lawn) in the Angidy Valley near Tintern (SO5100). The spring of 2020 was an odd one for orchids with many people

reporting very few orchids, especially *Dactylorhiza fuchsii* (Common Spotted Orchid), in their meadows. Jan Winder however, counted over 12,000 *Anacamptis morio* (Green-winged Orchid) at New Grove Meadows, a Gwent Wildlife Trust reserve near Trellech (SO5006/07). A previous count in 2012 by members of the Monmouthshire Meadows Group was of only 5,000 plants.

In March Sam Bosanquet found gametophytes of *Trichomanes speciosa* (Killarney Fern) at several small rocky watercourses in woodland in SO5309 at Penallt. He also found *Ornithopus perpusillus* (Bird's-foot) at the Kymin near Monmouth on 21 November, the ninth post 2000 record for this species in v.c.35, and many plants of *Cynodon dactylon* (Bermuda-grass) by a wall near Monmouth library on 13 November.

Postscript

In late September AG, LM and SJT had some more hectad records for ST39 and SO30 by Llandegfedd Reservoir. *Panicum dichotomiflorum* (Autumn Millet) was frequent along the eastern shores of the reservoir in both ST3399 and SO3300 and a single plant of *Centaureum pulchellum* (Lesser Centaury) (see image 12 on back cover) growing on the extensive drying banks of the reservoir in SO3300 amid various chenopods, *Alopecurus aequalis* (Orange Foxtail), *Rorippa sylvestris* (Creeping Yellowcress) and *R. palustris* (Marsh Yellowcress). Both *Veronica scutellata* (Pink Water Speedwell) and *Thalictrum flavum* (Common Meadow-rue) were new tetrad records for SO30F.

Anglesey 2020

Nigel Brown, with considerable assistance from Ian Bonner

As ever Ivor and Jane Rees got the year off to a prompt start by logging 26 species in bloom on a BSBI New Year Plant Hunt around Menai Bridge and 23 species on Aberffraw headland while Ian Bonner and I spent time validating records. It was inspiring to see how the database had grown as a result of extra recorder effort last year. Among many points of interest we discussed Ivor's on-going research into the island's Scurvy-grass (*Cochlearia* sps.) populations which he has shown to be variable and in the opinion of the referee, Peter Wyse-Jackson, a fertile mix of hybrids between *Cochlearia officinalis* (Common Scurvy-grass) and *C. anglica* (English Scurvy-grass) and now known as *C. x hollandica*. Ivor had recently sent us

winter images of scurvy-grass plants from Porth Cwyfan on Anglesey's south-west coast which clearly showed the cuneate leaves of *C. anglica* and it appears that plants from muddier intertidal sites are closest to *C. anglica*.

Our first gathering of the Anglesey Flora Group was in the warm and convivial surrounds of a coastal pub in early January where we (naively) plotted our programme for 2020 and suggested some target species. Shortly afterwards several members of the Group attended an informative review of plant identification apps by Professor Hamlyn Jones from Dundee University who gave a seminar in Bangor University.

This was followed by our first, and as it turned out, our last field trip in early March, again on the coast, and again the venue a pub – but a pub uniquely surrounded by a SSSI – the dunes of Tywyn Llyn a kilometre south-east of Rhosneigr on Anglesey's west coast. Here we searched for Early Sand Grass (*Mibora minima*), a Red Data Book species restricted in a native state to Anglesey, Gower, North Uist and the Channel Isles. The Aberffraw dunes on Anglesey's west coast boast the largest population in Britain with smaller metapopulations occurring on dunes at Newborough and the Rhosneigr area, some of which have not been assessed recently. Unfortunately, we were not able to re-find *Mibora* at Tywyn Llyn but later that day we finally had success when the trembling anthers of the world's smallest grass caught Hugh Knott's attention in dunes to the north of Rhosneigr, close to where Jane and Ivor Rees has seen some a few weeks earlier.

From then on botanising on the island became a solitary affair as Covid restrictions prevented any further group gatherings. Pleasingly however plant recording continued as individuals scrutinised their local areas. Tim Blackstock found Mistletoe (*Viscum album*) on hawthorn (*Crataegus monogyna*) in Beaumaris, only the second recent record for the island. James and Joanna Robertson reported a good colony of Green Hellebore (*Helleborus viridis*) in flower at Plas Newydd at only its second Anglesey site. They went on to find a fine colony of Shepherd's Cress (*Teesdalia nudicaulis*) just south-west of Llys Rhosyr, Newborough with thousands of plants in flower in mid-March. Their find takes the Anglesey tally of monads for this species to 10 but 5 of these do not enjoy post 2000 records. Jane and Ivor Rees reported a particularly fine show of the white-flowered form of Sweet Violet (*Viola odorata* subsp. *dumetorum*) at Llanidan, near Brynsiencyn. Charles Aron spotted *V. reichenbachiana* in a new monad near his home in Pentraeth taking the known monad tally for this scarce island plant to 17, all in the south and east and mostly on limestone. Charles's record was particularly interesting as the substrate was Pre Cambrian chlorite-schist.

Tim Blackstock came up trumps again when in May he rediscovered Dropwort (*Filipendula vulgaris*) at Mariandyrys near Penmon in the south-east of the island. In North Wales as with other parts of the Principality, this is a decidedly local species. The main populations in the north are on the limestone headlands of the Great and Little Ormes at Llandudno. On Anglesey the only truly native area for Dropwort is the Penmon district, within view of Llandudno and also on limestone. RH Roberts regarded Dropwort as frequent in the Mariandyrys area in the early 1980s but Ian Bonner and David Evans found it far less common a decade later. With no record since 2005, Tim decided to take up the challenge and follow up previous records. He re-found Dropwort in an area which had recently been cleared of gorse on the North Wales Wildlife Trust's Mariandyrys Reserve indicating how necessary and effective targeted scrub removal can be for grassland species.

The fine dry weather of April and May probably benefitted stress-tolerators such as Dropwort as well as legumes such as Subterranean Clover (*Trifolium subterraneum*) which Mandy and Glen Forde found in a new monad on thin soils over Pre-Cambrian rock on their small holding on the southern margin of Llyn Traffwll in early May. This is another local species on Anglesey, recorded from just 15 monads, mostly coastal and clustered in the north and north-west of the island. Jane and Ivor Rees have previously pointed out that these north-west Anglesey populations frequently display a rusty-red collar on the calyx as clearly seen in Mandy's excellent image (see image 7 on page inside back cover).

Mandy and Glen made another very interesting find shortly after when they discovered Bur Chervil (*Anthriscus caucalis*) (see image 6 on inside back cover) on their land and sent excellent images to help confirm it. This rather small, daintily flowered annual umbellifer is a mainly eastern and/or coastal species in the British Isles. It is rather scarce in Wales and largely confined to coastal areas, especially in North Wales. Here on Anglesey, we have records from just a handful of sites covering in total 10 monads. Five of these are pre-2000 only (Bodorgan, Tywyn Fferam just south of Rhosneigr and Newborough/Dwyran area). The more recent, post 2000 records are clustered between Beddmanarch Bay and Church Bay in the north-west of the island and there is a single record from Aberffraw. Mandy and Glen's population is in a new monad but mirrors the west coast distribution of the other records. This is a plant of dry sandy disturbed sites such as field margins, roadside verges, dunes and rock outcrops. Theoretically it could occur more widely on Anglesey and it is puzzling that it appears to be restricted to the west.

In early June Ian Hawkins found 7 flowering spikes of Southern Marsh Orchid (*Dactylorhiza praetermissa*) on his land on the SW side of Brynsiencyn, only the third known site for Anglesey (see image 4 on page 3). Southern Marsh Orchid was

first recorded on the island in 2013 in the Coronation Meadow at Plas Newydd. It then appeared at Plas Cadnant in 2017 where it has persisted as a single plant. It seems very likely that we are witnessing a natural colonisation by this species which first came to my attention when a strong colony became established at Parc Menai on the mainland side of the Britannia Bridge c.2000. As the only other colonies in north-west Wales are in the Upper Ogwen valley, Portmadog/Harlech area and at Llandudno Junction it seems likely that the Parc Menai colony has spawned the spread of this highly attractive native orchid on to Anglesey. The seed is, like all orchids, wind dispersed, and it is interesting that the two previous sites (Plas Newydd and Plas Cadnant) both lie just 3km from Parc Menai and well within the range of active wind dispersal of the very light weight seeds. Ian's site is a further 4.5km south-west of Plas Newydd. It will be fascinating to see how the island population of this quite distinctive marsh orchid develops over the coming years. Suitable habitat still abounds on Anglesey, e.g. Newborough Warren and Aberffraw with their orchid rich dune slacks, fens and marshes such as Cors Erddreiniog and Cors Ddyga and even man-made habitats such as roadside verges and business parks which are well used by the widespread populations of this species in Lancashire.

Not far from Ian Hawkins' Southern Marsh Orchid site, James Robertson reported a three-fold increase in his population of Early Purple Orchid (*Orchis mascula*) following introduction of stock and manual removal of rampant ivy (*Hedera hibernica*) in an area of damp deciduous woodland by the Afon Briant.

Another orchid, a rarity and one of serious conservation concern on Anglesey - Frog Orchid (*Coeloglossum viride*) occupied my mind in June. This somewhat demure greenish-purple flowered orchid of calcareous grassland and scrub has been found in just 11 monads in total, 6 of those without post-2000 records. The extant sites are restricted to a relatively small area of Carboniferous limestone between Cors Erddreiniog and Brynteg to the north and Talwrn and Cors Goch to the south. Happily, for me it grows just 20m beyond our garden on a lane-side verge where I first noticed it in 2016. I check the single plant each day during the growing season and as the inflorescence lengthened in June, I have to admit that I watered it a few times. It's a precious thing - there may be fewer than 100 plants left on the island. However, it may be overlooked as it is not the showiest of orchids and it can occur in partial scrub and be difficult to locate. It would be pleasing to re-find it on one of the historic sites in the Llanddona area or elsewhere in the limestone zone I described. My own experience of finding it on an otherwise fairly unnoteworthy verge provides some hope that this is an under-recorded species of orchid on Anglesey. Sadly, just at the point of seed set this specimen was run over by a vehicle

weaving in between two verge defenders kindly installed by the Ynys Mon's Highways Dept the year before and I know of no other records of Frog Orchid on the island in 2020.

The fine dry Spring and reduced traffic of lock-down prompted my wife and I to try our hand at bike botany and it proved very productive and immensely enjoyable, expanding our horizons in significant ways. Anglesey is blessed with some good hedgerows and some varied cycle routes along which we suddenly discovered species such as Zig-zag Clover (*Trifolium medium*). With just over 50 monads to its name this species is regarded as local on the island. Nationally it is a declining species associated with permanent species-rich pastures, and roadside verges may be increasingly important refuges for this attractive legume. Here and there, with no apparent consistency or explanation, bobbles of Bladder Campion (*Silene vulgaris*) catch the cycling eye. Recorded in just 30 monads on the island this taxon is scarce especially in the south of Anglesey. Most records refer to just a handful of plants at each site. Looking at its UK wide range it shares with Zig-zag Clover an affinity with calcareous soils and is strongly associated with the chalk and limestone formations of central and southern England. In Wales it is surprisingly thin on the ground in the south, while in the north is mainly coastal and limestone loving.

Just outside the village of Llanbedrgoch sits one of the island's prettiest little churches - St. Pedr's - with a wildlife-rich churchyard to match. Outstanding among its floral display are 40+ mature plants of Greater Knapweed (*Centaurea scabiosa*), a local plant on Anglesey, with records from just 17 monads, again mostly over limestone in the east. Indeed, both locally and nationally the distribution of Greater Knapweed mirrors that of Bladder Campion and for both species it is unlikely that their populations on the island number more than 500 plants. Probably the best-known site for Greater Knapweed is the roadside verge population which welcomes you to Benllech as you drive along the A5025 from Pentraeth – it is a magnificent poster for the town!

Undoubtedly one of the surprise finds of 2020 was Wild Clary (*Salvia verbenaca*) noted at Llanddwyn by visiting botanist and BSBI member Matt Jones from Liverpool during the final week of July. Matt kindly passed his record straight on to Ian Bonner, and Caroline and I visited the site a few days later and noted 4 flowering plants (with a total of 6 flowering shoots) and 9 rosettes (one of which displayed part of an old flower stem perhaps from last year) at SH 3864.6254. The site is c.25m south of the far end of the Pilot Cottages and 15m above a sandy beach. It lies c.2.5m off a sandy track and consists of sparse marram grass (*Ammophila arenaria*) with *Lotus corniculatus* (Bird's-foot Trefoil), *Anthyllis vulneraria* (Kidney Vetch) and *Leontodon saxatilis* (Lesser Hawkbit) scattered amongst moderate

amounts of bare sand. The level ground soon slopes steeply down to the beach and is exposed and probably subject to some movement of sand.

Until this point, Wild Clary was considered restricted to a single location on Anglesey, near Penmon Priory on the east coast where it was recorded by Hugh Davies in the early 19th century and then again by JE Griffith in the latter part of the 19th century. Davies also recorded Wild Clary at Holyhead and Mynydd Mechell but there have been no records at these localities since his day. The most recent record was 21 August 2004 when Geoff Radford found 12 rosettes near Penmon Priory.

Wild Clary is an aromatic perennial herb with a Mediterranean-Atlantic distribution in Europe and found in 481 hectads in Great Britain where it is commonest in East Anglia. It is associated with open calcareous grassland and disturbed ground in the lowlands of south and east England thinning out to the north and west and where it becomes increasingly coastal. In Ireland it is known from just 20 hectads, all coastal, mainly dune, and mostly in the south-east. The same trend is apparent here in Wales where Wild Clary is a decidedly scarce species found scattered along the south coast and, similarly, largely coastal in north Wales, though there are pre-2000 records for the Vale of Clwyd. The main populations in North Wales are West Shore and North Shore, Llandudno where it is associated with disturbed sandy grassland, and on the Great Orme where it occurs in 7 sites on limestone grassland, a habitat similar to its Anglesey locality near Penmon Priory.

Although Wild Clary is undoubtedly native in the British Isles it has been nurtured in the past for its medicinal properties and this may have influenced its distribution. In some parts of south-east England it is also strongly associated with churchyards. Clary is thought to be a derivative of 'clear-eye' alluding to its former wide use in soothing inflammation of the eye. The seeds, once soaked in water, exude a mucilage which soothed and cleansed the eye membranes when seeds were placed there. The Welsh names for this species, as referred to by Hugh Davies, reflect these historic traditions. Torfagl - perhaps meaning 'bright-eye' (though without a direct modern Welsh equivalent) and Golwg Crist meaning 'Christ's Sight'. Although Penmon on Anglesey is largely limestone grassland and scrub and therefore suitable for Wild Clary its close proximity to the Priory does beg the question as to whether it was also cultivated thereabouts in the past by ecclesiastical herbalists. Nevertheless this species does appear to have a good historic provenance on Anglesey.

Its occurrence at Llanddwyn at the southern tip on the island comes as a complete surprise. Firstly, Llanddwyn is a National Nature Reserve and botanically well known. If Wild Clary had been growing there long then it would surely have been recorded by now? Can we therefore assume that it is a relatively recent arrival? If

so, how has it arrived? This species displays very little vegetative spread. It reproduces by seed but the dispersal agent is not known. Llanddwyn lies some 25 km south-west of Penmon, its nearest known population. Interestingly, Wendy McCarthy tells me that Wild Clary has recently turned up on roadside verges along the North Wales Expressway near Conwy.

While looking for Wild Clary we were delighted to see how well the colony of Maiden Pink (*Dianthus deltoides*) is doing by the north-east entrance to Llanddwyn at SH 3907.6326. We counted 350 flowers, a big increase from the size of the colony when it was first discovered by one of our Group, the late Barry Wrightson in 2017. And just a few metres away Caroline found another previously unrecorded colony of some 135 flowers. Earlier in July we counted almost 1500 flowers at its main population on Newborough Warren. It is a delightful species and of some relevance to Wild Clary since the nearest colonies are around Llandudno where it occupies sandy coastal grassland. Perhaps these two taxa are bound by coincidental ecological and biogeographical factors and have responded to historical land use changes in similar ways.

Another striking-looking member of the *Gentianaceae*, Yellow-wort (*Blackstonia perfoliata*) is very scarce on Anglesey, recorded in just 6 monads. It is similar to Wild Clary and Maiden Pink in having an affinity for open, often disturbed calcareous ground and a sub-Mediterranean-sub-Atlantic biogeographical distribution. Despite its scarcity on Anglesey, it is generally commoner at national level than either Clary or Maiden Pink and in North Wales is found quite abundantly in calcareous places from the Llandudno area eastwards. In August, Charles Aron found Yellow-wort growing in the vicinity of the old Octel Works at Amlwch where it is reasonably frequent in disturbed stony ground. This is a new hectad record and the first time it has been recorded in the northern half of the island.

Charles also reported that here on Anglesey we had just put up with the dullest and wettest June - July period since his records commenced in 1998. June's rainfall was 89mm and July's 157mm. What made July even more disappointing was how cool it was in the first half of the month with a significant number of days which did not reach 60 degrees Fahrenheit (15.5 degrees centigrade). These two months stand in stark contrast to the previous two of course when we experienced the driest, brightest spring for perhaps 40 years with just 35mm of rain delivered in a total of 13 rain days in April and May combined. The droughting seen then was thoroughly alleviated by summer rains and nowhere was this seen more plainly than the dune grasslands of Anglesey's west coast – by late summer their rich verdure amply revealed the full extent of the hydrating effect of the miserable mid-summer

weather. And we must not forget that February had also seen exceptionally high rainfall – 214mm at Pentraeth, a new February record for the island.

Midsummer saw a fine show of 13 flowering shoots of Broad-leaved Helleborine (*Epipactis helleborine*) in a new hectad at Plas Newydd taking the Anglesey hectad tally for this species to 4 and the monad tally to 10 (6 post-2000, 4 pre-2000). All the known sites are along the Menai Strait. Its close relative, Dune Helleborine (*E. dunensis*) turned up in a new monad at Brynsiencyn in a surprisingly shaded, damp situation beneath ornamental poplars (*Populus* sp.) 7km north-east of its more familiar dune environment at Newborough. This taxon is proving surprisingly ecologically adaptable on Anglesey – we now have several recent records from wooded gardens and tracksides in the south and in the north-east of the island. However, its main habitats remain dune slacks on both the open sand dunes, and those afforested, and associated with Creeping Willow (*Salix repens*) and/or *Pinaceae*.

Our thanks to Flora Group members who have submitted records from their immediate home areas during 2020. Pat Denne recorded 100 species in her beautiful natural garden in LlanfairPG and Jane Stevens added many new monad records for her home village of Llangristiolus. Simon Retallick and Gwen Vaughan have similarly improved our knowledge of the Llandegfan area. As ever, Jane and Ivor Rees have submitted a significant number of records with special emphasis on coastal species and critical taxa. Mandy Forde whose remarkable efforts have documented 180 taxa of native and introduced plants on her lovely home-patch by Llyn Traffwll, added 80 taxa to the monad list for SH3276 including the previously mentioned Bur Chervil and Subterranean Clover as well as Thorow-wax (*Bupleurum rotundifolium*) and most recently Common Cudweed (*Filago germanica*). Common Cudweed has been previously recorded in just 8 monads on the island, 4 of which are pre-2000 only. The older records include fixed dunes at Newborough and Aberffraw but it has not been seen in such habitat since 1959. There are also old records from open, disturbed areas of limestone in the Penmon area - Llangoed in 1967 and Penmon Church in 1971. Post-2000 records are from recently cleared scrub along the Coast Path near Brynsiencyn (2011), gravelly areas in a ride in the commercial plantation at Pentraeth Forest (2011), and most recently two monads in SH37, both as a result of Flora Group meetings. In 2018, 100 plants were discovered on a thin-soiled rock outcrop close by Plas Bog RSPB Reserve at Cae Hywel, less than half a kilometre east of Llyn Traffwll. In 2019 we found several plants on the airfield at nearby RAF Valley. Mandy's record in dry open grassland, close to the last two mentioned sites but in a new neighbouring monad, augments this cluster of recent records around Llyn Traffwll.

Filago germanica is a member of the Southern Temperate element of the European flora extending to Iran and North Africa and as far north as Caithness in Scotland and Jutland in Denmark. It has become widely naturalised in North America. In Britain it is concentrated in the east, south and south-east. In Wales it is largely confined to coastal districts but there has been a sharp decline recently. The main threats are due to agricultural operations, especially the application of fertilisers and herbicides associated with more intensive, year-round cultivation.

Late in the season, Tim Blackstock found Wild Madder (*Rubia peregrina*) thriving in a hedge bank just south of Penmon Priory, seemingly a single vigorous plant which had striven to great heights through a hawthorn bush, but bore no fruit - Tim wonders whether the hermaphrodite, insect pollinated flowers are self-incompatible? If they are, that may well limit the spread of this scarce plant whose population on Anglesey may be fewer than 100 plants. The specific epithet, which means wanderer in Latin, may well only apply to the rampant vegetative growth this species, and Tim's specimen, can achieve. Wild Madder has a Mediterranean-Atlantic distribution in Europe and is approaching its northerly limit in North Wales. On Anglesey it is recorded in 7 monads, two which are pre-2000 only. They are all coastal localities and all but one are in the south-eastern sector of the island.

As the autumn progressed it became obvious that many species were carrying on flowering and/or having a second flush of flowering into November including the following taxa: Bulbous Buttercup (*Ranunculus bulbosus*), Ox-eye Daisy (*Leucanthemum vulgare*), Hemp Agrimony (*Eupatorium cannabinum*), Hedge Bedstraw (*Galium album*), Nipplewort (*Lapsana communis*), Hogweed (*Heracleum sphondylium*), Cow Parsley (*Anthriscus sylvestris*), Wild Carrot (*Daucus carota*), Wild Thyme (*Thymus serpyllum*), Common Milkwort (*Polygala serpyllum*), Common Whitlowgrass (*Erophila verna* ssp *verna*), Cornsalad (*Valerianella carinata*), Lesser Stitchwort (*Stellaria graminea*), Hairy Tare (*Ervilia hirsuta*), Wild Clematis (*Clematis vitalba*), Musk Mallow (*Malva moschata*), Flag Iris (*Iris pseudacolor*), Three-cornered Leek (*Allium triquetrum*), and even Marsh Marigold (*Caltha palustris*) and Alexanders (*Smyrniolus atrum*). Flora Group member, Robbie Blackhall-Miles suggests that the hot dry spring followed by a cool wet summer has perhaps fooled some species into thinking that it is now spring once again. Robbie has noted a significant number of garden plants second flowering this autumn including fruit trees producing fresh flower buds on next year's spur shoots while laden with this year's fruit.

