BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH BULLETIN

Editors : R. D. Pryce & G. Hutchinson

No. 72, SUMMER 2003

Carex Sigelauri Torr. ex Saturein.

abundant on summit of Purriumon FAWR, NE of cairs, Cards.

745m. 22/790869 7.<u>91</u>.2003 NOW V 2003 014 001 VC.46 A.O.CHATER 03/123

Life-size photocopy of specimen of *Carex bigelowii* (Stiff Sedge) at NMW. It is new to Cardiganshire (v.c. 46): see p. 6.

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EDITORIAL

I was recently asked to represent the BSBI at the launch, at Kew, of the new book *Arable Plants* – *a field guide* by Phil Wilson and Miles King. This glossy guide describes the arable plants of Britain and Ireland and also focuses on the continued decline of these species, as well as their conservation and management. *Agrostemma githago* (Corncockle), *Centaurea cyanus* (Cornflower) and *Silene gallica* (Small-flowered Catchfly) were singled out at the launch in order to highlight the very severe declines in this group of plants over the last fifty years or so (the two former species even having been declared extinct as arable plants). By coincidence, these species are of particular significance to me. You are probably aware of the fight we in Carmarthenshire have been having with the local Council in an attempt to save the only extant site of *S. gallica* in the county – in 2003, about twenty plants re-appeared in its traditional site despite its near-extinction last year as a result of mis-management of the site. Furthermore, nearby, as if to mock the Council, five or six plants of Cornflower boldly appeared in ground recently disturbed by the same authority! And on land not far away in Llanelli, also owned by the Council, we discovered about thirty plants of *A. githago*, the first record in the county since 1908!

Of course, these were not arable weeds, but merely casuals taking advantage of recently disturbed ground. But in an area largely devoid of arable farming, they are nonetheless interesting records. This prompts me to urge you to send in records of arable weeds: the BSBI carried out a low-key arable recording scheme over the last couple of years with very little response – I suppose it was eclipsed by recording for the New Atlas – but Plantlife, in association with the BSBI, is now about to launch a new scheme to encourage the recording of arable plants, so please make the effort to record and send in your findings.

No doubt, by now, you are already well advanced with the first season's recording for Local Change. In my own vice-county, we have managed to visit all except one of the 12 sample tetrads, some more than once, and the remaining one is in the uplands, so I feel there is still plenty of time!

One thing I have noticed is that I am recording more common species than during 1986/87, principally because the instructions in the first scheme did not compel recorders to submit records only from the A, J and W tetrads, but all other tetrads within the 10km square could also count. This suited us very well as we wanted to cover as much ground as possible for the Carmarthenshire Flora, by visiting many tetrads, and were able to kill two birds with one stone. However, we, in common with many other vice-counties, now find that our 2002/03 records will not be completely comparable with those of the previous scheme. For many species, we will not be able to give an opinion as to whether there has been an actual or perceived change as they were simply not recorded previously. In most tetrads there have been some changes such as the construction of new roads or the continued loss of species-rich grassland and also the excavation of new fishing or leisure lakes, but in general the lie of the land has not altered a great deal. So hopefully, the omissions from the 1986/87 survey will not skew the results too radically.

I am sure that most Vice-county Recorders would welcome additional help so if you have not, as yet, volunteered to participate, please get in contact. If you feel you are not confident to record on your own, teaming up with someone more experienced in plant identification can be a very useful way of becoming more familiar with your local flora. Alternatively many BSBI field meetings have been arranged this year which will be primarily targeting the Local Change tetrads and there will be more in 2004. Please help!



41st WELSH ANNUAL GENERAL MEETING & 21st EXHIBITION MEETING

FRIDAY 5th — SUNDAY 7th SEPTEMBER 2003 at TY'R MORWYDD HOUSE (ENVIRONMENTAL STUDY CENTRE) PEN-Y-POUND, ABERGAVENNY, MONMOUTHSHIRE, NP7 5UD (GR SO297.147)

For full details of this AGM, please see the yellow flier that was enclosed with the April circulars that came with BSBI News.

Please note that accommodation is still available at Ty'r Morwydd, where the AGM, workshop, an illustrated talk, dinner and refreshments will be on offer.

KNOW your SORBUS

Take advantage of the expert guidance in the workshop and in the field meetings.

Summerfield Books will have many BSBI and other publications on sale.

Trevor Evans, La Cuesta, Mounton Road, Chepstow, Mons. NP16 5BS Tel. 01291 620802 (evenings best)

FIELD MEETINGS PROGRAMME 2003

Full details and procedure for booking are available in the BSBI Year Book for 2003. The list below was given in the last issue of the Welsh Bulletin.

SAT 3rd MAY - CASTELL DINAS BRAN, LLANGOLLEN, DENBIGHSHIRE (v.c. 50)

SAT 17th MAY - ROUNDTON HILL NNR, MONTGOMERYSHIRE (v.c. 47)

SAT 7th JUN - LLYN HELYG and Y GRAIG, TREMEIRCHION, FLINTSHIRE (v.c. 51)

SAT 5th JUL - USKMOUTH WETLANDS RESERVE, MONMOUTHSHIRE (v.c. 35)

SAT 19th JUL - BANGOR, CAERNARFONSHIRE, (v.c. 49) [Rubus]

SUN 20th JUL - LLANGEFNI, ANGLESEY (v.c. 52)

SAT 26th JUL - SAT 2nd AUG - GLYNHIR MANSION, LLANDYBIE, CARMS.(v.c. 44)

SAT 9th AUG - MoD ABERPORTH RANGE, CARDIGANSHIRE (v.c. 46)

SUN 31st AUG - ST DAVID'S, PEMBROKESHIRE (v.c. 45)

FRI 5th - SUN 7th SEP - WELSH AGM and EXHIBITION MEETING, TY'R MORWYDD, ABERGAVENNY (v.c. **35**). 6

RECORDING IN CARDIGANSHIRE VC 46 IN 2000-2002

(Abbreviations: ACJ: Clive Jermy; ACW: Annette Williamson; ADH: Alan Hale; AOC: Arthur Chater; DEA: David Allen; DKR: Dave Reed; GH: Geoff Harrison; JPL: Justin Lyons; JPW: Julian Woodman; LG: Lin Gander; MDS: Matt Sutton; RAJ: Andy Jones; RDP: Richard Pryce; RGW: Ray Woods; RM: Roger Maskew; SDSB: Sam Bosanquet; SPC: Steve Chambers; TAL: Tracey Lovering.)

The three years since my last review (BSBI Welsh Bull. 67: 4-9(2000)) cover the post-Atlas recording period, the foot-and-mouth year during which, although there were no outbreaks in Ceredigion, most of the countryside was effectively closed for the field season, and the final stages of CCW's lowland grassland Phase II survey. In February 2001 a new edition of AOC's Ceredigion (VC46) Rare Plant Register. 1. Vascular Plants and Stoneworts was produced with the help of ADH and RAJ by CCW, and the information from it was put onto Mapinfo GIS. This has greatly increased its use for conservation purposes, and the Register in this form has been used by RAJ on several occasions for demonstration purposes. The arrival of the GPS as a standard item of field equipment has been a great help in recording and monitoring, and I have spent a lot of time precisifying the grid references for populations of rare species. Work has continued on the VC's listings for the Vice-comital Census Catalogue. A major activity has been the exchange of information on infraspecific variation with Peter Sell, with AOC attempting to establish the local relevance of the numerous splits, subspecies and varieties being described by him and Gina Murrell in draft accounts for their New Flora of Great Britain and Ireland. Four BSBI field meeting were led by AOC, at Llyn Eiddwen and Llyn Fanod in July 2000, on the Dyfi salt marshes in September 2000, on Cors Fochno in July 2001, and on Cors Caron in July 2002 (all have been written up in BSBI News).

FIRST RECORDS FOR NATIVES

The most exciting discovery during the three years was *Carex bigelowii*, which SPC found a small colony of in flower at 685m a.s.l., SN803877, 2km NW of the summit of Pumlumon Fawr. It has always been expected and looked for on Pumlumon, which is now its southernmost site in Britain. It was not until I got my GPS that I was able to refind it from SPC's reading, as it grows among the rather confusing outcrops and heaps of fractured rock on the heavily sheep-grazed high plateau and is very difficult to pick out. *C. nigra* grows nearby, and, alerted by Rod Corner's discovery of introgressed populations between the two (*Watsonia* 24: 217-220 (2002)) in the Pennines, similar hybrid plants were found here. Then in September 2002, AOC was sitting having his sandwiches on a rock near the summit cairn itself and found that his rucksack was resting on a sward of pure *C. bigelowii* and that it was abundant, in places dominant, over about half an acre stretching NE from the summit. It was very closely grazed, and there were no signs of inflorescences, but even so it is astonishing and rather worrying that it had been overlooked by the many botanists who have climbed Pumlumon.

SPC also found a small colony among the numerous marsh orchids on the Ynys-las dunes in 2001 which he thought might be *Dactylorhiza traunsteineri*. This identification was confirmed by Ian Denholm, who remarked that although the one plant he was sent was not as extreme as plants in Anglesey and some other places, it was as convincing as plants for example from Oxfordshire that were generally ascribed without reservation to this species. The colony has not yet been re-investigated, and it may be that not all the plants in it are so convincing. It is very likely to be a new arrival, as if it had been present for more than a very few years someone among the small army of marsh orchid experts who have visited Ynys-las over the years ought to have noticed it. The only other new native was also at Ynys-las, *Crambe maritima*, a clump of which was found by Richard Birch in 2001 at SN606922 on top

of the shingle ridge, most unfortunately, although it was within the SSSI, the plant was destroyed when the ridge was re-profiled in March 2002.

REDISCOVERY OF LOST SPECIES

A new feature of the 2001 edition of the Rare Plant Register, added at the suggestion of RAJ, was a list of all the extinct natives in the VC, however long ago they were last recorded. Of the 27, few are of real significance and most were only single records, often somewhat doubtfully recorded, long ago and unlikely ever to be found here again. Those most worth looking for were Blysmus rufus, Dianthus armeria, Gentianella campestris, Luzula forsteri, Paris quadrifolia, Persicaria mitis, Pilularia globulifera, Valeriana dioica and Viola reichenbachiana, and three of these have now been refound. In 2001 SDSB and DKR made the exciting discovery of a population of 453 plants of Gentianella campestris while doing a Phase II survey of a pasture near Bronnant. There had been 15 sites for it in the past, and it had last been seen in 1979 somewhere near the Tywi-Pysgotwr confluence, where it has been exhaustively searched for in recent years. Another very good rediscovery was of Valeriana dioica, last recorded by the Tywi at Dalar-wen in 1965, where the site is now under the Llyn Brianne Reservoir. In 1999 (not included in my last report) Sue Smith and MDS found it in a valley mire when doing a Phase II survey for an extension to the Rhos Talglas SSSI. Five separate colonies grow in an area about 20 x 5m, and although the species is common in much of Carms, and Radnor, it is very rare west of the central Welsh watershed. The only record of Luzula forsteri was made by J. E. Smith who wrote in English Botany 18: t. 1293 (1804): "We have ... gathered it in the woods at Hafod, Cardiganshire, growing among the common J. pilosus, and flowering in May." He would have identified it correctly, as he was the describer of the species. AOC, RGW and others have repeatedly searched for it at Hafod, in vain, and in May 2000 AOC was astonished to find it growing on a roadside hedgebank at Verwig near Cardigan, SN185496. Later he found that it was abundant in the chapel graveyard opposite. It is difficult to imagine how it could have been introduced here and it is very probably native, though very detached from the rest of its range (like the one recent record from North Wales).

Salter said that *Viola reichenbachiana* was "fairly frequent", but there are no confirmed recent records of it as a native. AOC spent a long time searching for it in the Ceri woods, SN34, where J. A. Whellan collected it in 1941, and in other likely sites in the south of the county, and sent a number of suspect plants to David Moore, the *Viola* referee, but all were tactfully rejected with detailed justifications. Another unsuccessful series of searches was for *Dianthus armeria* on Pendinas, Aberystwyth, carried out by RAJ, AOC and Phil Wilson. It was last seen here in 1954, having been noticed in a posy of wild flowers picked for the local chemist and proficient botanist, W. Miall Jones, by his granddaughter. Much of the hillside gorse near where it was found was burnt in an extensive fire in 2000, raising hopes that the plant might reappear, and it is now hoped to try some gorse clearance on the exact site with the collaboration of Plantlife.

HYBRIDS

In 1993, Tim Rich and AOC had seen five bushes on the bank of the Teifi at Llanybydder, SN518433, which they and Desmond Meikle took to be probably *Salix x pontederiana (S. cinerea x purpurea)*, and this was confirmed by further specimens collected in 2000. It is a much less common plant than their triple hybrid with *S. viminalis*, S. x *forbyana*. For many years AOC had been looking for *Holcus x hybridus*, and in 2000 he found a patch of it in a pasture near the Rheidol Falls, SN710786; it stood out from the surrounding *H. lanatus* by its erect, slender habit and pale, greyish colour (it had been previously recorded only in the Rhyddnant valley about 1960). Nearby at the edge of a path was a colony of the rhizomatous form of *H. lanatus*, var. *soboliferus*. Another interesting grass hybrid was seen on the Dyfi on the field meeting in 2000, when PMB pointed out that at the top of the *Spartina anglica* marsh

there were many colonies of S. x townsendii (S. anglica x alterniflora), and indeed E. H. Chater (in E. Watkin, ed., A Handbook for Ynyslas 115-116 (1973)) had noted the presence of this hybrid in 1973 and had considered that photos of the original introduction of Spartina to the estuary in 1920 showed one clump possibly of this F1 hybrid among those of S. anglica being planted.

In September 2001, AOC and JPW found a plant of Cardamine in the car park at Hafod, SN768736, sterile and with long, spindly indeterminate inflorescences. Tim Rich confirmed it as C. x zahlbruckneriana (C. flexuosa x hirsuta), but is hoping that current research using DNA studies may give the identification of this and the few other British records of this hybrid a firmer foundation. AOC and ADH found a fine tussock of Carex x pseudaxillaris (C. otrubae x remota) on the bank of a ditch near Lodge Farm, Tre'r-ddôl, SN654936, while surveying an area of grazing marshes recently acquired by RSPB. A specimen of a Polypodium collected by AOC in 1998 from among the large colony of P. cambricum on the south wall of St Mary's churchyard, Cardigan, SN180460, was confirmed as the hybrid of this with P. interjectum, P. x shivasiae, by ACJ in 2002. Two other new hybrids for the VC, Epilobium ciliatum x palustre and E. obscurum x palustre were found growing together in a marsh in the Tywi Forest, SN775604, by AOC and RDP in September 2001, both being confirmed by Geoffrey Kitchener; both have since been found in other sites. Other Epilobium hybrids, as well as those in Juncus, continue to turn up frequently, but Agrostis hybrids remain very elusive, AOC having found only one, A. x murbeckii, on a reseeded slope by the Art Department, Aberystwyth, SN587815, in 2000.

ROSA

Knowledge of the Cards. roses has been greatly enhanced by two days of outings with RM in each of the three years. We found four new hybrids: R. x dumetorum (R. canina x obtusifolia) at Banc y Mwldan, SN201493, in 2000, and later at six other sites; R. x toddiae (R. canina x micrantha) nearby at SN201489 on the same day, and at the edge of Coed Bont-sych, SN594761, in 2001; R. x bigeneris (R. micrantha x rubiginosa) at Figure Four, SN588775, in 2001; and R. x pseudorusticana (R. arvensis x stylosa) by the Nant Arberth at Tynewydd, SN232475, in 2002. R. x verticillacantha (R. arvensis x canina) has proved to be very widespread and common, and we had many new records for R. x scabriuscula (R. canina x tomentosa) and R. x shoolbredii (R. mollis x sherardii). (R. mollis itself continues to elude discovery, although an attempt to find it by means of abseiling on the cliffs at Craig y Pistyll was heroically made in September 2001 by Jack Grasse, guided by AOC and SPC.) The only known bush of R. obtusifolia, near Capel Bangor, died a few years ago, but RM and AOC fortunately found another in the south of the VC at Troed-yr-aur, SN325453, in 2002. They failed to refind R. stylosa at Gilfach yr Halen in 2001, where it had been recorded in 1995, although its hybrid with R. canina was in the same place; AOC did however find two bushes of the species by the disused railway on the Teifi Marshes Wildlife Trust Reserve, SN186453, later in 2001. RM also made numerous records of the R. canina Groups (no Lutetianae were seen on any of the visits).

RUBUS

DEA as usual spent five or six days each summer in Cards. The number of species of *Rubus* is now 72, all confirmed by Alan Newton, and we have recorded in 237 tetrads. Since my last report, *R. rossensis* collected at Henllan, SN357408, *R. hibernicus* collected at Llwyndafydd, SN368555, *R. angusticuspis* collected at Cwm Cou, SN310425, and *R. scaber*, *R. orbus* and *R. ariconiensis* all collected in the extraordinarily rich felled woodland of Coed Newydd, SN196443, all in 1999, have been confirmed as new for the VC. In 2000 we added *R pictorum* from Sarnau, SN315504, and in 2002 *R. micans* from Penffynnon, Llandysul, SN395408. Rob Randall recognised a specimen collected from the sea cliffs between Aber-

porth and Tresaith by J. A. Whellan in 1941, **NMW**, as *R. davisii*, and DEA and AOC searched in vain for it here in 2000, but the following year they found it, far inland, on a heathy lane verge near Swyddffynnon, SN694660. Randall also determined an R. G. Ellis collection of 1978 from near Lampeter, SN5748, **NMW**, as *R. rufescens*, also new for the VC. The number of easily recognisable unnamed species repeatedly found in Cards., at least four of them extending into other VCs and probably therefore meriting formal naming, is now about 20. The popular amenity ground-cover plant *R. tricolor* has looked on the verge of becoming naturalised for some years, but had definitely done so by 2002 along a path verge by the Rheidol at Aberystwyth, SN568811.

