

Glamorgan Botany Group

2014 Excursion Report

We held six excursions this year, and as in 2013 concentrated on the less intensively recorded eastern half of the vice-county. We looked at a variety of habitats, from calcareous woodland to upland bogs, all of which proved productive – both in terms of the number of records, and for helping new enthusiasts to familiarise themselves with a range of common and uncommon species. We're currently starting to think about excursions for next year, so let us know if you have any ideas for places to visit.

We look forward to seeing you on our excursions in 2015!

David Barden, Karen Wilkinson and Julian Woodman

Ruthin – Saturday 19 April

Meeting on Mynydd Ruthin on a rather cloudy morning, our party of seven first walked down towards Pant-y-llywydd Farm, soon diverting off the lane to an area of short calcareous turf. Here we encountered a range of common calcareous species, including abundant *Thymus polytrichus* (Wild Thyme), and a few rosettes each of *Dactylorhiza fuchsii* (Common Spotted Orchid) and *Ophrys apifera* (Bee Orchid). Clumps of *Hypericum perforatum* (Perforate St John's-wort) and *H. maculatum* ssp. *obtusiusculum* (Imperforate St John's-wort) were distinguished on vegetative characters, as were *Geranium columbinum* (Long-stalked Crane's-bill) and *G. dissectum* (Cut-leaved Crane's-bill). An area of dumped soil and rubble contained a large clump of *Matteuccia struthiopteris* (Ostrich Fern), identified only with the help of 'Stace' and so going some way to making David feel it had been worthwhile to cart this load about in his bag!

Moving down the lane and past the quarry entrances, we were pleased to see a small quantity of *Neottia ovata* (Twayblade) on the bank, and further down abundant *Lamiastrum galeobdolon* ssp. *montanum* (Yellow Archangel). Some leaves of this displayed a silvery colouring that can cause confusion with the introduced ssp. *argentatum*, but the coloration in the native subspecies is not so extensive and is only apparent early in the year.



We found some strongly pink-coloured *Anemone nemorosa* in Coed Pant-llywydd.



The keys in 'Poland' rely on petiole characteristics to distinguish vegetative *Geranium dissectum* (left) from *G. columbinum* (right), but the leaf colours of plants we found were quite distinct.



A young rosette of *Neottia ovata* near Pant-llywydd Farm.

After checking with the farmer as arranged, we moved into Coed Pant-llywydd, splitting up into groups to cover the lower and higher parts. The wood proved to be very pleasant, with abundant *Anemone nemorosa* (Wood Anemone), in a couple of places with pink-coloured flowers. *Ficaria verna*

(Lesser Celandine) and *Allium ursinum* (Ramsons) were well-distributed, but other typical woodland species such as *Melica uniflora* (Wood Melick) and *Conopodium majus* (Pignut) were in rather short supply. *Galium odoratum* (Woodruff) was seen in one spot, and *Orchis mascula* (Early Purple-orchid) was also rare, although one plant was notable for having a complete absence of leaf-markings.

We stopped for lunch in the sunshine on a steep bank belonging to the farm, where we encountered a good range of species of unimproved neutral grassland, including *Carex caryophylla* (Spring Sedge), *Alchemilla filicaulis* ssp. *vestita* (Hairy Lady's-mantle) and *Betonica officinalis* (Betony). Further along, we found *Oxalis acetosella* (Wood Sorrel) – only remarkable here for being on an earthen bank, rather than a rotting log or mossy streamside, which is more usually the case where the underlying rocks are calcareous. Close by was a patch of vegetative *Persicaria bistorta* (Common Bistort) several metres long.

An adjacent damp field that had looked promising on the aerial photographs proved not to be of particular interest, having likely been manured in the not-too-distant past. Although we found a range of plants typical of damp grassland – including *Cardamine pratensis* (Cuckooflower or Lady's Smock), *Silene flos-cuculi* (Ragged Robin) and *Stellaria alsine* (Bog Stitchwort) – none were common, with the exception of *Juncus* (Rush) species and *Persicaria hydropiper* (Water-pepper). Seedlings of the latter formed remarkable cress-like patches, which Julian bravely identified by taste! The surrounding ditch-banks contained a number of typical species, along with two species uncommon in the Vale, *Melampyrum pratense* (Common Cow-wheat) and *Lathyrus linearifolius* (Bitter Vetch).

We then retraced our steps back to the farm, passing into a steep horse-grazed paddock. Here, a small area with some exposed limestone had frequent *Viola hirta* (Hairy Violet) and *Poterium sanguisorba* ssp. *sanguisorba* (Salad Burnet), and also one square metre of *Helianthemum nummularium* (Common Rock-rose).



