

BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH BULLETIN

Editor : R. D. Pryce

No. 62, SUMMER 1997



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FLORA OF THE BRITISH ISLES
EX HERB. MUSEI BRITANNICI

Potamogeton x cooperi (Pryor) Fryer
Det. Dandy & Taylor 1946

PERBROCKE: R. Solva, Middle Hill,
v.o. 45 Thilochurch. 10 Aug. 1946.

Frances L. Belfour-Browne.

Photocopy of specimen of *Potamogeton crispus* × *P. perfoliatus* = *P. x cooperi* at NMW ($\times \frac{1}{3}$)

 CONTENTS

Editorial	3
Annual General Meeting, 1996	4
Hon. Secretary's Report	4
Hon. Treasurer's Report	5
Elections	6
AGM and Exhibition Meeting, 1997	6
Committee for Wales, 1996-1997	6
35th Welsh Annual General Meeting and 15th Exhibition Meeting, 1997	7
Welsh Field Meetings - Late Summer 1997	8
The next hundred years	9
Small Cow-wheat (<i>Melampyrum sylvaticum</i> L.; Scrophulaceae) present in Wales .	11
<i>Potamogeton</i> × <i>cooperi</i> (Fryer) Fryer in Wales	11
Factors affecting the distribution of Cowslips along the Pembrokeshire coast	13
Recording in Cardiganshire VC 46 during 1995 and 1996	15
Welsh Plant Records - 1994	24

All back issues of the BSBI Welsh Bulletin are still available on request (originals or photocopies). Please send cheque (made payable to BSBI Wales), @ £1 per issue, which includes p & p, to - Dr G. Hutchinson, Department of Biodiversity & Systematic Biology, National Museum & Gallery, Cathays Park, Cardiff CF1 3NP, specifying the issue number, or year (which would have to include the season or month). Large runs - price negotiable.

EDITORIAL

The weather this year has been somewhat erratic, to say the least. The long dry spell in May was followed by the wettest June since 1909 and this weather has continued into the first few days of July. Spring annuals disappeared early but many species which must have been suffering in the drought earlier, have now had second wind and burst into lush and prolific growth. Certainly, in my own county of Carmarthenshire, orchids seem to have benefited, with known stands of dactylorchids increasing in numbers and stature whilst two new sites for *Ophrys apifera* (Bee Orchid) have been discovered and *Liparis loeselii* (Fen Orchid) numbers are the highest recorded for a decade. Somewhat more sinister is the first record from the county for over thirty years of *Heracleum mantegazzianum* (Giant Hogweed), which may reflect last year's dry weather or even general global warming - a taste of things to come?

The field season is already half over and it seems that all the well intentioned monitoring and recording for both the local flora and for Atlas 2000 will never be completed. However, the BSBI field weekend based in Carmarthenshire at Llandovery, proved to be very successful in updating existing coastal and limestone-flora records as well as contributing to some of the few remaining under-recorded tetrads. I hope that the season is progressing as well in your own areas.

Several Welsh field meetings are still to come and, in particular, may I draw your attention to the Welsh AGM to be held at Usk from 29 August to 1 September. Booking forms for accommodation must be returned by 31 July; available from the leader Trevor Evans, La Cuesta, Mounton Road, Chepstow, Gwent NP6 5BS.

Again, this Welsh Bulletin includes a variety of articles of interest. Included is Chris Preston's synopsis of his very entertaining talk at last year's AGM on his thoughts on botanical recording in the next hundred years. Also included is Arthur Chater's authoritative description of recording in Cardiganshire in 1995 and 1996 which is an example to us all and makes me, for one, feel very insecure about my ability to successfully write a county flora. I must particularly thank Gwynn Ellis for his continuing compilation of Welsh Plant Records, despite being more than fully occupied by his role as Hon. Gen. Sec. 1995 records are covered in this Bulletin.

As I have repeated on many occasions I am always in search of articles for the Bulletin and its frequency of publication largely depends upon the amount of material received. So far the only contribution scheduled for Bulletin No 63 is an update on the progress made over the last couple of years in recording the Carmarthenshire Flora. So please send me any items of interest whilst this request is fresh in your mind.

I hope that recording is progressing apace in your area and I look forward to seeing you at one or more of the remaining 1997 BSBI field meetings or the Welsh AGM.

Richard Pryce

ANNUAL GENERAL MEETING, 1996

The 33rd Annual General Meeting and 14th Exhibition Meeting of BSBI Wales was held at the Welsh College of Horticulture, Northop, Flintshire on Saturday, August 31st 1996.

Local botanising on Friday night was followed by an impromptu slide show where Vera Gordon entertained those present with an eye-watering account of her travels in Kazakhstan. Further field meetings took place on Saturday before the Annual General Meeting which opened at 4.15 pm with the Chairman, Paul Day, welcoming all present to the meeting, and remarking that it was 8 years since our last visit to Northop. Apologies for absence were received from Mary Briggs, Stephen Evans, George Hutchinson, Mike Porter, David Humphreys and Jean Hughes. Minutes of the last AGM, published in *BSBI Welsh Bulletin* 60: 4-7, were taken as read and accepted without amendment. The Chairman then thanked all members of the Welsh Committee for their help over the last year, particularly the Officers and editors of the *Welsh Bulletin*. He also congratulated the Secretary, Gwynn Ellis, on his appointment as Hon. General Secretary of the BSBI and his election as an Honorary Member.

He then mentioned two major initiatives involving conservation in Wales since the last AGM:

- 1) **Atlas 2000**, now well launched and progressing well in Wales, but more help was always welcome and Goronwy Wynne was looking for volunteers to take on hectads in Flintshire.
- 2) **The National Botanic Garden for Wales** at Middleton Hall, Dyfed received funding from the National Lottery and Prof. Charles Stirton was appointed as the first Director. BSBI Wales was keen to ensure that its objectives re the conservation of the Welsh flora should play a large part in the development of the gardens and initial response had been encouraging.

Hon. Secretary's Report

The Hon. Secretary, Gwynn Ellis, then gave a short report on the last year's activities.

He commented that following the elections to the Committee for Wales at last year's Annual General Meeting the Committee for Wales remained at full strength throughout the year. However, R.G. Woods had become official CCW observer on the Committee, thus creating one vacancy, which was increased to two following the appointment of RGE as Hon. Gen. Sec. of the Society, a position which gave him *ex officio* status on all BSBI Committees. There were therefore two vacancies to be filled in the coming elections.

