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Laburnum alpinum T. Presl.

Locality *Meifod, Meri.*

SS. 11 Vice-County *47*

Collector *J. & M. J. 1940* Date *7. 6. 1940*

National Museum of Wales

Department of Botany

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EDITORIAL

By the time you read this you will have received and had time to study the eagerly awaited *New Flora of the British Isles* by Clive Stace. This truly is new and is a landmark in British Botany and the first new flora since Clapham, Tutin and Warburg in 1952. It runs to 1256 pages and 'is designed to enable field botanists and those working with herbarium specimens to identify plants that are found in the wild in the British Isles' and 'to include all taxa that the plant-hunter might reasonably be able to find "in the wild" in any one year'. This means, of course, that many non-native taxa are dealt with (including field and forestry crops and ornamental trees) but some aliens traditionally found in other British floras are excluded because they no longer occur in Britain. The keys are new and simpler to use than in previous works. It is a monumental achievement, having taken seven years to complete, and is destined to become the standard for many years to come. The price of £25 is very reasonable for a new book of such proportion and surely affordable by both the young undergraduate as well as the interested amateur just advancing from picture-book floras. This book is likely to bring serious botanical study to those previously put-off by the alien style of similar previous works.

This issue of the *Welsh Bulletin* contains papers by Arthur Chater (v.c. recorder for Cards.), Jean Green (v.c. recorder for Denbs.) and Andy Jones (Countryside Council for Wales' rare plants co-ordinator) as well as another instalment of the backlog of Welsh Plant Records - those for 1989 - compiled by Gwynn Ellis at NMW. I hope that you will find them interesting.

The programme of Welsh field meetings and the AGM are also included and I look forward to seeing many of you at one or more of these venues during the year.

May I wish you all a happy and prosperous 1992 and a rewarding and fruitful field season.

Richard Pryce, Trevethin, School Road, Pwll, Llanelli, Dyfed SA15 4AL 2nd January 1992

LABURNUM ANAGYROIDES AND *L. ALPINUM* AS HEDGE PLANTS IN CARDIGANSHIRE, V.C. 46

The laburnum hedges of south-west Wales are a familiar sight, especially in early June when whole tracts of country are criss-crossed with the yellow lines of the hedges in flower. Their origin is something of a mystery, but it seems likely that many of them date from the mid or even early nineteenth century. The hedges are mostly on banks, and are managed by coppicing. The coppice stools can be up to a metre in diameter, and from them ten or more stems can arise. Where old, uncoppiced bushes can be found, or where bushes have been uncoppiced for a very long time, the trunks can be up to 80 or even 100 cm in girth, but this seems the normal limit of growth, in Cardiganshire at least, before they die. Very occasionally laburnum hedges are layered or pleached, but this does nothing for the decorative potential of the plant. Although the bushes set good seed, it is very unusual to see a bush that seems likely to have been self-sown rather than planted, and I have no definite records of self-sown plants in v.c. 46. Laburnum strikes very readily from cuttings and is normally propagated in this way. The widespread use for hedging of a plant with notoriously poisonous seeds seems strange, but farmers report only very rare problems with stock and are mostly prepared to accept the risk in exchange for the spectacle of the hedges in flower. Pure laburnum hedges are especially common at around 150-250 m.a.s.l., and the best hedges in Cardiganshire are in the south-west around Synod Inn, Ffostrasol and Blaenporth, although isolated pure hedges, and scattered bushes in mixed hedges, occur throughout the county.

Hedgerow laburnum in v.c. 46 have always been recorded as *Laburnum anagyroides* Medicus (Common Laburnum). Alerted by a recent paper (Hackney 1989) which describes hedges in Co. Londonderry of *L. alpinum* (Miller) Berchtold & J. Presl, I have looked more critically at the bushes in Cardiganshire. Although most of them are indeed *L. anagyroides*, a substantial proportion, perhaps 5 or 10%, are *L. alpinum*. There is evidence in some places that the two species were planted simultaneously. For example, 1 km east of Plwmp (at SN375525) the two species were planted alternatively as standards in the hedges, and in a number of places, such as 1 km south of Dihewid (at SN 485550), one side of the road has one species, and the other side the other. *L. alpinum*, although much less common, is just as widespread throughout Cardiganshire as *L. anagyroides*, and in many places, as along the south side of the A487(T) east of Pentre-gat (at SN 359521), or by the road east of Capel Cynon (at SN 389494), it too forms pure hedges.

The two species are easy to distinguish at any time when they are in leaf, flower or fruit, as indicated by the following table which is drawn from the Cardiganshire material. Leaflet pubescence is the easiest character to use.

Other characters, though less precise, make the two species readily distinguishable even from a moving car. The difference in pubescence means that the leaflet of *L. anagyroides* are much paler beneath than above, while those of *L. alpinum* are almost concolourous. The leaflets of *L. alpinum* are often larger, the racemes are almost always longer, the flowers are more slender and a more lemon yellow and are much less densely crowded, and the legumes are shiny rather than matt. But the most striking difference is that *L. alpinum* flowers about three weeks later than *L. anagyroides*, and is mostly still in bud while the latter is in full flower. This is presumably why the two were often planted alternately. *L. alpinum* also grows much faster than the other species, and where the two have obviously been coppiced simultaneously it is often half as tall again as *L. anagyroides*. Both species seem remarkably uniform throughout v.c. 46, except for slight variation in the pubescence of the leaflets, and they may each be represented by one or very few clones.

The hybrid between the two species, *L. x watereri* Dippel (Voss's Laburnum) is by far the commonest laburnum currently on sale in garden centres and I have seen it in a number of gardens, but never as a hedge plant. It has the large, densely crowded flowers of

<i>L. anagyroides</i>	<i>L. alpinum</i>
Young shoot apices white-sericeous	Young shoot apices subglabrous, green
Leaflets densely appressed - hairy beneath with abundant short (0.1-0.3 mm) hairs separated from each other by usually at least their own length, and sparse long (0.4-0.7 mm) hairs separated from each other by usually at least their own length; a 1 cm line placed at right angles to the hairs crosses 90-130 hairs.	Leaflets without short hairs beneath, and with only the sparse long hairs, or occasionally glabrous, a 1 cm line placed at right angles to the hairs crosses 0-15 hairs.
Rachis of racemes densely white-sericeous.	Rachis of racemes subglabrous, green.
Corolla 22-23 mm	Corolla 18-21 mm
Dark markings inside standard reaching at least ½ way up standard.	Dark markings inside standard reaching not more than 1/3 of way up standard.
Legume in section with upper suture broad and truncate.	Legume in section with upper suture narrow and acute.

L. anagyroides and the long racemes of *L. alpinum*. The leaflets are large, and even more glabrous than those of *L. alpinum*, it seems to flower late like that species, and the legumes produce few good seeds. It has been available horticulturally since the 1860's and so many will be used as a hedge plant somewhere in Wales. Except when in flower, though, it is likely to be difficult to distinguish from *L. alpinum*. All three taxa are well illustrated in Mitchell (1988).

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- Hackney, C.R. (1989). *Laburnum alpinum* (Miller) Berchtold & J. Presl as a hedging plant in Cos Londonderry and Tyrone. *Irish Nat. J.* 23: 109-110.
- Mitchell, A. (1988). *The trees of Britain and Northern Europe*. Ed. 2. London.
- A.O. Chater, Windover, Penyrangor, Aberystwyth, Dyfed, SY23 1BJ.
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WELSH MUDWORT?

It's 1992 now, and no doubt many botanists will be reconsidering how far our flora shows a Continental influence, and how much there is a truly British character. Some, indeed, would argue that despite the community grants, Wales with its furze, ferns and bryophytes retains a more distinctively Atlantic flora. And in fact, as we celebrate the voyage of Christopher Columbus this year as well, it would be more appropriate to think about this Atlantic alliance, and particularly the extent of an American flora. After all, it was botany - in the form of those mysterious 'Brasilian' sea-beans - which led Columbus to the New World, and it was plants (though not all the spices of India) which he brought back.

In Eire and the United Kingdom, it is a small suite of primarily wet-loving monocotyledons - Pipewort (*Eriocaulon aquaticum*), Blue-eyed-grass (*Sisyrinchium bermudiana*), and Irish lady's-tresses (*Spiranthes romanoffiana*) for instance - which are the best evidence of a 'special relationship'. With their small, transportable seeds, and seaboard distribution, these plants have good claim to a pre-Columbian presence in the Old World.

And of course Wales, as a westward-looking nation has an American component too. As late as 1897 a diminutive waterside plant was discovered at Kenfig Pools (v.c. 41) by Professor A.H. Trow. He took it initially for a curious form of the Mudwort, *Limosella aquatica*, which did grow nearby, and it was not for another four years that it was correctly determined by Rev. E.S. Marshall as the awl-leaved species, *L. subulata* (now called *L. australis*). This plant is widely distributed throughout southern temperate zones (the type specimen was actually collected in Australia nearly a century before the British find), but is found along northern coasts only in the Pacific and the eastern United States.

In 1907 a further colony was found at Crymlyn Fen in Glamorgan with the interesting discovery in 1935 of a hybrid between the two *Limosella* species at nearby Morfa Pools (now Eglwys Nunydd Reservoir). Given the primarily estuarine habitat of *L. australis* overseas, it was no surprise perhaps that, in the 1920s generous quantities of the plant were discovered in the mouths of the Glaslyn and Dysynni rivers of North Wales. With this distribution - and it is found nowhere else in Europe - it is no surprise either that the plant has come to be known as the Welsh Mudwort.

In the following years both *Limosella australis* and its hybrid appear to have become extinct at the South Wales sites, and the Red Data Book records the populations elsewhere fluctuating markedly in certain years. Probably for these reasons the plant is one of the four species in Wales advanced for the full protection of Schedule 8 of the Wildlife and Countryside Act quinquennial review, this year. (For the record, the 3 others are *Salvia pratensis* (Meadow Clary), *Rumex rupestris* (Shore Dock), and *Gentianella uliginosa* (Dune Gentian); all vulnerable, if not endangered). Penalties include a £2,000 fine for collection of any part of a Scheduled species.

Despite all this, Welsh Mudwort may well be the most numerous rare plant in Wales. On the Glaslyn estuary we nearly ran out of estimates for the tiny rosettes, running in soft tidal mud, and on the Dysynni, green baize-like swards may cover hundreds of square metres at a stretch. In the neighbouring Dwyryd and Harlech Bay saltings the plant has also been found as a casual, in some years perhaps - as in this one - in some profusion. Here then, *Limosella australis* appears hardly vulnerable, let alone endangered. So why is it confined to such a few scant localities, and why in such erratic population strength? The answer may lie in the peculiar surroundings of these current sites.

Across the causeway at the mouth of the River Glaslyn, the famous Cob of William Alexander Madocks, lies the tiny island of Cei Balast. This place, as its name suggests, is a man-made dumping ground, a kind of geological lucky-bag, with rocks from around the world. As Porthmadog grew (modestly) rich upon its mountainous exports of slate around the

FIG. 1.

FIG. 2.

FIG. 3.

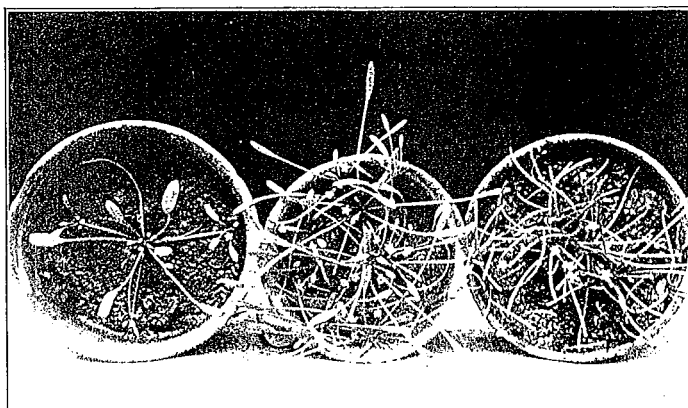
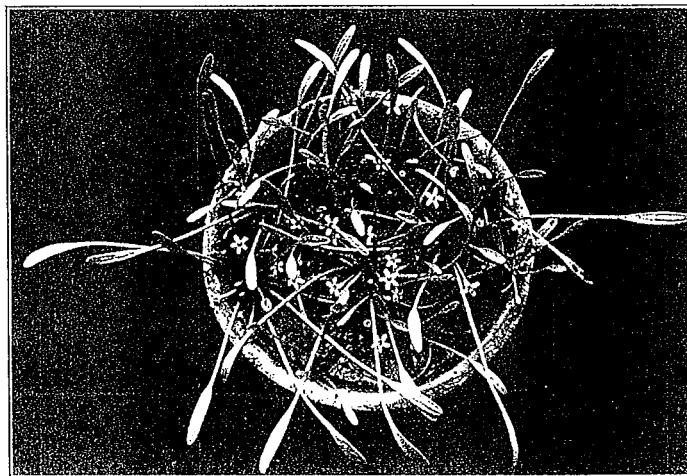


FIG. 4.



Limosella aquatica (fig. 1), *L. subulata* (fig. 3),
AND THE HYBRID (figs. 2 & 4).

EXPLANATION OF PLATE 616.

Limosella aquatica (fig. 1), *L. subulata* (fig. 3), and the hybrid (figs. 2 & 4).
Plants 1-3 were grown from seed and were of the same age, $\times \frac{1}{2}$.
Fig. 4 is of the same plant as fig. 2, but a few days older, $\times \frac{2}{3}$.

world, so scraps of foreign soil returned to it in the holds of ships, as a kind of ironic tribute. With the evidence of Welsh slate roofs in New England, it appears likely that some of this came from America.

Now look at the Dysynni population. Here too the estuary has evidence of 19th century modifications, with massive embankments across the Broadwater sealing the estuary from corrosive tides, and reclaiming vast areas of saltmarsh from the sea. Huge quantities of rubble seem to have been brought in for the construction of this breakwater.

South Wales, and the docks of Gwent and Glamorgan particularly, are long famous for their roll of adventives and aliens. In North Wales the great ports, perhaps suffering from an observer deficit have recorded somewhat fewer introductions. But perhaps it's a matter of interpretation too. Welsh Mudwort has many of the signs of an introduction: it occurs in erratic quantity, near a centre of human transport; it has been only latterly recorded for such a conspicuous plant; and it really only persists in a man-made habitat. Against all this of course, one can site the possibility of transatlantic wading birds, oceanic currents, or a relic European outpost to explain such disjunction. The Australasian population certainly represents a far wider gulf than we are considering here (and perhaps we could look at that when Captain Cook's centenary returns). In the end, failing isoenzyme analysis, fossil pollen or genetic finger-printing, only possibilities remain. But perhaps it's worth considering this one: that when Columbus hailed a far horizon, the species of the Americas discovered their New World as well, and for *Limosella australis*, Wales could have been that place.

Andrew Jones (with thanks to John Ratcliffe, Anglesey District Officer), Countryside Council for Wales, Ladywell House, Newtown, Powys SY16 1rD

INTRODUCED PLANTS IN LAKES AND PONDS

Ornamental lakes and many ponds contain introduced plants. These come as "native" plants from garden centres, or are brought from other parts of Britain. They have the same status as garden plants but the criterion "more than 100 yards from a house" does not apply since lakes are usually distant from buildings.

It is tempting to turn a blind eye to these plants, and not list them, but in a few years they could be widespread (eg *Crassula helmsii*). An early record would then have historic interest. However if they die out, as introductions often do, a "first record" is misleading and the plant becomes "extinct" in the statistics. Some examples in vc 50, Denbighshire .

Azolla filiculoides - newly made lake in Abergele, now in a ditch in Abergele will probably not survive a cold winter.

Acorns calamus - 3 clumps flowering in a farm pond near Wrexham - in the same pond is *Typha angustifolia* and *Ranunculus lingua* probably all planted.

Stratiotes aloides - two ornamental lakes in Wrexham, farm pond in Penley.

Nympha alba - very common in lakes and ponds.

Hottonia palustris - recommended for ornamental ponds, growing in ditches near Fenns Moss - ? native.

Hippuris vulgaris - ornamental lake near Babel, spreading downstream.

Conclusion

It is very easy to plant water plants and commercial water garden centres are thriving. British "native" plants from East Anglia may be quite out of place in Wales. We must record these plants, and expect some to spread, some to die out.