The flat top of Coed Breigam was a sea of flowering *Anemone nemorosa*.

The adjacent Coed Breigam had a very similar flora to Coed Pant-llywydd, but with (if anything) less variety. This was not to say that it was dull, for the dominance of *Anemone nemorosa* and/or *Hyacinthoides non-scripta* (Bluebell), both in full flower, made for a delightful scene. However, we did feel a little short-changed from our hour-long visit – just about the only points of interest at the top of the wood were a single spike of *Orchis mascula* and a scattering of *Viburnum opulus* (Guelder Rose), while the lower slopes were similarly unremarkable. Even *Allium ursinum* was restricted to the bottom of the wood, although there was quite a bit of *Veronica montana* (Wood Speedwell) and another



At the top of the wood was *Orchis mascula* without the usual leaf-blotches.



One orchid rosette on Mynydd Ruthin had delicate leaf-rings suggesting hybridity, and a later visit by Rob and Linda confirmed the hybrid of *Dactylorhiza fuchsii* with *D. praetermissa* (Southern Marsh Orchid) here, along with a clump of the vice-county rarity *Filipendula vulgaris* (Dropwort).



We were pleased to see *Ophioglossum vulgatum* in the short turf.

patch of pink-flowered *Anemone nemorosa*. In both woods, a factor in the lack of diversity may be the low water table due to the presence of the adjacent (very deep) quarries – indeed, we paused for a moment at the top of Coed Breigam to consider the rarity of a dry, flat, calcareous woodland in a Welsh context!

With both woodlands now thoroughly explored, we headed back up to Mynydd Ruthin. As former heathland struggling with a *Pteridium aquilinum* (Bracken) problem, we had not expected a great deal here, but were pleasantly surprised by the moderate diversity of the grassland, enhanced by more *Neottia ovata*, several good patches of young *Ophioglossum vulgatum* (Adderstongue Fern), and locally abundant *Dactylorhiza fuchsii*. The most striking feature was the locally abundant *Primula vulgaris* (Primrose), occasional *P. veris* (Cowslip), and scattered clumps of the showy hybrid where they came into proximity. Heading back to the car park, Julian confirmed the presence of a little *Agrostis canina* (Velvet Bent) and *Polygala serpyllifolia* (Heath Milkwort), with both white and blue flowers, indicating a more acidic influence in this otherwise apparently neutral grassland.



Primula on Mynydd Ruthin – *P. vulgaris* (back right), *P. veris* (middle right) and the hybrid (front).

David Barden

Rhose Point – Saturday 17 May

This excursion was planned with the help of Adam Mantell, who (at the time of the excursion) lived in Rhose and knows the site well. Our party of 13 headed west from Rhose Station through an area of reseeded grassland, where we noted a very tall specimen of *Carex caryophylla* (Spring Sedge), a clump of robust *Lotus corniculatus* (Bird's-foot Trefoil) suspected to be the agricultural var. *sativus*, and a large patch of *Trifolium medium* (Zigzag Clover), which we were able to compare side-by-side with *T. pratense* (Red Clover).

Having paused to examine two remarkably different-sized specimens of *Brassica nigra* (Black Mustard), we moved down to the coast path, seeing on the way a little *Myosotis discolor* (Changing Forget-me-not), characteristically displaying its pale-coloured young flowers.



Myosotis discolor by the coast path – it later proved to be quite common in the Rhose Point quarries.



There was lots to see in the westernmost quarry, despite appearing rather desolate initially.

the barest turf one group of *Saxifraga tridactylites* (Rue-leaved Saxifrage) and a few *Spiranthes spiralis* (Autumn Lady's-tresses). The orange-coloured carrot-smelling inner bark of a shrub enabled identification as *Rhamnus cathartica* (Buckthorn), but we didn't have the patience to key out any of the *Cotoneaster* species, apart from the distinctive *C. horizontalis* (Wall Cotoneaster), which was predominant here. A very large *Ficus carica* (Fig) was noted along the eastern side of the quarry, while a single plant of *Ophrys apifera* (Bee Orchid), with flowers yet to open, seemed to have petals without the usual pink colouring.



David's hope of identifying this non-flowering *Taraxacum* was nearly as small as the plant itself!