Robbie's combined interest and expertise in both native and horticultural flora puts him in an excellent position to undertake two needy and worthwhile ex-situ conservation initiatives on the island. Under license he has taken propagation

material of Wild Leek (*Allium ampeloprasum* var. *ampeloprasum*) from its only known site on Anglesey near South Stack where it is vulnerable to roadside verge events as well as the worrying possibility of being consumed by a proposed major civil engineering project. If successful, then new leek plants will be relocated to safer and more suitable sites nearby. The other species which is receiving his attention is Dwarf Rush (*Juncus capitatus*), again with only one extant site, where it may be in decline due to lack of disturbance. Robbie has had permission to take several soil samples in the hope that they contain a seed bank of *J. capitatus* which can be germinated ex-situ and returned to the original site once remedial management work has been undertaken to re-instate suitable open, damp, peaty areas.

It is interesting to note that *Erigeron floribundus* (Bilbao Fleabane) was in full flower in November at a new monad south of Llangefni (where it had been found for the first time in 2019). And Ivor and Jane Rees report Sea Radish (*Raphanus raphanistrum* subsp. *maritimum*) in flower in mid-November and explain that this species is often a biennial and in some cases a few flower in their first autumn.

As the year draws to a close, Natural Resources Wales has undertaken control of a large colony of Sea Buckthorn (*Hippophae rhamnoides*) on mobile dunes north of Rhosneigr. Elsewhere in the wider landscape, especially in the south and east of the island we are having to adjust to the loss of Ash (*Fraxinus excelsior*) as Ash Die-back tightens its grip, no doubt encouraged by the dryness of spring.

Despite Covid restrictions it is pleasing to report that, to date, 7 new vice county records have been added to Anglesey's list this year and 47 new hectad records (of which 9 are probably native). It is also pleasing to report that one of the Flora Group members, Jen Towill was appointed Local Wildlife Officer for Ynys Môn in August and has been promoting botanical causes on the island at County Council Level. Some members turned their attention to other worthy pursuits when field botany became difficult including Ivor Rees who undertook a re-evaluation of the taxonomy and ecology of the island's Sea-Lavenders (*Limonium* species), Hugh Knott who made some exquisite plant portraits to add to his already excellent and comprehensive gallery of Anglesey plants (cambriaflora.net) (see image 8 on inside back cover) and Debbie Evans who co-authored a book on Downy Mildews and Blister-rusts of Wales. Ian Bonner, so frustrated at not having been able to visit Anglesey as planned, instead turned his attention to writing species accounts for a revised Flora of Anglesey as well as keeping right up to date with data inputting.

Lockdown Botany in Brecknock

John Crellin

We managed three outings before the lockdown – a successful New Year Plant Hunt (the highlight of which was dead *Agrimonia procera* (Fragrant Agrimony) at Hirwaun SN9505); a trip up the Nedd Fechan (SN9010) to see *Hymenophyllum* species (Filmy Ferns) (passing *Asplenium trichomanes* ssp. *trichomanes* (Delicate Maidenhair Spleenwort) on the way) and a walk around Llanelly (SO2314) just as things were obviously closing down due to Covid-19.

The pandemic inevitably prevented us from carrying on as planned. Of course, this is of small importance in the scale of the suffering that Covid-19 has caused to many but what does a lockdown botanist do with their time?

I did have plenty of the admin work that goes with being a recorder to get on with and a small garden to take much better care of than normal. However, there is always that itch to be out and see what is developing botanically in the countryside. Members of my loyal botany group were similarly restricted, but we are all lucky enough to be living in places where the permitted local exercise still offered opportunities to "see what is going on".

The scramble to record as widely and comprehensively as possible for the Atlas project that finished on 31st December did also lead to an "identify, tick the list and move on" botanical culture that we were looking forward to leaving behind this year. We would have taken things more slowly in any case, and now we really had to. An interesting young plant spotted on the walk could always be re-evaluated on a future occasion when there is better evidence to be sure exactly what it is. We could also observe and learn from almost daily observations of exactly how particular plants develop.

It was an incredible spring with rain and heat alternating in just the way many plants seem to like and an abundance of choice species was reported by many of the group: we cover the county reasonably well - from Crickhowell and Hay via Brecon and Talybont down to Coelbren.

One plant that almost immediately started to be reported from many new places was *Adoxa moschatellina* (Moschatel). The display near Hay where I live (SO2241) covering several square metres was not a new site but a big contrast with the few small plants I had seen in previous years. Other plants, such as *Saxifraga tridactylites* (Rue-leaved Saxifrage), took advantage of quieter pavements – it even seemed more abundant than usual on walls.

Working over the internet (with a lot of discussion of pictures and descriptions), members of the botany group rapidly learned more about the things I had been hastily telling them when out ticking lists. We decided to start work on an Axiophyte list for Brecknock. This was published at the end of April. We have some on our list that “break the rule” that Rare Plant Register plants are not suitable as axiophytes – mainly because these examples (e.g. *Vicia orobus* (Wood Bitter-vetch)) are not actually rare in our county but listed as threatened countrywide. But also, we included some where my hunch was that they should not be on the Register. I resisted a (tongue in cheek?) suggestion of *Molinia caerulea* (Purple Moor-grass)!

Working close to home with regular patrolling of the same routes soon paid dividends. I did not know *Viola reichenbachiana* (Early Dog-violet) grew only 100m from my home until this year.

Another species that got more attention was *Ranunculus auricomus* group (Goldilocks Buttercup). It is easy to believe that this could be the century’s *Hieracium* (Hawkweed) if someone wants to take it on. The variation even within my two local populations is huge, I even pressed some from the more abundant population. Maybe it will get named in the future?

In late April I received reports of an abundance of *Orchis mascula* (Early-purple Orchid) just above Brecon (SO0528) which was well within walking distance of several people’s homes, and reachable as part of the daily exercise allowed under strict lockdown at this time. I must say I had never myself encountered this plant growing like this, it is one I remember from childhood scattered in the local Bluebell wood.

In May, Joan Millard noticed *Plantago coronopus* (Buck’s-horn Plantain) in the main Brecon car park (SO0428). This species had been new to the county up on the Epynt early in 2015.

One of my group (Nina Krauzewicz) started to get into her local dandelions (despite my warnings about their difficulty) and was lucky enough to have a *Taraxacum euryphyllum* (Wide-stalked Dandelion) (or maybe *T. maculatum* (Yellowish-green Dandelion) – we couldn’t get it certain despite many attempts!) on her driveway. Mostly, however other members of the group started by classifying them into their broader taxonomic groups.

An *Allium triquetrum* (Three-cornered Garlic) candidate at Joan Millard’s local churchyard at Llandefalle (SO1035), on more careful examination and discussion online, turned out to be *A. trifoliatum* (Hirsute Garlic) proving, I hope, that we were

not cutting any corners by working remotely. Paul Green was able to confirm *A. trifoliatum* remotely as referee, a new Wales record, I think.

A walk along the Wye (SO2242) looking for early signs of the *Persicaria mitis* (Tasteless Water-pepper) that was found last year, revealed a small population of *Scirpus sylvaticus* (Wood Club-rush) right by the water. It was last seen in about the same area in 1979 and is not at all commonly recorded in our county. I managed to get images for a reasonable “focus stacked” picture while my feet got steadily wetter.

It was towards the end of June that one or two of us started meeting to explore slightly more remote areas (from our homes) and an exploration of Waun Ddu raised bog (at Craig y Cilau SO1816) resulted in several good records including *Carex montana* (Soft-leaved Sedge) and *Eleocharis quinqueflora* (Few-flowered Spike-rush). A week later, Anne Griffiths finally found *Hornungia petraea* (Hutchinsia) on the cliffs above (a personal quest) - in dead form but still unmistakable. It made a good picture for Twitter, with comments along the lines of “When is the Dead Plants handbook coming out?”

I had noticed records for *Gymnadenia conopsea* (Fragrant Orchid), *Platanthera chlorantha* (Greater Butterfly-orchid) and *Epipactis palustris* (Marsh Helleborine) in 2015 near Libanus (SN9724) from an unknown recorder. They had been confirmed by Fred Rumsey on the DDb, so there was no reason to doubt them and so getting a request to visit from the landowner was welcome. I went as soon as I could to find a delightful wet meadow that the owners had left on minimal grazing since acquiring the property. Not only were there the previously mentioned orchids that had been recorded in a Kew scheme “Orchid Observers” that asked for photographic submission, but there was *Eriophorum latifolium* (Broad-leaved Cotton-grass) as well, and a host of other axiophytes. Even better, I was told that a neighbouring farm had a small amount of *Genista tinctoria* (Dyer’s Greenweed) which had not been recorded in a long time in the area. Again, a visit was most rewarding and benign neglect was the regime. This time the owner, who walked me through his fields to the wet site, apologised for the *Rhinanthus minor* (Yellow-rattle) not being native. It turned out he had spread hay from a nearby farm he had worked on several years back thus introducing it in what I would say is an entirely natural way. This farm also had *Epipactis palustris* and *Eriophorum latifolium* as well as abundant *Cirsium dissectum* (Meadow Thistle). I was also able to find roadside *Epipactis palustris* between Brecon and Hay on the way home, this site had had a few fallow years but was back!

I was delighted that Tim Rich re-found our *Orthilia secunda* (Serrated Wintergreen) population complete with fruiting stems up on the top cliffs of Craig Cerrig-gleisiad

(SN9621). I had been shown it by intrepid wardens in 2013, and Mike Porter had climbed down to it in the 1970s more than once, with Ray Woods providing the confirmation for the 1980s. Not many of us have seen it close-up since Beverly A. Miles first recorded it in 1955.

Anne Griffiths likes to explore limestone near where she lives in Monmouthshire. She found *Erigeron acris* (Blue Fleabane), initially in v.c.35 where there are many sites, but later also on the Breconshire side near Gilwern (SO2413). It had not been recorded in either vice county for some time.

Undoubtedly the most exciting record of the year was *Pyrola minor* (Common Wintergreen). It had been recorded in 1911 from the border of v.c.41 and 42, but it is not possible to confirm this record's vice county. However in 2020, Arlene Jones found it very definitely in Breconshire at Abercraf (SN8212) in quite large numbers and area of distribution. The site is subject to development, but we were able to confirm a large and extensive population. The plants are mostly in *Larix* (Larch) woodland replanted on opencast spoil which seems to suit them very well. Some plants are in more naturally regenerated areas and there is a plan to relocate some of the population if the development scheme goes ahead. For Arlene, this was a totally new species that she had to identify on her own, with many exchanges of pictures and discussions of style and stigma morphology over the internet.

A bryological exploration by Claire Halpin and Sharon Pilkington resulted in new vascular plant records; namely *Sagina nodosa* (Knotted Pearlwort) and *Lycopodium clavatum* (Stag's-horn Clubmoss) in Cwm Callan (SO0715). The pearlwort was only the third county record since 2000.

Finally, Tim Rich has been updating records of our endemic and rare *Hieracium* species with some in decline and others doing well. See his videos on YouTube (<http://bit.ly/hawktim>). While doing this, he reported a single plant high up on Tarren yr Esgob (SO2431) of *Rosa spinosissima* (Burnet Rose). Tarren yr Esgob straddles our border with v.c.35 but this was in our patch and a first record for a very long time for the county and, I think, the hectad.

Sharing Nature Together, and Apart: Botanical surveys during Lockdown

Chloe Griffiths, The Nature of our Village Project, Penparcau, Aberystwyth

The date of writing this piece, the 3 November 2020, marks 5 years of biological recording in our community, running sessions which encompass all botanical interests, as well as invertebrates and mammals. I often think our motto should be “We count everything, because everything counts!” However, back on the 17 March 2020 we took the unprecedented step of cancelling all public sessions of the Nature of our Village project until further notice. Here in Wales, we remain unable to run public surveys, because field sessions rely on a group gathering closely together to observe finds, and we have found that this is not possible whilst keeping the regulation 2m away from each other. It’s simply too tempting to huddle up over an exciting species! As the Project Officer, I am lucky to live in the survey area, and so was able to continue to run all the surveys which would ordinarily have been run with the public, on my own, without driving or social contact. I continued to share all the photos from the surveys online and this remains a popular way of sharing our work with our members. We are very pleased at the big increase of people who are sharing their own village wildlife sightings on our Facebook page, as this often starts conversations and brings the group together virtually.

I was allowed access to a traditionally managed hay meadow on Pen Dinas (SN 58149 80351), just before it was cut in June, and managed to find 63 different species of wild flowers. This included 3 species which were found for the first time: *Petasites pyrenaicus* (Winter Heliotrope), *Polygonum aviculare* (Knotgrass) and *Rumex acetosella* (Sheep’s Sorrel). The *P. pyrenaicus* acts in an invasive manner in this location, having spread in from a footpath. Elsewhere on the nearby cycle path it is also establishing a monoculture along parts of the northern side of this route.

In July we re-visited a wooded location near some allotments (SN 58946 80832) to check on its orchids and were delighted to find 9 plants of the *Epipactis helleborine* (Broad-leaved helleborine) see image 9 on back cover. When we reported on this find to our County Plant Recorder, he wrote: “*Epipactis helleborine* is always terribly exciting to find even if it is not one of the rarest orchids.” (Steve Chambers, *pers. comm.*).

One August survey that was exciting for all the wrong reasons was to check on the progress of a small local woodland known as Llwyn yr Eos woods (SN 59471 79922), where the search for species of interest was interrupted by a drug deal! I did wonder why all these people were arriving, in heavy rain, in the middle of a wood! In spite of this oddity, 55 species were re-found from last year’s survey and 12 species recorded here for the first time. These included *Athyrium filix-femina* (Lady Fern), *Epilobium lanceolatum* (Spear-leaved Willowherb) and *Capsella bursa-pastoris* (Shepherd’s Purse). We thank the local branch of the Co-op for their contribution of the funds to buy the guide to Britain’s Ferns by James

Merryweather, which has made fern identification an easier task. This site continues to scrub over, and light levels are dropping, brambles have now colonised the hedge bank and perhaps this is why there was only 1 small *Epipactis helleborine* found during this survey (where 5 had been found in 2019).

A botanical survey of the roadside verge near Parc y Llyn (SN 59485 80408) which is managed by the Wildlife Trust with Ceredigion County Council proved very productive. This small area is treated as a hay meadow, with just one late cut and the removal of the arisings. This style of management has been very successful for wildlife, and both the number of insect and of plant species has been increasing steadily. We were pleased to record *Leucanthemum vulgare* (Ox-eye Daisy) there for the first time in 2020 out of a total of 77 plants species. As a very public location, by the side of a busy road, it was also useful for outreach, answering questions from the public about the flowers at a safe distance. *Epilobium ciliatum* (American Willowherb) also appeared for the first time this year, a plant referred to by the Biological Records Centre as “one of our most frequent aliens”. Interestingly, the site once held *Orchis mascula* (Early Purple Orchids) that had been translocated by the Ceredigion County Council from a verge to the south of the county, which had been due to be lost to road widening. They were moved in 2016, noted as still present in 2017, but have not been seen since. In this highly public site it is entirely possible that they were dug up by human hand, or even by canine paw! Reading the entry on this species in Arthur Chater’s Flora of Cardiganshire shows that this orchid is far more abundant in the south of the county, so perhaps the soil and conditions proved unsuitable.

Those readers who know the superb scenery to the south of Aberystwyth may already be aware of the winding “Nanny Goat’s Walk”, (SN 58036 80028) which follows the south side of the river Ystwyth and has surprisingly rich botanical interest, considering how frequently dog-walked it is. This year, 73 species were noted, with 22 recorded for the first time in 2020. Some of these records will be new because I simply did not know these species in previous years, having made my start in botany only a decade ago and needing to learn new species every year! *Stachys palustris* (Marsh Woundwort), *Hypericum maculatum* (Imperforate St. John’s-wort) and *Artemisia vulgaris* (Mugwort), as well as the tiny and beautiful *Vicia hirsuta* (Hairy Tare), were a pleasure to find.

Funding to continue our project remains uncertain, but we hope that we will be able to continue in 2021. If you would like to take part in future botanical surveys with our group, please get in touch via chloe.griffiths.ecology@gmail.com.

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

Nine years' intensive recording on a SSSI:

What are the benefits?

David Barden

Since we moved to Wales from East Anglia in April 2011, we've lived in Llantrisant, literally two minutes' walk from Llantrisant Common and Pastures SSSI. This is about 120 hectares of undulating rhôs pasture, which lies immediately north of the old town (see image 5 on page 3).

What makes Llantrisant Common special is its long history of grazing by cattle and horses, and its diversity of habitats – including marshes and flushes, acid/neutral grassland, wet heath, streams, scrub and woodland.

This habitat diversity results in a wide range of species being present, and in the nine years since we moved there, I've gradually increased my knowledge about what's present. At first, I simply noted down the more interesting finds, but in about 2017 I started to record the species more comprehensively, and also record populations and locations in more detail, mostly at 10 m resolution or better.

The result of this effort has been that I've made nearly 11,800 records, during a total of about 300 hours, spread over 378 days. I've mostly recorded in notebooks, with 69% of records at 10 m resolution or greater. I've also sampled over 40 quadrats.

But what are the benefits of this detailed approach? I think there are four main advantages, described below.

1. Increasing the number of taxa recorded

In total, I've recorded over 408 taxa, from vice-county rarities to little-recorded hybrids and naturalised garden escapes. As shown in Figure 1, the number of taxa continued to increase during the years I studied the site, only plateauing in 2019 when I think I started to reach 'saturation point' – admittedly without having tackled *Taraxacum* (Dandelions) or *Rubus* (Brambles)! Each bar is subdivided according to the main reason why I didn't find the taxon earlier, and these reasons are discussed further below.

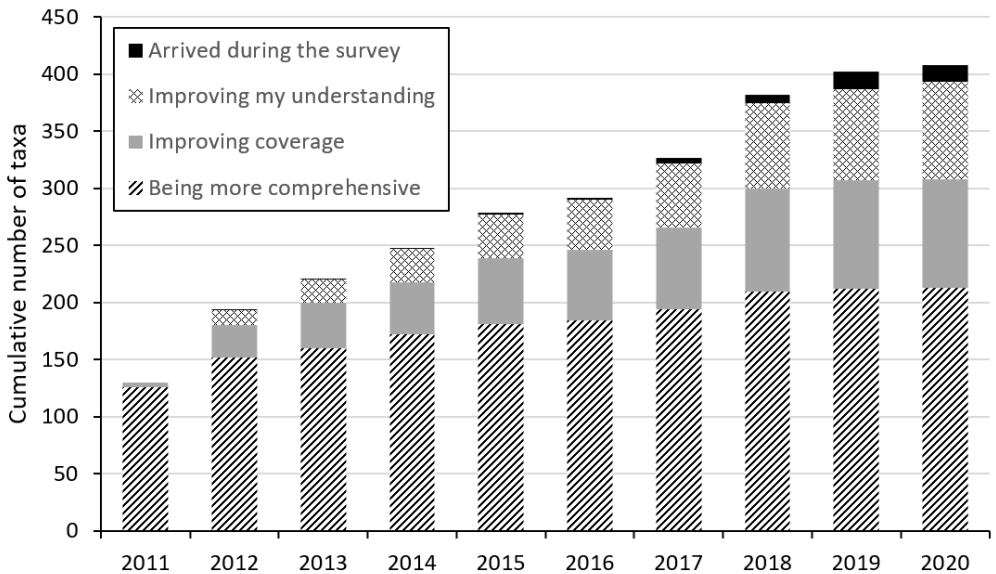


Figure 1: Cumulative number of taxa (excluding infraspecific taxa) found on Llantrisant Common and Pastures SSSI from 2011–2020.

A modest increase over the nine years was simply because I was making an effort to **be more comprehensive** – ie not ignoring certain ubiquitous species such as *Bellis perennis* (Daisy), *Hedera hibernica* (Irish Ivy), *Trifolium dubium* (Lesser Trefoil) or *Cynosurus cristatus* (Crested Dog’s-tail), which were all first seen from 2015 onwards. By having my eyes on the ground a lot of the time, I was also susceptible to a failure to spot trees; as a result, a large roadside stand of *Ulmus* (an as-yet undermined Elm) and fine specimen of *Castanea sativa* (Sweet Chestnut) both escaped my attention for longer than they should have done.

In the early years, I also added a lot of species by **improving my coverage of the site**. There were two sides to this: the first was essentially investigating every single corner, which helped to uncover some rare taxa. Populations of *Mycelis muralis* (Wall Lettuce), *Glechoma hederacea* (Ground Ivy) and *Deschampsia cespitosa* (Tufted Hair Grass) were fairly late additions to the list for this reason. The second aspect was visiting the site throughout the year, which helped uncover plants that are inconspicuous when not in flower or fruit, such as *Carex canescens* (White Sedge) and *Carex × fulva* (a hybrid sedge) in 2018 and 2019, respectively. A further example of this effect was the finding in 2017 of *Spirodela polyrhiza* (Greater Duckweed), in a pond that I must have walked past dozens if not hundreds of times.

I later noticed that it was only obvious in mid to late summer, after the fronds had become significantly larger than the accompanying *Lemna gibba* (Fat Duckweed), but before they wither and sink.

Especially from 2017 onwards, a major contributor to the taxon list was **improving my understanding of the plants**. Although I was reasonably competent at identification when I arrived in Llantrisant in 2011, my knowledge of many groups (eg sedges, grasses and ‘dandelion jobs’) was very limited at the time, and tackling hybrids was out of the question!

Through a mix of self-education, and learning from Glamorgan Botany Group excursions, the vice-county recorder, and BSBI referees, I was able to increase the number of taxa identified on the site, to give reasonable coverage of (amongst others) *Agrostis* (Bents), *Alchemilla* (Lady’s-mantles), *Betula* (Birches), *Carex* (Sedges), *Dryopteris* (Buckler Ferns), *Euphrasia* (Eyebrights), *Hieracium* (Hawkweeds), *Juncus* (Rushes), *Rumex* (Docks) and *Salix* (Willows). The publication of the *Hybrid Flora of the British Isles* was particularly helpful, either in making me aware that certain hybrids existed, or in providing the identification guidance often absent from regular floras.

As well as better recording of the above-mentioned genera, some highlights of this improved understanding were records of:

- *Betula × aurata* (a hybrid birch): Although good examples of the parents are easy enough to identify, I had found several trees that appeared intermediate. However, I struggled to get the Atkinson Discriminant Function to work very well. I later became aware that I needed to be more careful in my selection of the leaves to measure, and after that I had more success.
- *Crataegus × subsphaerica* (a hybrid hawthorn): This little-recorded hybrid between *Crataegus monogyna* (Hawthorn) and *C. rhipidophylla* (Large-sepalled Hawthorn) is suspected to have been widely planted as ‘Hawthorn’ in the past, but is very likely to be overlooked. The specimen I found looks very much like *C. monogyna*, but with leaves that are usually larger and toothed on the lower margin.
- *Epilobium* (Willowherb) hybrids: Llantrisant Common was particularly productive for this group, partly due to disturbance of habitats caused by mowing or scrub clearance, and the consequent presence of parent species near to each other. A notable case was the triple-hybrid willowherb *Epilobium obscurum × E. palustre × E. parviflorum*, which was described by the BSBI referee as a “good candidate”, and appears to be the only extant site in Britain.