In Canada *Lythrum salicari* (Purple loosestrife) is a rampant alien!

Jan A. Green, Coed Duon, Tremeirchion, St Asaph, Clwyd LL17 0UH

A GOOD YEAR FOR ONONIS

If Small Restharrow (*Ononis reclinata*) was a wine, then 1991 would be a vintage year. In 1989 there were no plants of this annual Red Data Book plant at its best Glamorgan site, and in 1990 there was just one. This year Rosemary John - whose counts those were - found over fifty, and they could be located in the warm sunlight from the sounds of their pods cracking. The plant has been found only rarely on pockets of south-facing Atlantic limestone (most unusually as far north as Wigtown), and this peculiar "on-off" quality may help to explain why.

In this favourable early summer however, and with patient searching two entirely new sites were added. Dr Tim Rich discovered an elusive colony of just four plants in Glamorgan, and in Pembroke about 26 small plants were spotted by Peter Brown. (These apparently vestigial numbers may be in fact quite sustainable for habitually inbreeding and prolific species like small restharrow.) In August I revisited an old site near Tenby to find a population some fifty times greater than formerly known; and following the description here, Stephen Evans led Rosemary and myself to yet another new site, west of Stackpole. This effectively doubles the UK population of *Ononis reclinata*, and gives South Wales the majority of known sites for such an extremely rare plant.

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CARMARTHENSHIRE FLORA PROJECT

SOME ASPECTS OF THE 1989 SEASON

Recording continues apace although I have the feeling that the volume of records received recently is on the decline. This, of course, is to be expected now that virtually every tetrad has been examined and most common species found. I suspect, however, that there is still much to be discovered in semi-natural habitats more remote from main points of access. It is these sites which are very important to seek-out and record, both from the aspect of obtaining comprehensive coverage for the flora and also building up a reasonable local knowledge for conservation purposes.

There were six new vice-county records (ncr), two were bramble microspecies, the remainder non-natives. Mike Porter, recently described as one of the country's best all-round botanists, provided copies of his 1988 bramble records from eleven Carm. sites among which were ncrs of *Rubus ludensis* (northwest of Cynghordy 22/816406 and Sugar Loaf SN833427) and *R. lindbergii* (Tirabad Road, Cynghordy SN811397 and Sugar Loaf SN833427). He also recorded *R. pallidus* from north of Ynyswen, SN532249, the third vcr and first since Ley's 1897 records from the northeast of the county.

Two of the alien ncrs were water plants. *Lysichiton americanum* (Skunk Cabbage) was discovered at the edge of the Upper Cwmcoernant Reservoir, Carmarthen, SN418213, in April by P. Swire (det. Ian Morgan (IKM)) and a colony of *Nymphoides peltata* (Fringed Water-lily) 4m across growing in Machynys Pond, Llanelli, SS512980 by Barry Stewart (BS) in August. *Agrostemma coronaria* (Lamb's Ears) and *Lupinus polyphyllus* (a Lupin) were the other ncrs, a few plants of the former being recorded in July by George Hutchinson (GH) on a newly reseeded road embankment at Heol Allt-y-cnap, Johnstown, Carmarthen, SN394191, and the latter by John Killick (HJK) & Dorothy Brookman (DB) on a reclaimed tip at Cynheidre No.3 colliery, SN527107, during the annual recording meeting.

The second vice-county records made in 1989, in my view, are probably of greater significance than the ncrs noted above. First was the discovery of *Daphne mezereum* (Mezerion) in February by Nigel Stringer and Dic Davies whilst undertaking research for the Nature Conservancy Council in the limestone woodlands near Carmel, SN5916, as reported in my last year's review. This nationally important site is under imminent threat of destruction from quarrying and a legal battle is pending. As is so often the case in these instances, it is not until a site is under threat that detailed survey work is undertaken which invariably reveals that its wildlife significance has been underestimated in the past. This in turn only serves to increasingly polarize the opposing sides.

Other second vcrs were IKM's report of the cotton grass, *Eriophorum latifolium* in base-rich, flushed grassland near Pont Aber, SN770204. This was the first vc record since that of Knight in 1908 and may well be a rediscovery of his site. James and Mary Iliff (J&MI) discovered a small population of *Vaccinium vitis-idaea* (Cowberry) on the northeastern slope of Carreg-yr-Ogof at SN779215. The area is covered by large irregularly spread limestone block scree with *Empetrum nigrum* (Crowberry) dominant between the blocks, out of the reach of the sheep. *Carex montana* (Mountain Sedge), *Gymnocarpium robertianum* (Limestone Fern) and *Antennaria dioica* (Mountain Everlasting) still await rediscovery. Finally the second vcr of the sedge *Carex strigosa* was made during the annual recording meeting in June by Robin Wallis (RW) & HJK from a species-rich roadside near Gilsan bridge, SN590218.

Only five new tetrad records were made for *Carum verticillatum* (Whorled

Caraway) during the year (SN33Z, SN41H, SN43R, SN54A and SN61P). The general distribution pattern of the species remains unchanged with its stronghold in the meadows of the coalfield in the southeast of the vc, and the northern and northeastern uplands supporting widespread though usually sparse populations often comprising of depauperate individuals especially in exposed and rigorous conditions.

Several poorly recorded coalfield tetrads were visited during the season, mainly by out-county recorders attending the Ferryside meetings. In fact one of the field trips associated with the Wales AGM was to examine the rhos pastures of Rhosydd Gwyddfan, Llandybie (SN6215) where not only was *Carum* seen in abundance, but also typical associated species including *Cirsium dissectum* (Meadow Thistle), *Genista anglica* (Petty Whin), *Salix repens* (Creeping Willow), *Hypericum tetraptrum* (Square-stemmed St. John's Wort), *Carex hostiana* (Tawny Sedge), the hybrid sedge *C. hostiana* x *demissa*, *C. pulicaris* (Flea Sedge), *Equisetum sylvaticum* (Wood Horsetail), *Isolepis setacea* (Bristle Scirpus) and *Serratula tinctoria* (Saw-wort). It was a pity that the day was so hot that many participants had "wilted" by the time the best area was reached! HJK & DB discovered *Carum* meadows and associated heath and woodland near Cynheidre No.3 colliery, (SN527107) with *Cirsium dissectum*, *Salix repens*, *Carex pallescens* (Pale Sedge), *C. rostrata* (Bottle Sedge), *Eriophorum angustifolium* (Common Cotton-grass), *E. vaginatum* (Hare's-tail Cotton Grass), *C. sylvatica* (Wood Sedge) and *Epipactis helleborine* (Common Helleborine) and on the nearby tips and railway there were *Centaureum erythraea* (Common Centaury), *Aira caryophyllea* (Silvery Hair-grass), *A. praecox* (Early Hair-grass), *Desmazeria rigida* (Hard Grass) and *Vulpia myuros* (Rat's-tail Fescue). Similar *Carum* heath was found in the Llannon area (SN50J) by RW but the adjacent square, Blaenlliedi (SN50E), produced in addition *Myrica gale* (Bog Myrtle), *Osmunda regalis* (Royal Fern), *Eleocharis quinqueflora* (Few-flowered Spike-rush), *Menyanthes trifoliata* (Bogbean) and *Narthecium ossifragum* (Bog Asphodel). Further species-rich, damp heaths were discovered near Clochryie (SN50H) by GH & Denys Williams.

Away from the coalfield more wet heath and meadow sites were discovered. For example, IKM reported *Narthecium*, *Wahlenbergia hederacea* (Ivy-leaved Bellflower) and Dactylorchids at Plas Hebron (SN172276). GH found damp heathland with seven sedge species, *Succisa pratensis* (Devil's-bit) and *Polygonum bistorta* (Bistort) near Cwmdud (SN33Q) and at Abergier (SN54A), *Carum* was associated with *Succisa*, *Potamogeton polygonifolius* (Bog Pondweed) and *Menyanthes*. *Carum*-*Carex* damp heath associations were also recorded by GH near Idole (SN41H) and Crugiau Rhos Wen (SN43R). Jean Green (JG) attended both Ferryside meetings and wet meadows which she visited with Pauline Goodhind at Gwaunydd Cochion (SN537255) proved to be particularly rich having nine sedge species including *Carex pallescens* and *C. laevigata* (Smooth Sedge), *Platanthera chlorantha* (Greater Butterfly Orchid), *Polygonum bistorta*, *Sanguisorba officinalis* (Great Burnet), *Isolepis setacea* and *Nasturtium microphyllum* (Small Watercress) but surprisingly no *Carum*! This zealous pair also recorded *P. chlorantha* in Llanfynydd Churchyard together with *Listera ovata* (Common Twayblade) and *Sanguisorba officinalis*. Several rich grassland sites were recorded from within the bounds of the Brecon Beacons National Park by Dawn Gray whilst carrying-out N.C.C. Phase II survey work. These included Llwyndewi (SN659178) (*Avenula pubescens* (Hairy Oat)), Craig yr Odyn (SN652183) (*Carum*, *Cirsium dissectum*, *Carex hostiana*, *Briza media* (Quaking Grass)), Cwmlerach (SN675151) (*Carex pallescens*), Hengrofft (SN675190) (*Carex hostiana*, *C. pallescens*, *Ophioglossum vulgatum* (Adder's Tongue Fern)) and Dolycoed (SN699143) (*Carex hostiana*, *C. pallescens*, *Isolepis setacea*, *Cirsium dissectum*, *Veronica scutellata* (Marsh Speedwell)).

Several tetrads in the Tywi valley were looked at during the season. In addition to *Carex strigosa*, HJK & RW also discovered *Scirpus sylvaticus* (Wood Club-rush) (SN584204), *Carex riparia* (Great Pond-sedge), *C. vesicaria* (Bladder Sedge), *Potamogeton crispus* (Curled Pondweed) and *Vulpia myuros* from Cilisan (SN532V). Near Llanarthne GH, RDP & Alyson Griffiths (AG) reported *Montia sibirica* (Pink Purslane) at its furthest west station in the vc to date (SN535206) together with freshwater marsh and ox-bow species including *Carex rostrata*, *Potamogeton natans* (Broad-leaved Pondweed), *Eleocharis palustris* (Common Spike-rush), and the water crowfoot *Ranunculus peltatus* (SN52F) and *Alopecurus myosuroides* (Black-grass) from the car park of the Golden Grove public house (SN533203). A marsh in the Teifi valley near Henllan produced several sedges including *Carex laevigata*, (Smooth Sedge) whilst *Malva moschata* (Musk Mallow) grew on the roadside nearby (SN349401, RDP & AG).

New records from the Ferryside foreshore and dunes (SN31Q) made at both the recording meeting and the Wales AGM included *Briza media*, *Desmazeria rigida*, *Centaurea pulchellum* (Lesser Centaury) (SN368108), *Conium maculatum* (Hemlock), *Listera ovata*, *Orobancha hederæ* (Ivy Broomrape) (c30 flower spikes on the landward side of a tall dune at SN367107), *Sisymbrium altissimum* (Tall Rocket) and the toad rush *Juncus ambiguus* (on disturbed ground on a building site at SN396107). GH also reported the water crowfoot *Ranunculus aquatilis* and *Zannichellia palustris* (Horned Pondweed) from nearby Morfa Uchaf (SN370118).

Other coastal records included *Avenula pubescens*, *Carex spicata* (Spiked Sedge) and *Centaurea pulchellum* from derelict ground northeast of the Burry Port power station (GH, SN453007), *Desmazeria maritima* (Sea Hard-grass) and *Centaurea scabiosa* (Greater Knapweed) from the west side of Pembrey Harbour breakwater (GH, SS437999) and one plant of *Inula crithmoides* (Golden Samphire) from the saltmarsh south of Penybryn, Bynea (IKM, SS541976). The vegetation survey carried out by Kevin Peberdy of the Wildfowl and Wetlands Trust on their new reserve at Penclaewydd, east of Llanelli, turned up *Zostera angustifolia* (Narrow-leaved Eel-grass) "very sparse over a wide area of saltmarsh, odd shoots tending to be associated with shallow intertidal pools around mussel beds" (at approx. SS519975, SS522975 and SS525976), this is the fourth vcr and the first since 1947. *Parentucellia viscosa* (Yellow Bartsia) was found to be abundant on bare disturbed ground at Penclaewydd by BS and later IKM reported a few plants from nearby Machynys, SS517975 together with two plants of *Verbascum virgatum* (Twiggy Mullien). The newly created ponds at Machynys, SS512978, held *Zannichellia palustris* and *Hippuris vulgaris* (Mare's-tail) (IKM).

Salix pentandra (Bay Willow) was reported by IKM from both Ynys Uchaf (SN485148, with Derek Wells) and northwest of Gorslas (SN566145). He also recorded one plant of *Anacamptis pyramidalis* (Pyramidal Orchid) at Capel Dyddgen Quarry, Cwmbin (SN467127), the first inland record for the species in Carm. The small and rather unsalubrious pond next to the new Tesco store at Trostre, Llanelli (SS525996) was also examined by IKM whose list included, *Potamogeton crispus*, *P. natans*, *Myriophyllum spicatum* (Spiked Water-milfoil), *Bidens tripartita* (Tripartite Bur-marigold) and *Ranunculus sceleratus* (Celery-leaved Buttercup). The Madenhair Spleenwort *Asplenium trichomanes* subsp. *trichomanes* was also contributed by IKM from a shaded sandstone outcrop at Allt Cwm Ddol-fawr (SN488273) and confirmed under the microscope by GH, the sixth vcr and furthest west by about 30km.

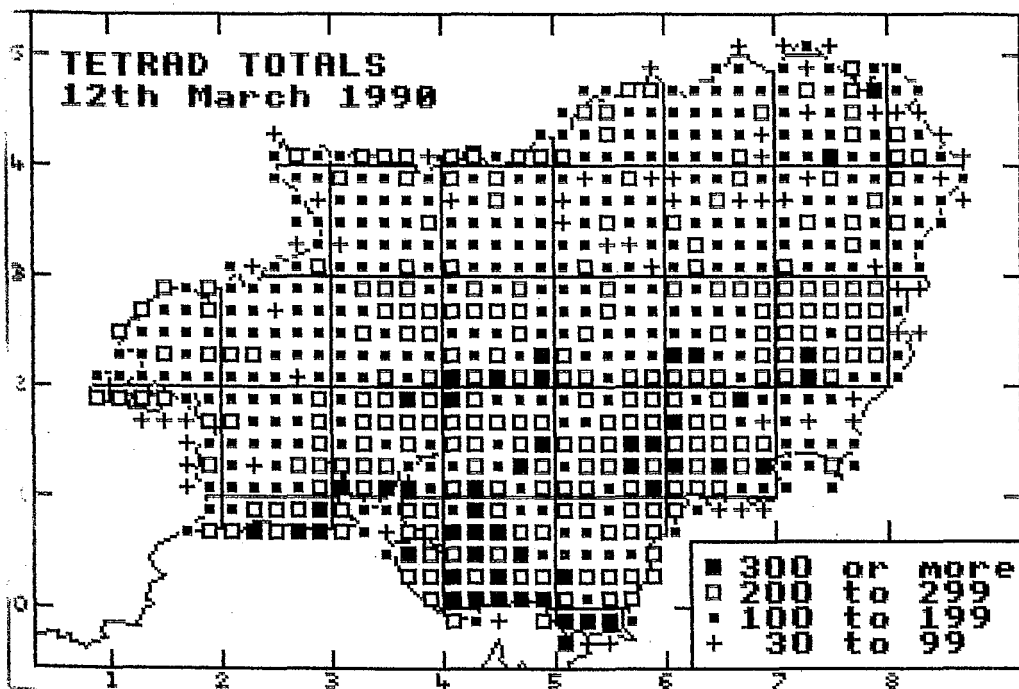
Other records included *Geranium pyrenaicum* (Hedgerow Cranesbill) from Penhill (SN30Z) and a good patch of *Stachys arvensis* (Field Woundwort) from an arable field near Pantglas (SN368256) both reported by HJK; a roadside verge at Whitlra, Llanfynydd (SN579243) had *Carex otrubae* (False Fox Sedge); *Orobancha rapum-genistae* (Great Broomrape) was discovered in May growing in abundance over an extensive area at Cefn Crug Quarry, Llandovery (SN778345) by Tim Sykes, Conservation Officer with the Brecknock Wildlife Trust; Stephen Evans reported a new site for *Potentilla palustris* (Marsh Cinqufoil) from Rhydwylym (SN12C), a species which is apparently more common in the west of the county though it is also locally abundant in Glamorgan to the east; John Steer of Saron, Llandyssul recorded *Veronica agrestis* (Green Field Speedwell) (SN33Y), *Drosera rotundifolia* (Common Sundew) (SN33W) and *Carum* at SN393388 (SN33Z), showing that there is potential in that area for more concentrated work and RDP & AG found c30 plants of *Spergularia rubra* (Sand Spurrey) and several of *Veronica agrestis* growing on a disturbed forestry track at SN388343.