One issue of the *Welsh Bulletin* had been published since the last AGM; no. 60. The editor Richard Pryce was again congratulated on the high standard he had maintained. George Hutchinson had also put in a tremendous amount of work in planning and producing the *Bulletin* and both were warmly thanked.

13 field meetings were arranged in Wales in 1996. 10 had been held before the AGM and attendances were good. David Humphreys was again thanked for the splendid programme he had arranged. In 1997 it was hoped to arrange a similar number of field meetings; and again some would be square bashing meetings to help with recording for the Atlas 2000 project and others traditionally led meetings to areas of interest.

The hope was expressed that all members would help in the Atlas 2000 project, preferably by being allocated one or more 10 km squares by their vice-county recorder, or by attending field meetings aimed at recording for the project.

The question of a Welsh Botanic Garden and its location had again been one of the topics discussed by the Committee for Wales over the past year and as mentioned by the Chairman, Middleton Hall received a grant of £21.5 million from the Millennium Commission to create a garden.

Another topic that had again received some attention was the new Habitat Directive, and a list of Welsh sites considered to be of international importance, drawn up by CCW, had been discussed.

The apparent lack of conservation strategies and possible reduction in numbers of staff with expertise in biological conservation of the new Welsh unitary authorities has also received some attention. It appeared that only Gwent had addressed this problem and it was hoped that other counties might be persuaded to follow their lead. A letter was sent to all the new authorities urging them to take conservation seriously in their strategy plans. The response was poor, of the 22 authorities contacted only 7 replied and of these only 3 were encouraging.

The Secretary then thanked the various organisations that had helped the Society in Wales over the last twelve months, including: CCW for allowing the Committee for Wales to meet in its offices at Plas Gogerddan, Aberystwyth and Llandrindod Wells; the National Museum of Wales for secretarial assistance, for production of the *Welsh Bulletin*, and for its help in many other ways; The officers and staff of Northop Horticultural College, Mold for looking after us so well; and finally to Goronwy Wynne for all the hard work he had put into organising this meeting.

Members were then reminded of tomorrow's field meeting where there was a choice of conducted visits to local nature reserves or recording for Atlas 2000.

Finally he mentioned that after the AGM, there was a Discussion on *Which way now?* led by Jean Green, and later on that evening, after dinner, Mr Pete Cunnington, Curator of Ness Botanic Gardens, would give a talk on *Hills and Valleys of Central Asia*. This would be followed by time to peruse the exhibits.

Hon. Treasurer's Report

The Hon. Treasurer, Peter Jones then reported on the financial situation which was again satisfactory. A balance sheet was passed around which showed we were still self sufficient with no need to top up funds from Treasurer. The small profit made at the AGM's was responsible for keeping us in the black. He was warmly thanked for his efforts on our behalf.

BSBI Committee for Wales Statement of Accounts to 31/8/96

Current Account

Receipts

From BSBI Treasurer	0.00
Receipts for 1996 AGM	565.50
Welsh Bulletin Subs	39.75
Welsh Bulletin back numbers	30.00

Total **635.25**

Carried forward **51.75**

Balance, 31/8/96 **£687.00**

Payments

0.00

Deposit Account **£152.77** (estimated balance, excluding recent interest)

Peter S. Jones (Hon. Treasurer, Committee for Wales) 29 August 1996.

Elections

The Hon. Secretary, Gwynn Ellis announced that following his appointment as Hon. General Secretary of the BSBI, he felt it was time for him to step down as Secretary of the Committee for Wales, although he would still attend meetings in an *ex officio* capacity. After some discussion, during which no replacement was forthcoming, he agreed to remain as Secretary for one more year only. In the elections that followed, The Hon. Secretary, Gwynn Ellis, Hon. Treasurer, Peter Jones, and Hon. Field Secretary, David Humphreys were re-elected unopposed to their respective posts. Arthur Chater, Stephen Evans, George Hutchinson, Quentin Kay and Mike Porter were all due to retire under rule 5 of the constitution and were eligible for immediate re-election. All had indicated their willingness to stand again and were duly re-elected to serve on the Committee for Wales for a further period of two years. As mentioned previously there were two further vacancies on the Committee, Wendy McCarthy was nominated from the floor to fill one of these and was duly elected. It was agreed that the second vacancy be filled by co-option if a volunteer is found.

AGM and Exhibition Meeting, 1997

The 1997 Annual General and Exhibition Meeting will be held at the Gwent Tertiary College, Usk from Friday 29th August to Monday 1st September.

Under Any Other Business, C.D. Preston asked re the possible movement of the Botany collections at the National Museum of Wales to the Welsh Botanic Garden site. It was reported that no information was available and agreed by all that such a movement would be very regrettable. In the absence of further business, the Chairman declared the meeting closed.

COMMITTEE FOR WALES, 1996-1997

Following the election of officers and members at the Annual General Meeting, the composition of the Committee for Wales is as follows:

Officers

Chairman and Welsh Rep. on Council	Mr P. Day
Vice-chairman	Mr R.D. Pryce
Secretary	Mr R.G. Ellis
Treasurer	Dr P.S. Jones
Field Meeting Secretary	Dr D. Humphreys

Committee Members

Mr N.H. Brown*	Mr A.O. Chater
Mr T.G. Evans*	Mr S.B. Evans
Mrs E.G. Wood*	Dr G. Hutchinson
Mr R.G. Woods*	Dr Q.O.N. Kay
Dr G. Wynne*	Mr M. Porter
	Mrs W. McCarthy

* members due to retire in 1997

BOTANICAL SOCIETY OF THE BRITISH ISLES

35th WELSH ANNUAL GENERAL MEETING

and 15th EXHIBITION MEETING

Friday August 29th to Monday September 1st 1997: Gwent Tertiary College, Usk, Monmouthshire
(GR – SO/366.019)

Programme

Friday August 29th

- 4.00 (to 5.30) Arrival
- 6.00 Dinner
- 7.00 Walk -- Berthin Brook to River Usk
- 8.30 Exhibits & slides (limited to 25 per person)

Saturday August 30th

- 8.30 Breakfast (collect packed lunch)
- 10.00 Meet at College for Field Meeting: Penperlleni to Goetre, return by Breconshire & Monmouthshire Canal.
- 4.00 Return to College for tea and biscuits.
- Meeting of Committee for Wales
- 4.30 Annual General Meeting in College Hall
- 5.00 Talk: *Plant conservation – with a difference* by Elsa Wood.
- 6.30 Dinner
- 7.30 Talk: *Flora of Monmouthshire, v.c. 35* by Trevor Evans
- 8.30 Exhibition & slides

Sunday August 31st

- 8.30 Breakfast (collect packed lunch)
- 10.00 Meet at College for Field Meeting: Severn Estuary and Reens. Park at Goldcliff (ST/370.829).
- 6.30 Dinner
- 7.30 Exhibition & slides

Monday September 1st

- 8.30 Breakfast (collect packed lunch)
- 10.00 Optional recording for Atlas 20000

ACCOMMODATION

All single rooms with wash basin

Bedrooms, meeting rooms, and dining rooms are all in the same area of the College.