- *Hieracium adelphicum* (Glamorganshire Hawkweed): A small colony in roadside scrub was originally noted in 2018, but it took two collections in subsequent years before I collected material that was good enough to identify with certainty. This is currently only the fifth extant British record.
- *Nasturtium* × *sterile* (a hybrid watercress): For several years I was aware of a large colony of a *Nasturtium* in a roadside ditch, but was frustrated that there never seemed to be good fruits to aid determination. Only in 2018 did I become aware of the hybrid and its distinctive empty pods, and I then realised what I was looking at!

Finally, a few species **arrived during the course of the survey**, a factor that is perhaps a little more important for this site than for many grazed pastures, because it backs directly onto Llantrisant town, and is crossed by two well-used roads. This resulted in the finding of (probably) ephemeral annuals of bare areas, garden throw-outs and bird-sown colonists, and even a short-lived seedling of *Solanum lycopersicum* (Tomato) originating from a kitchen window!

2. Finding new populations

Throughout the survey, I was surprised by how often I came across a new population of a plant already on the species list.

Occasionally this was down to management interventions, with one of the most striking examples being the finding in 2020 of a 50-strong population of flowering *Neottia ovata* (Twayblade) in an area where scrub had been cut back the previous year. Previously I had just found small numbers of rosettes in a handful of places, so this was quite exciting.

On other occasions, plants seem to have undergone a genuine increase, such as the *Trifolium micranthum* (Slender Trefoil) that popped up in several places in 2018 and 2019 where the turf had been affected by drought.

Of course, some plants are just elusive, and one that kept on surprising me was *Veronica scutellata* (Marsh Speedwell). Initially, I thought this was rare on the site, but over time I came to see that it was in fact locally plentiful, with the discovery of one particularly large population as late as 2020.

3. Understanding infraspecific variation

Systematically going through books such as Stace's *New Flora of Britain and Ireland* and major works such as Chater's *Flora of Cardiganshire* made me more aware of some subspecies and other infraspecific taxa. Some of these were unsurprising but

good to confirm – such as the *Cerastium fontanum* (Common Mouse-ear) being subsp. *vulgare*.

But others were more complicated, and *Pedicularis sylvatica* (Lousewort) was a case in point. Although the plants keyed out as subsp. *sylvatica*, they were not typical, because they *always* had hairs on the ‘throat’ of the calyx, and often on its external ‘angles’ too. In contrast, the *New Flora* stated that this subspecies is “sometimes” hairy on these parts.

Potentilla erecta (Tormentil) was also problematic, and it seemed to me that the relatively robust plants in many parts of the site approached the upland taxon subsp. *strictissima* rather than the typical subsp. *erecta*. On seeing my specimens, the BSBI referee said that the situation was not straightforward, and that a simple division between two subspecies did not really cater for the variation in these and similar specimens from elsewhere in Britain.

Another aspect of variation is flower colour, which I’ve long had an interest in. It was fun to investigate the relative frequency of colour forms of (amongst others) *Polygala serpyllifolia* (Heath Speedwell) and *Succisa pratensis* (Devil’s-bit Scabious), and also to keep an eye out for oddities such as white-flowered *Betonica officinalis* (Betony) and *Calluna vulgaris* (Heather). Aberrations such as a remarkable ray-flowered *Succisa pratensis* were also exciting finds (see front cover image).

4. Obtaining insights into distributions

Consistently recording all species using GPS allowed me to plot distribution maps at a resolution that allowed some interesting insights to be obtained.

At a coarser (100m) resolution, it was nice to see how *Corylus avellana* (Hazel) hugs the ancient boundary of the site, but does not stray into the marshy ground in the centre (Figure 2A). Conversely, *Equisetum fluviatile* (Water Horsetail) is only found on well-flushed slopes and waterlogged ditches in the middle of the site (Figure 2B).

But other species pose a question: why, for example, are the distributions of *Ranunculus omiophyllus* (Moorland Crowfoot) (Figure 2C) and *R. hederaceus* (Ivy-leaved Crowfoot) (Figure 2D) so nearly mutually exclusive, given their preference for similar areas of muddy, trampled ground?

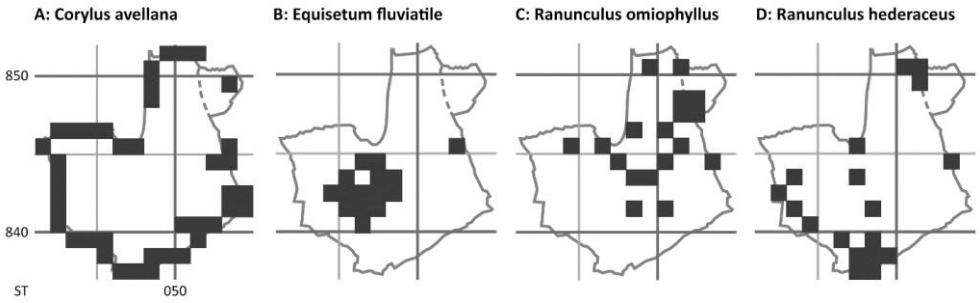


Figure 2: Distributions of four species at 100 m resolution

Looking at a finer (10 m) resolution produces distributions that show more subtle detail. A map of *Betonica officinalis* (Betony) (Figure 3A) ties in with its preference for sloping, well-drained turf. Such detailed mapping may also be useful for monitoring SSSI features, such as the regionally significant population of *Sibthorpia europaea* (Cornish Moneywort) (Figure 3B).

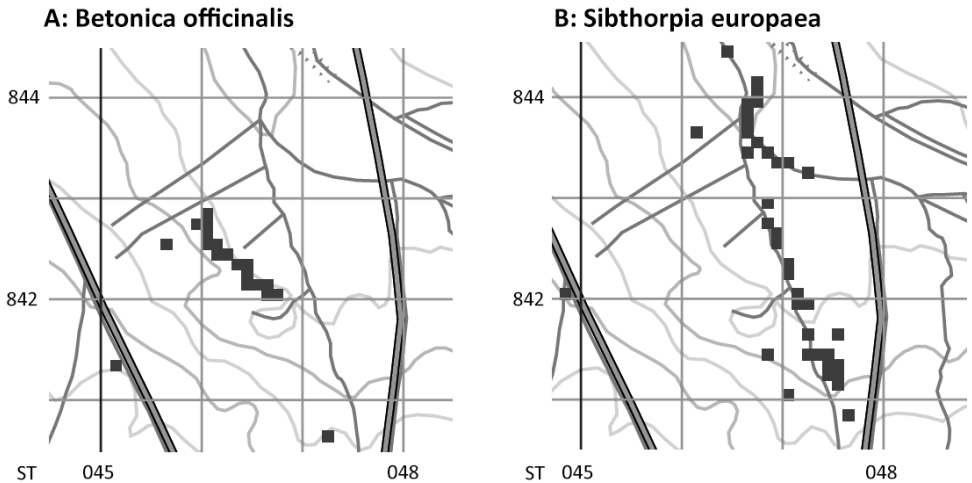


Figure 3: Distributions of two species at 10 m resolution.

Conclusions

Recording a single site with this high level of detail has been highly time-consuming, and only really feasible because I've lived so close to it for several years. But as I

hope I've demonstrated above, it's also been very rewarding, not just in terms of the species I've found and the insights I've gained into distributions, but in terms of what I've learnt about identifying plants (a slow process, to be sure!).

The records I've made are of course in the BSBI database. But in order to distil all my findings into a more digestible format and make them accessible to regional naturalists in the region, as well as local residents, I have also written a book, *The Wild Plants of Llantrisant Common and Y Gweira*. I've tried to make this rigorous in terms of its coverage of the plants, but also informative and colourful, with identification tips and lots of photographs.

The book has recently been published, and you can read more about it (and see sample pages) on:

- The BSBI AEM exhibit page (<https://aem.bsbi.org/exhibits/>)
- Facebook (@llantrisantplants).

Alternatively, please contact me direct at dbarden77@yahoo.co.uk for more information, or indeed to order a copy!

Welsh Plant Records 2019

Part 2: August to December

The Welsh Plant Records for 2019 have been published in two parts – please see Issue 106 for records from January to July 2019.

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; Å to indicate an updated VCCC record; Â to indicate a record demonstrating the rediscovery of a taxon published as extinct in the VCCC
+ to indicate a new hectad record; Å to indicate an updated hectad record; y 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:

MONMOUTH, v.c.35; Dr Stephanie J. Tyler, Yew Tree Cottage, Lone Lane, Penallt, Mons, NP25 4AJ; steph_tyler2001@hotmail.com & Mrs Elsa. Wood (*all correspondence to Dr Tyler*).

GLAMORGAN, v.c.41 (West); Mr Barry Stewart, 36 Pencaecrwn Road, Gorseinion, Swansea, SA4 4FU; moonmoths@virginmedia.com

GLAMORGAN, v.c.41 (East); Mr Julian P. Woodman, c/o NRW, Rivers House, St Mellons Business Park, Fortran Road, St Mellons, Cardiff, CF3 0EY (Please mark PERSONAL); juwood66@gmail.com

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).

RADNOR, v.c.43; Miss Elizabeth R. Dean, Enmore House, Croft Lane, Kingsland, Leominster, Herefordshire, HR6 9PP; erd@btconnect.com & Mrs Sue M. Spencer (*all correspondence to Miss Dean*).

CARMARTHEN, v.c.44; Mr Richard D. Pryce & Mrs Kath A. Pryce, Trevethin, School Road, Pwll, Llanelli, Carmarthenshire SA15 4AL; pryceeco@aol.com

PEMBROKE, v.c.45; Mr Stephen B. Evans, Glan-y-Mor, Dinas Cross, Newport, Pembrokeshire SA42 0UQ; glanymor.dinas@gmail.com

CARDIGAN, v.c.46; Mr Steve Chambers, 7 Cefn Melindwr, Capel Bangor, Aberystwyth, Ceredigion SY23 3LS; sterilecrust@gmail.com

MONTGOMERY, v.c.47; Dr A Kate Thorne, Churton House, Church Pulverbatch, Shropshire, SY5 8BZ; k.thorne@btinternet.com and Mrs Gill Foulkes, Swyn yr Afon, Abercegir, Machynlleth, Powys, SY20 8NR; gillian.foulkes@yahoo.co.uk

MERIONETH, v.c.48; Mrs Sarah E. Stille, 48 Foregate, Fulwood, Preston, PR2 8LA; mossysal@btinternet.com.

CAERNARFON, v.c.49; Mrs Wendy N. McCarthy, 5 Tyn-y-coed, Great Orme, Llandudno, Conwy LL30 2QA. 01492 877451; wendorme@aol.com

DENBIGH, v.c.50; Mrs Delyth Williams, Bryn Siriol, Graigfechan, Ruthin, Denbighshire, LL15 2HA; delyth@siriolbryn.co.uk
FLINT, v.c.51; Ms Emily Meilleur, 1 Fron Goch, Llanberis, Gwynedd, LL55 4LE; emilytmei11@gmail.com & Ms Gail Quartly-Bishop; gailqb@hotmail.com
ANGLESEY, v.c.52; Mr Ian R. Bonner, 15 Littledean Hill Road, Cinderford, Gloucestershire, GL14 2BD; bonner@caetrefor.co.uk and Mr Nigel Brown, Granary Cottage, Llanddyfnan, Talwrn, Llangefni, Anglesey, LL77 8JA; nigelhbrown55@yahoo.com
MONMOUTH, v.c.35 (comm. S.J. Tyler & E. Wood)

- +c1-1-glo **Chara globularis** (Fragile Stonewort). Cruglwyn, ST17 04, E.Wood, A.Wood & S.Tyler, 7th August 2019, along open drainage ditch below coal tip.
- +017/1.1x2. **Polystichum x bicknellii**. Cwmbran North, ST29 97, E. & A.Wood, 7th September 2019.
- *†017/2.1. **Cyrtomium falcatum** (House Holly-fern) (Gwrychredynen-y-Celyn y Tŷ). Cwmbran, ST29 97, E. & A.Wood, 7th September 2019, woodland alongside cycle track.
- *†024B/SAU.cer. **Saururus cernuus** ([Lizard's-tail]). Tredunnoch, ST374 937, E.Wood & S.Tyler, 1st August 2019, naturalised in a pond in a field
- +027/1.2. **Ceratophyllum submersum** (Soft Hornwort) (Cyrrnddail Meddal). the Bloreng punchbowl, SO282 116, E.Wood & S.Tyler, 19th September 2019, lake.
- +028/13.12 **Ranunculus lingua** (Greater Spearwort) (Llafnlys Mawr). Penycoed, ST178 980, E.Wood, A.Wood & S.Tyler, 7th August 2019, pond in field under road bridge appears to be natural but certainly well established.
- +†036/1.2. **Urtica urens** (Small Nettle) (Danhadlen Fach). Llandewi Rhydderch, SO35 13, S.Tyler & E.Wood, 29th August 2019, muck heap in field.
- ‡+†043/1.05. **Chenopodium glaucum** (Oak-leaved Goosefoot) (Troed-yr-wydd Dail Derw). Great Lligwy, SO32 21, S.Tyler, 6th August 2019, on a muck heap.
- *†047/4.6. **Polygonum rurivagum** (Cornfield Knotgrass) (Canclwm y Tir Âr). Clytha, SO37 09, M.Ogden, det. A. Jones, 17th Aug 2019, edge of former maize field.
- +051/1.06x07. **Hypericum x desetangsii** (Des Etangs' St John's-wort) (Eurinllys Des Etangs). Penycoed, ST16 99, E.Wood, D.Green & K.Newbert, 14th September 2019.
- +†053/4.1.© **Alcea rosea** (Hollyhock) (Hocysen Fendigaid). Llandevenny, ST41 86, M.Ogden, 24th September 2019, a4810 south west of magor.
- +†062/33.2. **Diplotaxis muralis** (Annual Wall-rocket) (Roced-y-muriau'r Tywod). Abergavenny, SO28 13, S.Tyler & E.Wood, 12th September 2019, on shoal in the river.
- +†069/6.2.a.lil **Anagallis arvensis subsp. arvensis f. lilacina** (Scarlet Pimpernel lilac form)(Llyisiau'r cryman). The Bryn, SO33 08, E. & A.Wood, 25th August 2019, in arable field; (+) Raglan, SO48 88, E. & A.Wood, 28th September 2019, edge of arable field.
- *†071/1.1. **Philadelphus coronarius** (Mock-orange) (Ffug-oren). Cwmbran North, ST29 96, E. & A.Wood, 7th September 2019, naturalised on woodland edge.
- +†075/22.03. **Prunus cerasifera** (Cherry Plum) (Coeden Goeg-geirios). Coed-y-prior, SO29 11, S.Tyler & E.Wood, 19th September 2019, near canal bridge.

- +084/1.02×06 **Epilobium ×dadicum**. Grosmont, SO39 20, E.Wood & S.Tyler, 5th September 2019.
- +084/1.02×08 **Epilobium ×floridulum**. Aberbargoed NNR, ST16 99, E.Wood, D.Green & K.Newbert, 14th September 2019, on adjacent coal tip; (+) Caerwent quarry, ST47 89, E.Wood & S.Tyler, 16th September 2019, quarry floor; (+) Blaenau, SO21 06, E.Wood & S.Tyler, 22nd August 2019.
- +084/1.03×06. **Epilobium ×aggregatum** (a hybrid willowherb). Tredunnoch, ST36 94, E. & A.Wood, 1st September 2019; (+) The Bryn, SO33 08, E. & A.Wood, 25th August 2019.
- +084/1.03×08. **Epilobium ×interjectum**. Graigwith, ST34 96, E.Wood & S.Tyler, 28th August 2019; (+) The Bryn, SO33 09, E. & A.Wood, 25th August 2019.
- +‡093/2.1. **Parthenocissus quinquefolia** (Virginia-creeper) (Dringwr Fflamgoch). Coed-y-cerrig, SO28 21, S.Tyler & E.Wood, 14th August 2019.
- +‡103/1.13. **Geranium ibericum** (Caucasian Crane's-bill) (Pig-yr-aran y Cawcasws). Three Castles, SO38 17, S.Tyler & E.Wood, 3rd September 2019, naturalised in hedgerow.
- +‡103/1.23. **Geranium phaeum** (Dusky Crane's-bill) (Gweddw Alarus). Abergavenny, SO29 12, S.Tyler & E.Wood, 19th September 2019, along canal towpath well away from houses.
- +103/2.1.‡ **Erodium maritimum** (Sea Stork's-bill) (Pig-y-crëyr Arfor). Newport, ST33 85, T. Rich, 1st November 2019, industrial site. Corporation Rd; (+) TATA Steelworks site, ST39 86, E.Wood & S.Tyler, 11th September 2019, on spoil material.
- +‡107/32.1.© **Ammi majus** (Bullwort) (Esgoblys). Llancayo, SO36 03, E.Wood & S.Tyler, 28th October 2019, all along the edge of a lucerne crop.
- +113/2.1.‡ **Nymphoides peltata** (Fringed Water-lily) (Lili'r-dŵr Eddïog). Aberbargoed NNR, ST16 99, E.Wood, D.Green & K.Newbert, 14th September 2019, pond by visitors centre.
- *116/CER.maj. **Cerinth major** (Greater Honeywort). Abergavenny, SO30 13, E.Wood & S.Tyler, 10th October 2019, pavements in the town.
- +118/01.5×6. **Stachys ×ambigua** (Hybrid Woundwort) (Briwllys Croesryw). Graigwith, ST35 97, E.Wood & S.Tyler, 28th August 2019.
- +‡118/23.3×lon. **Mentha spicata × M. longifolia = M. ×villosanervata** (Sharp-toothed Mint) (Mintys Danheddog). Penycoed, ST16 99, E.Wood, D.Green & K.Newbert, 14th September 2019.
- +120/1.6.bru. **Callitriche brutia subsp. brutia** (Pedunculate Water-starwort) (Brigwlydd Coesog). Cwmbran, ST29 97, E. & A.Wood, 7th September 2019, canal.
- +124/20.05. **Euphrasia arctica** (Arctic Eyebright) (Effros yr Arctig). Penycoed, ST16 99, E.Wood, D.Green & K.Newbert, 14th September 2019.
- +135/43.bon. **Erigeron bonariensis**. Caerwent quarry, ST47 89, E.Wood & S.Tyler, 16th September 2019.
- +‡135/44.1. **Conyza canadensis** (Canadian Fleabane) (Amrhydlywd Canada). Watery lane, SO44 12, H.Colls, 5th August 2019.
- +‡135/44.2. **Conyza sumatrensis** (Guernsey Fleabane) (Amrhydlywd Guernsey). Bryngwyn, SO38 09, E.Wood & S.Tyler, 14th October 2019.
- *‡135/57.1. **Leucanthemella serotina** (Autumn Oxeye) (Llygad-llo'r Hydref). Watery lane, SO49 12, H.Colls, 21st October 2019, near the new pond by the R. Wye.

- *‡147/4.1. **Zantedeschia aethiopica** (Altar-lily) (Lili'r Pasg). Llandewi Rhydderch, SO31 43, M.Ogden, 29th August 2019, growing in a field.
- +148/2.1. **Lemna gibba** (Fat Duckweed) (Llinad Crythog). Llanvihangel Gobion, SO34 09, E. & A.Wood, 3rd August 2019, lagoons between the Usk Valley Walk and the river.
- +152/01.2. **Eriophorum latifolium** (Broad-leaved Cottongrass) (Plu'r Gweunydd Llydanddail). Penyrcoed, ST162 999, E.Wood, D.Green & K.Newbert, 14th September 2019, damp area on the coal tip next to Aberbargoed NNR.
- +‡153/17.3© **Briza maxima** (Greater Quaking-grass) (Crydwellt Mawr). Coed-y-cerrig, SO14 18, E.Wood & S.Tyler, 14th August 2019.
- +153/24.2×4. **Glyceria ×pedicellata (G. fluitans × G. notata)** (Hybrid Sweet-grass) (Melyswellt Croesryw). Aberbargoed NNR, ST16 99, E.Wood, D.Green & K.Newbert, 14th September 2019, pond by the centre.
- Ä153/42.1.‡ **Gastridium ventricosum** (Nit-grass) (Neddwellt). TATA Steelworks site, ST39 86, E.Wood & S.Tyler, 11th September 2019, on spoil material.
- +153/59.4. **Hordeum secalinum** (Meadow Barley) (Haidd y Maes). The Bryn, SO32 09, E. & A.Wood, 25th August 2019, fields alongside the river.
- +‡153/68.1.© **Echinochloa crus-galli** (Cockspur) (Cibogwellt Rhydd). Abergavenny, SO30 13, E.Wood & S.Tyler, 10th October 2019, flower beds in the street.
- +154/1.1.c. **Sparganium erectum subsp. neglectum**. Tredunnock, ST36 93, E. & A.Wood, 1st September 2019, streamside.
- +154/1.2. **Sparganium emersum** (Unbranched Bur-reed) (Cleddlys Di-gainc). Cruglwyn, SO17 04, E.Wood & S.Tyler, 7th August 2019.

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

- +017/3.08×09. **Dryopteris ×deweveri (D. carthusiana × D. dilatata)**. Pencoed Common (west), SS94 82, Glamorgan Botany Group, 21st Sep 2019.
- +047/8.13×19. **Rumex crispus × R. obtusifolius = R. ×pratensis**. Pencoed (east), SS95 81, Glamorgan Botany Group, 21st Sep 2019.
- +051/1.06×07. **Hypericum ×desetangii (H. perforatum × H. maculatum)** (Des Etangs' St John's-wort) (Eurinllys Des Etangs). Wasteground, Ystrad, SS987 947, Julian Woodman & Paul Marshman, 13th Aug 2019.
- +061/2.10×12. **Salix caprea × S. aurita = S. ×capreola**. Pencoed Common (west), SS94 82, Glamorgan Botany Group, 21st Sep 2019.
- *077/26.1×2. **Ulex ×breoganii (U. europaeus × U. gallii)**. Pencoed Common (east), SS95 82, Glamorgan Botany Group, det. Tim Rich, 21st Sep 2019.
- +103/1.10. **Geranium columbinum** (Long-stalked Crane's-bill) (Pig-yr-aran Hirgoes). Wasteground, Ystrad, SS987 947, Julian Woodman & Paul Marshman, 13th Aug 2019.
- +©107/32.vis. **Ammi visnaga** (Toothpick-plant) (Esgoblys Praff). wasteground, Ystrad, SS987 947, Julian Woodman & Paul Marshman, 13th Aug 2019.
- +118/23.1×3. **Mentha arvensis × M. spicata = M. ×gracilis** (Bushy Mint) (Mintys Culddail). wasteground, Ystrad, SS987 947, Julian Woodman & Paul Marshman, 13th Aug 2019.