After lunch, we found a few plants of *Filago vulgaris* (Common Cudweed), some tiny *Taraxacum* sp. (Dandelion), and scattered *Linum bienne* (Pale Flax), while Julian took away some *Euphrasia* for identification as *E. cf. tetraquetra* (Western Eyebright). Linda Nottage and Karen spotted a substantial number of *Anacamptis pyramidalis* (Pyramidal Orchid) over a few square metres, while rockier spots at the southern end had colonies of *Rubia peregrina* (Wild Madder).

Clambering out of this quarry and heading back east, we briefly dropped down to the shore to examine the known site for *Adiantum capillus-veneris* (Maidenhair Fern) on the cliffs, on the way pausing to admire an ammonite over 70cm in diameter embedded in the wave-cut platform.



Surveying the central quarry.

Back in the main quarry area, our first find was a single clump of *Limonium binervosum* agg. (Rock Sea-lavender) by the main footpath. A south-east-facing bank examined by David and Adam held plenty of an upright, non-native, form of



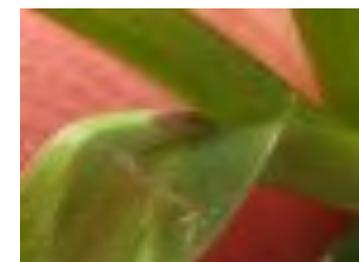
The 'trullate' (trowel-shaped) leaves of this orchid helped us to identify it as *Spiranthes spiralis*.



The unfolding petals of this *Ophrys apifera* appear to be white.



***Lathyrus nissolia* (dark green leaves) is a classically difficult plant to spot...**



...although pulling back the leaves from the stem allowed us to see the young flower-bud.

Onobrychis vicifolia (Sainfoin), while below this, and close to the lake margins, the rest of the group found plenty of *Myosotis discolor*, a reasonable quantity of *Ranunculus parviflorus* (Small-flowered Buttercup), and a good colony of *Lathyrus nissolia* (Grass Vetchling), somehow spotted by Julian despite not being in flower!



***Galium parisense* – Julian found more in the same area on a later visit.**

Moving over into the next section of quarry, we soon came across a very restricted colony of a bedstraw, which caused much head-scratching. The backward-pointing prickles on the stems and the forward-pointing prickles on the leaf-margins led us to tentatively identify it as the nationally rare *Galium parisense* (Wall Bedstraw) – a conclusion upheld after later consultation with other botanists. Although this species is native in some parts of the British Isles, in many places it is casual, and this is very likely the case here.

In the same area was *Equisetum telmateia* (Great Horsetail) and *Carex demissa* (Common Yellow Sedge), with yellow-green long-beaked fruits held low down in the plant. On the nearby cliff a few *Vicia bithynica* (Bithynian Vetch) had survived the winter from a transplanting that had taken place in 2013, from an old garden centre at Llangan earmarked for development.

Moving into the centre of this large quarry, we were able to appreciate an abundance of orchids including *Dactylorhiza praetermissa* (Southern Marsh Orchid), many already in flower. The rosettes of *Spiranthes spiralis* and *Epipactis palustris* (Marsh Helleborine) were also apparent here, and it was a slight surprise to locate some *Salix repens* (Creeping Willow) in the short turf.



Some of the *Dactylorhiza praetermissa* had very broad leaves, and this plant in particular was robust to the point of ugliness, with very long bracts.



***Fumaria muralis* ssp. *boreoi* showing the relatively large ovate sepals with strong denticulations that serve to distinguish it from *F. bastardii* (Tall Ramping Fumitory).**

Moving east along the coast path, we found *Cirsium acaule* (Creeping Thistle) and more *Ranunculus parviflorus* before dropping down into the shallow valley known as ‘The Dams’. Beyond here, a strip of grassland held a curious mix of *Bromopsis erecta* (Upright Brome) and *Vicia nigra* (Common Vetch), but little else of interest. Further on, a long-abandoned quarry was typical of many old quarries on limestone elsewhere in Britain, with rabbit-nibbled turf and a range of typical species including *Polygala vulgaris* (Common Milkwort), *Briza media* (Quaking Grass) and *Anacamptis pyramidalis*, along with *Vulpia bromoides* (Squirreltail Fescue) in one spot.

With the sun still shining, we headed back, noting on the way the non-native grass *Anisantha madritensis* (Compact Brome) and *Valerianella locusta* (Common Cornsalad) around the base of the quarry cliff – much less common these days than *V. carinata* (Keeled Cornsalad). Finally, we saw a fine patch of *Fumaria muralis* ssp. *boreoi* (Common Ramping Fumitory) by a flight of steps leading up into a housing estate.