NATURALISED SPECIES

While new natives are becoming very difficult to find, naturalised species are being added at a steady rate. In the process of searching for Agrostis hybrids, AOC found many plants that seemed from Stace's key to be A. castellana, but after consultation with Tom Cope it was clear that most of them were not, and the only plants that really were it were growing on a slope below the road at Glanyrafon Bridge near Aberystwyth, SN610805, that had been reseeded seven years earlier, and on river shingle nearby. (It is necessary to look for pubescent lemmas on the terminal spikelets of the inflorescence.) Near this same locality, SPC found Hemerocallis fulva naturalised in 2001. A surprising discovery by SPC was of abundant Tradescantia fluminensis flowering under the grating of a cellar-well belonging to the old university building in King Street, Aberystwyth, SN580816. Enquiries of the authorities indicated that the cellar had been unused for many years, and that the plant was most unlikely ever to have been planted there; presumably it originally blew in from somewhere nearby where it was being grown indoors. Another Aberystwyth novelty, noticed by RGW in 2001, was Erinus alpinus abundantly naturalised on old walls in Portland Road, SN585818. AOC found Schizostylis coccinea self-seeded and well naturalised in several places on scrubby waste ground 200m WNW of Aber-porth church, SN254512, in 2000, apparently the first record of it naturalised in Britain.

Several colonies of aliens that had been under observation by AOC for many years were finally deemed to be naturalised. *Iris germanica*, on the Penyrergyd dunes, SN161486, was first noticed about 1985 when there was already a good deal of it. *Galanthus elwesii*, on the roadside verge at Abermeurig, SN563562, was first noticed in 1994. *Allium scorodoprasum*, which originated as a nightmare bird-seed weed in AOC's garden and was thrown out onto waste ground across the road 20 or more years ago, is now abundant and still spreading there, SN581808. It had been confirmed by William Stearn in 1988, but was only recorded formally when seen by CDP in 2001 as it seemed unethical for a VC Recorder to claim a naturalisation that he himself has been responsible for.

In 1999, AOC found a specimen of *Saxifraga cymbalaria* in ABS, the Aberystwyth University herbarium lovingly curated by Andrew and Shirley Agnew, collected "on a wall at Alltyrodyn" in about 1921 by M. L. Lewes. Enquiries of GH, who lives nearby and is an observant recorder of the local flora, revealed that he had described in his diary on several occasions between 1992 and 1996 (when it disappeared) an unknown, yellow-flowered plant growing on an old bridge wall in the grounds of Alltyrodyn mansion, SN448444. Thanks to the hospitality of the owners, we were able to refind this plant on another wall nearby in 2001 and it was indeed *S. cymbalaria*, still flourishing after at least 80 years.

Other naturalised novelties included *Ribes odoratum*, in a roadside hedge at Penllwyn, Capel Bangor, SN652801, SPC, 2000; *Gunnera tinctoria* by a pond near the old mill at Felin Geri, SN300421, AOC and LG, 2000; *Stachys byzantina* abundant in an old paddock at Wallog, SN590856, AOC, 2000; *Viburnum rhytidophyllum* well established by suckering in old estate

woodland below Old Cilgwyn, SN315414, AOC, 2000; *Asarina procumbens* escaped over a wall from the gardens at Ynys-hir, SN681958, AOC, 2001; and *Spartium junceum* naturalised by seeding between the Vale of Rheidol and main line railways at Plas Crug, Aberystwyth, AOC, 2002. Teresa Goss in 2002 found a strawberry-like plant with yellow flowers forming a large patch on the disused railway near Llanerchaeron, SN475600, 70m from a deserted smallholding and separated from it by an arable field. From a photo she sent of it to NMW, George Hutchinson was able to identify it as *Duchesnea indica*, of which there is only one other Welsh record in the *New Atlas*. Visiting the Archibalds' nursery garden near Ffostrasol, SN363477, in March 2002, AOC found that they had had *Cardamine corymbosa* as an abundant weed in beds and paths for at least eight years (ADH had some in a pot with a house-plant bought from the Aberystwyth Great Mills in 1999, but it has not yet been noticed elsewhere).

Azolla filiculoides has been intermittently abundant in many places on the Teifi from Llandysul downwards during the last three years, masses of it being transported during floods, while in the Clarach valley and in the ditches around the NW part of Cors Fochno it seems to have decreased. Crassula helmsii was found by AOC in 2000 in one of the lagoons on the Cors Fochno NNR created about ten years earlier, but fortunately in small quantity and it seems not to be spreading. At its Llyn yr Oerfa site, SN728798, where it covered an area only 200 x 50 cm when it was first found in 1997, it had extended to stretch 24m among the rushes along the shore in 2001; this is at 325m, perhaps its altitudinal limit in Britain? In its Ynys-las dunes slack site it is still resisting the most determined attempts to eradicate it. Lemna minuta has been found in four more wild sites, bringing the VC total to nine, the same number as Lagarosiphon major.

Salter noted that he had seen male plants of *Humulus lupulus* in only three sites in Cards., and it still persists in two of these: GH found it to exist still at Llanfihangel-ar-arth, SN455403, and at an additional site at Pantyreithinen in the same area, SN447422; and AOC found it still at Parcrhydderch, SN599588. It has not yet been refound at Eglwys-Fach, or indeed anywhere else.

NARCISSUS

Continuing the investigations described in the last report, AOC made contact with Sally Kington, the Daffodil Registrar for the Royal Horticultural Society. In 2001 arrangements were made for him to send specimens of naturalised cultivars in bud, so that they could be brought into flower in time to coincide with the meetings of the Daffodil Cultivar Committee of the RHS and in the hope that the combined efforts of the Registrar and the Committee would result in accurate cultivar names for them. A total of 32 specimens were sent, no easy task as it is not always a simple matter to be certain that one has collected the daffodil one wants when it is still in bud, especially when it is growing amongst other cultivars. Apart from nine specimens which were identified predictably as "more or less 'Telemonius Plenus", the common double, only six were thought to resemble known cultivars and none of these could be named with certainty. In the words of Sally Kington, who put a great deal of work into the matter, the remaining "seventeen remain unfathomed, though you will see how some of them tempt identification only then to disappoint on closer investigation." This was indeed very disappointing, especially as several of the specimens were of naturalisations from fairly recent mass plantings of what must surely have been readily available common cultivars. The reasons for this failure are uncertain, but I have been reduced to simply using Sell & Murrell taxa names and calling the plants "near 'Pepys'" or whatever. In view of all this, I remain very sceptical about the value of Mick Crawley's recent key to cultivars in BSBI News 89: 26-29 (2002), although it is certainly a helpful tool for getting introduced to this complicated subject. An enormous amount of useful information can be found on the RHS

daffodil web-site, but as there are some 26,000 cultivar names the whole matter is rather daunting.

In March 2002 Sally Kington visited AOC for two days, especially to look at and photograph naturalised doubles of *N. pseudonarcissus* such as 'Telemonius Plenus' and 'Thomas Virescent Daffodil' (which is apparently the correct cultivar name of 'Derwydd', a presumed double of the Tenby Daffodil). We visited many sites and investigations are ongoing, but there is hope that at least this small group of cultivars may soon become clearer.

CASUALS

The most interesting occurrence of casuals happened in 2001 at the new Ysgol Penweddig at Aberystwyth, SN595811, where newly constructed but as yet largely unplanted verges and flowerbeds sprouted an extraordinary variety of species, providing happy hunting on several occasions for SPC, AOC, CDP and JPW. Veronica catenata, Rumex maritimus, Myosoton aquaticum, Ranunculus sceleratus, Erodium moschatum, Rorippa palustris, Chenopodium ficifolium and Lactuca serriola, all rarely or never seen before in the Aberystwyth area, were growing amongst masses of Brassica nigra, Hirschfeldia incana, Chenopodium polyspermum, C. rubrum, C. album, a bewildering range of forms of Polygonum aviculare agg. and Persicaria and Fumaria species. Enquiries at the school revealed that the contractors had used local topsoil mixed with sugar-beet residues, probably from lagoons near Kidderminster where these species are known to occur.

Wendy McCarthy spotted a plant of *Solanum physalifolium* at the Ynys-las boat-builders' yard, SN616932 (where *Nicotiana* x sanderae was also growing), on the field meeting in September 2001, and the following year AOC found one on the unsprayed margin of a maize field near Gwbert, SN168487; it had not been noted in Cards. before. *Fagopyrum esculentum* appeared, for the first time in Cards. since 1958, on a new Environment Agency floodbank at Glanyrafon, SN614804, in 2001; the plants, 70cm tall, had exceptionally large achenes 8-9.5mm long. One plant of *Silene muscipula*, new for Cards., was also there. Among many *Bromus* specimens sent to Laurie Spalton for naming or confirmation was one collected by AOC and JPW in the old stable yard at Hafod, SN759732, in October 2000, which came down in Spalton's new key to *B. secalinus* and was confirmed by him; it is the first sighting in Cards. since 1933. Four plants of a very large form of *Silene noctiflora* were found by AOC in 2002 in a field reseeded with a *Lotus corniculatus* var. *sativus*-rich seed mixture at Nantsiriol, Bow Street, SN612843, the first record since at least 1942.

ALTITUDINAL LIMITS

Inspired by the amount of data on altitudinal limits in the New Atlas and in A Flora of Cumbria, and by the fact that J. H. Salter took a special interest in the subject in Cards., AOC spent a lot of time in August and September 2002 methodically recording upper limits, including six ascents of Pumlumon from different directions. It became obvious that certain sites are for various reasons hotspots for upper limits. Eisteddfa Gurig, the large farm at 415m at the summit of the A44(T) on Pumlumon, SN797840, has perhaps the British records for Fallopia japonica, Sagina apetala subsp. apetala, Anaphalis margaritacea, Coronopus didymus and Verbascum thapsus. An ADAS road at 590m on the top of Bryn Garw, SN800770, has Spergularia rubra and Gnaphalium uliginosum also perhaps at their British limits, and at Llyn Berwyn, SN743571, both Sonchus asper and S. oleraceus perhaps reach their British limits at 435m. The Esgair Fraith and Esgair Hir lead mines at 400-450m, Craig y March on Pumlumon (near which SPC recorded Hyacinthoides non-scripta at 550m, the same as its limit in Cumbria), and the rocks at the head of the Nant y Moch at 560m on Pumlumon (visited by AOC and PAS in 2002 and providing the Cards. limits for many species), are among other such key sites.

Comparison with Salter's records seems to show that several species have moved higher over the last 60-100 years. Bracken, which he always recorded the upper limits of carefully, now grows 45m higher, in a valley he knew well, and *Juncus effusus* is now abundant and unmissable near the top of Pumlumon at 750m, 140m higher than his upper limit. There seems to be no grazing or other management change to explain this, and it is of course to be expected that climatic changes will be reflected in changes in vertical just as much as in horizontal distribution of plants.

MISCELLANEOUS

As a contribution to Alex Lockton's arable weed survey, AOC and MDS visited a couple of Tir Gofal farms near Cardigan in August 2002. Pentood Uchaf, SN176443, was especially rewarding and clearly demonstrated the value of the scheme. The owner showed us a spectacular barley field, much of which had been flattened by the weight of the *Chrysanthemum segetum* that dominated large areas. Other arable fields here had *Misopates orontium, Kickxia elatine, Veronica agrestis, Stachys arvensis, Lamium hybridum* and many other weeds. *Orobanche rapum-genistae* and *Erodium moschatum* were in a rocky and gorsey pasture, and the farm pond was even full of *Lemna minuta*. SPC recorded a fine range of arable weeds in the IGER trial plots at Penrhyn-coch, SN623836, in July 2000, including *Lamium amplexicaule* new for the north of the VC, unusually abundant *L. hybridum* and *Chenopodium polyspermum, Silene latifolia* subsp. *alba*, and the second VC occurrence of *Epilobium ciliatum* x *parviflorum*. In July 2001, AOC and CDP revisited the very rich arable fields at Tygwyn, Mwnt, and Llwynysgaw.

In early 2002, AOC looked into annual *Myosotis* plants in many parts of the VC, with helpful advice from Peter Benoit who pointed out that while *M. discolor* has more or less globose pollen grains more than 15µm in diameter, the other species have shortly oblong, often slightly waisted grains not more than 12.5µm long. Both *M. discolor* subsp. *discolor* and subsp. *dubia* were found in a number of sites, not showing any obvious ecological distinction but sometimes growing quite near each other. They always grow in separate colonies though, and in the only place where they did grow together, the Penparc sand quarries, SN202485, there was a fairly discrete colony of subsp. *dubia* in the middle of a population of subsp. *discolor*. It was not always easy to separate *M. ramosissima* from *M. discolor* subsp. *dubia* in the field, and it was surprising to find the former in such an uncharacteristic habitat as shaly sea cliffs at Carreg y Ty, SN301536.

Marsh orchids were the objects of visits in 2001 and 2002 by Rosetta Cianchi of Rome University, who was collecting material for DNA studies. Guided by RAJ, AOC and JPL she went to most of the best sites, including the Callans' spectacular hay meadow at Winllan, and we await results with interest. Other visiting experts not otherwise mentioned have included Jim Bevan, who came in August 2000 to study the late-flowering *Hieracia*, ACJ, who has made several visits to survey *Circaea alpina* and to look at ferns, and Mary Dean to collect material of *Carex*, including hybrids, on the Cors Caron NNR.

AOC has assiduously attempted to name and record all the street trees in the VC, especially during the foot-and-mouth period. Aberaeron has at least six species and hybrids of *Crataegus* and several more cultivars, with a further three elsewhere in the VC. Aberystwyth has at least seven species and hybrids of *Sorbus. Japanese flowering cherries* by W. Kuitert (1999), unusual for a horticultural monograph in having keys that work and excellent descriptions, has enabled 14 cultivars of *Prunus serrulata* to be identified. Street trees are included in many foreign Floras, but have unfortunately never been much recorded by botanists in Britain.

New species continue to be discovered on the Aberleri Fields, SN613914, since the grazing has been reduced and the water table raised by CCW, and in July 2000, AOC, JPL and ACW found Juncus subnodulosus, the third colony in the VC, and Baldellia ranunculoides, which has also spread from its original site at Hen Afon Leri into the Ynys-las dunes where it was found in the pool at SN611918 by ADH and RAJ. Although the restorative effects of recent pool-digging on the Rhynchospora fusca population in the NW part of the Cors Fochno NNR seem to have worn off, JPL found plants for the first time actually on the intact raised mire here in 2001. Rorippa islandica was found by AOC in 2000 on disturbed ground at Ynys Edwin, on the Ynys-hir RSPB Reserve, the first record for the Dyfi area; it was growing with R. palustris. Leymus arenarius has always had a precarious hold in Cards., having disappeared from the Ynys-las dunes before 1982 (except for a naturalised colony derived from a throw-out by the Moel Ynys Pool) and surviving at Penyrergyd at the mouth of the Teifi only as one small patch. In 2000, TAL found a small colony on the dune at Traeth Penbryn, SN293525; in 2001, JPW and AOC found another small colony on the beach at Borth, SN607903; and the same year JPL found it growing among the pioneer dunes off the N. tip of the Ynys-las dunes. Another coast species perhaps showing signs of increasing is Raphanus raphanistrum subsp. maritimus. In 2000 a plant appeared in the sandy pasture at the back of Tan-y-bwlch Beach, SN580799, 500m from the existing colony, and in 2001 and 2002 AOC and SPC saw single plants near the mouth of the Clarach stream, SN587840. After cutting numerous sections of leaves. AOC found Festuca arenaria in its second VC site on the Penyrergyd dunes in 2001. Many plants both here and at Ynys-las seem to be intermediate to F. rubra.

TAL found a new site for *Trifolium subterraneum*, in a gulley above the sea cliffs near Morfa, Llan-non, SN492649, in 2000. *T. ornithopodioides* was very abundant in several of its sites in 2002, especially along a 150m stretch behind the sea wall at Borth, SN608900. *T. micranthum* was found in unusual abundance on the clayey margin of a reservoir on the Camddwr, SN771565, by RGW in 2000; this, at 350m, is near the British altitudinal limit of 365m in NW Yorks.

Spiranthes spiralis seems to be increasing at Mwnt in the sandy grassland by the church, SN611940, and AOC, SDSB and DKR found a total of 25 spikes there in September 2002, the largest number recorded at any site in the VC for many decades. *Hammarbya* though had a very bad year, and a thorough search at four of the seven sites by AOC produced only two plants.

Aquatics of interest included the second and third records of *Ceratophyllum demersum*, in an ox-bow of the Teifi below Cenarth, SN256422, AOC, 2000, and along 300m of ditch E of the Leri at Ynys-las, SN620935, AOC, 2001. At the latter site *Azolla* was present, so it was possibly an introduction. *Littorella uniflora*, otherwise unknown in the lowlands except in the Ynys-las dune slacks and in the Cwm Rheidol Reservoir at 50m a.s.l., has appeared in a backwater of the Rheidol at Lovesgrove, SN618809, only 3km from its mouth and 8km below the Reservoir. AOC and Roy Bamford found *Elatine hexandra* in a pool on Marian Mawr on the Ynys-hir RSPB Reserve, SN684969, in 2001, and were surprised to see *Wahlenbergia* growing nearby on low mounds only just above the level of the salt marsh and flooded at high spring tides, SN685967.

In July 2001, CDP pointed out that some of the plants of *Cirsium palustre* alongside the mountain road near the VC boundary E. of Cwmystwyth, SN850756, were var. *ferox*, with very dense, strong spines and short branches with crowded heads. This striking variety proved to be quite common above about 300m in the uplands south from here, but surprisingly was absent from the whole of the Pumlumon massif and the rest of the north of the VC (except for

a single plant seen near Eisteddfa Gurig). There is a 1934 P. Challinor specimen in **NMW** though from by the coast at Clarach. It is well known that the ratio of white- to purple-flowered *C. palustre* in colonies becomes greater with altitude, and sometimes on sea cliffs. AOC counted the ratios in a hundred colonies in 2002, and, while the principle generally held, there were plenty of exceptions, the highest colony, at 640m on Pumlimon, was entirely purple, and the lowest, in a grazing marsh inundated by high spring tides at Ynys-hir RSPB Reserve, was 16% white.

ACKNOWLEDGEMENTS

I am variously grateful to all the recorders mentioned above both for their records and for company in the field, and to the referees and experts who have helped with specimens. I am especially grateful to Tim Rich, George Hutchinson and Tony Tipper for their helpful back-up at **NMW** without which the tasks of a Welsh VC Recorder would lose a lot of their purpose and enjoyment, and to Peter Sell, David Pearman and Trevor Dines of Plantlife for many ideas and much stimulus.