- +124/13.1×4. **Linaria xsepium (L. vulgaris × L. repens)**. Wasteground, Ystrad, SS987 947, Julian Woodman & Paul Marshman, 13th Aug 2019.
- +124/20.05×07. **Euphrasia arctica × E. nemorosa**. Pelena Forest, SS82 96, Charles Hipkin & Hilary Hipkin, 20th Aug 2019.
- +135/01.1.sl. **Arctium lappa**. (Wood Burdock) (Cyngaf y Coed). Wasteground, Ystrad, SS987 947, Julian Woodman & Paul Marshman, 13th Aug 2019.
- +135/55.3. **Anthemis cotula** (Stinking Chamomile) (Camri'r Cŵn). Wasteground, Ystrad, SS987 947, Julian Woodman & Paul Marshman, 13th Aug 2019.
- +138/1.1. **Hydrocharis morsus-ranae** (Frogbit) (Ffugalaw Bach). Nelson (town & environs), ST11 95, Alex Pollard, 1st Aug 2019.
- +153/18.09. **Poa compressa** (Flattened Meadow-grass) (Gweunwellt Cywasgedig). Felindre, SS648 996, Barry Stewart, 1st Oct 2019.
- +153/52.1. **Anisantha diandra** (Great Brome) (Pawrwellt Mawr). Llwydcoed Fields, SN983 051, Barry Stewart, 21st Sep 2019.

BRECON, v.c.42 (comm. M. Porter & J. Crellin)

- +031/5.07. **Fumaria officinalis** (Common Fumitory) (Mwg-y-ddaear Cyffredin). Dyffryn, SO25 20, John Crellin, 17th Sep 2019.
- Ä047/1.15. **Persicaria mitis** (Tasteless Water-pepper) (Y Dinboeth Ddi-flas). The Warren, Hay-on-Wye, SO222 423, John Crellin, 18th Aug 2019, first county record since 1927, **Herb.NMW**
- +051/1.06×07. **Hypericum xdesetangsii (H. perforatum × H. maculatum)** (Des Etangs' St John's-wort) (Eurinllys Des Etangs). Darren Fawr, SO02 09, John Crellin, 1st Aug 2019.
- +062/12.5. **Rorippa sylvestris** (Creeping Yellow-cress) (Berwr Melyn Ymlusgol). Llyn Brianne/River Tywi, SN804 537, Stephanie Coates, conf. John Crellin, 16th Aug 2019, on muddy bank.
- +073/5.16. **Sedum anglicum** (English Stonecrop) (Briweg y Cerrig). Castle Farm, SO09 24, John Crellin, 7th Aug 2019.
- +075/03.1×2. **Spiraea xrosalba (S. salicifolia × S. alba)** (Intermediate Bridewort) (Erwain Gwridog). Cambrian Close, SO05367 28065, John Crellin, 1st Aug 2019.
- +077/18.1. **Medicago lupulina** (Black Medick) (Maglys Du). Craig Cwplau, SN86 63, Barbara Brown, 21st Aug 2019.
- +077/19.13. **Trifolium micranthum** (Slender Trefoil) (Meillionen Hopysaidd Eiddil). Llyn Brianne/River Tywi, SN804 537, Stephanie Coates, conf. John Crellin, 16th Aug 2019, on road edge.
- +105/1.4. **Impatiens glandulifera** (Indian Balsam) (Jac y Neidiwr). Llanwyrtyd Wells East, SN88 46, John Crellin, 4th Sep 2019, Abernant Lake and Hotel Grounds.
- +110/1.1.© **Nicandra physalodes** (Apple-of-Peru) (Afal Periw). Cinema Bookshop Car Park, SO227 421, John Crellin, 8th Sep 2019, reported by Mark Atkinson.
- 110/9.1. **Datura stramonium** (Thorn-apple) (Afal Dreiniog). Cui Parc, SO10 22, Sue Large, det. John Crellin, 12th Sep 2019.

- *114/1.pau. **Polemonium pauciflorum**. Caer Beris Holiday Park, SO027 508, Andy Shaw, 12th Sep 2019, growing as a weed at Caer Beris Holiday Park, Llanynis, Brecknock. Found on the 29/07/2019. Lots of plants growing on bare ground underneath a cypress tree. No likely source found in the local area of the holiday park which is dominated by mowed grass.
- +118/10.4. **Scutellaria minor** (Lesser Skullcap) (Cycyllog Bach). Twyn y Neuadd, SO02 19, Anne Griffiths, 16th Aug 2019.
- +‡124/04.2×3. **Mimulus guttatus** × **M. luteus** = **M. xrobertsii** (Hybrid Monkeyflower) (Blodyn-mwnci Croesryw). Old Storehouse, SO08 25, John Crellin, 7th Aug 2019.
- +124/20.05. **Euphrasia arctica** (Arctic Eyebright) (Effros yr Arctig). Darren Fawr, SO02 09, John Crellin, 1st Aug 2019.
- +124/20.14. **Euphrasia ostenfeldii** (Ostenfeld's Eyebright) (Effros Ostenfeld). Quarry below Cadair Fawr, SN977 129, John Crellin, det. C.Metherell, 3rd Oct 2018.
- *‡159/08.8. **Crocus speciosus** (Bieberstein's Crocus) (Saffrwm Ysblennydd). Near Gwernyffedd, SO186 294, Wendy Tyler-Batt, conf. John Crellin, 26th Sep 2019.

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

- *030/1.nud. **Papaver nudicaule** (Iceland Poppy). Gaufron, SN99 68, B.Brown, 11th Oct 2019, west of village.
- *043/4.1.b.fla. **Beta vulgaris subsp. cicla var. flavescens**. (Swiss Chard). Rhayader, SN97 68, E.R.Dean, 17th Aug 2016, rhayader streets.
- *‡077/18.2.c. **Medicago sativa subsp. sativa** (Lucerne) (Maglys Rhuddlas). Llandrindod Wells, SO0589 6167, A.Shaw, 1st Sep 2019, large plant, road verge outside Boys & Bowden Ltd, Waterloo Rd.
- ‡+084/6.1×2. **Circaea xintermedia** (Upland Enchanter's-nightshade) (Llysiau-Steffan yr Ucheldir). River Aran Bridge, Coxhead, SO15 71, E.Dean, 8th Aug 2018, riverbank just down from bridge.
- ‡110/7.1.© **Solanum lycopersicum** (Tomato) (Tomato). Glasbury, so17 39, E.Dean & Hereford Botanical Society, 6th Sep 2019, River Wye gravels.
- *‡118/23.6. **Mentha requienii** (Corsican Mint) (Mintys Corsica). Howey, SO05 58, E.R.Dean, 18th Sep 2019, Howey Hawy, garden nursery on east side of A483.
- *‡118/24.1. **Rosmarinus officinalis** (Rosemary) (Rhosmari). Knighton, SO28 72, E.R.Dean, 3rd Aug 2019, Knighton town and churchyard.
- *‡123/JAS.nud. **Jasminum nudiflorum** (Winter Jasmine) (Jasmin y Gaeaf). Llanshay, SO29 71, E.R.Dean, 3rd Aug 2019, cemetery, roadside, construction site.
- ‡124/11.2.© **Cymbalaria pallida** (Italian Toadflax) (Trwyn-y-llo-dail-Eiddew yr Eidal). Rhayader, SN97 68, R.G.Woods, 2019, centre of Rhayader, walls and pavement cracks.
- *124/NEM.str. **Nemesia strumosa** (Cape-jewels). Rhayader, SN97 68, E.R.Dean, 17th Aug 2019, Rhayader streets.
- +‡129/7.2.© **Lobelia erinus** (Garden Lobelia) (Bidoglys yr Ardd). Rhayader, SN97 68, E.R.Dean, 17th Aug 2019, rhayader streets.

*‡135/79.2. **Helianthus tuberosus** (Jerusalem Artichoke) (Blodyn-yr-haul Oddfog). Glasbury, SO17 39, E.Dean & Hereford Botanical Society, 6th Sep 2019, river Wye gravels.

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

- +016/5.1. **Cystopteris fragilis** (Brittle Bladder-fern) (Ffiolredynen Frau). Bishop's Palace, Abergwili, SN4410 2098, R.D.Pryce & K.A.Pryce, 14th Sep 2019, one plant growing inside grating at foot of palace-wall on north side of Bishop's Palace, another at foot of palace-wall on north-east side and about another six plants growing from within grating up to about 15cm tall above surface of grating at foot of east-facing palace-wall at north-east corner of building.
- +017/3.c. **Dryopteris borrieri**. Coed Cae, Llanelli, SS5219 9998, R.D.Pryce, 5th Nov 2019, willow-dominated scrub woodland along line of old railway track.
- +‡031/5.07. **Fumaria officinalis** (Common Fumitory) (Mwg-y-ddaear Cyffredin). Erw Lwyd, Cwrt-y-cadno, SN6846 4505, Sarah Andrews, 1st Sep 2019, in tall herb vegetation.
- +033/1.1×3×4.‡ **Ulmus ×hollandica** (Dutch Elm) (Llwyfen yr Iseldiroedd). West of Ffaldybrennin, SN6346 4459, R.A.Jones, 10th Aug 2019.
- +‡043/1.13. **Chenopodium ficifolium** (Fig-leaved Goosefoot) (Troed-yr-wydd Dail Ffigys). National Botanic Garden of Wales by track west of Pantwgan, SN5279 1846, R.D.Pryce, 13th Aug 2019, one plant in ruderal community on recently disturbed ground.
- +046/17.4. **Spergularia rubra** (Sand Spurrey) (Troellig Arfor Coch). Clywedog plantation, SN653 485, Sarah Andrews, 27th Aug 2019, forestry track.
- +051/1.06×07. **Hypericum ×desetangsii** (Des Etangs' St John's-wort) (Eurinllys Des Etangs). Cae Pontcarreg hayfield, Llanfihangel-ar-arth, SN45 39, Sarah Andrews, det. R.D.Pryce, 5th Sep 2019; (+) Panteg, SN640 473, Sarah Andrews, det. R.D.Pryce, 9th Sep 2019.
- +051A/ACT.del. **Actinidia deliciosa** (Kiwi Fruit). North side of Tanyrhodyn, Felinfoel, SN51578 02080, Llanelli Naturalists meeting, det. R.D.Pryce & K.A.Pryce, 1st Sep 2019, actinidia growing abundantly over road side of boundary wall
- +061/2.10×11. **Salix ×reichardtii**. Kidwelly Quay, SN397 063, R.N.Stringer & R.G.Woods, 8th Aug 2019, on waste ground.
- +‡062/7.1. **Erysimum cheiranthoides** (Treacle-mustard) (Triagl Arfog). National Botanic Garden of Wales, SN5281 1865, R.D.Pryce, conf. T.C.G.Rich (from photo), 13th Aug 2019, one flowering plant on weed-covered north face at east end of recently completed dam reconstruction. First hectad record, 4th post 2000 VC Record.
- +‡075/26.3. **Pyrus communis** (Pear) (Coeden Ellyg). Erw Lwyd, Cwrt-y-cadno, SN6846 4505, Sarah Andrews, 1st Sep 2019.
- +099/1.3. **Acer campestre** (Field Maple) (Masarnen Fach). Panteg, SN640 473, Sarah Andrews, 9th Sep 2019, trackside between SN640471 and SN640476. Also at Gilfach Wen SN639478. New record for Carms part of hectad.
- *102/1.10.cor. **Oxalis debilis var. corymbosa**. Cilgattw, Felingwm, SN516 264, T.E.Greenaway, 5th Aug 2019, greenhouse weed.
- +121/1.4. **Plantago media** (Hoary Plantain) (Llyriad Llwyd). Ammanford, SN631 119, I.K.Morgan, 20th Aug 2019, east bank of Afon Aman.

- +‡135/11.2. **Centaurea montana** (Perennial Cornflower) (Y Benlas Luosflwydd). Brook, SN267 094, R.N.Stringer & R.G.Woods, 15th Aug 2019, .
- +135/16.1.pin. **Scorzoneroides autumnalis var. pinnatifida**. Pal-y-Cwrt, Mynydd Du, SN6806 1828, R.D.Pryce & K.A.Pryce, 7th Sep 2019, sheep-grazed Carboniferous Limestone outcrops at scarp summit.
- +135/26.3. **Crepis biennis** (Rough Hawk's-beard) (Gwalchlys Garw). Council Depot, Machynys, SS518 992, R.N.Stringer & R.G.Woods, 5th Sep 2019, waste ground.
- +‡153/28.5.© **Avena sativa** (Oat) (Ceirchen). Panteg, SN6402 4753, Sarah Andrews, 9th Sep 2019, on dung heap in lower pasture.
- +153/32.1.a. **Deschampsia cespitosa subsp. cespitosa** (Tufted Hair-grass). Mount Pleasant, Capel Isaac, SN598 272, R.N.Stringer & R.G.Woods, 8th Nov 2019, first hectad record for subsp.
- +‡153/46.2. **Polypogon viridis** (Water Bent) (Barfwellt y Dŵr). 10 Blaenau Road, Llandybie, SN61712 15306, C.A.Cottingham, R.D.& K.A.Pryce, 11th Sep 2019, 50+ plants in angle between curtilage wall and back of pavement.

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

- +004/1.9. **Equisetum telmateia** (Great Horsetail) (Marchrawnen Fawr). North of Glasdir Farm, Nevern, SN09156 41952, Stephen & Ann Evans, 19th Sep 2019, gateway on the west side of the minor road and in the base of the hedge on the east side at SN09164199. It was also south of Trefwrdan Isaf at SN09384218.
- +‡020/3.1. **Tsuga heterophylla** (Western Hemlock-spruce) (Sbriwsen-Hemlog y Gorllewin). Forestry track, Shipping Hill plantation, Ludchurch, SN12424 10241, Stephen Evans, 2nd Sep 2019, self sown on the track edge.
- +‡021/2.1.© **Chamaecyparis lawsoniana** (Lawson's Cypress) (Cypreswydden Lawson). Woodland, Constantinople, Newport, SN0818 3701, Stephen Evans, 4th Sep 2019, a seedling was present along the roadside edge of a wood which had almost certainly seeded from mature trees at Pantry Fields on the opposite side of the road. Seedlings and saplings have also been recorded at Maengwyn, Dinas Cross SN02333869 for several years on shallow soil over tarmac and in flower pots again near mature trees and were still present in 2019.
- +033/1.2. **Ulmus procera** (English Elm) (Llwyfen Lloegr). Cwmwdig Water, Abereiddi, SM7973 3092, Stephen Evans, 21st Sep 2019, on the slope on the eastern side of the lower end of the small valley.
- +‡036/1.2. **Urtica urens** (Small Nettle) (Danhadlen Fach). West side of The Moors, St. Bride's Castle, SM80005 10302, Stephen & Ann Evans, 27th Aug 2019, edge of potato crop by footpath.
- +046/11.2 **Scleranthus annuus** (Annual Knawel) (Dinodd Unflwydd). Sunnyhill, Jeffreyton, SN080 068, Elizabeth Dennis, det. Pete Stroh, 29th Dec 2018, a single plant was photographed during the BSBI New Year Plant Hunt. Growing near where the car is parked at Sunnyhill.

- +046/18.2. **Lychnis flos-cuculi** (Ragged-Robin) (Carplog y Gors). Aber-pwll/Aber Creigwyr, below Pwllcaerog, Abereiddi, SM7839 3052, Stephen Evans, 21st Sep 2019, grazed flush at the bottom of the west side of the valley.
- +‡047/1.03. **Persicaria wallichii** (Himalayan Knotweed) (Y Ganwraidd Himalaiaidd). Clynyfw, Abercych, SN245 397, Matt Sutton, 15th Nov 2019.
- +‡047/1.07.© **Persicaria amplexicaulis** (Red Bistort) (Y Ganwraidd Goch). West of Rhoslanog, Trevine, SM8557 3220, Nigel Lee, 7th Sep 2019, a clump was adjacent to a mature hedgerow/tree flanked footpath approaching Rhoslanog properties; (+) SW of Spring Gardens, Tanner's Lane, Templeton, SN122 111, Nigel Lee, 12th Oct 2019, flowering on the bank of a small stream.
- +047/1.09. **Persicaria amphibia** (Amphibious Bistort) (Canwraidd y Dŵr). Irrigation reservoirs, The Moors, St. Bride's Castle, SM8013 1051, Stephen Evans, 27th Aug 2019, margins of the SW corner of the square potato irrigation reservoir.
- +047/1.12. **Persicaria lapathifolia** (Pale Persicaria) (Canwraidd y Dom). Sinkhole bog, Shipping Hill Plantation, Ludchurch, SN1306 1054, Stephen Evans, 2nd Sep 2019, a large unplanted valley bog/basin mire within the plantation.
- +‡047/4.3. **Polygonum arenastrum** (Equal-leaved Knotgrass) (Y Canclwm Manddail). Field entrance east of Capel Newydd, SN2387 3977, Howard Williams, 6th Aug 2019, wet arable field.
- +‡047/4.6. **Polygonum rurivagum** (Cornfield Knotgrass) (Canclwm y Tir Âr). Field corner by Radiophone Mast, the Ridgeway, Penally, SS1094 9946, Stephen Evans, 15th Aug 2019, grass ley field corner by gate to Ridgeway.
- +‡047/5.4. **Fallopia convolvulus** (Black-bindweed) (Y Glymog Ddu). West side of The Moors, St. Bride's Castle, SM79992 10180, Stephen & Ann Evans, 27th Aug 2019, arable plants in a field of harvested potatoes.
- +053/1.1. **Malva moschata** (Musk-mallow) (Hocysen Fwsg). Llanvirn, Abereiddi, SM79690 30225, Stephen & Ann Evans, 21st Sep 2019, base of roadside hedgebank.
- +061/2.09×11. **Salix viminalis** × **S. cinerea** = **S. ×holosericea** [**S. ×smithiana**] (Silky-leaved Osier) (Helygen Dail Sidan). Overflow car park entrance, Poppit, SN1532 4844, Howard Williams, 17th Sep 2019, hedge.
- +‡062/13.1. **Armoracia rusticana** (Horse-radish) (Rhuddygl Poeth). South side of car park, Gupton Dunes, Castlemartin, SR88583 99495, Stephen Evans, 21st Aug 2019, a well established colony on a slight ridge half a pace into the sandy reverting field south from the 'Cafe Mor'. Presumably from dumped material a few years previously?
- +‡062/14.occ. **Cardamine occulta** (Nursery Bitter-cress). Garden Centre, Milton, SN000 028, Tim Rich, 4th Aug 2019. Frequent in pots and spreading onto gravel so could count as naturalised. *Euphorbia maculata* was also present as a weed in pots so it was not really naturalised.
- +‡062/17.1. **Lunaria annua** (Honesty) (Swllt Dyn Tlawd). Penyraber, Solva, SM8027 2424, Stephen & Ann Evans, 8th Sep 2019, by steps through a high boundary wall; (+) Roadside NW of Penbanc, SW of Star, SN2366 3442, Howard Williams, 28th Sep 2019, hedgebank.

- +062/34.5.‡ **Brassica nigra** (Black Mustard) (Mwstard Du). South of St. Bride's Castle, SM7960 1057, Stephen & Ann Evans, 27th Aug 2019, growing in a field edge. It was also nearby on a rough farm track west of the outlying farm buildings at SM79667 10393.
- +‡062/38.1. **Hirschfeldia incana** (Hoary Mustard) (Mwstard Llwyd). Chwarel y Glog, Tegryn, SN2207 3284, Howard Williams, 31st Aug 2019, where rubbish dumped.
- +062/42.1.b. **Raphanus raphanistrum subsp. maritimus** (Sea Radish) (Rhuddygl Arfor). Ceibwr shingle, Moylegrove, SN11042 45645, Stephen Evans, 25th Aug 2019, a large, dying-back, mature plant on shingle at the top of the beach and a very small one below.
- +069/8/1. **Samolus valerandi** (Brookweed) (Claerlys). Maes y Ffynnon, Newport Cliffs, SN04980 41635, Stephen Evans, 15th Oct 2019, sheep grazed springs in one small area on the north side of the hanging valley floor in short grazed maritime turf. It was in the main spring that emerged from a low rock outcrop where shallow water was pooled.
- +‡073/1.3. **Crassula helmsii** (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Small Pond, Ty Newydd, Velindre Varchog, SN1003 3800, Jane E Hodges, 17th Aug 2019, found during a visit by the Pembrokeshire Recording Group.
- +075/15.1. **Agrimonia eupatoria** (Agrimony) (Llyisiau'r Dryw). Aberiddi Quarry Cottage ruins, SM79764 31387, Stephen & Ann Evans, 21st Sep 2019, amongst the ruins of former quarry workers' cottages.
- +‡075/19.15. **Alchemilla mollis** (Garden Lady's-mantle) (Mantell-Fair y Gerddi). Ludchurch, SN13793 10680, Stephen Evans, 2nd Sep 2019, entrance to rear garden off rough track.
- +‡075/21.05.06.© **Rosa rugosa** (Japanese Rose) (Rhosyn Japan). Bridleway above Glanpwll-du Farm, Boncath, SN2165 3819, Howard Williams, 21st Sep 2019, hedge.
- +‡075/32.33. **Cotoneaster simonsii** (Himalayan Cotoneaster) (Cotoneaster Simons). Llwyn-yr-hwrdd Chapel Yard, Tegryn, SN2291 3262, Howard Williams, 12th Nov 2019, an untidy hedge.
- +077/18.5 **Medicago arabica** (Spotted Medick) (Maglys Brith). Entrance to playing park, Marloes, SM79280 08510, Stephen & Ann Evans, 31st Aug 2019, growing with the remains of *Torilis nodosa* which had been found by Sam Bosanquet the previous month. Both were on stony ground/chippings. Did they come in with the stone/chippings or on people or dogs feet?
- +077/19.19. **Trifolium incarnatum**. New inner bypass by Co-op., Fishguard, SM9562 3692, Clive Hurford, 7th Dec 2019, in flower on topsoil on the new ground just inside the start of the new inner bypass on the right side when turning off the A40 before getting to the Co-op supermarket. Still in flower, 20th March 2020.
- +081/1.1. **Lythrum salicaria** (Purple-loosestrife) (Llyisiau'r-milwr Coch). Streamside west of Nevern Church, SN08301 40060, Stephen & Ann Evans, 19th Sep 2019, growing on the western margin of the stream by the old slate slab footbridge and the stoned ford. It was also on the east side of the stream by the footbridge.
- +084/1.02. **Epilobium parviflorum** (Hoary Willowherb) (Helyglys Lledlwyd). Stony flush, Dinas Island, SN01598 40777, Stephen & Ann Evans, 18th Sep 2019, growing with *Festuca rubra* subsp. *junceae* on flushed rock outcrops below the path on the north side.