David Barden

Cilfynydd – Sunday 15 June

Our group of 10 started off from Cilfynydd RFC in the morning sunshine, and headed north along the recently disturbed ground and banks of Nant Cae-Dudwg, quickly building up a list of common plants. A path diversion led us up a mostly dry stony bank, which yielded a number of heathland plants, including *Rumex acetosella* (Sheep's Sorrel), and small quantities of *Polygala serpyllifolia* (Heath Milkwort), *Veronica officinalis* (Heath Speedwell) and *Nardus stricta* (Mat Grass). The presence of black glands on the leaf-margins of *Hypericum humifusum* (Trailing St John's-wort) but their absence in *H. pulchrum* (Slender St John's-wort) was also demonstrated.

Moving across a dense bracken-covered slope, we encountered frequent *Rubus ideaus* (Raspberry), before dropping back down towards the stream through a series of highly productive flushes. These occupied us for some time, with *Narthecium ossifragum* (Bog Asphodel), plenty of *Wahlenbergia hederacea* (Ivy-leaved Bellflower), an abundance of *Drosera rotundifolia* (Round-leaved Sundew), and a single plant of *Veronica scutellata* (Marsh Speedwell). We also found *Dactylorhiza maculata* (Heath Spotted Orchid), and Greg Nuttgens demonstrated how careful insertion of the tip of a grass stem into the flower could detach the pollinia, in the same manner as insects do. Incidentally, this mechanism is virtually unique to orchids, and was described by Darwin as one of the ways they avoid self-pollination.



A pleasing sight was several dozen spikes of *Dactylorhiza maculata*.



There were a few early blooms of the delicate *Wahlenbergia hederacea* in the flushes.

We then headed along the banks of the stream, finding a mix of woodland and grassland species, including *Carex laevigata* (Smooth-stalked Sedge). A surprise find was *Dryopteris dilatata* (Broad Buckler Fern) growing completely within a glass bottle! Leaf characteristics were used to confirm *Scutellaria minor* (Lesser Skullcap) from a small damp area near the river, while further along the vegetative features of oaks (*Quercus* spp.) caused some discussion.



An enterprising *Dryopteris dilatata*!



The field corner had some *Lotus corniculatus* with rather more orange flowers than normal.

Having negotiated a barbed wire fence on this increasingly ill-defined footpath, we found ourselves in the corner of a large sloping pasture with a nice mix of common species, including *Linum catharticum* (Fairy Flax), *Centaureum erythraea* (Common Centaury), *Briza media* (Quaking Grass), and some good patches of flowering *Anagallis tenella* (Bog Pimpernel). Also noticed was *Potentilla anglica* (Trailing Tormentil), distinguished from *P. erecta* (Tormentil) by having some five-petalled flowers amongst regular four-petalled ones – although as it wasn't fruiting it could equally have been the hybrid.



***Carex pallescens* showing its distinctive pale-green fruiting heads and crimped base to the longest bract.**

Back on the southern side of the stream, and further upslope, we first passed through a relatively species-poor pasture with little of interest except frequent *Conopodium majus* (Pignut). A second, damper pasture further on proved to be much more rich. As well as some *Valeriana dioica* (Marsh Valerian) and *Alchemilla xanthochlora* (Pale Lady's-mantle), a pleasing find was abundant *Carex pallescens* (Pale Sedge).

Beyond this, in an area of otherwise unremarkable oak woodland, we found six large fern species within one 2-metre stretch of bank. These were *Athyrium filix-femina* (Lady Fern), *Blechnum spicant* (Hard Fern), *Dryopteris affinis* agg. (Scaly Male Fern), *D. dilatata* (Broad Buckler Fern), *Oreopteris limbosperma* (Lemon-scented Fern), *Pteridium aquilinum* (Bracken), and best of all a single clump of *Phegopteris connectilis* (Beech Fern), a rare plant this far south in the vice-county (although



The fine fern assemblage including *Phegopteris connectilis* (centre).

given our finds later in the year at Cwm Clydach and Ystrad, perhaps not as rare as we thought!).

With time pressing and having endured a short but sharp shower, we moved briskly on, passing through a meadow even wetter than the last one, in which the gracefully branched fronds of *Equisetum sylvaticum* (Wood Horsetail) were a conspicuous feature. Shortly after, we spotted a striking patch of *Silene flos-cuculi* (Ragged-robin) on the other side of the stream, turning the ground pink over several square metres.

Finally pushing through the vegetation onto the Pant-Du Road, we headed reasonably quickly back to our cars, but had time to add a number of species to our list, including some common hedge-bank staples we had not seen so far – one of these being the first *Asplenium scolopendrium* (Hart's-tongue) of the day, by the bridge over the Nant Cae-Dudwg close to where we had begun.

