Glamorgan Botany Group

2021 Excursion Report

Our excursions for 2021 largely replicated what we had planned for 2020, had Covid-19 not intervened. So we managed five enjoyable visits, with lots of botanical highlights found in woods, pastures, quarries, gorges, and spoil heaps!

Of course, we're always sharing tips on plant identification too, and this year provided plenty of opportunities to do that – so if you want to get to know Glamorgan's plants better, then join us on our 2022 excursions.

David Barden, Karen Wilkinson and Julian Woodman

Leckwith - Sunday 16 May

Postponed from the previous weekend because of the dreadful weather, the conditions for this excursion were reasonable, with a little sunshine early and late, and a few spells of mostly nuisance-value rain. Our group of 12 started by crossing Trelai Park, finding an abundance of *Alopecurus pratensis* (Meadow Foxtail) and plenty of *Conopodium majus* (Pignut) in the rougher grassland on the site of the Roman villa.

A grassy area on the N side of the underpass yielded *Barbarea vulagaris* (Winter-cress), a reasonable number of *Dactylorhiza fuchsii* (Common Spotted Orchid), and *Lotus corniculatus* (Common Bird's-foot Trefoil) and *L. pedunculatus* (Greater Bird's-foot Trefoil) for comparison.

In Plymouth Wood, an attractive patch of Galium odoratum (Woodruff) was found almost immediately, and this species later proved to be locally frequent. We first headed SW slightly to an old quarry that Rob & Linda Nottage recalled as being fairly open in the past, but which was now completely wooded and dominated on the ground by the unwelcome combination of Impatiens glandulifera (Himalyan Balsam) and Fallopia japonica (Japanese Knotweed), and with little else of interest except for a small patch of Adoxa moschatellina (Moschatel).





Plymouth Wood held good quantities of *Galium odoratum* (left), and also allowed comparison of three similar sedges (right, *C. pendula*, *C. strigosa* and *C. sylvatica*, from left to right)

Back on the main path, we paused to compare three superficially similar sedges – the common *Carex sylvatica* (Wood Sedge) and *C. pendula* (Pendulous Sedge), and the specialist of damp limestone woodland *C. strigosa* (Thin-spiked Wood Sedge). Another nice plant confined to this type of woodland was *Milium effusum* (Wood Millet), which we found in good quantity in several places. Above the lip of the old quarry, we found six plants of *Neottia ovata* (Twayblade) and a thin scattering of *Orchis mascula* (Early Purple Orchid).



The lacy flowering spikes of *Milium effusum* were nice to see in several parts of Plymouth Wood... but very difficult to photograph!





Amongst a rather Ivy-dominated ground flora, we found small quantities of *Neottia ovata* (left) and *Orchis mascula* (right).

Both of the characteristic woodland violets *Viola riviniana* (Common Dog Violet) and *V. reichenbachiana* (Early Dog Violet) had been seen by this point, so near our lunch stop we were pleased to see the hybrid between them. During lunch, Julian headed westward to the S face of the A4232 cutting, and was able to confirm the presence of *Ervilia* (*Vicia*) *sylvatica* (Wood Vetch), with about 30–50 clumps over a 30m × 10m strip at the top of the cutting.







The hybrid violet *V.* × *bavarica* we found shows its typical characters of being strongly floriferous, with lingering flowers due to the failure to produce seed pods.

Left: Although conveniently at sitting height, these specimens of Dryad's Saddle didn't look like they'd take our weight, so we sat on the log for our lunch stop instead! Right: A sample of the *Ervilia sylvatica* collected by Julian, showing its flamboyant stipules.

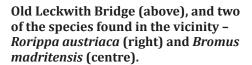


After lunch, we turned S, and found *Ranunculus auricomus* (Goldilocks Buttercup) before heading down a muddy stream with some *Oxalis acetosella* (Wood Sorrel) associated with mossy, rotting tree-stumps – as is typical for this calcifuge species in limestone woods. Back on the main path, we moved fairly swiftly through Leckwith Woods to the road, spotting *Equisetum telmateia* (Great Horsetail) on the way.

Ranunculus auricomus demonstrates its typical feature of producing ill-formed petals.

