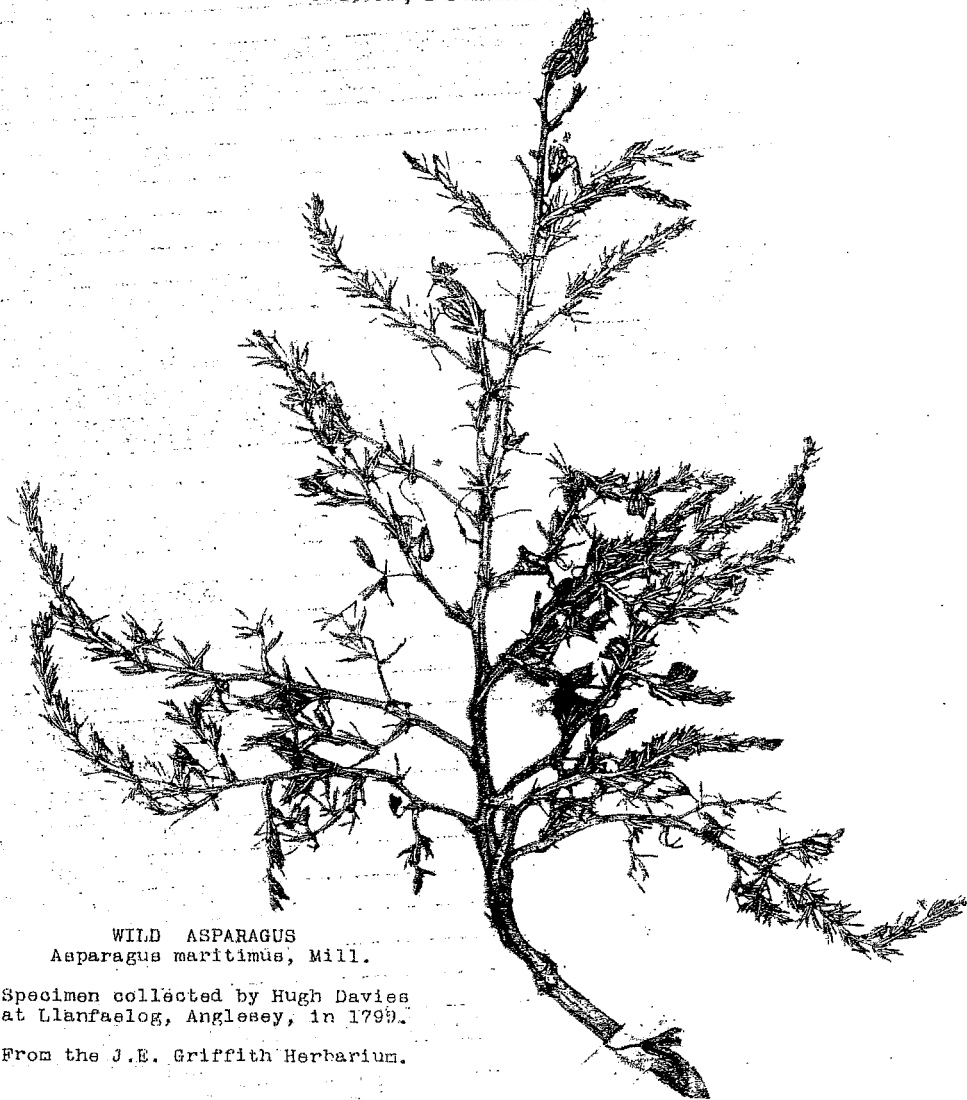


BOTANICAL SOCIETY OF THE BRITISH ISLES

# WELSH BULLETIN

Editors : R. D. Pryce & G. Hutchinson

No. 67, SUMMER 2000



WILD ASPARAGUS  
*Asparagus maritimus*, Mill.

Specimen collected by Hugh Davies  
at Llanfaelog, Anglesey, in 1799.

From the J.E. Griffith Herbarium.

Life-size photocopy of specimen of *Asparagus prostratus* from Anglesey at NMW (see p.11).

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## EDITORIAL

You will have noticed that, with this issue of the Welsh Bulletin, I cease to be sole Editor and from now on George Hutchinson and I will share the task. This is not a new innovation – George has been there in the background for many years, shuffling papers and arranging production and dispatch, but his invaluable contribution (for which he has been too modest to seek acknowledgement) will now be officially recognised. This change has not been sought by George himself, but has resulted from the fact that the National Museum and Galleries of Wales, for which he works, wishes that his and their input are duly credited. I can only view this as a positive step, not only as this deserved contribution can be duly acknowledged but also because, maybe, in future issues, I may be able to persuade George to contribute the odd Editorial!

I write this editorial in anticipation of reams of Atlas 2000 data dropping through my letter-box (or will it be delivered by parcel-post!) for final checking. In a few weeks time, no doubt there will be many County Recorders twiddling their thumbs, fretting, not knowing what to occupy themselves with next(!). David Pearman tells me that collation and checking of the data is more-or-less on schedule and production of the maps and text is going smoothly. The projected date of publication remains on target and I am sure we can all count on David and co. to steer the project through its final stages to a successful conclusion.

This issue of the Welsh Bulletin contains Arthur Chater's Cardiganshire Flora Recording Report covering the three years from 1997 to 1999, which, I am sure you will agree, puts most other recorders in the shade when it comes to sheer authority and dedication - we look forward to the production of his new Flora of Cardiganshire! Also, I am again grateful to Gwynn Ellis for collating Welsh Plant Records, bringing us up to date to the end of 1998. Although Gwynn is no longer under the pressure of Hon. Gen. Secretaryship, I know that he is still very busy with the production of BSBI News and other Society matters and am all the more grateful that he is still able to find time to continue to provide us with this invaluable compilation. I also thank Tim Rich for his shorter papers and Andy Jones for his book review, which complete this issue.

George and I are always anxious to receive papers and articles for future issues of the Bulletin. If you wish to air any views or focus on any subjects which may be of interest to fellow botanists, please let us have your contribution.

May I remind you of the programme of field meetings throughout the summer which have been arranged at a variety of sites around the country, all to be led by eminent and knowledgeable local botanists. In particular, there are still a few places remaining for the Carmarthenshire Recording Weekend to be based at Glynhir Mansion, near Ammanford on 24-27 June. The venue promises to be one of great interest in its own right but arrangements have been made for a repeat visit to Laugharne Burrows on the Sunday in order, among other things, to monitor the Fen Orchid population. Please let me know soon if you wish to attend.

Finally, I look forward to seeing many of you at the forthcoming Welsh AGM in Bangor, now, as I write this, only a week away.

R. D. Pryce, 1 Jun 2000

## RECORDING IN CARDIGANSHIRE VC 46 IN 1997-1999

(Abbreviations: ACJ: Clive Jermy; ADH: Alan Hale; AOC: Arthur Chater; DEA: David Allen; JPW: Julian Woodman; LG: Lin Gander; MDS: Matt Sutton; RVL: Richard Lansdown; PAS: Paul Smith; SPC: Steve Chambers.)

Inevitably most of the recording in the county during the three years since my last review (*B. S. B. I. Welsh Bull.* 62:15-23(1997)) has been related to Atlas 2000. A great deal of work though has also been done by the CCW Phase I and II grassland survey teams, chiefly involving MDS, and this has resulted in a large number of outstanding new records. A new edition of AOC's *Ceredigion (VC46) Rare Plant Register. 1. Vascular Plants and Charophytes* was produced with the help of ADH by CCW in April 1997, the subtitle becoming necessary as ADH has meanwhile produced *A Register of Rare Bryophytes in Ceredigion (VC46)* in June 1998. It is planned to produce new editions of both registers in early 2000. The compilation of the forthcoming *Vice-comital Census Catalogue* has resulted in the first available complete list for the VC since *Flowering Plants of Wales* in 1983, and, as with Atlas 2000, it has brought to light many old or doubtful records which have as far as possible been checked and adjudicated. I have still not effectively computerised the records for the VC, but in the course of sorting them out for the Atlas I have compiled master cards for each tetrad as well as for each hectad. Three B. S. B. I. field meetings have been held in the VC, at the RAE (now DERA) Site, Aberporth, in July 1997, at Esgair Fraith in August 1998, and at Llangrannog in June 1999 (all have been written up in *B. S. B. I. News*).

### FIRST RECORDS FOR NATIVES

It is becoming difficult to find new native species, and only three good ones have been found in these three years. AOC and Trevor Dines found scattered colonies of *Circaea alpina* along c.20m of the wooded bank of the Llyfnant stream near Cwmrhaidr, SN752962, in August 1997 (and a month later AOC and Bill Condry, on what turned out sadly to be their last outing together, found it also new for VC 47 on the opposite bank). A specimen was later confirmed by P. M. Benoit. J. H. Salter had recorded it in the Llyfnant, making clear in *Flowering Plants and Ferns of Cardiganshire* (1935) that this was different from "var. *intermedia*", which he also recorded from this valley in addition to a number of other sites, but in the absence of a specimen this record had always been discounted by P. H. Raven and others. Although Salter's diaries indicate that he saw "*C. alpina*" further down the valley, west of Glasbwl, he may well have seen the true plant and ours should be considered the first confirmed record. AOC found c.150 plants of *Crepis biennis* in full flower along roadside and field hedgebanks SE of Glynarthen, SN313482, in June 1997, and in June the following year he and LG found many plants of it along the disused railway embankment by the VC boundary on the Teifi Marshes Wildlife Trust reserve at Cardigan, SN186454. It is surprising that it had been overlooked at least at the latter site. *Erodium lebellii* on the other hand had been misrecorded in the past on the dunes at both Ynys-las and Gwbert, a number of specimens purporting to be it having been re-determined as *E. cicutarium*. But in July 1999 Jenny Higgins, CCW summer warden at Ynys-las, found a small colony of it, confirmed by Peter Benoit, at the edge of one of the slacks, SN607936; she failed to find it elsewhere in spite of extensive searching. A further new native was *Diplotaxis tenuifolia*, found by AOC on waste ground SE of Aberystwyth station, SN588811, in July 1977.

The only really new native subspecies was *Deschampsia cespitosa* subsp. *parviflora*, which AOC had been looking for in likely ancient woodland sites for many years. He and LG found scattered tussocks of it under *Salix cinerea* on the frequently flooded terrace by the Teifi in the Coedmor woods, SN209430, in August 1998. In 1999 AOC found further colonies in wet woodland by the Wyre at Lledrod, SN645700, and in a clayey wood near Trebedw, SN361414; only the first of these sites appears to be ancient woodland.

Checking for the VC Census Catalogue revealed that most of the subspecies of *Festuca rubra* had never been published for the VC. Predictably, subsp. *litoralis* is ubiquitous in the more extensive areas of salt marsh, and subsp. *juncea* is abundant in many places on the sea cliffs. A 1988 gathering by AOC from the grassy slope in a housing estate at Pontenwyd, SN751807, had been determined as subsp. *megastachys* by A. K. Al-Bermani, and since then it has been found on roadside verges and embankments and on pathsides in many places, but always seeming likely to have been introduced with grass seed. This was certainly the origin of the subsp. *commutata*, confirmed by Clive Stace, that SPC found on a grassy verge in the Glanyrafon Industrial Estate, SN610801, in 1997.

## HYBRIDS

Over the years ACJ had made a number of visits especially to investigate *Isoetes*, and he and AOC visited many of the lakes and old leadmine reservoirs in the uplands in the hope of finding the hybrid between *I. echinospora* and *I. lacustris*. AOC had, some years before, found a plant with megaspores of different shapes and sizes in Llyn Pendam, SN709839, where both species had been recorded. At last in July 1997 we were able to send further promising plants from Llyn Pendam to Don Britton in Canada who confirmed one of them as the hybrid, *I. x hickeyi*, by showing it had  $2x=66$  (the chromosomes of *Isoetes* are notoriously difficult to count). In 1998 he similarly confirmed hybrid plants from Llyn Fanod, SN604643 and Llyn Nant-y-cagl, SN730904. In all three lakes the hybrid was found near the NE corner, and it was perhaps not fanciful to imagine that the effect of the prevailing winds might have been to bring together the spores of the two species at this corner. The hybrids we found looked obviously distinct from either parent (indeed, had they been otherwise we would not have investigated them) and especially at Llyn Nant-y-cagl were unusually large, with rather short, stubby, recurved leaves. We were struck by the great variation in the appearance of *I. lacustris* in particular, both-between lakes and, as at Llyn Fanod, between different populations within the same lake.

Dick Brummitt visited again in August 1998 to continue our investigations into *Calystegia* hybrids begun in 1996, and a joint paper on these is now in press in *Watsonia*. Geoffrey Kitchener's workshop on *Epilobium* hybrids at the 1997 Recorders' Conference was a great stimulus. *E. ciliatum x montanum* and *E. ciliatum x obscurum* proved to be widespread throughout the VC, *E. montanum x obscurum* was found in a couple of sites, and *E. parviflorum x palustre* continued to turn up in rhos and fen sites. SPC found a plant of *E. montanum x roseum* in a pavement crack in Great Darkgate Street in Aberystwyth, SN583817, at the end of May, 1999, fortunately before the annual spraying with weedkiller took place, and a plant of *E. ciliatum x parviflorum* at Banc y Mwdan, SN195483 in August 1999, both new for the VC. AOC spent a lot of time looking in vain for *E. brunnescens* hybrids, and for *E. tetragonum* hybrids on disturbed waste ground where this and other species grow together at Aberystwyth. SPC also found *Elytrigia x laxa* (*E. juncea x repens*) new for the VC along the sandy top of the sea beach at the south end of Tan-y-bwlch beach, Aberystwyth, SN579799, in 1999. AOC and JPW found *Persicaria x intercedens* (*P. maculosa x hydropiper*), also new, in a weedy paddock at Cynerau Farm, SN698961, in 1998.

In 1993 Peter Benoit had shown AOC the hybrid *Carex acuta x aquatilis*, then new for the British Isles, in an oxbow at Llandderfel in Merioneth; it was beautifully intermediate in most of its characters, especially in having the stomata abundant on both surfaces of the leaves. In July 1999 AOC went to check up on a colony of supposed *C. acuta* that he had seen in a ditch by the disused railway on Cors Caron, SN708662, and discovered that it too was this hybrid. The colony had spread a further 5m from its 1991 length of 15m. Also on Cors Caron, John Savidge in 1999 showed AOC where he had seen *Vaccinium x intermedia* (*V. myrtillus x vitis-idaea*) at the edge of the West Bog, SN686634, in about 1980; this is the only record of the hybrid for the VC. After many years of looking, AOC at last found *Ulex europaeus x gallii*, confirmed by Peter Benoit, on Pendinas, Aberystwyth, SN582804, in 1997, and thereafter he and JPW found it near Nanteris, SN370570, and at Llangrannog, SN310539, in 1998. It does not seem to be as frequent though as it is in Merioneth. The second and third records of *Equisetum x dycei* have now been confirmed by ACJ. These are from Llyn Eiddwen, SN607672, where it was first noticed by ACJ and AOC in 1996 in the water at the NW end of the lake, and from Esgair Fraith leadmine where AOC found a colony 10 x 3m on mine spoil in 1996. He had misidentified this last colony as *E. palustre* in 1990, and Salter had recorded this species here before 1935; was his colony also the *E. x dycei* one, or was it the parental *E. palustre* which, like the other parent, *E. fluviatile*, is now not present at the site?

*Ranunculus tripartitus* has only once been found in the VC, by J. A. Whellan in 1941 in a small pool on the cliffs between Aber-porth and Mwnt, and repeated attempts to refind it have failed. About 2km inland from this stretch of coast near Felin-wynt MDS found a small marshy enclosure with muddy runnels and suggested that it might be a likely site for this species, and when AOC visited it in early April 1999 he found a range of plants from *R. omiophyllus* to good *R. tripartitus*, one of the intermediates having the pollen only 65% fertile. General opinion among the experts, including Nigel Holmes, RVL and Nick Stewart, is that both species and the hybrid, *R. x novae-forestae*, are present here. The hybrid is new for the VC. Further investigation is planned for 2000.

Andrew Agnew, who had published on the subject in *Watsonia* 6:377-388(1968), told AOC that *Juncus x kern-reichgeltii* (*J. conglomeratus x effusus*) was abundant around Llyn Eiddwen, SN603671, where it was much commoner than *J. conglomeratus*, and that he had also seen it around Nant-y-moch. Using Agnew's scatter diagram technique, AOC then investigated populations from

many sites in the VC and found the hybrid to be common where the two species grew together, both in the uplands and in the lowlands, as well as in some sites where *J. conglomeratus* now appeared to be absent. It is perhaps as common generally as *J. x surrejanus* (*J. acutiflorus* x *articulatus*).

A belated check for Atlas purposes on *Glyceria* x *pedicellata* showed that all the supposed specimens of it in NMW from VC 46 were *G. fluitans* (with measurements falling at the very bottom of the range of *G. fluitans* and just within the range of the hybrid, but having good pollen), and there is probably no reliable record of it. *Agrostis* hybrids are also probably very under-recorded, but SPC detected *A. x murbeckii* (*A. capillaris* x *stolonifera*) on river shingle at Llanfarian, SN589777, in 1977. The only previous record of this hybrid was by Tony Bradshaw in 1958.

#### TRICHOPOPHORUM

The paper by George Swan in *Watsonia* 22: 209-233 (1999) describing the hybrid between the two subspecies, *T. cespitosum* subsp. *cespitosum* x subsp. *germanicum*, contained the surprising information that AOC had collected the proliferous form of this hybrid in 1963, growing with *Carex dioica* in a small flush (unfortunately now destroyed by Forestry operations) near Hafod, SN769721. Swan also suggested that the *Trichophorum* on Cors Caron, which Godwin and Conway had interestingly called the equivalent of subsp. *cespitosum* in 1939, was likely to be the hybrid. On a visit to Figyn Blaen Brei in July 1999 with LG, AOC found the hybrid, confirmed by the stem anatomy and stomatal length, in flushes in blanket mire at the west side of the site, and it was subsequently found in several other upland blanket mires. In particular, he and PAS found it frequent around Grafea Elan, SN816733, and it was frequent over an equally large area of flushed blanket mire west of Trawsalit, SN759708. A visit with the Mires Research Group to Cors Fochno and Cors Caron in July 1999 gave an opportunity to collect material on these raised mires, and to prove Swan's suggestion correct. On Cors Fochno the pattern of distribution was very striking. Subsp. *germanicum* was abundant on the areas of old peat cuttings, and was dominant on the wide firebreak alongside the N edge of the raised mire, but as soon as one stepped onto the raised mire, SN635918, it changed within a few metres to the hybrid. Similarly on the dome of the biggest raised mire at Cors Caron, the West Bog, SN681637, all the *Trichophorum* was the hybrid, while on the E side of the South-east Bog, SN684618, where there are extensive peat cuttings, both the hybrid and subsp. *germanicum* were found. If subsp. *cespitosum* were to occur anywhere in VC 46, it would be in the small area of "Godwin's lagg" at the N side of the West Bog, SN685646, but a visit to it with Paul Culyer shortly afterwards showed that the few tussocks of *Trichophorum* there were all the hybrid. The hybrid was also present in the Rhos Llaur-cwrt NNR, scattered amongst abundant subsp. *germanicum* in an area of wet heath with *Empetrum*, SN410500.