- +084/1.07. **Epilobium roseum** (Pale Willowherb) (Helyglys Gwelw). NW of Starmans Hall, Castlemartin Corse, SR88958 99878, Stephen Evans, 21st Aug 2019, ungrazed calcareous fen now becoming over-run by Phragmites.
- +084/4.1. **Oenothera glazioviana** (Large-flowered Evening-primrose) (Melyn-yr-hwyr Mawr). NW end of Marloes, SM791 086, Stephen Evans, 31st Aug 2019, a few plants by the roadside in front of gardens; (+) Llanvirn, Abereiddi, SM7967 3024, Stephen & Ann Evans, 21st Sep 2019, roadside.
- +084/4.3. **Oenothera biennis** (Common Evening-primrose) (Melyn yr Hwyr). Old railway station site, Boncath, SN2035 3846, Howard Williams, 2nd Oct 2019.
- +084/5.1. Mol. **Fuchsia magellanica 'Molinae'**. Disused quarry common, Abereiddi, SM79870 30977, Stephen & Ann Evans, 21st Sep 2019, a small bush of the light pink var *molinae* by the trackside near the tarred road.
- +085/2.1. **Aucuba japonica** (Spotted-laurel) (Coeden Frech Felen). Trackside, Allt Cil-Frychan, SE of Pen-yr-all-wen, Clynyfw, SN2534 3860, Howard Williams, 6th Nov 2019, several trackside plants spread among natives.
- +093/2.1. © **Parthenocissus quinquefolia** (Virginia-creeper) (Dringwr Fflamgoch). Disused quarry common, Abereiddi, SM79870 30977, Stephen & Ann Evans, 21st Sep 2019, trackside near the tarred road with a bush of *Fuchsia megellanica* var *molinae*; (+) Military Cemetery, Llanion, Pembroke Dock, SM9737 0386, Stephen & Ann Evans, 21st Aug 2019, on one of the boundary walls of the cemetery.
- +099/1.3. ‡ **Acer campestre** (Field Maple) (Masarnen Fach). Just east of Nevern Churchyard, SN08465 39997, Stephen & Ann Evans, 19th Sep 2019, seedlings/ tiny saplings were growing on the north side of the B4582 where it borders woodland on the south-west facing slope. The parent tree was a mature amenity tree planted on the opposite side of the road. This is the first record of *Acer campestre* regeneration into semi-natural woodland in Pems. There was another seedling/tiny sapling in the same niche to the NW in the adjacent hectad. Other more mature saplings/young trees had grown under the parent on the opposite side of the road again in the adjacent hectad.
- +102/1.06. **Oxalis stricta** (Upright Yellow-sorrel) (Suran Felen Unionsyth). Clynyfw Walled Garden, Abercych, SN245 397, Matt Sutton, 15th Nov 2019, .
- +102/1.08. **Oxalis articulata** (Pink-sorrel) (Suran Ruddgoch). Glen View, lane to Marloes Sands, Marloes, SM7947 0816, Stephen Evans, 31st Aug 2019, growing vigorously on the roadside hedgebank at the start of the tarred lane to Marloes Sands; (+) Fronwen Villa, Abereiddi, SM79918 30099, Stephen Evans, 21st Sep 2019, roadside grassland; (+) Lower and Upper Folly, Nolton Haven, SM86 19, Jane Hodges, 6th Aug 2019, monad recording for the Atlas.
- +103/1.01×02. **Geranium oxonianum** (Druce's Crane's-bill) (Pig-yr-aran Druce). Roadside west of Templeton Airfield, SN0911 1118, Stephen Evans, 2nd Sep 2019, alongside a roadside pull in so presumably originated from dumped garden matter.
- +103/2.2. **Erodium moschatum** (Musk Stork's-bill) (Pig-y-crëyr Fwsg). Ashdale, Glebe Lane, Marloes, SM7953 0841, Stephen Evans, 31st Aug 2019, on the paved driveway by the tarred lane.

- +‡110/8.7.© **Solanum tuberosum** (Potato) (Taten). Abereiddi, SM7977 3128, Stephen & Ann Evans, 21st Sep 2019, a stand of potatoes were growing on the sandy bank seawards of Beach Cottage.
- +118/15.1. **Prunella vulgaris** (Selfheal) (Y Feddyges Las). Aber-pwll/Aber Creigwyr, below Pwllcaerog, SM7839 3052, Stephen Evans, 21st Sep 2019, grazed flush at the bottom of the west side of the valley.
- +118/18.4. **Clinopodium vulgare** (Wild Basil) (Brenhinllys Gwylt). Range West, Castlemartin, SR8974 9640, Matt Sutton, 24th Nov 2019, a few plants in the corner of a quarry on the army firing range.
- +118/23.1×2. **Mentha ×verticillata** (Whorled Mint) (Mintys Troellennog). Prinkly Quarry, New Shipping, Carew Newton, SN0368 0479, Matt Sutton, 21st Aug 2019, clearing at woodland edge.
- +‡124/13.3. **Linaria purpurea** (Purple Toadflax) (Llin-y-llyffant Porffor). Trackside, Ludchurch, SN1388 1063, Stephen Evans, 2nd Sep 2019, northern side of lane on the western edge of the built up area of Ludchurch.
- +124/20.07. **Euphrasia nemorosa** (Effros). Forestry track junction, Shipping Hill Plantation, Ludchurch, SN1322 1036, Stephen Evans, 2nd Sep 2019, open area at a forestry track junction. Also on a forestry tracks with a surface of limestone chippings at SN1319810362, at SN1309110403 and at SN1330310576.
- +129/1.15. **Campanula rotundifolia** (Harebell) (Clychau'r Eos). Roadside by Little Westerton, Ludchurch, SN1406 1061, Stephen Evans, 2nd Sep 2019, several plants in flower by the pavement curb on the north side of the road junction. There were white flowers but mainly blue. This colour variation and the location would suggest that the plants are a garden escape.
- +‡133/3.1. **Centranthus ruber** (Red Valerian) (Triaglog Goch). Former sand dune area, Abereiddi cottages, SM79881 31284, Stephen & Ann Evans, 21st Sep 2019, growing in dense vegetation with other garden escapes to the rear of the cottages at Abereiddi. Also at SM79983046 at the Llanvirn Farm complex.
- 134/3.1. **Knautia arvensis** (Field Scabious) (Clafrllys y Maes). Hedge on Capel Newydd - Ffynnonau road, SN2368 3887, Howard Williams, 6th Aug 2019, .
- +‡135/11.2. **Centaurea montana** (Perennial Cornflower) (Y Benlas Luosflwydd). Llanycefn Churchyard, SN0962 2373, Stephen & Ann Evans, 15th Aug 2019, several plants on the NW side of the churchyard.
- +‡135/12.1. **Cichorium intybus** (Chicory) (Ysgello). Starmans Hall, Gupton, Castlemartin, SR89177 99738, Stephen Evans, 21st Aug 2019, scattered plants in an alfalfa mix sown sandy field; (+) West side of The Moors, St. Bride's Castle, SM79969 10031, Stephen & Ann Evans, 27th Aug 2019, in flower with *Stachys palustris* in the field corner of a grass ley.
- +‡135/17.1. **Helminthotheca echioides** (Bristly Oxtongue) (Tafod-y-llew Gwrychog). Side of Forestry Track, Shipping Hill Plantation, Ludchurch, SN13477 10684, Stephen Evans, 2nd Sep 2019, edge of main stoned forestry ride.

- *135/28.01.5. **Hieracium vagum** (Gabrous-headed Hawkweed). Roadside hedgebank SE of Ffreni Fach, Tegryn, SN2287 3415, Howard Williams, 28th Sep 2019, used Sell and Murrell for the det. and described it as 'a reasonable match'. This location was once the hedgebank bordering the large expanse of the unimproved upland of Ffreni Fach - see early OS maps.
- +135/28.02.6. **Hieracium umbellatum** (Umbellate Hawkweed) (Heboglys Culddail). Teifi Gorge, Cilgerran, SN2001 4286, Howard Williams, 9th Aug 2019, leafy stem, leaves sessile, newly flowering.
- +‡135/44.flo. **Conyza floribunda** (Many-flowered Fleabane). NW end of Marloes, SM791 086, Stephen Evans, 31st Aug 2019, one plant was found in front of one of the houses; (+) Edge of Afon Solfach, Lower Solva, SM80637 24325, Stephen Evans, 8th Sep 2019, one or two plants were growing out of the river wall on the SE side of the river.
- +‡135/50.1. **Artemisia vulgaris** (Mugwort) (Y Feidiog Lwyd). Yard of farm buildings south of St. Bride's Castle, SM7970 1038, Stephen & Ann Evans, 27th Aug 2019, enriched soil in farmyard.
- *©135/55.aus. **Anthemis austriaca** (Austrian Chamomile). New one way road scheme, site of old School, Fishguard, SM9558 3702, Stephen & Ann Evans, 16th Sep 2019, flowering in the reseeded sloping NW side to the 2019 new one way road past the Co-op supermarket on the site of the demolished Junior School. Almost certainly arrived with the reseed so not really naturalised.
- +135/62.12. **Senecio erucifolius** (Hoary Ragwort) (Creulys Lwyd). Old railway station site, Boncath, SN2036 3846, Howard Williams, 1st Oct 2019, on waste ground on the long-dismantled railway line.
- +135/81.1. **Bidens cernua** (Nodding Bur-marigold) (Graban Gogwydd). Marloes Mere, SM77294 08063, Stephen Evans, 31st Aug 2019, scattered in cattle grazed grassland/inundation communities near the cattle slops through the disused treeless hedgebanks.
- +148/2.3. **Lemna trisulca** (Ivy-leaved Duckweed) (Llinad Dail Eiddew). Southern Reservoir of Marloes Mere, SM7751 0803, Stephen & Ann Evans, 31st Aug 2019, abundant to dominant around the edges of the southern reservoir in both the open water and the narrow emergent zone; (+) Irrigation reservoirs, The Moors, St. Bride's Castle, SM8013 1051, Stephen Evans, 27th Aug 2019, abundant in the square potato irrigation reservoir.
- +153/12.06. **Festuca arenaria** (Rush-leaved Fescue) (Peiswellt Dail Brwyn). Poppit Dunes, SN1517 4866, Howard Williams, 17th Sep 2019, seawards of the dune system with Cakile maritima.
- +‡153/28.3. **Avena fatua** (Wild-oat) (Ceirchen Wylt). Lower and Upper Folly, Nolton Haven, SM86 19, Jane Hodges, 6th Aug 2019, monad recording for the Atlas. Also found at Nolton Cross in monad SM8717 on 07082019.
- +‡153/28.5.© **Avena sativa** (Oat) (Ceirchen). NW of Cilwendeg Lodges, Boncath, SN2108 3909, Howard Williams, 31st Aug 2019, a crop relict off the track to Penbedw.
- +153/49.1. **Phleum pratense** (Timothy) (Rhonwellt). Field by footpath south of St. Bride's Castle, SM79775 10040, Stephen & Ann Evans, 21st Oct 2019, barley stubble.

- +‡153/68.1.© **Echinochloa crus-galli** (Cockspur) (Cibogwellt Rhydd). North Lane, Marloes, SM7936 0875, Stephen Evans, 31st Aug 2019, a wildflower seed mix had been sown on the bend in the lane in a narrow strip on the south side. *Centaurea cyanus* was also present.
- +©153/ZEA.may. **Zea mays** (Maize) (India-corn). Ceibwr shingle, Moylegrove, SN110 456, S.B. & A.E.Evans, Aled Evans, Diane Morgan & M.C.Evans, 25th Aug 2019, a single tiny plant had germinated on the shingle in the region of the frequent beach barbecues close to *Lathyrus japonicus*. Specimen kept and grown on to confirm.
- 158/07.1. **Colchicum autumnale** (Meadow Saffron) (Saffrwm y Ddôl). Ludchurch Churhyard, SN14098 10943, Stephen Evans, 2nd Sep 2019, two flowers in neutral grassland over limestone. It been described as 'freely about the old graves' in the same churchyard in Lillian Rees 1950 List of Pembrokeshire Plants and there had been reports of it possibly persisting there after that date but no definite record. Presumed to be a neophyte in Pems with two other old records. It was believed to be extinct until a few hundred plants were found at West Willimaston nature reserve in the ash woodland of the disused limestone quarries in 2018 at SN026506149.

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

- +017/3.02×03. **Dryopteris ×complexa**. Coed Afon Halen, c. 1 km SW of New Quay, SN392 578, R.Golding, 1st Aug 2019, two plants in streamside woodland.
- *©020/1.kor. **Abies koreana** (Korean Fir). About 100 m W of Blaenwaun, c. 2 km NNW of Bronnant, SN632 693, S.P.Chambers, 7th Dec 2019, one tree, c. 10ft tall, perhaps planted but of uncertain origin, by field gate entranceway in heathy scrub on roadside verge. The first occurrence of the species in the VC in a wild situation.
- 046/20.04. **Silene vulgaris** (Bladder Champion) (Gludlys Codrwth). Capel y Bryn burial yard, Rhydpennau, SN628 863, A.C.Williamson, conf. S.P.Chambers, 12 x 2019, 1st Sep 2019, c. 4 plants in two railed burial plots. A new site & tetrad for a VC-scarce plant.
- 051/1.06×07. **Hypericum ×desetangii** (Des Etangs' St John's-wort) (Eurinllys Des Etangs). About 400 m E of Clarach Bay, SN591 838, S.P.Chambers, 25th Aug 2019, with *Carex hirta* & *C.otrubae*, on brackish grassland on valley floor. The 1st hectad record since 1986.
- +‡075/08.0.11. **Rubus cockburnianus** (White-stemmed Bramble) (Miaren Goeswen). Building site and adjoining riverbank, Cwrt Dulas, Lampeter, SN581 486, M.D.Sutton, 3rd Dec 2019, the 3rd VCR & new hectad record at least for the Cards part of the square.
- +075/20.1. **Aphanes arvensis** (Parsley-piert) (Troed y Dryw). Disturbed ground, land adjoining Pencnwc caravan park, Cross Inn, SN390 567, M.D.Sutton, 6th Oct 2019; (+) building site and adjoining riverbank, Cwrt Dulas, Lampeter, SN581 486, M.D.Sutton, 3rd Dec 2019, new hectad record at least for the Cards part of the square.
- 077/26.1. **Ulex europaeus** (Gorse) (Eithinen Ffrenig). SW side of the Afon Elan below Abergwngu Hill, SN866 742, S.P.Chambers, 8th Aug 2019, one sheep-nibbled bush on dry river shingle terrace. First post-1987 record at least for the VC46 part of the hectad.

- +‡094/1.2.© **Linum usitatissimum** (Flax) (Llin). Felin Fach Farm, c. 2 km SE of Tal-y-bont, SN676 884, C.Lynn, det. S.P.Chambers, 5th Aug 2019, three plants on disturbed ground in farmyard.
- 095/1.1. **Polygala vulgaris** (Common Milkwort) (Amlaethai Cyffredin). Capel y Bryn burial yard, Rhydyppennau, SN628 863, A.C.Williamson, 1st Sep 2019, scattered plants in short mossy turf on mown bank of neutral grassland. A new site & tetrad for a VC-uncommon plant.
- 102/1.03.cor. **Oxalis corniculata var. corniculata**. Pennar Lane, Parcllyn, c. 0.5 km W of Aber-porth, SN251 516, S.P.Chambers, 9th Oct 2019, in small amount on dry south-facing roadside bank. The first hectad record since 1951 & possibly where J.A.Whellan recorded and collected it in that year.
- *‡105/1.2. **Impatiens capensis** (Orange Balsam) (Ffromlys Oren). By public footpath c. 250 m SSW of Elerch church, SN682 862, A.O.Chater, 1st Sep 2019, abundant over c. 30 x 10 m of fen on valley floor.
- +124/13.1×4. **Linaria xsepium**. Base of roadside hedgebank on W side of minor road, c. 2km SSE of Llanarth, SN433 556, S.P.Chambers, 4th Oct 2019, colony c 5 x 0.5 m along. Without *L.repens*, but *L.vulgaris* present on hedgebank on opposite side of road.
- 130/6.07. **Galium album** (Hedge Bedstraw) (Briwydd y Clawdd). Grassy areas between burials, Capel y Bryn burial yard, Rhydyppennau, SN628 863, A.C.Williamson, 1st Sep 2019, locally frequent on and around graves in one area, with at least c. 15 patches. A new site (the 9th graveyard site) & tetrad for a VC-uncommon plant.
- +‡131/3.orb×mic. **Symphoricarpos xchenaultii** (Hybrid Coralberry) (Llusen Gwrel Groesryw). Building site and adjoining riverbank, Cwrt Dulas, Lampeter, SN581 486, M.D.Sutton, 3rd Dec 2019, new hectad record at least for the Cards part of the square.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle) (Bachgen Llwm). Housing plot, Adpar, Newcastle Emlyn, SN305 412, M.D.Sutton, 6th Oct 2019.
- +‡131/6.6. **Lonicera japonica** (Japanese Honeysuckle) (Gwyddfid Japan). Housing plot, Adpar, Newcastle Emlyn, SN305 413, M.D.Sutton, 6th Oct 2019.
- +‡135/57.1. **Leucanthemella serotina** (Autumn Oxeye) (Llygad-llo'r Hydref). Land adjoining Pencnwc caravan park, Cross Inn, SN390 570, M.D.Sutton, 6th Oct 2019, frequent on rubble pile. The 2nd VCR.
- +135/62.10×11. **Jacobaea xostenfeldii**. About 300 m W of Cefn-Gwallter, c.1.5 km N of Maesyneillion, SN420 475, S.P.Chambers, 21st Sep 2019, three tall plants on the eastern riverbank of the Clettwr Fawr.
- 135/62.12. **Jacobaea erucifolia** (Hoary Ragwort) (Creulys Lwyd). About 300 m SSW of Bryn-einon, c. 2.8 km E of Synod Inn, SN432 543, S.P.Chambers, 18th Oct 2019, one plant on southeast-facing grassy bank beside minor road. A new tetrad record at the eastern limit of its VC distribution, and a new VC alt limit of 280m.

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

- +004/1.4. **Equisetum fluviatile** (Water Horsetail) (Marchrawnen y Dŵr). Crugyn Llwyd, SO02 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, open

- moorland; (+) Kerry Ridgeway (Pantglas), SO23 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019.
- +004/1.4×5. **Equisetum ×litorale (E. fluviatile × E. arvense)** (Shore Horsetail) (Marchrawnen y Glennydd). Llanfihangel-yng-Ngwynfa, SJ06 17, A.K.Thorne & MFG, conf. A.K.Thorne & MFG, 12th Aug 2019, wet verge with Equisetum fluviatile.
- +004/1.9. **Equisetum telmateia** (Great Horsetail) (Marchrawnen Fawr). Llanbryn-mair, SH8904 0263, G.Foulkes, conf. G.Foulkes, 31st Oct 2019, very wet area to west side of track close to Afon Twymyn.
- +014/2.1. **Phegopteris connectilis** (Beech Fern) (Rhedynen Gornio). Pont a'r Byllfa (Mallwyd), SH89 12, G.Foulkes, conf. G.Foulkes, 20th Aug 2019, on damp shaded bank at SH89481205; (+) Crugyn Llwyd, SO0188 7988, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, main stream valley (small, steep with waterfalls). Single good stand noted on steep side of stream at SO01884.79880.
- +017/3.03b. **Dryopteris cambrensis**. Llanerfyl (Mynydd Pantceiliagwydd), SH98 04, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 19th Aug 2019, forest trackside.
- +017/3.08. **Dryopteris carthusiana** (Narrow Buckler-fern) (Marchredynen Gul). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, along bridleway south of deep stream valley.
- +017/3.c. **Dryopteris borreri**. Gwernafon (Coed Pen-y-banc), SN91 90, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 15th Aug 2019, oak woodland.
- +033/1.2. **Ulmus procera** (English Elm) (Llwyfen Lloegr). Caersws (Ystradfaelog), SN98 92, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 9th Sep 2019, lane verge/hedgerow.
- +043/3.07. **Atriplex patula** (Common Orache) (Llygwyn Culddail). Eisteddfa Fach, SN79 84, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 14th Sep 2019, a44 road verge.
- +045/2.2. **Claytonia sibirica** (Pink Purslane) (Porpin Pinc). Llanidloes (Felindre Bridge), SN943 839, A.K.Thorne, conf. A.K.Thorne, 7th Aug 2019, river rocks upstream of bridge.
- +046/10.7. **Sagina apetala** (Annual Pearlwort) (Corwlyddyn Unflwydd). Rhyd, Cwm Llwyd, SH98 02, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 24th Aug 2019; (+) Rhyd, Cwm Llwyd, SH98 02, A.K.Thorne, conf. A.K.Thorne, 24th Aug 2019, on turbine hardstanding; (+) Ceri Forest (Sarn), SO20 87, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 22nd Sep 2019, forest track/verge.
- +046/16.1.† **Spergula arvensis** (Corn Spurrey) (Troellig yr Ŷd). Kerry Ridgeway (Turbarry), SO22 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019, less than half of monad in VC47, north of ridgeway - stream/felled conifer plantation/beet field; (+) Kerry Ridgeway (Pantglas), SO23 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019.
- +046/17.3. **Spergularia marina** (Lesser Sea-spurrey) (Troellig Arfor Bach). Eisteddfa Fach, SN79 84, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 14th Sep 2019, A44 road verge; (+) Derwenlas village, SN72 99, G.Foulkes, conf. G.Foulkes, 28th Sep 2019, road edge west of Derwenlas close to Brynsiriol.

- +046/17.4. **Spergularia rubra** (Sand Spurrey) (Troellig Arfor Coch). Ceri Forest (Sarn), SO20 88, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 22nd Sep 2019, forest track/verge.
- +046/20.04. **Silene vulgaris** (Bladder Champion) (Gludlys Codrwrth). Foel (Llwyn), SH97 11, J.Clayfield, conf. J.Clayfield, Sep 2019.
- +047/1.12. **Persicaria lapathifolia** (Pale Persicaria) (Canwraidd y Dom). Foel (Llwyn), SH97 11, J.Clayfield, conf. J.Clayfield, Sep 2019; (+) Kerry Ridgeway (Turbarry), SO22 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019, less than half of monad in VC47, north of ridgeway - stream/felled conifer plantation/beet field.
- +‡047/5.1. **Fallopia japonica** (Japanese Knotweed) (Clymog Japan). Llanidloes (Tynyrwtra), SN8875 8510, A.K.Thorne, conf. A.K.Thorne, 20th Sep 2019, large stand close to modern farm building.
- +061/1.3.a. **Populus nigra subsp. betulifolia** (a subspecies of Black-poplar). Montgomery Canal, SJ252 138, S.Southam, conf. S.Southam, 22nd Aug 2019, on western bank of Montgomery Canal - old and large tree.
- +061/2.12. **Salix aurita** (Eared Willow) (Helygen Glustiog). Ceri Forest (Sarn), SO20 87, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 22nd Sep 2019, forest track/verge.
- +062/12.4. **Rorippa palustris** (Marsh Yellow-cress) (Berwr Melyn y Gors). Carno (Afon Cledan), SN92 96, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 28th Aug 2019, occasional in old farmyard and along track; (+) Carno (Afon Cledan), SN93 96, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 28th Aug 2019, track.
- +069/6.2.a. **Anagallis arvensis subsp. arvensis** (Scarlet Pimpernel). Ceri Forest (Sarn), SO20 87, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 22nd Sep 2019, forest track/verge.
- +‡073/1.3. **Crassula helmsii** (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Cemmaes Road (Cefn Coch), SH82 02, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 31st Aug 2019.
- +075/08.01.028. **Rubus scissus**. Lake Vyrnwy, SH99 21, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, forest track edge.
- *075/08.02.057. **Rubus lentiginosus**. Lake Vyrnwy, SH996 214, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, forest track edge, **Herb. A.K.Thorne**
- +075/08.02.060 **Rubus lindleianus**. Caerhowel, SO19 97, D.P.Earl & A.K.Thorne, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, railway embankment SO199977 - SO197077; (+) Cwm Bromley, SO22 93, D.P.Earl & A.K.Thorne, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow; (+) Hirnant, SJ05 23, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, hedgerow along B4396; (+) Buttington, SJ23 08, Montgomeryshire Flora Group, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- *075/08.02.061. **Rubus ludensis**. Llyfnant, SN7093 9763, G.Foulkes, det. R.D.Randall, conf. R.D.Randall, Aug 2019, hedgerow near Afon Llyfnant.
- +075/08.02.078. **Rubus riparius**. Hirnant, SJ06 22, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019.