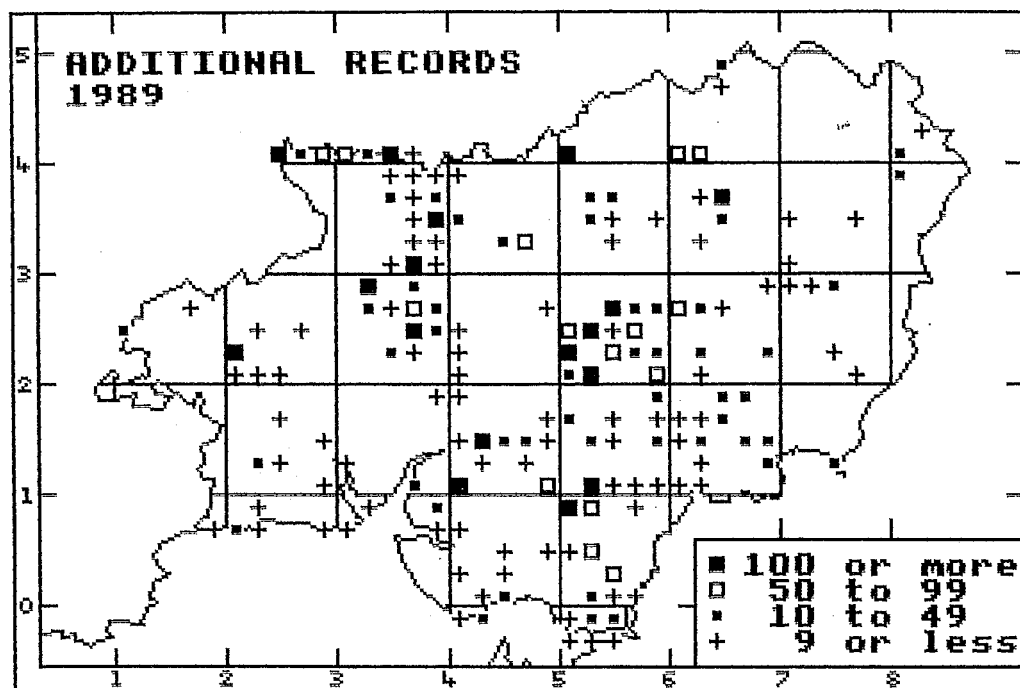
Annie Mary Pell visited nineteen graveyards and seven railway sites during the year. Notable records included *Viola odorata* (Sweet Violet) (Pontyberem Church, SN489103), *Vicia hirsuta* (Hairy Tare) (Bethlehem Chapel, Porthyrhyd, SN520158), *Sanguisorba officinalis* (Llanlluan Chapel, SN557158), *Agrostis gigantea* (Common Bent-grass) (Derwydd Railway Crossing, SN621169 and Llandybie Station, SN620115) and *Senecio viscosus* (Sticky Groundsel) (Llangadog Station, SN700286).

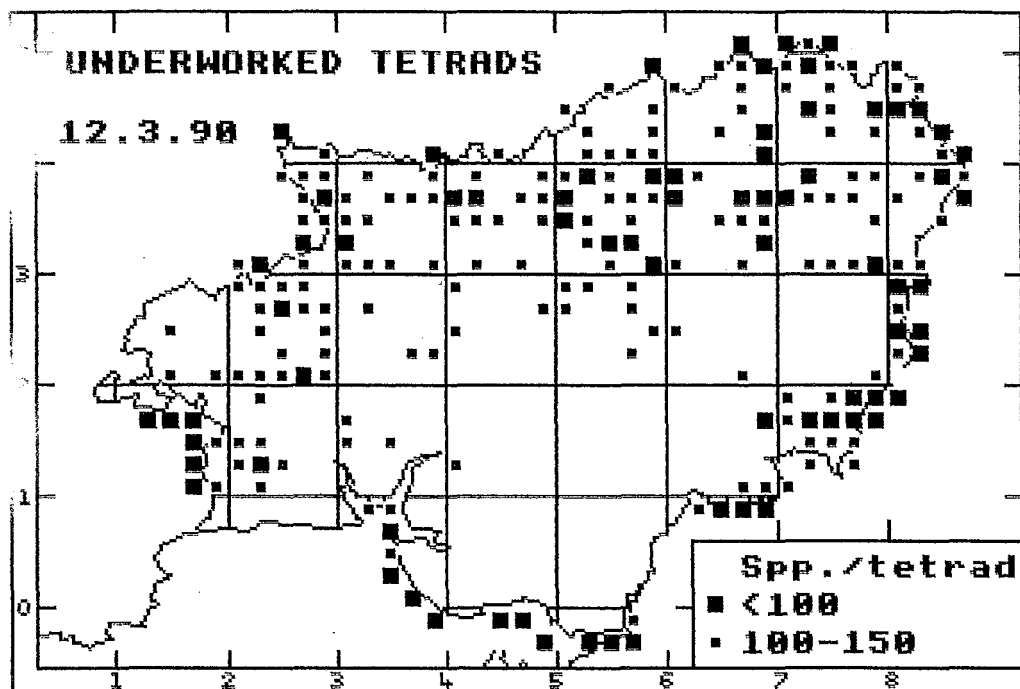
James and Mary Iliff again concentrated their efforts in the northeast of the county. The Glanranell square (SN63N) proved to be particularly fruitful with wetland species including *Eleocharis palustris*, *Isolepis setacea*, *Lythrum portula* (Water Purslane), *Scrophularia aquatica* (Water Figwort) and *Wahlenbergia* as well as wayside plants including *Agrostis gigantea*, *Carex muricata* subsp. *lamprocarpa* (Prickly Sedge), *Corydalis claviculata* (Climbing Corydalis) and *Hypericum humifusum* (Creeping St. John's Wort). They also recorded *Geranium columbinum* (Long-stalked Cranesbill), *Polygonum bistorta* and *Polygonatum multiflorum* (Soloman's Seal) from Esgerdawe (SN64A) and *Serratula tinctoria* and *Poa nemoralis* (Wood Poa) from west of Pumpsaint (SN64F).

Peter Wilde, who lives near Llidiadnenog, provided useful records for some underworked squares in his area including *Platanthera chlorantha* from SN53N.

I am again most grateful to all recorders and referees but particularly to GH who unfailingly continues to provide not only great quantities of records but also to spend hours determining difficult taxa at NMW or sending parcels off to the relevant referees for their critical comment. My thanks also to various official bodies for permission to have sight of some internal reports from which I have been able to abstract the plant records.







WELSH PLANT RECORDS - 1989

Welsh Plant Records are compiled by R. Gwynn Ellis, Dept. of Botany, National Museum of Wales, CARDIFF CF1 3NP, from reports of BSBI vice-county Recorders to whom records should preferably be sent. Plants are listed for each county in the order of Dandy's *List of British Vascular Plants* (1958), the number in that list preceding the name, so that names changed since 1958 can be given without giving the former name. However, for the critical genera *Rubus*, *Hieracium* and *Taraxacum*, the species numbers follow more recent works, viz: *Rubus* - *Brambles of the British Isles*, Edees & Newton, 1988, *Hieracium* - Sell & West in *Critical Supplement to the Atlas of the British Flora*, F.H. Perring, 1968, and *Taraxacum* - C.C. Haworth's typescript, *An Annotated List of British and Irish Dandelions*, 1988. English names are those in *English Names of Wild Flowers* ed. 2 (1986) by Dony *et. al.*

The following symbols are used:

* to indicate a new v.c. record

+ to indicate a new 10km square record

! to indicate that the species is not native to Wales

\$ to indicate a species which, although native in some parts of Wales, is not so in the locality recorded

[] to indicate that the record, previously published in error, should be deleted

Where entries consist of one record only, the symbols appear before the species number; where entries consist of more than one record, the symbols appear before each record, except for the ! sign which, if required, is always placed before the species number.

In general only records which are additional to those given in *Flowering Plants of Wales* by R.G. Ellis (1983) are listed. Other records are included at the discretion of the vice-county Recorder. The minimum grid reference is to a 10km square but if supplied by the recorder, references to a 1km square may be included

The Vice-county Recorders from 1/1/1992 are:

MONMOUTH, v.c. 35; T.G. Evans, La Cuesta, Moun-ton Road, Chepstow, Gwent NP6 5BS
GLAMORGAN, v.c. 41; Dr Q.O.N. Kay, Dept. of Botany, University College, Singleton Park, Swansea, West Glamorgan SA2 8PP

BRECON, v.c. 42; M. Porter, Aberhoywy Farm, Cyffredyn Lane, Llangynidr, nr Crickhowell, Powys NP8 1LR

RADNOR, v.c. 43; Dr D.R. Humphreys, Knill Court, Knill, nr Presteigne, Powys LD8 2PR
CARMARTHEN, v.c. 44; R.D. Pryce, Trevethin, School Road, Pwll, Llanelli, Dyfed SA15 4AL

PEMBROKE, v.c. 45; S.B. Evans, Glan-y-Mor, Dinas Cross, Newport, Dyfed SA42 0UQ
CARDIGAN, v.c. 46; A.O. Chater, Windover, Penyrangor, Aberystwyth, Dyfed SY23 1BJ
MONTGOMERY, v.c. 47; Mrs M. Wainwright, Troy, 1 Green End, Oswestry, Shropshire SY11 1BT

MERIONETH, v.c. 48; P.M. Benoit, Pencarreg, Barmouth, Gwynedd LL42 1BL
CAERNARFON, v.c. 49; N.H. Brown, Treborth Botanic Garden, University College of North Wales, Bangor, Gwynedd

DENBIGH, v.c. 50; Mrs J.A. Green, Coed Duon, Tremerechion, St Asaph, Clwyd LL17 0UH
FLINT, v.c. 51; G. Wynne, Gwylfa, Lixwm, Holywell, Clwyd

ANGLESEY, v.c. 52; R.H. Roberts, Quinton, 51 Belmont Road, Bangor, Gwynedd LL57 2HY

MONMOUTH, v.c. 35 (comm. T.G. Evans)

- 15/5. *Asplenium trichomanes* L. subsp. *pachyrachis* (Christ) Lovis & Reichst. (Maidenhair Spleenwort). +Lady Park Wood, SO5514, E. Rickard; +Temple Doors, St Arvans, ST5296, T.G. Evans; +Chepstow Castle, ST5394, G. Hutchinson.
- 15/5. *Asplenium trichomanes* L. var. *trogyense* (Maidenhair Fern). Ruined castle walls, Castroggy Castle, ST4195, M. Rickard *et al.*
- 21/2.aff. *Dryopteris affinis* (Lowe) Fraser-Jenkins subsp. *affinis* (Scaly Male-fern). Now correctly determined in the following 10km squares: ST19,28,29,38,39,49,59; SO10,20,21,22,23,30,31,40,42,51.
- 21/2.bor. *Dryopteris affinis* subsp. *borreri* (Newman) Fraser-Jenkins (Scaly Male-fern). confirmed in the following 10km squares: ST19,28,29,38,39,48,49,58,59; SO10,20,21,22,23,30,31,32,40,42,51.
- Most of these *affinis* subspecies were recorded by T.G. Evans with contributions from G. Hutchinson, R. Fraser and John Harper. All were determined or confirmed by G. Hutchinson.
- +21/2. *Dryopteris affinis* x *D. filix-mas* = *D. x complexa* Fraser-Jenkins (a hybrid male-fern). Shady lane, Fleur-de-Lis, ST1696, G. Hutchinson, 1988.
- 24/4. *Gymnocarpium dryopteris* (L.) Newman (Oak Fern). S of The Narth, SO5206, Elsa Wood, 1985; Buckle Wood, Tintern, SO5100, R.S. Waite showed me the site in 1978, still present in 1985, T.G. Evans. Must have been there at least 50 years.
- +24/5. *Gymnocarpium robertianum* Slosson (Limestone Fern). Wood/Quarry edge, Hadnock Quarry, SO5415, B. Gregory, 1988. Second record.
- 25/1.vul. *Polypodium vulgare* L. s.s. (Polypody). Based on indurated cell counts it was confirmed in the following 10km squares: ST18,19,28,29,38,39,48,49,58,59; SO10,20,22,23,30,31,32,40,41,42,50,51.
- 25/1.int. *Polypodium interjectum* Shivas (Intermediate Polypody). Based on indurated cell counts it was confirmed in the following 10km squares: ST18,19,28,29,38,39,48,49,58,59; SO10,20,21,22,23,30,31,32,40,41,42,50,51.
- The above two species were collected chiefly by T.G. Evans with contributions from G. Hutchinson, John Harper and R. Fraser. Many were determined by G. Hutchinson and some by T.G. Evans & J. Harper.
- 25/1.cam. *Polypodium cambricum* L. (Southern Polypody). Determined from indurated cell counts. Chepstow Rail Cuttng, ST5392, Crabe, 1973; Rock-face, Blackcliff, ST5398, T.G. Evans, 1985; Wall, Troy Farm, SO5011, T.G. & U.T. Evans, 1986; Chepstow Castle, ST5394, G. Hutchinson, 1989.
- +27/1. *Azolla filiculoides* L. (Water Fern). Pond on Ty Mawr Farm, Dingestow, SO4309, W. Thomas, 1989.
- *153/dar. *Berberis darwini* Hook. (Darwin's Barberry). Growing from mortar in stone bridge over R. Rhymney, Rhymney, SO1107, R. Fraser, 1989. First record.
- *\$66/9. *Fumaria vaillantii* Lois (Few-flowered Fumitory). Appeared at base of shrub purchased from nursery. A seedling has appeared in place from which old plant had been removed, garden of Upper House, above and E of Grwyne Fawr, Partrishow, SO2823, S.A. Rippin, 1989. First record.
- +88/1. *Cochlearia officinalis* L. (Common Scurveygrass). Layby, Mitchell Troy, SO4810, H.V. Colls, 1989. One plant which did not reappear after '89.
- +88/5. *Cochlearia danica* L. (Danish Scurvygrass). Spreading along A40 margins in Mitchell Troy area, SO4710, H.V. Colls, 1988.
- 105/1. *Erysimum cheiranthoides* L. (Treacle Mustard). +Cwm Celyn, SO20, T.G. Evans, 1985; +Newport, ST28, J. Searle, 1989; +Goetre, SO30, R. Fraser, 1989.
- *123/coe. *Silene coeli-rosa* (L.) Godron (Rose-of-heaven). Gravelly island, Afon Llwyd, E of Sebastopol, ST3097, T.D. Pollard & T.G. Evans, 1987, det. E.J. Clement.
- *127/2. *Dianthus barbatus* L. (Sweet-William). Established on bank, Pentre Farm, Abergavenny, SO2815, R. Fraser, 1986.
- +1149/3. *Montia sibirica* (L.) Howell (Pink Purslane). River Rhymney near Glyn Rhymney, ST1589, T.G. & U.T. Evans, 1988.