#### RUBUS

DEA made further 5-day visits in each of the three years, as a result of which the number of tetrads we have recorded in together has risen to 163 (14 more have been recorded in by others, chiefly Alan Newton). Highlights included the discovery of a very rich bramble flora in Coed Newydd, SN196443, a woodland on gravels and clay near Cardigan where conifers had been felled some years ago. New for the VC there were *R. rhombifolius* and *R. mucronatoides* and several others awaiting confirmation. *R. mucronatoides* is otherwise confined to a small area in Herefs. and Rads. with an outlier in N. Lincs. There were 25 other species in this wood, making it perhaps the best bramble site in the VC. Another highlight was a day with Mike Porter in the Lampeter-Llandysul area. He showed us the type locality of *R. biloensis* by the Rugby Club in Lampeter, after which we were able to find it in six other sites in the VC, extending its range considerably, and to recognise that one of the plants we had collected in Coed Newydd was it too. A day with Richard Pryce was spent partly in Carns. in the Henllan-Llandysul area. One of the more surprising new species was *R. malvernicus*, known otherwise from a part of the West Midlands including Malvern, and from Devon; its occurrence in Allt Maestir, SN546503, probably originated as an accidental introduction with conifers into this Forestry Commission woodland. Other species new for the VC included *R. mucronatifolius*, on a bushy field margin at Penparc, SN201477, very unexpected as it is essentially a New Forest endemic, extending to West Sussex and the Mendips; *R. pericrispus* in the very rich hedges at Bryneithyn, SN579780; *R. pruinus* on the disused railway embankment of the Allt fedw Wildlife Trust reserve, SN663733; and *R. melanodermis* from rocky roadside scrub near Cenarth, SN258424.

#### NEW CAREX SITES

Several remarkable sedge-rich mire sites were found by MDS and others during the CCW Phase I and II surveys. In the Camddwr valley below Bronnant, SN634571, MDS found *Carex viridula* subsp. *brachyrrhyncha*, the first discovery of it away from the Afon Mwdan near Cardigan, in a base-rich flush in rhos, with intermediates between it and subsp. *oedocarpa* in a nearby basin mire. By the Afon Meurig above Ystrad meurig, SN729699, he found subsp. *brachyrrhyncha* in a depression in a

valley mire, again with intermediates nearby, as well as *Eriophorum latifolium*, and a large colony of *Carex limosa* in a basin mire a little downstream. On another visit with Dan Guest and AOC to this site the hybrid of subsp. *brachyrrhyncha* and *C. hostiana* was found, as well as *Dactylorhiza incarnata* subsp. *incarnata*. MDS found more intermediates in several other sites, and indeed it is sometimes impossible to distinguish the two subspecies clearly in these sites. Sue Smith and Claire Mockridge found more of the intermediates at a rhos site near Cross Inn, Nebo, SN548635, and also found there *C. dioica* and *Valeriana dioica*. The latter, though locally common in Carm., had only been reliably recorded once before in the VC, by Mrs Vaughan in 1965 in the gorge of the Nant Brianne at a site, SN790487, which is now, according to Dafydd Davies, under Llyn Brianne.

AOC and MDS found one tussock of *Carex pseudocyperus* in a small basin mire E of Heol y Bowls, SN274471, the third site in the VC and some 22km from the other nearest site to the ENE. *Carex dioica* turned up in several more sites, AOC and ADH finding it in 1997 near Pond yr Oerfa, SN727799, AOC and LG finding it in 1999 in a flush just W of Figyn Blaen Brefi, SN714549, and AOC finding it, also in 1999, in great abundance in flushes in the blanket mire W of Trawsallt, SN762708, etc., probably the best site for it in the VC. In 1997 AOC and JPW found *C. lasiocarpa* abundantly fringing much of the W side of Llyn Gwngu, SN837729, where it had surprisingly not been noticed before, as well as several colonies 1.5km ENE at the headwaters of the Nant Dderwen, SN853737. JPW also found *Galium uliginosum* in the flushes on the W side of the lake where *Carex dioica* occurs, the only site apart from the Afon Mwdan area where it is known, though it occurs in similar upland sites in Rads. (Salter recorded it from both Cors Fochno and Cors Caron, but it has not been seen there since his day).

#### NATURALISED SPECIES

Among a large number of new records perhaps the most interesting was that of *Leucothoe fontanesiana*, a low-growing evergreen ericaceous shrub rather like *Gaultheria*, quite often planted in woodland gardens but surprisingly not previously recorded as naturalised in Britain and Ireland. Two colonies of it, spreading in the Ynys-hir RSPB Reserve woods, SN682961, where it was originally planted by H. Mappin in the 1930s, have been known to Penny Condry for at least the last 40 years. One colony is now in decline, but the other we found to be flowering well and flourishing. Another unique VC 46 species is *Valeriana phu*. It was known to Salter in 1935 as "long established on a roadside bank" in the village of Mydroilyn, and was last seen there about 1958 by E. H. Chater. Asked about ten years ago by Clive Stace to see whether it was still present, AOC was unable to find it, and it was therefore omitted from his Flora. Then in May 1997 AOC saw a striking display of it in flower along about 12m of roadside hedgebank at Neuadd-lwyd, SN473595, some 4km from Mydroilyn, and a month later AOC and JPW saw a smaller colony near Dihewyd, SN491566, so it is thriving still in the VC. A conifer found regenerating effectively, apparently previously unrecorded as doing so in Britain, was *Pinus peuce* found by AOC and Penny Condry at the Ystrad Einion leadmine, SN707938, in 1999. (*P. peuce* seems to have been planted preferentially in the past around leadmine sites by the Forestry Commission).

In July 1997 AOC noticed a *Pilosella* with the capitula sometimes two to a stem, the ligules orange, the disc florets yellow, and the phyllaries with only glandular hairs, growing in several places in the chapel graveyard at Tan-y-groes, SN248493; it looked like a hybrid between *P. aurantiaca* subsp. *carpathicola* and *P. officinarum* subsp. *euronota*, which were both growing with it, and this was confirmed by Peter Sell, the particular nothosubspecies *schuriana* of *P. x stoloniflora* not having been recorded in Britain before. Among a number of distinctive taxa given in Sell & Murrell, Flora of Great Britain and Ireland, but not in Stace, is *Trisetum flavescens* subsp. *purpurascens*, described in Flora Europaea and found well established by AOC and LG on a reseeded slope by a pond near Llangoedmor, SN312454; it is a large plant, almost like *Arrhenatherum*, and seems to be becoming established in several parts of Britain. Another striking grass new for the VC was *Bromopsis inermis* subsp. *inermis*, found well-established in a nettle patch near the Visitor Centre on the Ynys-las Dunes NNR, SN609941, by SPC in 1998. He also found *Kniphofia x praecox* in scrub on the streambank by Llansanffraed church, SN512674, in 1997; *Dianthus barbatus* by a Forestry depot at Tynbedw, SN695715, in 1998; and a 1991 collection by him of one of the plants naturalised from Salter's former garden on the slope below, at Llanbadarn Fawr, SN598810, was confirmed by Wurzell & Clement as *Euphorbia oblongata*, very rarely naturalised in Britain.

Other naturalised species new for the VC recorded by AOC included *Rhus hirta*, suckering to form extensive thickets at Penrhyn-coch, SN646842, and Llanfarian, SN589776 (with SPC); *Galanthus nivalis* x *plicatus* in damp grassland at the Aberstringell Limekilns Wildlife Trust reserve, SN519684; *Allium subhirsutum* on a roadside bank at Gilfachreda, SN410588, in 1998; *Iris latifolia*, abundantly naturalised in Tregroes churchyard, SN406448, but not identified until 1999; *Tellima grandiflora*

(possible to mistake for *Tolmeia* at a distance) on a roadside bank near Dihewyd, SN591556, in 1999; *Sedum stoloniferum* on a streambank at Llwyndafydd, SN370554, in 1998; *Symphytum grandiflorum* by an old cottage site at Rhydowen, SN441457, in 1999; *Cymbalaria pallida* on old walls at Tregaron, SN679595, in 1998 and Felin-fach, SN530557, 1999; and, with JPW, *Trachystemon orientalis* in scrub on clay on the coast at New Quay, SN390595, in 1998. A repeat survey in 1998 of the "Flora of central Aberystwyth" (B. S. B. I. *Welsh Region Bulletin* 21: 2-17(1974)) turned up the fern *Cyrtomium falcatum* well established in cellar-wells in Laura Place, SN581816, and *Erigeron glaucus* on walls in Grays Inn Road, SN583815. In 1997 R. E. N. Smith refound the only extant colony of *Sambucus ebulus* in the VC, on a waste plot by Picton Terrace, New Quay, SN388600, incidentally indicating that the previously given grid reference from 1978 had put it in the wrong hectad. *Geum macrophyllum* is now known from seven sites in five hectads, and it seems strange that it has not been recorded from elsewhere in England and Wales. A curiosity was a colony of potatoes, *Solanum tuberosum*, in a sheltered gully on the sea cliffs at Mwnt, SN198521, which AOC had been keeping an eye on since 1992; they must have originated as throwouts from the arable fields above, but were still renewing themselves when last inspected in 1999.

*Fragaria moschata* had been recorded in many sites in the first half of the century, but not recently. AOC began looking for it in May 1999 and was surprised to find it well naturalised in ten sites (SPC added a further one); in several he had earlier mistaken it for *F. x ananassa*. It is probably at least as frequent now as it was in Salter's day.

### NARCISUS

Perhaps the most conspicuous plants recognised by Sell & Murrell but not by Stace are various taxa of *Narcissus*. It is often difficult or impossible to decide on the correct botanical names for some of the commonly naturalised cultivars, but it is clear that in addition to the ubiquitous *N. pseudonarcissus* subsp. *pseudonarcissus* in its various forms, and subsp. *obvallaris*, the closely related *N. nobilis* is widely naturalised, and *N. moschatus* is in at least one site. "Ice Follies", which is presumably either a cv of *N. moschatus* or some complex hybrid, is becoming widely naturalised, as are plants like "Carlton" whose identity is also uncertain. "Jack Snipe" and "Dove Wings" are among cvs of *N. x dichromus* (*N. cyclamineus* x *moschatus*), and "February Gold", "March Sunshine" and "Peeping Tom" are among cvs of *N. x monochromus* (*N. cyclamineus* x *pseudonarcissus*) that are well naturalised. "Tête-à-tête", supposed to be *N. cyclamineus* x *tazetta*, is naturalised in four sites but this hybrid is in neither Sell & Murrell nor Stace. *N. x bernardi* (*N. hispanicus* x *poeticus*) and *N. x boutigyanus* (*N. moschatus* x *poeticus*) are naturalised in several places; the giving of hybrid binomials to such hybrids depends on the rank given to the parents, but they look so distinct that it seems unfortunate not to be able to name them. *N. bicolor* is also naturalised, in a dozen sites, including extensively in woods as at Pen-y-wern, SN636765, and at Ddôl-wen, SN466610, but is not numbered in Stace. Further problems are found in *N. poeticus*. The most commonly naturalised cv in VC 46 is "Actaea", which seems to belong to *N. poeticus* subsp. *radiiflorus* in Stace's classification. Using Sell & Murrell's classification, *N. radiiflorus* subsp. *radiiflorus*, *exertus* and *poetarum* are all naturalised, as are subsp. *recurvus* and *poeticus* of their *N. poeticus*. Many recorders ignore or actively despise naturalised daffodils, but they are an increasingly extensive element of our flora and one cannot help thinking that if they were instead inconspicuous small grubby grasses or chenopods they would be much more enthusiastically recorded.

### MISCELLANEOUS

Much of the fieldwork was devoted to trying to update pre-1987 or -1970 records, and to revisiting long neglected sites. One such was the valley of the Himant, a tributary of the Afon Tywi known to Salter and now enclosed in mature Forestry plantations, visited by AOC and JPW in July 1999. The stream ravine, SN805581, 10m deep and almost inaccessible in places, still has its original canopy of oaks and contained two colonies of *Gymnocarpium dryopteris*, *Hymenophyllum wilsonii* and *Sanguisorba officinalis*, and two as yet unidentified brambles. Higher up, by the Forestry road that crosses the stream, we found *Diphysastrum alpinum*, *Lycopodium clavatum* and *Cryptogramma crispa*. After finding *Circaea alpina* in August 1997, AOC and Trevor Dines visited Pistyll y Llyn at the head of the Llyfnant, SN754943, and Trevor braved the cliffs between the two falls, finding *Geum rivale*, *Linum catharticum*, *Phegopteris connectilis* and *Potentilla erecta* subsp. *strictissima*. The next day, in torrential rain, they visited the cliffs above Llyn Llygad Rheidol on Pumlumon, SN790874, where Trevor was again able to update most of the records of the more inaccessible species.

Revisiting some of MDS's Phase I sites in the lower Teifi valley in May 1999 he and AOC found the best population of *Orobanche rapum-genistae* in the VC, probably some hundreds of plants uncountable in a 400m long strip of gorse at Tregibby Farm, SN179475, with *Erodium moschatum* and *Scleranthus annuus* nearby on rocky ground by a track. In September we visited an unimproved



slope above Llanrhystud, SN537699, unbotanised at least since Salter's time, and found *Sanguisorba minor* subsp. *minor* in only its second or third extant site in the VC, along with *Filago vulgaris*, *Linum catharticum*, *Galium verum*, etc. This made a plant found by Barbara Evans in 1995 only 3km away on a grave in Llanddeiniol churchyard, SN560721, more likely to be native than casual, as was thought at the time.

*Erodium maritimum* seems to be becoming more abundant. It has vastly increased on the S side of Foel y Mwnt, SN194520, in the last 10 years; AOC and JPW found it in several places on the slopes above the sea at Wallog, SN590853, in 1997; and Tracey Loveridge found a large population of some 250 or more plants in the yard of a chapel at Borth, SN609894, in 1999. Chris Foster Brown made the surprising find of *Spartina anglica* in the roadside ditch by the B4353 at the S end of Borth, SN608889, bringing it into a new hectad. Annette Williamson and Justin Lyons found *Rorippa islandica* by the Afon Ystwyth at Llanilar, SN618756, in 1997, the first discovery of it away from the Teifi catchment. Having got his eye in with Richard Pryce in the Cennen valley in Carmar, AOC found the third extant site for *Sibthorpia europaea*, in a steep overgrown flush on the hillside near Forest-Cerdin, SN394450, in June 1999. This was only 1.3km from a roadside spout at SN390459 where Salter knew it from 1907 to 1931, but from where it has now gone.

A belated attempt to investigate *Rumex acetosella* subspecies for the Atlas in autumn 1999 showed that while subsp. *pyrenaica* was the most widespread, subsp. *acetosella*, sometimes mixed with it, occurred in quite a few places on roadside banks, gravelly places and sand dunes.

In B. S. B. I. *Welsh Bulletin* 93: 7-14(1993) AOC stated that the latest date he had for *Avena strigosa* as a farm crop in VC 46 was 1972 at Tal-y-bont. But about 1½ acres of it is still being grown each year at Llwyn-bwch, Tyncelyn, SN638632, as it has been for the last 58 years. The owners brought seed from their previous farm at Tynreithin, Trawsgoed, in 1942 and keep the seed from year to year. *A. sterilis* subsp. *ludoviciana* has turned up as a casual in two new sites: one was a manure heap at Pen-y-cefn, SN693613, in 1998, most of the straw being used on the farm having been brought from Banbury; and the other was in a car park at Lampeter, SN574481, in 1999.

#### CHAROPHYTES

Recording of these plants has received a considerable boost in the last few years from visits by Nick Stewart, who has produced several drafts of *A Stonewort Flora of Wales* under contract from CCW. It is now clear that up until 1996 there were reliable records only for *Chara hispida*, *C. virgata*, *C. vulgaris*, *Nitella opaca* and *N. translucens*. In that year ADH found *Tolypella glomerata* in a pond that had been excavated (largely to try and exterminate *Crassula helmsii*) in the east slack in the Ynys-las Dunes NNR, SN611939. ADH and AOC kept a close eye on this pond, but when Nick Stewart waded into it in May 1998 he immediately found *Chara aspera* and *C. contraria*. Since then Andy Jones has found *Nitella gracilis* in 1998 in Llyn Gynon, SN797645, and AOC has found the monoecious *Nitella flexilis* s.s. in 1999 in a pond in the Rhos Pili-bach Wildlife Trust reserve, SN368530.

#### ACKNOWLEDGEMENTS

I am grateful to all the recorders mentioned above, in particular to Julian Woodman, Matt Sutton, Paul Smith, Clive Jerry, David Allen, Lin Gander, Alan Hale, Steve Chambers, Roy Bamford, Dafydd Davies, Penny Condry, Richard Lansdown and Tim Pankhurst for repeated help and company in the field, and to Matt Sutton, Steve Chambers, Tracey Loveridge, Annette Williamson and Justin Lyons for lists or collections of records from particular squares, and to the numerous referees and experts who have dealt with specimens. Tim Rich, George Hutchinson and Tony Tipper have provided the usual much-appreciated back-up service from NMW, and Peter Sell has provided constant stimulus from afar.

Arthur Chater, Windover, Penyrangor, Aberystwyth, Ceredigion SY23 1BJ

### **On the Pembrokeshire record for *Ajuga genevensis* L.**

Ellis (1983) lists a record for *Ajuga genevensis* L. from Pembrokeshire. The record is based on a specimen in the National Museum & Gallery of Wales (NMW) labelled '*Ajuga* cf. *genevensis*, limestone slope near the sea, Lydstep Haven, J. W. Donovan, 19 May 1960' (registration no. 60.220.1). In such a locality the species might be considered native if correct.

The specimen has been examined by myself and R. D. Randall, and although distinctly hairy has stolons and short calyx-lobes and small bracts. We consider it to be *A. reptans* L., and thus the record is rejected.

#### **Reference**

Ellis, R. G. (1983). *Flowering plants of Wales*. National Museum of Wales, Cardiff.

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### ***Galium constrictum* probably not in Pembrokeshire**

Rich & Jermy (1998) mentioned the possibility of *G. constrictum* Chaub. (*G. debile* Desv.) as occurring in Pembrokeshire. The information originated from Francis Rose who thought he had found it in the 1980s during a field visit but suggested it needed verification (pers. comm. to T. Rich, 1988).

I have now found the specimen on which the provisional determination was made in herb. F. Rose now in NMW, collected at Dowrog Common in 1984. The plants are slender and fine, but have oblanceolate leaves with subacute tips, spreading inflorescences and smooth fruits, and are *G. palustre* L. *sensu lato*. I therefore consider it unlikely that *G. constrictum* occurs in Pembrokeshire.

#### **References**

Rich, T. C. G. & Jermy, A. C. (1998). *Plant Crib 1998*. BSBI, London.

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### On the Anglesey records for *Asparagus prostratus* Dumort., Wild Asparagus

*Asparagus prostratus* Dumort. (*Asparagus officinalis* L. subsp. *prostratus* (Dumort.) Corb.), Wild Asparagus is a Red Data Book species and a Priority Biodiversity Species (UK Biodiversity Group 1998). The most northerly site recorded for this NW European endemic is in Anglesey where it has not been seen for about 100 years. Kay's (1997) excellent review of the information known about it in Britain and Ireland has prompted us to investigate the historic Anglesey records to see where it occurred in the hope that it might be refound. Some caution is required as *A. officinalis* L. s.s., Garden Asparagus has also occurred in several places in Anglesey.

The earliest Anglesey record for *A. prostratus* traced was by Edward Lhwyd in 1694 'near the pool at Llanfaelog' (letter to Richard Richardson 24 November 1696 cited by Gunther 1945; see Kay 1997). This was subsequently given in Ray (1724) as 'on the sandy banks by the sea side between Langwyfan and Llanfaelog, Mr Lhwyd', and has since been repeated by others in slightly different versions (e.g. by Turner & Dillwyn 1805).