COSTS

Bed & Breakfast (incl. late evening tea/coffee) £15.00; Dinner £7.00; Packed lunch £4.00, Conference fee £2.00. **Booking forms must be returned by 31 July.**

Booking forms, Atlas 2000 recording cards and further details from Trevor Evans, La Cuesta, Mounton Road, Chepstow, Mons, NP6 5BS. Tel. 01291 620802

WELSH FIELD MEETINGS – LATE SUMMER 1997

For full list, see BSBI Yearbook 1997.

SATURDAY 26th and SUNDAY 27th JULY
MONMOUTH COAST, MONMOUTHSHIRE (v.c. 35)
Leader: Mr T.G. Evans

A meeting to study the coast and coastal reens, with the leader on the first day. Many of the reens are equal to anything on the Somerset levels. The second day will be for recording in this area in independent groups. Some of the interesting plants to be seen include *Bupleurum tenuissimum*, *Althaea officinalis*, *Hyoscyamus niger*, *Hydrocharis morsus-ranae*, all the duckweeds, including *Wolffia arrhiza*, and many more.

Meet at M4 & M48 Service Station (Exit 23a) at ST/420.880 at 10.30 am on both days. Bring walking boots or wellingtons, wet gear, and a grab for hauling plants out of reens, surgical gloves for sorting through aquatic plants (a precaution against unlikely pathogens) and containers for aquatics.

Please send bookings to Dr D.R. Humphreys, Knill Court, Knill, nr Presteigne, Powys LD8 2PR and not to the leader.

SATURDAY 9th and SUNDAY 10th AUGUST
PORTHMADOG, CAERNARFONSHIRE (v.c. 49)
Leader: Mr G.H. Battershall

A weekend meeting in the Porthmadog area, to include recording for Atlas 2000. Habitats include sand-dunes, mountain rocks, sea cliffs, woodland, waste ground and a large marsh. There may be opportunities to see Red Data Book plants, *Limosella australis* and *Eleocharis parvula*.

Meet at the car park, Borth-y-Gest, SH/564.375, at 10.30 am on both days.

Please send bookings to Dr D.R. Humphreys, Knill Court, Knill, nr Presteigne, Powys LD8 2PR and not to the leader.

SUNDAY 17th AUGUST
MALLTRAETH MARSH, ANGLESEY (v.c. 54)
Leader: Dr N. Brown

Meet for Atlas 2000 work on an RSPB wetland reserve 4 km south of Llangefni. Habitats include reed swamp, ditches, small lake, Iris beds, marshy grasslands, wet scrub, old hedgerows and mixed farmland. Interesting species in this area include *Hottonia palustris*, *Stellaria palustris*, *Butomus umbellatus* and *Carex riparia*. Binoculars and gaggles recommended.

Meet at 10.30 am in grassy lay-by at Bryn-y-fedwen, (SH/464.710) on B4419 1.6 km south of the junction with A5 at Pentre Berw.

Please send bookings to Dr D.R. Humphreys, Knill Court, Knill, nr Presteigne, Powys LD8 2PR and not to the leader.

FRIDAY 29th AUGUST to MONDAY 1st SEPTEMBER
WELSH AGM & FIELD MEETINGS
GWENT TERTIARY COLLEGE, USK, MONMOUTHSHIRE (v.c. 35)

See preceding page

THE NEXT HUNDRED YEARS

Is there any reason to think that the next 100 years will be very different to the last 300? In 1696 the second edition of John Ray's *Synopsis methodica stirpium Britannicarum* was published. This summarised the results of many field trips in which Ray had searched for plants, or had been taken to see them by fellow botanists. He had then attempted to equate the species he had seen to those described from the continent, or by his British predecessors. His fieldwork was essentially similar to that of any BSBI member who goes out tetrad-recording. We now have the advantage of numerous technological developments. In the next few years we can confidently expect further major advances in the means by which we can record plants and pass our records on to others. We can speculate about the possibility of developing field tools which will allow us to identify plants using differences at the molecular level. However, it seems reasonable to conclude that although technology changes, the activities of the field botanist remain the same.

We can be certain that, whatever the technological changes, there will always be a need for a trained pair of eyes. Let us suppose that a simple, cheap field test is developed to distinguish the pondweed hybrid *Potamogeton* × *gessnacensis* from its parents *P. natans* and *P. polygonifolius*. It would be quite impractical to search for this hybrid by testing leaves of all the plants of *P. natans* and *P. polygonifolius* in a vice-county! We will need to spot the putative hybrid first, then put it to the test.

Field botany will also continue to remain a minority sport in the sense that only a small minority of the population will become sufficiently adept to contribute to botanical knowledge. This means that although we must make all possible efforts to recruit potential botanists to the BSBI, and provide a stimulating society which will encourage them to maintain and develop their interest, we are unlikely to gain much by a mass-membership drive. In providing a welcoming society, I think that we have been particularly fortunate in our long-serving general secretary Mary Briggs and her recent replacement Gwynn Ellis both 'people people' as well as 'plant people'!

As a minority we are never going to be able to dictate what happens in the countryside. Our flora will always be influenced by competing interests with valid, or invalid but powerful, claims to affect it in ways we deplore. We will often, therefore, be recording changes over which we have no control. I often hear conservationists deplore the fact that plant recording does no more than "monitor decline" but I'm afraid that this will remain a large element in our work.