- *156/lon. *Atriplex longipes* Drejer (Long-stalked Orache). West bank of River Wye, S of Chepstow, ST5393, M. & C. Kitchen, 1988, det. J.R. Akeroyd. First record.
- !Abu/the. *Abutilon theophrasti* Medicus (Velvetleaf). Weed in field of swedes, Twyn Farm, Raglan, SO3707, T.G. Evans, 1989. A single plant over 1 metre high.
- +168/4. *Geranium versicolor* L. (Pencilled Crane's-bill). East of Chapel(house), Farhill, Treleck, SO4604. First noticed by S.J. Tyler, 1982, still present in 1989, T.G. Evans. Second record.
- 168/7. *Geranium sanguineum* L. (Bloody Crane's-bill). Limestone rubble E of A40 N of Dixton, SO5214, E. Wood, 1988. No longer extant in natural v.c. sites.
- *171/3. *Impatiens parviflora* DC. (Small Balsam). Numerous plants along lane bank, Twyn Lane, Glascoed Village, SO3301, R. Fraser, 1989. First record, apparently present for many years.
- +202/1. *Ornithopus perpusillus* L. (Bird's-foot). Heath and entrance to wood Coed-y-Prior, SO2811, R. Fraser, 1986.
- 207/2. *Lathyrus nissolia* L. (Grass Vetchling). +Dismantled railway, Pontnewynydd; SO2601, I.B. & D. Harts and P.C. & J. Hall, 1988; +Grass verge of A465(T) (Monnow side) NW Pentwyn, SO3725, T.G. Evans & R. Fraser, 1988.
- +211/11/311. *Rubus moylei* W.C. Barton & Riddelsd. (a bramble). Gritty bank, Cwm Tillery, SO20, T.G. Evans, 1988, det. A. Newton.
- +211/356. *Rubus dasyphyllus* (Rogers) Rogers (a bramble). Bank above marshy ground, Cwm Tillery, SO20, T.G. Evans, 1988, det. A. Newton.
- +225/12. *Rosa sherardii* Davies (Sherard's Downy-rose). SE Woodfieldside, Blackwood, ST19, T.G. Evans, 1988, det. G.G. Graham.
- 225/13. *Rosa mollis* Sm. (Soft Downy-rose). Rough bank, Markham, SO1701, T.G. Evans, 1988, det. G.G. Graham.
- *225/14. *Rosa rubiginosa* L. (Sweet-briar). Gritty bank, N side of B4246, Blaenavon, SO2509, T.G. Evans & R. Fraser, 1988, det. G.G. Graham.
- 226/3. *Prunus cerasifera* Ehrh. (Cherry Plum). Caerwent, ST49, T.G. Evans, 1985; Runston, ST49, T.G. Evans, 1985; +Fiddler's Elbow, SO5213, T.G. & U.T. Evans, 1985; near Turner's Wood, St Maughans, SO4616, P.C. & J.F. Hall, 1989.
- 227/5. *Cotoneaster frigidus* Wall. ex Lindl. (Tree Cotoneaster). Rough grassy area, Cwm Tillery, SO2204, R. Fraser, 1988.
- 232/5x1. *Sorbus x thuringiaca* (Ilse) Fritsch (*S. aria* x *S. aucuparia*) (a hybrid whitebeam). Newport (planted), ST38, T.G. Evans, 1988.
- +239/7. *Saxifraga cymbalaria* L. (Celandine Saxifrage). Disturbed areas of garden, St Maughan's, SO41, P.C. Hall, 1980. Second record. Accidentally introduced with pot plants.
- +239/9. *Saxifraga granulata* L. (Meadow Saxifrage). Streamside, Pontypool Park, SO20, R. Fraser, 1988.
- 247/1. *Drosera rotundifolia* L. (Round-leaved Sundew). +Feeder stream, Cwm Tillery Reserve, SO20, A. & E. Wood, 1987; Coal waste, Cwm Tillery, SO2105 and Coedcae Tillery, SO2006, R. Fraser, 1987; +Boggy ground S of Mountain Ash P.H., SO1606, T.G. Evans & R. Fraser, 1989.
- 254/4. *Epilobium lanceolatum* Seb. & Mauri (Spear-leaved Willowherb). On rail ballast, coal waste and walls in the following 10km squares: SO10, T.G. & U.T. Evans and R. Fraser; ST19, G. Hutchinson; +SO20, I.B. & D. Harts, P.C. & J.F. Hall; ST28, G. Hutchinson, J. Searle, S. Bellamy; ST29, T.G. & U.T. Evans; +SO30 T.G. & U.T. Evans; ST38, T.G. Evans; ST39, T.D. & E.D. Pollard; +SO40, J. Harper, 1988; +SO41, P.C. & J.F. Hall, 1985; +SO50, E. Wood & J. Harper; +ST59, T.G. Evans; +SO42, P.C. & J.F. Hall, 1985.
- +280/1. *Smyrniolum olusatrum* L. (Alexanders). Roadside S of St Maughan's Green, SO4716, P.C. & J.F. Hall, 1985; Roadside, Llanfoist Bridge, Abergavenny, SO2914, R. Fraser, 1986.
- +289/1. *Ammi majus* L. (Bullwort). In carrot crop, The Nurtons, Tintern, SO5301, E. Wood, 1988.

- +298/1. *Crithmum maritimum* L. (Rock Samphire). Among stones making up 'sea wall', Uskmouth Power Station, ST3382, T.G. Evans & D. Upton, 1984 & '85; also Uskmouth, T.G. Evans, 1986 and St Bride's Wentlooge, T.G. & U.T. Evans, 1987, both ST38.
- +300/6. *Oenanthe aquatica* (L.) Poir (Fine-leaved Water-dropwort). Pond, Maes Gwyn, Llandenny, SO4104, D.E. Lewis, 1988.
- +319/11. *Euphorbia exigua* L. (Dwarf Spurge). Among commercial barley crop, Wonastow, SO4710, H.V. Colls, 1986.
- 328/1. *Urtica urens* L. (Small Nettle). +NE of Raglan, SO30, D. Lewis & T.G. Evans, 1988-89; +Field, Hygg, SO4803, E. Wood, 1986; +Watery Lane, Monmouth, SO4913, P. John, 1985.
- +1331/1. *Ficus carica* L. (Fig). Brick wall over stream, Garndiffaith, SO2604, R. Fraser, 1988. Second record.
- 342/4. *Populus nigra* var. *betulifolia* (Pursh) W. Wettst. (Black-poplar). A total of 18 trees now recorded, including the following: +2 trees on R. Usk bend, Bryn, SO3309, C. Titcombe, 1989; +1 tree St Bride's Wentlooge, ST3083, T.G. Evans & Recorder group, 1989; 2 trees cut to ground, S of Pant-y-goitre bridge, SO3408, T.G. & U.T. Evans, 1986; +1 tree at Llanllowell, ST3899, C. Titcombe, 1989.
- 343/16. *Salix repens* L. (Creeping Willow). +Pen-y-Van Pond, SO10, T.G. Evans & P.S. Jones, 1985; +Big Pit, SO20, R. Fraser, 1987.
- 357/4. *Erica cinerea* L. (Bell Heather). +Bal Mawr, SO22, M. & C. Kitchen, 1987; 7 tetrads in upland SO20, T.G. Evans, R. Hewitt, P.C. Hall, C. Hatch & P. Bodington, 1989; +Mynydd Machen, ST28, T.G. Evans, 1986; +Turnant, SO32, M.G. & S.A. Rippin, 1987.
- +401/4. *Lithospermum officinale* L. (Common Gromwell). Near R. Usk, Abergavenny, SO2814, R. Fraser, 1986.
- 406/3. *Calystegia pulchra* Brummitt & Heywood (Hairy Bindweed). +Cwm, SO10, T.G. Evans, 1988; Tredegar, SO10, T.G. Evans, 1989; +Sirhowy, Nantyglo, SO11, T.G. Evans, 1988, 1989; Blaina, SO20, R. Fraser, 1989.
- +411/1. *Hyoscyamus niger* L. (Henbane). Forestry Commission track, Rogiet, ST4588, E.D. Pollard, 1979.
- 422/2. *Kickxia elatine* (L.) Dumort (Sharp-leaved Fluellen). +Graig Syfyddin, SO4021, P.C. & J.F. Hall, 1985; Arable field, Underwood, ST38, T.G. Evans, 1986; +Pencarreg Plantation, SO4306, E. Wood, 1986; +Graig Syfyddin, SO4222, P.C. & J.F. Hall, 1985.
- *435/2. *Euphrasia scottica* Wettst. (an eyebright). Wet grassland on mountain slopes, Twmbarlwm, ST29, T.G. Evans, 1986, det. A.J. Silverside. First record.
- *435/13x19. *Euphrasia nemorosa* (Pers.) Wallr. x *E. rostkoviana* Hayne (a hybrid eyebright). Extensive swarm on floor of disused Carboniferous limestone quarry, Blackcliff, ST59, T.G. Evans, 1988, det. A.J. Silverside, 1988. First Welsh and v.c. record.
- *439/2. *Lathraea clandestina* L. (Purple Toothwort). One patch in old green lane and in neighbouring garden in several places, Lydart near Monmouth, SO5009, S. Harper, 1987, det. J. Harper, conf. T.G. Evans. First Welsh record, origin unknown.
- +440/8. *Orobancha minor* Sm. var. *flava* E. Regel (Common Broomrape). Meadow near hedgerow, Brockwells Farm, ST4689, C. Titcombe, 1977. Small number of pure yellow plants; did not reappear.
- 465/4/2. *Galeopsis bifida* Boenn. (Lesser Hemp-nettle). +Trevethin, SO2802, T.G. & U.T. Evans, 1988; +Lane bank, Gwehelog, SO3804, T.G. & U.T. Evans, R. Fraser, 1987; +Darran Plantation, Llandegfedd Reservoir, ST3298, T.G. & U.T. Evans, 1987; +near Raglan, SO40, D.E. Lewis, E. Wood, 1988.
- +466/1. *Nepeta cataria* L. (Cat-mint). Waste ground, E side of A40, W of Hadnock, SO5214; E. Wood, 1989.
- 473/1. *Littorella uniflora* (L.) Aschers. (Shoreweed). Shallow water, Pen-y-Van Pond, SO1900, T.G. Evans, 1970-1989; +Edge of Reservoir, Cwm Tillery, SO2107, R. Fraser, 1987.
- +475/2. *Campanula trachelium* L. (Nettle-leaved Bellflower). Field edge, SO5405, E. Wood, 1985.
- +475/8. *Campanula patula* L. (Spreading Bellflower). Lydart, SO40, J. Harper, 1988.

- 506/8. *Senecio vulgaris* L. var. *hibernicus* Syme (Rayed Groundsel). +Track near Trehir Quarries, ST1589, T.G. & U.T. Evans, 1988; +near Pontypool, SO20, R. Fraser, 1987; +Roadside, town center, Abergavenny, SO2914, R. Fraser, 1987; +verge, Lower Machen, ST28, J.P. Baker, 1988; +roadside, Whitecastle, SO3816, T.G. & U.T. Evans, 1986; +Penishaplwydd, SO32, R. Fraser, 1988.
- 541/1. *Silybum marianum* Gaertn. (Milk Thistle). Risca, ST29, T.G. & U.T. Evans, 1986; +Grass verge, Coed-y-Fedw, SO4408, T.G. & U.T. Evans, 1989.
- 545/1. *Serratula tinctoria* L. (Saw-wort). +Cwm Merddog, SO10, A. & E. Wood, 1987; +Acid fields, Whitelye, SO5101, E. Wood, 1985.
- 554/2. *Lactuca virosa* L. (Great Lettuce). +1-2 plants each year as a garden weed, Chepstow, ST5293, T.G. Evans, 1985-89; +One plant in disturbed ground SE of St Mellons roundabout on A48, ST2481, G. Hutchinson, 1989.
- +1570/3. *Elodea nuttallii* (Planch) St John (Nuttall's Waterweed). Pond near Lower Meend Farm, Lydart, SO5008, J. Harper, 1989.
- +1571/1. *Lagarosiphon major* (Ridl.) Moss (Curly Waterweed). Pond, Lower Grove Farm, SO4518, R. Palmer, 1976, OXF, absent in 1988. Pond constructed 1975-76.
- *558/1/442. *Hieracium salicicola* (Sudre) Sell & West (a hawkweed). Rail ballast, Newport Docks, ST3186, T.G. Evans, 1980. First record. Numerous plants spread along disused rail lines in 1980, numbers decreased until 1988.
- *558/1/243. *Hieracium rigens* Jord. (a hawkweed). Small number of plants along Carboniferous woodland pathside, Slade Wood, Rogiet, ST4589, T.G. Evans, 1986.
- 584/1. *Narthecium ossifragum* (L.) Huds. (Bog Asphodel). +Cwm Merddog, SO1806, A. & E. Wood, 1987; +Coedcae Tyle, SO20, R. Fraser, 1989.
- 603/1. *Paris quadrifolia* L. (Herb-Paris). +Wood, Seargant's Grove, SO4812, S.J. Tyler, 1981; +Pwllplythin & Graig Woods, SO50, E. Wood, 1985; +Livox Wood, SE of Monmouth, SO5111, B.J. Gregory, 1989.
- +638/1. *Platanthera chlorantha* (Custer) Reichb. (Greater Butterfly-bush). Grassy bank N of Bettws, ST2891, Miss Gough, 1975.
- 640/1. *Ophrys apifera* Huds. (Bee Orchid). +Near R. Usk, Usk, SO3700, S.J. Tyler, 1981; +Waste ground, Newport Docks, ST3184, T.G. Evans, 1975; +Raglan area, SO4207, D. E. Lewis, 1988; +Near Tintern, SO50, E. Wood, 1988.
- 643/4. *Dactylorhiza praetermissa* (Druce) Vermeul (Southern Marsh-orchid). +Cwm Celyn, SO2087, T.G. Evans, R. Fraser, 1987; +Wet meadow, NE of Abertillery, SO2204, R. Fraser, 1987; +wet meadow, The British, Abersychan, GRID REF?, R. Hewitt & T.G. Evans 1988.
- +645/1. *Anacamptis pyramidalis* (L.) Rich. (Pyramidal Orchid). 2 plants on embankment of the A40, Dixton, Monmouth, SO51, Mrs Tanner, 1983.
- 652/2. *Sparganium emersum* Rehm. (Unbranched Bur-reed). +Canal, Pontymister, ST2490, T.G. & U.T. Evans, 1988; Canal, Five Locks, ST2896, E.D. & J.D. Pollard, 1988; +Canal, Mamhilad, SO30, T.G. & U.T. Evans, 1989; Llanover, SO30, D.T. Price, 1986; +Ponthir, ST39, E.D. & T.D. Pollard, 1987-88.
- +654/4. *Eriophorum vaginatum* L. (Hare's-tail Cottongrass). Mynydd Llaysiau, SO32, M.G. & S.A. Rippin, 1987.
- 655/4. *Scirpus sylvaticus* L. (Wood Club-rush). +Great Tyn Mynach Farm, SO4008, Mr Williams, 1981; +Llantarnam Abbey, ST39, T.G. & U.T. Evans, 1988.
- 655/8. *Schoenoplectus lacustris* (L.) Palla (Common Club-rush). +River Wye bank, near Wyastone Leys, SO5315, E. Wood, 1988; +Below Bargain Wood, near R. Wye, SO5302, E. Wood, 1988.
- 663/15. *Carex pseudocyperus* L. (Cyperus Sedge). In wet ditch below Innage Farm, Mathern, ST5290, T.G. Evans, 1972; +Large quantity in upland pond, Craig, SO21, T.G. Evans & R. Fraser, 1989; +Reen, St Bride's Wentlooge, ST28, P.R. Glading, 1985.
- 663/17. *Carex vesicaria* L. (Bladder-sedge). +Near Cwm Tillery Reservoir, SO2207, A. & E. Woods, 1987; +Fen, Lower Cadfor, SO2814, R. Fraser, 1987; +Grosmont Fawr, SO32, T.G. & U.T. Evans, 1987.
- 663/23. *Carex strigosa* Huds. (Thin-spiked Wood-rush). +Bedwas, ST18, T.G. & U.T. Evans, 1988; +Wooded gully, Lime Kiln Wood, ST29, T.G. & U.T. Evans, 1989; +Cilfeigan Park, SO30, T.G. Evans, 1988.