David Barden

Cwm Clydach, Tonypandy – Sunday 13 July



Along the riverside track at Cwm Clydach, *Juncus effusus* var. *subglomeratus* (left) was compared with the regular form (right).

A warm, sunny day saw 12 botanists gather in the lower car-park in these former colliery workings, and head west along the banks of the river, soon encountering hybrid swarms of *Dactylorhiza fuchsii* (Common Spotted Orchid) and *D. praetermissa* (Southern Marsh Orchid). As we were to find later, human intervention in the flora was apparent, with species such as *Trifolium hybridum* (Alsike Clover) being likely to have come from a seed mix when the site was landscaped. Further on, *Juncus effusus* (Soft Rush) was displaying its compact-headed variety, with the smooth stems that distinguish it from *J. conglomeratus* (Compact Rush).

Diverting off the track into a dense stand of young woodland, we found a large patch of *Pyrola rotundifolia* (Round-leaved Wintergreen) – something of a coal-tip speciality in Glamorgan – and several plants of *Epipactis helleborine* (Broad-leaved Helleborine), confirmed by a count of leaf veins as recommended in ‘Poland’. The *Pyrola* was abundant in more open situations further along the track, as noted by Rob & Linda Nottage five years previously. Nearby we were able to separate *Salix aurita* (Eared Willow) from the commoner *S. cinerea* (Grey Willow) by its slightly more rugose leaves and the greater persistence of the ‘ears’ when rubbed, while just downstream of the lake we saw *Carex riparia* (Greater Pond Sedge), *Carex pendula* (Pendulous Sedge) and *Typha latifolia* (Bulrush) in uncharacteristically dry ground.



***Pyrola rotundifolia* (in seed) growing in dense shade in its well-known locality here.**

We then moved up into the quarry where *Dianthus armeria* (Deptford Pink) had been known since its discovery here by Julian in 1997. However, we found the population of this pretty biennial to be much diminished from the hundreds previously reported on the ledges at the far side, with just seven flowering plants and four vegetative rosettes being seen after a half-hour search and lunch stop. The most remarkable feature of this quarry, however, was the vast quantity of *Betonica officinalis* (Betony) – to the exclusion of all other plants in the slopes leading up to the northern face. Although a fine sight, we wondered whether such robust plants could really be native, or whether they might instead be a horticultural variant. A little to the south-east, another location for *Dianthus* in a smaller quarry was found to have been overcome by tall vegetation.



A lengthy search of the cliff-ledge site for *Dianthus armeria* (left) turned up only a handful of plants, some as their first-year rosettes (middle) ... but *Betonica officinalis* was abundant (right, foreground).



***Anaphalis margaritacea* was abundant on the spoil heaps.**

Then we began the long climb up to the spoil-heaps at the top of Mynydd Pwllyrhebog, finding on the way a patch of *Salix repens* (Creeping Willow) in short, dry grassland. Towards the top, we were rewarded by a 3-metre colony of *Phegopteris connectilis* (Beech Fern) in a horizontal joint in a rocky outcrop.

Having stopped to regain our energy, we then investigated the extensive spoil-heaps. Immediately obvious were the extensive patches of *Anaphalis margaritacea* (Pearly Everlasting), turning the ground greyish-white with their pale leaves and flower-heads. *Jasione montana* (Sheep’s-bit) was frequent here, while adjacent plants of *Scorzoneroïdes* (*Leontodon*)

autumnalis (Autumn Hawkbit) and *L. saxatile* (Lesser Hawkbit) allowed a comparison of leaf features. The surprise of the day, though, was when Mike Jones stumbled across two flowering plants of *Dianthus* on the track. No more was found, but there is plenty of suitable habitat, and we speculated whether plants here had given rise to the quarry populations, and where (or indeed whether) the plants had occurred before industrialisation.



Lycopodium clavatum was seen in small quantity.

Heading up over the top of the spoil heap and into the forestry on the far side, we inspected the very small populations of *Lycopodium clavatum* (Stag's-horn Clubmoss) and *Huperzia selago* (Fir Clubmoss) on a trackside bank, previously noticed here by Rob & Linda. The habitat was not particularly remarkable, and we wondered if more might be found in the area. Most of our group then headed back to the cars, finding on the way back over the spoil-heap a few plants of *Sagina nodosa* (Knotted Pearlwort).



One of the two flowering *Dianthus armeria* seen in a new site on the spoil heaps.