This brings me to the question of our attitude to change. I see an enormous paradox here. We know that the British flora has been in a state of change for millions of years, and Quaternary science has given us a detailed picture of the massive changes which have taken place in the last 10,000 years. Despite this, botanists have an exceptionally strong dislike of change! Even introduced species such as *Azolla filiculoides*, an attractive aquatic fern of great intrinsic interest which was present in Britain in previous interglacials, is regarded with intense hostility when it appears in a new locality. (I often think of Chris. Cook's comment that if *Phragmites australis* had been a recent invader we would deplore its presence in large, dominant stands in which few other species grow). I think that change is interesting and worth studying. Indeed, one of the main reasons for studying the British flora is for the light it throws on the interaction between man and plants in a densely populated country. Our long history of botanical recording gives us an advantage here that few other countries possess. Acceptance of the inevitability of change may grow in the next

100 years, and must surely help to rescue us from the gloomy pessimism of the conservationist who (like Evelyn Waugh) bemoans the fact that the hands of the clock are never turned back.

I hope that the next 100 years will see an increase in the rigour of our recording, and perhaps the definition of "minimum standards". I know that I am very inconsistent about the difficult groups or infraspecific taxa which I record: I enjoy tackling some groups, am prepared rather grudgingly to identify others when recording a 10-km square or tetrad, and have bugbears which I avoid like the plague. I fear that in this I am typical of most botanists. One tells oneself that life is too short to do everything, but is this lazy behaviour acceptable? Should we not do much more to ensure that we are all recording at the same level that the very best botanists - exemplified for me by Arthur Chater - achieve?

If one looks at the trends in mapping, it is clear that we have moved from mapping distribution at a large scale, the vice-county, to ever-smaller scales, first 10-km squares and then 5-km squares or tetrads. Up to a point this must lead to an increased understanding of the plants, but sooner or later the law of diminishing returns must start to operate. I certainly hope that we will not continue to reduce the size of the units in which we map without asking why we need to do this. What more will we learn? Can we record the smaller units thoroughly? Is the extra effort diverting us from more worthwhile activities?

Why are we so reluctant to take a deeper interest in the plants we study? Why are so many of us content to cross species off on a recording card; why do so few make a more detailed study of their variation and ecology? For many species we cannot begin to answer questions such as: how often does the species reproduce by seed? when do the seeds germinate? how many seedlings survive to maturity? how long do the mature plants live? These questions can be tackled using very simple techniques, but for some reason they only seem to attract the attention of a few professional botanists.

In looking forward to the next 100 years, the most difficult changes to predict are those which will affect taxonomy. A wealth of data is now becoming available from studies of RNA and DNA. A science tends to move forward rapidly in response to an influx of data from a new source, and we can expect that these new developments will lead to a new and richer understanding of our vascular plants - as long as this work receives the necessary financial support from funding bodies. In many cases this knowledge will result in changes to the allocation of genera to families, which has no impact on the field botanist, or the allocation of species to genera, which is the source of name changes which irritate older botanists but have little long-term impact. However, we can also expect to learn much about species and infraspecific taxa. Much of this will no doubt confirm our existing taxonomy, or finally discredit taxa which are currently doubtful or difficult to identify, but will we also learn of the presence of new, cryptic taxa? We must hope that this does not lead to the "diatomisation" or "lichenisation" of vascular plant taxonomy, with identification becoming an ever more complex process using techniques which are only accessible to the professional.

C.D. Preston, Instit. of Terrestrial Ecology, Monks Wood, Abbots Ripton, Huntingdon

**SMALL COW-WHEAT (*MELAMPYRUM SYLVATICUM* L.; SCROPHULACEAE)
PRESENT IN WALES**

During a review of the ecology and distribution of *Melampyrum sylvaticum* in Britain, two historical records were found from V.c. 49 Caernarvon. These are the first published records for Wales.

The first record was from a slate quarry near Bangor, July 1832, C. C. Babington (BM). The material is poor but was correctly named by Babington.

The second record is from near Llanwrst, N. Wales, 18 June 1864, F. A. Hanbury (OXF); the specimen was correctly named by Hanbury though it is not in prime condition. The bracts are entire, the calyx segments are appressed to the sides of the fruit, the fruits dehisce from two sides and one capsule examined had a single seed. A pencil annotation on the sheet by A. J. E. Smith indicates another fruiting capsule had two seeds. F. A. Hanbury (1839-?) was a distant cousin of the more famous F. J. Hanbury, and collected in Caernarvon, Norfolk and Cambridgeshire between 1862 and 1864.

M. sylvaticum should be searched for in light woods and upland ledges in Wales; I will be happy to determine material. Table 1 lists the characters used to distinguish *M. sylvaticum* and *M. pratense*; be warned, *M. pratense* var. *hians* has dark-yellow flowers and is regularly confused with *M. sylvaticum*.

Table 1. Characters used to separate *Melampyrum sylvaticum* and *M. pratense*.

Character	<i>M. pratense</i>	<i>M. sylvaticum</i>
Upper bracts (2-4th pairs onwards)	Toothed except in some small plants with only 2-3 bracts	Entire except in some large plants (usually 20 cm more in height) where there may be 1-2 pairs of small teeth on the uppermost bracts.
Calyx lobes	Appressed to corolla	Spreading from corolla
Lower lip of corolla	Not deflexed	Deflexed
Fruit	4 seeded, dehiscing by dorsal suture	2 seeded, dehiscing by dorsal and ventral suture

T. C. G. Rich, Department of Biodiversity & Biosystematic Biology, National Museum & Gallery of Wales, Cardiff CF1 3NP

POTAMOGETON × COOPERI (FRYER) FRYER IN WALES

The hybrid between *Potamogeton crispus* and *P. perfoliatus*, *P. × cooperi* (Fryer) Fryer, is a rare plant in both Britain and Ireland. The only Welsh record is from the River Solva in Pembrokeshire (v.c. 45), where it was first collected by C.I. & N.Y. Sandwith in 1931. W.H. Pearsall identified this material as *P. perfoliatus*, but J.E. Dandy & G. Taylor later corrected his mistake. The hybrid was refound in both the Solva and in an adjacent mill race above Middle Mill by F.L. Balfour-Browne in 1946, and T.A.W. Davis collected it from the Solva downstream of Middle Mill, at grid ref. SM(12)/807254, in 1967. On 28 August 1996 we revisited the river to check whether it was still present.