ARTHUR CHATER Windover, Penyrangor, Aberystwyth SY23 1BJ

THE PROSTRATE JUNIPERS OF PEMBROKESHIRE - ADDENDA

BSBI Welsh Bulletin No. 71, Winter 2002 / 2003

The bottom line of this article was not printed on pp.13-16. Apologies to all concerned. These extra bottom lines to the printed text should read:

p.13

further bush in the extreme north of the county in 1975. A single bush was located by the

p.14 storms.

p.15

products of the marine erosion from our existing sea-level.

p.16

trees? Alternatively perhaps fires were less frequent? Perhaps one can compare the

A slip is enclosed with Bulletin No. 72 if readers prefer to cut and paste these additional lines.

WELSH PLANT RECORDS - 2001

Welsh Plant Records are compiled by Gwynn Ellis, 41 Marlborough Road, Roath, Cardiff, CF2 5BU, from reports of BSBI vice-county Recorders to whom records should preferably be sent. Plants are now listed for each county in the order of D.H. Kent's *List of Vascular Plants of the British Isles* (1992), and Supplements 1 & 2 (1996 & 2000), the number in those lists preceding the name, so that names changed since 1996 can be given without giving the former name. Latin names also follow Kent (1992) and its Supplements or, if not in that list, the second edition of C.A. Stace's *New Flora of the British Isles* (1997), E.J. Clement & M.C. Foster's *Alien Plants of the British Isles* (1994) or T.B. Ryves, E.J. Clement & M.C. Foster's *Alien Grasses of the British Isles* (1996), authorities for Latin names are no longer given unless the name is not in any of these works. English names are those in *English Names of Wild Flowers* ed. 2 (1986) by Dony *et al.* or, if not in that list, Stace (1997), Clement & Foster (1994) or Ryves, Clement & Foster (1996). English names enclosed by square brackets do not occur in any of these books but are included in Davies & Jones (1995). Welsh names are those in Dafydd Davies & Arthur Jones' *Welsh names of plants* (1995).

The following symbols are used:

- * to indicate a new v.c. record
- + to indicate a new or updated hectad record
- † before the species number: to indicate that the species is not native to Wales
- † before the record: 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
 - ‡ to indicate that the taxon is now believed to be extinct in the locality cited

In general only records which are additional to those given in *Flowering Plants of Wales* by R.G. Ellis (1983), *Distribution of Pteridophyta in Wales* by G. Hutchinson & B.A. Thomas (1992), *Flora of Flintshire* by G. Wynne, *Flora of Radnorshire* by R.G. Woods, *Flora of Glamorgan* by A.E. Wade *et al.*, and *Flora of Montgomeryshire* by I. Truman *et al.* are listed (**but please note** that from 2002 records onwards, only those that modify the *New Atlas of the British & Irish Flora* (2002) will be listed). Other records are included at the discretion of the vice-county recorder. The minimum grid reference is to a hectad but, if supplied by the recorder, references to a 1km or even a 100m square may be included. A letter in parenthesis following a grid reference indicates a tetrad.

The Vice-county Recorders from 1/1/2003 are:

- MONMOUTH, v.c. 35; Mr T.G. Evans, La Cuesta, Mounton Road, Chepstow, Monmouthshire NP16 5BS
- GLAMORGAN, v.c. 41 (West); Dr Q.O.N. Kay, School of Biological Sciences, University of Wales, Swansea, SA2 8PP
- GLAMORGAN, v.c. 41 (East); Mr J. Woodman, c/o CCW, Unit 4, Castelton Court, Fortran Road, Cardiff CF3 0LT
- BRECON, v.c. 42; Mr 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; Mr R.D. Pryce, Trevethin, School Road, Pwll, Llanelli, Carmarthenshire SA15 4AL
- PEMBROKE, v.c. 45; Mr S.B. Evans, Glan-y-Mor, Dinas Cross, Newport, Pembrokeshire SA42 0UQ
- CARDIGAN, v.c. 46; Mr 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; Mr P.M. Benoit, Pencarreg, Barmouth, Gwynedd LL42 1BL

- CAERNARFON, v.c. 49; Mr G. Battershall, 15 Rhodfa'r Grug, Upper Colwyn Bay, Conwy LL29 6DJ
- DENBIGH, v.c. 50; Mrs J.A. Green, Coed Duon, Tremeirchion, St Asaph, Denbighshire LL17 0UH

FLINT, v.c. 51; Dr G. Wynne, Gwylfa, Lixwm, Holywell, Flintshire CH8 8NQ

ANGLESEY, v.c. 52; Dr N.H. Brown, Treborth Botanic Garden, University College of North Wales, Bangor, Gwynedd LL57 2RQ and Mr I.R. Bonner (all correspondence to Dr Brown)

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

- 28/13.7. Ranunculus parviflorus (Small-flowered Buttercup) (Crafanc y Frân Manflodeuog). 50-100 plants on gritty soil, MOD Caerwent, ST468917, T.G. Evans, 1999. About 100m from only other known site.
- +43/6.2. Salicornia ramosissima (Purple Glasswort) (Llyrlys Gorweddol). Saltmarsh at E end Rumney Great Wharf, ST251788, T.G. Evans, 2001. 1st 10-km record since 1930. +Muddy saltmarsh, Peterstone Gout, ST278806, T.G. Evans, 1999. +Abundant on coastal track, Uskmouth, ST3382, T.G. Evans, 1995. +Abundant in upper saltmarsh, St Pierre Pill, ST5289, T.G. Evans, 1995. 1st 10-km record since 1930s. +Saltmarsh, Mathern Oaze, ST5390, T.G. Evans, 1995, conf. Dr I.K. Ferguson.
- +43/6.7. Salicornia dolichostachya (Long-spiked Glasswort) (Llyrlys Canghennog). +Muddy saltmarsh, Peterstone Great Wharf, ST2578, T.G. Evans, 1996, conf. Dr I.K. Ferguson. +Muddy saltmarsh, Peterstone Gout, ST278806, T.G. Evans, 1999. +Numerous plants in muddy saltmarsh, Uskmouth, ST3382, T.G. Evans, 1995. +Muddy edge of saltmarsh, Towyn Pill, Caldicot, ST4786, T.G. Evans & D. Upton, 1986.
- 62/30.6. Lepidium latifolium (Dittander) (Berwr Gwyllt). Spreading over 24m² on grassy upper left bank of R. Rhymney, Lamby, ST216776, T.G. Evans, G. Harris & C. Titcombe, 2001.
- +77/2.2. *Trifolium striatum* (Knotted Clover) (Meillionen Rychog). <40 plants in short grass over carboniferous limestone on top of rail cutting bank, MOD Caerwent, ST481907, T.G. Evans & C. Titcombe, 2000.
- +†79/2.2. Myriophyllum aquaticum (Parrot's-feathers). Covering many square metres of the Monmouth-Brecon canal, Malpas, ST301906, S. Williams, 2000. 2nd record.
- *†110/9.fer. Datura ferox (Angel's-trumpets). 1 plant in garden bed farm-manured previous year, Newton Green, Mathern, ST518918, T.G. Evans & K.C. Jones, 2001. +1 plant in cultivated soil near wild-bird feeding station, Llancwm, Llanvair Discoed, ST450915, C.W. Thomas, 2001. 1st & 2nd records.
- 124/23.1. *Parentucellia viscosa* (Yellow Bartsia) (Gorudd Melyn). About 500 plants on clayey, meadow area levelled for industrial development, Llantarnam, ST298929, S. Williams, 2001. Only extant site.
- *124/25.2b. Pedicularis sylvatica subsp. hibernica (Lousewort) (Melog y Cwn). Wet heath, Pontllanfraith, ST167963, M.A.R. Kitchen, 2001. Must be very local on heath as 5 plants examined before meeting were all subsp. germanicum and 10 examined since in order to collect a voucher specimen also proved to be the common subspecies.
- †135/19.2. Tragopogon porrifolius (Salsify) (Barf yr Afr Gochlas). 86 plants at top of grassy bank of R. Wye below E end of Piercefield Cliffs, ST539964, T.G. Evans, 2001. The best count in the v.c's longest known site.
- *135/25.118. *Taraxacum chloriticum* (a dandelion). Forest trackside bank, Craig Gwent, ST259999, T.G. Evans, 2001, **NMW**, det. A.J. Richards.
- *135/25.128. *Taraxacum diastematicum* (a dandelion). Rail ballast, Pye Corner, ST275872, T.G. Evans, 2001, **NMW**, det. A.J. Richards. Also found in another 10-km sq.
- *135/25.142. *Taraxacum incisum* (a dandelion). New roadside bank, N Tredegar, SO134013, T.G. Evans, 2001, **NMW**, det. A.J. Richards.
- *135/25.163. *Taraxacum maculatum* (a dandelion). Rail ballast, Pye Corner, ST275872, T.G. Evans, 2001, NMW, det. A.J. Richards. Recorded elsewhere only by Merle Marsden in v.c. 34.
- *135/25.219. *Taraxacum vastisectum* (a dandelion). Verge of A472, Pantygasseg, ST256997, T.G. Evans, 2001, **NMW**, det. A.J. Richards.
- +†135/81.4. Bidens frondosa (Beggarticks) (Llau'r Crwydryn). Frequent in Monmouth-Brecon Canal, Fourteen Locks, Highcross, Newport, ST2888, T.G. Evans, 2001. +Reen bank, Saltmarsh Lane, ST352832, G. Kaye & BSBI Field Trip, 1997.

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- +137/4.2. Alisma lanceolatum (Narrow-leaved Water-plantain) (Dwr-lyriad Culddail). Numerous plants in Monmouth-Brecon Canal, Cwm-celyn, SO297092, R. Fraser, 1988. +1 plant on steep bank of R. Wye, under trees, Washing's Wood, SO528107, T.G. Evans, 2001.
- *†138/3.1. Egeria densa (Large-flowered Waterweed) (Alaw Prin-flodeuog). Numerous plants in Monmouth-Brecon Canal, Five Locks, Pontnewydd, ST288970, Mrs B. Chapman, 2001, NMW, conf. T.G. Evans.
- +145/1.1. Zannichellia palustris (Horned Pondweed) (Cornwlyddyn). E end of lagoon, Uskmouth, ST336826, T.G. Evans, 2001. New lagoons may make up for many dry reens caused by drastic lowering of water table.
- +148/3.1. Wolffia arrhiza (Rootless Duckweed) (Llinad Diwraidd). Small number scattered among other Duckweed, Cors Crychydd Reen, ST221784, T.G. Evans, 2001.
- +151/1.20. Juncus maritimus (Sea Rush) (Brwynen Arfor). 1 large plant with Carex extensa in upper saltmarsh, Lamby, ST221775, T.G. Evans, G. Harris & C. Titcombe, 2001.
- *152/2.2a×2b. Trichophorum cespitosum nothosubsp. foersteri (T. cespitosum subsp. cespitosum × subsp. germanicum) (Hybrid Deergrass). A few plants in boggy peat with pools, Mynydd Maen, ST259966, T.G. Evans, 2001. conf. G.A. Swan.
- +152/16.8b. Carex muricata subsp. lamprocarpa (Small-fruited Prickly-sedge) (Hesgen Bigog Hwyr). 30-100 plants in meadow, between R. Ebbw and Monmouth-Brecon canal, Pontywaun, ST219926, T.G. Evans, 2001.
- 152/16.41. *Carex distans* (Distant Sedge) (Hesgen Bell). River Severn meadow inundated by Spring tides, Sutton Farm, W Usk Lighthouse, ST302817, T.G. Evans, 2001. conf. A.O. Chater. 1st record since 1983 when a marsh in Newport Docks was filled in with rubble and before that in 1973 at Peterstone. Grazing disrupted by Foot & Mouth disease could have allowed three plants to form flowers and fruits and thus reveal the only extant v.c. site.
- +152/16.43. Carex extensa (Long-bracted Sedge) (Hesgen Hirian). 137 plants counted on upper saltmarsh near mouth of River Rhymney, Lamby, ST221775, T.G. Evans, G. Harris & C. Titcombe, 2001. The best v.c. site. +Grassy level subject to inundation by Spring tides, Blackrock to St Pierre Pill, ST5188, T.G. Evans, 1995.
- 153/16.4. *Puccinellia rupestris* (Stiff Saltmarsh-grass) (Gweunwellt Anhyblyg). Frequent on top of rock, Denny Island, ST4580-81, C. Titcombe, 2001. A new record for the island; the top used to be covered by up to 1.5m high *Lavatera arborea*, which on this occasion was only 5cm high.
- 153/18.6. *Poa angustifolia* (Narrow-leaved Meadow-grass) (Gweunwellt Culddail). 30-100 plants on top of rail bank, MOD Caerwent, ST482907, T.G. Evans & C. Titcombe, 2001. A v.c. scarcity due to 'improved' meadows.
- *153/50.4lon. *Bromus hordeaceus* subsp. *longipedicellatus* (Soft-brome) (Pawrwellt Masw). Several plants on sea 'wall', Sudbrook, ST499874, T.G. Evans, 2001, det. L.M. Spalton.
- +162/13.1. *Platanthera chlorantha* (Greater Butterfly-orchid) (Tegeirian Llydanwyrdd). 8 plants with flowering spikes and 8 more with spikes bitten off (sheep or rabbits) in rough meadow, N of Gethley Wood, ST471976, T.G. Evans, 2001. 1st 10-km record since pre-1930.

GLAMORGAN, v.c. 41 (comm. Q.O.N. Kay & J.P. Woodman)

^{*†29/1.2.} Berberis thunbergii (Thunberg's Barberry). Apparently bird-sown in hedgebank, Penmaen, SS526885, A.S. Lewis, 2001.

^{+†29/2.1.} Mahonia aquifolium (Oregon-grape) (Llwyn Oregon). Old hedgebank, Oystermouth, SS613884, A.S. Lewis, 2001.

^{+43/1.8.} *Chenopodium polyspermum* (Many-seeded Goosefoot) (Troed yr Wydd Luos-hadog). On sandy soil excavated during construction of new golf clubhouse, Pennard, SS550882, A.S. Lewis, 2001.

^{+†43/3.1.} Atriplex hortensis (Garden Orache) (Llygwyn yr Ardd). On waste ground, Freedown, Oldwalls, SS491913, A.S. Lewis, 2001.

- +†44/1.2. Amaranthus hybridus (Green Amaranth) (Chwyn Moch Gwyrdd). On sandy soil excavated during construction of new golf clubhouse, Pennard, SS550882, A.S. Lewis, 2001.
- +46/5.3. *Stellaria pallida* (Lesser Chickweed) (Gwlydd y Tywod). Newton Burrows, SS845771, A.S. Lewis, 2001.
- +†51/1.4. Hypericum hircinum (Stinking Tutsan) (Eurinllys Drewllyd). Frequent in hedgebanks, near Bishopston Church, SS578893, A.S. Lewis, 2000. Recorded from Penmaen (SS5288) by J.A. Webb in 1927, but thought not to have persisted there.
- +62/12.4. Rorippa palustris (Marsh Yellow-cress) (Berwr Melyn y Gors). In small seasonal pond, near Stonyford, Llanrhidian, SS494915, A.S. Lewis, 2001.
- +†75/8.2. Rubus tricolor (Chinese Bramble). Introduced on the west bank of the Afon Pyrddin and spreading vegetatively, Pontneddfechan, SS901077, A.S. Lewis, 2001.
- +†75/19.15. Alchemilla mollis (Robust Lady's-mantle). On rough ground at edge of airfield, Fairwood Common, SS573919, A.S. Lewis, 2001.
- +75/21.18. Rosa rubiginosa (Sweet-briar) (Drysen Bêr). By stream adjacent to site of demolished farmstead, Selar Farm, Glyn-neath, SN881046, R.D. Pryce, 1992, NMW, det. A.L. Primavesi.
- 75/21.19. Rosa micrantha (Small-flowered Sweet-briar) (Rhoslwyn Pêr). Low Carboniferous Limestone crag, near City, Llansannor, SS988784, M. Hampton, 1996, NMW, det. A.L. Primavesi.
- +†75/32.10. Cotoneaster salicifolius (Willow-leaved Cotoneaster). On spoil heaps in disused limestone quarry, Ilston, SS555905, A.S. Lewis, 2001.
- +†75/32.21. Cotoneaster horizontalis (Wall Cotoneaster) (Cotoneaster y Mur). On spoil heaps in disused limestone quarry, Ilston, SS555905, A.S. Lewis, 2001.
- +†75/32.35. Cotoneaster rehderi (Bullate Cotoneaster). In disused limestone quarry, Bovehill, Landimore, SS466934, A.S. Lewis, 2001.
- +†75/32.37. Cotoneaster dielsianus (Diels' Cotoneaster). On spoil heaps in disused limestone quarry, Ilston, SS555905, A.S. Lewis, 2001.
- +77/14.12. Vicia lathyroides (Spring Vetch) (Ffugbysen y Gwanwyn). In short turf on site of old copper works, Penclawdd, SS548959, A.S. Lewis, 2001.
- +77/16.2. Ononis reclinata (Small Restharrow) (Tagaradr Bach). On shallow soil over limestone outcrops, Inner Head, Worm's Head, SS395874, Q.O.N. Kay, 2001. 7 flowering plants found in 2001 in an area of 4m² where a single dried-up plant had been provisionally identified in 1999.
- +†79/2.2. Myriophyllum aquaticum (Parrot's-feathers). In small pond in field, near Cilibion Wood, Gower, SS520921, Q.O.N. Kay, 2001.
- +†80/1.1. Gunnera tinctoria (Giant Rhubarb) (Rheonllys Mawr). Large patch beside damp shaded footpath, Oxwich Green, SS495860, A.S. Lewis, 2000. Present here for many years.
- +84/1.4. *Epilobium lanceolatum* (Spear-leaved Willowherb) (Helyglys Gwayw-ddail). Dunes and waste ground, Horton, SS477856, A.S. Lewis, 2001.
- +†91/1.2. Mercurialis annua (Annual Mercury) (Bresych y Cwn Blynyddol). On imported soil, Kittle Green, SS574893, A.S. Lewis, 2001.
- +103/1.14. Geranium pyrenaicum (Hedgerow Crane's-bill) (Pig Garan y Gwrych). On low cliff at edge of field, Port Eynon, SS468859, A.S. Lewis, 2001.
- +†105/1.4. Impatiens glandulifera (Indian Balsam) (Ffromlys Chwarennog). In bed of stream, Ilston, Gower, SS556904, A.S. Lewis, 2001.
- +†110/1.1. Nicandra physalodes (Apple-of-Peru). On sandy soil excavated during construction of new golf clubhouse, Pennard, SS550882, A.S. Lewis, 2001.
- +†110/2.1. Lycium barbarum (Duke of Argyll's Teaplant) (Ysbeinwydd Hardd). Hedges, The Cove, Horton, SS476856, A.S. Lewis, 2001.
- *†110/8.3. Solanum physalifolium (Green Nightshade). 2 plants in Brassica field, Rhossili Viel, SS413826, Q.O.N. Kay, 2001.
- +†110/8.ros. Solamum rostratum (Buffalo-bur). In flower and fruit on footpath near disused aviary, Brynmill Park, Swansea, SS634926, V. Lewis, 2001, det. A.S. Lewis.