- +663/47. *Carex acuta* L. (Slender Tufted-sedge). River Wye side, W of Brockweir, SO5301, E. Wood, 1988. An uncommon v.c. sedge.
- 663/68. *Carex muricata* L. subsp. *lamprocarpa* Celak (Small-fruited Prickly-sedge). +Wattsville & Cwm Lickey, ST29, T.G. & U.T. Evans, 1989; +Roadside, Llancayo, SO3703, T.G. & U.T. Evans, 1987; +Grassy verge, Triley Mill, SO3117, R. Fraser, 1987; +Kemeys, ST39, T.D. & E.D. Pollard, 1987; +RAF, Caerwent, ST4691, T.G. Evans, 1985-88; +Iron Age Fort, Sudbrook, ST5087, T.G. Evans, 1972-87.
- *Pse/jap. *Pseudosasa japonica* (Siebold & Zucc. ex Steudel) Makino ex Nakai (Arrow Bamboo). 3 clumps in Fish Pond Wood, Llanrumney, ST2180, G. Hutchinson, 1986. First record.
- *667/1.alt. *Molinia caerulea* (L.) Moench subsp. *altissima* (Link) Domin (Purple Moor-grass). Marsh by site of Roman road, SW of Bassaleg, ST28, A.E. Wade, 1934, det. P.J.O. Trist; +Very tall plant with very branched inflorescence, wet heath, S end of Llandegfedd Reservoir, ST39, T.G. Evans, 1989; +N end of Llandegfedd Reservoir, SO30, R. Fraser, 1989. First, second and third records.
- *670x671. x *Festulolium loliaceum* (Huds.) P. Fourn (Hybrid Fescue). Catbrook, SO5002, E. Wood, 1989; and near Lime Kiln Farm, SO5108, E. Wood, 1989. First and second records.
- 683/13. *Bromus lepidus* Holmb. (Slender Soft-brome). Roadside verge, Wyndcliff, ST5397, T.G. Evans, 1974-85. The only other record of this brome with rather small spikelets was in ST48 in 1972, in spite of records in 12 10km squares in v.c.
- +1687/jub. *Hordeum jubatum* L. (Foxtail Barley). Edge of golf tee in sandy turf, Upper Cwmbran, ST2897, T.G. Evans, 1989. Usually short-lived on newly seeded road verges.
- +688/1. *Hordelymus europaeus* (L.) Harz. (Wood Barley). Ty Harry Wood, SO4407, E. Wood, 1988.

GLAMORGAN, v.c. 41 (comm. J.P. Curtis and Q.O.N. Kay)

- *21/2.cam. *Dryopteris affinis* subsp. *cambrensis* Fraser-Jenkins (Scaly Male-fern). Stream gully, Bwlch y Clawdd, SS99, C.R. Fraser-Jenkins, 1988. First record.
- +29/1. *Ophioglossum vulgatum* L. (Adder's-tongue). Woodland clearing near Ruperra Castle, ST2285, H. & R. Henderson, 1989.
- +88/5. *Cochlearia danica* L. (Danish Scurvygrass). N side of A48, St Hilary, SS0273, A.B. Pinkard, 1970, det G. Hutchinson.
- +112/3. *Reseda alba* L. (White Mignonette). Waste ground, Rhoose Quarries, ST0665, J.P. Curtis, 1989.
- 113/6. *Viola canina* L. (Heath Dog-violet). Edge of lawn, old Coastguard Station, Barry Island, ST1066, G. Hutchinson, 1989, conf. Prof. D.M. Moore. The only extant site in E Glamorgan.
- +1Rhu/typ. *Rhus typhina* L. (Stag's-horn Sumach). On cycle trackway, Lower Swansea Valley, SS69, G. Hutchinson, 1989. Second record.
- +179/1. *Rhamnus catharticus* L. (Buckthorn). Wet deciduous wood near Rhydypennau Road, Cardiff, ST1880, G. Hutchinson, 1989.
- +1182/ins. *Parthenocissus inserta* (A. Kerner) Fritsch Waste ground, Bessemer Road, Cardiff, ST1675, G. Hutchinson, 1989.
- +1207/gra. *Lathyrus grandiflorus* Smith (Two-flowered Everlasting-pea). Waste ground, Llanishen, Cardiff, ST1881, J.P. Curtis, 1972, det. R.G. Ellis & G. Hutchinson.
- +212/8. *Potentilla norvegica* L. (Ternate-leaved Cinquefoil). Reclaimed land, Mountain Ash, ST09, J.P. Curtis & BSBI Field Meeting, 1989. Second recent record.
- *225/afz x can. *Rosa afzeliana* Fries x *R. canina* L. (a hybrid rose). Porthkerry Bay, ST06, A.E. Wade, 1969; +Outskirts of Llantrithyd, ST07, W.H. Nicholls, 1970; +Coychurch Higher, SS9684, A.E. Wade, 1970, all det. A.L. Primavesi. First and subsequent records.
- *225/cae. *Rosa caesia* Sm. subsp. *caesia* (Hairy Dog-rose). Abernant, Aberdare, SS0103, J.W. Davies & A.E. Wade, 1973, det. A.L. Primavesi. First record.

- *225/cae x can. *Rosa caesia* Sm. x *R. canina* L. (a hybrid rose). Near St Mary Church, A.E. Wade & A.B. Pinkard, ST0071, 1969, det. A.L. Primavesi. First record.
- *225/cae x can. *Rosa caesia* Sm. subsp. *glauca* (Nyman) G.G. Graham & Primavesi x *R. canina* L. s.s. (a hybrid rose). Abernant, Aberdare, SS0103, J.W. Davies, A.E. Wade & A. Newton, 1973, det. A.L. Primavesi. First record.
- *225/can x obt. *Rosa canina* L. x *R. obtusifolia* Desv. (a hybrid rose). Near Llanedeyrn, Cardiff, ST28, A.E. Wade, 1969, det. A.L. Primavesi. First Welsh record.
- +225/can x sty. *Rosa canina* L. x *R. stylosa* Desv. (a hybrid rose). St Marys Well Bay Road, Lavernock, ST1768, A.E. Wade, 1969, det. A.L. Primavesi. Second record.
- *225/11xcan. *Rosa tomentosa* Sm. x *R. canina* L. s.s. (a hybrid rose). Hedgerow N of Mountain Ash, SS00, A.E. Wade, 1975, det. A.L. Primavesi. First record.
- 225/12. *Rosa sherardii* Davies (Sherard's Downy-rose). +N of Llantrisant Common, SS08; +Tir-y-Berth, Rhymney Valley, ST1596, both A.B. Pinkard & A.E. Wade, 1971 & 1974, det. A.L. Primavesi.
- +235/4. *Sedum dasyphyllum* L. (Thick-leaved Stonecrop). Disused quarry, Font y Gary, ST06, J.P. Curtis, 1986. First recent record.
- +1415/1. *Datura stramonium* L. (Thorn-apple). Waste ground in car park, Dare Valley Country Park, Aberdare, SN9802, D. Protheroe, 1989.
- +425/cup x2x1. *Mimulus (cupreus)* Dombrain x *M. luteus* L.) x *M. guttatus* DC. (a hybrid monkeyflower). Several clumps in narrow stony-bedd of R. Rhymney between Llechryd and Rhymney, SO10, T.G. & U.T. Evans, 1988. Second record.
- *1450/1. *Satureja montana* L. (Winter Savory). 1 small plant in Roman ruins, Barry, ST06, J.P. Curtis, 1988. First Welsh record.
- +497/2. *Dipsacus pilosus* L. (Small Teasel). Streamside, East Aberthaw, ST0267, J.P. Curtis, 1987. Second record.
- +554/1. *Lactuca serriola* L. (Prickly Lettuce). Scrubby ground, old brickworks site, Birchgrove, Cardiff, ST18, A.D. Tipper, 1989.
- *1570/3. *Elodea nuttallii* (Planch.) St John (Nuttall's Waterweed). Glamorgan Canal, Nightingale's Bush, Glyntaff, ST0889, A.R. Perry, 1979, det. D.A. Simpson.

BRECON, v.c. 42 (comm. M. Porter)

- *21/2. *Dryopteris affinis* (Lowe) Fraser-Jenkins subsp. *cambrensis* Fraser-Jenkins (Scaly Male-fern). Rocky bank, Grwyne Fawr, SO2430, G. Hutchinson, 1988, conf. C.R. Fraser-Jenkins. First record.
- +56/1. *Nuphar lutea* (L.) Sm. (Yellow Water-lily). Canal near Llangynidr, SO11, M. Porter, 1989.
- +79/3. *Lepidium heterophyllum* Benth. (Smith's Pepperwort). Waste ground, Ystradgynlais, SN70, M. Porter, 1988.
- +1105/1. *Erysimum cheiranthoides* L. (Treacle Mustard). Roadside verge, Crickhowell, SO21, M. Porter, 1989.
- +1111/1. *Descurainia sophia* (L.) Webb ex Prantl (Flixweed). Roadside verge, Llangatock, SO2118, A. Newton & M. Porter, 1989. First post-1930 record.
- +113/11. *Viola lutea* Huds (Mountain Pansy). Rough grasland, Mynydd Eppynt, SN84, M. Porter, 1988.
- 143/1. *Spergularia rubra* (L.) J. & C. Presl (Sand Spurrey). +Edge of track, forestry plantation, Nant Tresglen, SN83; +Plantation near Llaneglwys, SO03, both M. Porter, 1989.
- +156/3. *Atriplex prostrata* Boucher ex DC. (Spear-leaved Orache). Roadside verge, Llangatock, SO21, M. Porter, 1988.
- +206/9. *Vicia orobus* DC. (Wood Bitter-vetch). Mynydd Eppynt, SO04, R.G. Woods, 1988.
- *211/11/tro. *Rubus troiensis* Newton (a bramble). Lane hedge, Llangynidr, SO1619, M. Porter, 1989, conf. A. Newton. First noticed, but not recognised, in scrub at Gilwern, SO21, in 1978. Later found in woodland on the Myarth, SO12, and in several hedges and woods around Llangatock and Llangynidr. It is frequent along the canal.
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- +218/2. *Agrimonia procera* Wallr. (Fragrant Agrimony). Lane back near Usk Reservoir, SN82, M. Porter, 1988.
- +1336/2. *Alnus incana* (L.) Moench (Grey Alder). One sapling, edge of track, conifer plantation near Cray, SN82, M. Porter, 1989. Second record.
- *416/7. *Verbascum nigrum* L. (Dark Mullein). Garden weed, Gilwern, SO2414, S.G. & A. Marshall, 1989. First localised record.
- +440/3. *Orobanchae rapum-genistae* Thuill. (Greater Broomrape). +Rough banks, near Llanigon, SO13, T. Sykes, 1988; +near Brecon, SO02, T. Sykes & P. Morgan, 1988; +near Builth, SO05, T. Sykes & R.G. Woods, 1989; Lower Chapel, SO03, T. Sykes, 1989. Parasitic on broom at all the above sites except Brecon where gorse was the host plant. The Lower Chapel site is probably the same place that W.P.J. Le Brocq recorded Greater Broomrape in 1887.
- +445/4x5. *Mentha x piperita* L. (Peppermint). Streamside, Mynydd Eppynt, SN84, R.G. Woods & M. Porter, 1988.
- +446/1. *Lycopus europaeus* L. (Gipsywort). Pool, Mynydd Iltyd, SN92, T. Sykes, 1988.
- *459/byz. *Stachys byzantina* C. Koch (Lamb's-ear) In crack between road-edge and stone wall, Wern Farm, near Brecon, SO0730, T. Sykes, 1989, det. R.G. Ellis. First record.
- +472/2. *Plantago media* L. (Hoary Plantain). Grass verge near Buckland House, SO1321, M. Porter, 1988. Second record and only extant colony.
- +1509/4. *Petasites fragrans* (Vill.) C. Presl (Winter Heliotrope). Roadside verge, near Crickhowell, SO21, M. Porter, 1988.
- +514/5. *Filago minima* (Sm.) Pers. (Small Cudweed). Forestry track, Cwm Tarell, SN92, M. Porter, 1989.
- +517/1. *Antennaria dioica* (L.) Gaertn. (Mountain Everlasting). Nant Irfon, SN85, R.G. Woods & A.S. Ferguson, 1989.
- +625/1. *Epipactis palustris* (L.) Crantz (Marsh Helleborine). Damp rough pasture, Cwm Giedd, SN71, D. Gray, 1989. Growing with globeflower, broad-leaved cotton-grass, meadow thistle, etc.
- +627/1. *Spiranthes spiralis* (L.) Chevall (Autumn Lady's-tresses). Old lawn, Llangattock, SO2118, S. Sankey-Barker, 1989. Second county record and first this century.
- +643/1x3b. *Dactylorhiza fuchsii* (Druce) Soó x *D. incarnata* subsp. *pulchella* (Druce) Soó (Hybrid Orchid). Marshy meadow near Llangorse Lake, SO12, M. Porter, 1989.
- +643/1x4. *Dactylorhiza fuchsii* (Druce) Soó x *D. praetermissa* (Druce) Soó (Hybrid Orchid). Marshy meadow near Llangorse Lake, SO12, M. Porter, 1989. Both hybrids were growing among a mixed population of orchids including the three putative parent species.
- *657/1. *Blysmus compressus* (L.) Panz. ex Link (Flat-sedge). Small mire below tufa outcrop on open common near Hay-on-Wye, SO23, M. Porter, 1989. First record and only extant Welsh locality.
- +663/17. *Carex vesicaria* L. (Bladder-sedge). Nant Chwefru, SN95, R.G. Woods, 1989.
- +663/57. *Carex otrubae* Podp. (False Fox-sedge). Track, disused colliery, Ystradgynlais, SN70, M. Porter, 1988.
- +663/65. *Carex divulsa* Stokes (Grey Sedge). Rocky bank of R. Usk, Llangynidr, SO11, M. Porter, 1987.
- +670/4. *Festuca altissima* All. (Wood Fescue). Cwm Clydach, SO21, M. Porter, 1988.
- *1683/9. *Bromus tectorum* L. (Drooping Brome). Garden weed, Llangynidr, SO1619, M. Porter, 1988, det. T.A. Cope. First record.
- +683/10x13. *Bromus x pseudothominii* P.M. Sm. (Hybrid Brome). Roadside verge, Cwm Clydach, SO21, M. Porter, 1988, det. T.A. Cope. Second record.
- +691/1. *Trisetum flavescens* (L.) Beauv. (Yellow Oat-grass). Edge of track, plantation near Llaneglwys, SO13, M. Porter, 1989.
- +693/2. *Avenula pubescens* (Hudson) Dumort (Downy Oat-grass). Grassy bank and roadside, Buckland, SO12, M. Porter, 1988.
- +701/2b. *Agrostis vinealis* Schreber (Brown Bent). Hill grassland, Mynydd Eppynt, SN84, R.G. Woods & M. Porter, 1988.

RADNOR, v.c. 43 (comm. D.R. Humphreys)

- 29/1a. *Ophioglossum vulgatum* L. (Adder's-tongue). Shady roadside, near Glasbury, SO1838, S. Leach & A.C. Powell, 1989.
- +207/6. *Lathyrus sylvestris* L. (Narrow-leaved Everlasting-pea). Scrub on wooded hillside, Burfa Bank, SO2860, D.R. Humphreys, 1989. First confirmed record for over 40 years.
- *251/1. *Daphne mezereum* L. (Mezereon). Old limestone quarry, Dolyhir, SO2458, R.G. Woods & I.D. Soane, 1989. First record.
- +251/2. *Daphne laureola* L. (Spurge-laurel). Roadside verge, Dolyhir, SO2458, R.G. Woods & I.D. Soane, 1989. Second record.
- +1415/1. *Datura stramonium* L. (Thorn-apple). Little Vaynor, Nantmel, SO0269, D.R. Drewett, 1989.
- +485/10. *Galium uliginosum* L. (Fen Bedstraw). Wet pasture, Cwmila Brook Fields, Newchurch, SO2049, H.L.J. Drewett, 1989.
- +643/5. *Dactylorhiza purpurella* (T. & T.A. Steph.) Soó (Northern Marsh-orchid). Marshy field, Lane Farm, Rhosgoch, SO1846, H.L.J. Drewett, 1989. Second record.
- *667/1. alt. *Molinia caerulea* (L.) Moench subsp. *altissima* (Link) Domin (Purple Moor-grass). Llandrindod Wells, SO06, W.C. Barton, 1916, det. P.J.O. Trist. First record.
- *701/2b. *Agrostis vinealis* Schreber (Brown Bent). Damp shade with *Calluna*, Harley Dingle, SO1864, R.G. Woods, 1989. First record.