A complete change of scenery and habitat then followed, as we examined the pavement cracks on the busy Leckwith Road, and (crossing the River Ely) the environs of the old Leckwith Bridge, long since shorn of much scenic appeal thanks to its proximity to a scruffy industrial unit. However, the area held a good range of ruderal species, including *Bromus madritensis* (Compact Brome), *Hirschfeldia incana* (Hoary Mustard), *Catapodium rigidum* (Fern Grass), *Tragopogon pratensis* (Goat's-beard), *Valeriana carinata* (Keel-fruited Cornsalad), *Puccinellia distans* (Reflexed Saltmarsh Grass), *Polypogon viridis* (Water Bent). Perhaps the most interesting species here was *Rorippa austriaca* (Austrian Yellow Cress), a plant with only six other post-2000 records for v.c. 41.









Back in Leckwith Woods, a small patch of the rarer subspecies of *Ficaria verna* (Celandine) – subsp. *verna* – was identified by its bulb-bearing leaf axils, while a highlight of the day for many was a patch of *Paris quadrifolia* (Herb Paris), last seen in these woods (though not in the same place) in 1994.

Heading back along the main path, we paused to consider a massive fern that was a fair match for the hybrid between *Dryopteris filix-mas* (Male Fern) and *D. affinis* (Scaly Male Fern) – photo below. Finally, we crossed Trelai Park by a more circuitous route, and were pleased to see some slightly better-quality turf, including lots of *Ranunculus bulbosus* (Bulbous Buttercup) and a small amount of *Leontodon saxatilis* (Lesser Hawkbit).



The fine 2m × 3m flowering patch of *Paris quadrifolia* in Leckwith Woods prompted many of the group to get their camera(phones) out.



Identifying *Dryopteris* hybrids isn't usually a laughing matter, but David and Faith are finding something funny about this 5ft specimen of *D. × complexa*!



In a bit of end-of-day sunshine, *Ranunculus* bulbosus shows its deflexed sepals.

St Fagans - Saturday 19 June

A cloudy, dry and fairly warm weather provided pleasant botanising conditions for our group of 14 in riverside pastures between St Fagans and St Georges. Starting from the A4232 turnoff to the Museum of Welsh Life, we headed S to the River Ely, finding *Stellaria graminea* (Lesser Stitchwort) in some drier ground on the way. Towards the river, there was plenty of *Lysimachia nummularia* (Creeping Jenny), and on the riverbank itself we were pleased to find a 3m stretch of *Scirpus sylvaticus* (Wood Clubrush), a rather scarce plant in the vice-county and last seen in this area on the other side of the river in 1995.



Impatiens capensis is confined to a few places in the SE Vale.



"Right so, we're on Key D, couplet 5 – 'at least the most *proximal* female glumes on *lowest* spikes usually with apical points greater than or equal to *one-third* as long as rest of glume...', actually, hang on a minute, those ones are only by the coast, let's move on to, um, couplet 8 – 'stems densely tufted, often forming wide and tall tussocks...' everyone still with me?". Julian, Karen, Kat and Caroline grapple with the complexities of the *Carex nigra* group of sedges over a very extended lunch break.



Scirpus sylvaticus in fine form on the bank of the River Ely.

A little further on, a set of flood-prone grazed marshes and muddy ditches on the W side of the river provided plenty of interest. The first thing to attract our attention was an abundance of *Equisetum fluviatile* (Water Horsetail) and *E. palustre* (Marsh Horsetail), enabling easy comparison. Here there was also one clump of *Glyceria notata* (Plicate Sweet Grass) – last seen in this hectad between 1987 and 1999 during survey work for the previous Atlas. Other nice plants here included plenty of *Scutellaria galericulata* (Greater Skullcap), leaves of the neophyte *Impatiens capensis* (Orange Balsam), and a set of sedges, which – after much consideration – we decided included *Carex elata* (Tufted Sedge) and *C. acuta* (Slender Tufted Sedge).



Floodplain grassland by the River Ely produced plenty of interest, including lots of *Oenanthe crocata* (Hemlock Water Dropwort) – the white haze in the distance.



Aconitum napellus - here making a striking sight close to the riverbank - has a long history of being recorded along the valley of the River Ely, and is presumed to be native here.

Close to the A4232 flyover, we saw the hybrid between *Juncus inflexus* (Hard Rush) and *J. effusus* (Soft Rush), and from this point onwards *Aconitum napellus* (Monkshood) was locally frequent on the riverbank. Not far away, some drier ground on the valley side yielded a set of *Potentilla* (Tormentil) specimens that, lacking ripe seeds, defied easy classification.