Davies (1813) in *Welsh Botany* reported 'Common Asparagus, or Sperage; Gwllon, neu Merlys cyffredin, Llys y dyfrglwyf. On a sandy hillock below Llanfaelog.' We know this to be a first-hand account because in his manuscript copy of Samuel Brewer's diary for 1726-7 (now in the National Museum of Wales) Davies wrote 'I found the Asparagus &c. on a sandy bank near the sea A.D. 1778 27 April' and his 1760 (BM) and 1799 (NMW) specimens from Llanfaelog confirm this. W. Wilson collected it on at least four occasions from what appears to be the same site in July 1824 (BM), June 1826 (BM, CGE, K), 20 June 1827 (CGE, K - with berry-bearing female shoots) and 1830 (BM), and there are three more undated collections: 'rare', Dr Pring (DBN); 'sandy hillock on the Anglesey shore near Llyn Maelog, confined there to one spot only two yards across', herb. Parker (P); and 'near Aberffraw', Canon T. Butler (K).

It was last recorded on Anglesey by Griffith (1895) who described it as 'only in one spot on Maelog Sands, between Llyn Maelog and Trecastell, near the beach! 1889' and his specimen in NMW is labelled 'on a small sand hill nearly surrounded by the sea between Bryntirion and Trecastell, Llanfaelog, July 1889' (this Bryntirion is one of the houses on the promontory of Cerrig Defaid at c. SH/325.721).

The historical detail available is surprising, and it is not always easy to separate original detail from second hand information, or interpret exactly what was meant. The locality information is largely consistent with its occurrence on the coast or dunes of Tywyn Fferam (c. SH/32.72 - 33.71), an area which many botanists have recently searched without success (e.g. Roberts 1982, and pers. comm.) although, admittedly, finding one patch only 2 yards across is not easy. The only exception is Butler's 'near Aberffraw' (SH/35.68) which could represent a second locality further to the south, or refer imprecisely to the Tywyn Fferam site. The dunes at Aberffraw have been extensively investigated for many years and we would be surprised if *A. prostratus* could have escaped detection there. The coast to the north, however, has only just come back into public access following the closure of the MoD firing range at Ty-Croes Camp. To investigate it further we walked the coast between Aberffraw and Trecastell in June 1999. The coast is mainly low rocky cliffs with unimproved coastal heath or grassland (mostly grazed) and, whilst there is much potential rocky habitat, we were unable to find *A. prostratus*. Whether there ever was more than one site on Anglesey will probably not be resolved, but the evidence for a second site at the moment is weak.

We still believe further searches would be worthwhile. Vegetative *A. prostratus* is easily overlooked as it is prostrate and almost always grows amongst *Festuca rubra* and often with *Galium verum*, both of which it can resemble. It may be slightly more conspicuous in autumn when the deciduous 'foliage' (technically cladodes) turn a characteristic pale straw colour. For more information about other 'lost' sites for *A. prostratus* and other species sites which need refinding, please contact the BSBI Threatened Plants Database via A. Lockton at the address below.

### Acknowledgements

We would like to thank the Keepers of the herbaria for access to collections, the Bangor UCNW archivist for tracing Griffith's 'Bryntirion', and Sally and Ian Ellis for hospitality.

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- T. C. G. Rich, Department of Biodiversity and Systematic Biology, National Museum & Gallery, Cardiff CF10 3NP
- R. A. Jones, Countryside Council for Wales, Plas Gogerddan, Aberystwyth, Dyfed SY23 3EE
- A. Lockton, BSBI Threatened Plants Database, 66 North Street, Shrewsbury, Shropshire SY1 2JL

## Rigid Buckler-fern *Dryopteris submontana* rediscovered in V.c. 42 Brecon

On 7 October 1999 whilst looking for *Sorbus*, I climbed up the limestone scarp of Darren Fawr, Cwm Taf V.c. 42 Brecon opposite a track down the valley floor and found a colony of c. 30 plants of the nationally scarce Rigid Buckler-fern *Dryopteris submontana* (Fraser-Jenk. & Jermy) Fraser-Jenk. at SO/022.100 (specimen in **NMW**). The plants occurred on open scree and in crevices just above the steepest part of the rocks, and were mixed with abundant Limestone Fern *Gymnocarpium robertianum* (Hoffm.) Newman, exactly as they do on the limestone in northern England. This appears to be the rediscovery of the site found on 2 June 1976 reported at SO/025.097 which is in the 10-km square to the south (specimen in **BM**), and represents one of two current sites in Wales and the southern-most site in the British Isles.

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## Britain's Rare Flowers

Peter Marren. 1999. Poyser Natural History, London (published in association with Plantlife and English Nature). pp xv + 334. ISBN 0-85661-114-X. £24.95

One does not, proverbially, judge a book by its cover and it is probably not a good idea to rely too much upon a title either. To choose two examples (almost at random) from my shelf, "Welsh Ferns" includes lengthy sections on clubmosses, quillworts and horsetails - with short notes on British taxa not found in Wales - whilst Roger Phillips' "Mushrooms" contains hundreds of fungi without a stalk and cap. We should not really expect books about natural phenomena to fit within brief, summary descriptions.

But what of books which contain rather less than their title? "Britain's Rare Flowers", it is true, has the traditional complement of ferns, horsetails and clubmosses but fails to cover, in my view, enough of Britain. The emphasis here is really on part of the south and east - but the author does include the Channel Isles as a bonus.

Marren's chapter on "Botanical stations", for instance, selects five "localities that are unusually rich in rare flowers" but only one of these is outside England - the 'Scottish Highlands' (although this includes, apparently, Invermaver dunes and the Kyle of Tongue) - and there is nothing at all from Wales. In the historical section, George Bowles "travelled much of England ... chalking up an impressive list of new species, including ... Sea Stock (*Matthiola sinuata*) at Aberdovey", whilst the account of John Ray begins: "How wonderful it must have been to have been a naturalist in seventeenth century England", before mentioning that he botanised extensively in Wales and Scotland. And there is more.

This Britain-as-England view probably reflects English Nature's part-sponsorship of the book but Welsh and Scottish rare plants - and botanists - may be a bit neglected or misrepresented as a result. So, for instance, significant non-English rarities like *Saxifraga rosacea* ssp. *rosacea* (and the story of its enigmatic rediscovery) are left out and the best sites for some other species (eg. *Gastroidium ventricosum* and *Cirsium tuberosum*) are passed over where lesser English examples will suffice. Occasionally - as in the wry, slightly sardonic account of *Cotoneaster cambricus* "accidentally cut down by conservation workers" or plans for Welsh *Rumex rupestris* attributed to external specialists - the distance from truth is unfortunate, to say the least. When Marren writes that "funding [for the UK

Biodiversity Action Plan (UKBAP)] has matched the scale of the task" or that the Countryside Council for Wales (CCW) and Scottish Natural Heritage (SNH) "have developed comparable schemes and funding" to English Nature (EN), his views appear very partial - if not actually biased.

This last point may be a little strong but it does seem that, in general, "Britain's Rare Plants" reflects - or at least fails to criticise - the EN / Plantlife approach to plant conservation. Not that the CCW, SNH, RSPB, National Trust or Wildlife Trusts' approaches come in for any serious appraisal either but we will look in vain for an objective reconsideration here of Red List criteria or (above all) the UKBAP and 'Back from the Brink'. "Britain's Rare Plants" does not ask if the definition of 'rarity' (i.e. the UK Red List) adequately covers all taxa of conservation concern, if current UKBAP priorities are too narrowly selective (bureaucratic and ineffectual) or if charitable attempts to restore rare plant populations have been too centred on southern England . . . but an interested reader might still perhaps want to know.

Equally, a book like this might be expected to consider some aspects of rarity in general (the 'hows' and 'whys' of rare plants) but, again in general, it does not. Marren yields a few - slightly shaky - concepts like "genetic dilution" and "endemism" without really showing them to be a cause, rather than a consequence, of rarity and his description of metapopulation dynamics (in *Polygonatum verticillatum*) is quite misunderstood. The concepts of 'rarity' and 'threat' are often interchangeably employed and accounts of *Ranunculus tripartitus* hybrids and *Gentianella anglica* / *G. amarella* chromosome counts are simply wrong (although perhaps more in points of fact than underlying ideas).

This absence, in the main, of a theoretical approach to rarity could explain the rather wandering structure of the book and, perhaps, its eclectic choice of species. "What does rare mean?" (pp.4-6) gives the definition of "15 or fewer ten-kilometre squares throughout Britain" but then mentions Nationally Scarce species and, later (p.94) considers measurements of abundance. The category of common(-ish) British plants which are rare on a world scale is not discussed. In the end, Marren's choice of species seems to be a rather slimmed-down version of his criteria for Appendix 1: "nearly all the Red-listed wild flowers and ferns, plus a few other less rare ones where they took my fancy". With the exception of *Hydrilla verticillata*, rare submerged aquatics (*Alisma gramineum*, *Eriocaulon aquaticum*, *Luronium natans*, *Najas flexilis*, *N. marina*, *Potamogeton compressus*, *P. rutilus*, *P. acutifolius*, *Zostera angustifolia*, *Z. noltii* and *Z. marina* etc.) are pretty much ignored.

This book is, of course, not intended for the academic, specialist or professional botanist (the unsystematic index tells you that); it aims to popularise rare plants and bring them back into the world of ordinary people, naturalists and amateurs. And, in this respect, it succeeds admirably. If it does not really answer the 'how' and 'why' questions about rare plants it is, instead, full of information about the 'where' and 'when'. Almost every page contains vivid description of the habitats and histories of rare plants and Marren's anecdotes frequently reveal a first-hand acquaintance - and sympathy - with his subject. If the real purpose of this book is to convey the experience of field botany, an essential part should be the occasional inaccuracy and lack of abstract questions. Tim Rich's view of "Britain's Rare Flowers" in the December 1999 edition of 'British Wildlife' was that it "will do more to help plant conservation than a thousand Red Data Books" but this might be an exaggeration. I think that it will give readers many hours of pleasure and almost certainly propel several of them out of the armchair and into the field. My only wish is that he had pointed them more in our direction.

Andy Jones

## WELSH PLANT RECORDS – 1998

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 *Supplement 1* (1996), 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 Supplement 1 (1996) 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. 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 4 figure grid reference indicates a tetrad.

The Vice-county Recorders from 1/1/2000 are:

MONMOUTH, v.c. 35; Mr T.G. Evans, La Cuesta, Mounton Road, Chepstow, Monmouthshire NP6 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, Castleton 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)

- \*†32/1/occ×ori *Platanus* × *hispanica* (*P. occidentalis* × *P. orientalis*) (London Plane) (Pilcoes y Ddinas). Field / road edge, Piercefield Park, Chepstow racecourse, ST/52.94(H), T.G. Evans, 1995. Much planted in towns and large estates in the v.c. but not reported previously so, by default, this is the 1<sup>st</sup> record.
- +66/1/1. *Pyrola minor* (Common Wintergreen) (Coedwyrdd Bychan). Periphery of limestone quarry, W of Freehold Wood, Abersychan, SO/272.031(R), S. Williams, 1998. Possibly the only extant site in the W of the v.c.
- \*†74/8/1. *Tellima grandiflora* (Fringe-cups) (Clychau'r Clawdd). Track by overgrown garden, Angiddy Valley, Tintern, SO/512.004(A), B.J. Gregory, 1998. 1<sup>st</sup> record.
- +116/2/1. *Echium vulgare* (Viper's-bugloss) (Glas y Graean). E side of A4042, Malpas, ST/31.91(A), C. Titcombe, 1998.
- \*†116/4/4. *Symphytum grandiflorum* (Creeping Comfrey) (Cyfardwf Llug). By woodland stream, Whitebrook, SO/530.068(I), B.J. Gregory, 1998. 1<sup>st</sup> record.
- 131/1/4. *Sambucus ebulus* (Dwarf Elder) (Ysgawen Fair). †Field near disused railway, Sebastopol, ST/295.979(Y), A. & E. Wood, 1998. In large quantity, possibly planted originally.
- \*135/25/7. *Taraxacum degelii* (a dandelion). Waste ground, Upper Race near Pontypool, ST/27.99(U), T.G. Evans, 1998, det. A.J. Richards. 1<sup>st</sup> record, NMW.
- \*135/25/93. *Taraxacum lancidens* (a dandelion). Garden weed, Chepstow, ST/52.93(G), T.G. Evans, 1998, det. A.J. Richards. 1<sup>st</sup> record, NMW.
- \*135/25/100. *Taraxacum spiculatum* (a dandelion). Small rough field, Cock-y-north, Henllys, ST/27.93(R), T.G. Evans, 1998, det. A.J. Richards. 1<sup>st</sup> record, NMW.
- \*135/25/coa. *Taraxacum coartatum* (a dandelion). Grassy verge, Llanllowell, ST/39.98(Z), T.G. Evans, 1998, det. A.J. Richards. 1<sup>st</sup> record, NMW.
- +152/16/44. *Carex hostiana* (Tawny Sedge) (Hesgen Dywyll-felen). Damp field, Langstone, ST/378.905(Q), A. & E. Wood, 1998. A less common species than formerly due to increased farm drainage.
- +153/12x14. *Festuca rubra* × *Vulpia myuros*. By railway line, Mitchell Troy, SO/49.10(V), E. Nelmes, 1951, det. C.A. Stace. Preceeds TGE's record of 21/7/1988 as 1<sup>st</sup> record, specimen in K. C.A. Stace writes 'This .... is the earliest from any part of the world.'

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

- +4/1/4 × 5. *Equisetum* × *litorale* (*E. fluviatile* × *E. arvense*) (Shore Horsetail). Marsh NNW of Llansamlet, SS/685.983, R.D. Pryce, M. Porter & G. Hutchinson, 1997.
- +23/1/1. *Taxus baccata* (Yew) (Ywen). Bird-sown in roadside hedge S of Ynystanglws, SS/685.998, Q.O.N. Kay, 1998.
- +27/1/1. *Ceratophyllum demersum* (Rigid Hornwort) (Cyrnddail). Pond at Dunvant Brickworks, SS/596.942, R.D. Price & B. Stewart, 1997.
- +30/1/7. *Papaver argemone* (Prickly Poppy) (Pabi Gwrychog). Single plant in flower on sandy ground near track on seaward side of dune grassland, not associated with any other casuals or cornfield weeds, Blackpill, SS/626.913, Q.O.N. Kay, 1998. 1<sup>st</sup> record since 1915 in square and since 1928 in western Glamorgan.
- +30/4/1. *Glaucium flavum* (Yellow Horned-poppy) (Pabi'r Môr). Shingle ridge to N of Sker Point, SS/788.805, Q.O.N. Kay, 1996.
- +43/1/13. *Chenopodium ficifolium* (Fig-leaved Goosefoot) (Troed yr Wydd Ffigys-ddail). Several plants on disturbed ground near seafront promenade to west of mouth of River Clyne, with *C. album* and *C. polyspermum*, SS/620.908, Q.O.N. Kay, 1998



- +43/3/6. *Atriplex littoralis* (Grass-leaved Orache) (Llygwyn Arfor). Drift-line, Pennard Pill, SS/54.88, A.S. Lewis; weed of seafront flower-beds, County Hall, Swansea, SS/652.922, Q.O.N. Kay, both 1998; on shingle ridge to W. of Limpert, ST/019.663, Q.O.N. Kay, 1997.
- +46/5/4. *Stellaria neglecta* (Greater Chickweed) (Brechlys Mwyaf). Woods in Ilston Valley, SS/559.901, Q.O.N. Kay, 1998.
- +46/17/1. *Spergularia rupicola* (Rock Sea-spurrey) (Troellys y Morgreigiau). Seacliffs on Burry Holms, SS/398.926, Q.O.N. Kay, 1996.
- +†47/5/2. *Fallopia sachalinensis* (Giant Knotweed) (Clymog Sachalin). Nr Ynysmeudwy Rd, Ynysmeudwy, SN/740.059, K.L. Davies 1993, NMW.
- +†51/1/4. *Hypericum hircinum* (Stinking Tutsan) (Eurinllys Drewllyd). One plant below footpath to Pwll-du, near ruins of oysterman's cottage, SS/574.872, T. Davies & A.S. Lewis, 1994. 1<sup>st</sup> record in 10km square since 1927.
- +56/1/5. *Viola reichenbachiana* (Early Dog-violet) (Gwiolydd y Goedwig). One plant in flower in new clearing on 20 September, Park Woods, SS/529.901, R.D. Pryce, 1996.
- +62/23/5. *Cochlearia danica* (Danish Scurvygrass) (Liwyllys Denmarc). SS/99.80; 70.97; 60.00; 59.01, flowering roadside populations on M4 central reservation, all R.G. Ellis & G. Hutchinson, 1995.
- +62/28/1. *Thlaspi arvense* (Field Penny-cress) (Codywasg). Weed of arable field margin south of Kenexstone, SS/452.814, B. Pawson & Q.O.N. Kay, 1996; single plant on disturbed roadside near Pen-y-cae, SS/905.824, Q.O.N. Kay, 1998.
- +†62/38/1. *Hirschfeldia incana* (Hoary Mustard) (Cedw Penllwyd). Roadsides and waste ground in Ynystawe, SN/68.00, Q.O.N. Kay, 1995.
- +62/42/1b. *Raphanus raphanistrum* subsp. *maritimus* (Sea Radish) (Rhuddygl Glan y Môr). Seafront at Port Eynon, SS/468.852, 1996; by car-park above seawall, Cwm Col-huw, SS/957.675, 1997, both Q.O.N. Kay.
- \*66/1/1. *Pyrola minor* (Common Wintergreen) (Coedwyrdd Bychan). In *Betula/Salix* woodland, Jersey Marine, SS/714.936, C.R. Hipkin, 1998. 1<sup>st</sup> record certainly in Glamorgan; the previous record, by J. Hooker in the Pyrdin valley in the 1840s, may have been in Brecon, v.c. 42.
- +†69/4/4. *Lysimachia punctata* (Dotted Loosestrife) (Trewynen Brych). Roadside south of Pontarddulais, SN/603.828; roadside near Pen-y-cae, SS/905.824, both Q.O.N. Kay, 1998.
- +†73/1/3. *Crassula helmsii* (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Two patches, each c.0.25 m<sup>2</sup>, in newly dug reservoir-pond near golf course on Clyne Common, SS/602.902, Q.O.N. Kay, 1998.
- +†73/5/10. *Sedum rupestre* (Reflexed Stonecrop) (Llwynau'r Fagwr). Walls near Pwllfawatkin, SN/695.085, Q.O.N. Kay, 1998.
- +†73/5/14. *Sedum album* (White Stonecrop) (Gwenith y Gwylanod). Sandy ground on seafront near County Hall, Swansea, SS/649.923, Q.O.N. Kay, 1998.
- \*†73/5/cep. *Sedum cepaea* (Pink Stonecrop). Persistent garden weed, Cwm Ivy, Llanmadoc, SS/438.937, Q.O.N. Kay, 1998.
- \*†74/8/1. *Tellima grandiflora* (Fringe-cups) (Clychau'r Clawdd). Hedgebanks, Penmaen and Bishopston, SS/53.88 & 57.88, A.S. Lewis, 1998.
- \*75/6/1. *Filipendula vulgaris* (Dropwort) (Crogedyf). Limestone grassland on cliff-top at Oxwich Point, far from roads and houses and apparently native, SS/507.848, B. Pawson, 1997.
- +75/8/73. *Rubus polyoplus* (a bramble). Parc-le-Breos Woods, SS/52.89; woodland, Green Cwm, SS/53.90; both R.D. Pryce, 1996.
- +75/8/93. *Rubus cardiophyllus* (a bramble). Parc-le-Breos Woods, SS/52.89 and 53.89, R.D. Pryce, 1996.
- +75/8/209. *Rubus dentatifolius* (a bramble). Woodland, Green Cwm, SS/53.90, R.D. Pryce, 1996.
- +75/8/220. *Rubus morganwgensis* (a bramble). Parc-le-Breos Woods, SS/53.89; woodland, Green Cwm, SS/53.90; both R.D. Pryce, 1996.
- +75/8/267. *Rubus breconensis* (a bramble). Woodland, Green Cwm, SS/53.90, R.D. Pryce, 1996.
- +75/17/1. *Sanguisorba officinalis* (Great Burnet) (Llysyrllys). One plant in rough grass behind bus shelter, Port Eynon, SS/466.852, T. Davies & A.S. Lewis, 1994.