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

- +15/2. *Asplenium billotii* F. Schultz (Lanceolate Spleenwort). 6 mature plants in Quartzitic Scree fan at foot of east-facing slope, Ragwen Point, Pendine, SN2207, I.K. Morgan, 1989. Second extant record. Rediscovery of 1907 record of H.H. Knight.
- +21/2. *Dryopteris affinis* subsp. *borrieri* (Newman) Fraser-Jenkins (Scaly Male-fern). Woodland behind Llanarthney Church, SN5320, G. Hutchinson, 1989.
- 46/22c. *Ranunculus penicillatus* (Dumort.) Bab. subsp. *penicillatus* (Stream Water-crowfoot). Stream, near Abergiar, SN5041, G. Hutchinson, 1989.
- +55/1. *Nymphaea alba* L. (White Water-lily). Colony covering small pool on edge of *Calluna* heath, 2km W of Dolgran, SN4034, G. Hutchinson, 1989.
- *191/sax. *Alyssum saxatile* L. (Golden Alison). Beach-side wall, by railway-line, Ferryside, SN3610, G. Hutchinson, 1989. First record.
- *1124/cor. *Lychnis coronaria* (L.) Murray (Rose Campion). A few plants on reseeded roadside embankment, N. side of Heol Allt-y-cnap, Johnstown, Carmarthen, SN3919, G. Hutchinson, 1989. First record.
- +136/1. *Sagina apetala* Ard. subsp. *erecta* F. Herm. (Annual Pearlwort). Felingwm-uchaf, SN5024, P. Goodhind, 1989.
- +1170/2. *Oxalis corniculata* L. var. *atropurpurea* sensu D.P. Young (Procumbent Yellow-sorrel). Spreading from house, Llandyfaelog, SN4111, G. Hutchinson & R.G. Ellis, 1989.
- *1183/pol. *Lupinus polyphyllus* Lindley (Garden Lupin). Presumably sown on coal tip, Cynheidre No. 3 Colliery, SN5210, J. Killick & D. Brookman, 1989. First record.
- *211/11/57. *Rubus ludensis* W.C.R. Watson (a bramble). Wood, NW of Cynghordy, SN8140; and roadside, Sugar Loaf, SN8342, both M. Porter, 1988. First and second records.
- +211/11/84. *Rubus accliviatum* W.C.R. Watson (a bramble). Edge of ride, Cilgwyn Forest, SN7429, M. Porter, 1988.
- +211/11/104. *Rubus lindebergii* Mueller (a bramble). Laneside bank, near Cynghordy, SN8139; and roadside Sugar Loaf, SN8342, both M. Porter, 1988.
- +211/11/198. *Rubus dentatifolius* (Briggs) W.C.R. Watson (a bramble). Hedgerow, near Golden Grove, SN5919, M. Porter, 1988.

- +211/11/233. *Rubus pallidus* Weihe (a bramble). Lane hedge, N of Ynyswen, SN5324, M. Porter, 1988.
- *1226/8. *Prunus lusitanica* L. (Portugal Laurel). Deep shade in wooded steep bank down to stream, 2km SE of Llanfynydd, SN5725, G. Hutchinson, 1989. First record.
- +251/1. *Daphne mezereum* L. (Mezereon). Limestone woodland, Coedydd Carmel SSSI, SN5916, R.N. Stringer, 1989. Second record.
- +258/1. *Vaccinium vitis-idaea* L. (Cowberry). Very few poor, grazed plants in limestone block scree, northeastern slope of Carreg-yr-Ogof, SN7721, J. & M. Iliff, 1988. Second record.
- \$343/1. *Salix pentandra* L. (Bay Willow). +Riverbank, Ynys Uchaf, Cwmsisfael, SN4814, D.A. Wells & I.K. Morgan, 1989, conf. T. Blackstock; NW of Gorslas, SN5614, I.K. Morgan, 1989.
- 382/1. *Centaureum pulchellum* (Sw.) Druce (Lesser Centaury). 4 plants in flower, damp grassland, Burry Port Power Station, SN4500, G. Hutchinson, 1989.
- 386/1. *Menyanthes trifoliata* L. (Bogbean). One plant only in dried-up pool, near Goitre Farm, Abergiar, SN5140, G. Hutchinson, 1989.
- *1387/1. *Nymphoides peltata* (S.G. Gmel.) Kuntze (Finged Water-lily). Large patch, c.4m diameter in pond, Machynys Pond, Llanelli, SS5198, B. Stewart & I.K. Morgan, 1989. First record.
- +1395/1. *Pentaglottis sempervirens* (L.) L.H. Bailey (Green Alkanet). Hedgebank, near Abergiar, SN5140, G. Hutchinson, 1989. Probably an escape from a nearby house.
- +1416/10. *Verbascum virgatum* Stokes (Twiggy Mullein). Two plants, Machynys, Llanelli, SS5197, I.K. Morgan, 1989.
- +437/1. *Parentucellia viscosa* (L.) Caruel (Yellow Bartsia). Disturbed coastal shingle, Penclawdd Wildfowl Centre, SS59, B. Stewart, 1989.
- +440/3. *Orobancha rapum-genistae* Thuill. (Greater Broomrape). Disused quarry, Cefn Crug Quarry, Llandovery, SN7734, T. Sykes, 1989. Presumed rediscovery of H.H. Knight's 1905 record.
- *1445/5x6. *Mentha x villosa* Opiz (*M. longifolia* x *M. spicata*) (Sharp-toothed Mint). A few plants on reseeded roadside embankment, N side Heol Allt-y-cnap, Johnstown, Carmarthen, SN3919, G. Hutchinson, 1989. First record.
- 459/3. *Stachys arvensis* (L.) L. (Field Woundwort). Good patch with other arable weeds in dried up wet area of field, between Pant Glas and Bryneryl, SN3625, J. Killick & D. Brookman, 1989.
- +509/1. *Petasites hybridus* (L.) Gaertn., Mey., & Schreb (Butterbur). Stream bank, near Abergiar, SN5041, G. Hutchinson, 1989.
- [570/3. *Elodea nuttallii* (Planchon) St John (Nuttall's Waterweed). The plant on which the record published in *BSBI Welsh Bulletin* 42: 34 (1985) was based has been redetermined as *Elodea canadensis*.]
- +576/2. *Zostera angustifolia* (Hornem.) Reichenb. (Narrow-leaved Eelgrass). Salmarsh creeks, E of Penrhyngwyn, SS5197/5297, K.J. Peberdy, Wildfowl & Wetlands Trust Survey, 1989. Very sparse over a wide area of saltmarsh, odd shoots tending to be associated with shallow intertidal pools around mussel-beds. 4th record and first since 1947.
- 638/1. *Platanthera chlorantha* (Custer) Reichb. (Greater Butterfly-orchid). 58 plants counted in burial ground, Llanfynydd, SN5527, J.A. Green, & P. Goodhind, 1989.
- +645/1. *Pyramopsis pyramidalis* (L.) Rich. (Pyramidal Orchid). One plant only in disused limestone quarry, Capel Dyddgen Quarry, Crwbin, SN4612, I.K. Morgan 1989. First inland record.
- *1648/1. *Lysichiton americanus* Hulten & St John (American Skunk-cabbage). Lake edge, Upper Cwmoernant Reservoir, Carmarthen, SN4121, I.K. Morgan, & P. Swire, 1989. First record.
- +654/3. *Eriophorum latifolium* Hoppe (Broad-leaved Cottongrass). Wet flushed grassland, Cae Maesyffynnon SSSI, near Pont Aber, SN7760, I.K. Morgan, 1989. Second record and first since that of H.H. Knight at Pont Aber in 1908; may be rediscovery of Knight's record.

- +655/4. *Scirpus sylvaticus* L. (Wood Club-rush). Tywy valley near Cilsan Bridge, SN5820, H.J. Killick & R. Walls, 1989.
- *657/2. *Blasmus rufus* (Hudson) Link (Saltmarsh Flatsedge). Top of saltmarsh, Ffos Fach Marsh, Bynea, SS5599, NCC Field Survey Team, 1988. First record.
- +663/23. *Carex strigosa* Hudson (Thin-spiked Wood-sedge). Roadside verge near Cilsan Bridge, Golden Grove, SN5821, H.J. Killick & R. Walls, 1989. Second record.
- +663/67. *Carex spicata* Huds. (Spiked Sedge). Damp grassland, Burry Port Power Station, SN4500, G. Hutchinson, 1989, det. R.W. David & A.O. Chater.

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

- 1/1. *Huperzia selago* (L.) Bernh. ex Schrank & Mart. (Fir Clubmoss). About 30 scattered plants in peaty soligenous mire, Carnau Lladron, Brynberian, SN1033, S.B. Evans, 1989.
- 34/1. *Juniperus communis* L. One large bush, sea-cliff, Aber Mawr, Ramsey, SM6924, J.W. Donovan, 1989. Killed by 1989/90 winter storms.
- +75/1. *Crambe maritima* L. (Sea-kale). Single plant in strandline of large shingle in front of dunes, NW end of Broomhill Burrows, SM8800, P. Rhind, 1989. Last seen in v.c. 45 in 1956.
- *\$133/1b. *Stellaria nemorum* L. subsp. *glochidisperma* Murb. (Wood Stitchwort). In Forestry bark mulch in new flower bed, Withybush, Haverford-west, SM9516. S.B. Evans, 1989. First record.
- 163/4. *Malva neglecta* Wallr. (Dwarf Mallow). W of Brownslade, SR9097, S.J. May, 1989.
- +185/1. *Genista tinctoria* L. (Dyer's Greenweed). Some 9 stands present in *Molinia* dominated heathy pasture, Moory Farm, 1km N of Redberth, SN0705, H. Harries & R. Elliot, 1989. Second record.
- *261/1. *Hippuris vulgaris* L. (Mare's-tail). Open water in flooded disused limestone quarry, Blaencilgoed Quarry, Ludchurch, SN1510, S.B. Evans & J.W. Donovan, 1989. Second record but first, at Bosherton, thought to be an error.
- +319/11. *Euphorbia exigua* L. (Dwarf Spurge). Disturbed sandy ground over Limestone, SR9894, 1985, and Limestone clitter, SR9795, 1988, both Stackpole Warren, R.J. Haycock.
- +440/8. *Orobancha minor* Sm. (Common Broomrape). A large population on disturbed ground, Pembroke Dockyard, SM9503, S.B. Evans, 1988.
- +445/3. *Mentha arvensis* L. (Corn Mint). Mount Sion Tumulus, SR9195, S.J. May, 1989.
- 663/3. *Carex punctata* Gaudin (Dotted Sedge). Flush at top of sea-cliff, SW of Monkstone Beach, SN1402, R.F. Taylor, 1980, conf. A.O. Chater 1991.
- *663/72x54. *Carex x ludibunda* Gay (*C. curta* x *C. paniculata*) (a hybrid sedge). Several plants with parents S of overgrown pool, Dowrog Common, SM7726, R.W. David & S.B. Evans, det. R.W. David and A.O. Chater. First County, second Welsh and third British record.

CARDIGAN, v.c. 46 (comm. A.O. Chater)

- +9/1. *Cryptogramma crispa* (L.) Hooker (Parsley Fern). Spoil of old mine or quarry by Nant Gelli-gogau, Pumlumon, SN88, A.O. Chater, 1989.
- +21/6. *Dryopteris carthusiana* (Vill.) H.P. Fuchs (Narrow Buckler-fern). Old peat cuttings W of Blaencwrt, Cwrtnewydd, SN54, A.O. Chater, 1989. Ride in conifer plantation S of Llyn Du, SN76, A.O. Chater & D. Davies, 1989.
- +29/1a. *Ophioglossum vulgatum* L. subsp. *vulgatum* (Adder's-tongue). Flushed pasture clearing in woodland, Talwrn, Strata Florida, SN76, A.P. Fowles, 1989.

- +140/1. *Aconitum napellus* L. subs. *napellus* (Monk's-hood). Long-abandoned grassy garden site, Hengwm-Annedd, Pumlumon, SN78, A.O. Chater, 1989. Two colonies, which must have persisted at this remote upland site at 375m. a.s.l. for at least 40 years.
- +46/15. *Ranunculus sceleratus* L. (Celery-leaved Buttercup). Ditch along S side of B4353 at S end of Borth village, SN68, A.O. Chater, 1989.
- +98/1. *Barbarea vulgaris* R. Br. (Winter-cress). Several plants on shingle spit in Afon Teifi 2 km SW of Lampeter, SN54, A.O. Chater & A.P. Fowles, 1989.
- +155/1. *Beta vulgaris* L. subsp. *maritima* (L.) Arcangeli (Sea Beet). Many plants in recently formed hollow at back of shingle beach on shore opposite Drefach, Aberaeron, SN46, A.O. Chater *et al.*, 1989.
- +185/2. *Genista anglica* L. (Petty Whin). Rhos W of Talwrn, Strata Florida, SN76, A.O. Chater, 1989.
- +192/4. *Trifolium medium* L. (Zigzag Clover). Capel Waunifor graveyard, SE of Capel Dewi, SN44, A.O. Chater, 1989. One of the richest graveyards in the county.
- +209/2x1. *Spiraea douglasii* Hooker x *S. salicifolia* L. (a hybrid Bridewort). Forming thicket at edge of alder carr E of Afon Rheidol at Blaengeuffordd, SN68, A.O. Chater, 1989.
- *220/3/2. *Alchemilla filicaulis* Buser subsp. *vestita* (Buser) M.E. Bradshaw (Hairy Lady'-mantle). Flush on S-facing slope, Cwm Berwyn, SN75, A.O. Chater, 1987. Inflorescences all eaten by sheep; fragment of rhizome collected in 1988 and flowered in 1989, conf. S.M. Walters.
- +225/4. *Rosa pimpinellifolia* L. (Burnet Rose). Hedgebank of lane from Penrhiw chapel to Trefere Bella, Felin-wynt, SN24, A.O. Chater, 1989.
- +225/afz. *Rosa afzeliana* Fries (Gaucous Dog-rose). Hedge at Pant-bach, Macsillyn, SN34, A.O. Chater, 1989.
- +225/15. *Rosa micrantha* Sm. (Small-flowered Sweet-briar). Shaley ground by track, R.A.E. Site, Aber-porth, SN25, A.O. Chater & J.R. Akeroyd, 1989.
- +123/hel. *Crassula helmsii* (T. Kirk) Cockayne (New Zealand Pigmyweed). Pond in grounds of Welsh Plant Breeding Station, Plas Gogerddan, SN68, A. Jones, 1989.
- +250/1. *Lythrum portula* (L.) D.A. Webb (Water-purslane). Muddy shore at SE corner of Llyn Teifi, SN76, A.O. Chater, 1989.
- +139/1. *Honkenya peploides* (L.) Ehrh. (Sea Sandwort). Sandy shingle on shore opposite Drefach, Aberaeron, SN46, A.O. Chater & J.R. Akeroyd, 1989.
- +1254/13. *Epilobium brunneum* (Cockayne) Raven & Englehorn (New Zealand Willowherb). Mariamne's Garden, Hafod, SN77, C. Kerkham, 1989, det. A.O. Chater.
- *320/1/3. *Polygonum rurivagum* Jordan ex Boreau (Cornfield Knotgrass). Dominant over at least 3 acres of beanfield, Llwynysgaw, Felin-wynt, SN25, A.O. Chater, 1989, conf. J.R. Akeroyd. This field has peas or beans and barley or wheat in rotation, and is regularly sprayed, apparently with no adverse effect on the *Polygonum* which the farmer says appears in abundance each year.
- +325/1/2. *Rumex angiocarpus* Murbeck (a Sheep's Sorrel). Disturbed shaley ground, R.A.E. site, Aber-porth, SN25, 1989, J.R. Akeroyd. Second record.
- +400/4. *Myosotis laxa* Lehm. subsp. *caespitosa* (C.F. Schultz) Hylander (Tufted Forget-me-not). Marshy hollow ESE of Dolaugwyrdon-isaf, Lampeter, SN54, A.O. Chater, 1989.
- +417/1. *Misopates orontium* (L.) Rafin. (Lesser Snapdragon). Grassy waste ground behind houses S of A44, Blaengeuffordd, SN68, A.O. Chater, 1989. Waste ground by A4120 level crossing, Llanbadarn Fawr, SN58, A.O. Chater, 1989. Apparently becoming a more frequent casual in the last few years.
- +459/3. *Stachys arvensis* (L.) L. (Field Woundwort) Fallow field E of Penrhiw chapel, Felin-wynt, SN24, A.O. Chater, 1989.
- +1461/arg. *Galeobdolon argentatum* Smejkal (a Yellow Archangel). Well established on hedgebank 2.5km E of Cwrtnewydd, SN54, A.O. Chater, 1989.
- +465/5. *Galeopsis speciosa* Miller (Large-flowered Hemp-nettle). Disturbed corner of field by track to Braich Garw, Tal-y-bont, SN68, W.A. Strange, 1989. Not seen in the county for some years.
- +469/1. *Scutellaria galericulata* L. (Skullcap). Pentwd marshes, Cardigan, SN14, A.O. Chater, 1989.