Further upstream, we crossed under the railway line, and emerged into another area of trampled grassland, where we found a selection of species rarely encountered on our excursions – *Veronica catenata* (Pink Water Speedwell), *V. scutellata* (Marsh Speedwell), *Ranunculus aquatilis* (Common Water Crowfoot), *R. hederaceus* (Ivy-leaved Crowfoot) and *R. sceleratus* (Celery-leaved Buttercup).



Veronica catenata (left), *Ranunculus sceleratus* (top right) and *R. aquatilis* (bottom right) were three highlights in a muddy part of the field near the railway line.

Better things were yet to come though, with two base-rich flushed areas on sloping ground producing, in close association, abundant *Carex lepidocarpa* (Long-stalked Yellow Sedge) – decidedly rare in the vice-county, frequent *Valeriana dioica* (Marsh Valerian), *Juncus subnodulosus* (Bluntflowered Rush) and *Carex panicea* (Carnation Sedge), as well as *Trifolium medium* (Zigzag Clover), *Briza media* (Quaking Grass), *Samolus valerandi* (Brookweed), *Anagallis tenella* (Bog Pimpernel) and *Triglochin palustre* (Marsh Arrowgrass).









From left to right: Fruiting heads of *Carex lepidocarpa* and *Valeriana dioica*, and flowers of *Juncus subnodulosus* and *Triglochin palustre* – all found within a small area of base-rich flushes.

Having exhausted ourselves admiring all these delights, we headed back to the cars, spotting on the way a little *Betonica officinalis* (Betony), *Pimpinella saxifraga* (Burnet Saxifrage) and *Conopodium majus* (Pignut) on a relatively dry slope, to complete a rewarding day.

Quaker's Yard - Sunday 18 July

Although there was a moderate breeze to temper the heat a little, we had to contend with temperatures of 28°C, largely clear skies, and negligible shade on this excursion. So appropriately furnished with hats and daubed with sun-cream, our group of 12 headed from Prince Llewellyn Farm a short way up the lane to the quarry at the S end of Cefn-glâs, where we hoped to refind the solitary clump of *Vicia orobus* (Wood Bitter Vetch) first seen by George Tordoff in 2007.

Our luck was in, and it was rewarding (and perhaps even a bit surprising) to find that the plant was still in good health, high up on the rock face at the N end of the quarry. We discussed how it might have come to be there, and wondered whether more might still be lingering unnoticed elsewhere on the hilltop (a job for another day!).

Having satisifed ourselves with this find, we looked around the rest of the quarry, where some unusually delicate-looking *Dryopteris dilatata* (Broad Buckler Fern) caused confusion for a while. It was nice to see *Umbilicus rupestris* (Navelwort) on the quarry faces, and *Hypericum maculatum* (Imperforate St John's-wort) close by.







Tracking down our quarry... in a quarry! *Vicia orobus* persists here, at one of only six sites in the vice-county. (In the top photo, the location is directly behind the birch tree, at the point marked by an arrow).



Looking S towards along the short, flowery turf of Cefn-glâs towards Mynydd Goetre-Coed.

Moving out onto the stony track running up to the top of the ridge, there was lots to see in the short turf, developed over what appeared to be mining spoil, and in places dominated by lichens.

Highlights included *Thymus polytrichus* (Wild Thyme), *Galium verum* (Lady's Bedstraw),

Campanula rotundifolia (Harebell), Dactylorhiza praetermissa (Southern Marsh Orchid), Pastinaca sativa (Wild Parsnip), Carduus nutans (Musk Thistle), Sherardia arvensis (Field Madder), Vulpia bromoides (Squirreltail Fescue) and Briza media (Quaking Grass), and we accrued a commendable total of 93 species for this ridge as a whole.



Some of the more colourful plants seen on Cefn-glâs (clockwise from top left): *Galium verum* (with Craig-yr-efail behind), *Leontodon saxatilis* (Lesser Hawkbit), *Centaurium erythraea* (Common Centaury), *Carduus nutans* (Musk Thistle), *Campanula rotundifolia* (Harebell), a pink form of *Prunella vulgaris* (Self-heal)... and possibly the biggest fruits of *Fragaria vesca* (Wild Strawberry) that any of us had seen!

By this time, most of us were tired and hot, and so with a little reluctance, we circled back down the E side of the ridge back to the lane, and down to our cars. On the way, David spotted an *Epilobium* that wasn't looking quite 'right', and closer inspection at home confirmed it as the hybrid between *E. ciliatum* (American Willowherb) and *E. montanum* (Broadleaved Willowherb) – one of the commoner hybrids in this genus, but like all of them, very likely under-recorded.