- *†116/4.6. Symphytum orientale (White Comfrey) (Cyfardwf Gwyn). Many plants on sea front waste ground, Langland, SS605874, A.S. Lewis, 2001.
- +†116/8.1. Pentaglottis sempervirens (Green Alkanet) (Llys y Gwrid). Self-sown, Oxwich village, SS497867, A.S. Lewis, 2001.
- +118/5.6. Lamium amplexicaule (Henbit Dead-nettle) (Marddanhadlen Rwygddail). On sandy soil excavated during construction of new golf clubhouse, Pennard, SS550882, A.S. Lewis, 2001.
- *124/2.3. Scrophularia umbrosa (Green Figwort) (Gornerth Gorllewinol). †In profusion on roadside near car park of Clydach Bird Reserve, Lower Swansea Valley, SN676033, D. Davies, 1999.
- +†124/16.24. Veronica longifolia (Garden Speedwell) (Rhwyddlwyn Gardd). In sandy scrub near Jersey Marine, SS696933, B. Stewart, 2001, det. A.S. Lewis.
- +133/1.2. Valerianella carinata (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). On waste ground, Loughor, SS568994; +On pavements in Castle Avenue, Oystermouth, SS614882; both A.S. Lewis, 2001.
- 135/7.1. Onopordum acanthium (Cotton Thistle) (Ysgallen Gotymog). †On waste ground, Freedown, Oldwalls, SS491913, A.S. Lewis, 2001.
- +135/17.1. Picris echioides (Bristly Oxtongue) (Gwylaeth Chwerw). On disturbed roadside and wall, Llangennith Moors, SS421914, A.S. Lewis, 2001.
- +135/30.1. Filago minima (Small Cudweed) (Edafeddog Lleiaf). On site of old copper works, Penclawdd, SS548959, A.S. Lewis, 2001.
- +†135/74.1. Ambrosia artemisiifolia (Ragweed) (Bratlys). On recently landscaped roadside, West Way, Swansea, SS654926, A.S. Lewis, 2001.
- *138/2.1. Stratiotes aloides (Water-Soldier) (Alaw Ddiosgo). †In small pond in field, near Cilibion Wood, Gower, SS520921, Q.O.N. Kay, 2001.
- *†153/62.1. Cortaderia selloana (Pampas-grass) (Paithwellt). Several clumps on waste ground at disused docks, Briton Ferry, SS737936, A.S. Lewis, 2001.
- +†153/70.pum. Setaria pumila (Yellow Bristle-grass) (Cibogwellt Melyn). Many plants on waste ground, Sketty Hall, SS625924, A.S. Lewis, 2001, conf. T.B. Ryves.

*†158/6.2. Kniphofia × praecox (Greater Red-hot-poker). Large clump on waste ground, E side of the Afon Tawe, Swansea, SS662935, A.S. Lewis, 2001.

- +†158/24.7. Allium triquetrum (Three-cornered Garlic) (Cenhinen Drichornel). Several clumps on sandy waste, Kenfig Burrows, SS802811, A.S. Lewis, 2001.
- *†158/26.1. Nothoscordum borbonicum (Honeybells). On site of long-demolished glasshouses, Hendrefoilan House, SS612937, A.S. Lewis, 2001.
- +†158/28.1. Tristagma uniflorum (Spring Starflower). On sandy soil excavated during construction of new golf clubhouse, Pennard, SS550882, A.S. Lewis, 2001.
- +158/34.1b. Asparagus officinalis (Garden Asparagus) (Merllys). On fixed dunes, Crymlyn Burrows, SS707928, A.S. Lewis, 2001.
- +†159/9.2. Gladiolus communis (Eastern Gladiolus). Sandy waste ground, near Horton dunes, SS471856, A.S. Lewis, 2001.

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

- +†29/2.1. Mahonia aquifolium (Oregon-grape) (Llwyn Oregon). River bank, Llangammarch Wells, SN935473, M. & C. Porter, 2001.
- +47/1.6. *Persicaria bistorta* (Common Bistort) (Llys y Neidr). †Lane verge 2km NW of Newbridgeon-Wye, SO0060, M. & C. Porter, 2001.
- *†47/1.cap. *Persicaria capitata* (Pink-headed Knotweed). Pavement, Crickhowell, SO216182, C. Porter, 2001, det. M. Porter.
- +62/15.5. Arabis caucasica (Garden Arabis) (Arabis yr Ardd). Lane bank, Tregraig Road, Bwlch, SO162223, M. & C. Porter, 2001.

- +62/28.1. Thlaspi arvense (Field Penny-cress) (Codywasg). †Garden weed, 0.5km W of Pennorth, SO108258, Miss E. Jones, 2001, herb. MP, det. M. Porter.
- 73/5.11. Sedum forsterianum (Rock Stonecrop) (Briweg Cymreig). †Road bank, Llangammarch Wells, SN936473, M. & C. Porter, 2001.
- +†74/5.8×9. Saxifraga × urbium (S. umbrosa × S. spathularis) (Londonpride) (Balchder Llundain). Grassland bank in churchyard and outside, Llangammarch Wells, SN935473, M. & C. Porter, 2001.
- 75/9.14×15. Potentilla × mixta (P. erecta × P. reptans & P. anglica × P. reptans) (Hybrid Cinquefoil). Road bank, Llangammarch Wells, SN935473, M. & C. Porter, 2001.
- +75/15.2. Agrimonia procera (Fragrant Agrimony) (Llys y Dryw Peraroglus). Grassy verge of track near River Wye, 2km N of Newbridge-on-Wye, SO009603, M. & C. Porter, 2001.
- +†75/19.15. Alchemilla mollis (a lady's-mantle). Waste ground near church, Llangammarch Wells, SN936473, M. & C. Porter, 2001.
- 75/21.12×13. Rosa × dumalis (R. canina × R. caesia) (a hybrid rose). Waste ground near railway station, Llangammarch Wells, SN936474, M. & C. Porter, 2001.
- +75/21.12×14. Rosa × dumetorum (R. canina × R. obtusifolia) (a hybrid rose). Lane hedge near Comin Coch, 5km E of Llanafon Fawr, SN998552, M. & C. Porter, 2001.
- +75/21.13a. Rosa caesia subsp. caesia (Hairy Dog-rose) (Rhosyn Blewog). Lane hedge near Comin Coch, 5km E of Llanafon Fawr, SN998552, M. & C. Porter, 2001.
- +75/21.13b. Rosa caesia subsp. vosagiaca (Glaucous Dog-rose) (Rhosyn Llwydwyrdd). River bank, Llangammarch Wells, SN936473; +Lane hedge, 3.5km NW of Builth Wells, SN998543; both M. & C. Porter, 2001.
- *†91/2.16b. Euphorbia amygdaloides subsp. robbiae (Leathery Wood-spurge). Escaped along lane bank, Tregraig Road, Bwlch, SO152221, M. & C. Porter, 2001.
- *†100/1.1. Rhus typhina (Stag's-horn Sumach). Road bank, Llangammarch Wells, SN936473, M. & C. Porter, 2001.
- +†133/3.1. Centranthus ruber (Red Valerian) (Triaglog Coch). Waste ground near railway, Llangammarch Wells, SN936473, M. & C. Porter, 2001.
- *152/16.10. Carex arenaria (Sand Sedge) (Hesgen Arfor). †Molinia heath, between Ystradgynlais and Penrhos, SN795104, M. Porter, 2001.
- +153/50.3. Bromus racemosus (Smooth Brome) (Pawrwellt Llyfn). Meadow, Blaen-y-cwm, 3km W of Llanwrthwl, SN945630, S.P. Chambers, 2001.

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

- +01/3.1. Lycopodium clavatum (Stag's-horn Clubmoss) (Cnwpfwsogl Corn Carw). Stony bank in forest track, Cwm Mawr, Radnor Forest, SO206645, M. Lawley & J. Wynne-Jones, 1999.
- +28/2.1. *Clematis vitalba* (Traveller's-joy) (Barf yr Hen Wr). †1 large, well established plant, in seed on scrub covered trackside bank, Llanelwedd Quarries, SO055518, R.G. Woods, 2000.
- +43/1.8. Chenopodium polyspermum (Many-seeded Goosefoot) (Troed yr Wydd Luos-hadog). 2 plants in soil of recently reconstructed road verge 100m N of Abercamddwr Bridge, Llandewi, SO106704, R.G. Woods, 2000.
- +46/7.10. Cerastium diffusum (Sea Mouse-ear) (Clust Llygoden Arfor). Edge of tarmac against wall at edge of car park NE of Llandrindod Wells railway station, SO069614, R.G. Woods, 2000.
- *57/1.4×6. Viola × intersita (V. riviniana × V. canina) (a hybrid violet). W facing fields, Gilfach, SN964715, S.P. Chambers, 1998, conf. D.M. Moore.
- +57/1.6. Viola canina (Heath Dog-violet) (Fioled y Cwn). W facing fields, Gilfach, SN964715, S.P. Chambers, 1998, conf. D.M. Moore. 1st recent record.
- *†69/1.9. Primula japonica (Japanese Cowslip). Wet woodland, Withybeds, Presteigne, SO310649, S.P. Chambers, 1998, conf. E.J. Clement.

- +74/5.19. Saxifraga tridactylites (Rue-leaved Saxifrage) (Tormaen Tribys). About 50 plants on ballast beside railway line, NE of Llandrindod Wells railway station, SO069614, R.G. Woods, 2000.
- +†75/22.5b. *Prunus domestica* subsp. *instittia* (Bullace) (Eirinen Fulas). Suckering bushes by derelict stone building, Crow Wood, SO104433, S.P. Chambers, 2001. 2nd recent record.
- +77/19.13. Trifolium micranthum (Slender Trefoil) (Meillionen Felen Eiddil). In some quantity on closely grazed roadside verge, with T. dubium, Penybont Common, SO130653, R.G. Woods, 2000.
- +110/8.1. Solanum nigrum (Black Nightshade) (Codwarth Du). †4 plants in flower in soil of recently reconstructed road verge 100m N of Abercamddwr Bridge, Llandewi, SO106704, R.G. Woods, 2000.
- *†116/4.4. Symphytum grandiflorum (Creeping Comfrey) (Cyfardwf Llusg). Roadside verge between Brynwern Bridge and The Bog, Newbridge-on-Wye, SO019569, R.G. Woods, 1996.
- *116/15.1×4. *Myosotis* × *suzae (M. scorpioides* × *M. laxa)* (a hybrid forget-me-not). A scrambling plant on stony shore, Llanbwchllyn, SO118463, S.P. Chambers, 1998, conf. A.O. Chater. +Marshy floodplain, SE of Cwmmaerdy, SO140585, S.P. Chambers, 2001. 1st & 2nd records.
- +†118/23.1×3. Mentha × gracilis (M. arvensis × M. spicata) (Bushy Mint) (Mintys Culddail). Muddy shingle bank, withybeds, Presteigne, SO310649, S.P. Chambers, 1998, det. R.M. Harley.
- †124/11.2. Cymbalaria pallida (Italian Toadflax) (Llin y Fagwyr Mwyaf). Foot of wall on road near 'The Triangle', Rhayader, SN967677, S.P. Chambers, 2000.
- *142/1/1×2. Potamogeton × gessnacensis (P. natans × P. polygonifolius) (a hybrid pondweed). Little pool in river below overhanging rockface by waterfalls, Gilfach, SN963715, S.P. Chambers, 1997, conf. C.D. Preston. 3rd British record.
- +142/1.14. *Potamogeton obtusifolius* (Blunt-leaved Pondweed) (Dyfrllys Gwelltog). Mesotrophic lake, Llan Bwch-llyn Lake SSSI, SO118462, J. Poole, 1998, det. N.F. Stewart.
- *152/16.25×65. Carex × subgracilis (C. acutiformis × C. acuta) (a hybrid sedge). Edge of lake, Llanbwchllyn, SO117463, S.P. Chambers, 1998, conf. A.C. Jermy.
- *153/32.1b. Deschampsia cespitosa subsp. parviflora (Tufted Hair-grass) (Brigwellt Cudynnog). Abundant on damp, shady, rocky slopes in wood below waterfall, Water-break-its-neck, New Radnor, SO184600, A.O. Chater, 2000, NMW.
- +153/51.2. *Bromopsis benekenii* (Lesser Hairy-brome) (Pawrwellt Blewog Lleiaf). Edge of path in dolerite talus, Bailey Einion, SO084616, S.P. Chambers, 1998. Locally common just above here.
- +153/59.2. Hordeum murimum (Wall Barley) (Heiddwellt y Mur). Base of walls in front of entrance to Library, Rhayader, SN969679, S.P. Chambers, 1998.

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

- *3/1.2. Isoetes echinospora (Spring Quillwort) (Gwair Merllyn Bychan). In c.1m deep and deeper water at SE corner of lake, Talley Upper (southern) Lake, SN633329, BSBI meeting, 2001, NMW, det. A.O. Chater.
- +10/1.1. *Hymenophyllum tunbrigense* (Tunbridge Filmy-fern) (Rhedynach Teneuwe). Gorge of Afon Berem on Farewell Rock near Pontyberem, SN501123, S.D.S. Bosanquet, 2001.
- +17/3.5. Dryopteris aemula (Hay-scented Buckler-fern) (Marchredynen Aroglus). Gorge of Afon Berem on Farewell Rock near Pontyberem, SN501123, S.D.S. Bosanquet, 2001.
- +17/3.8×9. Dryopteris × deweveri (D. carthusiana × D. dilatata) (a hybrid buckler-fern). With both parents in birch/alder damp woodland between upper and lower lakes, Talley, SN632334, A.O. Chater & BSBI meeting, 2001, NMW, conf. A.C. Jermy.
- +†40/2.rub. *Almus rubra* (Red Alder). 1 bush c.2.5m tall, side of forest road, Crychan Forest, SN844389, J. Iliff, 1991, NMW, det. A.O. Chater. 2nd record, assumed to be planted.
- +43/1.13. Chenopodium ficifolium (Fig-leaved Goosefoot) (Troed yr Wydd Ffigys-ddail). N end of maize field, N of Llangennech, SN565029, H.J. Killick, 2001.

- *†44/1.hyp. Amaranthus hypochondriacus (Prince's-feather). 3 plants only, with other casuals, on ground recently disturbed by bridge construction below eastern side of Pont d'Agen, Sandy, Llanelli, SN499002, R.D. Pryce & K.A. Cottingham, 2001, NMW, det. T.B. Ryves.
- +47/4.3. *Polygonum arenarium* (Lesser Red-knotgrass). Cobbled courtyard of farm buildings, Glynhir Mansion, Llandybie, SN640151, A.O. Chater, 2001, NMW, det. T. Karlsson.
- *47/4.4. Polygonum aviculare subsp. neglectum (Knotgrass) (Canclwm). Cobbled courtyard of farm buildings, Glynhir Mansion, Llandybie, SN640151, A.O. Chater, 2001, NMW, det. T. Karlsson. 1st record for subsp.
- *47/4.6. Polygonum rurivagum (Cornfield Knotgrass) (Canclwm Tir Âr). Old coal tip N of Glyn-tai, 2km S of Llandybie, SN617133, A.O. Chater & R.D. Pryce, 2001, NMW, det. T. Karlsson.
- *48/8.1b. Rumex acetosella subsp. pyrenaicus (Sheep's Sorrel) (Suran yr Yd). Sparsely vegetated old colliery tip on steep slope c.300m N of Glytai Fawr, Ammanford, SN617133, A.O. Chater, R.D. Pryce & K.A. Cottingham, 2001. 1st record for subsp.
- +†49/1.off. *Paeonia officinalis* (Garden Peony). 2 plants in bud on disturbed ground beside cycleway, W of Penclacwydd, SS522984, V. & A. Lewis, 2001.
- +†51/1.3×4. *Hypericum* × *inodorum* (*H. androsaemum* × *H. hircinum*) (Tall Tutsan) (Eurinllys Tal). Sandy ground near railway line near level crossing, Ferryside, SN366103, G. Hutchinson, 1993, **NMW**, det. N.K.B. Robson.
- *†51/1.4. Hypericum hircinum (Stinking Tutsan) (Eurinllys Drewllyd). 1 large bush on stony waste near entrance to WWT Centre, Penclacwydd, SS533987; +Locally abundant in waste ground and verges, Bynea, SS5598; both V. & A. Lewis, 2001. +Waste ground, Bynea, SS554989, BSBI meeting, 1986, NMW, det. N.K.B. Robson. Redet. of H. × inodorum. 1st, 2nd & 3rd records.
- *51/1.6×7des. Hypericum × desetangsii nothosubsp. desetangsii (H. perforatum × H. maculatum subsp. obtusiusculum) (Des Etangs' St John's-wort). River meadow of Afon Teifi, SW of Pengraig, Pentre-cwrt, SN393395, G. Hutchinson, 1991; +Minor roadside hedgebank on hill W of Bronwydd Arms, SN407239, G. Hutchinson, 1995; both NMW, det. N.K.B. Robson. 1st & 2nd records for nothosubsp.
- +51/1.7b. Hypericum maculatum subsp. obtusiusculum (Imperforate St John's-wort) (Eurinllys Mawr). Rank vegetation on steep hedgebank, Nant-y-Caws, SN450190, G. Hutchinson, 1992, NMW, det. N.K.B. Robson.
- +59/9.1. Arbutus unedo (Strawberry-tree) (Mefusbren). †Mature trees in woodland, Milo House, Pendine, SN20, J. Rees, 1990. Disappeared in dense woodland growth in 1990s. †Mature tree, reputedly over 100 yrs old in lawned grounds of hotel, Ashburnham Hotel, Pembrey, SN434008, P. Clark, 2001, det. R.D. Pryce. Only extant site.
- *†61/1.4. Populus trichocarpa (Western Balsam-poplar) (Poplysen Gilead y Gorllewin). 2 young trees, apparently not planted, on slope in abandoned limestone quarry, Cilyrychen Quarry, N of Llandybie, SN614165, A.O. Chater, R.D. Pryce & K.A. Cottingham, 2001.
- *†62/10.1. Matthiola incana (Hoary Stock) (Murwyll Coesbren). Escaped into sandy ground in village, Pendine, SN234079, R.D. Pryce & K.A. Cottingham, 2001.
- +62/12.3. Rorippa islandica (Northern Yellow-cress) (Berwr Melyn y Gogledd). Dry streambed of colliery spoil, Blaenhirwaun near Cross Hands, SN548132, R.D. Pryce & K.A. Cottingham, 2001.
- †62/12.7. Rorippa austriaca (Austrian Yellow-cress) (Berwr Melyn Awstria). Frequent on river shingle and bank, with R. palustris & R. sylvestris, Afon Amman, Penybont, Glanamman, SN670136, V. & A. Lewis, 2001.
- *†62/35.2a. Sinapis alba subsp. alba (White Mustard) (Cedw Gwyn). 1 casual plant only on W bank of access road to coast, Machynys, Llanelli, SS506982, R.D. Pryce & K.A. Cottingham, 2001. 1st definite record of subsp.
- +†62/36.1. *Erucastrum gallicum* (Hairy Rocket) (Berwr Ffrengig). Waste ground SW of Llanddowror, SN237130, V. & A. Lewis, 1999.
- +†69/3.1. Cyclamen hederifolium (Cyclamen) (Bara'r Hwch). Garden outcast, known for at least 3 years, below Penyfai Lane along B4308, Llanelli, SN497013, I.K. Morgan, 2001, NMW. 2nd record.