- +502/1. *Bidens cernua* L. (Nodding Bur-marigold). Several plants on shingle bar in Afon Rheidol just below Pen-y-bont bridge, Penparcau, SN58, A.O. Chater, 1989.
- +502/2. *Bidens tripartita* L. (Trifid Bur-marigold). One plant on shingle bar in Afon Rheidol just below Pen-y-bont bridge, Penparcau, SN58, A.O. Chater, 1989.
- +535/6. *Artemisia absinthium* L. (Wormwood). Waste ground at S end of Park Avenue, Aberystwyth, SN58, W.A. Strange, 1987-1989.
- *1570/3. *Elodea nuttallii* (Planchon) St John (Nuttall's Waterweed). Abundant in pond in Rhos Pil-bach D.W.T. Reserve, Plwmp, SN35, A.O. Chater, 1989. In Afon Aeron 1km E of Talsarn, SN55, A.O. Chater, 1989. Second record. Both conf. D.A. Simpson.
- +574/1. *Triglochin palustris* L. (Marsh Arrowgrass). Flushes in rhos, Cors y Sychnant D.W.T. Reserve, Ty'n-y-graig, SN66, A.O. Chater, 1989.
- +628/1. *Listera ovata* L. (Twayblade). Flushed pasture in clearing in woodland, Talwrn, Strata Florida, SN76, A.P. Fowles, 1989.
- +643/4. *Dactylorhiza praetermissa* (Druce) Soó (Southern Marsh-orchid). Pasture S of Plas Cwmcynfelin, Llangorwen, SN68, A.P. Fowles, 1989.
- *643/4x3b. *Dactylorhiza praetermissa* (Druce) Soó x *D. incarnata* subsp. *pulchella* (Druce) Soó (a hybrid Marsh-orchid). Dune slack, Ynys-las dunes, in Dyfi NNR, SN69, F. Horsman, 1989.
- *643/6camx3b. *Dactylorhiza majalis* subsp. *cambrensis* (R.H. Roberts) R.H. Roberts x *D. incarnata* subsp. *pulchella* (Druce) Soó (a hybrid Marsh-orchid). Dune slack, Ynys-las dunes, in Dyfi NNR, SN69, F. Horsman, 1989.
- +654/4. *Eriophorum vaginatum* L. (Hare's-tail Cottongrass). Old peat cuttings W of Blaencwrt, Cwrtnewydd, SN54, A.O. Chater, 1989.
- +655/4. *Scirpus sylvaticus* L. (Wood Club-rush). Dominant in alder carr N of Afon Aeron 1km E of Talsarn, SN55, A.O. Chater & D. Glyn Jones, 1989. Previously known only from the Teifi valley.
- +663/1. *Carex laevigata* Sm. (Smooth-stalked Sedge). Rank meadow below Panteg, New Quay, SN35, A.O. Chater & D. Glyn Jones, 1989.
- *663/16x17. *Carex rostrata* Stokes x *C. vesicaria* L. (a hybrid sedge). With both parents in a field pond dug in 1986 just N of the Afon Teifi at Dolaugwyrddon-uchaf, Lampeter, SN54, A.O. Chater, 1989.
- 663/28. *Carex limosa* L. (Bog-sedge). At SE side of Llyn Gorast and in boggy pools to NW, SN76, BSBI Field Meeting, 1989.
- +663/33. *Carex lasiocarpa* Ehrh. (Slender Sedge). Mire by stream, Blaen Mwyr, ESE of Strata Florida, SN76, BSBI Field Meeting, 1989.
- +663/80. *Carex pulicaris* L. (Flea Sedge). Fen on slope just N of Nant Gelli-gogau, Pumlumon, SN89, A.O. Chater, 1989.
- *667/1.alt. *Molinia caerulea* (L.) Moench subsp. *altissima* (Link) Domin (Purple Moor-grass). Esgair Elan, E of Devil's Bridge, SN87, A.G. de R. Channer, 1984, det. P.J.O. Trist. First record.
- +669/1x2. *Glyceria x pedicellata* Townsend (Hybrid Sweet-grass). Shore of Llyn Crugnant, SN76, A.O. Chater & D. Davies, 1989. E shore of Llyn Du, SN86, A.O. Chater, 1989. Swamp on W side of Llyn y Figyn, SN87, A.O. Chater, 1989. Often abundant by upland lakes in the absence of the parents.
- +670/10. *Festuca vivipara* (L.) Sm. (Viviparous Fescue). Ravine of the Nant Gelli-gogau, Pumlumon, SN89, A.O. Chater, 1989.
- +701/2b. *Agrostis vinealis* Schreber (Brown Bent). Dry, heathy blanket mire NNW of Carnfachugeilyn, Pumlumon, SN89, A.O. Chater, 1989. Blanket mire SSE of Llyn Crugnant, SN76, A.O. Chater, 1989.
- +701/4. *Agrostis gigantea* Roth (Black Bent). Barley and bean fields, Llwynysgaw, Felin-wynt, SN25, A.O. Chater, 1989.
- +713/1. *Phalaris arundinacea* L. (Reed Canary-grass). Marsh on SW side of Llyn y Figyn, SN87, A.O. Chater, 1989. An uncommon plant in the uplands.

MONTGOMERY, v.c. 47 (comm. Mrs M. Wainwright)

- +127/1. *Azolla filiculoides* Lam. (Water Fern). Pool at Powis Castle. SJ2106, M. Wainwright & M.A. Markwick, 1989. The only v.c. 47 record away from the Montgomery Canal, where it appears sporadically, notably in 1980 and 1981.
- +79/2. *Lepidium campestre* (L.) R. Br. (Field Pepperwort). Forestry track at Maesmawr, SJ1510, M. Wainwright, 1989. Thought to have come in with Breidden stone as all other v.c. 47 records are from that area.
- +98/4. *Barbarea verna* (Miller) Ascherson (American Winter-cress). Railway embankment at Machynlleth station, SH7401, A. Morton, 1989.
- +232/7. *Sorbus torminalis* (L.) crantz (Wild Service-tree). One tree seen overhanging R. Banwy on very steep wooded bank, near New Bridge, Meifod, SJ1310, P.M. Benoit & M. Wainwright, 1989. Original record for this locality made by Miss Trevor of Pen-y-lan Hall, Meifod c.1870.
- *1237/hel. *Crassula helmsii* (T. Kirk) Cockayne (New Zealand Pigmyweed). On mud beside man-made pool, and in mats in the water, Llangadfan, SJ0213, M. Wainwright, 1989, det. F.H. Dawson. First record, probably introduced with aquatic plants.
- 239/9. *Saxifraga granulata* L. (Meadow Saxifrage). A few plants on Craig Breidden, SJ2914, S. Stafford, 1988. Probably a refind of R. Lovegrove's 1967 record.
- !418/1. *Antirrhinum majus* L. (Snapdragon). Stone walls and pavements, Welshpool, SJ2207, M.A. Markwick, 1989. Previously recorded by J.A. Webb in c.1940.
- +426/1. *Limosella aquatica* L. (Mudwort). River Severn at Leighton, SJ2306, M.A. Markwick, 1989.
- +487/1. *Sambucus ebulus* L. (Dwarf Elder). Below hedgerow near Forden, SJ2300, M.A. Markwick, 1989.
- !570/3. *Elodea nuttallii* (Planchon) St John (Nuttall's Waterweed). River Severn near Welshpool, SJ2306, M. Wainwright & M.A. Markwick, and River Vyrnwy near Llandrinio, SJ2915, C. Walker, both 1989. The only v.c. 47 records away from the Montgomery Canal.
- *663/69. *Carex elongata* L. (Elongated Sedge). *Salix* swamp, Llangyniew, SJ1209, M. Wainwright & W. Metcalf, 1989. First record and in totally natural situation with *Salix cinerea*, *Phalaris arundinacea* and *Solanum dulcamara*.
- +5674/1. *Desmazeria rigida* (L.) Tutin (Fern-grass). Scattered along ½ mile of Forestry Commission road, with *Aphanes arvensis*, Big Forest, Maesmawr, near Meifod, SJ1509 & SJ1510, M. Wainwright & E. Roberts, 1989, conf. P.M. Benoit. Second record. Believed to have come in with roadstone.
- !713/2. *Phalaris canariensis* L. (Canary-grass). Three plants in a Newtown pavement, SO1091, L. Hooper & A. Wake, 1989.

MERIONETH, v.c. 48 (comm. P.M. Benoit)

- 7/1. *Hymenophyllum tunbrigense* (L.) Sm. (Tonbridge Filmy-fern). Ceunant Cynfal, SH74, D. Jones, 1989.
- +15/2. *Asplenium billotii* F.W. Schulz (Lanceolate Spleenwort). Ceunant Cynfal, SH74, D. Jones, 1989.
- 370/2. *Lysimachia nummularia* L. (Creeping-Jenny). In very good quantities near the banks of Afon Glaslyn near Llanfrothen, SH64, D. Jones, 1989.
- 635/1. *Typha latifolia* L. (Bulrush). By Afon Glaslyn near Pont Croeso, SH54, D. Jones, 1989.
- 655/9. *Schoenoplectus tabernaemontani* (C.C. Gmel.) Palla (Grey Club-rush). Near Pont Croesor, SH54, D. Jones, 1989.

CAERNARFON, v.c. 49 (comm. N.H. Brown)

- 5/1. *Osmunda regalis* L. (Royal Fern). Five large bushes in robust condition in the Upper Clynog neighbourhood, SH44, D. Jones, 1989. The finest colony known in the area.
- 7/2. *Hymenophyllum wilsonii* Hook. (Wilson's Filmy-fern). Cwm Dulyn, SH44/54, Cwm Silyn, SH55, Cwmglas Mawr, SH65, and by stream issuing into Llyn Dinas, SH64, all D. Jones, 1989.
- 20/1. *Woodsia ilvensis* (L.) R. Br. (Oblong Woodsia). Eight fronds in one locality on Glyder as opposed to only 3 in previous years, SH65, D. Jones, 1989.
- 20/2. *Woodsia alpina* (Bolton) Gray (Alpine Woodsia). 31 fronds were counted in one locality on the Snowdon massif, SH65, D. Jones, 1989.
- 21/3. *Dryopteris oreades* Fomin. (Mountain Male-fern). Two very good clumps on the embankment at Llyn y Dywarchen SH55, D. Jones, 1989.
- 21/8. *Dryopteris aemula* (Ait.) Kuntze (Hay-scented Buckler-fern). Two clumps in Cwm Dulyn, Nantlle Hills, SH44/54, D. Jones & R. Lewis, 1989.
- 28/1. *Botrychium lunaria* (L.) Swartz (Moonwort). Several plants below Crib Goch, Snowdon, SH65, G. & G. Williams, 1989.
- +34/1b. *Juniperus communis* subsp. *alpina* (Sm.) Celak (Dwarf Juniper). Cwm Silyn, SH55, D. Jones, 1989.
- 55/1. *Nymphaea alba* L. (White Water-lily). Llyn Dinas, SH64, D. Jones, 1989.
- 56/1. *Nuphar lutea* (L.) Sibth. & Sm. (Yellow Water-lily). Llyn Dinas, SH64, D. Jones, 1989.
- 59/1. *Meconopsis cambrica* (L.) Vig. (Welsh Poppy). On the lower slopes of Y Garn, above Nant Perris, SH65, D. Jones, 1989.
- 115/9. *Hypericum humifusum* L. (Trailing St John's-wort). On footpath above Nant Peris, SH65, D. Jones, 1989.
- 123/13. *Silene dioica* (L.) Clairv. (Red Campion). In a gully on Moel yr Ogof at 1800 ft, SH54, D. Jones, 1989.
- 136/4. *Sagina procumbens* L. (Procumbent Pearlwort). On the N facing cliffs of Moel yr Ogof at 1700 ft, SH54, D. Jones, 1989.
- 137/1. *Minuartia verna* (L.) Hiern (Spring Sandwort). A number of 4-petalled plants occur growing close together in one gully on Snowdon, SH65, D. Jones, 1989.
- +154/11. *Chenopodium murale* L. (Nettle-leaved Goosefoot). Garden weed, persistent and reseeding, Penmachno, SH75, M. Morris, 1989, det. M. Mullin.
- 166/4. *Linum catharticum* L. (Fairy Flax). Footpath above Nant Peris, on way to Llyn y Cwn, SH65, D. Jones, 1989.
- [168/9. *Geranium rotundifolium* L. (Round-leaved Crane's-bill). Recorded from SH77 (near Marl Hall, Llandudno Junction) in error for *G. pyrenaicum* L. The record in BSBI Welsh Bulletin No. 42, p. 45, 1985 should be deleted.]
- 187/2. *Ulex gallii* Planchon (Western Gorse). SE side of Cwm Llefrith, SH54; about the disused copper mine of Moel Hebog, SH54; Moel Ysmytho, Rhosgadfan, SH55, all D. Jones, 1989.
- 207/11. *Lathyrus montanus* Bernh. (Bitter-vetch). Rocks of Moel yr Ogof, SH54, D. Jones, 1989.
- *1209/1x2. *Spiraea x pseudosalicifolia* Silverside (*S. douglasii* x *S. salicifolia*) (Confused Bridewort). Pen yr Orsedd Common, SH2435, A.P. Conolly, 1983, det. A.J. Silverside. First record. Probably originally planted.
- *1209/alb.lat.x1. *Spiraea x billardii* Herincq. (*S. alba* var. *latifolia* x *S. douglasii*) (Billard's Bridewort). Wall top in spinney, Cefnamlwch estate, SH2234, 1983; Penrhyn wast below Tocyn, St Tudwal's Peninsula S of Abersoch, SH3226, 1984, both A.P. Conolly, det. A.J. Silverside. First records. Probably originally planted. NB. The taxon called *S. x billardii* in *Flowering plants of Wales* has been renamed *S. x pseudosalicifolia* Silverside.
- *1209/alb.x2. *Spiraea x rosalba* Dippel (*S. alba* x *S. salicifolia*) (Intermediate Bridewort). Roadside hedge near Tudweiliog, SH2337, A.P. Conolly, 1989, det. A.J. Silverside. First record. Probably originally planted.