Our initial searches failed to reveal any *Potamogeton* in the river either upstream or immediately downstream of Middle Mill, where the river is a shallow, rapidly flowing stream dominated by *Ranunculus penicillatus* subsp. *pseudofluitans*. Examination of the river further downstream was also unsuccessful until we reached the stretch just before it flows into the sea, at SM(12)/806243, where we found a substantial colony of flowering *P. × cooperi* occupying some 50 metres of river. It grew in water 10-30 cm deep with *Apium nodiflorum*, *Elodea nuttallii*, *Lemna minor*, *L. minuta*, *Myriophyllum alterniflorum*, *Oenanthe crocata*, *Ranunculus penicillatus* subsp. *pseudofluitans* and one plant of *Agrostis stolonifera*.

Examination of fresh material from the Solva revealed all the characteristics of this distinctive hybrid. At first glance it could have been mistaken for *P. perfoliatus*, but the stems were compressed with a shallow groove along the broader sides, the leaves had fewer lateral veins and the inflorescences were small and sterile. Voucher specimens were collected for **CGE** and **NMW**.

Although *P. × cooperi* is sterile, it reproduces vegetatively by turions which develop in the leaf axils. (It could also spread by other fragments if these became detached, were washed away from the parent plant and then took root.) In a rapid stream like the Solva, the propagules must almost always be washed downstream; there can be very little chance of dispersal upstream, although an occasional fragment might be accidentally carried upstream by birds or mammals. Any clumps at the upper edge of the colony which are washed away by floods, or are unable to persist through periods when the environment is unsuitable (e.g. times when the water is heavily shaded by the growth of trees on the bank), are unlikely to be replaced. Repeated loss of the uppermost populations might therefore result in plants becoming increasingly confined to the lower reaches of the river, as appears to have happened in the Solva. If this analysis is correct, it suggests that the hybrid might eventually be eliminated from the river completely unless the lower stretch which it currently occupies is particularly well buffered from hazards.

In the River Solva, *P. × cooperi* occurs in the apparent absence of both parents. In this it resembles the other Welsh hybrid of *P. crispus*, *P. × olivaceus*, which grows in the Teifi in the absence of its parents *P. crispus* and *P. alpinus*. The circumstances in which these hybrids became orphaned are not known, and this adds to the interest of these remarkable plants.

C.D. Preston & A.O. Chater

Postscript: Since writing this note, we have learnt that our fieldwork was an almost exact repetition of a search for *P. × cooperi* made by Stephen Evans during the B.S.B.I. Monitoring Scheme in July 1987! Stephen, like us, failed to find the hybrid at Middle Mill but discovered that plants which appeared to be the hybrid were frequent in the lowest reach of the Solva. However, he was unable to obtain expert confirmation of his voucher specimen, and therefore (with commendable caution) decided not to submit the record.

FACTORS AFFECTING THE DISTRIBUTION OF COWSLIPS ALONG THE PEMBROKESHIRE COAST

Because of the varied and often extreme habitats available to the Cowslip (*Primula veris*) along the Pembrokeshire Coast National Park, it seemed an ideal area for its study.

ASPECT

The majority of good Cowslip sites are on the north-facing cliff slopes of coastal coves and gullies, often quite steep ones, which presumably reflects the *Primula* genus' preference for shady sited without too much sun during midday and midsummer: for many of these observations apply equally to the Primrose (*P. vulgaris*) which characteristically grows in woods through much of Britain - though not in Pembs. But despite Pembrokeshire's Atlantic climate and reputation for rain, a combination of sun and strong, drying winds during summer, can desiccate exposed, sunny sites in a matter of days, or even hours.

The wilted leaves of cowslips in the summer do, however, give a misleading appearance of suffering, for this is their dormant season and providing the *adult* rhizomes don't dry out, this doesn't matter, but *seedlings*, along with their rhizomes, could easily succumb, although there was no way of knowing their fate until the following spring, all visible clues to their presence and viability having vanished by high summer. But by the following spring it was all too clear how few of the many seedlings had survived in marked sunny sites. Observations suggest that the thickness of the grass cover was irrelevant to adult plants: indeed a dense carpet of grass could be protective, but for struggling seedlings a north-facing slope, protected from sun and prevailing wind, could be crucial.

LIME

In the literature there are frequent references to the Cowslip's association with lime, so that I was astonished to find it sometimes growing on cliff-tops and headlands with *Erica* spp. (Heaths) and *Digitalis purpurea* (Foxglove), noticeably calciphobes. How can this be? Two suggestions offered, both of which seem unconvincing, are that magnesium-containing foam blown in off the sea could act as a substitute for calcium or that there might be lingering traces of calcium-rich sediment relating to either the past-glacial period when much of Pembs. was submerged or to Ice Age drift deposits. In both cases one would expect that years of winter rain would have removed these bases. Certainly elsewhere in Europe, for example Ireland and the Lot region of France, Cowslips thrive on base-rich soils. And even in acid north Pembrokeshire there are occasional pockets of shell-rich sand, providing a more typical habitat, otherwise the "Lime-Connection" is far from obvious, particularly in north Pembrokeshire.

WATER TABLE

Initially, I was surprised at the abundance of Cowslips and also *Dactylorhiza praetermissa* (Southern Marsh Orchid) in the shell-rich, though sandy site of St David's golf-links (SM 737269) where one would expect lethal drying out in the summer, but a local geologist explained that the wind-blown sand rested on a drift deposit of impervious clay. On the other hand at Pen Brush (SM 884397) an impressive "colony" of Cowslips thrived in a sloping field of thin, acid soil which again rested on impervious rock. Neither site was a marsh, but both retained adequate water even in drought summers, like 1995, making adequate water appear more important than adequate calcium.

GRAZING AND TRAMPLING

Rabbits and farm animals avoid the leaves of Cowslip (and Primrose) because they are poisonous, like those of other spring plants, with the added problem that they hug the ground. Also, because the leaves are soft and crinkly unlike, say, *Hyacinthoides non-scripta* (Bluebell), they were damaged less by trampling. But the flower umbels and developing capsules are very vulnerable to grazing by rabbits, sheep and cattle, though perhaps not by horses. I have vivid memories of an incredibly rich Cowslip field beside the Fosse Way in Warwickshire, winter-grazed by 3 horses, where there were 20.7 plants per square metre! Needless to say, this field has since been sprayed! Also an impressive stand of Cowslips in the valley of the River Caher, in County Clare, Ireland, was grazed only by horses. Perhaps it should be renamed the Horse-slip! Plants attempting to replace their grazed inflorescences never succeeded in raising them much above ground level. Rabbit attack took two forms: vandalism when they chopped through the peduncles as they do with the peduncles of *Hyacinthoides*, a kind of eccentricity, and actual eating of the umbels, the Cowslip's umbelliferous arrangement, ("putting all its eggs in one basket") rendering it more vulnerable to attack than the Primrose, which readily replaces its flowers.