- *†69/3.2. Cyclamen coum (Eastern Sowbread). Naturalised and in flower on steep roadside bank, Llangathen, SN583222, V. & A. Lewis, 2001.
- *†74/3.1. Bergenia crassifolia (Elephant-ears). Planted on grave and increasing vigorously, Capel Carmel chapelyard, Burry Port, SN458022; +Large patch beside recently created walkway in disused quarry, Pentregwenlais, SN604166; both V. & A. Lewis, 2001. 1st & 2nd records.
- +75/9.14×15. Potentilla × mixta (P. erecta × P. reptans & P. anglica × P. reptans) (Hybrid Cinquefoil). Industrial site, Parc Trostre, Llanelli, SS5298, C. Cheffings et al. 2001. +Near Wern Chwith between Hendy and Llangennech, SN5703, H.J. Killick, 2001. +1 plant on top of stone wall at S end of ornamental moat, Glynhir, SN638150, BSBI meeting, 2001.
- +†75/17.3b. Sanguisorba minor subsp. muricata (Fodder Burnet) (Gwyddlwdn Tramor). Road verges, Carmarthen, SN411190, V. & A. Lewis, 2001.
- 75/21.12dum. Rosa canina group 'Dumales' (a dog-rose). Newcastle Emlyn Castle, SN3140, G. Hutchinson & R.D. Pryce, 1993, NMW, det. A.L. Primavesi.
- 75/21.12ht. Rosa canina group 'Lutetianae' (a dog-rose). Under Corylus on footpath from ruined castle to river, Newcastle Emlyn Castle, SN3140, G. Hutchinson & R.D. Pryce, 1993, NMW, det. A.L. Primavesi.
- 75/21.12pub. Rosa canina group 'Pubescentes' (a dog-rose). Newcastle Emlyn Castle, SN3140, G. Hutchinson & R.D. Pryce, 1993, NMW, det. A.L. Primavesi.
- 75/21.12tra. Rosa canina group 'Transitoriae' (a dog-rose). Growing through honeysuckle on NW side of road, northern viewing point, Witchett Pool. Laugharne Burrows, SN281076, G. Hutchinson & I.K. Morgan, 1992, NMW, det. A.L. Primavesi.
- *75/21.12×13b. Rosa × dumalis (R. canina × R. caesia subsp. vosagiaca) (a hybrid dog-rose). NE side of road opposite deep road cutting c.1.5km S of Meidrim, SN288193; +Hedgerow on W side of lane N of Esgair, 1.1km SW of Meidrim, SN279202; +1st 'block' after castle arch, Newcastle Emlyn Castle, SN3140; all G. Hutchinson & R.D. Pryce, 1992, NMW, det. A.L. Primavesi. 1st records.
- +75/21.12×15. Rosa × scabriuscula (R. canina × R. tomentosa) (a hybrid rose). E side of bank in hawthorn near vehicle park, Ginst Point, SN323079, G. Hutchinson & I.K. Morgan, 1992, NMW, det. A.L. Primavesi. 1st recent record.
- +75/21.13a. Rosa caesia subsp. caesia (Hairy Dog-rose) (Rhosyn Blewog). Hedgerow on E side of lane c.80m N of 30mph signs S of Llainlwyd, St Clears, SN280184, G. Hutchinson & R.D. Pryce, 1992, NMW, det. A.L. Primavesi. 1st recent record.
- 75/21.13b. Rosa caesia subsp. vosagiaca (Glaucous Dog-rose) (Rhosyn Llwydwyrdd). E side of lane towards top of hill around last bend, Llwynbedw, Cwm Cych, SN275366, G. Hutchinson & R.D. Pryce, 1992, NMW, det. A.L. Primavesi.
- 75/21.15. Rosa tomentosa (Harsh Downy-rose) (Rhosyn Lledwlanog). Roadside hedge of minor road E of crossroads, Peniel, SN4324, G. Hutchinson, 1985, NMW, det. A.L. Primavesi. Churchyard (?planted), Capel Ifan, SW of Pontyberem, SN493101, I.K. Morgan, 1992, NMW, det. A.L. Primavesi.
- 75/21.16. Rosa sherardii (Sherard's Downy-rose) (Rhosyn Sherard). Hedgerow on E side of B4299 near Neuadd, 1.7km SW of Trelech a'r Betws, SN293258, G. Hutchinson & R.D. Pryce, 1992, NMW, det. A.L. Primavesi.
- *75/21.20. Rosa agrestis (Small-leaved Sweet-briar) (Miaren Gulddail). Wooded roadside hedgebank near disused rookery, 0.4km NE of Pentre-cwrt, SN390391, G. Hutchinson. 1991, NMW, det. A.L. Primavesi. Not refound in 2002.
- +†75/26.2. Pyrus pyraster (Wild Pear) (Gellygen Wyllt). 9m tall tree in abandoned walled garden, The Grist, Laugharne, SN301107, J. Rees, 2001.
- 75/28.24. Sorbus torminalis (Wild Service-tree) (Cerddinen Folwst). Scrubby cliff woodland on Old Red Sandstone above Dylan's Walk, Laugharne, SN305109, J. Rees, 2001.
- +77/19.1. Trifolium ornithopodioides (Bird's-foot Clover) (Corfeillionen Wen). Barish waste ground by entrance to sewage works, Morfa Bacas, SS550982, V. & A. Lewis, 2001.

- *†77/19.19a. Trifolium incarnatum subsp. incarnatum (Crimson Clover) (Meillionen Ysgarlad). 2 plants on shingle beach at E end of lake, Sandy Water Park, Llanelli, SN497002, Llanelli Naturalists, 2001, det. I.K. Morgan.
- *81/1.3b. Lythrum portula subsp. longidentatum (Water-purslane) (Troed y Gywen). Marginal swampy vegetation, W shore of Talley Upper (southern) Lake, SN632329, R.D. Pryce & BSBI meeting, 2001, NMW, det. A.O. Chater. 1st published record of subsp.
- *84/1.1×8. Epilobium × novae-civitatis (E. hirsutum × E. ciliatum) (a hybrid willowherb). Few plants, with both parents near old lime kilns in working limestone quarry, Cilyrychen Quarry, N of Llandybie, SN617166, A.O. Chater, R.D. Pryce & K.A. Cottingham, 2001, NMW.
- *84/1.2×8. *Epilobium parviflorum* × *E. ciliatum* (a hybrid willowherb). Frequent in working area around quarry entrance, with both parents, Cilyrychen Quarry, N of Llandybie, SN617166, A.O. Chater, R.D. Pryce & K.A. Cottingham, 2001, NMW.
- *†84/4.1×3. Oenothera glazioviana × O. biennis (and/or O. cambrica) (a hybrid evening-primrose). Dunes between Pembrey Forest and the sea, SN3800, F.H. Webb, 1978; Bank of R. Amman, Ammanford, SN634127, A.M. Pell, 1981; Roadside, B4337, near Coed Llethr, 1km SSE of Rhydcymerau, SN580378, G. Hutchinson, 1993; West Pwll, SN4600, I.K. Morgan, 1982; all NMW, det. J.C. Bowra. Previously det. as O. erythrosepala.
- +†94/1.2. Linum usitatissimum (Flax) (Llin Amaeth). River shingle, Penybont, Glanamman, SN670136, V. & A. Lewis, 2001.
- +†102/1.6. Oxalis stricta (Upright Yellow-sorrel) (Suran Felen Unionsyth). Shingle beach by R. Teifi, Henllan, SN364406, A.O. Chater & S. Andrews, 2001.
- +103/1.15. *Geranium pusillum* (Small-flowered Crane's-bill) (Pig yr Aran Mânflodeuog). Roadside verge, Burry Port, SN441006, V. & A. Lewis, 2001.
- +†107/30.1. Sison amomum (Stone Parsley) (Githran). Several plants (casual only) on top of rough bank, with Scrophularia scorodonia, old mineral railway, Ty Mawr, Pembrey, SN417029, V. & A. Lewis, 2001. 2nd record.
- +113/2.1. Nymphoides peltata (Fringed Water-lily) (Ffaen Gors Eddiog). †'Rusticated' ponds in restored opencast site, Garnant, SN689129, V. & A. Lewis, 2001.
- +†118/1.2. *Stachys byzantina* (Lambsear) (Clust yr Oen). 1 clump halfway down seawall, Pembrey Harbour, SS436999, V. & A. Lewis, 2001. 2nd record.
- *†118/1.ann. Stachys annua (Annual Yellow-woundwort) (Briwlys-melyn Blynyddol). Roadside E of Morfa roundabout, Llanelli, SS518917, I.K. Morgan, 2000, NMW, det. G. Hutchinson.
- +†118/4.1c. Lamiastrum galeobdolon subsp. argentatum (Variegated Yellow Archangel) (Marddanhadlen Felen Arianddail). Dolaucothi Gold Mines, SN6640, H.J. Killick & D. Brookman, 2001.
- +118/10.4. Scutellaria minor (Lesser Skullcap) (Cwcwll Bach). Mire, Cellan, SN630468, S. Andrews, 2001.
- +†118/23.1×3. Mentha × gracilis (M. arvensis × M. spicata) (Bushy Mint) (Mintys Culddail). Cynghordy, SN84, M. Stead, J. Green & W. McCarthy, 2001.
- +124/20.7×9. *Euphrasia confusa* × *E. nemorosa* (a hybrid eyebright). Disused railway line, Llanpumsaint, SN417301, G. Hutchinson & R.D. Pryce, 1988; +Heathland near farm, 1km SE of Maesycrugiau, SN482408, G. Hutchinson & R.D. Pryce, 1986; +Grassy roadside hedgebank between forestry plantations, Llandingat Without, near Llandovery, SN776328, G. Hutchinson, 1986; all NMW, det. A.J. Silverside.
- *†130/5.ori. Asperula orientalis (Annual Woodruff). Neglected garden area, formerly wooded, Cwmffrwd, SN425170, D. Poulter, 2001, NMW, det. G. Hutchinson.
- +135/25.2. *Taraxacum arenastrum* (a dandelion). Sandy grassland, Pendine MOD Ranges, SN280073, R.D. Pryce & J. Rees, 1998, NMW, det. A.J. Richards. 2nd record.
- +135/25.72. Taraxacum nordstedtii (a dandelion). Unimproved acid grassland, Cae Blaen Dyffryn Plantlife NR, SN604443, J. & M. Iliff, 1998, NMW, det. A.J. Richards.
- +135/25.84. *Taraxacum atactum* (a dandelion). Centre of gateway into field, W side of A485 between Pontarsais and Alltwalis, SN443308, R.D. Pryce, 1997, **NMW**, det. A.J. Richards.

- +135/25.101. *Taraxacum subhamatum* (a dandelion). Disturbed ground E side of road, edge of B4337 3km NW of Rhydcymerau, SN560407, R.D. Pryce & S. Lucas, 1997, **NMW**, det. A.J. Richards.
- +135/25.121. *Taraxacum cordatum* (a dandelion). Disturbed ground in carpark, Cynheidre Colliery, SN496077, R.D. Pryce, 1997, NMW, det. A.J. Richards.
- +135/25.126. Taraxacum stenoglossum (a dandelion). Grey dunes, Pembrey Country Park, SS399999, R.D. Pryce et al.; +Verge of old by-passed road near bridge, between Rhydargaeau and Pontarsais, SN442278, R.D. Pryce; both 1997, NMW, det. A.J. Richards.
- +135/25.137. *Taraxacum fasciatum* (a dandelion). W road verge of A485 between Pontarsais and Alltwallis, SN444310, R.D. Pryce, 1997, **NMW**, det. A.J. Richards. 2nd record.
- *135/25.204. *Taraxacum subexpallidum* (a dandelion). Narrow verge on E side of road, N approach to old railway bridge, Glangwili, SN430217, R.D. Pryce, 1997, **NMW**, det. A.J. Richards.
- +135/25.215. Taraxacum tumentilobum (a dandelion). Flower border, Llangennech garden, SN563015, R.D. Pryce & K.A. Cottingham, 1999, NMW, det. A.J. Richards.
- +135/25.220. *Taraxacum xanthostigma* (a dandelion). Road verge adjacent to valley woodland, E side of A485, N of Glangwili, SN433225, R.D. Pryce, 1997, NMW, det. A.J. Richards.
- *135/25.haw. *Taraxacum haworthianum* (a dandelion). Grey dunes, Pembrey Country Park, SS399999, R.D. Pryce et al., 1997, NMW, det. A.J. Richards.
- +135/25.mic. *Taraxacum micranthoides* (a dandelion). On railway ballast c.200m SW of railway station, Llangennech, SN562010, R.D. Pryce & K.A. Cottingham, 1999, NMW, det. A.J. Richards. 2nd record.
- +135/30.1. Filago vulgaris (Common Cudweed) (Edafeddog). Stony waste, Bynea, SS552988. V. & A. Lewis, 2001.
- *†135/41.4×5. Aster × salignus (A. novi-belgii × A. lanceolatus) (Common Michaelmas-daisy). Casual in station approach road, Kidwelly, SN401065, G. Hutchinson, 1993, NMW, det. P.F. Yeo.
- +135/62.10×11. Senecio × ostenfeldii (S. jacobaea × S. aquaticus) (a hybrid ragwort). Species rich flowery hay meadow, Cwmcuttan, Cynghordy, SN801402, M. Stead, J. Green & W. McCarthy, 2001.
- +135/62.12. Senecio erucifolius (Hoary Ragwort) (Creulys Llwyd). Disturbed ground, Cwmgwili Colliery site, SN575103, C. Cheffings & G. Moss, 2001.
- +135/62.17. Senecio sylvaticus (Heath Groundsel) (Creulys y Rhosydd). Mine waste near branch of railway lines near Llangennech, SN571021, G. Hutchinson, 1987, NMW, det. S.A. Harris. Redet. of *S. viscosus*.
- +142/1.15. *Potamogeton berchtoldii* (Small Pondweed) (Dyfrllys Eiddil). Well vegetated pond on old coal tip c.100m N of Glyntai Fawr, Ammanford, SN617131, A.O.Chater, R.D. Pryce & K.A. Cottingham, 2001.
- *†147/4.1. Zantedeschia aethiopica (Altar-lily). Several plants in flower beside footpath, Bynea, SS554985, V. & A. Lewis, 2001. Origin unknown, presumably planted.
- +148/1.1. Spirodela polyrhiza (Greater Duckweed) (Llinad Mawr). Freshwater ditch, Millennium wetlands, WWT Penclacwydd, Llanelli, SS5398, I.K. Morgan, 2001. 2nd record since Motley's unlocalised record of *c*.1859.
- +151/1.26×27. Juncus × kern-reichgeltii (J. effusus × J. conglomeratus) (a hybrid rush). 1km ENE of Dryslwyn, SN562209, M. & J. Iliff, 1999, det. A.O. Chater.
- +152/7.1. Schoenoplectus lacustris (Common Club-rush) (Llafrwynen). Marginal tall fen, NE side of quarry pond, Pistyll Quarry N of Llandybie, SN624167, A.O.Chater, R.D. Pryce & K.A. Cottingham, 2001.
- +152/16.28×29. Carex × involuta (C. rostrata × C. vesicaria) (a hybrid sedge). Several plants in Molinia dominated area being colonised by scrub on isthmus between Talley Lakes, SN631333, BSBI meeting, 2001, NMW, det. A.O. Chater.
- +152/16.55. Carex pilulifera (Pill Sedge) (Hesgen Bengron). Coastal heath, Ragwen Point, SN219071,
 G. Hutchinson, 1993, NMW, det. A.O. Chater.