The remaining three stalwarts then headed out on to the open moorland, under the rotating sails of the wind farm installed in December 2012. Here we found that works to provide access tracks, contour reprofiling, and subsequent reseeded had severely modified the flora over substantial areas, with *Lolium perenne* (Rye Grass) and *Cirsium palustre* (Marsh Thistle) being the only significant species in the vicinity of the turbines. Beyond this, we found some degraded blanket bog, with abundant *Trichophorum germanicum* (Deergrass), locally frequent *Eriophorum vaginatum* (Hare's-tail Cottongrass) and *Drosera rotundifolia* (Round-leaved Sundew), and small quantities of *Narthecium ossifragum* (Bog Asphodel) and *Eriophorum angustifolium* (Common Cottongrass).

Having got the measure of this area, we headed back through the forestry to Cwm Clydach and down across bracken-dominated slopes to the car-park, finding on the way a bush of *Salix elaeagnos* (Olive Willow), distinguished from *S. viminalis* (Osier) by its significantly narrower leaves.

David Barden

Kenfig – Sunday 3 August

On a bright but breezy morning, 14 botanists gathered in Kenfig NNR Visitor Centre, and after some discussion, split into two groups – Karen's to finish off the work of Saturday's BSBI survey of *Liparis loeselli* (Fen Orchid) slacks and newly scraped areas, and David's to head off to the north of the site to check on some less common species.

Karen's group set out with a couple of aims. The first was to accurately record the location of a number of nested quadrats, created the day before with BSBI members, with a high-accuracy GPS. The second was simply to look for interesting plants both within and outside areas of recent management.

One of the principal management aims at Kenfig is to re-create successional young slack vegetation, as it is this stage in habitat succession that supports the *Liparis*. Many areas of mature slack have been scraped – this involves using heavy machinery to remove the top layer of vegetation and top soil – taking each area back to bare sand and kick-starting the process of succession. Our aim now is to keep an eye on how these areas develop over time. As part of this process at least one nested quadrat* was

set up in each scraped slack, the day before our outing, by BSBI, Natural Resources Wales and Bridgend County Borough Council staff. As we need to be able to go back and record these samples again and again, it is imperative their location is well-documented. So it was our job to record the locations of the metal bolts that mark the north and south corners of the central 50 x 50 cm quadrat, using a high-accuracy (sub-metre) GPS.

Liparis has already been recorded in one of the new scrapes, proving that this management is capable of creating the right kind of habitat. *Petalophyllum ralfsii* (Petalwort), a rare liverwort that looks like a miniature lettuce (and another reason why Kenfig is important in a European context), has also turned up in one of the scrapes – again giving us confidence in the management techniques.

As most scrapes have only been created in the last few years, the most commonly recorded species during our visit were those typical of short, open vegetation, including *Eleocharis quinqueflora* (Few-flowered Spike-rush), *Samolus valerandi* (Brookweed), *Equisetum variegatum* (Variegated Horsetail) and *Juncus articulatus* (Jointed Rush). In addition to this, we spent some time considering the Yellow-sedges (with *Carex oederi* (Small-fruited Yellow-sedge) identified), *Isolepis cernua* (Slender Club-rush) and *I. setacea* (Bristle Club-rush), and members of the genus *Equisetum*. The latter was primarily due to the widespread occurrence of *E. arvense* (Field Horsetail) in some of the slack areas, where we would have expected to have seen *E. palustre* (Marsh Horsetail).

The main botanical highlight seen by Karen's group was two clumps of *Sanguisorba officinalis* (Great Burnet), seen along the transition from slack vegetation to fixed dune grassland. This was last recorded at Kenfig in 1981.

* Each nested quadrat consists of a central 50 x 50 cm quadrat within which all species were recorded, along with cover values. We then recorded the presence of any additional species in a 1 x 1 m quadrat, then moving out to a 2 x 2 m quadrat, a 5 x 5 m quadrat, and finally to the complete scrape. This type of sample records the occurrence of species over a reasonably large area, but places the emphasis of more detailed recording (cover values) at a level where observer error is likely to be at its lowest (50 x 50 cm)].



***Butomus umbellatus* in the River Kenfig.**

to distinguish ssp. *sepium* f. *colorata* from ssp. *roseata* – so this will have to wait for another day. Here too was pink-flowered *Veronica anagallis-aquatica* (Blue Water Speedwell), the slightly notched fruits serving to distinguish it from *V. catenata* (Pink Water Speedwell).