- +†75/19/15. *Alchemilla mollis* (Robust Lady's-mantle). Pathsides in Middleton, Rhosili, SS/422.878, Q.O.N. Kay; waste ground in Barland Quarry, Kittle, A.S. Lewis, both 1998.
- +†75/22/5. *Prunus domestica* (Wild Plum) (Eirinen). Hedgerow, Gwenlais-fach near Pontlliw, SN/615.019, Q.O.N. Kay, 1998.
- +†75/22/12. *Prunus serotina* (Rum Cherry) (Ceiriosen Hwyrddail). N. of Llansamlet, well established tree in ungrazed grassy field behind houses, SS/686.980, R.D. Pryce, M. Porter & G. Hutchinson, 1997.
- +†75/28/7. *Sorbus intermedia* (Swedish Whitebeam) (Cerdদিনen Dramor). Waste ground near Prince of Wales Dock, Swansea, Q.O.N. Kay, 1998.
- \*†75/31/1. *Photinia davidiana* (Stranvaesia). Parc-le-breos Woods, SS/53.89, A.S. Lewis, 1998.
- +†75/32/9. *Cotoneaster frigidus* (Tree Cotoneaster). Pwll-du, SS/58.97, A.S. Lewis, 1998.
- +†75/32/10. *Cotoneaster salicifolius* (Willow-leaved Cotoneaster). Pwll-du, SS/567.864, T. Davies & A.S. Lewis, 1994.
- +†75/32/16. *Cotoneaster integrifolius* (Small-leaved Cotoneaster) (Cotoneaster Dail Bach). Wall tops in Ilston village, SS/555.906, Q.O.N. Kay, 1998.
- +†75/32/21. *Cotoneaster horizontalis* (Wall Cotoneaster) (Cotoneaster y Mur). Limestone cliffs, Llanrhidian quarry, SS496.921, and walls, Llanmadoc, SS/43.93 and 43.94; Ynystawe, SN/683.005, all Q.O.N. Kay 1995; limestone cliffs, Mumbles Head, SS627.874, G. Hutchinson, 1993.
- +†75/32/33. *Cotoneaster simonsii* (Himalayan Cotoneaster) (Cotoneaster y Graig). Hedgerow beside A 4067, Godre'r-graig, SN/752.065, K.L. Davies, 1995, NMW.
- +†75/32/37. *Cotoneaster dielsianus* (Diels' Cotoneaster). Limestone cliffs, Mumbles Head, SS/627.874, G. Hutchinson, 1993.
- +77/18/5. *Medicago arabica* (Spotted Medick) (Maglys Amrywedd). Many plants on small recent tip in N part of Pant-y-sais Fen, SS/716.943, C.R. Hipkin, 1990.
- +77/16/3. *Ononis spinosa* (Spiny Restharrow) (Tagaradr Pigog). Locally frequent on shaly undercliff slope at Traeth Mawr to S of Whitmore Stairs, SS/900.713, Q.O.N. Kay, 1997.
- +77/19/1. *Trifolium ornithopodioides* (Bird's-foot Clover) (Corfeillionen Wen). Several plants in short turf near Broad Pool, SS/510.910, R.F. John & C.R. Hipkin, 1997.
- +77/19/22. *Trifolium scabrum* (Rough Clover) (Meillionen Ger y Môr). South-facing slope, Burry Holms, SS/399.925, Q.O.N. Kay, 1996.
- +84/1/4. *Epilobium lanceolatum* (Spear-leaved Willowherb) (Helyglys Gwayw-ddail). Pavement-edge and walls in southern Pontarddulais, SS/601.035; locally frequent on sand-dunes at Blackpill, SS/626.913, and waste ground at Prince of Wales Dock, Swansea, SS/673.929, all Q.O.N. Kay, 1998.
- \*†84/1/13. *Epilobium pedunculare* (Rockery Willowherb). Wall and stony slope by road in southern Pontarddulais, SN/601.034, Q.O.N. Kay, 1998.
- +†91/2/3. *Euphorbia corallioides* (Coral Spurge) (Fflamgoed Gwrel). Two or three plants in shady streamside verge by Barland Common, Bishopston, SS/577.899, T. Davies & A.S. Lewis, 1994.
- +†102/1/8. *Oxalis articulata* (Pink-sorrel) (Suran Ruddgoch). Caswell, SS/58.37, A.S. Lewis 1998.
- +†103/1/1×2. *Geranium × oxonianum* (*G. endressii* × *G. versicolor*) (Druce's Crane's-bill). Roadside, Penmaen, A.S. Lewis, 1998.
- +103/1/4. *Geranium rotundifolium* (Round-leaved Crane's-bill) (Pig yr Aran Cryrddail). Waste ground, Sandfields, Port Talbot, SS/755.890, C.R. & H. Hipkin, 1998.
- +103/1/14. *Geranium pyrenaicum* (Hedgerow Crane's-bill) (Pig yr Aran y Gwrych). Kittle, SS/57.89, A.S. Lewis, 1998.
- +103/1/18. *Geranium lucidum* (Shining Crane's-bill) (Pig yr Aran Disglair). Walls and pathsides in Ynystawe, SN/68.00, Q.O.N. Kay, 1995.
- +110/8/1. *Solanum nigrum* (Black Nightshade) (Codwarth Du). Disturbed ground near tip, Allt-y-graban, Pontarddulais, SN/595.017, Q.O.N. Kay, 1997.
- +118/6/5. *Galeopsis bifida* (Bifid Hemp-nettle) (Penboeth Lleiaf). Arable field margin S. of Kennexstone, SS/452.914, Q.O.N. Kay & B. Pawson, 1996.

- +120/1/5. *Callitriche obtusangula* (Blunt-fruited Water-starwort) (Briglydd Ffrwyth-aflem). Circular pond in Mill Wood, Penrice, SS/492.882, N. Stewart, 1996.
- +123/4/1. *Ligustrum vulgare* (Wild Privet) (Pryfet). Waste ground in southern Pontarddulais, SN/601.034, Q.O.N. Kay, 1998. 1<sup>st</sup> localised record in this 10km square.
- +124/16/8. *Veronica montana* (Wood Speedwell) (Rhwyddlwyn y Gwrych). Woods and hedgebanks near Pont Llechart, SN/686.045, Q.O.N. Kay, 1995.
- +125/1/1. *Lathraea squamaria* (Toothwort) (Dantillys). Green Cwm woods, SS/53.90, R.D. Pryce, 1996.
- +†129/1/9. *Campanula portenschlagiana* (Adria Bellflower) (Clychlys Adria). Naturalised on walls in Middleton, Rhosili, SS/422.878, Q.O.N. Kay, 1998.
- +†129/1/10. *Campanula poscharskyana* (Trailing Bellflower) (Clychlys Ymlusgol). Naturalised on walls in Port Eynon, SS/46.85, Q.O.N. Kay, 1998; in Page St., Swansea, SS/648.922, I.Morgan, 1995.
- +†131/5/1. *Leycesteria formosa* (Himalayan Honeysuckle) (Bachgen Llwm). Parc-le-Breos Woods, SS/53.89, R.J. Pryce, 1996; Clyne Woods, SS/613.907, Q.O.N. Kay, 1998.
- +133/1/4. *Valerianella dentata* (Narrow-fruited Cornsalad) (Gwylaeth yr Oen Deintio). Crop weed, Hunt's Farm, Pennard, SS/561.874, J. Woodman, 1997.
- +135/18/1. *Scorzonera humilis* (Viper's-grass) (Llys y Wiber). Single patch in species-rich meadow at Little Hills Farm, SS/539.928, J. Woodman, 1997. 2<sup>nd</sup> county record for this extremely rare species.
- +†135/26/3. *Crepis biennis* (Rough Hawk's-beard) (Gwalchlys Garw) N. of Llansamlet, waste ground behind houses, SS/685.980, R.D. Pryce, M. Porter & G. Hutchinson, 1997.
- +†135/27/6. *Pilosella aurantiaca* subsp. *carpathicola* (Fox-and-Cubs) (Heboglys Euraid). Pathside in Middleton village, Rhosili, SS/422.878, Q.O.N. Kay, 1998.
- +†135/40/4. *Solidago gigantea* (Early Goldenrod) (Eurwialen Gynnar). Roadside, Allt-y-graban Lane, Pontarddulais, SS/595017, Q.O.N. Kay 1997.
- +135/56/1. *Chrysanthemum segetum* (Corn Marigold) (Melyn yr Yd). Several large plants in barley crop, Keeper's Lodge Farm, Mynydd-bach-y-glo, SS/612.937, Q.O.N. Kay, 1997.
- +†135/58/lac × max. *Leucanthemum* × *superbum* (*L. lacustre* × *L. maximum*) (Shasta Daisy) (Llygad Ych Mawr). Naturalized on clifftop common at Pennard, SS/55.68, A.S. Lewis, 1998.
- +135/62/12. *Senecio erucifolius* (Hoary Ragwort) (Creulys Llwyd). One plant by footpath from Brandy Cove to Caswell Bay, SS/587.874, T. Davies & A.S. Lewis, 1994.
- +†135/62/13. *Senecio squalidus* (Oxford Ragwort) (Creulys Rhydychen). Frequent in Port Eynon and Horton, SS/46.85 and 47.85, Q.O.N. Kay, 1998. Still spreading in western Glamorgan, and not recorded in this hectad during the 1970-1990 *Flora of Glamorgan* survey.
- +†138/4/1. *Elodea canadensis* (Canadian Waterweed) (Alaw Canada). Circular pond in Mill Wood, Penrice, SS/492.882, N. Stewart, 1996.
- \*142/1/5×6. *Potamogeton* × *zizii* (*P. lucens* × *P. gramineus*) (Long-leaved Pondweed). SW part of Kenfig Pool, SS/796.812, N. Stewart, 1996.
- \*142/1/6×9. *Potamogeton* × *nitens* (*P. gramineus* × *P. perfoliatus*) (Bright-leaved Pondweed). Pool on Margam Dunes, SS/782.838, N. Stewart, 1996.
- +142/1/15. *Potamogeton berchtoldii* (Small Pondweed) (Dyfrillys Eiddil). Circular pond in Mill Wood, Penrice, SS/492.882, N. Stewart, 1996.
- +142/1/9. *Potamogeton perfoliatus* (Perfoliate Pondweed) (Dyfrillys Trydwl). W side of New Pond, Margam Park, SS/807.860, G. Hutchinson, 1997.
- \*†147/5/2b. *Arum italicum* subsp. *italicum* (Italian Lords-and-Ladies) (Pidyn y Gog Eidalaid). Caswell, SS/58.97, A.S. Lewis 1997.
- +152/8/2. *Isolepis cernua* (Slender Club-rush) (Clwbfrwynen Eiddil). Banks of drainage ditch in S part of Clyne Common, SS/602898, Q.O.N. Kay, 1996.
- +152/16/29. *Carex vesicaria* (Bladder-sedge) (Hesgen Chwysigenaid). Meadow near Swansea Canal, Ynysmeudwy, SN/739.056, C.R. Hipkin, 1997.
- +152/16/47. *Carex pallescens* (Pale Sedge) (Hesgen Welwlas). Damp meadow, Green Cwm, SS/531.909, R.D. Pryce, 1996.

- +152/16/54. *Carex montana* (Soft-leaved Sedge) (Hesgen Feddal). Meadow, Little Hills Farm, SS/542.928, J. Woodman, 1997.
- +152/16/55. *Carex pilulifera* (Pill Sedge) (Hesgen Bengron). Peaty moorland, Rhosili Down, SS/424.905, Q.O.N. Kay, 1994.
- +153/11/1. *Milium effusum* (Wood Millet) (Miledwellt). Locally frequent in Clyne Woods, Mayals, SS/612.907, Q.O.N. Kay, 1998.
- +153/14/1. *Vulpia fasciculata* (Dune Fescue) (Peisgwellt Uncib). Blackpill dunes, SS/626.913, Q.O.N. Kay, 1998.
- +153/18/12. *Poa nemoralis* (Wood Meadow-grass) (Gweunwellt y Coed). Pathside near Higher Lane, Mumbles, SS/614.878, Q.O.N. Kay, 1996.
- +153/25/2. *Melica uniflora* (Wood Melick) (Meligwellt). At edge of wood SE of Pontarddulais, SN/603.928, Q.O.N. Kay, 1998.
- +†153/28/3. *Avena fatua* (Wild-oat) (Ceirchwellt Gwllt y Gwanwyn). Abundant in linseed crop to S of Kennexstone, SS/451.914, B. Pawson & Q.O.N. Kay; weed of barley field, Thistleboon, SS/617.871, Q.O.N. Kay, both 1996.
- +153/31/2. *Koeleria macrantha* (Crested Hair-grass) (Cribwellt). Maritime grassland in W part of Burry Holms, SS/399.926, Q.O.N. Kay, 1996.
- +153/47/6. *Alopecurus myosuroides* (Black-grass) (Cynffonwellt Du). Roadside verge, Singleton, Swansea, SS/628.916, C.R. Hipkin & R.F. John, 1998; roadside near Resolven, SN/826.030, C.R. Hipkin, 1997; wheat stubble, Rosedew Farm, Llantwit Major, SS/966.676, Q.O.N. Kay, 1997.
- +153/50/2. *Bromus commutatus* (Meadow Brome) (Pawrwellt Mwyaf y Maes). Roadside verge, Singleton, Swansea, SS/630.916, C.R. Hipkin & R.F. John, 1998.
- +†153/52/5. *Anisantha madritensis* (Compact Brome) (Pawrwellt Dwysedig). Roadside, Sandfields, Baglan, SS/745.923, C.R. Hipkin, 1997.
- +153/57/1. *Leymus arenarius* (Lyme-grass) (Amdowellt). Relict sand-dunes and sandy ground on seafront to W of County Hall, Swansea, possibly introduced but apparently spreading, SS/649.928, Q.O.N. Kay, 1998.
- +155/1/2. *Typha angustifolia* (Lesser Bulrush) (Cynffon y Gath Gulddail). River Afan near Afan Argoed, SS/836.958, C.R. Hipkin, 1998.
- +†158/20/3. *Hyacinthoides hispanica* (Spanish Bluebell) (Clychau Cog Sbaen). Roadsides, and woodland near R. Tawe, Ynystawe, SN/68.00, Q.O.N. Kay, 1995.
- \*†158/36/1. *Alstroemeria aurea* (Peruvian Lily). Eastcliff, Pennard, SS/55.67, A.S. Lewis, 1997.
- +162/14/1. *Anacamptis pyramidalis* (Pyramidal Orchid) (Tegeirian Bera). Single plant on lanebank near chapel above Crofty, SS/533.953, Q.O.N. Kay, 1998.
- +162/20/3. *Orchis morio* (Green-winged Orchid) (Tegeirian y Waun). Several plants in limestone grassland on unploughed slope at edge of pasture, Cwm Ivy, SS/43.93, N. Benson, 1993.

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

- +69/6/3. *Anagallis minima* (Chaffweed) (Corfrilys). Flush near stream on Llangoed Common, 2.5km N of Llandefalle, SO/087.385, M. & C. Porter, 1998. 2<sup>nd</sup> record.
- \*84/1/6×8. *Epilobium obscurum* × *E. ciliatum* (a hybrid willowherb). +Ditches in forestry plantation nr Dol-y-gaer Reservoir, SO/050.151; +flush alongside ride in plantation, Hay Forest, Felindre, SO/189.361; both M. Porter, 1998. 1<sup>st</sup> and 2<sup>nd</sup> records.
- †+107/40/1. *Pastinaca sativa* (Wild Parsnip) (Panasen Wyllt). Edge of railway track, Garth Station, SN/953.494, L.J. Smith, 1996; +Many plants along road verge NE of Brynmawr, SO/194.127. M. & C. Porter, 1997; +1 plant on road verge nr Llwyn-onn Reservoir, SO/009.122. M. & C. Porter, 1998. 2<sup>nd</sup> and subsequent records and 1<sup>st</sup> for 50 years.
- \*†124/16/18. *Veronica peregrina* (American Speedwell) (Rhwyddlwyn Tramor). Imported in soil of potted plants, now well established in garden, between Llanafan-fawr and Newbridge-on-Wye, SN/992.570, R.G. Woods, 1998. 1<sup>st</sup> record.

- \*124/20/7×18. *Euphrasia nemorosa* × *E. micrantha* (a hybrid eyebright). In damp heathy field, between Coelbren and Pont-nedd-fechan, SN/963.106, M. Porter, 1998, det. A.J. Silverside. 1<sup>st</sup> confirmed record.
- +135/31/1. *Antennaria dioica* (Mountain Everlasting) (Edafeddog y Mynydd). Growing with *Cirsium acaule* in limestone grassland, 1km N of Trefil, SO/105.153, M. & C. Porter, 1998. An extension of local range.
- +152/16/44×46a. *Carex* × *fulva* (*C. hostiana* × *C. viridula* subsp. *brachyrrhyncha*) (a hybrid sedge). Mire at head of Cilieni, Mynydd Epynt, SN/889.385, BSBI Meeting, M. Porter *et al.*, 1998. 2<sup>nd</sup> record.