- *†153/54.2rup. Brachypodium pinnatum subsp. rupestre (Tor-grass) (Breichwellt y Twr). Mature fixed dune area, Pembrey, SN3900, I.M. Vaughan, 1978, NMW, det. T.C.G. Rich, 1st record for subsp.
- +153/59.4. *Hordeum secalinum* (Meadow Barley) (Heiddwellt y Maes). 1 plant only in semi-improved hay field, Glynhir, SN638149, BSBI meeting, 2001.
- +154/1.2. Sparganium emersum (Unbranched Bur-reed) (Cleddlys Di-gainc). Well vegetated pond on old coal tip c.100m N of Glyntai Fawr, Ammanford, SN617131, A.O. Chater, R.D. Pryce & K.A. Cottingham, 2001.

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

- +†46/19.1. Agrostemma githago (Corncockle) (Bulwg yr Yd). 3 clumps on mole hills in disturbed dune grassland, Newport sand dunes, SN053402, J. Buchanan, 2001.
- +47/8.13×19. Rumex × pratensis (R. crispus × R. obtusifolius) (Meadow Dock) (Tafol y Maes). Wetland, Bristgarn near Llanwnda, Strumble Head, SM925395, S.Chambers, 2001.
- *51/1.10×11. Hypericum humifusum × H. linariifolium (a hybrid St John's-wort). Dry, S-facing seacliff, Morfa Common, Nine Wells, Solva, SM784242, M. Sutton; +Damp rocky patch at bottom of S-facing seacliff, Porthmelgan, St Davids Head, SM728279, S.B. & A.E. Evans; both 2001, det. N.K.B. Robson. +At least 500 plants in coastal Heath, Pen y Cwm, Newgale, SM837231, M. Sutton, 2001.
- +†62/28.1. Thlaspi arvense (Field Penny-cress) (Codywasg). Spoilbank by road, St Davids Airfield, SM796261, S.B. & A.E. Evans, 2001. +Abundant at edge of field of oats N of Rainy Rock, Treehill Farm, Marloes, SM765081, S.B. & A.E. Evans, 2001.
- +77/18.5. *Medicago arabica* (Spotted Medick) (Maglys Amrywedd). By small dinghies on edge of tarmac at back of quay, Lower Town, Fishguard, SM961374, S.B. & A.E. Evans, 2001.
- +†79/2.2. Myriophyllum aquaticum (Parrot's-feathers). Invading 2 large artificial ponds in field, c.20m from Cartlett Brook, S of New Bridge, SM987192, D. Welton & J. Stone, 2001. +Banks of drained artificial pond, Rudbaxton Brook, SM950200, D. Welton & J. Stone, 2001. Introduced from Garden Centre to artifical pond, subsequently drained. +Completely covering a small pond, c.10m from Cartlett Brook, Penty Park Mill, SN006213, D. Welton & J. Stone, 2001.
- +84/1.6×9. *Epilobium* × schmidtianum (E. obscurum × E. palustre) (a hybrid willowherb). Wetland, Bristgarn near Llanwnda, Strumble Head, SM925395, S. Chambers, 2001. 1st recent record.
- *†111/3.3. Calystegia pulchra (Hairy Bindweed) (Taglys Blewog). Abundant on roadside hedge bank, Park Stone, New Moat, SN054223, S.B. & A.E. Evans; +Ruderal on edge of small tip SW of Hazel Mill House, Hazelbeach, SM942051, S.B. Evans; both 2001. 1st & 2nd records.
- +118/1.5×6. Stachys × ambigua (S. sylvatica × S. palustris) (Hybrid Woundwort) (Briwlys Croesryw). Porthgain, SM816323, J. Partridge, 2001. 1st recent record.
- +†133/1.2. Valerianella carinata (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). Pathside, Pigsfoot Lane, St Davids, SM750252, A.O.Chater & BSBI meeting, 2001.
- +151/1.13×14. *Juncus × surrejanus (J. articulatus × J. acutiflorus)* (a hybrid rush). Wetland, Bristgarn near Llanwnda, Strumble Head, SM925395; +Edges of muddy shallow pool NE of Pen Brush, Strumble Head, SM883399; both S. Chambers, 2001. 1st & 2nd recent records.
- +152/16.9a. Carex divulsa subsp. divulsa (Grey Sedge) (Hesgen Lwydlas). Corner of chapel car park, Guildford Bridge, Llangwm, SM990092, S.B. & A.E. Evans, 2001.
- ++153/17.3. Briza maxima (Great Quaking-grass) (Crydwellt Mwyaf). Roadside verge, St Davids, SM749251, S.B. Evans; +Roadside verge, Llanstadwell, SM953049, S.B. & A.E. Evans; both 2001. 1st recent records.
- +†153/38.3. Phalaris canariensis (Canary-grass) (Pefrwellt Amaethol). Improved grassland SW of Tidal Mill, Carew, SN039036, J. Partridge, 2001.
- +153/54.rup. Brachypodium pinnatum subsp. rupestre (a tor-grass). Limestone cliff, Broad Haven, Bosherston, SR977937, T.C.G. Rich, 2001, NMW.

+153/63.1b. *Molinia caerulea* subsp. *arundinacea* (Purple Moor-grass) (Glaswellt y Gweunydd). Dune slack, The Dune Hollow, Penally Burrows, SM121990, R. Woodall, 2001.

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

- *11/1.2×3. Polypodium × shivasiae (P. interjectum × P. cambricum) (a hybrid polypody). With both parents on N-facing side of old mortared wall, W part of S wall of St Mary's churchard, Cardigan, SN180460, A.O. Chater, 1998, NMW, conf. A.C. Jermy.
- +17/3.5. Dryopteris aemula (Hay-scented Buckler-fern) (Marchredynen Aroglus). Dry heathy Sfacing felled conifer slope, NW side of Llyn Pendam, SN707839, A.O. Chater, 2000, NMW, conf. A.C. Jermy.
- +27/1.1. Ceratophyllum demersum (Rigid Hornwort) (Cyrnddail). Along 300m of drainage ditch behind sea wall, 600m WNW of Ynys-las Farm, Dyfi estuary, SN618935, A.O. Chater, 2001. Perhaps recently introduced, as *Azolla* has occurred in this ditch in recent years.
- +†29/2.1. Mahonia aquifolium (Oregon-grape) (Llwyn Oregon). Old estate ash woodland, Flat Covert, Nanteos, SN628785, A.O. Chater & R. Shaw, 2001. +†Naturalised along roadside hedgebank opposite Bwlchbychan House, Llanwenog, SN480434, A.O. Chater, 2001, NMW.
- +†30/6.1. *Eschscholzia californica* (Californian Poppy) (Pabi Califfornia). Persistent and appearing naturalised for several years on slope, at S edge of Penparc chapel graveyard, SN211478, A.O. Chater, 2001.
- +31/5.3. Fumaria bastardii (Tall Ramping-fumitory) (Mwg y Ddaear Grymus). Weed among potatoes in garden, Tyndomen, Tregaron, SN659581, A.O. Chater, 2001.
- +31/5.7b. Fumaria officinalis subsp. wirtgenii (Common Fumitory) (Mwg y Ddaear). Sandy slope by Penyrergyd dunes, Gwbert, SN161485, A.O. Chater, C.D. Preston et al., 2001.
- +43/1.13. *Chenopodium ficifolium* (Fig-leaved Goosefoot) (Troed yr Wydd Ffigys-ddail). Abundant on new verges by Ysgol Penweddig, Llanbadarn Road, Aberystwyth, SN595811, S.P. Chambers, 2001.
- 43/1.15. Chenopodium album (Fat-hen) (Tafod yr Oen). Many plants on disturbed ground, Parc-llyn development just N of Pont Pen-y-bont, Llanbadarn Fawr, SN594804, A.O. Chater, 1995, LANC, NMW, LTR, det. J.R. Akeroyd. Correction of error; formerly det. as C. strictum.
- +46/1.9b. Stellaria pallida (Lesser Chickweed) (Gwlydd y Tywod). Grassy wall top at S edge of Castle Grounds, Aberystwyth, SN579814, S.P. Chambers, 2001.
- +46/8.1. Myosoton aquaticum (Water Chickweed) (Llinesg y Dwr). +†Weed in flower tubs by flats, Regent Street, Aberaeron, SN457631, A.O. Chater; +†Casual on new verge by Ysgol Penweddig, Llanbadarn Road, Aberystwyth, SN595812, J.P. Woodman & A.O. Chater; both 2001.
- +46/10.3. Sagina subulata (Heath Pearlwort) (Corwlyddyn Mynawydaidd). Turning area on Forestry road 900m S of Moelprysgau, Tywi forest, SN809602, R.D. Pryce & A.O. Chater, 2001. The second sighting of this species, normally coastal in Cards, on Forestry roads along the Tywi.
- +46/17.4. Spergularia rubra (Sand Spurrey) (Troellys Coch). Turning area on Forestry road 900m S of Moelprysgau, Tywi Forest, SN809602, A.O. Chater & R.D. Pryce, 2001.
- *†46/20.mus. Silene muscipula (a catchfly). 1 plant (casual only) on new Environment Agency floodbank on S side of Afon Rheidol, Glanyrafon Industrial Estate, SN614804, A.O. Chater, 2001.
- +†47/3.1. Fagopyrum esculentum (Buckwheat) (Gwenith yr Hydd). 6 plants (casual only) on new Environment Agency floodbank on S side of Afon Rheidol, Glanyrafon Industrial Estate, SN614804, A.O. Chater, 2001, NMW. 1st record since 1958; an unusually large form with perianth 4.5-5mm and achenes 8-9.5mm.
- *47/8.21. Rumex maritimus (Golden Dock) (Tafol Arfor). †Casual on new verge by Ysgol Penweddig, Llanbadarn Road, Aberystwyth, SN595811, A.O. Chater & C.D. Preston, 2001, NMW. 1 large plant; the soil for these verges was a mixture of local topsoil and residues from the sugar beet industry taken from the settling lagoons around which R. maritimus and the other unusual species

recorded here, such as *Veronica catenata* and *Myosoton*, frequently occur. The nearest such lagoon is probably one at Kidderminster.

- +50/1.1. *Elatine hexandra* (Six-stamened Waterwort) (Gwybybyr Chwe Brigerog). Muddy margin of pool, Marian Mawr, Ynys-hir RSPB Reserve, SN684969, A.O. Chater & R. Bamford, 2001.
- +57/1.9b. Viola palustris subsp. juressi (Marsh Violet) (Fioled y Gors). Flush, on N side of Nant Crafanglach, Pwllpeiran, SN770742, S.P. Chambers, 2001.
- +62/12.3. *Rorippa islandica* (Northern Yellow-cress) (Berwr Melyn y Gogledd). Shingle beach by Afon Teifi 300m SSE of Llandysul church, SN420404, A.O. Chater & S. Andrews, 2001. Only the second occurrence on riverside shingle, and usually well back on the flood plain.
- *62/14.7×8. Cardamine × zahlbruckneriana (C. flexuosa × C. pratensis) (a hybrid bitter-cress). 1 plant in gravelly car park, Eglwys Newydd church Hafod, SN768736, A.O. Chater & J.P. Woodman, 2001, NMW, conf. T.C.G. Rich.
- +62/34.5. *Brassica nigra* (Black Mustard) (Cedw Du). Rheidol banks, 1km SW of Lovesgrove, SN622810, A.O. Chater, 2001. Not previously recorded in the northern half of the county, but quite widespread here.
- *62/41.1. Crambe maritima (Sea-kale) (Ysgedd). 1 plant on shingle, Ynys-las, SN609922, R. Birch, 2001.
- +62/42.1b. Raphanus raphanistrum subsp. maritimus (Sea Radish) (Rhuddygl Glan y Môr). 1 plant on bank of tidal ditch, Clarach, SN587840, A.O. Chater, 2001.
- +†69/3.1. Cyclamen hederifolium (Cyclamen) (Bara'r Hwch). Roadside bank near Fronfraith Farm, Comins Coch, SN617819, R. Birch, 2001. Not appearing planted.
- +†74/7.1. Tolmiea menziesii (Pick-a-back-plant) (Crudlys). Roadside hedgebank, Capel St Silin, SN516508, A.O. Chater, 2001.
- +†75/3.3a. Spiraea douglasii subsp. douglasii (Steeple-bush). Hedge by dry millpond, Llanrhystud, SN543698, A.O. Chater, 2001.
- *75/8.158. Rubus orbus (a bramble). Recently felled woodland on gravels and clay, NW corner of Coed Newydd, Coedmor, SN196443, D.E. Allen & A.O. Chater, 1999, BM, conf. A. Newton.
- *75/8.254. Rubus rufescens (a bramble). Lampeter, SN5748, R.G. Ellis, 1978, NMW, det. R.D. Randall.
- *75/8.314. Rubus pictorum (a bramble). Roadside hedgebank, Sarnau, SN315504, D.E. Allen & A.O. Chater, 2001, NMW, conf. A. Newton.
- +75/8.dav. *Rubus davisii* (a bramble). Colony on heathy N verge of lane, 200m NE of Swydd farm, Swyddffynnon, SN694660, D.E. Allen & A.O. Chater, 2001, **BM**. 2nd record.
- +75/9.13b. Potentilla erecta subsp. strictissima (Tormentil) (Tresgl y Moch). Heathy streamside, Nant y Gerwyn, Tywi Forest, SN790578, A.O. Chater & R.D. Pryce, 2001, NMW.
- +†75/11.2. Fragaria moschata (Hautbois Strawberry) (Mefusen Fawr). Colony 14m long on roadside bank 70m W of Rhydypandy, SN635622, A.O. Chater, +Bank by footpath, Comins Coch, SN612820. S.P. Chambers; +Roadside verge and waste ground, Strata Florida, SN746657, A.O. Chater, all 2001.
- +75/21.2×19. Rosa × toddiae (R. canina × R. micrantha) (a hybrid rose). S edge of Coed Bont Sych, Aber-mad, SN594761, R. Maskew & A.O. Chater, 2001. 2nd record.
- +75/21.4×12. Rosa × irregularis (R. arvensis × R. canina) (a hybrid rose). Scrub on disused railway, Teifi Marshes WTWW Reserve, Cardigan, SN186453, A.O. Chater; +Roadside hedgebank, 400m SSE of Ffynnonlefrith, Plwmp, SN364538, R. Maskew & A.O. Chater; +NW corner of Aber-arth Common, SN477619, R. Maskew & A.O. Chater; +Scrub, 500m S of Glanrheidol, Capel Bangor, SN665789, R. Maskew & A.O. Chater; all 2001.
- +†75/21.7. Rosa 'Hollandica' (Dutch Rose). Well-established thicket in scrub, Cwmsymlog lead mine, SN698837, A.O. Chater, 2001.
- +75/21.11. Rosa stylosa (Short-styled Field-rose) (Rhosyn Ungolofn). Scrub on disused railway, Teifi Marshes, Cardigan, SN186453, A.O. Chater, 2001, conf. R. Maskew. 2nd record.
- +75/21.12×13a. Rosa × dumalis (R. canina × R. caesia subsp. caesia) (a hybrid rose). Disused railway, Felin-y-mor, Aberystwyth, SN581805, A.O. Chater, 2001, det. R. Maskew.

- 75/21.12×14. Rosa × dumetorum (R. canina × R. obtusifolia) (a hybrid rose). +Field hedge 400m S of Glanrheidol, Capel Bangor, SN663789; +Wood edge above road 200m WNW of Dol-fawr, Cwm Rheidol, SN702795; both R. Maskew & A.O. Chater, 2001.
- 75/21.12×15. Rosa × scabriuscula (R. canina × R. tomentosa) (a hybrid rose). +Roadside bank, 400m NNW of Trenewydd, St Dogmaels, SN146449, A.O. Chater, 2001, NMW, det. R. Maskew. +Field hedge, Rhos Pil-bach WTWW Reserve, Plwmp, SN369528; +Scrub by bridge, Gilfach-yr-halen, SN436611; +S edge of Coed Bont Sych, Aber-mad, SN594761; +Scrub above road, W of Dolfawr, Cwm Rheidol, SN702795; all R. Maskew & A.O. Chater, 2001.
- *75/21.18×19. Rosa × bigeneris (R. rubiginosa × R. micrantha) (a hybrid rose). N bank of A487 100m S of Figure Four crossroads, SN588775, R. Maskew & A.O. Chater, 2001. conf. A. L. Primavesi. The R. rubiginosa pollen could be from one of the specimens planted in 1985 on the roadside bank some 350m NE; that species is not known as a native in the north of the county.
- +75/21.19. Rosa micrantha (Small-flowered Sweet-briar) (Rhoslwyn Pêr). Scrub above road W of Dol-fawr, Cwm Rheidol, SS702795, R. Maskew & A.O. Chater, 2001.
- +77/15.12. Lathyrus nissolia (Grass Vetchling) (Ytbysen Goch). [†]Occasional to abundant along 100m of wide verge on E side of A487(T), SW of Llwyncelyn crossroads, SN440595, A.O. Chater, 2001, NMW. This verge was reconstructed and reseeded c. 1987.
- +77/19.5. Trifolium medium (Zigzag Clover) (Meillionen Wyrgam). Among Molinia in valley mire, Cors lan WTWW Reserve, 2km W of Tyn-y-graig, SN670696, A.O. Chater, 2001, conf. C.D. Preston.
- +77/26.1×2. Ulex europaeus × U. gallii (a hybrid gorse). Slope above sea 400m N of Llanborth, Penbryn, SN296526, A.O. Chater, 2001.
- +84/1.2×9. Epilobium × rivulare (E. parviflorum × E. palustre) (a hybrid willowherb). Fen in NW part of Cors Fochno NNR, SN624923, S.P. Chambers & BSBI Field Meeting, 2001.
- *84/1.6×9. Epilobium × schmidtianum (E. obscurum × E. palustre) (a hybrid willowherb). +Wet fen in Rhos y Fforest WTWW Reserve, 2km SSW of Llanilar, SN618729, A.O. Chater, 2000. NMW.
 +Marsh by Forestry road 2.5km NNE of Nant-y-maen, SN775604, A.O. Chater & R.D. Pryce, 2001, NMW, conf. G. D. Kitchener. +Marsh by backwater N of Afon Rheidol, 100m S of Pont Dolau, SN619809, A.O. Chater, 2001. 1st records.
- *84/1.8×9. *Epilobium ciliatum* × *E. palustre* (a hybrid willowherb). Marsh by Forestry road 2.5km NNE of Nant-y-maen, Tywi Forest, SN775604, A.O. Chater & R.D. Pryce, 2001, NMW, conf. G.D. Kitchener.
- 91/2.15. *Euphorbia cyparissias* (Cypress Spurge) (Fflamgoed Gyprysol). †Naturalised in Llanilar churchyard, SN623751, A.O. Chater, 2001, NMW. 1st record since 1930.
- +94/2.1. Radiola linoides (Allseed) (Gorhilig). Thin soil on sea cliffs 1.5km NNE of Morfa Bychan, SN573785, A.O. Chater, 2001.
- +108/5.2. Gentianella campestris (Field Gentian) (Crwynllys y Maes). 453 plants in pasture, near Bronnant, SN66, S.D.S. Bosanquet & D.K. Reed, 2001. Only extant site
- +†110/8.3. Solanum physalifolium (Green Nightshade). One plant in unsprayed strip at edge of maize field, 250m N of Waungelod, Gwbert, SN168487, A.O. Chater, 2001, NMW. 2nd record as casual.
- 116/15.9. *Myosotis ramosissima* (Early Forget-me-not) (Ysgorpionllys Cynnar). Landward slope of Tan-y-bwlch Beach, Aberystwyth, SN580801, A.O. Chater & R.V. Lansdown, 2001. Recorded here by J. H. Salter, but not seen here since his time.
- +118/10.2. Scutellaria galericulata (Skullcap) (Cwcwll). Top of shingle beach, outer harbour, Aberystwyth, SN580808, A.O. Chater, 2001.
- +†118/16.1. Melissa officinalis (Balm) (Gwenynddail). Naturalised along roadside hedgebank by Llethi bridge, Gilfachreda, SN410588, A.O. Chater, 2001.