- +075/08.02.082. **Rubus silurum**. Lake Vyrnwy (Cwm yr Hafod), SH97 21, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, forestry track above B4393 and lake.
- +075/08.03.090. **Rubus amplificatus**. Montgomery, SO21 96, D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow; (+) Bwlch-y-cibau, SJ17 17, D.P.Earl, A.K.Thorne & W.I.J.Thorne, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, lane hedgerows between SJ178174 and SJ179176; (+) Forden, SJ24 00, D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow; (+) Waen-fach (Trefnanney), SJ20 17, S.Swindells, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, i bush top of riverbank SJ20481795.
- +075/08.03.093. **Rubus cardiophyllus**. Churchstoke, SO28 93, D.P.Earl & A.K.Thorne, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow. Petals pale pink; (+) Welshpool (Rhallt), SJ23 08, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019; (+) Montgomery Canal (Abbey Barn), SJ24 10, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- +075/08.03.106. **Rubus incurvatus**. Hirnant (Cefn), SJ0582 2260, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, hedgerow, **Herb. A.K.Thorne**
- *075/08.03.109. **Rubus lindebergii**. Hirnant, SJ0516 2271, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, **Herb. A.K.Thorne**
- +075/08.03.112. **Rubus nemoralis** (Boreal Bramble). Buttington, SJ2411 0888, Montgomeryshire Flora Group, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- +075/08.03.117. **Rubus polyanthemus**. Roundton, SO29 94, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019; (+) Hirnant, SJ05 22, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019.
- +075/08.05.134. **Rubus armeniacus**. Buttington, SJ24 08, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- +075/08.05.142. **Rubus ulmifolius**. Caerhowel, SO19 97, D.P.Earl & A.K.Thorne, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, railway embankment SO199977 - SO197077; (+) Roundton, SO29 95, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019.
- +075/08.05.142x06.163. **Rubus ulmifolius** × **R. vestitus**. Roundton, SO29 94, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019.
- +075/08.06.146. **Rubus bartonii**. Lake Vyrnwy (Eunant), SH96 22, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, road verges/forest edge; (+) Montgomery, SO22 96, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow near castle; (+) Penygarnedd, SJ10 23, D.P.Earl, conf. D.P.Earl, 4th Aug 2019, road hedgerow; (+) Welshpool, SJ22 06, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019, road hedgerow.
- +075/08.06.163. **Rubus vestitus**. Caerhowel, SO200 978, D.P.Earl & A.K.Thorne, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019; (+) Roundton, SO29 95, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, vivid pink and pale pink-flowered forms.
- +075/08.07.169. **Rubus fuscicortex**. Lake Vyrnwy (Eunant), SH96 22, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, road verges/forest edge; (+) Hirnant (Cefn), SJ0571

- 2256, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, hedgerow, **Herb. A.K.Thorne**
- +075/08.08.185. **Rubus griffithianus**. Hirnant, SJ06 22, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019; (+) Bwlch-y-cibau, SJ17 17, D.P.Earl, A.K.Thorne & W.I.J.Thorne, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, lane hedgerows between SJ178174 and SJ179176; (+) Welshpool (Rhallt), SJ2378 0937, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019; (+) Crowther's Coppice, SJ248 111, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019, footpath route along felled forest/scrub edge.
- +075/08.09.209. **Rubus dentatifolius**. Bwlch-y-cibau, SJ17 17, D.P.Earl, A.K.Thorne & W.I.J.Thorne, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, lane hedgerows between SJ178174 and SJ179176.
- +075/08.09.221. **Rubus pascuorum**. Roundton, SO29 94, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019; (+) Hirnant, SJ05 23, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, hedgerow along B4396; (+) Gaer Bridge (N of), SJ21 00, D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow.
- +075/08.10.232. **Rubus echinatus**. Roundton, SO29 94, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019; (+) Crowther's Coppice, SJ24 11, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- *075/08.10.236. **Rubus fuscus**. Bwlch-y-cibau, SJ17 17, D.P.Earl, A.K.Thorne & W.I.J.Thorne, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, lane hedgerows between SJ178174 and SJ179176.
- +075/08.11.268. **Rubus dasyphyllus**. Lake Vyrnwy (Cwm yr Hafod), SH97 21, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, forestry track above B4393 and lake; (+) Roundton, SO29 94, D.P.Earl, A.K.Thorne & J.Earl, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019; (+) Hyssington (Woodgate), SO30 95, D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow; (+) Penybontfawr (Tanpenygarnedd), SJ10 24, D.P.Earl, conf. D.P.Earl, 4th Aug 2019, lane hedgerow; (+) Montgomery Canal, Buttington, SJ24 09, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- +075/08.11.270. **Rubus hylocharis**. Lake Vyrnwy, SH99 21, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, forest track edge; (+) Yr Allt Wood, SJ24 10, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- *075/08.13.307. **Rubus conjugens**. Montgomery Canal (Abbey Barn), SJ2500 1043, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019, **Herb. A.K.Thorne**
- +075/08.13.308. **Rubus eboracensis**. Montgomery Canal, Buttington, SJ24 09, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 3rd Aug 2019.
- +075/08.13.319. **Rubus tuberculatus**. Lake Vyrnwy, SH99 21, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, forest track edge; (+) Caerhowel, SO19 97, D.P.Earl & A.K.Thorne, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, railway embankment SO199977 - SO197077; (+) Caerhowel, SO200 978, D.P.Earl & A.K.Thorne, det. D.P.Earl, conf. D.P.Earl, 2nd Aug 2019; (+) Hyssington (Woodgate), SO30 95, D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow; (+) Lake Vyrnwy, SJ00 19, D.P.Earl & MFG, det. D.P.Earl, conf. D.P.Earl, 4th Aug 2019, alongside the B4393, SW side; (+) Penygarnedd, SJ10 23, D.P.Earl,

- conf. D.P.Earl, 4th Aug 2019, road hedgerow; (+) Gaer Bridge (N of), SJ21 00, D.P.Earl, conf. D.P.Earl, 2nd Aug 2019, road hedgerow.
- +075/09.14. **Potentilla anglica** (Trailing Tormentil) (Pumnaalen Orweddol). Tylwch, SN98 78, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 23rd Aug 2019, lane verge/hedgerow.
- *075/09.14x15. **Potentilla xmixta** (Hybrid Cinquefoil) (Pumnaalen Groesryw). Cyfronydd, SJ13 07, A.K.Thorne, G.Foulkes & MFG, det. Brenda Harold, conf. Brenda Harold, 4th Sep 2019, railway station. First confirmed record.
- +075/19.09. **Alchemilla xanthochlora** (Intermediate Lady's-mantle) (Mantell-Fair Ganolig). Forge south, SN76 98, G.Foulkes, conf. G.Foulkes, 26th Sep 2019, a couple of plants in short grass along centre of track at SN765984.
- +075/19.14. **Alchemilla glabra** (Mantell-Fair Lefn). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, main stream valley (small, steep with waterfalls), many locations on waterfall banks.
- +075/21.15. **Rosa tomentosa** (Harsh Downy-rose) (Rhosyn Gwlanog). Caersws (Ystradfaelog), SN98 92, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 9th Sep 2019, laneside hedge.
- +077/14.02. **Vicia cracca** (Tufted Vetch) (Ffacbysen y Berth). Eisteddfa Fach, SN79 84, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 14th Sep 2019, A44 road verge.
- +077/19.13. **Trifolium micranthum** (Slender Trefoil) (Meillionen Hopysaidd Eiddil). Cyfronydd, SJ131 084, A.K.Thorne, G.Foulkes & MFG, conf. A.K.Thorne, G.Foulkes & MFG, 4th Sep 2019, central GR for steep pasture with patches of UI acid grassland.
- +079/2.4. **Myriophyllum alterniflorum** (Alternate Water-milfoil) (Myrdd-dail Blodau Bob yn Ail). Pennant north, SN87 98, G.Foulkes, conf. G.Foulkes, 15th Sep 2019; (+) Kerry Hill (Block Wood), SO15 86, J.Clayfield, conf. J.Clayfield, Aug 2019, pool at SJ150869.
- +084/1.02. **Epilobium parviflorum** (Hoary Willowherb) (Helyglys Lledlwyd). Rhyd, Cwm Llwyd, SH98 02, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 24th Aug 2019, by tiny stream/waterfall.
- +084/1.05. **Epilobium tetragonum** (Square-stalked Willowherb) (Helyglys Pedronglog). Tylwch (Esgair Maen), SN99 78, A.K.Thorne, conf. A.K.Thorne, 23rd Aug 2019, damp laneside verge.
- +084/1.06. **Epilobium obscurum** (Short-fruited Willowherb) (Helyglys Byrgodog). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, in flushes alongside bridleway south of deep stream valley.
- +084/1.12 **Epilobium brunnescens** (New Zealand Willowherb) (Helyglys Seland Newydd). Kerry Ridgeway (Turbarry), SO22 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019, less than half of monad in VC47, north of ridgeway - stream/felled conifer plantation/beet field.
- +088/1.1. **Euonymus europaeus** (Spindle) (Piswydden). Kerry, SO14 89, A.K.Thorne, conf. A.K.Thorne, 30th Sep 2019, road verge/hedgerow.
- +094/1.4. **Linum catharticum** (Fairy Flax) (Llin y Tylwyth Teg). Tylwch, SN988 786, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 23rd Aug 2019, central GR for west facing species-rich steep pasture. Locally frequent e.g. at south end; (+) Crugyn

- Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, main stream valley (small, steep with waterfalls).
- +095/1.2. **Polygala serpyllifolia** (Heath Milkwort) (Amlaethai'r Waun). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, along tiny side stream.
- +103/2.3. **Erodium cicutarium** (Common Stork's-bill) (Pig-y-crëyr). Derwenlas village, SN725 993, G.Foulkes, conf. G.Foulkes, 28th Sep 2019, several flowering plants on old road - now verge at SN725993.
- +‡111/3.4. **Calystegia silvatica** (Large Bindweed) (Taglys Mawr). Pennant north, SN87 98, G.Foulkes, conf. G.Foulkes, 15th Sep 2019; (+) A458 Bwlch y Fedwen (W of Foel), SH93 13, G.Foulkes, conf. G.Foulkes, 19th Aug 2019, road verge.
- +116/15.02. **Myosotis secunda** (Creeping Forget-me-not) (Sgorpionllys Ymlusgol). Kerry Ridgeway (Pantglas), SO23 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019.
- +116/15.07.‡ **Myosotis sylvatica** (Wood Forget-me-not) (Sgorpionllys y Coed). Kerry Ridgeway (Turbarry), SO22 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019, less than half of monad in VC47, north of ridgeway - stream/felled conifer plantation/beet field.
- +118/01.5×6. **Stachys xambigua** (Hybrid Woundwort) (Briwlys Croesryw). Llanfihangel (Ceunant), SJ06 18, R.Meade & MFG, conf. R.Meade & MFG, 12th Aug 2019, stream bank.
- +118/06.5. **Galeopsis bifida** (Bifid Hemp-nettle) (Y Benboeth Hollt). Kerry Ridgeway (Turbarry), SO22 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019, less than half of monad in VC47, north of ridgeway - stream/felled conifer plantation/beet field.
- +118/10.4. **Scutellaria minor** (Lesser Skullcap) (Cycyllog Bach). Tor Glas (Hafren), SN84 89, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 13th Nov 2019, in quantity on damp verge at side of plantation track at SN841899 at 404m; (+) Tylwch, SN987 788, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 23rd Aug 2019, small shaded bog by tiny stream at SN98747880; (+) Tylwch, SN988 785, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 23rd Aug 2019, bog on either side of small tributary, at south end of species-rich pasture plus east of stream within scrub.
- +124/01.07. **Verbascum thapsus** (Great Mullein) (Pannog Felen). A458 Bwlch y Fedwen (W of Foel), SH93 13, G.Foulkes, conf. G.Foulkes, 3rd Aug 2019.
- +124/16.10. **Veronica beccabunga** (Brooklime) (Llyisiau Taliesin). Milltir Gerrig, SJ01 30, S.Swindells & R.A.Dawes, conf. S.Swindells & R.A.Dawes, 29th Aug 2019, wet patch.
- +‡124/16.21. **Veronica persica** (Common Field-speedwell) (Rhwyddlwyn y Maes). Llaur-y-glyn (N. of Afon Trannon), SN94 91, E.Beare & S.Southam, conf. E.Beare & S.Southam, 5th Sep 2019, track through woods.
- +124/20.03. **Euphrasia officinalis subsp. anglica** (Effros Lloegr). Tylwch, SN97 79, A.K.Thorne & W.I.J.Thorne, det. A.K.Thorne, conf. C.Metherell, 23rd Aug 2019, old railway line - grazed embankments.
- +124/20.05. **Euphrasia arctica** (Arctic Eyebright) (Effros yr Arctig). Cwmbiga (Hafren), SN8594 8900, G.Foulkes, conf. C.Metherell, 17th Aug 2019, many plants along side of plantation track.

- +124/20.07×09. **Euphrasia nemorosa** × **E. confusa**. Lake Vyrnwy (Cwm yr Hafod), SH976 213, A.K.Thorne, G.Foulkes & MFG, det. G.Foulkes, conf. C.Metherell, 4th Aug 2019, edge of forest track.
- +128/1.3. **Pinguicula vulgaris** (Common Butterwort) (Tafod y Gors). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, main stream valley (small, steep with waterfalls). A few locations on streamside rocks between SO01897990 and SO01867982.
- +130/6.03. **Galium uliginosum** (Fen Bedstraw) (Briwydd y Fign). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, in flushes alongside bridleway south of deep stream valley, and alongside main stream; (+) Crugyn Llwyd, SO02 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, open moorland; (+) Kerry Ridgeway (Pantglas), SO23 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019.
- +133/2.3. **Valeriana dioica** (Marsh Valerian) (Triaglog y Gors). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, main stream valley (small, steep with waterfalls).
- *135/28.01.4. **Hieracium salticola** (Bluish-leaved Hawkweed). Talerddig, SH93 00, A.K.Thorne & W.I.J.Thorne, det. T.C.G.Rich, conf. D.McCosh, 19th Aug 2019, by cattle grid along lane near turn to Llwyn-y-Celyn.
- *135/28.07.74. [**Hieracium maculatum**] = **H. spilophaeum**. Rhyd, Cwm Llwyd, SH98 02, A.K.Thorne & W.I.J.Thorne, det. D.McCosh, conf. D.McCosh, 24th Aug 2019, high streamside bank.
- +†135/28.07.arg. **Hieracium argillaceum** (Southern Hawkweed). Gwernafon, SN92 90, A.K.Thorne & W.I.J.Thorne, det. T.C.G.Rich, conf. D.McCosh, 15th Aug 2019, lane verge.
- +†135/28.07.con. **Hieracium consociatum** (Sociable Hawkweed). Cwm Tafolog (Mallwyd), SH8942 1181, G.Foulkes, det. D.McCosh, conf. D.McCosh, 20th Aug 2019, two different hawkweeds growing on roadside bank at same location with *Solidago virgaurea*, *Betonica officinalis* and *Teucrium scorodonia*; (+) Llanfechain, SJ17 20, A.K.Thorne, det. T.C.G.Rich, conf. D.McCosh, Jul 2019, lane bank.
- +†135/28.07.dae. **Hieracium daedalelepioides** (Petite-leaved Hawkweed). Rhyd, Cwm Llwyd, SH98 01, A.K.Thorne & W.I.J.Thorne, det. D.McCosh, conf. D.McCosh, 24th Aug 2019, steep bank.
- +†135/28.08.115. **Hieracium scotostictum** (Dappled Hawkweed). Welshpool (Rhallt), SJ238 089, A.K.Thorne, G.Foulkes & MFG, det. T.C.G.Rich, conf. T.C.G.Rich, 3rd Aug 2019, lane bank. SJ2385.0898.
- +135/30.4. **Filago minima** (Small Cudweed) (Edafeddog Fach). Llanfihangel (Gwaelod), SJ07 19, A.K.Thorne & MFG, conf. A.K.Thorne & MFG, 12th Aug 2019, many plants on sandy waste ground by farm.
- +135/33.5. **Gnaphalium uliginosum** (Marsh Cudweed) (Edafeddog y Gors). Eisteddfa Fach, SN79 84, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 14th Sep 2019, A44 road verge; (+) Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, along bridleway south of deep stream valley.

- +135/37.1. **Pulicaria dysenterica** (Common Fleabane) (Cedowydd). Caersws (Ystradfaelog), SN98 92, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 9th Sep 2019, lane verge plus ditch/hedgerow.
- *135/40.1.min. **Solidago virgaurea subsp. minuta (L.) Arcang.** Pumlumon Arwystli, SN81 88, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 29th Aug 2019.
- +†135/50.1. **Artemisia vulgaris** (Mugwort) (Y Feidiog Lwyd). A458 Bwlch y Fedwen (W of Foel), SH93 13, G.Foulkes, conf. G.Foulkes, 3rd Aug 2019.
- +135/53.1. **Achillea ptarmica** (Sneezewort) (Ystrewlys). Eisteddfa Fach, SN79 84, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 14th Sep 2019.
- +135/55.3×60.2. **Tripleurospermum inodorum**. Cwm Tafolog (Mallwyd), SH89 11, G.Foulkes, conf. G.Foulkes, 20th Aug 2019; (+) Rhyd, Cwm Llwyd, SH98 01, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 24th Aug 2019, trackside; (+) Mynydd Carreg-y-big, SH98 03, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 24th Aug 2019, forest track.
- +†135/59.1. **Matricaria chamomilla** (Scented Mayweed) (Amranwen Bêr). Derwenlas village, SN72 99, G.Foulkes, conf. G.Foulkes, 28th Sep 2019; (+) Pont a'r Byllfa (Mallwyd), SH89 12, G.Foulkes, conf. G.Foulkes, 20th Aug 2019.
- +152/16.01. **Carex paniculata** (Greater Tussock-sedge) (Hesgen Rafunog Fawr). Waun Fign, SH875 104, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 24th Oct 2019, stand of tussocks about 10m x 10m at SH87551046 at 418m height.
- +152/16.08. **Carex muricata** (Hesgen Ysbigog). Tylwch, SN97 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 23rd Aug 2019, laneside verges.
- +152/16.32. **Carex sylvatica** (Wood-sedge) (Hesgen y Coed). Cwm Dugoed (Mallwyd), SH90 12, G.Foulkes, conf. G.Foulkes, 20th Aug 2019.
- +152/16.44×46.b. **Carex hostiana** × **C. demissa**. Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, in flushes alongside bridleway south of deep stream valley.
- +152/16.46.a. **Carex lepidocarpa** (Long-stalked Yellow-sedge). Llanwddyn (Cedig), SJ00 22, A.K.Thorne, det. M.S.Porter, conf. M.S.Porter, 2nd Sep 2019, flush close to forest track.
- +152/16.73. **Carex pulicaris** (Flea Sedge) (Hesgen y Chwain). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, along bridleway south of deep stream valley.
- +152/8.1. **Isolepis setacea** (Bristle Club-rush) (Clwbfrwynen Wrychog). Ceri Forest (Sarn), SO20 87, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 22nd Sep 2019, forest track/verge.
- +153/12.02. **Schedonorus arundinaceus** (Tall Fescue) (Peiswellt Tal). Llanfihangel (Ceunant), SJ06 18, S.Turner & MFG, conf. S.Turner & MFG, 12th Aug 2019, lane verge.
- +153/14.2. **Vulpia bromoides** (Squirreltail Fescue) (Peisgwelld Cynffon Gwiwer). Ceri Forest (Sarn), SO20 87, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 22nd Sep 2019, forest track/verge.
- +153/17.1. **Briza media** (Quaking-grass) (Crydwelld). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, main stream valley (small, steep with waterfalls).

- +153/28.3. **Avena fatua** (Wild-oat) (Ceirchen Wyllt). Kerry Ridgeway (Turbarry), SO22 88, J.Clayfield, conf. J.Clayfield, 2nd Oct 2019, less than half of monad in VC47, north of ridgeway - stream/felled conifer plantation/beet field.
- +153/49.2. **Phleum bertolonii** (Smaller Cat's-tail) (Rhonwellt Penfain). Cyfronydd, SJ131 084, A.K.Thorne, G.Foulkes & MFG, conf. A.K.Thorne, G.Foulkes & MFG, 4th Sep 2019, central GR for steep pasture with patches of U1 acid grassland.
- +153/55.1. **Elymus caninus** (Bearded Couch) (Marchwellt y Coed). Caersws (Ystradfaelog), SN98 92, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 9th Sep 2019, road vegre/hedgerow; (+) Caersws (Garthpwt), SN98 93, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 9th Sep 2019, road verge/hedgerow.
- +155/1.1. **Typha latifolia** (Bulrush) (Cynffon y Gath). Cemmas Road, SH81 04, Gillian & Peter Foulkes, conf. Gillian & Peter Foulkes, 22nd Sep 2019.
- +158/02.1. **Narthecium ossifragum** (Bog Asphodel) (Llafn y Bladur). Crugyn Llwyd, SO01 79, A.K.Thorne & W.I.J.Thorne, conf. A.K.Thorne & W.I.J.Thorne, 2nd Sep 2019, in flushes alongside bridleway south of deep stream valley.

MERIONETH, v.c.48 (comm. S. Stille)

- +077/10.3. **Ornithopus perpusillus** (Bird's-foot) (Troed yr Aderyn). Forestry track, Coed Pen y Garth, SJ1602 4279, T.Knight, 18th Aug 2019.
- +084/1.03x08. **Epilobium xinterjectum (E. montanum x E. ciliatum)**. Hafod Garregog, SH64C, G.D.Kitchener & S.Kitchener, 6th Sep 2019.
- +108/3.2. **Centaureum erythraea** (Common Centaury) (Y Ganrhi Goch). Pen-y-Bryn, SJ16 42, M.O.Stead, 1st Aug 2019; (+) Garthydwr, SJ16 43, M.O.Stead, 1st Aug 2019.
- +135/41.5. **Aster lanceolatus** (Narrow-leaved Michaelmas-daisy) (Blodyn-Mihangel Culddail). Llyn Tegid shore, SH928 353, A.N. & J.E.Graham, 17th Oct 2019.
- +153/51.1. **Bromopsis ramosa** (Hairy-brome) (Pawrwellt Blewog). Glyndyfrdwy East, SJ15 42, M.O.Stead, 1st Aug 2019.