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

- 7/3/1. *Adiantum capillus-veneris* (Maidenhair Fern) (Briger Gwener). c.60 plants on W side of dripping tufa cliff, Craig-ddu, SN/325.100, I.K. Morgan, A.O. Chater, G. Hutchinson & R.D. Pryce, 1998. Substantial increase in size of population since its discovery in 1989. Since monitored by IKM.
- 4/1/3. *Equisetum variegatum* (Variegated Horsetail) (Marchrawn Amrywiol). 2 populations in flushes above filter beds on right bank of Afon Sawdde, SN/80.23, G.S. Motley, 1998.
- +28/13/4. *Ranunculus sardous* (Hairy Buttercup) (Crafanc y Frân Blewog). Several plants in waterlogged ground at edge of Afon Llwhchr, Hendy, SN/585.033, I.K. Morgan, 1998. 6<sup>th</sup> v.c. record.
- +47/4/2a. *Polygonum oxyspermum* subsp. *raii* (Ray's Knotgrass) (Canclwm Ray). Driftline of sandy beach, Machynys, Llanelli, SS/506.97, I.K. Morgan, 1998, NMW. 2<sup>nd</sup> v.c. record since 1930.
- †53/1/8. *Malva sylvestris* var. *mauritanica* (Common Mallow) (Hocysen Gyffredin). Mound of dumped rubble and soil, SE corner of Morfa Industrial Estate, Llanelli, SS/522.991, G. Hutchinson & R.D. Pryce, 1998, NMW.
- 62/12/3. *Rorippa islandica* (Northern Yellow-cress) (Berwr Melyn y Gogledd). c.100 plants on soil storage dump by Afon Towy, Bypass construction site, Tanerdy, Carmarthen, SN/424.209, T. Hallett, 1998, NMW, conf. A.O. Chater, with *R. palustris* in quantity.
- +62/23/3. *Cochlearia officinalis* (Common Scurvygrass) (Llwylys Cyffredin). Roadside verge, c.400m on Lampeter side of Tafarn Jem on E side of main road, SN/610.438, D. Davies, NMW. 1<sup>st</sup> inland record. Subsequently seen by A.O. Chater.
- +64/13/4. *Vaccinium vitis-idaea* (Cowberry) (Llus Coch). In block scree on W side of river, Valley of Afon Twrch, SN/77.15, I.K. Morgan & G.S. Motley, 1998. 3<sup>rd</sup> v.c. record.
- +†77/15/12. *Lathyrus nissolia* (Grass Vetchling) (Ytbysen Goch). Restored mine spoil tip, S of Penybanc, Ammanford, SN/613.113, I.K. Morgan, 1998. 3<sup>rd</sup> v.c. record. Probably ex seed mixture.
- †116/1/3. *Lithospermum arvense* (Field Gromwell) (Maenhad yr Âr) 2 plants at edge of track on disturbed coastal dunes, Laugharne Burrows, SN/324.078, I.K. Morgan, R.N. Stringer & J.M.S. Bevan, 1998, NMW. 3<sup>rd</sup> v.c. record.
- +124/16/11. *Veronica anagallis-aquatica* (Blue Water-speedwell) (Graeanllys y Dwr). c.4 plants in partially flooded, abandoned, 'fly-ash' lagoon, W Pwll, SN/472.009, R.D. Pryce, 1998, NMW, conf. G. Hutchinson.
- +133/1/2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). 1 large plant in flowerbed by station building on S side of railway line, Llwyfan Cerrig Station, Gwili Railway, SN/407.258, R.D. Pryce & K.A. Cottingham, 1998, NMW, conf. G. Hutchinson.
- †153/68/1. *Echinochloa crus-galli* (Cockspur) (Cibogwellt Rhydd). Ornamental raised flower bed, Stepney St., Llanelli, SN/506.003, I.K. Morgan, 1998, NMW, det. T.B. Ryves.
- 162/10/1. *Hammarbya paludosa* (Bog Orchid) (Gefell-lys y Gors). Over 25 plants in relatively bare ground in slightly base-enriched flush, Derllwyn Isaf, Cwm Twrch, SN/767.147, I.K. Morgan & G.S. Motley, 1998, NMW. The only extant site, last seen in 1980.

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

- \*47/8/13×14. *Rumex* × *schulzei* (*R. crispus* × *R. conglomeratus*). 1 plant on grassy roadside by marsh, Trefeiddan Moor, St David's, SM/730.253, G. Kitchener, 1998. 1<sup>st</sup> v.c. record.
- +47/8/13×19. *Rumex* × *pratensis* (*R. crispus* × *R. obtusifolius*) (Meadow Dock) (Tafol y Maes). 1 plant in grassy field, Solva, SM/798.242, and 1 plant in grassy field by coast, Whitesands Bay, St David's, SM/734.271, both G. Kitchener, 1998. 1<sup>st</sup> & 2<sup>nd</sup> v.c. records.
- \*47/8/14×19. *Rumex* × *abortivus* (*R. conglomeratus* × *R. obtusifolius*). 1 plant in rough vegetation near pond, Tre-henlliw, St David's, SM/757.266, G. Kitchener, 1998. 1<sup>st</sup> v.c. record.
- +47/8/15×19. *Rumex* × *dufftii* (*R. sanguineus* × *R. obtusifolius*). 1 plant in rough field corner, near Lower Moor, St David's, SM/746.251, G. Kitchener, 1998. 2<sup>nd</sup> v.c. record and first since 1930.
- \*+61/2/9×11. *Salix* × *smithiana* (*S. viminalis* × *S. cinerea*) (Silky-leaved Osier) (Helygen Sidanddail). Stream valley, Merry Vale, St David's, SM/744.250 & SM/752.258. G. Kitchener, 1998. 1<sup>st</sup> confirmed record.
- \*84/1/1×2. *Epilobium* × *subhirsutum* (*E. hirsutum* × *E. parviflorum*) (a hybrid willowherb). 1 plant on steep bank to car park, Broad Haven, SM/861.135. G. Kitchener, 1998. 1<sup>st</sup> v.c. record.
- \*84/1/2×8. *Epilobium parviflorum* × *E. ciliatum* (a hybrid willowherb). 1 plant by garden wall on clifftop roadside, Penyraber, Solva, SM/802.241, G. Kitchener, 1998. 1<sup>st</sup> v.c. record.
- +84/1/2×9. *Epilobium* × *rivulare* (*E. parviflorum* × *E. palustre*) (a hybrid willowherb). 2 plants with both parents in wet, semi-open break in generally thickly vegetated marsh, Trefeiddan Moor, St David's, SM/730.253. G. Kitchener, 1998. 1<sup>st</sup> v.c. record.
- 84/1/3×8. *Epilobium montanum* × *E. ciliatum* (a hybrid willowherb). +1 plant at edge of car park, Haverfordwest, SM/954.159; +1 plant on disturbed ground, Begelly, SN/118.075; 2 plants in wooded part of Colby Gardens, SN/156.080; At least 9 plants but probably many more in a mixed population of both parents in woodland at edge of Colby Gardens car park, SN/157.081; all G. Kitchener, 1998. 2<sup>nd</sup> and subsequent v.c. records.
- \*84/1/6×8. *Epilobium obscurum* × *E. ciliatum* (a hybrid willowherb). +4 plants in Middle Mill Quarry, Solva, SM/804.269; +1 plant on bank of car park, Broad Haven, SM/861.135; +2 plants in landscaped beds, Bus interchange, Haverfordwest, SM/955.159; 1 plant on road bank, Freemans Way, Haverfordwest, SM/957.154; all G. Kitchener, 1998. 1<sup>st</sup> & subsequent v.c. records.
- \*†89/1/1×per. *Ilex* × *altaclerensis* (*I. aquifolium* × *I. perado*) (Highclere Holly). Woodland edge, NW Park House, Stackpole, SR/979.962, J. Webber & H. Garlick, 1998. 1<sup>st</sup> v.c. record.
- \*†115/1/. *Phacelia tanacetifolia* (Phacelia). At edge of cornfield, Little Castle Head, Sandy Haven, SM/854.065, R. Stearn, 1998. 1<sup>st</sup> v.c. record.
- \*135/62/10×11. *Senecio* × *ostenfeldii* (*S. jacobaea* × *S. aquaticus*) (a hybrid ragwort). A range of intermediates present on damp, cattle-trampled, pasture, E of Clegyr-boia, St David's, SM/742.251, G. Kitchener, 1998. 1<sup>st</sup> v.c. record.
- 142/1/1×6. *Potamogeton* × *sparganifolius* (*P. natans* × *P. gramineus*) (Ribbon-leaved Pondweed). Shallow pool dominated by *Menyanthes* swamp, Trefeiddan Pool, St Davids, SM/73.25, N. Stewart, 1998. Rediscovery of 1964 record at the only known site in v.c.
- +148/2/3. *Lemna trisulca* (Ivy-leaved Duckweed) (Llinad Eiddew). A 3 m<sup>2</sup> patch with other *Lemna* spp. and algae at the margins of the eastern end of Frainslake Pool, SW Castlemartin, SR/898.976, R.J. Haycock, 1998. Also some scattered small populations in the swamp vegetation on the S side of the main pool. 2<sup>nd</sup> records.
- \*†148/2/4. *Lemna minuta* (Least Duckweed) (Corlinad). In ditch, Ramsey Island, SM/705.237, G. Kitchener, 1998. 1<sup>st</sup> v.c. record.

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

- +3/1/1. *Isoetes lacustris* (Quillwort) (Gwair Merllyn). All around Llyn Gynon, SN/802.645, A.O. Chater & J.P. Woodman, 1998, **BM**. Also here in SN/7.6. *I. echinospora* (Spring Quillwort) was the only species seen in this lake in 1964, 1984 and 1989; it now seems to have disappeared and been replaced by *I. lacustris*.
- \*3/1/1×2. *Isoetes* × *hickeyi* (*I. echinospora* × *E. lacustris*). NE corner of Llyn Pendam, SN/709.839, A.O. Chater & A.C. Jermy, 1997, **BM**. +E side of Llyn Fanod, SN/604.643, A.C. Jermy & A.O. Chater, 1998, **BM**. +NE corner of Llyn Nant-y-cagl, SN/730.904, A.C. Jermy & A.O. Chater, 1998, **BM**. All conf. D. Britton, 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> confirmed British records.
- +17/1/1×2. *Polystichum* × *bicknellii* (*P. setiferum* × *P. aculeatum*) (a hybrid shield-fern). By path to ford, S side of Afon Aeron, Llanerchearon, SN/479.603, S.P. Chambers, 1998, conf. A.M. Paul. 2<sup>nd</sup> record. Also nearby in wood N of river.
- \*†17/2/1. *Cyrtomium falcatum* (House Holly-fern). Cellular wells, Laura Place, Aberystwyth, SN/581.816, A.O. Chater, 1998.
- 17/3/5. *Dryopteris aemula* (Hay-scented Buckler-fern) (Marchredynen Arogllus). Steep wooded slope S of river, Derwen, Coed Rheidol NNR, SN/735.773, B. Averis, 1998. Steep rocky slope above railway, Allt Ddu, Coed Rheidol NNR, SN/719.778, B. Averis, 1998.
- 29/1/1. *Berberis vulgaris* (Barberry) (Eurdrain). +Along 5m of roadside hedge, Lluest-fach, Ffair-rhos, 22/748.677, A.O. Chater, 1998. +Along 30m of roadside hedge 400m S of Llanfechan, Alltlyblacca, SN/519.452, M. Porter & A.O. Chater, 1998.
- +46/20/4×5. *Silene uniflora* × *S. vulgaris* (a hybrid campion). Leadmine spoil, just N of stream, Esgair-fraith, SN/739.911, S.P. Chambers & BSBI Field Meeting, 1998.
- +50/1/1. *Elatine hexandra* (Six-stamened Waterwort) (Gwybybyr Chwe Brigerog). Abundant in one of 4 ponds on Aberystwyth golf course, SN/593.828, A.O. Chater, 1998, **NMW**.
- \*†62/2/1. *Descurainia sophia* (Flixweed) (Berwr y Fam). Weed in garden of Tawelfan, Penrhyn-coch, SN/641.840, A.G. Bates, 1983, det. A.O. Chater, **NMW**.
- +62/21/4. *Draba muralis* (Wall Whitlowgrass) (Bystwn y Fagwyr). †Roadside slope between Pont Llolwyn and Figure Four crossroads, SN/590.774, S.P. Chambers, 1998.
- \*†65/8/2. *Gaultheria procumbens* (Checkerberry). Under oaks in estate grounds S of Trawsgoed mansion, SN/671.730, A.O. Chater & R.G. Woods, 1989.
- \*†65/Leu fon. *Leucothoe fontanesiana* (Steud.) Sleumer (an ericaceous shrub). Mixed estate woodland 200m N of Ynyshir Hall, Eglwys-fach, SN/682.961, P. Condry & A.O. Chater, 1998, **NMW**. Naturalised here for over 40 years; first British record.
- 53/1/7. *Malva neglecta* (Dwarf Mallow) (Hocys Bychan). Waste shingle behind beach, just S of footbridge, Clarach, SN/587.839, S.P. Chambers, 1998. Collected here by P. Challinor in 1934, **NMW**.
- \*†73/5/8. *Sedum stoloniferum* (Lesser Caucasian-stonecrop). Shaded streambank, Llwyndafydd, SN/370.554, A.O. Chater, 1998, **NMW**.
- †73/5/13. *Sedum sexangulare* (Tasteless Stonecrop) (Briweg Diflas). Capel Dewi churchyard, SN/452.425, A.O. Chater, 1998. 2<sup>nd</sup> record.
- +75/8/92. *Rubus boudiccaae* (a bramble). Roadside hedgebank by secondary woodland, 1km NE of Oakford, SN/459.586, D.E. Allen & A.O. Chater, 1998, **BM**.
- \*75/8/171. *Rubus mucronatifolius* (a bramble). Roadside hedgebank and field margin, Warren Farm, Penparc, SN/201.477, D.E. Allen & A.O. Chater, 1997, **BM**, conf. A. Newton.
- +75/8/207. *Rubus biloensis* (a bramble). Felled conifer plantation, Coed Newydd, Coedmor, SN/196.443, D.E. Allen & A.O. Chater, 1998, **BM**.
- 75/8/209. *Rubus dentatifolius* (a bramble). Laneside in wood, Rhosgellan-fawr, Wallog, SN/596.855, D.E. Allen & A.O. Chater, 1997, **BM**. Hedgebank 1.8km N of Llangeitho, SN/619.617, D.E. Allen & A.O. Chater, 1997, **BM**.
- \*75/8/243. *Rubus malvernicus* (a bramble). Replanted conifer plantation, Allt Maestir, 3.5km NW of Lampeter, SN/546.503, D.E. Allen & A.O. Chater, 1997, **BM**, conf. A. Newton.

- 75/8/270. *Rubus hylocharis* (a bramble). Felled conifer wood, Coed Newydd, Coedmor, SN/196.443, D.E. Allen & A.O. Chater, 1998, **BM**.
- †75/13/3. *Geum macrophyllum* (Large-leaved Avens). +Roadside runnel and hedgebank, 2km SE of Tregaron, SN/694.582, A.O. Chater, 1998, **NMW**. Roadside verge by Camddwr stream 400m E of Lluest-fach, Bronnant, SN/650.668, A.O. Chater, 1998. 2<sup>nd</sup> & 3<sup>rd</sup> records.
- \*†75/21/10. *Rosa gallica* (Red Rose (of Lancaster)). +Hedgebank of lane 100m S of Fronbadarn, Llanbadarn Odwyn, SN/633.603, A.O. Chater, 1998, **NMW**. +Hedge by road 1km E of Tregaron, SN/688.593, A.O. Chater, 1998. 1<sup>st</sup> and 2<sup>nd</sup> records.
- +†75/22/12. *Prunus serotina* (Rum Cherry) (Ceiriosen Hwyrddail). Estate woodland, Trecwn, 3km S of Blaen-porth, SN/258.458, A.O. Chater, 1998. 2<sup>nd</sup> record.
- \*77/26/1×2. *Ulex europaeus* × *U. gallii* (a hybrid gorse). Gorsey slope, W side of Pendinas, Aberystwyth, SN/582.804, A.O. Chater, 1997, **NMW**, conf. P.M. Benoit. Bracken slope 400m WNW of Pont Nanterins, Cwm Soden, A.O. Chater & J.P. Woodman, 1998. 1<sup>st</sup> & 2<sup>nd</sup> records.
- \*†91/2/obl. *Euphorbia oblongata* (Balkan Spurge). Scrub slope above church hall, Llanbadarn Fawr, SN/598.810, S.P. Chambers, 1991, conf. B. Wurzell & E.J. Clement.
- +†100/1/1. *Rhus typhina* (Stag's-horn Sumach). Riverbank, Llanfarian, SN/589.776, A.O. Chater & S.P. Chambers, 1998. 2<sup>nd</sup> record.
- +†103/1/2. *Geranium versicolor* (Pencilled Crane's-bill) (Pig yr Aran Llinellgoch). Laneside verge, Bryn-y-mor, Aberystwyth, SN/589.825, A.O. Chater, 1998, **NMW**. 1<sup>st</sup> record since 1929.
- +103/2/2. *Erodium moschatum* (Musk Stork's-bill) (Pig y Crêyr Mwsgaidd). Abundant on footpath, verges and mown lawn, Aber-dare, 2km W of Cardigan, SN/170.483, A.O. Chater, 1998.
- +†116/4/1. *Symphytum officinale* (Common Comfrey) (Llysiau'r Cwlwm). Roadside W of Gartheli House, Gartheli, SN/587.564, A.O. Chater, 1998. 2<sup>nd</sup> record.
- 118/5/1. *Lamium album* (White Dead-nettle) (Marddanhadlen Wen). Roadside verge 50m N of T junction, Rhydalen Dairy, Cross Inn, New Quay, SN/393.575, A.O. Chater, 1998.
- +118/8/1. *Melittis melissophyllum* (Bastard Balm) (Gwenynog). Wood on N side of Aeron valley one mile from Aberaeron, SN/4.6, D. Williams, 1904, in J.H. Salter, ms. Natural History Diaries, 25.6.1904, Nat. Lib. Wales.
- \*†124/11/2. *Cymbalaria pallida* (Italian Toadflax) (Llin y Fagwyr Mwyaf). Wall and alleyway, Pendre, Tregaron, SN/679.595, A.O. Chater, 1998, **NMW**.
- +124/20/8. *Euphrasia pseudokernerii* (an eyebright). Verge of Forestry road at Mynach Vale disused lead mine, 3km E of Devil's Bridge, SN/772.775, A.O. Chater & P.A. Smith, 1996, **NMW**, conf. A. J. Silverside, 1998.
- +†129/1/4. *Campanula persicifolia* (Peach-leaved Bellflower) (Clychlys Peatws-ddail). Hedgebank in cemetery just N of Tal-y-bont, SN/654.900, A.O. Chater, 1998, **NMW**. 2<sup>nd</sup> record.
- +130/6/6. *Galium verum* (Lady's Bedstraw) (Briwydden Felen). Flushed pasture, with *Alchemilla filicaulis* subsp. *vestita*, 700m WNW of Diffwys, Cwm Berwyn, SN/726.580, J.P. Woodman & A.O. Chater, 1998.
- \*†131/6/8. *Lonicera caprifolium* (Perfoliate Honeysuckle) (Gwyddfid Trydwl). Scrub on sea cliffs NW of pier, New Quay, SN/388.601, A.O. Chater, 1998.
- 133/1/2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). Bank by yard, Pantolwen Mills, Llandysul, SN/416.419, A.O. Chater, 1998. Apparently as common as *V. locusta* in Cards, but certainly overlooked in past.
- +†135/19/2. *Tragopogon porrifolius* (Salsify) (Barf yr Afr Gochlas). 19 plants on recently reconstructed roadside verge just SW of Llwynycelyn, SN/439.595, A.O. Chater, 1998, **NMW**.
- +135/26/3. *Crepis biennis* (Rough Hawk's-beard) (Gwalchlys Garw). Disused railway embankment, Teifi Marshes Reserve, Cardigan, SN/186.454, A.O. Chater, 1998. 2<sup>nd</sup> record.
- \*†135/43/1. *Erigeron glaucus* (Seaside Daisy). Retaining walls, Grays Inn Road, Aberystwyth, SN/583.815, A.O. Chater, 1998.
- +†138/6/1. *Lagarosiphon major* (Curly Waterweed) (Pib-flodyn Crych). Upland ponds 2km NNE of Ffair-rhos, SN/750.697, M.D. Sutton, 1997. 2<sup>nd</sup> record.
- +†148/2/4. *Lemna minuta* (Least Duckweed) (Corlinad). Covering small, shaded pond by lane 400m N of Ynys-hir Hall hotel, Eglwys-fach, SN/682.963, A.O. Chater, 1998, **NMW**, det. E. Landolt.