However, Rabbit grazing occurs only where they are desperately short of alternative grazing, which was rarely the case along Pembrokeshire's lush grass-covered coast, most plants producing and dispersing seeds successfully. Elsewhere, particularly in regard to woods as potential habitats, rabbit grazing is critical. Where Cowslip colonies adjoin woods they frequently invade the wood, but their inflorescences are chopped down and they rarely penetrate further: moreover their presence without flowers is often overlooked. I vividly recall an occasion when myxomatosis temporarily wiped out a local rabbit population in Warwickshire and a vigorous stand of flowering Cowslips flourished where previously there were only Primroses.

Grazing by rabbits has also a plus side, easily observed, around St. David's golf-links (SM 737269), where because of the habit-bound nature of rabbit grazing Cowslips grew in two distinct "micro-habitats". Where Rabbits grazed, they had produced "rabbit-lawns" rich in Cowslip seedlings and young plants without flowers, and hence of no interest to them, but in the adjacent long-grass sites, ignored by Rabbits, adult plants survived unharmed, producing and dispersing seeds, which achieved nothing unless they landed in the adjacent "rabbit-lawns". Obviously this pattern of grazed and ungrazed sites is not rigid and eventually the young plants get their chance to flower.

POLLINATION

After many years of both concentrated and casual observations on Cowslip pollination in Pembrokeshire it became clear that this unpopular flower (to insects) relied almost wholly on two visitors: the queens of the bumble bee *Bombus hortorum* and the solitary bee, *Anthophora plumipes*. At 17 mm. depth the nectar is beyond the reach of the two large, common *Bombus* queens, *B. lucorum* and *B. terrestris*, which have pathetically short tongues, while the bee fly, *Bombylius major*, a common visitor to Primrose and Cowslip in sheltered inland sites, was rarely seen along the coast. The visits of *Bombus pascuorum* and *B. lapidarius* were so infrequent as to be of no significance and the Brimstone Butterfly (*Gonepteryx rhamni*) is not present in Pems. Although the long-tongued, hardy *B. hortorum* and *Anthophora plumipes* are industrious and methodical, *Anthophora's* coastal distribution is uneven, so that quite literally Cowslips along the Pembrokeshire rely almost wholly on *Bombus hortorum* for pollination and seed-setting.

COW-SLIPS, MOLE-HILLS AND BADGERS

In contrast to the large, vigorous seedlings of, say, *Galium aparine* (Cleavers), Cowslip seedlings are minute and require maximum help from the environment if they are to survive, the principal requirement being the occasional removal of the grass cover. This also of course applies to most other seedlings of grassland species, notably *Anthyllis vulneraria* (Kidney Vetch) in Pembs. Cattle are perhaps best at providing this service, or at least they do it more often than other animals, when they poach the ground. This was very noticeable when, during winter, they grazed slopes, their cow-slips providing ideal "seed-beds" for Cowslips and others. They don't merely slip: their weight makes the whole slope lumpy and uneven, exactly what is needed for delicate seedlings. Horse-slips and, to a lesser extent, sheep-slips do the same, indeed before intensive farming there was a long-held belief in Britain that Cowslips and cattle were in some way connected, to the extent that the presence of Cowslips on farmland indicated good husbandry. Hence the various names, such as Cowslip, Cowslop, Cowflop, Cooslop, Cowslap, Carslope and so on as recorded in Geoffrey Grigson's "Englishman's Flora." On the drier continent of Europe this association was never recognized, the country names for *Primula veris* making reference mostly to Cuckoos or Keys (of St. Peter to Heaven).

The magnificent Cowslip Field at Pen Brush (SM 884397) relied almost entirely on Badgers for seedling replacement. As already mentioned, it has a thin soil overlying impervious rock, but it is immensely popular with badgers who rake and dig it over for its abundant *Conopodium majus* (Pignut), and the many square metres of soil exposed provide a seed-bed for Cowslips - and for *Conopodium* and others. Where soils were deeper, Moles also broke open the grass cover, providing potential seed-beds.

Finally, even in the absence of animals, the intermittent erosion by the elements of the steep, usually damp, grassy slopes leading to the sea also exposed seed-beds, which were exploited by Cowslips, *Leucanthemum vulgare* (Oxeye Daisy) and others.

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RECORDING IN CARDIGANSHIRE VC 46 DURING 1995 AND 1996

In the two years since my last review (*B. S. B. I. Welsh. Bull.* 59:12-20 (1995)), recording for Atlas 2000 has started in earnest and the County Recorder has become computerised with the help of the BSBI (although at the time of writing I have still to make any progress on the inputting of records). Except for CCW's Phase 1 survey which is still not quite completed, there have been no major surveys contributing records in the VC and most of the recording has been either casual or work done towards the Atlas and the Flora of Cardiganshire project. The sparsity of fresh minds doing major surveys has though been compensated for by numerous visits by experts on many critical and difficult groups and by the hard work of various referees. Although it is still impossible to say what the recording coverage of tetrads or even 10 km squares in the VC is, fieldwork in these last two years has covered most of the county and on a 10 km scale the build up of records for the Atlas is likely to be fairly adequate. Three B. S. B. I. field meetings have been held, at the Penyrerhyd dunes and Banc y Mwldan SSSIs in June 1995, in the Rhuddnant and Myherin valleys near Devil's Bridge in August 1995, and at the Teifi Pools in August 1996 (all have been written up in *B. S. B. I. News*.) In April 1995 a new edition of the *Ceredigion (VC46) Rare Plant Register* was produced in collaboration with Alan Hale of CCW, who greatly

improved the format and inputted, sorted and formatted the register using the "Quattro Pro for Windows" computer package. A 1997 edition is now in production.