- *225/8.can.x15. *Rosa x toddiae* Wolley-Dod (*R. canina* x *R. micrantha*). Hedge by lane, W of Effail Newydd, Lley, SH3335; hedge, Abersoch, SH3027, both A.P. Conolly, 1985, det. A.L. Primavesi. First records.
- *225/8.can.x10. *Rosa x dumetorum* Thuill. (*R. canina* x *R. obtusifolia*) (a hybrid rose). Inland face of sand dunes, Pwllheli, SH3634, A.P. Conolly, 1984, det. A.L. Primavesi. First Welsh record. NB. This is the correct name for the hybrid with the above parentage; it is **not** the same taxon as plants previously called *R. dumetorum* which are now treated as an informal group 'Pubescentes' within *R. canina*.
- 235/1. *Sedum rosea* L. (Roseroot). Several plants on the higher cliffs of Craig Cwm Silyn, SH55, D. Jones, 1989. Possibly the westernmost locality in Eryri.
- +1235/11. *Sedum reflexum* L. (Reflexed Stonecrop). On top of mortared wall at Penygroes, SH45, D. Jones, 1989.
- 239/17. *Saxifraga oppositifolia* L. (Purple Saxifrage). In very good quantities on the western side of Y Garn, SH65, D. Jones, 1989.
- 247/3. *Drosera intermedia* Hayne (Oblong-leaved Sundew). Good quantities near Llyn Dinas, Nantgwynant, SH64, D. Jones, 1989. Confirmation of J.E. Griffith's *Flora*, 1894, p. 60.
- 258/1. *Vaccinium vitis-idaea* L. (Cowberry). Grows right up to the summit of Garnedd Goch at 2301 ft on the Nantlle Hills and produces fine flowers, SH54, D. Jones, 1989.
- 320/5. *Polygonum viviparum* L. (Alpine Bistort). Three plants on the higher plants above Cwm Idwal, SH65, D. Jones, 1989.
- 343/21. *Salix herbacea* L. (Dwarf Willow). On the plateau of Esgair Felen, Glyder Fawr, SH65, D. Jones, 1988.
- 66/1. *Armeria maritima* (Miller) Willd. (Thrift). Several plants on Clogwyn Du above Cwm Idwal, SH65, D. Jones, 1989.
- 70/1. *Lysimachia nemorum* L. (Yellow Pimpernel). Cwm Llefrith, SH54, D. Jones, 1989.
- 434/3. *Melampyrum pratense* L. (Common Cow-wheat). In woods near Aberglaslyn, SH54, D. Jones, 1989.
- 446/1. *Lycopus europaeus* L. (Gipsywort). Bogs near Pant Glas, SH44, D. Jones, 1989.
- [461/1. *Lamiasium galeobdolon* (L.) Ehrend. & Polatsch (Yellow Archangel). The records in *Nature in Wales* 15: 149, 1977 from a garden near Bodegroes and among trees near Nanharon probably refer to the following subspecies and not to the native subsp. *montanum*. The later locality has been revisited and only subsp. *argentatum* was present.]
- *1461/1.arg. *Lamiasium galeobdolon* subsp. *argentatum* (Smejkal) Stace (Yellow Archangel). Under *Ilex* in wood near Capel Nant, Nanharon, SH2831, A.P. Conolly, 1988. First record.
- 517/1. *Antennaria dioica* (L.) Gaertner (Mountain Everlasting). One patch on rock on Moel yr Ogof, SH54, D. Jones, 1988.
- 562/1. *Luronium natans* (L.) Rafin. (Floating Water-plantain). Llyn Cwellyn, and Llyn y Dywarchen, both SH55, D. Jones, 1989. Confirmation of J.E. Griffith's *Flora* records, 1894, p.138.
- 642/7. *Orchis mascula* (L.) L. (Early-purple Orchid). Three plants, Cwm Llefrith, SH54, D. Jones, 1989.
- 652/3. *Sparganium angustifolium* Michx. (Floating Bur-reed). Pool on Moel yr Ogof, SH54; also in Llyn y Dywarchen, SH55, both D. Jones, 1989.
- 655/9. *Schoenoplectus tabernaemontani* (C.C. Gmel.) Palla (Grey Club-rush). Llyn Dinas, SH64, D. Jones, 1989.
- 660/1. *Rhynchospora alba* (L.) Vahl (White Beak-sedge). Plentiful near Llyn Dinas, Nantgwynant, SH64, D. Jones, 1989.
- 663/8. *Carex demissa* Hornem. (Common Yellow-sedge). Cwm Llefrith, SH54, D. Jones, 1989.
- 663/16. *Carex rostrata* Stokes (Bottle Sedge). Pool margins at Moel yr Ogof, SH54, D. Jones, 1989.
- 663/24. *Carex pallescens* L. (Pale Sedge). Six plants in one place on lower slopes of Y Garn, SH65, D. Jones, 1989.

- 663/28. *Carex limosa* L. (Bog-sedge). Plentiful in bogs in the Upper Clynog area, SH44, D. Jones, 1989.
- 663/31. *Carex flacca* Schreber (Glaucous Sedge). Nant Bwlch yr Heyrn near Betws y Coed, SH75, D. Jones, 1989.
- 663/43. *Carex atrata* L. (Black Alpine-sedge). 12 plants on cliffs of Cwmglas Mawr, Snowdon, SH65, D. Jones, 1989.
- 663/52. *Carex bigelowii* Torrey ex Schweinitz (Stiff Sedge). Several very fine plants on Bwlch Coch, Snowdon, SH65, D. Jones, 1989.
- 663/61. *Carex arenaria* L. (Sand Sedge). Waste ground at Penygroes Industrial Estate, SH45, D. Jones, 1989.
- 663/72. *Carex curta* Good. (White Sedge). Boggy areas around Nant Bwlch yr Heyrn, Betws y Coed, SH75, D. Jones, 1989.
- 663/80. *Carex pulicaris* L. (Flea Sedge). On lower slopes of Y Garn, SH65, D. Jones, 1989.

DENBIGH, v.c. 50 (comm. Mrs J.A. Green)

- +1/5. *Diphasiastrum alpinum* (L.) Rothm. (Alpine-clubmoss). Several plants in forest track near Llansannan, SH9261, P. Day, 1989.
- +15/1a. *Asplenium adiantum-nigrum* L. (Black Spleenwort). Among turf in gravel pit, Marford, SJ3255, B. Formstone, 1989, conf. G. Hutchinson.
- +174/3. *Raphanus sativus* L. (Garden Radish). Shingly river bank, near Tregeiriog, Llanarmon-Dyffryn-Ceiriog, SJ1733, J.A. Green, 1989. Second record.
- !173/1. *Acer pseudoplatanus* L. cv. 'Atropurpureum' (Sycamore). Tree with leaves purple beneath, on disused land in Brymbo Steelworks, SJ2953, R. Hesketh, 1989.
- +1226/3. *Prunus cerasifera* Ehrh. (Cherry Plum). Several small trees flowering in February, CEBG substation, N of Talwrn, Rhosllanerchrugog, SJ2948, G.A. Spencer, 1989. Apparently not planted.
- !226/3.atr. *Prunus cerasifera* Ehrh. var. *atropurpurea* Jaeger (Cherry Plum). Several young trees in Argoed Wood, Froncysyllte, a strictly private area - part of a fishing consortium, SJ2641, G.A. Spencer, 1989.
- 232/7. *Sorbus torminalis* (L.) Crantz (Wild Service-tree). +A single tree on bank of River Alun, Heartsheath, Pontblyddyn, SJ2860, R. Jones-Mortimer; 5 trees, one exceptionally well grown, along stream parallel to disused Wrexham - Ellesmere Railway, opposite Dee Bank, near Bangor on Dee, SJ3944, T. Thompson, both 1989.
- 288/1. *Cicuta virosa* L. (Cowbane). Now clearly spreading by seed over an area of c.100 square metres of the main wet area of Hafod Wood, Erddig, SJ3248, G.A. Spencer, 1989.
- 320/1/4. *Polygonum arenastrum* Boreau (Equal-leaved Knotgrass). Builder's waste tip near Denbigh Castle, SJ0565, J.A. Green, 1989.
- +350/1. *Andromeda polifolia* L. (Bog-rosemary). Moel y gasg Wen, SH9058, P. Day, 1989.
- *359/3b. *Pyrola rotundifolia* L. subsp. *maritima* (Kenyon) E.F. Warburg (Round-leaved Wintergreen). Several patches over 50 yard strip (17 flowering spikes) on extensively mined area now wet densely scrubby limestone, Tarmac Quarry, Minera near Wrexham SJ2651, Mr Stapley, 1989. First record.
- 413/3. *Solanum nigrum* L. (Black Nightshade). Several plants as arable weeds with fresh flowers in November, near Gresford, SJ3554, A. Storkey, 1989.
- +417/1. *Misopates orontium* (L.) Rafin. (Lesser Snappdragon). Several plants, some destroyed by rabbits, in rough area of garden, Gresford, where a single plant was found in 1982, SJ3454, A. Storkey, 1989.
- +466/1. *Nepeta cataria* L. (Cat-mint). Roadside near Rhyd y foel, SH9176, J. Hughes, 1988.
- 491/1. *Lonicera xylosteum* L. (Fly Honeysuckle). Loggerheads near Mold, SJ1962 & SJ2062, P.J. Williams, 1988. Third record.
- +1552/2. *Tragopogon porrifolius* L. (Salsify). One plant in farm gateway, S of Colwyn Bay, SH8577, D. Lloyd, 1989. Second record.

- 640/1. *Ophrys apifera* L. (Bee Orchid). About 25 plants scattered along edge of recently planted area of Pant Quarry, Marford, SJ3555, B. Tucker, 1989.
 +652/4. *Sparganium minimum* Wallr. (Least Bur-reed). Quarry pond at 1000 ft, Gors Maen Llwyd, SH9758, J. Daniels, 1989.
 +654/3. *Eriophorum latifolium* Hoppe (Broad-leaved Cottongrass). Marsh, near Graianrhyd, SJ2054, J.A. Green, 1989. Second record and second post-1930.
 +655/4. *Scirpus sylvaticus* L. (Wood Club-rush). Isolated but numerous colony along wet ditch in Alun Valley near Llay Bank, SJ3155, B. Formstone, 1989.
 *663/28. *Carex limosa* L. (Bog-sedge). Soligenous flush, Hiraethog Moor, SH9355, P. Day, 1989, det. A.O. Chater. First record.

FLINT, v.c. 51 (comm. G. Wynne)

- +133/3. *Stellaria pallida* (Dumort.) Pire (Lesser Chickweed). Point of Ayr, SJ18, J.A. Green, 1989.
 †254/13. *Epilobium brunnescens* (Cockayne) P.H. Raven & Engelhorn (New Zealand Willowherb). Upland heather moor, Llyn Cyfynwy, near Rhydtalog, SJ25, G. Wynne, 1989. Third localised record.
 258/4. *Vaccinium oxycoccus* L. (Cranberry). Upland heather moor, Llyn Cyfynwy, near Rhydtalog, SJ25, G. Wynne, 1989. Second record.
 +†320/18. *Fallopia aubertii* (Louis Henry) J. Holub (Russian Vine). Gronant, SJ08, P.I. Morris, 1985. Second record.
 435/1/12. *Euphrasia tetraquetra* (Breb.) Arrond. (an eyebright). Point of Ayr, SJ18, P.I. Morris, 1985. Confirmation of previous record.

ANGLESEY, v.c. 52 (comm. R.H. Roberts)

- *1/4. *Lycopodium clavatum* L. (Stag's-horn Clubmoss). Parys Mountain, SH4490, D.F. Evans, 1989. First record.
 *4/6x10. *Equisetum x font-queri* Rothm. (*E. palustre* x *E. telmateia*) (a hybrid horsetail). Stabilised dune sand, Traeth Lligwy, SH4987, R.H. Roberts, 1989. First record.
 +22/1x2. *Polystichum x bicknellii* (Christ) Hahne (a hybrid shield-fern). Two plants on limestone pavement at Marian-glas, SH58, R.H. Roberts, 1989. Second record.
 413/3. *Solanum nigrum* L. (Black Nightshade). 15 plants on limestone pavement recently disturbed by scrub clearance, near Llangoed, SH68, T.H. Blackstock, 1989.
 +455/4. *Salvia verbenaca* L. (Wild Clary). Five plants on limestone outcrop, Penmon Priory, SH6280, Mrs M.R. Davies, 1989. First post-1930 record.
 460/1. *Ballota nigra* L. (Black Horehound). Hedgebank about 1km SW of Penmon, SH68, T.H. Blackstock, 1989.
 485/3. *Galium mollugo* L. agg. (Hedge-bedstraw). +Near hut circles, Holyhead Mountain, SH28, RSPB Reserve Report, 1979; +Bodedern churchyard, SH38, R. Lewis, 1989.
 700/1. *Calamagrostis epigejos* (L.) Roth (Wood Small-reed). +Marshy bank of stream, Porth y Gwchiaid, SH49, M.R. Davies & R.H. Roberts; +hedgebank of lane to Fedw Fawr, SH68, T.H. Blackstock, both 1989.

WELSH FIELD MEETINGS - 1992

SATURDAY 16th MAY LLEYN PENINSULA (v.c. 49) Leader: Mr N.H. Brown

A steep sided coastal valley at Nant Gwrthelyn, Llithfaen, Pwllheli, interesting botanically, and a base for later recording for a Caernarfonshire Flora. Site of the Welsh Language Centre.

Meet at 11am at SH350.448. The road north from Llithfaen at SH356.431 may not be marked on older maps, but is quite usable. Bring packed lunch, stout waterproof footwear recommended.

Please send bookings to Dr D.R. Humphreys, address on page 17, and not to the leader.

SATURDAY 20th JUNE EAST RADNORSHIRE (v.c. 43) Leader: Mr R.G. Woods

Wet and dry sites on the Welsh border at Burfa Bog, a newly acquired Nature Reserve in need of up-to-date recording, and Stanner Rocks, a well-known botanical site which has many old records needing refinding.

Meet at roadside at Burfa at SO275.613 at 11am. Waterproof footwear **and** non-slip boots recommended, bring packed lunch. Numbers limited to 20.

Please send bookings to Dr D.R. Humphreys, address on page 17, and not to the leader.

SUNDAY 21st JUNE CASTLEMARTIN CORSE, PEMBROKESHIRE (v.c. 45) Leader: Mr S.B. Evans

Calcareous dunes and fen. Wellingtons advisable, bring packed lunch.

Meet at public car park at SR885.994 at 11am.

Please send bookings to Dr D.R. Humphreys, address on page 17, and not to the leader.

FRIDAY 3rd JULY to MONDAY 6th JULY LLYSFASI, RUTHIN (v.c. 50) (in conjunction with the Welsh A.G.M. and Exhibition Meeting) Leaders: Mrs J.A. Green & Mr G. Wynne

This meeting will be based at Coleg Amaeth LLYSFASI College of Agriculture, near Ruthin, Clwyd. On Friday evening there will be a visit to a local site with an interesting flora. On Saturday, the morning and early afternoon will be devoted to fieldwork with the Welsh AGM, illustrated talk and Exhibition Meeting following tea at 4.00pm. Sunday will be devoted to visits to several good botanical sites in the area.

All meetings will start from Llysfas College at 10.00am or 7.30pm. Accommodation is available at Llysfas at approximately £20 per day. All meetings are open to non residents.

Please send for further details and booking forms to Gwynn Ellis, Department of Botany, National Museum of Wales, Cardiff CF1 3NP, **before June 1st**, and not to the leader.

FRIDAY 10th to WEDNESDAY 15th JULY
'THE COMMON GROUND OF WILD AND CULTIVATED PLANTS',
CARDIFF (v.c. 41)

Joint BSBI/RHS/NMW Conference in association with 'Garden Festival Wales '92'

See leaflet distributed with *BSBI News* 59 or contact R.G. Ellis, address on page 35, for further details.

SUNDAY 19th JULY
CRYMLYN BURROWS & CRYMLYN FEN (v.c. 41)
Leader: Dr Q.O.N. Kay

A botanically rich area - the fen is now a NNR - and some rarities on the dunes too, in spite of the visible proximity of an oil refinery and petrochemical works.

Meet at the slip-road on the southern side of the Jersey Marine roundabout on the A483 east of Swansea (SS716.934) at 11am. Bring wellingtons and packed lunch.

Please send bookings to Dr D.R. Humphreys, address on page 17, and not to the leader.

FRIDAY 24th to MONDAY 27th JULY
CARMARTHEN (v.c. 44)
CARMARTHENSHIRE RECORDING WEEKEND
Leader: Mr R.D. Pryce

A meeting to assist in recording for the Flora of Carmarthenshire. It is intended to cover as much ground as possible, especially within the western half of the vice-county by splitting participants into small groups. Accommodation will be available in single rooms at Trinity College Carmarthen (the meeting is also open to non-residents) and each days fieldwork will start at 10.00 from the College.

Full details of the meeting place and booking forms are available from the leader, Mr R.D. Pryce, Trevethin, School Road, Pwll, Llanelli, Dyfed SA15 4AL, **please apply before the end of June.**

SATURDAY 8th AUGUST
TREGARON BOG (v.c. 46)
Leader: Mr A.O. Chater

A Nature Reserve for which up-to-date records are needed, for the county flora and for CCW. Bring wellingtons and packed lunch.

Meet at roadside car park at Maesllyn, SN696.631, 3km NNE of Tregaron at 11am.

Please send bookings to Dr D.R. Humphreys, address on page 17, and not to the leader.

FRIDAY 21st to MONDAY 24th AUGUST
BANGOR, CAERNARFONSHIRE (v.c. 49)
CAERNARFONSHIRE RECORDING WEEKEND
Leader: Mr N.H. Brown

A meeting to assist in recording for the Flora of Caernarfonshire. It is intended to cover as much ground as possible by splitting participants into small groups. Accommodation will be available in single rooms at Normal College Bangor (the meeting is also open to non-residents) and each days fieldwork will start at 10.00 from the College at SH564.718.

Full details of the meeting place and booking forms are available from the leader, Mr Nigel Brown, Treborth Botanic Garden, University College of North Wales, Treborth, Bangor, Gwynedd, **please apply before the end of July.**