This photo doesn't exactly show all the diagnostic features, but the deeper colour to the edges of the petals is one of the signs of an *Epilobium* hybrid, and the 'confused' (irregularly lobed) stigma suggests that one of the parents is a four-lobed species (in this case *E. montanum*) and the other a clavate-lobed species (in this case *E. ciliatum*). See, it's easy!

Parc Penallta - Saturday 14 August

Thirteen botanists, joined at a couple of points by Andy Wilkinson, Senior Environmental Education Ranger for Caerphilly County Borough, met at the more southerly car-park on a day that started dull and drizzly, but which gradually brightened to give some warm sunshine.

While waiting for the group to assemble, David compiled a short list from the nearby grassland, including *Galium verum* (Lady's Bedstraw), which we later found elsewhere on the site. Moving downslope with the group, we saw *Ervilia* (*Vicia*) *hirsuta* (Hairy Tare), and pondered over a *Hypericum*, which we ultimately decided was best placed as *H. perforatum* (Perforate St John's-wort).

We then crossed into a separate, grazed field, which was not part of the park. This was largely marshy, with a striking feature being masses of *Mentha* × *verticillata* (Whorled Mint), along with plenty of *Stachys palustris* (Marsh Woundwort) and *Hydrocotyle vulgaris* (Marsh Pennywort). Identifying some tussocks of *Carex paniculata* (Tussock Sedge) was easy, but another sedge confused us, and on closer inspection Karen concluded it was *Carex vesicaria* (Bladder Sedge) – a rare plant in v.c. 41, but one that has previously been seen not far away at Nelson Bog. A small area of damp





woodland nearby added a few typical species, including *Veronica montana* (Wood Speedwell), while nearby was some white-flowered *Cirsium arvense* (Creeping Thistle).

Left: Mentha × verticillata – with numerous whorls of flowers ending in a cluster of leaves, along with tapering sepal-teeth – formed large stands in a marshy field adjoining Parc Penallta. Right: Cirsium arvense usually has purple flowers, but occasionally they are pure white, as here.

Back in the park proper, we concluded an *Arctium* species was *A. minus* (Lesser Burdock) on account of the hollow petioles, and were able to demonstrate the characteristic features of *Trifolium medium* (Zigzag Clover) as well. A small area of bare coal-rich substrate produced a list of species typically associated with alkaline soils, including *Leontodon hispidus* (Rough Hawkbit), *Ononis repens* (Restharrow), *Origanum vulgare* (Marjoram), *Daucus carota* (Wild Carrot) and *Linum catharticum* (Fairy Flax). Indeed the presence of these and other calcicoles was a feature of the day, and testament to the unusual chemical balance often found in coal-spoil.





Arctium minus and its characteristic hollow petioles.



Moving on, *Erigeron acris* (Blue Fleabane) was a new species for a couple in the group, while a small stand of bushes produced rosettes of *Primula veris* (Cowslip), a plant with a very patchy distribution in the N half of v.c. 41.

Dianthus armeria (Deptford Pink) had been on our target list for the day, so having walked round to a known site, we were very happy to find about 150 plants in an area of lightly vegetated ground, with smaller colonies within 150m or so. Here too was *Polygala vulgaris* (Common Milkwort) and *Isolepis setacea* (Bristle Clubrush).

Dianthus armeria combines attractiveness with rarity – this is only one of two places were it can be found in the E of v.c. 41.

Climbing the wooded slope of the main spoil-heap of the site, we encountered five plants of *Epipactis helleborine* (Broad-leaved Helleborine), with *Succisa pratensis* (Devil's-bit Scabious) and *Achillea ptarmica* (Sneezewort) not far away.

Emerging onto the skeletal soils on the plateau at the top, an immediately obvious feature was the local abundance of *Chamaemelum nobile* (Chamomile), a species only otherwise known in v.c. 41 from the Gower and Nash Point. Other plants of interest here included *Rosa rubiginosa* (Sweet Briar), *Dactylorhiza praetermissa* (Southern Marsh Orchid), and a purple-flushed *Euphrasia* that nevertheless proved to best match the commonplace *E. nemorosa* (Common Eyebright). Moving E, a large number of small depressions had been dug for the benefit of wildlife, and these, mostly filled with water, yielded *Eleocharis palustris* (Common Spikerush) and *Alisma lanceolata* (Lanceolate Water Plantain).