FIRST RECORDS FOR NATIVES

Several species that have been actively looked for over many years were found new for the VC in 1995. The most satisfying was *Carex montana*, which occurs in Breconshire only 4 km from the Cards boundary. I have searched for it for 20 years in vain in the Tywi valley and its tributaries, where there are many apparently suitable sites, and on 30 July I took Julian Woodman (JPW) to the Nant Cnwch-gwyn, SN759518, a tributary of the Doethie, where he spotted it in quantity among *Molinia*, *Ulex gallii* and *Festuca ovina* on a rocky slope. There were some 30 clumps in an area 20 x 10 m, and several more nearby. Exactly a month later, now knowing exactly what to look for, AOC and Dafydd Davies (DD) found a few plants among *Molinia* on a rather similar rocky slope, Banc Hendre'r-dail, SN794513, above Llyn Brianne and some 3.5 km east, and 5.5 km from the nearest Breconshire site. JPW and AOC have since looked for it in vain in several other sites in the area. *Rosa stylosa* occurs just across the boundary in Pembrokeshire, and its hybrid with *R. canina*, *R. x andegavensis*, occurs near Cardigan in VC 46, but the species had eluded me in spite of lengthy searches. In September 1994 the ever sharp-eyed JPW had recognised its leaves in a hedge at Gilfach-yr-halen, SN437613, but no fruits were present for confirmation until AOC revisited the site in August 1995 and the record could be approved by G. G. Graham; the hybrid proved to be nearby in the same hedge. *R. rubiginosa*, planted on roadsides at Llanfarian and south of Tal-y-bont, was at last found as a native by AOC in the hedge of a small rough pasture above the Afon Mwldan on the outskirts of Cardigan, SN176461, in September 1995. (The remaining missing *Rosa* in the VC is *R. mollis*, which is most likely to occur on one of the less accessible upland cliffs.)

Persicaria minor, a very rare plant in Wales, was found by AOC in 1994 (but not confirmed by John Akeroyd until the following year) in the poached, muddy area where a track crosses a gravelly tributary of the Teifi on Cors Caron NNR, SN689634. (*P. laxiflora* has not been seen in the VC since 1930 when Salter found it in a pond at Bangor Teifi which still exists but has been searched many times in vain.) Also in 1995 AOC found a few plants of *Hypochaeris glabra* (a Scarce Species) on the path up to one of the chalets nestling in the gorse scrub on the sandy slope above the road at Penyrergyd, Gwbert, just outside the SSSI. It was quite difficult to distinguish from the dwarf coastal ecotype of *H. radicata* which is abundant at this site. The adjacent part of the SSSI is dense gorse growing on sand over boulder clay, and in recent years CCW has been clearing wide strips of this gorse in order to allow early stages of dune succession to start up again. This is proving very successful, and in 1996 *H. glabra* was found to be abundant in several places in these cleared areas (SN165487) where mosses and various other plants had partially consolidated the sand.

SECOND RECORDS FOR NATIVES

A number of second, or second extant, records were made. AOC found *Atriplex longipes* on the south side of the Teifi estuary in the Welsh Wildlife Centre reserve, SN183458, and *Malva neglecta* in abundance both on the sandy seaward edge of the field at the south end of Tan-y-bwlch Beach, Aberystwyth, SN579798, and as a weed in small flowerbeds on the west side of the main street of Borth, SN608893. Jim Bevan (JB), on a *Hieracium* visit with AOC, found *Sibthorpia europaea* abundant in a flush on the north bank of the Teifi 600m W of Pont Tyweli, SN408403, where it had clearly been overlooked by AOC on several earlier visits (the only excuse being that the leaves could perhaps be mistaken at a distance for seedling leaves of *Filipendula ulmaria*!) The exceptionally dry summer of 1995 made

exploration of upland mires unusually easy, and enabled AOC to find a second site for *Carex magellanica* above the Claerwen valley 500m SSW of Bryn yr Hyrddod, SN808689. This is now the southernmost site in the British Isles for the species. *Raphanus raphanistrum* subsp. *maritimus* must be as rare as any plant in Cards, until 1996 having been known as only a single plant found in the gull colony on Cardigan Island by T. A. W. Davis in 1968. In January Steve Chambers (SPC) saw a large rosette among rough grass on the west side of the Ystwyth estuary, SN579806, and Philip Amis (PA) reported the mature plant in June. By the end of the summer it had grown to an unprecedented size, 180cm tall and 390cm in diameter, and was visited and admired by Tim Rich. At the time of writing (January 1997) it is a collapsed mass of dead stems and living lateral rosettes that look as though they will break off and grow if they land on a suitable substrate. (In September 1996 AOC found another solitary first year rosette at the top of the sandy beach at Mwnt and it will be interesting to see whether it is this subspecies if it survives to the summer.)

Geranium pusillum was previously known from only one site in the VC on ballast of the Vale of Rheidol railway between Glanyrafon and Capel Bangor where Salter recorded it in 1932 and 1933. In 1996 SPC found it in the ever-productive flowerbeds of the former Chemistry Department (now Art Department) at Aberystwyth, SN588815. *Erodium moschatum* was found by AOC in 1996 on shaley ground by a track and in an adjacent field ESE of Capel Tygwydd, SN277434 (an interesting area that I will mention in more detail later). Not far away *Glyceria maxima* was dominant in a small pond in fields, SN 275428, although, as in its other site in the VC, Falcondale Lake, it is impossible to tell whether it is native or introduced. *Gymnadenia conopsea* is both rare and very unpredictable in its appearances, and for several populations the subspecies have not yet been determined. In 1996 two more were found to be subsp. *borealis*: the large population at Cae Ffosyrodyn SSSI, SN626635, and a small population above Ponrhyd-y-groes, SN 77, where it had not been seen for 15 years. Since 1936, *Cuscuta epithimum* has been known only from the coast path just north of Clarach, but in 1995 Tom Doidge discovered it in great abundance, growing on *Lotus corniculatus* in a long-ungrazed pasture dominated by *Festuca ovina* and *Anthoxanthum* by the Cwm Rheidol leadmine, SN727782. In 1996 only about four small plants could be found here though.

HYBRIDS

In my previous report I mentioned the presence of possible *Equisetum x dycei* in Bog Pond, SN 732824, growing with an abundance of both parents. Clive Jermy (ACJ) and AOC revisited the lake in July 1996, when as is usual in summer it had drained to a stretch of partially vegetated treacherous mud, and ACJ was able to confirm the identification. Although the hybrid is probably commoner than usually thought, this is the first Welsh record. Now two further records for Cards await confirmation. ACJ also confirmed two collections of *Dryopteris x deweveri*, from Coed Cnwch, Ponrhydfendigaid, SN734653, by AOC in 1995 (the second record) and from a valley mire 3km ESE of Strata Florida, SN 776648, by JPW and AOC in 1996, and found it himself with Anthony Pigott (ACP) in the Llynant, SN729975, in 1996. It is, however, surprisingly not present in several mires where the parents, *D. carthusiana* and *D. dilatata*, occur mixed together in great abundance.