David's group, meanwhile, headed up to the River Kenfig, courtesy of the warden's Landrover. Scarcely had we stopped to get out when Andy Byfield spotted a fine flowering clump of *Butomus umbellatus* (Flowering Rush) growing in the river – a species not seen at Kenfig for many years and thought to be lost!

Staying close to the river edge, we found a couple of patches of *Calystegia sepium* (Hedge Bindweed) with pale pink flowers. Unfortunately at the time we did not inspect the leaves and shoots for hairiness, which would have enabled us



The pink-flowered *Calystegia sepium* that we should have looked a little more closely at!



The distinctively frosted leaves of *Atriplex laciniata* seen on a quick hop over the River Kenfig.

We lingered over *Agrimonia eupatorium* (Agrimony) and *A. procera* (Fragrant Agrimony), the latter being unfamiliar to some in the group. Moving towards the shore, we encountered the pretty yellow flowers of *Viola tricolor* ssp. *curtisii* (Dune Pansy), lots of *Orobanche minor* (Lesser Broomrape) growing on *Eryngium maritimum* (Sea Holly), and frequent young plants of the *Matthiola sinuata* (Sea Stock). On the strand-line, we found *Salsola kali* (Prickly Saltwort), and were surprised to see a single plant of *Epipactis helleborine* (Broad-leaved Helleborine). Briefly crossing the River Kenfig, Andy pointed out three plants of the scarce *Atriplex laciniata* (Frosted Orache).

Heading south and back into the NNR, we found that encroachment of relatively rank vegetation seaward of the dune edge had eliminated much of the interesting lightly-vegetated ground known in previous years. We therefore headed inland through a 'blow-out', first finding a couple of plants of *Coincya monensis* that we were unable to definitely confirm as either the relatively common ssp. *cheiranthos* (Wallflower Cabbage) or the rare ssp. *monensis* (Isle of Man Cabbage), partly due to David having unwisely decided to leave his copy of 'Stace' at home this time! We had better fortune further up the blow-out, finding about 30 scattered plants of the vice-county rarity *Polygonum oxyspermum* ssp. *raii* (Ray's Knotgrass) on bare sand.



Close inspection of *Polygonum oxyspermum* ssp. *raii* showed the surprisingly attractive flowers and relatively large fruits (bottom centre).



Rubus caesius can rapidly colonise fresh sand.

Moving south down the Haul Road, we saw *Allium vineale* (Wild Onion or Crow Garlic) with, unusually, plenty of flowers (now faded), but we failed to find any *Clinopodium acinos* (Basil Thyme) in the spot where it had been seen in 2009.

Eastward, a newly scraped area had been dug a little deep, being a foot deep in water, but there was plenty of *Baldellia ranunculoides* (Lesser Water Plantain) around the margins. Other scraped areas had lots of *Veronica anagallis-aquatica*, and in one place a good colony of *Epipactis palustris* (Marsh Helleborine). Of concern, though, was the rapid invasion of *Salix repens* (Creeping Willow) and *Rubus caesius* (Dewberry) into freshly blown sand – just one of the problems facing those trying to re-establish mobile dune habitats here.



There was plenty of flowering *Sagina nodosa* in the newly scraped slacks. Thanks to Paul Denning for the photo.

As for Karen's group, we compared *Isolepis setacea* with the much more abundant *I. cernua* ... but we perhaps sensibly left some plants resembling *Epipactis helleborine* for the taxonomists to argue over! Finally, heading back to the Centre, we saw *Sagina nodosa* (Knotted Pearlwort) and a single patch of *Trifolium fragiferum* (Strawberry Clover) to finish off an enjoyable day.

David Barden & Karen Wilkinson

Ystrad – Sunday 7 September

Sixteen botanists gathered in fine weather at the south-eastern end of Mynydd yr Eglywys, an extensive area of former coal workings, spoil heaps and landslips on the north-east side of Rhondda Fawr. We quickly built up a list of common species as we headed along the footpath, including *Salix caprea* (Goat Willow) x *S. cinerea* (Grey Willow), a large stand of *Carex acutiformis* (Lesser Pond Sedge), and a small quantity of *Carex spicata* (Spiked Sedge). The first of several new hectad records (*) we found was either *Rosa rubiginosa* (Sweet Briar) or *R. micrantha* (Small-flowered Sweet Briar), with glandular apple-scented leaves but without the flowers or fruits needed to distinguish them.