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

- +010/2.1. **Trichomanes speciosum** (Killarney Fern) (Rhedynen Cilarne). Damp rocks below waterfall in gorge, Fairy Glen, Capelulo, SH74 75, Julian Driver, 8th Nov 2019, gametophyte, several patches seen.
- +017/1.2. **Polystichum aculeatum** (Hard Shield-fern) (Gwrychredynen Galed). Base rich gully, Ysgafell Wen, SH66 48, Julian Driver, 3rd Aug 2019; (+) rock face, Blaen y Coed, Ysbyty Ifan, SH81 46, Julian Driver, 12th Oct 2019.
- +019/1.1. **Azolla filiculoides** (Water Fern) (Rhedynen y Dŵr). Pond in garden, Abererch, SH40 36, Iwan Edgar, Jun 2017, arrived at pond during Summer 2017, gone the following year & not seen since.
- +021/XAN.noo. **Xanthocyparis nootkatensis** (Nootka Cypress). Churchyard, Nant Peris, SH60 58, Wendy McCarthy, 20th Sep 2019, planted.

- +028/17.3. **Thalictrum flavum** (Common Meadow-rue) (Arianllys). Roadside bank, Bontnewydd, SH47 89, Iwan Edgar, 1st Aug 2019.
- +†030/1.4. **Papaver rhoeas** (Common Poppy) (Pabi Coch). Disturbed bank, Porthmadog, SH57 38, Wendy McCarthy, 16th Aug 2019.
- +†046/22.1. **Saponaria officinalis** (Soapwort) (Sebonllys). Waste ground near houses, Nant Peris, SH60 58, Wendy McCarthy & M.Stead, 20th Sep 2019.
- +†057/1.11×12×alt. **Viola ×wittrockiana** (Garden Pansy) (Trilliw'r Gerddi). Disturbed ground in field, Pydew, SH81 79, Wendy McCarthy, 9th Aug 2019.
- +061/2.09×11. **Salix ×holosericea (S. viminalis × S. cinerea) [S. ×smithiana]** (Silky-leaved Osier) (Helygen Dail Sidan). Steep grassland below town wall, Conwy, SH77 74, Wendy McCarthy, 13th Sep 2019.
- +†062/14.4. **Cardamine raphanifolia** (Greater Cuckooflower) (Blodyn Llefrith Mawr). By stream in field, Sling, SH60 67, Wendy McCarthy, M.Roberts & L.Ball, 3rd Oct 2018.
- +†062/33.1. **Diplotaxis tenuifolia** (Perennial Wall-rocket) (Roced-y-muriau Meinddail). Soil heap near the sea, Morfa Dinlle, SH44 60, Wendy McCarthy, M.Roberts & L.Ball, 26th Nov 2018.
- +†069/4.4.fir **Lysimachia ciliata cv Firecracker** (Firecracker). Just inside field gateway, Pydew, SH81 79, Wendy McCarthy, 9th Aug 2019.
- +075/08.03.090. **Rubus amplificatus**. By wall in lane, Penisa'r Waun, SH54 63, Wendy McCarthy, 25th Sep 2018; (+) wooded bank above footpath, Bryn Maelgwyn, Llandudno, SH79 80, Wendy McCarthy, 7th Dec 2019.
- +075/08.03.093. **Rubus cardiophyllus**. Hedge-bank beside track, Pydew, SH81 79, Wendy McCarthy, 9th Aug 2019.
- +075/08.03.112. **Rubus nemoralis** (Boreal Bramble). Limestone hill near obelisk, Pydew, SH80 78, Wendy McCarthy, 9th Aug 2019.
- +075/21.05×16. **Rosa spinosissima × R. sherardii = R. xinvoluta**. Side of path behind houses, Deganwy, SH78 79, Wendy McCarthy, 13th Aug 2019.
- +075/21.squ. **Rosa squarrosa (Rau) Boreau**. Limestone hillside, Nant y Gamar, Llandudno, SH80 81, Wendy McCarthy, 18th Sep 2019.
- +†075/32.39. **Cotoneaster franchetii** (Franchet's Cotoneaster) (Cotoneaster Franchet). Stream bank at field edge, Nant Peris, SH60 58, Wendy McCarthy & M.Stead, 20th Sep 2019.
- +†077/14.05. **Vicia villosa** (Fodder Vetch) (Ffacbysen y Tir Âr). Bank at side of slip road, Abergwyngregyn, SH65 72, Wendy McCarthy, 10th Aug 2019.
- +†102/1.06. **Oxalis stricta** (Upright Yellow-sorrel) (Suran Felen Unionsyth). Near greenhouses at Penrhyn castle, Tal y Bont, SH60 71, Wendy McCarthy & E.Phenna, 10th Aug 2019.
- +103/2.1. **Erodium maritimum** (Sea Stork's-bill) (Pig-y-crëyr Arfor). Pavement edges, Nant Peris, SH60 58, Wendy McCarthy & M.Stead, 20th Sep 2019, in several places in pavement cracks & kerbs by main road.
- +†105/1.4. **Impatiens glandulifera** (Indian Balsam) (Jac y Neidiwr). Ditch near Afon Nant Peris, Nant Peris, SH60 58, Wendy McCarthy & M.Stead, 20th Sep 2019.

- +†109/1.1. **Vinca minor** (Lesser Periwinkle) (Perfagl Fach). Bank by footpath, Sling, SH60 67, Wendy McCarthy, M.Roberts & L.Ball, 3rd Oct 2018.
- +111/3.2.b. **Calystegia sepium subsp. roseata**. Near pond in bog garden at Penrhyn castle, Tal y Bont, SH60 71, Wendy McCarthy & E.Phenna, 10th Aug 2019.
- +†116/02.4. **Echium pininana** (Giant Viper's-bugloss) (Gwiberlys Mawr). Sea cliff above beach, Llanbedrog, SH34 32, Iwan Edgar, Jun 2017.
- +†116/09.1. **Borago officinalis** (Borage) (Tafod yr Ych). Disturbed ground in field, Pydew, SH81 79, Wendy McCarthy, 9th Aug 2019.
- +124/13.3×4. **Linaria ×dominii**. Disturbed bank, Porthmadog, SH57 38, Wendy McCarthy, 16th Aug 2019.
- *128/2.4. **Utricularia stygia** (Nordic Bladderwort) (Chwysigenddail Llychlyn). Pant Glas, SH46 47, J.Clark, A.Seddon, C.Williams & A.Graham, conf. Fred Rumsey 21/10/19 from photographs, 19th Sep 2019.
- +135/11.deb. **Centaurea debeauxii** (Slender Knapweed). Limestone grassland, Great Orme, Llandudno, SH77 82, Wendy McCarthy, 1st Aug 2019; (+) limestone grassland, Pydew, SH80 78, Wendy McCarthy, 9th Aug 2019.
- +†135/12.1. **Cichorium intybus** (Chicory) (Ysgello). Disturbed bank, Porthmadog, SH57 38, Wendy McCarthy, 16th Aug 2019.
- +†135/22.1. **Lactuca serriola** (Prickly Lettuce) (Letusen Bigog). Disturbed bank, Porthmadog, SH57 38, Wendy McCarthy, 16th Aug 2019.
- +†135/44.flo. **Conyza floribunda** (Many-flowered Fleabane). Derelict ground near car park, Abersoch, SH31 28, Wendy McCarthy, 2nd Aug 2019.
- +135/62.min. **Senecio minimus** (Toothed Fireweed). Abandoned flower trough, Machroes, SH31 28, Wendy McCarthy & M.Stead, 2nd Aug 2019.
- +†135/80.2. **Galinsoga quadriradiata** (Shaggy-soldier) (Galinsoga Blewog). Among bedding plants on roundabout, Caernarfon, SH48 63, Wendy McCarthy & M.Stead, 14th Sep 2019.
- +152/16.10. **Carex arenaria** (Sand Sedge) (Hesgen y Tywod). Dumped sand on waste ground, Llanberis, SH55 62, Wendy McCarthy & M.Roberts, 25th Sep 2018, on imported sand far from native habitat.
- +†153/46.2. **Polygogon viridis** (Water Bent) (Barfwellt y Dŵr). Pavement edge, Nant Peris, SH60 58, Wendy McCarthy & M.Stead, 20th Sep 2019.
- +†153/62.1. **Cortaderia selloana** (Pampas-grass) (Peithwellt). Dumped sand on waste ground, Llanberis, SH55 62, Wendy McCarthy & M.Roberts, 25th Sep 2018.
- *153/NAS/tea **Nassella tenuissima** (Argentine Needle-grass). Grass bank opposite houses, Great Orme, Llandudno, SH75 83, Wendy McCarthy, 1st Aug 2019.
- +†158/05.1. **Hemerocallis fulva** (Orange Day-lily) (Lili Undydd Oren). Grassy area under trees at nature reserve, Pydew, SH81 79, Wendy McCarthy, 9th Aug 2019, this site has a long history of garden waste tipping.
- *©158/NER.bow. **Nerine bowdenii**. Foreshore, Caernarfon, SH45 60, Julian Driver, 27th Oct 2019, several plants in flower.

- +‡159/13.3. **Crocospia pottsii** (Pott's Montbretia) (Crib-y-ceiliog Potts). Derelict ground near car park, Abersoch, SH31 28, Wendy McCarthy, 2nd Aug 2019.
- +‡160/3.1. **Cordyline australis** (Cabbage-palm) (Palmwydden Fresych). Soil heap near the sea, Morfa Dinlle, SH44 60, Wendy McCarthy, M.Roberts & L.Ball, 26th Nov 2018, several self-sown plants.
- DENBIGH, v.c.50 (comm. D. Williams)
- +017/3.03. **Dryopteris affinis** (Scaly Male-fern) (Marchredynen Euraid). Bryn Euryn, SH828 800, D.Williams, 3rd Sep 2019, woodland path.
- +017/3.08. **Dryopteris carthusiana** (Narrow Buckler-fern) (Marchredynen Gul). Moelfre Isaf North, SH95 74, M.O.Stead, 10th Aug 2019.
- +‡020/1.3.© **Abies procera** (Noble Fir) (Ffynidwydden Urddasol). Y Wern, SH888 659, Denbs Group (D.Williams), 22nd Sep 2019, in plantation east side of lane.
- +‡020/1.nor. **Abies nordmanniana** (Caucasian Fir) (Ffynidwydden y Cawcasws). Y Wern, SH888 659, Denbs Group (D.Williams), 22nd Sep 2019, lane south to north from Y Wern. In plantation east side of lane.
- +‡020/4.1. **Picea sitchensis** (Sitka Spruce) (Sbriwsen Sitca). Painters Green, SJ50 41, M.O.Stead, 10th Sep 2019.
- +‡020/7.2.© **Pinus nigra**. Pennant, SH872 595, D.Williams, 20th Sep 2019, lane running north/south.
- +‡020/7.2.a. **Pinus nigra subsp. nigra** (Austrian Pine) (Pinwydden Awstria). Fenn's Bank, SJ503 384, D.Williams, 17th Aug 2019, woodland ride to west of ponds.
- +‡020/7.5.© **Pinus radiata** (Monterey Pine) (Pinwydden Monterey). Bodnant, SH80 72, N.J.Osley & S.K.Osley, 12th Aug 2019, needles in threes.
- +©021/1.1×2.noo. **Cupressus macrocarpa** × **Chamaecyparis nootkatensis** = ×**Cupressocyparis leylandii** (Leyland Cypress) (Cypreswydden Leyland). Coed Pant-glas, SH83 70, N.J.Osley & S.K.Osley, 15th Aug 2019; (+) Heulfryn, SH93 72, N.J.Osley & S.K.Osley, 27th Aug 2019, grounds of anonymous chapel.
- +‡021/3.1.© **Thuja plicata** (Western Red-cedar) (Cedrwydden Goch). Bodnant, SH80 72, N.J.Osley & S.K.Osley, 12th Aug 2019, planted in strip between main and overspill car park.
- *‡029/1.7. **Berberis julianae** (Chinese Barberry) (Pren Melyn Tsieina). King's Mills, SJ3484 4948, M.O.Stead & G.Lowden, 1st Dec 2019, west roadside of industrial estate by fence uder tree.
- +‡030/1.4. **Papaver rhoeas** (Common Poppy) (Pabi Coch). Bryniau Gleision, SH8440 6880, N.J.Osley & S.K.Osley, 1st Sep 2019, spoil heap in field.
- +033/1.2. **Ulmus procera** (English Elm) (Llwyfen Lloegr). Cae-hir, SJ1581 3047, Denbs Group (D.Williams), 18th Aug 2019, a few small trees in hedge beyond farm.
- +‡039/1.1.pur. **Fagus sylvatica 'purpurata'** (Copper Beach). Holt, SJ41 54, L.Bointon, 29th Aug 2019, churchyard.
- +‡040/2.3. **Alnus cordata** (Italian Alder) (Gwernen yr Eidal). Bryn Euryn, SH828 800, D.Williams, 3rd Sep 2019, woodland path.

- +043/1.06. **Chenopodium rubrum** (Red Goosefoot) (Troed-yr-ŵydd Coch). Cae-hir, SJ1546 3011, Denbs Group (D.Williams), 18th Aug 2019, laneside hedgebank. Single large clump on verge.
- +043/3.06. **Atriplex littoralis** (Grass-leaved Orache) (Llygwyn Arfor). Fenn's Bank, SJ510 390, D.Williams, 17th Aug 2019, laneside.
- +046/10.1. **Sagina nodosa** (Knotted Pearlwort) (Corwlyddyn Clymog). Penmaen Rhos East, SH8964 7846, M.O.Stead, 5th Nov 2019, seaward side of cycleway, one clump.
- +046/17.1. **Spergularia rupicola** (Rock Sea-spurrey) (Troellig Arfor y Clogwyn). Llanddulas, SH9048 7863, M.O.Stead, 5th Nov 2019, west car park, between 2 rocks of sea defence.
- +046/17.3. **Spergularia marina** (Lesser Sea-spurrey) (Troellig Arfor Bach). Llidiart-cae-hir, SJ1466 3085, Denbs Group (D.Williams), 18th Aug 2019, roadside bank. Large patch on salt dump on west side of road; (+) Chirk Castle, SJ2711 3934, M.O.Stead, 12th Aug 2019, corner of junction on salt pile and spreading.
- +047/5.3. **Fallopia baldschuanica** (Russian-vine) (Clymog Rwsia). Holt, SJ41 54, L.Bointon, 29th Aug 2019, churchyard.
- +057/1.11×12×alt. **Viola xwittrockiana (V. lutea × V. tricolor × V. altaica)** (Garden Pansy) (Trilliw'r Gerddi). Kinmel Bay, SH9878 8033, M.O.Stead, 13th Nov 2019, south-west side of main road, uncut weedy area.
- +061/1.3×del.Ser. **Populus xcanadensis 'Serotina'** (Black-Italian Poplar) (Poplysen Ddu Groesryw'r Eidal). Painters Green, SJ5033 4126, M.O.Stead, 10th Sep 2019.
- +061/2.01. **Salix pentandra** (Bay Willow) (Helygen Bêr). Gopa Wood North, SH9360 7785, Osley, N.J., 18th Sep 2019, a multi-stemmed bush in a planting or could be a remnant from before development of Park.
- +061/2.09×11. **Salix xholosericea (S. viminalis × S. cinerea) [S. xsmithiana]** (Silky-leaved Osier) (Helygen Dail Sidan). Brynffordd, SH9260 7250, N.J.Osley & S.K.Osley, 20th Aug 2019, single bush trimmed in hedgerow.
- +062/12.1×2. **Nasturtium xsterilis** (Hybrid Water-cress) (Berwr-y-dŵr Croesryw). Dolwen North East, SH8911 7556, M.O.Stead, det. D.Williams, 29th Aug 2019, edge of old overgrown pond by farm entrance.
- +062/38.1. **Hirschfeldia incana** (Hoary Mustard) (Mwstard Llwyd). Pont Cysyllte, SJ27 42, M.O.Stead, 24th Sep 2019.
- +062/40.1. **Rapistrum rugosum** (Bastard Cabbage) (Bresychen Ddeilgrech). Kinmel Bay, SH9886 8033, M.O.Stead, 13th Nov 2019, south-west side of main road, uncut weedy area.
- +073/3.1. **Sempervivum tectorum** (House-leek) (Llyisiau Pen Tai). Holt, SJ41 54, L.Bointon, 29th Aug 2019, holt Road.
- +073/5.7. **Sedum spurium** (Caucasian-stonecrop) (Briweg y Cawcasws). Cae-march, SH95 72, M.O.Stead, 27th Aug 2019.
- *075/03.can×tri. **Spiraea xvanhouttei** (Van Houtte's Spiraea) (Erwain Van Houtte). Coed Pant-glas, SH83 70, N.J. & S.K.Osley, 15th Aug 2019, garden throw-out. Two medium sized bushes at layby S side of W section of Coed Pant-glas.

- +075/09.14×15.s.s. **Potentilla anglica** × **P. reptans** = **P. ×mixta sens. str.**. Cae-hir, SJ155 302, Denbs Group (D.Williams), 18th Aug 2019, laneside hedgebank.
- +‡075/17.3.b. **Poterium sanguisorba subsp. balearicum** (Fodder Burnet) (Bwrned Ebran). Llanddulas, SH91 78, M.O.Stead, 1st Sep 2019.
- +075/21.12×14. **Rosa corymbifera**. Cae-hir, SJ155 302, Denbs Group (D.Williams), 18th Aug 2019, laneside hedgebank; (+) Crabtree Green, SJ335 449, D.Williams, 26th Aug 2019, lanesides near Church.
- +075/21.squ. **Rosa squarrosa (Rau) Boreau**. Y Wern, SH888 659, Denbs Group (D.Williams), 22nd Sep 2019, lane south to north from Y Wern. In hedge east side of lane; (+) Trofarth, SH8557 7179, D.Williams, M.O.Stead & J.Palmer, 8th Aug 2019, laneside.
- +‡075/22.05.c. **Prunus domestica subsp. italica** (Coeden Eirin Gwyrdd). Mynydd Tryfan South, SH97 64, N.J.Osley & S.K.Osley, 20th Sep 2019, very sweet yellowish green fruits. Two small trees in laneside hedgerow south-west of Bod-awel.
- +075/22.11. **Prunus padus** (Bird Cherry) (Coeden Geirios yr Adar). Ynys Rhys, SH857 686, Denbs Group (D.Williams), 3rd Nov 2019, field track.
- +075/28.07.agg. **Sorbus intermedia agg.** (Cerddinen Sweden). Holt, SJ41 54, L.Bointon, 30th Aug 2019, churchyard.
- *084/1.02×08 **Epilobium ×floridulum**. Pont Cysyllte, SJ2730 4259, M.O.Stead, det. G.D.Kitchener 1 Oct 2019, 24th Sep 2019, waste area west side of old road, **Herb. D.Williams**
- +‡084/4.1. **Oenothera glazioviana** (Large-flowered Evening-primrose) (Melyn-yr-hwyr Mawr). Holt, SJ41 54, L.Bointon, 30th Aug 2019, playing field to bridge.
- +088/1.1. **Euonymus europaeus** (Spindle) (Piswydden). Painters Green, SJ50 41, M.O.Stead, 10th Sep 2019.
- +‡100/1.1. **Rhus typhina** (Stag's-horn Sumach) (Siwmac). Gyfelia, SJ328 451, D.Williams, 26th Aug 2019, laneside hedge.
- +‡102/1.03. **Oxalis corniculata** (Procumbent Yellow-sorrel) (Suran Orweddol). Worthenbury, SJ421 460, Denbs Group (D.Williams), 4th Aug 2019, village.
- +‡102/1.04. **Oxalis exilis** (Least Yellow-sorrel) (Suran Felen Fach). Bryn Euryn, SH828 800, D.Williams, 3rd Sep 2019, woodland path.
- +‡103/1.01×02. **Geranium ×oxonianum (G. endressii × G. versicolor)** (Druce's Crane's-bill) (Pig-yr-aran Druce). Holt, SJ41 54, L.Bointon, 30th Aug 2019, playing field to bridge.
- +‡103/1.17. **Geranium macrorrhizum** (Rock Crane's-bill) (Pig-yr-aran Wreiddfawr). Heulfryn, SH93 72, N.J.Osley & S.K.Osley, 27th Aug 2019.
- +103/2.3. **Erodium cicutarium** (Common Stork's-bill) (Pig-y-crêyr). Worthenbury, SJ4321 4655, Denbs Group (D.Williams), 4th Aug 2019, a few plants on pavement by Broughton Lodge Farm.
- +‡105/1.3. **Impatiens parviflora** (Small Balsam) (Ffromlys Bach). Tal-y-cafn, SH7990 7180, N.J.Osley & S.K.Osley, 8th Sep 2019, Bodnant Gardens, on a compost heap in deep shade of trees to south-east of Furnace Meadow.
- +‡107/25.1. **Conium maculatum** (Hemlock) (Cegiden). Cae-hir, SJ1581 3047, Denbs Group (D.Williams), 18th Aug 2019, track past farm. Single stand by farm outbuilding.

- +‡109/1.1. **Vinca minor** (Lesser Periwinkle) (Perfagl Fach). Pen-y-Vivod, SJ18 42, M.O.Stead, 3rd Sep 2019.
- +‡110/7.1. **Solanum lycopersicum** (Tomato) (Tomato). Brookfield Drive Biodiversity Site, SH82 79, M.O.Stead, 26th Oct 2019.
- +‡110/8.7. **Solanum tuberosum** (Potato) (Taten). Llanefydd, SH98 70, N.J.Osley & S.K.Osley, 8th Aug 2019, a single plant in the road verge south of Pentre uchaf.
- +‡111/3.3. **Calystegia pulchra** (Hairy Bindweed) (Taglys Blewog). Bryn Euryn, SH828 800, D.Williams, 3rd Sep 2019, woodland path.
- +‡111/3.4.dis. **Calystegia silvatica subsp. disjuncta**. Llangwylfan Farm West, SJ10 66, N.J.Osley & S.K.Osley, 13th Aug 2019.
- +‡117/1.bon. **Verbena bonariensis** (Argentinian Vervain) (Ferfain yr Ariannin). King's Mills, SJ3435 4986, Tom Knight, 28th Aug 2019, recent demolition site. Two plants growing in compacted concrete rubble.
- +‡118/01.2. **Stachys byzantina** (Lamb's-ear) (Clust yr Oen). Gefeilau Terrace, SJ328 449, D.Williams, 26th Aug 2019, laneside, cottage escapes.
- *‡118/24.1. **Rosmarinus officinalis** (Rosemary) (Rhosmari). Rhos on Sea, SH834 802, D.Williams, 3rd Sep 2019, frequent pavement weeds.
- +‡118/LAV.ang. **Lavandula angustifolia** (Garden Lavender). Colwyn Bay, SH84 79, M.O.Stead, 29th Oct 2019; (+) King's Mills, SJ3461 4921, M.O.Stead & G.Lowden, 1st Dec 2019, west corner of The Orchards.
- +120/1.3.agg. **Callitriche stagnalis s.l.**. Eglwysbach, SH801 719, Denbs Group (D.Williams), 8th Dec 2019, Bodnant Gardens - Yew Dell.
- +120/1.6. **Callitriche brutia**. Tal-y-cafn, SH799 717, Denbs Group (D.Williams), 8th Dec 2019, Bodnant Gardens - Furnace Wood.
- *‡122/1.3. **Buddleja globosa** (Orange-ball-tree) (Coeden-fêl Peli Oren). Rhos on Sea, SH832 800, D.Williams, 3rd Sep 2019, woodland paths. Frequent around allotments. Planted and regenerating.
- +‡123/4.2. **Ligustrum ovalifolium** (Garden Privet) (Yswyddden yr Ardd). Pont Cysyllte, SJ27 42, M.O.Stead, 24th Sep 2019.
- +124/20.09. **Euphrasia confusa** (Effros Gliniog). Mynydd Tarw, SJ11 32, Jonathan D.Shanklin, 1st Aug 2019.
- +‡127/1.1. **Acanthus mollis** (Bear's-breech) (Troed yr Arth). Rhos on Sea, SH832 804, D.Williams, 3rd Sep 2019, path. Frequent pavement weeds.
- +‡129/1.10. **Campanula poscharskyana** (Trailing Bellflower) (Clychlys Ymlusgol). Holt, SJ41 54, L.Bointon, 28th Aug 2019, holt Road.
- +‡129/7.2. **Lobelia erinus** (Garden Lobelia) (Bidoglys yr Ardd). Kinmel Bay, SH9903 8061, M.O.Stead, 13th Nov 2019, pavement weed.
- +130/3.1. **Sherardia arvensis** (Field Madder) (Mandon Las yr Yd). Holt, SJ40 54, L.Bointon, 3rd Sep 2019, gateway and field.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle) (Bachgen Llwm). King's Mills, SJ3439 4973, M.O.Stead & G.Lowden, 1st Dec 2019, path down to old railway east side of road bridge.