- +121/2.1. Littorella uniflora (Shoreweed) (Beistonnell). Colony c.100×40cm in backwater N of Afon Rheidol, 100m SSE of Pont Dolau, SN618809, A.O. Chater, 2001. Not seen before in this muchbotanised backwater.
- +†124/4.2×3. *Mimulus × robertsii (M. guttatus × M. luteus)* (Hybrid Monkeyflower). Shingle by Afon Ystwyth 300m S of Castell Grogwynion, SN721721, A.O. Chater, 2001. Doubtless derived from the colony at Ty-mawr, 10km upstream.
- *†124/10.1. Asarina procumbens (Trailing Snapdragon). Naturalised on wall in grounds of Ynys-hir Hall Hotel, Eglwys Fach, SN681958, A.O. Chater, 2001, NMW.
- *†124/15.1. *Erinus alpinus* (Fairy Foxglove) (Clychau'r Tylwyth Teg). Abundantly naturalised on old walls, Portland Road, Aberystwyth, SN585818, R.G. Woods, 2001.
- *124/16.12. Veronica catenata (Pink Water-speedwell) (Graeanllys y Dwr Rhuddgoch). †Two plants on new verge by Ysgol Penweddig, Llanbadarn Road, Aberystwyth, SN595811, A.O. Chater, 2001. 1st record as casual.
- +133/1.1. Valerianella locusta (Common Cornsalad) (Llysiau'r Oen). Weed in walled garden, Llanerchaeron, SN480601, A.O. Chater, 2001.
- +133/1.2. Valerianella carinata (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). Alley just W of churchyard, Cardigan, SN180460, A.O. Chater, 2001.
- +†135/22.1. Lactuca serriola (Prickly Lettuce) (Gwylaeth Bigog). New verge by Ysgol Penweddig, Llanbadarn Road, Aberystwyth, SN595811, A.O. Chater, 2001.
- +135/59.1. *Matricaria recutita* (Scented Mayweed) (Amranwen). Abundant weed for several years in soft fruit farm, Penbanc, Capel Dewi, SN450435, A.O. Chater, G. & B. Harrison, 2001.
- +†138/6.1. Lagarosiphon major (Curly Waterweed) (Pib-flodyn Crych). Completely filling pond below Colwyn farm, St Dogmaels, SN151448, A.O. Chater, 2001, NMW, conf. D.A. Simpson. Form with unusually blunt leaves. +Scattered plants in pond in Forestry plantation, Coed Tynbedw, Llanafan, SN692712, A.O. Chater, 2001, NMW.
- 151/1.25. *Juncus inflexus* (Hard Rush) (Brwynen Galed). 3 small patches on W verge of disused railway 1km S of Teifi bridge, Cors Caron NNR, SN706653, A.O. Chater, 2001. Probably an ancient railway introduction, like the *Carex spicata* growing with it.
- +151/1.26×27. Juncus × kern-reichgeltii (J. effusus × J. conglomeratus) (a hybrid rush). Blanket mire, NE of Llyn Conach, SN742935, A.O. Chater; +Sheepwalk, 900m SSW of Moelprysgau, upper Tywi, SN800605, A.O. Chater & R.D. Pryce both 2001.
- *152/16.5×15. Carex × pseudaxillaris (C. otrubae × C. remota) (a hybrid sedge). Bank of drainage ditch 500m N of Lodge Farm, Tre'r-ddol, SN654936, A.O. Chater & A.D. Hale, 2001, NMW.
- +153/12.6. *Festuca arenaria* (Rush-leaved Fescue) (Peisgwellt Brwynddail). SW corner of Penyrergyd dunes, Gwbert, SN160485, A.O. Chater, 2001, NMW. 2nd record.
- +†153/50.7. Bromus secalinus (Rye Brome) (Pawrwellt Ller). With Lolium multiflorum and Hordeum distichon in old stable yard by Hafod Mansion, 2km E of Pontrhyd-y-groes, SN759732, A.O. Chater & J.P. Woodman, 2000, NMW. 1st recent record.
- 153/57.1. Leymus arenarius (Lyme-grass) (Amdowellt). Dunes, N tip of Ynys-las Dunes NNR, SN606946, J.P. Lyons, 2001. 2nd extant native locality.
- +†153/68.1. Echinochloa crus-galli (Cockspur) (Cibogwellt Rhydd). Disturbed part of refuse tip, S side of Pendinas, Aberystwyth, SN584799, A.O. Chater, R.A. Jones & P.J. Wilson, 2001, NMW.
- *†158/5.1. *Hemerocallis fulva* (Orange Day-Iily). Naturalised on disturbed ground by path just W of Pont Glanyrafon, Llanbadarn Fawr, SN609804, S.P. Chambers, 2001.
- +†159/13.1. Crocosmia paniculata (Aunt-Eliza). Naturalised on roadside bank, Ystrad Meurig, SN703676, A.O. Chater, 2001.
- *158/24.14. Allium scorodoprasum (Sand Leek) (Craf y Nadroedd). †Naturalised on roadside verge, Penyrangor, Aberystwyth, SN581808, A.O. Chater & C.D. Preston, 2001. Known here for at least 15 years and conf. W.T. Stearn in 1988.
- *†158/32.2. Galanthus elwesii (Greater Snowdrop). Roadside verge, Abermeurig, SN563562, A.O. Chater, 2001, NMW. Naturalised here since at least 1994.

- *†159/5.1. Iris germanica (Bearded Iris) (Iris Farfog). Naturalised on sand dunes, Penyrergyd, Gwbert, SN161486, A.O. Chater et al., 2001. Known here for at least 15 years.
- +†159/8.2. Crocus tommasinianus (Early Crocus). Naturalised on two footpath verges, above North Road, Aberystwyth, SN586821, S.P. Chambers & A.O. Chater, 2001.
- 162/13.1. Parapholis strigosa (Hard-grass) (Corwelltyn y Morfa). Shaly ground in salt marsh, 500m S of Nantyferwig, Teifi estuary, SN168477, A.O. Chater, 2001. Not seen in this estuary for over 20 years.
- *162/18.7. Dactylorhiza traunsteineri (Narrow-leaved Marsh-orchid) (Tegeirian Rhuddgoch Culddail). Dune slack, Ynys-las Dunes NNR, SN606936, S.P. Chambers, 2001, conf. I. Denholm.
- MONTGOMERY, v.c. 47 (comm. Mrs M. Wainwright)
- +4/1.9. Equisetum telmateia (Great Horsetail) (Marchrawn Mawr). Laneside hedgebank adjoining pasture, Trewern, SJ281127, R. Palmer, 2001.
- *46/10.1. Sagina nodosa (Knotted Pearlwort) (Corwlyddyn Clymog). Edge of small flush, Machynlleth, SN79, C. Forster-Brown, 1999.
- +53/1.7. Malva neglecta (Dwarf Mallow) (Hocys Bychan). Patch below wall of hotel car-park, Welshpool, SJ227077, R. Palmer, 2001.
- +†73/1.3. Crassula helmsii (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Mud adjoining board-walk across marsh area, Llyn Coed-y-dinas MWT Reserve, Welshpool, SJ221051, M. Wainwright & V. Pate, 2001. 2nd record. Measures now put in place to prevent spread to nearby pool.
- +84/1.4. Epilobium lanceolatum (Spear-leaved Willowherb) (Helyglys Gwayw-ddail). Abundant in one area on bank by quarry track, Craig Breidden, SJ287132, T.C.G. Rich, A. Law & L. Houston., 2001. +Grassy edge of private road to Powis Castle, Welshpool, SJ223076, P.M. Benoit, 2001. 2nd extant records.
- *103/2.2. Erodium moschatum (Musk Stork's-bill) (Pig y Creyr Mwsgaidd). †Casual only on roadside by gate into pasture, Berriew, SJ189009, P.M. Benoit & C.A. Small, 2001. Growing with *Ceratochloa carinata*: both probably the result of original garden dumping.
- *†110/PET.hyb. Petunia × hybrida (P. axillaris × P. integrifolia) (Petunia). Casual pavement weed in town, Welshpool, SJ2207, R. Palmer, 2001.
- *135/28.19. *Hieracium eboracense* (a hawkweed). Trackside on MWT Reserve, Llanymynech Rocks, SJ267218, K. Thorne, 2001, det. D. McCosh.
- *152/16.71. Carex pauciflora (Few-flowered Sedge) (Hesgen Brin-flodeuog). Wet moor and bog, Trannon, SN911952, B. Averis, 2000.
- *†153/53.1. Ceratochloa carinata (California Brome) (Pawrwellt California). Casual only on roadside by gate into pasture, Berriew, SJ189009, P.M. Benoit & C.A. Small, 2001. Growing with *Erodium* moschatum: both probably the result of original garden dumping.

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

- *43/3.10. Atriplex portulacoides (Sea-purslane) (Helys Can). Mature hummocks along c.60m at edge of creek in muddy saltmarsh, Artro estuary, SH5626, P.M. Benoit & D.J. Brown, 2001. 1st localised record.
- +61/1.3a. *Populus nigra* subsp. *betulifolia* (Black Poplar) (Poplysen Ddu). †4 huge trees on a field border at Llandrillo, SJ0336, S. Stille, 1999. No doubt planted.
- +72/2.6. *Ribes alpinum* (Mountain Currant) (Rhyfon Mynydd). †Established in hedge near Groeslan, between Llidiardau and Rhyd-uchaf, SH8937, A.N. Graham, 1999. No doubt originally planted.
- +120/1.6. Callitriche brutia (Pedunculate Water-starwort) (Brigwlydd Coesog). Boggy ditches, near Llyn Oror, Gwyddelwern, SJ0847, P.M. Benoit & M. Wainwright, 2000, NMW.

- +133/2.3. Valeriana dioica (Marsh Valerian) (Triaglog y Gors). In quantity in boggy ground near Llyn Oror, Gwyddelwern, SJ0847, S.P. Chambers, 1996. Only extant site.
- +151/1.11. Juncus subnodulosus (Blunt-flowered Rush) (Brwynen Flodbwl). In quantity and dominant in one area of brackish marsh, near Penmaenpool, Dolgellau, SH71, P.M. Benoit, 2000.
- +152/2.2a×2b. Trichophorum cespitosum nothosubsp. foersteri (T. cespitosum subsp. cespitosum × subsp. germanicum) (Hybrid Deergrass). Frequent with subsp. germanicum, Myrica and Calluna on Arthog raised bog, SH6314, P.M. Benoit, 1999, NMW, conf. G.A. Swan. 2nd record and only extant site.
- +†153/70.1. Setaria viridis (Green Bristle-grass) (Cibogwellt Gwyrddlas). In great quantity on E platform, Barmouth railway station, SH6115, P.M. Benoit, 1999, NMW. 1st recent record.
- CAERNARFON, v.c. 49 (comm. G. Battershall)
- 16/6.1. Woodsia ilvensis (Oblong Woodsia) (Coredynen Hirgul). 12 fronds amongst rocks, Glyders, SH65, D. Jones, 2001. 3 fronds noticed at this classic site in 1984; 8 in 1989; 4 in 1995; 9 in 1997; 3 in 1998 and 5 in 2000.
- 16/6.2. Woodsia alpina (Alpine Woodsia) (Coredynen Alpaidd). 25 to 30 fronds in steep gully, between Gyrn Las and Moel Lechog, SH65, D. Jones, 2001.
- *47/1.15. Persicaria mitis (Tasteless Water-pepper) (Penboeth Diffas). Numerous scattered plants at edge of oxbow, near Llanrwst, SH792626, R. Lewis, 1997, det. J. Timson. 1st record for North Wales.
- +75/21.5×12. Rosa × hibernica (R. pimpinellifolia × R. canina) (a hybrid rose). SW facing roadside bank, Porth Neigwl, W. Lleyn, SH256289, J. Roberts & A.P. Conolly; +Deep in hedge on bank beside track, from Cwrt to Porth Meudwy, Uchmynydd, W Lleyn, SH159256, A. Burns & A.P. Conolly; both 2001, LTR, det. A.L. Primavesi.
- +75/21.5×16. *Rosa* × *involuta* (*R. pimpinellifolia* × *R. sherardii*) (a hybrid rose). Spreading several feet along hedgebank, Capel Carmel to Anelog road, N of Aberdaron, SH159282, A.P. Conolly, 2001, LTR, det. A.L. Primavesi. 1st recent record.
- +75/9.14×15. Potentilla × mixta (P. erecta × P. reptans & P. anglica × P. reptans) (Hybrid Cinquefoil). Bank near stile, Pant Gwyn, Tudweiliog, Lleyn Peninsula, SH240380, W. McCarthy, 2001. 1st recent record.
- *†84/4.3×4. Oenothera biennis × O. cambrica (a hybrid evening-primrose). Roadside, Betws-y-Coed, SH791568, J. & H. Lowell, 2001, MANCH, det. J. Bowra.
- *†84/4.5. *Oenothera stricta* (Fragrant Evening-primrose) (Melyn yr Hwyr Peraroglus). Base of old sand dune, S of new marina, Pwllheli, SH3834, A. Burns & A.P. Conolly, 2001, LTR, det. C.A. Stace.
- 84/6.2. Circaea alpina (Alpine Enchanter's-nightshade) (Llysiau Steffan Mynyddig). Over 30 plants in flower near Clogwyn yr Eryr, Coed Bryn Engan, Capel Curig, SH75, D. Jones, 2001.
- +94/2.1. Radiola linoides (Allseed) (Gorhilig). Near Trevor, Lleyn, SH362465, C. Forster-Brown, 2001.
- +118/21.2. *Thymus pulegioides* (Large Thyme) (Gruwlys Gwyllt Mwyaf). Recently widened roadside, Cancoed, Roman Bridge, SH712511, J. & H. Lowell, 2001. 1st recent record.
- +124/20.8. Euphrasia micrantha [Slender Eyebright] (Gloywlys Eiddil Cyffredin). Several patches on leached limestone grassland, Little Orme, Llandudno, G. Battershall, 1998. 1st recent record.
- +135/49.1. Seriphidium maritimum (Sea Wormwood) (Wermod y Môr). Top of rock on beach near Tudweiliog, Lleyn Peninsula, SH236385, C. Forster-Brown, 2001. 2nd record.
- 153/12.7e. *Festuca rubra* subsp. *arctica* (Red Fescue) (Peisgwellt Coch). Rocks on steep grassy slope E of Bwlch Glas, Snowdon, SH609549; On rocks in a rill, Cwm Idwal near Bethesda, SH640591; both P. Thomas, 2001, det. T. Cope.
- +153/47.6. *Alopecurus myosuroides* (Black-grass) (Cynffonwellt Du). †Abundant weed in garden nursery, Ty Mawr, Gyffin, Conwy, SH77770, W. McCarthy, 2001.

- *†159/13.3. Crocosmia poitsii (Potts' Montbretia). On shingle island, R. Llugwy, near Betws-y-Coed, SH739570, J. & H. Lowell, 2001.
- +162/14.1. Anacamptis pyramidalis (albino form) (Pyramidal Orchid) (Tegeirian Bera). 2 shoots on roadside bank below hedge, W end of Prth Neigwl, SSW of Treheli, SH239284, A. Burns & A.P. Conolly, 2001.