Moving into more wooded ground, we encountered plants in two 'difficult' groups – *Hieracium sabaudum*, demonstrated by Tim Rich, and what David later identified by working through the keys as *Cotoneaster franchetii* (Franchet's Cotoneaster). The margins of a small stream yielded a patch of the common hybrid **Mentha arvensis* (Corn Mint) x *M. aquatica* (Water Mint), with pleasantly scented leaves and whorls of flowers up the stem ending in a pair of small leaves, and another hybrid willow, this time **Salix cinerea* x *S. viminalis* (Sallow). Passing through the edge of a housing estate, we noticed *Veronica agrestis* (Green Field Speedwell) at the base of a wall, and further on a number of garden throw-outs.

We then moved out onto the slopes of the main hillside, and found much to occupy us in the damp flushed ground and the banks of a deep ditch adjacent to the footpath. We noted a large patch of **Scutellaria galericulata* (Skullcap) that had apparently set no seed, and we had the first sighting of *Wahlenbergia hederacea* (Ivy-leaved Bellflower), which later proved to be locally abundant on the higher slopes. Looking in the ditch, David was able to demonstrate the different leaf characteristics of *Anagallis tenella* (Bog Pimpernel) and *Epilobium brunnescens* (New Zealand Willowherb), aided by the curious anaesthetic-like smell of the *Anagallis*.

Moving up-slope, we stopped for lunch with fine views looking up Rhondda Fawr, and then pressed on into an area of spoil heaps with skeletal soils. Typical coal-heap plants such as *Carlina vulgaris* (Carline Thistle) and *Filago minima* (Small Cudweed) were in rather short supply, but we were pleased to see five plants of *Spergularia rubra* (Sand Spurrey), confined to a single spot in fine scree.



The spoil heaps (left) held *Filago minima* (middle) and *Spergularia rubra* (right).

The path then wound through a mosaic of gorse scrub and tall grassland, interspersed with streams and associated flushes. There was quite a lot of interest here, with highlights being a single plant of **Senecio sylvaticus* (Heath Groundsel), *Carex laevigata* (Smooth-stalked Sedge) and **Leycesteria formosa* (Himalayan Honeysuckle). 'Spot' of the day, if not the year, went to Stuart Hedley for finding a single plant of *Carex pulicaris* (Flea Sedge) in fairly long vegetation, which, shedding its utricles as we

examined it, took over 3 minutes to find again when a later arrival asked to have it shown, despite five of us peering intently at the spot!



We spent some time examining stream-side plants next to an exposed drainage chute – itself an excellent habitat for *Asplenium trichomanes*. Thanks to Rob & Linda Nottage for the photo.



The combination of upswept flowering heads and ‘obscurely discontinuous’ pith of this *Juncus* indicate it’s a hybrid.



We found the attractive *Epilobium montanum* as a pavement weed in one spot.

Upslope of an old drainage chute, we found a small quantity of *Drosera rotundifolia* (Round-leaved Sundew), while a broad water-filled ditch running along the contours held a large expanse of entirely vegetative *Carex riparia* (Greater Pond Sedge). Nearby, damp ground yielded the distinctive hybrid *Juncus effusus* (Soft Rush) x *J. inflexus* (Hard Rush), and a couple of clumps of *Dryopteris carthusiana* (Narrow-leaved Buckler Fern) courtesy of Paul Green’s sharp eye.

Arriving at the track leading up the hill, many of the group decided to head back home, but a few stalwarts continued on, finding a large wayside specimen of *Malus sylvestris* (Crab Apple) – good ‘*sensu stricto*’ with small, hard, green fruits, small round leaves with only a very few hairs, confined to the underside midrib, and an overall very twiggy appearance.

Further on, the attractive wooded gorge of the Nant-y-Lamb had a rather sparse ground flora, and a difficult scramble down to a promising-looking waterfall produced nothing of interest. However, we were rewarded by two colonies of *Phegopteris connectilis* (Beech Fern) on an earthen ‘cliff’, while a quick break from the walking allowed us to muse over the characteristics that distinguished a clump of *Dryopteris affinis* ssp. *affinis* (Golden-scaled Male Fern) from other members of this aggregate. We mostly appreciated the key characters of pinnule shape and pinna separation, but felt that the description of the scale colour as merely ‘golden brown’ was unhelpfully vague. However, we weren’t quite sure that Stuart’s suggestion of ‘Sarah Ferguson’s hair’ will find it into the handbooks!



Clambering down the rocky valley of the Nant-y-Lamb.

Finally, heading back through Ystrad to our starting point, we encountered a few interesting species of walls and kerbsides, including *Epilobium roseum* (Pale Willowherb), *E. montanum* (Broad-leaved Willowherb), and a single specimen of the bird-seed-alien grass *Echinocloa crus-gallii* (Cockspur).

David Barden