- +‡131/6.1. **Lonicera pileata** (Box-leaved Honeysuckle) (Gwyddfif Llorweddol). Erddig Country Park, SJ32756 48577, S.R.Hinsley, 2nd Aug 2019, coed Mawr.
- *‡134/1.lac. **Dipsacus laciniatus** (Cut-leaved Teasel) (Cribau'r-pannwr Carpiog). Berse, SJ3197 5037, Tom Knight, 19th Aug 2019, occasional on road embankment sown with wildflower seed mix.
- +‡135/12.1. **Cichorium intybus** (Chicory) (Ysgellog). Green, SJ05 68, M.O.Stead, 20th Aug 2019, remnant in field.
- +‡135/27.6. **Pilosella aurantiaca** (Fox-and-cubs) (Clust-y-llygoden Euraid). Hafod Elwy NNR, SH95 56, M.O.Stead, 17th Sep 2019.
- +135/28.01. **Hieracium sect. Sabauda**. Cilygroeslwyd Wood, SJ12 54, J.Palmer, 10th Oct 2019, bron y Graig species inventory.
- *‡135/41.5. **Aster lanceolatus** (Narrow-leaved Michaelmas-daisy) (Blodyn-Mihangel Cculddail). Coed Pant-glas, SH8395 7150, N.J. & S.K.Osley, conf. D.Williams, 27th Aug 2019, small disused roadstone quarry E side of B5113 300m N of Holland Arms cross-roads. 290m alt. A large patch covering several sq m.
- +‡135/43.4. **Erigeron karvinskianus** (Mexican Fleabane) (Amrhydlwyd y Cerrig). Llangwyfan Farm West, SJ1110 6625, N.J.Osley & S.K.Osley, 13th Aug 2019, on walls and at base of walls at Hafod Hedd.
- +‡135/44.1. **Conyza canadensis** (Canadian Fleabane) (Amrhydlwyd Canada). Kinmel Bay, SH9887 8037, M.O.Stead, 13th Nov 2019, south-east of traffic lights, uncut area.
- +‡135/58.lac×max. **Leucanthemum ×superbum (L. lacustre × L. maximum)** (Shasta Daisy) (Y Llygad-llo Mwyaf). Cefn Hafod-lom, SH98 54, M.O.Stead, 25th Aug 2019; (+) Hafod - rhisg, SJ173 433, Denbs Group (D.Williams), 8th Sep 2019, roadside.
- +142/1.15. **Potamogeton berchtoldii** (Small Pondweed) (Dyfrllys Bach). Green Isaf, SJ06 69, J.Rose, 8th Sep 2019.
- +‡148/2.4.© **Lemna minuta** (Least Duckweed) (Llinad Bach). Eglwysbach, SH801 719, Denbs Group (D.Williams), 8th Dec 2019, Bodnant Gardens - Yew Dell.
- + **Trichophorum germanicum agg.** (NP.). Mynydd Tarw, SJ10 32, Jonathan D.Shanklin, 1st Aug 2019.
- +153/32.1.b. **Deschampsia cespitosa subsp. parviflora** (Small-flowered Hair-grass). Dawn, SH87 73, M.O.Stead, 31st Aug 2019.
- *‡153/52.1. **Anisantha diandra** (Great Brome) (Pawrwellt Mawr). Honkley, SJ345 592, D.Williams, 14th Sep 2019, along footpath N side of hedge not far from stile.
- +‡153/59.1.© **Hordeum distichon** (Two-rowed Barley) (Haidd Dwyresog). Bedwell, SJ36 46, M.O.Stead & G.Lowden, 20th Oct 2019.
- +‡153/60.1. **Triticum aestivum** (Bread Wheat) (Gwenith). Wolvesacre Hall, SJ50 42, M.O.Stead, 11th Sep 2019.
- +‡153/PAN.mil. **Panicum miliaceum** (Common Millet) (Miled). Trevalyn, SJ3814 5685, M.O.Stead, 10th Oct 2019, pavement side weed.
- +154/1.2. **Sparganium emersum** (Unbranched Bur-reed) (Cleddlys Di-gainc). Tal-y-cafn, SH799 717, Denbs Group (D.Williams), 8th Dec 2019, Bodnant Gardens - Furnace Wood.

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

- ✕+073/5.11. **Sedum forsterianum** (Rock Stonecrop) (Briweg Gymreig). Bagillt, SJ27H, BSBI Flintshire Group, 17th Aug 2019.
- ✕+075/28.16. **Sorbus rupicola** (Rock Whitebeam) (Cerddinen y Graig). Prestatyn Hillside, SJ07 82, Tom Knight, 12th Oct 2019, new site within large woodland supporting known population.
- ✕+†118/01.8. **Stachys arvensis** (Field Woundwort) (Briwlys y Tir Âr). Rhyl, SH99 80, Jonathan Shanklin, 2nd Aug 2019; (✕+) Higher Kinnerton, SJ34 60, Jonathan Shanklin, 4th Aug 2019.
- ✕+153/23.2. **Parapholis incurva** (Curved Hard-grass) (Caledwellt Cam). Wepre Gutter, SJ30 69, Jonathan Shanklin, 5th Aug 2019; (✕+) Hawarden Bridge, SJ31 69, Jonathan Shanklin, 5th Aug 2019; (✕+) Queensferry, SJ32 68, Jonathan Shanklin, 5th Aug 2019.
- ✕+†153/50.7. **Bromus secalinus** (Rye Brome) (Pawrwellt Bach). Higher Kinnerton, SJ34 60, Jonathan Shanklin, 4th Aug 2019.

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

- +017/3.c. **Dryopteris borrieri**. Llyn Hafodol SSSI (S), SH39 88, Anglesey Flora Group, 12th Aug 2019.
- *†020/1.nor. **Abies nordmanniana** (Caucasian Fir) (Ffynidwydden y Cawcasws). Ynys Gaint, SH56 72, Anglesey Flora Group, 11th Aug 2019.
- +†020/2.1.© **Pseudotsuga menziesii** (Douglas Fir) (Ffynidwydden Douglas). Plas Tregayan Estate, SH45 79, Ian Bonner & Nigel Brown, 10th Aug 2019, frequent saplings of different ages throughout the woods.
- *020/4.ori. **Picea orientalis** (Oriental Spruce). Ynys Gaint, SH56 72, Anglesey Flora Group, 11th Aug 2019.
- *020/6.2.Gla. **Cedrus atlantica 'Glauca'**. Plas Tregain Estate, SH45 79, Ian Bonner & Nigel Brown, 10th Aug 2019, single tree, c. 30yrs old and not happy.
- +†020/7.3. **Pinus contorta** (Lodgepole Pine) (Pinwydden Gamfrig). RAF Valley (part), SH30 76, Anglesey Flora Group, 3rd Aug 2019, 2-3 trees planted in copse.
- +†020/7.mug.© **Pinus mugo** (Dwarf Mountain-pine) (Pinwydden y Mynydd). Anglesey Show Ground, SH40 75, Anglesey Flora Group, 8th Oct 2019, commonly planted in copses. 2nd VCR.
- +†021/1.1. **Cupressus macrocarpa** (Monterey Cypress) (Cypreswydden Monterey). RAF Valley (part), SH30 76, Anglesey Flora Group, 3rd Aug 2019, one golden horticultural variety in planted area.
- +†024/1.1© **Laurus nobilis** (Bay) (Llawrwydden). Trehinon Nature Reserve, SH4396 9278, Debbie Evans, 2019, mature tree.
- *†028/12.4. **Clematis montana** (Himalayan Clematis) (Barf-yr-hen-wŵr Himalaiaidd). Anglesey Show Ground, SH40 75, Anglesey Flora Group, 8th Oct 2019, robust growth overtopping hedge. 1st VCR and 4th Welsh record in DDb.

- +031/5.05.b. **Fumaria muralis subsp. boraiei**. Anglesey Show Ground, SH40 75, Anglesey Flora Group, 8th Oct 2019, local, on earth heap in N of site.
- +‡035/2.1. **Ficus carica** (Fig) (Ffigysbren). Holyhead (SE) (SH2581), SH2506 8161, John Bratton, 3rd Aug 2018, by railway, Kingsland.
- +‡040/2.3.© **Alnus cordata** (Italian Alder) (Gwernen yr Eidal). RAF Valley (part), SH30 76, Anglesey Flora Group, 3rd Aug 2019, several well grown trees in planted copse.
- +040/3.1.‡ **Carpinus betulus** (Hornbeam) (Oestrwydden). Glan Dwr, Llanfihangel yn Nhowyn (SH3277), SH322 774, Jim Clark, 2019, recently planted.
- +043/3.06. **Atriplex littoralis** (Grass-leaved Orache) (Llygwyn Arfor). Tyn Llan Survey, SH32 93, Richard Birch, 12th Aug 2019.
- +046/17.3. **Spergularia marina** (Lesser Sea-spurrey) (Troellig Arfor Bach). Anglesey Show Ground, SH40 75, Anglesey Flora Group, 8th Oct 2019, inland record, away from coast.
- +‡046/19.1. **Agrostemma githago** (Corncockle) (Bulwg yr Yd). Glan Dwr, Llanfihangel yn Nhowyn (SH3277), SH322 774, Jim Clark, 2019, from wildflower seed.
- +‡046/22.1. **Saponaria officinalis** (Soapwort) (Sebonllys). Llanfair Pwll (part), SH52 71, Pat Denne, 28th Sep 2019, garden escape.
- +047/8.15.san. **Rumex sanguineus var. sanguineus** (Blood-veined Dock). Plas Tregayan Estate, SH45 79, Ian Bonner & Nigel Brown, 10th Aug 2019, around outbuildings.
- +048/1.02. **Limonium humile** (Lax-flowered Sea-lavender) (Lafant-y-môr Blodau Llac). SH5371 (SH5371), SH5366 7106, Jane & Ivor Rees, 10th Sep 2019, c.20 plants in v. small saltmarsh NE of statue.
- +‡051/1.03×04. **Hypericum xnodorum** (Tall Tutsan) (Dail-y-Beiblau Tal). Anglesey Show Ground, SH40 75, Anglesey Flora Group, 8th Oct 2019, planted by main sheds and spreading; (+) Ynys Gaint, SH56 72, Anglesey Flora Group, 11th Aug 2019, several bushes, fully intermediate between the parents, both of which are present. Reconfirmed an unlocalised pre-2000 record in the DDb.
- +‡057/1.11×12×alt. **Viola xwittrockiana** (Garden Pansy) (Trilliw'r Gerddi). Llyn Hafodol SSSI (S), SH39 88, Anglesey Flora Group, 12th Aug 2019, rocky outcrop. Casual? Several small plants. 2nd VCR.
- +‡057/1.13. **Viola arvensis** (Field Pansy) (Trilliw'r Tir Âr). SH5069 (SH5069), SH505 691, Jane & Ivor Rees, 13th Aug 2019, Hootons PYO field.
- +061/1.2. **Populus tremula** (Aspen) (Aethnen). RAF Valley (part), SH30 76, Anglesey Flora Group, 3rd Aug 2019, several medium-sized trees planted in copse.
- +061/2.10×11. **Salix xreichardtii**. Plas Tregayan Estate, SH45 79, Ian Bonner & Nigel Brown, 10th Aug 2019.
- +‡062/11.3. **Barbarea intermedia** (Medium-flowered Winter-cress) (Berwr-y-Gaeaf Canolig). SH4464, SH44 64, Ian Bonner & Hugh Knott, 13th Aug 2019, several plants in stubble field.
- +062/39.1. **Cakile maritima** (Sea Rocket) (Hegydd Arfor). SH5067 (SH5067), SH5034 6727, Jane & Ivor Rees, 13th Aug 2019, not recorded this far up the Menai Strait before.
- +‡062/42.1.a. **Raphanus raphanistrum subsp. raphanistrum** (Wild Radish) (Rhuddygl Gwylt). Anglesey Show Ground, SH40 75, Anglesey Flora Group, 8th Oct 2019, local, open hedgebank.

- +‡065/8.3. **Gaultheria mucronata** (Prickly Heath) (Gweunlwyn Pigog). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, established in one area of heath.
- +065/12.8. **Erica vagans** (Cornish Heath) (Grug Cernyw). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, well established pink and white forms; (+) Ynys Gaint, SH56 72, Anglesey Flora Group, 11th Aug 2019, several plants on slope under oak.
- *‡070/1.1. **Pittosporum crassifolium** (Karo) (Llwyn Caro). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, moderate sized flowering bush in heath area.
- +‡071/HYD.mac. **Hydrangea macrophylla** (Hydrangea) (Trilliw ar Ddeg). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, inner garden.
- +‡073/5.4. **Sedum spectabile** (Butterfly Stonecrop) (Briweg Iâr Fach yr Haf). Plas Tregayan Estate, SH45 79, Debbie Evans, 5th Aug 2019, few plants growing along verge, opposite house.
- +‡073/5.7. **Sedum spurium** (Caucasian-stonecrop) (Briweg y Cawcasws). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, small patch in open stony heath.
- +‡074/05.08×09. **Saxifraga xurbium** (Londonpride) (Balchder Llundain). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, a few plants established in open heath.
- +074/05.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage) (Tormaen Tribys). SH4392, SH4392 9257, Debbie Evans, 2019, growing in gravelly edge to kerb. Also on verge in business park.
- +‡075/03.1×3. **Spiraea x pseudosalicifolia** (Confused Bridewort) (Ffug Erwain-dail-helyg). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, scattered bushes originally planted now spreading.
- +‡075/22.05.a. **Prunus domestica subsp. domestica** (Coeden Eirin). Anglesey Show Ground, SH40 75, Anglesey Flora Group, 8th Oct 2019, local in small plantation.
- +‡077/15.09. **Lathyrus latifolius** (Broad-leaved Everlasting-pea) (Ytbysen Fythol Lydanddail). Newborough Warren SSSI (part), SH43 63, Nigel & Caroline Brown, 24th Aug 2019, some fine flowering plants, seaward face of established fixed dune.
- +‡078/2.macxpun. **Elaeagnus macrophylla** × **E. pungens** = **E. x submacrophylla** (Ebbinge's Oleaster). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, 2 plus bushes in the disturbed area between the inner garden and heath.
- +‡084/4.4. **Oenothera cambrica** (Small-flowered Evening-primrose) (Melyn-yr-hwyr Mân-flodeuog). Menai Bridge (SH5571), SH5574 7172, Hugh Knott, 13th Aug 2019, parking area by Hugh Knott's house.
- +085/1.1.‡ **Cornus sanguinea** (Dogwood) (Cwyrosyn). Glan Dwr, Llanfihangel yn Nhowyn (SH3277), SH322 774, Jim Clark, 2019, recently planted.
- +‡103/1.01. **Geranium endressii** (French Crane's-bill) (Pig-yr-aran Ffrainc). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, inner garden.
- +‡110/7.1.© **Solanum lycopersicum** (Tomato) (Tomato). Menai Bridge, SH55 71, J.H.Bratton, 10th Oct 2017, 1 flowering, St George's Promenade.
- *©110/PET.axixint. **Petunia x hybrida** (Petunia) (Petwniâu). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, a few scattered plants in disturbed ground.

- +111/3.2.b. **Calystegia sepium subsp. roseata**. SH5371, SH53 71, Jane & Ivor Rees, 10th Sep 2019, 4+ colonies known for 5 years along stretch of shore 150m. W. of Nelson's statue.
- +‡118/04.1.c. **Lamiastrum galeobdolon subsp. argentatum**. Glan-yr-afon, SH60 80, Ted Phenna, 17th Sep 2019.
- *©123/1.sus. **Forsythia suspensa** (Golden-bell). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, mature clump in heath area.
- +‡123/1.sus×vir.© **Forsythia ×intermedia** (Forsythia) (Clychau Aur). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, scattered mature bushes in heath area.
- +‡131/6.2.© **Lonicera nitida** (Wilson's Honeysuckle) (Gwyddfif Wilson). Glan-yr-afon, SH60 80, Ted Phenna, 17th Sep 2019.
- *135/11.deb. **Centaurea debeauxii** (Slender Knapweed). Llyn Hafodol SSSI (S), SH39 88, Anglesey Flora Group, 12th Aug 2019.
- +135/28.01.5. **Hieracium vagum** (Gabrous-headed Hawkweed). Llyn Hafodol SSSI (S), SH39 88, Anglesey Flora Group, 12th Aug 2019, rocky outcrop; (+) Ynys Gaint, SH56 72, Anglesey Flora Group, 11th Aug 2019, on rocky outcrops. Reconfirmed unlocalised pre2000 record in DDb.
- +‡135/41.3×4. **Aster ×versicolor** (Late Michaelmas-daisy) (Blodyn-Mihangel Diweddar). Tywyn Llyn, SH32 72, Anglesey Flora Group, 15th Sep 2019, 5m. wide strip along N side of A4080 in marram and reed, also 3227372718 - 3229872711.
- +‡135/41.4×5. **Aster ×salignus** (Common Michaelmas-daisy) (Blodyn Mihangel). Tywyn Llyn, SH32 72, Anglesey Flora Group, 15th Sep 2019, 15m. x 3m. colony on N. side of A4080 in roadside grass and blackthorn. 3rd.VCR.
- +‡135/44.1. **Conyza canadensis** (Canadian Fleabane) (Amrhydylwyd Canada). SH5372, SH534 724, Pat Denne, 8th Aug 2019.
- *‡135/45.avi. **Olearia avicenniifolia** (Mangrove-leaved Daisy-bush) (Llwyn-llygad-y-dydd Dail Mangrof). SH5672 (SH5672), SH560 727, Anglesey Flora Group, 11th Aug 2019, mature bush on roadside bank.
- *‡135/45.num. **Olearia nummulariifolia** (Sticky Daisy-bush). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, several mature bushes.
- *‡135/45.sol. **Olearia solandri** (Coastal Daisy-bush). Tywyn Llyn (SH3272), SH3227 7250, Anglesey Flora Group, 15th Sep 2019, 30cm.tall x 70cm. at base, though clearly larger in the past, **Herb.NHB**
- +‡135/66.com×lax. **Brachyglottis ×jubar (B. laxifolia × B. compacta)** (Shrub Ragwort) (Llwyn-creulys 'Sunshine'). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, modest-sized clump on area of heath.
- +145/1.1. **Zannichellia palustris** (Horned Pondweed) (Llynwlyddyn Corniog). Tyn Llan Survey, SH32 93, Richard Birch, 12th Aug 2019.
- +151/2.6.b. **Luzula multiflora subsp. congesta**. Llyn Hafodol SSSI (S), SH39 88, Anglesey Flora Group, 12th Aug 2019.
- +152/3.5. **Eleocharis quinqueflora** (Few-flowered Spike-rush) (Ysbigfrwynen Goch). Tyn Llan Survey, SH32 93, Richard Birch, 12th Aug 2019, pond no.4.
- *153/12.07.a. **Festuca rubra subsp. rubra**. RAF Valley (part), SH30 75, Anglesey Flora Group, 3rd Aug 2019.

- *153/12.07.d. **Festuca rubra subsp. commutata** (Chewing's Fescue) (Peiswellt Chewing). RAF Valley (part), SH30 75, Anglesey Flora Group, 3rd Aug 2019.
- +153/24.2×4. **Glyceria xpedicellata** (Hybrid Sweet-grass) (Melyswellt Croesryw). Bryn Aber (SH3293), SH329 935, Nigel Brown, 27th Aug 2019, heath area.
- +153/24.4. **Glyceria notata** (Plicate Sweet-grass) (Melyswellt Plygedig). Tyn Llan Survey, SH32 93, Richard Birch, 12th Aug 2019, pond no.4.
- +‡159/13.1. **Crocospmia paniculata** (Aunt-Eliza) (Modryb Leusa). Tywyn Fferam (E), SH33 71, Anglesey Flora Group, 15th Sep 2019, 1.5m x 1.5m colony but also 1m x 1m at SH33147195, both in rank dune grassland.
- +‡160/4.1. **Phormium tenax** (New Zealand Flax) (Llin Seland Newydd). Tywyn Llyn, SH32 72, Anglesey Flora Group, 15th Sep 2019, single mature plants at above, also SH32307329.

Images on inside back cover:

Image 6: Anthriscus caucalis (Bur Chervil), Cerrig Cynrig, L.Traffwll, Anglesey. © Glen Forde. See page 17.

Image 7: Trifolium subterraneum (Subterranean Clover) showing rusty red calyx, Cerrig Cynrig, L.Traffwll, Anglesey. © Mandy Forde. See page 17.

Image 8: Callitriche stagnalis (Common Water-starwort) from a garden pond in Menai Bridge, Anglesey. © Hugh Knott. See page 24.

Images on back cover:

Image 9: Epipactis helleborine (Broad-leaved Helleborine) at Penparcau, Aberystwyth. © C.Griffiths. See page 29.

Image 10 & 11: Linum bienne (Pale Flax) in a field near Lasgarn Wood (SO2704) Monmouthshire. © Steve Smith. See page 14.

Image 12: Single plant of Centaurium pulchellum (Lesser Centaury) on the drying banks of a reservoir in Monmouthshire. © Trevor Tyler Batt. See page 15.

Image 13: Osmunda regalis (Royal Fern) at Garn yr Erw, Monmouthshire. © Steve J. Williams. See page 13.