- \*151/1/26×27. *Juncus* × *kern-reichgeltii* (*J. effusus* × *J. conglomeratus*) (a hybrid rush). Blanket mire NW of Llyn Eiddwen, SN/603.671, A.D.Q. Agnew, 1997. Recorded in 6 more sites in Cards. by A.O. Chater, 1998.
- +152/16/25. *Carex acutiformis* (Lesser Pond-sedge) (Hesgen Ganolig-dywysennog). Small pond behind roadside hedge 380m S of Blaencelyn church, SN/356.542, A.O. Chater, 1998.
- 152/16/18. *Carex dioica* (Dioecious Sedge) (Hesgen Ysgar). Flush W of N arm of Pond yr Oerfa, SN/727.799, A.O. Chater & A.D. Hale, 1998.
- 152/16/57. *Carex limosa* (Bog-sedge) (Hesgen Eurwerdd). Watershed mire 800m W of N end of Llyn Gynon, SN/790.650, A.O. Chater & J.P. Woodman, 1998.
- 153/12/4. *Festuca altissima* (Wood Fescue) (Peisgwellt y Gwigoedd). Abundant in gorge of Afon Tuen 100m above waterfalls, Ystumtuen, SN/740.776, A.O. Chater & J.P. Woodman, 1998.
- +153/21/1. *Catapodium rigidum* (Fern-grass) (Gwenithwellt Caled). Abundant on graves, Llwyndafydd chapel graveyard, SN/370.555, A.O. Chater, 1998, NMW.
- \*†153/28/4a. *Avena sterilis* subsp. *ludoviciana* (Winter Wild-oat) (Ceirchwellt Gwyllt yr Hydref). Manure heap among pastures 400m N of Pen-y-cefn, 2km NNE of Tregaron, SN/693.613, A.O. Chater, 1998, NMW. 2<sup>nd</sup> record; straw in manure came from Banbury in 1997.
- \*153/32/1b. *Deschampsia cespitosa* subsp. *parviflora* (Tufted Hair-grass) (Brigwellt Cudynnog). Occasionally flooded ancient woodland, Teifi gorge 1km. SW of Llechryd Bridge, SN/209.430, A.O. Chater, 1998, NMW. Searched for in numerous ancient woodlands and apparently very rare in Cards.
- \*†153/50/5. *Bromus lepidus* (Slender Soft-brome) (Pawrwellt Gweirglodd). Waste ground by bridge over Afon Stewi, Penrhyn-coch, SN/644.843, A.O. Chater, 1956, NMW, conf. AOC. 1998. 1<sup>st</sup> confirmed record.
- \*†153/51/4a. *Bromopsis inermis* subsp. *inermis* (Hungarian Brome) (Pawrwellt Hwngari). Nettle patch E of Visitor Centre, Ynys-las Dunes NNR, SN/609.941, S.P. Chambers, 1998, NMW.
- +153/67/2. *Spartina anglica* (Common Cord-grass) (Cordwellt). W end of brackish ditch on N side of B4353 at S end of Borth, SN/608.889, C. Foster Brown, 1998.
- \*†158/24/5. *Allium subhirsutum* (Hairy Garlic). Roadside hedgebank, Pont Gilfachreda, 2km NW of Llanarth, SN/410.588, A.O. Chater, 1998, NMW.
- \*†158/24/7. *Allium triquetrum* (Three-cornered Garlic) (Cenhinen Drihornel). Wooded dingle SW of school, New Quay, SN/387.594. A.O. Chater, 1998, NMW. 2<sup>nd</sup> record.
- 162/20/3. *Orchis morio* (Green-winged Orchid) (Tegeirian y Waun). Unimproved coastal pasture 500m N of Morfa-bychan, SN/569.778, S.P. Chambers, 1998.

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

- +15/2/6. *Asplenium viride* (Green Spleenwort) (Duegredynen Werdd). Locally abundant on walls of old mine buildings, Upper Afon Hore, Llangurig (Haflen Forest), SN/827.873, A.J. Morton, 1998. 2<sup>nd</sup> record.
- +61/2/9×11. *Salix* × *smithiana* (*S. viminalis* × *S. cinerea*) (Silky-leaved Osier) (Helygen Sidanddail). Field hedge below Montgomery Canal, Williams Bridge, Carreghofa, SJ/253.198, I.C. Trueman, 1998.
- \*†62/7/dec×per. *Erysimum* × *marshallii* (*E. decumbens* × *E. perofskianum*) (Siberian Wallflower). Old spoil-heap, Pwll Penarth Nature Reserve, nr Newtown, SO/13.92, C.A. Small, 1998. 1<sup>st</sup> record.
- +†62/20/1. *Lobularia maritima* (Sweet Alison) (Cuddlin). Grit from R. Severn, Pwll Penarth Nature Reserve, nr Newtown, SO/13.92, M. Wainwright, 1998. 2<sup>nd</sup> record.
- +75/21/5. *Rosa pimpinellifolia* (Burnet Rose) (Rhosyn Draenllwyn). Ledges on rock-face, Llanymynech, SJ/261.217, R.G. Woods, 1998. Rediscovery of old record for the hectad.
- +†118/23/3×4. *Mentha* × *villosa* (*M. spicata* × *M. suaveolens*) (Apple Mint) (Mintys Lled-grynddail). 1 clump amongst hard core on derelict car-lot, Welshpool, SJ/225.076, M. Wainwright, 1998, det. R.M. Harley. 2<sup>nd</sup> record.

- +†158/12/1. *Lilium martagon* (Martagon Lily) (Cap y Twrc). Woodland edge by R. Banwy, Llanfair Caereinion, SJ/092.068, C. Faulkner, 1998
- +162/5/1. *Neottia nidus-avis* (Bird's-nest Orchid) (Tegeirian Nyth Aderyn). 1 plant on riverside gravel, Llanfair Caereinion, SJ/09.06, C. Faulkner, 1998. 2<sup>nd</sup> extant site.
- +162/20/3. *Orchis morio* (Green-winged Orchid) (Tegeirian y Waun). Species-rich pasture, Llansantffraid, SJ/2.2, R. Dawes, 1998 and Churchstoke, SO/3.9, A. Law, 1998. 1<sup>st</sup> and 2<sup>nd</sup> recent records.

CAERNARFON, v.c. 49 (comm. G. Battershall)

- +†2/1/2. *Selaginella kraussiana* (Kraus's Clubmoss) (Cnwpfwsogl Kraus). Bank of Afon Roe, E of Farchwell Farm, Llanbedr-y-Cennin, SH/76.70, W. McCarthy, 1998.
- +5/2/1. *Botrychium lunaria* (Moonwort) (Lloerlys). Edge of stream, Llyn du'r arddu near Llanberis, SH/59.55, G. Williams, 1998.
- +†20/1/3. *Abies procera* (Noble Fir) (Ffynidwydden Urddasol). Probably planted on roadside, near Bettws-y-coed, SH/80.53, G. Battershall, 1998. 1<sup>st</sup> post 1970 record.
- +†20/2/1. *Pseudotsuga menziesii* (Douglas Fir) (Ffynidwydden Douglas). Roadside near Bettws-y-Coed, SH/80.53, G. & I. Battershall, 1998.
- +†20/3/1. *Tsuga heterophylla* (Western Hemlock-spruce) (Hemlog y Gorllewin). Probably planted along roadside, Beddgelert, SH/59.48, G. Battershall, 1998.
- +†20/4/1. *Picea sitchensis* (Sitka Spruce) (Spriwsen Sitka). Roadside, Aberglaslyn, near Beddgelert, SH/59.46, self-seeded. +Roadside, near Bettws-y-Coed, SH/80.53, probably planted; both G. Battershall, 1998.
- +†20/4/2. *Picea abies* (Norway Spruce) (Spriwsen Norwy). Edge of disused railway, Porth Penrhyn near Bangor, SH/59.72, G. Battershall & W. McCarthy, 1998. Probably planted. +Roadside, near Bettws-y-Coed, SH/79.54, G. Battershall, 1998. Self-seeded.
- +†20/7/1. *Pinus sylvestris* (Scots Pine) (Pinwydden yr Alban). +Roadside near Penygroes, SH/48.53; +3 trees probably planted alongside Welsh Highland Railway, Caernarfon, SH/48.62; +Side of road, Rhyd-ddu, SH/56.52; All G. & I. Battershall, 1998.
- +†20/7/5. *Pinus radiata* (Monterey Pine) (Pinwydden Monterey). Edge of field beside disused railway, Bontnewydd, near Caernarfon, SH/47.60, G. & I. Battershall, 1998.
- †29/1/9. *Berberis darwinii* (Darwin's Barberry). Hedgerow, Nasareth near Penygroes, SH/46.49, G. Battershall, 1998.
- +†31/3/1. *Pseudofumaria lutea* (Yellow Corydalis) (Mwg y Ddaear Melyn). +Base of wall Criccieth, SH/49.37; +near Penygroes, SH/47.53; +Llanberis, SH/57.59; +near Llanrug, SH/54.63; all G. & I. Battershall, 1998.
- +†35/2/1. *Ficus carica* (Fig) (Ffigysbren). Hedgerow, near Morfa Nefyn, SH/28.40, G. & I. Battershall, 1998.
- +43/4/1a. *Beta vulgaris* subsp. *maritima* (Sea Beet) (Betys Gwylt). Sea shore, Clynog Fawr, SH/40.49, G. & I. Battershall, 1998.
- +46/20/9×10. *Silene* × *hampeana* (*S. latifolia* × *S. dioica*) [Pink Champion]. Waste ground in RSPB Reserve, Glan Conwy, SH/80.77, G. Battershall, 1998.
- +47/8/13×19. *Rumex* × *pratensis* (*R. crispus* × *R. obtusifolius*) (Meadow Dock) (Tafol y Maes). +Edge of woodland footpath, Gyrn Goch near Clynog, SH/40.48, W. McCarthy & J.A. Green; +Side of track, Pontllyfni near Penygroes, SH/43.52, BSBI meeting; both 1998.
- +†51/1/3×4. *Hypericum* × *inodorum* (*H. androsaemum* × *H. hircinum*) (Tall Tutsan) (Eurinllys Tal). Side of track, Pontllyfni, near Penygroes, SH/43.52, BSBI meeting, 1998. 2<sup>nd</sup> record.
- +†61/1/3×del. *Populus* × *canadensis* (*P. nigra* × *P. deltoides*) (Hybrid Black-poplar) (Poplysen Ddu Ffrengig). Roadside near Bryncir, SH/47.44, W. McCarthy & J.A. Green, 1998.

- +61/2/10×11. *Salix × reichardtii* (*S. caprea* × *S. cinerea*) (a hybrid willow). c.7 bushes up to 6m tall next to forestry track, Coed y Fuches-Las, Coed Gwydyr, SH/78.59, T.D. Dines, 1998. 1<sup>st</sup> post 1970 record.
- +†62/1/5. *Sisymbrium altissimum* (Tall Rocket) (Berwr Treigledigol). Roadside verge, Beudy Bedd-Owen near Beddgelert, SH/61.49, T.D. Dines, 1998.
- +†62/8/1. *Hesperis matronalis* (Dame's-violet) (Disawr). Recorded from the following squares by G. & I. Battersall in 1998: SH/49.37, SH/47.53, SH/56.38, SH/51.53, SH/68.60.
- +†62/16/1. *Aubrieta deltoidea* (Aubretia) (Obresia). Pavement crack, Pistyll near Nefyn, SH/32.42, G. & I. Battershall, 1998. 1<sup>st</sup> post 1970 record.
- +†62/17/1. *Lunaria annua* (Honesty) (Swllt Dyn Tlawd). Waste ground, Criccieth, SH/49.37; +Waste ground, Llanberis, SH/57.59; both G. & I. Battersall, 1998.
- +†69/4/5. *Lysimachia punctata* (Dotted Loosestripe) (Trewynyn Brych). Waste ground, Afon Wen near Pwllheli, SH/43.37, G. Battershall *et al.*; +Side of road near Penmachno Mill, SH/83.50, G. & I. Battersall; both 1998.
- +†73/5/7. *Sedum spurium* (Caucasian-stonecrop) (Briweg Rwsieg). Wall top, Mynydd Llandegai near Bethesda, SH/60.65, J. Hawksford; +Many plants naturalised on several stretches of wall, Bettws-y-Coed, SH/79.56, G. Battershall; both 1998.
- +†73/5/11. *Sedum rupestre* (Reflexed Stonecrop) (Llwynau'r Fagwyr). Rocky outcrop, Nant Peris, SH/60.58; +Roadside wall, Bettws-y-Coed, SH/79.56; both G. & I. Battershall, 1998.
- +†74/7/1. *Tolmiea menziesii* (Pick-a-back-plant) (Crudlys). Extensively naturalised in copse, Bryn Eglwys near Bethesda, SH/60.66, J. Hawksford, 1998.
- +†74/8/1. *Tellima grandiflora* (Fringe-cups) (Clychau'r Clawdd). Many plants over c.100m on side of road against stone walls, Pont y Pant near Dolwyddelan, SH/75.53, G. & I. Battershall, 1998. 1<sup>st</sup> post 1970 record.
- +†75/3/1×2. *Spiraea × rosalba* (*S. salicifolia* × *S. alba*) (Intermediate Bridewort). Hedgerow, NE of Tregarth, SH/60.68, J. Hawksford, 1998, det. A.J. Silverside. 2<sup>nd</sup> record.
- +†75/9/5. *Potentilla argentea* (Hoary Cinquefoil) (Pumbys Arian-ddail). Flower bed in car park, Penygroes, SH/47.53, BSBI meeting, 1998. 1<sup>st</sup> post 1970 record.
- +†75/19/15. *Alchemilla mollis* (Robust Lady's-mantle). +Roadside bank, Criccieth, SH/49.38; +roadside bank, Bangor outskirts, SH/59.71, both G. & I. Battershall; +roadside verge, Nebo near Penygroes, SH/47.50, G. Battershall & J. Hawksford, all 1998.
- +†75/21/6. *Rosa rugosa* (Japanese Rose) (Rhosyn Japan). Side of path, Pantllyfni near Penygroes, SH/43.52, BSBI meeting, 1998.
- +†75/22/3. *Prunus cerasifera* (Cherry Plum) (Gaugeiriosen). Single tree, old quarry, Llangwstenin, near Colwyn Bay, SH/82.79, G. Battershall, 1998.
- +†75/32/33. *Cotoneaster simonsii* (Himalayan Cotoneaster) (Cotoneaster y Graig). Recorded from the following squares by G. & I. Battershall in 1998: SH/47.38, SH/47.53, SH/56.52, SH/75.53.
- +†75/32/35. *Cotoneaster rehderi* (Bullate Cotoneaster). Side of disused railway, Bangor, SH/59.71, G. & I. Battershall, 1998, det. J. Fryer.
- +†75/32/40. *Cotoneaster sternianus* (Stern's Cotoneaster). Side of wall, Nebo near Penygroes, SH/47.50, G. Battershall & J. Hawksford, 1998, det. J. Fryer. 2<sup>nd</sup> v.c. record.
- +77/14/8. *Vicia tetrasperma* (Smooth Tare) (Corbysen Lefn Ronynnog). Side of ditch, Dinas Dinlle near Caernarfon, SH/44.58, BSBI meeting, 1998.
- +77/14/11b. *Vicia sativa* subsp. *segetalis* (Common Vetch) (Fflugbysen Faethol). Hedgerow near Ysbyty Ifan, SH/84.48, G. & I. Battershall, 1998.
- +77/17/3. *Melilotus officinalis* (Ribbed Melilot) (Gwydro Rhesog). Waste ground, Criccieth, SH/49.37, G. & I. Battershall, 1998.
- +†77/17/4. *Melilotus indicus* (Small Melilot) (Gwydro Blodau Bach). Disturbed ground in Haulfre Gardens, Llandudno, SH/77.83, W. McCarthy, 1998. 1<sup>st</sup> post 1970 record.
- +†77/21/1. *Lupinus arboreus* (Tree Lupin) (Coeden Bys y Blaidd). Waste ground, Afon Wen near Pwllheli, SH/43.37, G. Battershall *et al.*, 1998. 1<sup>st</sup> post 1970 record.
- \*†80/1/1. *Gunnera tinctoria* (Giant-rhubarb) (Rheonllys Mawr). Side of Afon Eidda near Penamachno, SH/83.50, G. & I. Battershall, 1998. 1<sup>st</sup> record.

- +84/4/4. *Oenothera cambrica* (Small-flowered Evening-primrose) (Melyn yr Hwyr Cymreig). Side of track, Pontllyfni, near Penygroes, SH/43.52, BSBI meeting, 1998.
- +†99/1/1. *Acer platanoides* (Norway Maple) (Masarnen Norwy). Probably planted on woodland verge, near Bethesda, SH/60.65, G. Battershall & W. McCarthy, 1998.
- +†102/1/8. *Oxalis articulata* (Pink-sorrel) (Suran Ruddgoch). Waste ground, Llandegai, Bangor, SH/59.71, G. & I. Battershall, 1998.
- +103/1/1×2. *Geranium* × *oxontium* (*G. endressii* × *G. versicolor*) (Druce's Crane's-bill). +Several plants on roadside verge, Morfa Nefyn, SH/29.40; +Waste ground, Y Felinheli near Bangor, SH/53.68; +Side of wall, near Penmachno Mill, SH/83.50; all G. & I. Battershall, 1998.
- +103/1/15. *Geranium pusillum* (Small-flowered Crane's-bill) (Pig yr Aran Mânflodeuog). Laneside verge, near Penmachno, SH/48.52, BSBI meeting, 1998.
- \*†103/Pel/inq×zon. *Pelargonium* × *hybridum* (*P. inquinans* × *P. zonale*) (Scarlet Geranium). Waste ground, Llandegai, Bangor, SH/59.71, G. & I. Battershall, 1998. 1<sup>st</sup> record.
- \*†104/1/maj. *Tropaeolum majus* (Nasturtium) (Meri a Mari). Waste ground near railway station, Llandudno, SH/78.81, W. McCarthy, 1998. 1<sup>st</sup> record.
- +108/3/3. *Centaureum littorale* (Seaside Centaury) (Canri Goch Arfor). 3 or 4 plants at edge of dunes, Morfa Dinlle near Caernarfon, SH/43.59, G. & I. Battershall, 1998. 1<sup>st</sup> post 1970 record.
- +†109/1/3. *Vinca major* (Greater Periwinkle) (Perfagl Mwyafl). Hedgerow, Morfa Nefyn, SH/29.40; +Side of path, Nantlle, SH/51.53; both G. & I. Battershall, 1998.
- +118/1/5×6. *Stachys* × *ambigua* (*S. sylvatica* × *S. palustris*) (Hybrid Woundwort) (Briwlys Croesryw). Edge of Afon Wen, Afon Wen near Pwllheli, SH/43.37, G. Battershall *et al.*; +Side of ditch, Pontllyfni near Penygroes, SH/43.52, BSBI meeting; both 1998.
- +†118/4/1c. *Lamium galeobdolon* subsp. *argentatum* (Variegated Yellow Archangel) (Marddanhadlen Felen Arianddail). +Roadside bank, Morfa Nefyn, SH/29.40, G. & I. Battershall; +Woodland verge near Bethesda, SH/60.65, G. Battershall & W. McCarthy; both 1998.
- +118/5/6. *Lamium amplexicaule* (Henbit Dead-nettle) (Marddanhadlen Goch Gron). Waste ground near Penygroes, SH/47.53; +Waste ground, Caernarfon, SH/48.63; both G. & I. Battershall, 1998.
- 118/6/5. *Galeopsis bifida* (Bifid Hemp-nettle) (Penboeth Lleiaf). +Edge of track, Pistyll near Nefyn, SH/32.42; +alongside disused railway near Caernarfon; +edge of path, Waunfawr, SH/52.57; all G. & I. Battershall, 1998.
- +†118/23/1×3. *Mentha* × *gracilis* (*M. arvensis* × *M. spicata*) (Bushy Mint) (Mintys Culddail). Side of track, Pontllyfni near Penygroes, SH/43.52, BSBI meeting, 1998.
- +118/23/4. *Mentha suaveolens* (Round-leaved Mint) (Mintys Deilgrwn). Edge of woodland footpath, Gyrn Goch near Clynnog, SH/40.48, W. McCarthy & J.A. Green, 1998.
- +†118/24/1. *Rosmarinus officinalis* (Rosemary) (Rhos Mari). Growing out of wall, Morfa Nefyn, SH/28.40, G. & I. Battershall, 1998.
- \*†118/Lav/ang×lat. *Lavandula* × *intermedia* (*L. angustifolia* × *L. latifolia*) (Garden Lavender) (Lafant). Edge of marina, Conwy, SH/77.78, G. & I. Battershall, 1998. 1<sup>st</sup> record.
- +†122/1/2. *Buddleja davidii* (Butterfly-bush) (Llwyn Iâr Fach). Base of wall, Morfa Nefyn, SH/28.40, G. & I. Battershall, 1998.
- +†123/3/1. *Syringa vulgaris* (Lilac) (Leilac). Side of track, Pontllyfni near Penygroes, SH/43.52, BSBI meeting, 1998.
- +†124/1/2. *Verbascum virgatum* (Twiggy Mullein) (Tewbannog). +Casual in hedgerow near Ysbyty Gwynedd, Bangor, SH/55.69; +Alongside disused railway, near Caernarfon, SH/48.61; +Roadside verge, Capel Curig, SH/71.59; all G. & I. Battershall, 1998.
- +124/8/2. *Chaenorhium minus* (Small Toadflax) (Gingroen Bychan). Railway track, Afon Wen near Pwllheli, SH/43.37, G. Battershall *et al.*, 1998.
- +124/20/3. *Euphrasia anglica* [English Eyebright] (Effros Chwareog Gwalltog). Old slate quarry floor, Talysarn near Penygroes, SH/49.52, BSBI meeting, 1998, det. A.J. Silverside. 1<sup>st</sup> post 1970 record.
- \*124/20/5×7. *Euphrasia arctica* × *E. nemorosa* (a hybrid eyebright). Floor of old slate quarry, Talysarn near Penygroes, SH/49.52, BSBI meeting, 1998, det. A. Silverside. 1<sup>st</sup> record.
- +124/20/6. *Euphrasia tetraquetra* [Western Eyebright] (Torfagl ar Graig y Don). Thousands of plants on grassy dunes, Morfa Dinlle near Caernarfon, SH/43.59, G. & I. Battershall, 1998.