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

- +4/1.4×5. Equisetum × litorale (E. fluviatile × E. arvense) (Shore Horsetail). Wet meadow, Minera, SJ267508, J.A. Green, 2001, det. A.O. Chater.
- +11/1.3. Polypodium cambricum (Southern Polypody) (Llawredynen Gymreig). Limestone woodland, Llandulas, SH9077, W. McCarthy & M. Stead, 2001, det. R.H. Roberts. 1st recent record.
- +16/5.1. Cystopteris fragilis (Brittle Bladder-fern) (Rhedynen Frau). Waterfall, Clocaenog Forest, SJ017572, S. Chambers, 2001.
- +28/13.23. Ranunculus aquatilis (Common Water-crowfoot) (Crafanc y Dwr). Muddy ditches, Towyn, SH965786, J.A. Green, 2001.
- *†40/2.3. Alnus cordata (Italian Alder). Planted in lead mines park, New Brighton, Wrexham, SJ275510, BSBI group, 2001. ?1st record.
- +†62/31.2. Coronopus didymus (Lesser Swine-cress) (Olbrain Lleiaf). Gravel path, Llandyrnog, SJ115655, J. Phillips, 2001.
- +69/1.1. *Hottonia palustris* (Water-violet) (Pluddalen). †Introduced to newly made pool in Country Park, Minera, SJ267508, J.A. Green, 2001.
- *75/21.4×12. Rosa × irregularis (R. arvensis × R. canina) (a hybrid rose). Old quarry, Terfyn, SH913776, W. McCarthy, 2001, det. A.L. Primavesi.
- *75/21.12×18. Rosa × nitidula (R. canina × R. rubiginosa) (a hybrid rose). Hedge, New Brighton, Wrexham, SJ276509, J.A. Green, 2001, det. A.L. Primavesi.
- +75/21.19. Rosa micrantha (Small-flowered Sweet-briar) (Rhoslwyn Pêr). Lead mines, New Brighton, Wrexham, SJ276509, J.A. Green, 2001, det. A.L. Primavesi.
- *†75/32.37. Cotoneaster dielsianus (Diels' Cotoneaster). Top of wall, Llanrwst, SH794622, W. McCarthy, 2001, NMW, det J. Fryer.
- *†77/13.1. Securigera varia (Crown Vetch) (Ffugbysen Goronog). Edge of birch wood, New Brighton, Wrexham, SJ275510, M. Williams, 2001.
- +†105/1.2. Impatiens capensis (Orange Balsam) (Ffromlys Oren). Streamside, Iscoed, SJ488442, G. Kay, 2001. 2nd record.
- +107/19.1. *Oenanthe fistulosa* (Tubular Water-dropwort) (Dibynlor Pibellaidd). Ditches near sea, Abergele, SH963783, J.A. Green, 2001. 1st recent record.
- +118/6.3. *Galeopsis speciosa* (Large-flowered Hemp-nettle) (Penboeth Amryliw). Gateway, Pentrefoelas, SH870506, W. McCarthy, 2001.
- +124/16.11. Veronica anagallis-aquatica (Blue Water-speedwell) (Graeanllys y Dwr). Bank of R. Gele, Kinmel Bay, SH987794, J.A. Green, 2001.
- +131/1.4. *Sambucus ebulus* (Dwarf Elder) (Ysgawen Fair). Rhyd y Meudwy, SJ120507, BSBI group, 2001. 1st recent record.
- +135/22.1. Lactuca serriola (Prickly Lettuce) (Gwylaeth Bigog). Edge of forest road, Clocaenog Forest, SJ006573, S. Chambers, 2001.
- +†135/23.2. Cicerbita macrophylla (Common Blue-sow-thistle) (Llaethysgallen-las). Roadside, Eryrys, SJ200501, BSBI group, 2001.
- +135/62.10×11. Senecio × ostenfeldii (S. jacobaea × S. aquaticus) (a hybrid ragwort). Field, New Brighton, Wrexham, SJ275510, J.A. Green, 2001.
- +152/16.11. Carex disticha (Brown Sedge) (Hesgen Lygliw Benblydd). Very wet mire, Rhyd Lydan, SH895503, W. McCarthy, 2001. 1st recent record.

- +152/16.26. Carex riparia (Greater Pond-sedge) (Hesgen Braff-dywysennog). Ditch in meadow, Pensarn, SH967783, J.A. Green, 2001.
- 153/12.1×13.1. ×Festulolium loliaceum (F. pratensis × L. perenne) (Hybrid Fescue) (Peisgwellt Croesryw). Roadside, Maeshavn, SJ204609, J.A. Green, 2001, det. T. Cope.
- +153/18.6. *Poa angustifolia* (Narrow-leaved Meadow-grass) (Gweunwellt Culddail). Wall top in town centre, Colwyn Bay, SH8479, W. McCarthy, 2001, det. T. Cope. 2nd record.
- +153/18.9. Poa compressa (Flattened Meadow-grass) (Gweunwellt Cywasg). Crack in pavement, Denbigh, SJ058665, P. Thomas, 2000.
- +153/51.3. Bromopsis erecta (Upright Brome) (Pawrwellt Unionsyth). Limestone quarry waste, Eryris, SJ201574, P. Thomas, 2001.
- FLINT, v.c. 51 (comm. G. Wynne)
- *†94/1.gra. *Linum grandiflorum* (Crimson Flax). Disturbed ground, Melyd Avenue, Prestatyn, SJ063817, J. Phillips & P. Ingham, 2001.
- +148/2.1. Lemna gibba (Fat Duckweed) (Llinad Crythog). Abundant, covering shallow pool c.10×5m, Golf course by Coppa House S of Buckley, SJ277614, S. Chambers, 2001. 2nd recent record.
- +†153/PAN.mil. Panicum miliaceum (Common Millet) (Miled). Disturbed ground, Melyd Avenue, Prestatyn, SJ063817, J. Phillips, 2001. 3rd record.
- 158/11.1. Fritillaria meleagris (Fritillary) (Britheg). †Well naturalised with c.50 plants in old overgrown orchard recently coppiced and cleared, Bodelwyddan Castle, SH996746, G. Wynne & A. Williams, 2001. Last recorded here in 1973.

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- +5/1.1. Ophioglossum vulgatum (Adder's-tongue) (Tafod y Neidr). Dryish flushed slope above South Stack, SH207823, S.P. Bonner, 2001.
- +05/2.1. Botrychium lunaria (Moonwort) (Lloerlys). South Stack, SH206824, W. McCarthy, 2001.
- +28/13.20. *Ranunculus tripartitus* (Three-lobed Crowfoot) (Crafanc Trillob). Scattered plants on wet open areas, Tre Wilmot, SH2281, R.A. Jones & A. Turner, 2001. +A small patch and a few plants both on muddy areas, near Cleifiog-uchaf, SH2879, P. Sturgess, 2001, conf. J. Woodman. Both groups were in ground disturbed by the mitigation works in connection with construction of the new A55 road across Anglesey.
- +++45/2.2. Claytonia sibirica (Pink Purslane) (Gwlyddyn Rhudd). Road verge near Penysarn, SH4691, G. Battershall, 2000.
- *46/14.1. Illecebrum verticillatum (Coral-necklace) (Clymogyn Troellog). †1 plant, presumably casual, limestone quarry, Bwrdd Arthur, SH5881, N. Woodhead, 1958, NMW, det. T. Rich.
- *†46/25.3. Dianthus barbatus (Sweet-William) (Penigan Barfog). 1 plant well away from habitation, sand dune ridge, Tywyn Fferam, SH3371, BSBI meeting, 2001.
- +47/1.16. *Persicaria minor* (Small Water-pepper) (Clymog Bychan). About 12 plants on bare mud over a low rocky outcrop, NE end of Llyn Coron, SH378704, I.R. Bonner & T.D. Dines, 2001. Reconfirmation of a pre-1987 record.
- +47/4.2. *Polygonum oxyspermum* (Ray's Knotgrass). Strandline, Porth y Tywod, Tywyn Fferam, SH3271, BSBI meeting, 2001.
- +47/8.13. Rumex crispus subsp. crispus (Curled Dock) (Tafol Crych). Trackside, South Stack, SH2082, T.D. Dines & R. Walls, 2000. +Waste ground, Ty-croes, SH3269, BSBI meeting, 2001. +Roadside near Llyn Coron, SH3770, I.R. Bonner, 2001.
- +61/2.11×12. Salix × multinervis (S. cinerea × S. aurita) (a hybrid willow). Coastal heath, Ty-croes, SH3269, T.D. Dines, BSBI meeting, 2001.

- ++62/31.2. Coronopus didymus (Lesser Swine-cress) (Olbrain Lleiaf). Waste ground, Ty-croes, SH3269, BSBI meeting, 2001.
- +62/42.1b. Raphanus raphanistrum subsp. maritimus (Sea Radish) (Rhuddygl Glan y Môr). Shingle bank, Aber Menai Point, SH424619, J. Rees, 2001. +Single plant on dampish sand, Traeth Lligwy, SH494872, I.R. Bonner & T.D. Dines, 2000.
- +63/1.3. Reseda lutea (Wild Mignonette) (Melengu Wyllt Ddisawr). Former sand extraction area and dune hollows, Cymyran, SH299754, I.R. Bonner & S.N. Priest, 2001. +Field-edge, just S of Tywyn Aberffraw, SH360676, J. Rees, 2000. +Waste ground by the A5 road, Star, SH509719, J. Rees, 2001.
- +69/1.3. Primula veris (Cowslip) (Briallu Mair). Probably native in dune grassland that has reestablished on cleared pine forest, Newborough, SH397651, M. Gould, 2001.
- +†73/1.3. Crassula helmsii (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Apparently established amongst Bolboschoenus stems in a small stream discharging into Red Wharf Bay, Glan Halen, Llanddona Beach, SH564806, I.R. Bonner & T.D. Dines, 2001. Myriophyllum aquaticum also present.
- +75/9.13×14. Potentilla × suberecta (P. erecta × P. anglica) (a hybrid tormentil). Newborough Forest, SH3964, I.R. Bonner, 2000.
- +75/9.14×15. Potentilla × mixta s.s. (P. anglica × P. reptans) (Hybrid Cinquefoil). Breakwater Country Park, SH227832; +Spreading onto a disused length of the A5025, between Benllech and Pentraeth, SH517799; both I.R. Bonner, 2001.
- *77/15.12. Lathyrus nissolia (Grass Vetchling) (Ytbysen Goch). †Probably casual in waste grassland, Newborough, SH422656, Ecological consultants to Menter Mon, 2001.
- *†79/2.2. Myriophyllum aquaticum (Parrot's-feathers). A single shoot amongst Bolboschoenus stems in a small stream discharging into Red Wharf Bay, Glan Halen, Llanddona Beach, SH564806, LR. Bonner & T.D. Dines, 2001. Crassula helmsii also present and apparently established.
- *†85/3.1. Griselinia littoralis (New Zealand Broadleaf). Single bush on edge of woodland, presumably planted, Menai Bridge, SH5571, I.R. Bonner, 2001.
- +103/1.7. Geranium pratense (Meadow Crane's-bill) (Pig yr Aran y Weirglodd). †Roadside near river bridge, Aberffraw, SH3568, I.R. Bonner, 2001.
- 103/1.10. Geranium columbinum (Long-stalked Crane's-bill) (Pig yr Aran Hirgoesog). Rock outcrops, near the Suspension Bridge, Menai Bridge, SH5571, I.R. Bonner, 2001. Re-confirmation of a 1966 record from this grid square.
- +103/1.15. Geranium pusillum (Small-flowered Crane's-bill) (Pig yr Aran Mânflodeuog). Potato field near Rhos-y-Gad, SH507795; +Edge of car-park, Llanddyfnan Church, SH503786; both W. McCarthy, 1999. +On limestone chippings and as a garden weed, Tynygongl, SH509827, I.R. Bonner, 2001, herb. IRB. Before this cluster of sightings the previous most recent record appears to have been from Aberffraw, by J.E. Griffith,
- +107/28.4. Apium inundatum (Lesser Marshwort) (Dyfrforonen Leiaf). Shallow muddy pools near Llyn Dinam, SH313775, I.R. Bonner & T.D. Dines, 2001.
- +108/3.3. Centaurium littorale (Seaside Centaury) (Canri Goch Arfor). Damp sandy ground, Trwyn Cemlyn, SH3393, I.R. Bonner, 2001.
- 108/5.2. *Gentianella campestris* (Field Gentian) (Crwynllys y Maes). Between 100-200 plants in dune grassland, Newborough Warren, SH432628, W. McCarthy, 2001. Confirmation of a pre 1970 record.
- *†110/1.1. Nicandra physalodes (Apple-of-Peru) (Afal Periw). Garden weed, presumed from birdseed, Penlon, Newborough, SH432647, B. Woodward, 2001.
- +110/8.1. Solanum nigrum (Black Nightshade) (Codwarth Du). Disturbed ground, Newborough Warren, SH427647, C. Aron, 2001.
- +118/6.5. *Galeopsis bifida* (Bifid Hemp-nettle) (Penboeth Lleiaf). Damp grassland fringe, Llyn Coron, SH3770, I.R. Bonner & T.D. Dines, 2001.

- +124/20.6. *Euphrasia tetraquetra* [Western Eyebright] (Torfagl ar Graig y Don). Cliff-top near Amlwch, SH4493, G. Battershall, 2000. +Cliff-top grassland, Ty-croes, SH3269; BSBI meeting, 2001.
- *†131/6.tat. Lonicera tatarica (Tartarian Honeysuckle). Bush overhanging stone wall by the Menai Strait near Plas Llanfair, SH53307105, I.R. Bonner, 2001, herb. IRB. Presumably originally planted.
- +133/1.3. Valerianella carinata (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). Waste ground, Soldier's Point, Holyhead, SH237839; +Wall base by cross roads, Tyn-y-Gongl, SH514829; both I.R. Bonner, 2001. This species continues to expand its range on Anglesey.
- +135/16.2. Leontodon hispidus (Rough Hawkbit) (Peradyl Garw). Limestone grassland near Penmon Priory, SH630807, R.M. Walls, 2000.
- *†135/35.ocu. *Inula oculus-christi* (Hairy Fleabane). Old asphalt heap, Plas Trefor, Llansadwrn, SH549775, B.F.T. Ducker, 2001, herb. BFTD.
- +135/50.3. Artemisia absinthium (Wormwood) (Wermod Lwyd). On spoil by track to limestone quarry near Rhuddlan-bach, Brynteg, SH483810, I.R. Bonner, 2001.
- *†135/50.6. Artemisia abrotanum (Southernwood). Casual by entrance to car-park, Tywyn Fferam, SH3371, V. & A. Lewis, 2001.
- *†153/51.4. Bromopsis inermis (Hungarian Brome) (Pawrwellt Hwngari). Garden weed, Rhosneigr, SH321736, W. McCarthy, 2001, herb. IRB, det. E.J. Clement.
- +†135/62.13. Senecio squalidus (Oxford Ragwort) (Creulys Rhydychen). Disturbed ground in connection with construction of the new A55, Pentre Berw, SH4772, I.R. Bonner, 2001.
- +135/71.1. Petasites hybridus (Butterbur) (Alan Mawr). Roadside near Soldier's Point, Holyhead, SH2383, I.R. Bonner, 2001.
- +142/1.2. Potamogeton polygonifolius (Bog Pondweed) (Dyfrllys y Gors). Seepage above Ffos y Fuwch, Ty-croes, SH3269, BSBI meeting, 2001.
- +151/1.8. Juncus ambiguus (Frog Rush) (Brwynen y Broga). Damp sand, upper shore, Tywyn Fferam, SH3271, BSBI meeting, 2001.
- +151/2.6b. Luzula multiflora subsp. congesta (Heath Wood-rush) (Coedfrwynen Luosben). Heathland above South Stack, SH215825, T.D. Dines & R. Walls, 2000.
- +151/2.6b. Luzula multiflora subsp. congesta (Heath Wood-rush) (Coedfrwynen Luosben). Coastal heath, Ty-croes, SH3269, BSBI meeting, 2001.
- +152/3.3. *Eleocharis uniglumis* (Slender Spike-rush) (Sbigfrwynen Un Plisgyn). Brackish fringe to stream below Carnau, SH3076, I.R. Bonner, 2001.
- +152/8.2. Isolepis cernua (Slender Club-rush) (Clwbfrwynen Eiddil). Flush to shore of Menai Strait near the Britannia Bridge, SH5371, I.R. Bonner & N. Brown, 2000.
- +152/8.2. Isolepis cernua (Slender Club-rush) (Clwbfrwynen Eiddil). Poached clay soil near Castell, SH497808, S. Chambers, 2001.
- 152/16.8b. Carex muricata subsp. lamprocarpa (Small-fruited Prickly-sedge) (Hesgen Bigog Hwyr). Laneside, Holland Arms, SH472722, I.R. Bonner, 2001. Reconfirmation of a pre 1970 record for this hectad.
- +152/16.17. Carex echinata (Star Sedge) (Hesgen Seraidd). Seepage above Ffos y Fuwch, Ty-croes, SH3269, BSBI meeting, 2001.
- +152/16.42. Carex punctata (Dotted Sedge) (Hesgen Bigiad). Upper salt-marsh near Llanfairyneubwll, SH2976, I.R. Bonner, 2001, herb. IRB, conf. A.O. Chater. The 1st record since 1956, though R.H. Roberts and R.W. David cast some doubt on the locality, and the 1946 specimen in LTR has been re-determined as *Carex distans* by C.A. Stace. The only other published record is from Beaumaris, 1838, MANCH.
- +152/16.46c. Carex viridula subsp. viridula (Small-fruited Yellow-sedge) (Hesgen Felen Goraidd). Damp sand, Cymyran, SH2975, I.R. Bonner & S.N. Priest, 2001.
- +153/17.1, *Briza media* (Quaking-grass) (Crydwellt). Rough ground behind the toilet block, South Stack, SH209820, I.R. Bonner, 2001.

- +153/18.9. Poa compressa (Flattened Meadow-grass) (Gweunwellt Cywasg). Grassy area near carpark, Llyn Alaw, SH378853, W. McCarthy, 2001.
- +153/24.2. *Glyceria fluitans* (Floating Sweet-grass) (Glaswellt y Dwr). Wet ground, Ty-croes, SH3269, BSBI meeting, 2001.
- +153/24.4. *Glyceria notata* (Plicate Sweet-grass) (Perwellt Plygedig). Wet grassland adjacent to a small stream, near Hen-dy, SH5083, I. Bonner, 2001.
- *†153/59.3. Hordeum jubatum (Foxtail Barley) (Heiddwellt Cribog). Single clump in field, Gwydryn-Hir, SH493678, T.W.J.D. Dupree, 2001. In discussion with the owner, Jane Rees discovered that a crop of ornamental grasses for flower arranging had been grown in the field a year or two previously.
- +158/20.2×3. *Hyacinthoides non-scripta* × *H. hispanica* (a hybrid bluebell). †By a ride under Corsican pines, Newborough Forest, SH399642, I.R. Bonner, 2001.
- *†159/13.1. Crocosmia paniculata (Aunt-Eliza). By concrete roadway to former MOD base, Ty-croes, SH3269, BSBI meeting, 2001.
- +162/18.2×5. *Dactylorhiza* × *formosa* (*D. maculata* × *D. purpurella*) (a hybrid orchid). Seepage above Ffos y Fuwch, Ty-croes, SH328693, BSBI meeting, 2001, det. R.H. Roberts. +Damp grassland, on edge of Tywyn Fferam, SH328719, N. Brown, 2001.

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