The bare, coal-laden and water-saturated soils at the top of the main spoil-heap (left) held plenty of *Chamaemelum nobile* (centre), along with an unusual *Euphrasia nemorosa* (right).

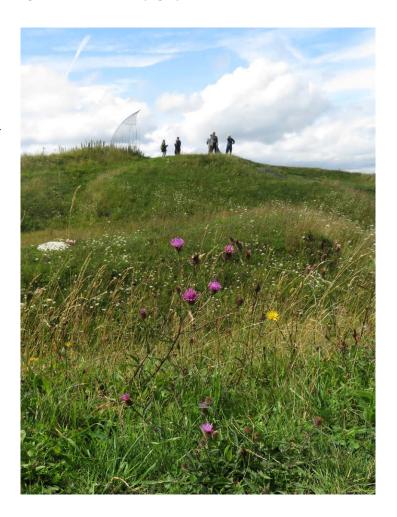
Continuing past the landscaped pit pony 'Sultan', we ascended a set of steps, finding small annuals including *Sherardia arvensis* (Field Madder) and *Arenaria serpyllifolia* (Thyme-leaved Sandwort), as well as *Aira caryophyllea* (Silver Hair Grass) and *A. praecox* (Early Hair Grass) for easy comparison. On the SE-facing slope below 'The Observatory', the spoil-heap regulars *Filago minima* (Small Cudweed) and *Anaphalis margaritacea* (Pearly Everlasting) were noted, while further below, we found *Calluna vulgaris* (Heather) – a notable absentee from our lists for the day up to that point.

The group gathers on the top of 'Sultan' in Penallta Park, and inadvertently provides the perfect shot for a poster promoting botany in vice-county 41. I can see it now:

Glamorgan Botany Group: Join us for sun-filled days finding beautiful flowers on airy hilltops.

Disclaimer:

- 1. Weather conditions may change at short notice.
- 2. Vegetative plants may be encountered and be the subject of unnecessarily lengthy discussion.
- 3. Close inspection of the kerb-edge in the car-park where we meet may occupy most of the morning.



On the track back to the cars, we saw *Pimpinella saxifraga* (Burnet Saxifrage), *Poterium sanguisorba* subsp. *sanguisorba* (Salad Burnet) and more *Origanum vulgare* – all indicating a slightly raised soil pH. Finally, a little *Malva moschata* (Musk Mallow) was seen, to complete a rewarding day.





Anaphalis margaritacea (left) and Origanum vulgare (right) formed fine patches in a couple of spots. The latter turned out to be a new v.c. 41 hectad record.

Cwm Ffrwd - Sunday 19 September

After little dampness in the morning, the weather turned fine and sunny in the afternoon, although we were unable to enjoy much of this, due to being 50ft down in a river gorge! Our band of six botanists had dwindled to four by then, but we nevertheless got some good recording done.

We started off on Tai Mawr Road, which had some hedgebanks predating the modern estate, and consequently a reasonable selection of wayside species, with *Elymus caninus* (Bearded Couch) being a nice find, although already known from the general area. A puzzling *Thymus* on a retaining wall was, from its unlikely position, undoubtedly an escape from the adjacent garden, but it took some close examination to decide it was best placed as *T. pulgeoides* (Larger Wild Thyme) rather than another species.

Continuing onto the cycle track, we compiled a good list from the adjacent scrubby grassland, including one plant of *Agrimonia procera* (Fragrant Agrimony), plenty of *Vicia tetrasperma* (Smooth Tare) at one point, and a bush of *Rosa rubiginosa* (Sweet Briar) – the latter being a new hectad record. A lightly-vegetated cutting was particularly rewarding, with *Linum catharticum* (Fairy Flax), *Pimpinella saxifraga* (Burnet Saxifrage), *Dactylorhiza fuchsii* (Common Spotted Orchid), and a nice group of *Euphrasia officinalis* subsp. *rostkoviana* (Rostkov's Eyebright), later confirmed by Julian.



The attractive, large flowers of *Euphrasia* officinalis subsp. rostkoviana. One of the distinguishing features is its long gland-tipped hairs (inset).