- +124/20/7×14. *Euphrasia confusa* × *E. ostenfeldii* (a hybrid eyebright). Rocky grassland, Moel yr Ogof near Beddgelert, SH/55.47, W. McCarthy & H. Hughes, 1998, det. A. Silverside.
- +124/20/9×19. *Euphrasia confusa* × *E. scottica* (a hybrid eyebright). Rocky grassland, Moel yr Ogof near Beddgelert, SH/55.44, G. Battershall *et al.*, 1998, det. A. Silverside.
- +124/20/14. *Euphrasia ostenfeldii* [Northern Eyebright] (Effros â Dail Blewog). Grassland below cliffs, Creigiau Gleision near Capel Curig, SH/73.62, G. Battershall *et al.*, 1998.
- +124/24/2b. *Rhinanthus minor* subsp. *stenophyllus* (Yellow-rattle) (Cribell Felen). Roadside verge, Graianog near Penygroes, SH/45.48, G. Battershall & J. Hawksford. +Grassy field, Bryn Eglwys near Bethesda, SH/61.65, J. Hawksford; both 1998.
- +128/2/1. *Utricularia vulgaris* (Greater Bladderwort) (Swigenddail Mwyaf). Wetland, Gors Graianog near Garndolbenmaen, SH/49.45, W. McCarthy & J.A. Green, 1998.
- +†129/7/2. *Lobelia erinus* (Garden Lobelia). Alongside Welsh Highland Railway, Caernarfon, SH/48.62, G. & I. Battershall, 1998.
- +†131/2/3. *Viburnum tinus* (Laurustinus) (Tinws). Edge of disused railway, Porth Penrhyn near Bangor, SH/59.72, G. Battershall & W. McCarthy, 1998.
- +†131/5/1. *Leycesteria formosa* (Himalayan Honeysuckle) (Bachgen Llwm). Alongside path to shore, Clynnog Fawr, SH/41.59, G. & I. Battershall, 1998.
- +†131/6/2. *Lonicera nitida* (Wilson's Honeysuckle) (Gwyddfid Wilson). +Hedgerow, Nebo near Penygroes, SH/47.50, G. Battershall & J. Hawksford; +Roadside near Bettws-y-Coed, SH/80.53, G. & I. Battershall; both 1998.
- \*133/1/5. *Valerianella eriocarpa* (Hairy-fruited Cornsalad) (Gwylaeth yr Oen Gwlanog). Grassy limestone outcrops, Great Orme, Llandudno, SH/77.82, W. McCarthy, 1998. Probably the first Welsh record as a native plant.
- +†135/11/2. *Centaurea montana* (Perennial Cornflower) (Penlas Fythol). Edge of woodland, Marle wood near Llandudno, SH/80.78, G. & I. Battershall, 1998.
- +135/25/35. *Taraxacum faeroense* (a dandelion). Boggy area in middle of old quarry, 3.25km NE of Llanrwst, SH/82.65, R. Lewis, 1998.
- \*135/25/101. *Taraxacum subhamatum* (a dandelion). Garden weed, Rhyd-y-Fuwch, near Bethel, SH/53.64, T.D. Dines, 1998. 1<sup>st</sup> record.
- +135/28/6. *Hieracium umbellatum* (Narrow-leaved Hawkweed) (Heboglys Culddail). Laneside verge near Penygroes, SH/48.52, BSBI meeting, 1998. 1<sup>st</sup> post 1970 record.
- +†135/58/lac×max. *Leucanthemum* × *superbum* (*L. lacustre* × *L. maximum*) (Shasta Daisy) (Llygad Ych Mawr). Waste ground, Afon Wen near Pwllheli, SH/43.37, G. Battershall *et al.*, 1998.
- +†135/62/1. *Senecio cineraria* (Silver Ragwort) (Llys y Lluw). Waste ground in RSPB Reserve, Glan Conwy, SH/80.77, G. Battershall, 1998.
- +152/16/7. *Carex spicata* (Spiked Sedge) (Hesgen Dywysennog Borffor). Edge of disused railway, Porth Penrhyn near Bangor, SH/59.72, G. Battershall & W. McCarthy, 1998. 1<sup>st</sup> post 1970 record.
- +153/16/2. *Puccinellia distans* (Reflexed Saltmarsh-grass). Saltmarsh, Morfa Dinlle, near Caernarfon, SH/44.58, BSBI meeting, 1998.
- +153/49/2. *Phleum bertolonii* (Smaller Cat's-tail) (Rhonwellt Penfain). Edge of field, Llithfaen, SH/35.43, G. & I. Battershall, 1998.
- +†153/59/1. *Hordeum distichon* (Two-rowed Barley) (Haidd Dwy-resog). Waste ground, RSPB reserve, Glan Conwy, SH/80.77, G. Battershall, 1998. 1<sup>st</sup> post 1970 record.
- \*†153/60/1. *Triticum aestivum* (Bread Wheat) (Gwenith). Along disused railway near Caernarfon, SH/48.61, G. & I. Battershall, 1998. 1<sup>st</sup> record.
- +†153/62/1. *Cortaderia selloana* (Pampas-grass) (Paithwellt). Several plants on waste ground, Llandudno Junction, SH/78.77, G. Battershall, 1998. 2<sup>nd</sup> v.c. record.
- +†158/18/2. *Ornithogalum angustifolium* (Star-of-Bethlehem) (Seren Fethlehem). Roadside verge, Morfa Nefyn, SH/29.40, G. & I. Battershall, 1998.
- +†158/20/3. *Hyacinthoides hispanica* (Spanish Bluebell) (Clychau Cog Sbaen). Well established with other garden throw-outs on roadside verge, Pont Rug, SH/51.63, T.D. Dines, 1998.
- \*†159/13/3. *Crocospia pottsii* (Potts' Montbretia). Side of bank, Aber Ogwen near Bangor, SH/61.72, G. & I. Battershall, 1998. 1<sup>st</sup> record.

- +162/6/2. *Listera cordata* (Lesser Twayblade) (Ceineirian Bach). Heather moorland near Llyn Conwy, Penmachno, SH/78.45, G. Williams, 1998.
- +162/23/3. *Ophrys apifera* (Bee Orchid) (Tegeirian y Gwenyn). c.100 plants in meadowland, Bryn y Neuadd Hospital, Llanfairfechan, SH/67.74, G. Battershall, 1998.

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

- +5/1/1. *Ophioglossum vulgatum* (Adder's-tongue) (Tafod y Neidr). Unimproved grassland, Cyfylliog, SJ/035.593, J.A. Green, 1998.
- +17/1/1. *Polystichum setiferum* (Soft Shield-fern) (Gwrychredynen Feddal). Canalside wood, Chirk, SJ/283.382, J.A. Green, 1998.
- \*17/3/10. *Dryopteris expansa* (Northern Buckler-fern) (Marchredynen y Gogledd). Rocky cwm, Cwm Ffynnon, Berwyn, SJ/093.295, P. Thomas, 1998, det. R.H. Roberts.
- +†20/7/3. *Pinus contorta* (Lodgepole Pine) (Pinwydden Gamfrig). Forestry plantation, Llandulas, SH/915.778, R.I. Green, 1998.
- †20A/Tax/dis. *Taxodium distichum* (Swamp Cypress). Probably planted on bank of stream, Tal-y-Cafn, SH/797.724, G. Battershall, 1998.
- +28/12/1. *Clematis vitalba* (Traveller's-joy) (Barf yr Hen Wr). Wasteground, Foryd, SH/994.802, J.A. Green, 1998.
- +†39/3/1. *Castanea sativa* (Sweet Chestnut) (Castanwydden). Wood, Caerwys, SJ/121.718, J.A. Green, 1998.
- +40/3/1. *Carpinus betulus* (Hornbeam) (Oestrwydden). †Parkland, Chirk, SJ/308.382, J.A. Green, 1998.
- +43/3/10. *Atriplex portulacoides* (Sea-purslane) (Helys Can). Saltmarsh, Foryd, SJ/002.794, J.A. Green, 1998.
- +43/7/2. *Suaeda maritima* (Annual Sea-blite) (Helys Unflwydd). Saltmarsh, Foryd, SJ/002.794, J.A. Green, 1998.
- +46/1/1c. *Arenaria serpyllifolia* subsp. *leptoclados* (Slender Sandwort) (Tywodlys Main). Waste ground, Clawdd Newydd, SJ/106.520, J.A. Green, 1998.
- +46/4/2. *Minuartia verna* (Spring Sandwort) (Tywodlys y Gwanwyn). Quarry grassland, Eryrys, SS/201.576, J.A. Green, 1998.
- +46/9/1. *Moenchia erecta* (Upright Chickweed) (Cornwlyddyn Syth). Hilltop, Bwlch y Ddar, SJ/157.225, J.A. Green, 1998.
- +46/11/2. *Scleranthus annuus* (Annual Knawel) (Dinodd Blynnyddol). Rocky outcrops, Bryn Rhyd yr Arian, SH/943.687, J.A. Green, 1998, NMW.
- +46/17/2. *Spergularia media* (Greater Sea-spurrey) (Troellys Mawr). Saltmarsh, Foryd, SH/999.799 & SJ/002.794, J.A. Green, 1998.
- +46/17/3. *Spergularia marina* (Lesser Sea-spurrey) (Troellys Bach). Saltmarsh, Foryd, SJ/002.793, J.A. Green, 1998.
- +46/20/9×10. *Silene* × *hampeana* (*S. latifolia* × *S. dioica*) [Pink Champion]. Roadside, Bwlch y Ddar, SJ/167.219, J.A. Green, 1998.
- +47/8/13×9. *Rumex* × *pratensis* (*R. crispus* × *R. obtusifolius*) (Meadow Dock) (Tafol y Maes). Wasteground, Bwlch y Ddar, SJ/151.218, J.A. Green; +Wet meadow in NWWT reserve, Pulford, SJ/402.581, W. McCarthy, both 1998.
- +52/1/2. *Tilia cordata* (Small-leaved Lime) (Pisgwydden Deilen Fach). Churchyard, Llanrwst, SH/802.614; +Roadside, Llansannan, SH/935.559, both, J.A. Green, 1998.
- +53/2/1. *Lavatera arborea* (Tree-mallow) (Hocyswydden). Canal side, Trefor, SJ/272.414, J.A. Green, 1998.
- +57/1/1. *Viola odorata* (Sweet Violet) (Fioled Bêr). Grassy bank, Halton, SJ/309.379, J.A. Green, 1998.

- \*57/1/4×5. *Viola × bavarica* (*Viola riviniana* × *V. reichenbachiana*) (a hybrid violet). Deciduous woodland, Ruthin, SJ/125.554, S. Chambers, 1996, det. D. Moore. 1<sup>st</sup> record.
- +57/1/6×7. *Hypericum × desetangii* (*H. perforatum* × *H. maculatum*) (Des Etangs' St John's-wort). Old railway, Fenns Moss, SJ/492.378, BSBI group, 1998.
- +†61/1/1×2. *Populus × canescens* (*P. alba* × *P. tremula*) (Grey Poplar) (Poplysen Lwyd). Bank of River Dee, Pulford, SJ/408.576, J.A. Green, 1998.
- +†61/1/3×del. *Populus × canadensis* (*P. nigra* subsp. *nigra* × *P. deltoides*) (Black-Italian Poplar). Planted along riverside, Holt, SJ/412.530., J.A. Green, 1998.
- +†61/1/3×del. *Populus × canadensis* 'Serotina' (*P. nigra* subsp. *nigra* × *P. deltoides*) (Black-Italian Poplar). Planted along roadside, Pontfadog, SJ/243.385, J.A. Green, 1998.
- \*61/2/5×9. *Salix × rubra* (*S. purpurea* × *S. viminalis*) (Green-leaved Willow) (Helygen Werdd). Industrial estate, Wrexham, SJ/380.493, J.A. Green, 1998. 1<sup>st</sup> record, NMW.
- +61/2/11×12. *Salix × multinervis* (*S. cinerea* × *S. aurita*) (a hybrid willow). Riverside, Llanrwst, SH/800.604, J.A. Green, 1998.
- +61/2/16. *Salix repens* (Creeping Willow) (Corhelygen). Marsh, Cyfylliog, SJ/034.595, J.A. Green, 1998.
- +†62/31/2. *Coronopus didymus* (Lesser Swine-cress) (Olbrain Lleiaf). Roadside, Foryd, Rhyl, SH/994.806, J.A. Green, 1998.
- +63/1/3. *Reseda lutea* (Wild Mignonette) (Melengu Wylt Ddisawr). Old railway, Fenns Moss, SJ/478.367, J.A. Green, 1998.
- +†69/4/5. *Lysimachia punctata* (Dotted Loosestrife) (Trewynyn Brych). Quarry grassland, Eryrys, SJ/201.576, J.A. Green, 1998.
- +72/2/6. *Ribes alpinum* (Mountain Currant) (Rhyfon Mynydd). Lane hedge, Abergele, SH/954.764; +Hedge, Derwen, SJ/079.509, both J.A. Green, 1998.
- +†73/5/7. *Sedum spurium* (Caucasian-stonecrop) (Briweg Rwsieg). Roadside wall, Pentrefoelas, SH/827.525; +Wall, Llanrwst, SH/806.626, both J.A. Green, 1998.
- +†74/5/8×9. *Saxifraga × urbium* (*S. umbrosa* × *S. spathularis*) (Londonpride) (Balchder Llundain). Lane edge, Llwynmawr, SJ/220.365, W. McCarthy, 1998.
- +74/5/15. *Saxifraga granulata* (Meadow Saxifrage) (Tormaen Gwyn y Gweunydd). Streamside, Llanrhaidr ym Mochnant, SJ/122.286, A. Law, 1998.
- +74/9/2. *Chrysosplenium alternifolium* (Alternate-leaved Golden-saxifrage) (Eglyn Cylchddail). Riverside, Chirk, SJ/309.380, J.A. Green, 1998.
- +†75/3/1×3. *Spiraea × pseudosalicifolia* (*S. salicifolia* × *S. douglasii*) (Confused Bridewort). Industrial estate, Wrexham, SJ/390.491, J.A. Green, 1998. 2<sup>nd</sup> record, NMW.
- +†75/3/2. *Spiraea alba* (Pale Bridewort). Roadside, Cerrig y Drudion, SH/964.523, BSBI group, 1998.
- +75/6/1. *Filipendula vulgaris* (Dropwort) (Crogedyf). Old railway, Fenns Moss, SJ/479.266, P. Day, 1997.
- +75/8/1. *Rubus chamaemorus* (Cloudberry) (Mwyaren y Berwyn). Lowland moss, Fenns Moss, SJ/482.363, W. Allmark, 1998, det. J.L. Daniels.
- +75/8/28. *Rubus scissus* (a bramble). Railway track, Fenns Moss, SJ/504.375., J.A. Green, 1992, det. A. Newton.
- +75/9/14×15. *Potentilla × mixta* (*P. erecta* × *P. reptans* & *P. anglica* × *P. reptans*) (Hybrid Cinquefoil). Laneside, Llansannan, SH/947.683, J.A. Green, 1998.
- +75/13/1. *Geum rivale* (Water Avens) (Mapgoll Glan y Dwr). Wet ditch, Bryn Eglwys, SJ/155.479, BSBI group, 1998.
- +75/20/2. *Aphanes australis* (Slender Parsley-piert) (Troed y Dryw Fain). Hilltop, Bwlch y Ddar, SJ/157.225, J.A. Green, 1998.
- +†75/22/7. *Prunus cerasus* (Dwarf Cherry) (Ceiriosen). Hedge, Denbigh, SJ/078.664, J.A. Green, 1998.
- +†75/32/33. *Cotoneaster simonsii* (Himalayan Cotoneaster) (Cotoneaster y Graig). Path in woods, Llanrwst, SH/803.622, J.A. Green, 1998.
- +75/35/8. *Crataegus laevigata* (Midland Hawthorn) (Draenen Ysbyddaden). SJ/074.637, R.I. Green, 1998.