On the path down to the river, the non-native *Galega officinalis* (Goat's Rue) was abundant – as is often the case where it is found. Turning into a very wet, heavily-grazed field underneath the A470 road bridge, we found a mix of woodland species and those of boggy pasture, with a bank at the far end producing some *Bromopsis ramosa* (Hairy Brome), a rather local plant in the vice-county.

We then crossed into Cwm Ffrwd itself – a impressive gorge on the vice-county boundary, caused by glacial meltwater cutting through overlying sandstone into relatively soft mudstone at the end of the last ice age about 12,000 years ago. We found ourselves in damp, shady, rock-strewn woodland, clearly prone to flooding after heavy rain. The going was rather difficult at first, but became a little better as the gorge narrowed upstream.

As expected in this cool and shady habitat, some good ferns were present on the gorge walls. These included locally plentiful *Cystopteris fragilis* (Brittle Bladder Fern), and small quantities of *Polystichum aculeatum* (Hard Shield Fern), *Oreopteris limbosperma* (Lemon-scented Fern), *Gymnocarpium dryopteris* (Oak Fern) and *Phegopteris connectilis* (Beech Fern) – all seen previously, and good to re-find here. More unexpected was a large colony of *Polypodium interjectum* × *P. vulgare* (Hybrid Polypody) – only the 10th record in the vice-county since 2000, and a new hectad record.



Lyn, Julian and Karen examining the slope containing *Bromopsis ramosa*.



Some of the ferns found in Cwm Ffrwd (clockwise from top left): Polypodium interjectum \times P. vulgare overrunning a mossy log on the stream bed; Polystichum aculeatum; Oreopteris limbosperma; Cystopteris fragilis; and Gymnocarpium dryopteris.



The habitat in the lower part of the gorge, where accumulated debris from the cliff face had resulted in the formation of a steep scrubby slope down to the stream bed.

Our main target was, however, *Rubus saxatilis* (Stone Bramble), last seen here by Julian when he visited in 2004. The species is scattered in upland woods in v.c. 42 just to the N, but in v.c. 41 it has otherwise only been seen in a handful of sites, all prior to 2000. Initially we were not hopeful, as we could not find any on the first cliff-face we came to, and where Julian remembered seeing it. Plants were then seen on the v.c. 42 side of the stream, enabling us to 'get our eye in', and a little further upstream we were pleased to see some on 'our' side in two places. In both, there were a reasonable number of stems dangling down the cliff face. Our search covered the gorge all the way up to the waterfall underneath the A465, which was impassable and where we had turn back.



Left: Julian inspects one of the two colonies of *Rubus saxatilis* on the v.c. 41 side of Cwm Ffrwd. Right: *Rubus saxatilis* has trailing, more-or-less spine-free stems and tripinnate leaves rather like *Fragaria vesca* (Wild Strawberry). *Galium odoratum* is also visible at the bottom.



"Don't look up!". Karen and Julian botanise in the upper reaches of the cwm, hoping that the engineers who built the A465 flyover knew what they were doing.

The emergence of lime-rich waters in the upper part of the cwm caused some impressive lime deposits on the gorge walls (top) and even an oak leaf (bottom)!

Other plants seen in the cwm included *Lamiastrum galeobdolon* subsp. *montanum* (Yellow Archangel), which was generally abundant, along with some good patches of *Galium odoratum* (Woodruff) in a few spots, and a little *Valeriana dioica* (Marsh Valerian). Two surprise finds were young plants of *Solanum lycopersicum* (Tomato) and *Physalis peruviana* (Cape Gooseberry), growing next to each other in the gravelly stream-bed, which we thought were most likely to have originated in sewerage from further upstream.

Heading back downstream, we ascended the side of the cwm once it became possible to do so, finding *Melampyrum pratense* (Common Cow-wheat) in the woodland on the way. The fields at the top were ungrazed and becoming dominated by brambles in several places, but one open section held a satisfying mix of *Betonica officinalis* (Betony), *Carex caryophyllea* (Spring Sedge), *Conopodium majus* (Pignut), *Trifolium medium* (Zigzag Clover), several square metres' worth of *Alchemilla glabra* (Smooth Lady'smantle), and a single flowering patch of *Sanguisorba officinalis* (Great Burnet), to complete a varied and memorable day.



Physalis peruviana growing in the stream bed.





Back in the sunshine in the fields just N of Gellideg (left), and the Sanguisorba officinalis we found there (right).

Text by David Barden. Photos by David Barden, except where by Caroline O'Rourke (CO'R), Faith Williams (FW) and Julian Woodman (JW).