- +77/7/1. *Anthyllis vulneraria* (Kidney Vetch) (Plucen Felen). Grassland, Wrexham, SJ/380.494, J.A. Green, 1998.
- +77/14/12. *Vicia lathyroides* (Spring Vetch) (Ffugbysen y Gwanwyn). Old railway, Fenns Moss, SJ/487.375, M. Stead, 1998, det. J.A. Green.
- +†77/17/2. *Melilotus albus* (White Melilot) (Meillionen Tair Dalen Wen). Grassland, Wrexham, SJ/380.494, J.A. Green, 1998.
- +†77/18/2c. *Medicago sativa* subsp. *sativa* (Lucerne) (Maglys Rhuddlas). Canal bank, Chirk, SJ/283.382, J.A. Green, 1998.
- +77/19/20. *Trifolium striatum* (Knotted Clover) (Meillionen Rychog). Grassland, Wrexham, SJ/380.494, W. McCarthy, 1998.
- +†77/22/1. *Laburnum anagyroides* (Laburnum) (Tresi Aur). Hedge, Bwlch y Ddar, SJ/155.216., J.A. Green, 1998.
- +81/1/1. *Lythrum salicaria* (Purple-loosestrife) (Llys y Milwr). Wet meadow, Bodfari, SJ/091.682, J.A. Green, 1998.
- +†84/4/1. *Oenothera glazioviana* (Large-flowered Evening-primrose) (Melyn yr Hwyr Mwyaf). River bank, Llangernyw, SH/876.675; +Riverside, Llansannan, SH/935.658, both J.A. Green, 1998.
- +†89/1/1×per. *Ilex* × *altaciensis* (*I. aquifolium* × *I. perado*) (Highclere Holly). Churchyard, Pentrefoelas, SH/873.516; +Roadside, Bwlch y Ddar, SJ/164.217, both J.A. Green, 1998. 2<sup>nd</sup> records.
- +92/1/1. *Rhamnus cathartica* (Buckthorn) (Rhafnwydden). Deciduous wood, Abergele, SH/935.767, J.A. Green, 1998.
- +†105/1/4. *Impatiens glandulifera* (Indian Balsam) (Jac y Neidiwr). Riverbank, Glan Conwy, SH/803.750, G. Battershall; +Riverbank, Llangedwyn, SJ/155.243. R.I. Green, both 1998.
- +106/1/2b. *Hedera helix* subsp. *hibernica* (Atlantic Ivy). Woodland, Llansannan, SH/934.659, J.A. Green, 1998.
- +107/19/4. *Oenanthe lachenalii* (Parsley Water-dropwort) (Dibynlor Perllysddail). Ditch, Foryd, SJ/002.792, J.A. Green, 1998.
- +107/28/4. *Apium inundatum* (Lesser Marshwort) (Dyfrforonen Leiaf). Bryn Rhyd yr Arian, SH/945.688; +Shallow lake, Eryrys, SJ/213.593; both J.A. Green, 1998.
- +107/30/1. *Sison amomum* (Stone Parsley) (Githran). Grassland, Chirk, SJ/297.382, J.A. Green, 1998.
- +†109/1/3. *Vinca major* (Greater Periwinkle) (Perfagl Mwyaf). Hedge, Llanrhaeadr, SJ/075.636, J.A. Green, 1998.
- \*†116/4/1×2×4. *Symphytum* 'Hidcote Blue' (*S. grandiflorum* × ?*S.* × *uplandicum*) (Hidcote Comfrey). Farm gateway, Llanrhaeadr, SJ/075.631, J.A. Green, 1998, det. F.H. Perring. 1<sup>st</sup> record.
- +117/1/1. *Verbena officinalis* (Vervain) (Briw'r March). Waste ground, Llanrwst, SH/803.622; +Old railway, Fenns Moss, SJ/479.366; both J.A. Green, 1998.
- +118/4/1c. *Lamiastrum galeobdolon* subsp. *argentatum* (Variegated Yellow Archangel) (Marddanhadlen Felen Arianddail). Riverside, Pentrefoelas, SH/872.515; +Roadside wood, Llangernyw, SH/806.626; +Riverside woods, Cyffylliog, SJ/059.579; all J.A. Green, 1998.
- +118/6/5. *Galeopsis bifida* (Bifid Hemp-nettle) (Penboeth Lleiaf). Lane edge, Gellioedd, SH/937.453, W. McCarthy; +Roadside, Cyffylliog, SJ/044.584, J.A. Green; both 1998.
- +118/10/4. *Scutellaria minor* (Lesser Skullcap) (Cwcwll Bach). Marsh, Bryn Rhyd yr Arian, SH/946.688; +Marsh, Bwlch y Ddar, SJ/158.224; both J.A. Green, 1998.
- +118/22/1. *Lycopus europaeus* (Gipsywort) (Llys y Sipsiwn). Wet ditch, Foryd, Rhyl, SH/994.806, J.A. Green, 1998.
- +118/23/2×3. *Mentha* × *piperita* (*M. aquatica* × *M. spicata*) (Peppermint) (Mintys Poethion). Streamside, Llanrwst, SH/800.612, J.A. Green, 1998.
- +121/1/2. *Plantago maritima* (Sea Plantain) (Llwynhidydd Arfor). Saltmarsh, Foryd, Rhyl, SJ/002.794, J.A. Green, 1998.
- +121/2/1. *Littorella uniflora* (Shoreweed) (Beistonnell). Shallow lake, Bryn Rhyd yr Arian, SH/945.688, J.A. Green, 1998.
- +†122/1/2. *Buddleja davidii* (Butterfly-bush) (Llwyn Iâr Fach). +Churchyard, Llanrwst, SH/806.614; +Waste ground, Derwen, SJ/070.507; both J.A. Green, 1998.



- +†123/3/1. *Syringa vulgaris* (Lilac) (Leilac). Hedge, Chirk, SJ/284.378; +Hedge, Eryrys, SJ/201.576; both J.A. Green, 1998.
- +†124/2/5. *Scrophularia vernalis* (Yellow Figwort) (Gornerth Melyn). Garden weed, Rhyd-y-Foel, SH/913.768, W. McCarthy, 1997.
- +†124/9/1. *Misopates orontium* (Weasel's-snout) (Trwyn y Llo Bychan). Waste tip, Llanrwst, SH/832.632, J.A. Green, 1998.
- +124/16/11. *Veronica anagallis-aquatica* (Blue Water-speedwell) (Graeanllys y Dwr). Ditch, Foryd, Rhyl, SJ/002.792, J.A. Green, 1998.
- +124/16/19. *Veronica agrestis* (Green Field-speedwell) (Rhwyddlwyn Gorweddol). Waste ground, Chirk, SJ/295.381, J.A. Green, 1998.
- +†124/16/23. *Veronica filiformis* (Slender Speedwell) (Rhwyddlwyn Crwnddail). Grassy bank, Foryd, Rhyl, SH/995.801, J.A. Green, 1998.
- +124/20/1. *Euphrasia rostkoviana* subsp. *rostkoviana* [Common Eyebright] (Effros Blodau Bach Gludiog). Grassland, Glyn Ceiriog, SJ/295.381, W. McCarthy, 1998.
- \*124/20/19. *Euphrasia scottica* [Scottish Eyebright] (Effros Eiddil y Fignen Fynyddig). Upland grass, Llyn Aled, SH/913.687, W. McCarthy, 1998. 1<sup>st</sup> record.
- +133/1/1. *Valerianella locusta* (Common Cornsalad) (Llysiau'r Oen). Wasteground, Llansannan, SH/934.659, J.A. Green, 1998.
- +135/5/3×4. *Carduus* × *stangii* (*C. crispus* × *C. nutans*). Industrial estate, Wrexham, SJ/388.491, BSBI group, 1998.
- +†135/12/1. *Cichorium intybus*. (Chicory) (Ysgello). Wasteground, Chirk, SJ/295.381, J.A. Green, 1998.
- +135/22/1. *Lactuca serriola* (Prickly Lettuce) (Gwylaeth Bigog). Waste ground, Foryd, Rhyl, SH/993.806, J.A. Green, 1998.
- +†135/23/2. *Cicerbita macrophylla* (Common Blue-sow-thistle) (Llaethysgallen-las). Riverbank, Halton, SJ/310.382, J.A. Green, 1998.
- +†135/27/6b. *Pilosella aurantiaca* subsp. *carpathicola* (Fox-and-cubs) (Heboglys Euraid). Roadside, Llansannan, SH/935.658, J.A. Green, 1998.
- 135/28/155. *Hieracium cambricum* (a hawkweed). Limestone rocks, Llangollen, SJ/221.459, T.C.G. Rich, 1998. A new site.
- +†135/41/4. *Aster novi-belgii* (Confused Michaelmas-daisy) (Blodyn Mihangel). Waste ground, Wrexham, SJ/390.490, J.A. Green, 1998.
- +135/41/6. *Aster tripolium* (Sea Aster) (Seren y Morfa). Saltmarsh, Foryd, Rhyl, SH/999.799 & SJ/002.794, J.A. Green, 1998.
- +†135/69/1. *Doronicum pardalianches* (Leopard's-bane) (Llysiau y Llewpard). Roadside, Derwen, SJ/083.503, J.A. Green, 1998.
- +141/1/2. *Triglochin maritima* (Sea Arrowgrass) (Saethbennig Arfor). Saltmarsh, Foryd, Rhyl, SH/996.802, J.A. Green, 1998.
- +†148/2/4. *Lemna minuta* (Least Duckweed) (Corlinad). Small lake, Gresford, SJ/351.529, N.F. Stewart, 1998. 1<sup>st</sup> record.
- +†151/1/2. *Juncus tenuis* (Slender Rush) (Brwynen Fain). Laneside, Llanrwst, SH/803.618, W. McCarthy; +Roadside, Bryneglwys, SJ/164492; + Old railway, Fenns Moss, SJ/484.372; both J.A. Green, all 1998.
- +152/8/1. *Isoplepis setacea* (Bristle Club-rush) (Clwbffwynen Fach). Upland flush, Rhosllanerchrugog, SJ/124.475, J.A. Green, 1998.
- +152/16/7. *Carex spicata* (Spiked Sedge) (Hesgen Dywysennog Borffor). Roadside, Bodfari, SJ/105.711, J.A. Green, 1993.
- +152/16/8b. *Carex muricata* subsp. *lamprocarpa* (Small-fruited Prickly-sedge) (Hesgen Bigog Hwyr). Dry bank, Foryd, Rhyl, SH/999.799, J.A. Green, 1998.
- +152/16/39. *Carex laevigata* (Smooth-stalked Sedge) (Hesgen Ylfinog Lefn). Wet wood, Cyffylliog, SJ/035.595, J.A. Green, 1998.
- +152/16/44×46. *Carex* × *fulva* (*C. hostiana* × *C. viridula*) (a hybrid sedge). Upland flush, Llyn Aled, SH/898.895, W. McCarthy, 1998. 1<sup>st</sup> recent record.

- \*†153/3/1. *Sasa palmata* (Broad-leaved Bamboo) (Bambw). Riverside, Pentrefoelas, SH/824.528, J.A. Green, 1998
- +153/12/2. *Festuca arundinacea* (Tall Fescue) (Peisgwellt Tal). Canal bank, Chirk, SJ/283.382, J.A. Green, 1998
- +153/14/3. *Vulpia myuros* (Rat's-tail Fescue) (Peisgwellt y Fagwyr). Old railway, Foryd, Rhyl, SH/995.801, J.A. Green; +Old railway, Fenns Moss, SJ/496.381, BSBI group, both 1998.
- +153/16/1. *Puccinellia maritima* (Common Saltmarsh-grass) (Gweunwellt Arfor). Saltmarsh, Foryd, Rhyl, SH/999.799 & SJ/002.794, J.A. Green, 1998
- +153/16/2. *Puccinellia distans* (Reflexed Saltmarsh-grass) (Gweunwellt Gwrthblygedigaidd). Saltmarsh, Foryd, Rhyl, SH/997.802 & SJ/002.794, J.A. Green, 1998
- +153/18/4. *Poa humilis* (Spreading Meadow-grass) (Gweunwellt Helaeth). Pathside, Foryd, Rhyl, SH/999.799, J.A. Green; +Old railway, Fenns Moss, SJ/490.376, BSBI group, both 1998.
- +153/20/1. *Catabrosa aquatica* (Whorl-grass) (Brigwellt Dyfdrig). Muddy stream, Llansannan, SH/944.682, J.A. Green, 1998
- +153/23/1. *Parapholis strigosa* (Hard-grass) (Corwelltyn y Morfa). Disused railway bank, Kinmel Bay, SH/995.800, J.A. Green, 1998. 2<sup>nd</sup> record.
- +153/24/2×4. *Glyceria* × *pedicellata* (*G. fluitans* × *G. notata*) (Hybrid Sweet-grass) (Perwellt Croesryw). Riverside, Llansannan, SH/935.658; +Wet meadow, Cyffylliog, SJ/051.583; both J.A. Green, 1998
- +†153/38/3. *Phalaris canariensis* (Canary-grass) (Pefrwellt Amaethol). Waste ground, Llanrwst, SH/803.622, J.A. Green, 1998
- +153/39/2. *Agrostis gigantea* (Black Bent) (Maeswellt Mawr). Roadside, Bryneglwys, SJ/163.494, J.A. Green, 1998
- +†153/59/1. *Hordeum distichon* (Two-rowed Barley) (Haidd Dwy-resog). Waste ground, Chirk, SJ/295.381, J.A. Green, 1998
- +153/59/4. *Hordeum secalinum* (Meadow Barley) (Heiddwellt y Maes). Roadside, Foryd, Rhyl, SH/993.807, J.A. Green; +Grassland, Wrexham, SJ/381.493, W. McCarthy; both 1998.
- +†153/50/1. *Triticum aestivum* (Bread Wheat) (Gwenith). Wasteground, Llansannan, SH/935.558, J.A. Green, 1998.
- +154/1/2. *Sparganium emersum* (Unbranched Bur-reed) (Cleddlys Di-gainc). Shallow lake, Eryrys, SJ/213.593, J.A. Green, 1998.
- +†158/14/1. *Polygonatum multiflorum* (Solomon's-seal) (Dagrau Job). Wood near garden, Bryneglwys, SJ/147.477, BSBI group, 1998.
- +158/24/16. *Allium vineale* (Wild Onion) (Garleg Gwyllt). Limestone rocks, Llangollen, SJ/224.467, W. McCarthy, 1998.
- +158/32/1. *Galanthus nivalis* (Snowdrop) (Eirlys). †Roadside, Caerwys, SJ/120.737; +Riverside, Halton nr Chirk, SJ/311.383; both J.A. Green, 1998.
- +158/33/5a. *Narcissus pseudonarcissus* subsp. *pseudonarcissus* (Daffodil) (Cenhinen Bedr). †Churchyard, Pentrefoelas, SH/873.516, J.A. Green, 1998.
- +158/35/1. *Ruscus aculeatus* (Butcher's-broom) (Celynnen Fair). †Hedge, Llanrhaeadr, SJ/075.636, J.A. Green, 1998.
- +†159/13/3×aur. *Crocasmia* × *crocasmiflora* (*C. pottsii* × *C. aurea*) (Montbretia) (Montbretlys). Beneath hedge, Llanrhaeadr, SJ/063.635, J.A. Green, 1998.
- +162/3/1. *Epipactis palustris* (Marsh Helleborine) (Caldrist y Gors). Tracksides in forest, Glyn Ceiriog, SJ/218.354, M. Wainwright, 1998. 1<sup>st</sup> record since 1973.
- +162/3/4. *Epipactis helleborine* (Broad-leaved Helleborine) (Caldrist Llydanddail). Roadside, Bryneglwys, SJ/167.499, J.A. Green; +Old railway, Fenns Moss, SJ/494.379, BSBI group, both 1998.
- +162/14/1. *Anacamptis pyramidalis* (Pyramidal Orchid) (Tegeirian Bera). Old quarry, Ruthin, SJ/110.593, G. Williams, 1998.

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- +47/8/18. *Rumex pulcher* (Fiddle Dock) (Tafol Crwth-ddail). Weed in managed area by car park, Rhyl, SJ/012.820, J. Hughes & J. Phillips, 1998. 2<sup>nd</sup> v.c. record and 1<sup>st</sup> since 1923.
- +†62/2/1. *Descurainia sophia* (Flixweed) (Berwr y Fam). Rough ground, near golf course, Caerwys, SJ/124.728, J.A. Green, 1998. 3<sup>rd</sup> post 1970 v.c. record.
- +†62/42/sat. *Raphanus sativus* (Garden Radish) (Rhuddygl). Arable field, near path, N of Alltami, SJ/265.665, J. Phillips, 1998. 2<sup>nd</sup> v.c. record.
- \*†69/4/5. *Lysimachia punctata* (Dotted Loosestrife) (Trewynyn Brych). Waste ground behind sea wall, W of Greenfield Dock, SJ/195.784, G. Wynne, 1998. 1<sup>st</sup> v.c. record.
- +†74/5/8. *Saxifraga umbrosa* (Pyrenean Saxifrage) (Tormaen Pyreneaid). Road verge, Nercwys Mountain, SJ/224.578, J. Hughes & J. Phillips, 1998. 1<sup>st</sup> post 1930 v.c. record.
- \*†75/8/2. *Rubus tricolor* (Chinese Bramble). Climbing over old stone wall (away from houses), Blaenau, Rhyddallog, SJ/252.559, J. Hughes & J. Phillips, 1998. 1<sup>st</sup> v.c. record.
- \*†75/21/1. *Rosa multiflora* (Many-flowered Rose) (Rhosyn Llwsfod). 1 bush (probably self-sown) on verge of carriageway, near Penyffordd, SE of Buckley, SJ/299.619, S.P. Chambers, 1998, det. A.L. Primavesi. 1<sup>st</sup> v.c. record.
- \*†75/35/4. *Crataegus crus-galli* (Cockspurthorn). Edge of mixed wood, Big Wood, Gwysaney, Mold, SJ/234.665, J. Phillips, 1998. 1<sup>st</sup> v.c. record.
- +†107/3/1. *Astrantia major* (Astrantia) (Astrantia). Hedge, Talfryn Wood, N of Trelawnyd, SJ/091.811, J. Hughes & J. Phillips, 1998. 1<sup>st</sup> post 1930 v.c. record.
- +107/43/3. *Torilis nodosa* (Knotted Hedge-parsley) (Troed-y-cyw Clymog). Waste ground, S side of Marine Lake, Rhyl, SH/999.803, J. Hughes & J. Phillips, 1998. 3<sup>rd</sup> post 1930 v.c. record.
- \*†116/4/1×2×4. *Symphytum* 'Hidcote Blue' (*S. grandiflorum* × ?*S. × uplandicum*) (Hidcote Comfrey). Garden throwout, well established on roadside, Cilcain, SJ/174.649, G. Wynne, 1998, det. F.H. Perring. 1<sup>st</sup> v.c. record.
- \*†116/4/4. *Symphytum grandiflorum* (Creeping Comfrey) (Cyfardwf Llwg). Road verge, country lane, near waterworks, Cilcain, SJ/172.647, G. Wynne, 1998, det. F.H. Perring. 1<sup>st</sup> v.c. record.
- \*†129/7/2. *Lobelia erinus* (Garden Lobelia). Casual garden escape on brick wall, outside garden, Cross Street, Holywell, SJ/185.759, G. Wynne, 1998. 1<sup>st</sup> v.c. record.
- +†133/1/2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). Garden weed on wall of cottage garden, Ffrith, SJ/284.554, G.M. Kay, 1998. 2<sup>nd</sup> post 1970 v.c. record.
- +148/2/1. *Lemna gibba* (Fat Duckweed) (Llinad Crythog). Field drainage ditches, Tanlan near Ffynnonogyw, SJ/125.830, P. Day, 1998. 2<sup>nd</sup> post 1970 v.c. record.
- \*151/1/25×26. *Juncus* × *diffusus* (*J. effusus* × *J. inflexus*) (Diffuse Rush) (Brwynen Dryledol). 1 clump in marshy grassland, W of Coppia House, S of Buckley, SJ/274.613, S.P. Chambers, 1998. 1<sup>st</sup> v.c. record.

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- \*†148/2/4. *Lemna minuta* (Least Duckweed) (Corlinad). Pond, constructed about 10 years ago, Llanrhyddlad, SH/337.892, I.R. Bonner, 1998. 1<sup>st</sup> v.c. record.