Having found the hybrid *Epilobium brunnescens x ciliatum* in Carms in June 1995, AOC looked out for it in Cards, especially along the shaley verges of Forestry roads. He found instead a small patch of *E. brunnescens x palustre* above Llyn Brianne, SN804512, later confirmed by T. D. Pennington and about to be described as a hybrid new to Britain by G. Kitchener & D. McKean. This hybrid had disappeared a year later. Further searches of

many kilometers of similar Forestry roads failed to reveal any more hybrids, although *E. brunnescens* and several other potential parents frequently occur together by them. Chris Preston (CDP) and AOC made the second record of *E. ciliatum* x *obscurum* on the roadside 700m E of Llandyfriog church, SN340409, in 1996; this has presumably been frequently overlooked. Two other hybrids which are presumably common in the VC but had not previously been recognised were *Crataegus* x *macrocarpa* (SN633609) and *Loium* x *boucheanum* (SN197521). *Cirsium* x *forsteri* (*C. dissectum* x *palustre*) was found in unusual circumstances, when Jon Turner (JT) was collecting leaf samples of *C. dissectum* for Quentin Kay and Rosemary John's researches. His collection from the Rhos Bwlch y Rhandir SSSI, SN593733, in 1994 was at first taken by them to be *C. palustre*, but on a reassessment of its genetic analysis it was found to be the hybrid (although morphologically it looked just like *C. dissectum*). Peter Dailey (PD) on the Phase 1 survey found a second plant of it in a nice fen near Comins Capel Betws, SN614564, in 1995.

VIOLA

On a visit to the RAE Site at Aber-porth on 28 May 1995, AOC, SPC and JPW found at least 50 plants of *Viola lactea* in the mown coastal heath at the NW corner of the Site, SN239524; it was surprising that they had been missed on many previous visits. *V. riviniana* was also present, along with many plants of the hybrid between the two, new for the VC. Specimens of shoots and leaves were sent to D. M. Moore, who also identified it from the coastal heath just east of Mwnt, SN196521. In 1996 AOC found it again, at 270m in unimproved pasture above Pontrhyd-y-groes, SN77, 27km from the nearest known site for *V. lactea*. DMM also identified 1994 material from the burnt part of the Rhos Cwmsaeson SSSI, SN461587, as *V. lactea*. He considered *V. canina*, long known in abundance on the Ynys-las dunes, likely to be confined to sand dunes in the VC, and indeed on a BSBI field meeting in 1995 SPC found it on the dunes at Penyrygyd, SN160485.

CALYSTEGIA

In September 1995 AOC collected 15 specimens at random of *Calystegia silvatica*-like plants, and was surprised when Dick Brummitt (RKB) identified 8 of them as the hybrid with *C. sepium*, *C. x lucana*. This led to RKB visiting in July 1996, when he and AOC looked at populations throughout much of the coastal parts of the VC. The hybrid was confirmed as frequent. Both the eastern and western Mediterranean subspecies of *C. silvatica*, distinguished by RKB in his PhD thesis of 1963 but only now about to be published, were common, and both were found on different occasions to be involved in the hybrid. Intermediates between the subspecies also occurred. Near Aber-porth, in a roadside hedge by the T junction at SN250507, we found a plant intermediate between *C. pulchra* and *C. sepium*, the corolla white, but the leaves with the matt and rugulose surface of *C. pulchra* and the stems hairy. In several places near the coast we found plants of *C. sepium* subsp. *sepium* with hairy stem-apices. We also inspected populations of *C. sepium* subsp. *roseata*, *C. pulchra* and schizopetalous *C. silvatica*, and hope to continue investigations in 1997. In 1994 AOC and Alan Hale (ADH) found *C. sepium* subsp. *roseata* in *Salix cinerea* scrub by the disused railway on Cors Caron, SN686619, 18km inland, unusually far for this normally coastal plant but perhaps an old railway introduction in this situation.

EUPHRASIA

A. J. Silverside kindly identified a backlog of some six years' collections of *Euphrasia* in September 1995 and it is now possible to get a very much clearer idea of the genus in Cards. *E. rostkoviana* subsp. *rostkoviana* seems the commonest taxon, being the dominant eyebright in mostly upland pastures and hay meadows. *E. nemorosa* and *E. arctica* subsp.

borealis are also common, the former often more lowland and especially characteristic of roadside verges and coastal slopes, the latter in a wide variety of habitats but especially common in hay meadows and the more mesotrophic pastures, as well as verges and leadmine sites. *E. scottica* is almost ubiquitous in mineral rich flushes in the uplands where it is associated with *Carex hostiana* and *C. pulicaris*. *E. confusa* is an uncommon plant occurring on a few sheep-grazed acidic pastures and calcareous leadmine and coastal sites, but its hybrids are much commoner and those involving *E. arctica* subsp. *borealis*, *E. micrantha*, *E. nemorosa* (the commonest), *E. rostkoviana* subsp. *rostkoviana*, *E. scottica* and *E. tetraquetra* are recorded. *E. anglica* occurs in a range of grassland habitats, and plants intermediate to *E. rostkoviana* are recorded from two neutral pastures. *E. micrantha* x *nemorosa* has not been recorded since 1970, and the only confirmed record of *E. micrantha* itself since 1955 is from heathy ground at a leadmine site near Cwmerfin, SN701822, AOC, 1991. *E. tetraquetra* occurs along the coast on the Ynys-las dunes and on the clifftops around Gwbert, Mwnt and Cwmtudu. *E. pseudokernerii* occurs as forma *elongata* in wet calcareous fen at the Banc y Mwldan SSSI, SN 197483 and 201489, while the typical plant, probably hybridised to some extent with *E. nemorosa*, occurs on the sea cliffs at the RAE Site, Aber-porth, SN247525. In August 1996 AOC and Paul Smith (PAS) found a large population of the typical plant at the Mynach Vale leadmine, SN772775, a remarkable site which also has *Gymnocarpium robertianum* and *Hieracium sparsifolium*. But perhaps the most interesting eyebright is *E. rostkoviana* subsp. *montana*, found by AOC in neutral pasture at the Caeau Llety-cybi DWT Reserve, SN603535, in 1982, and in a rich hay meadow S of Ty-mawr, Ysbyty Cynfyn, SN756789, 1990 (and an unconfirmed site near Blaenpennal, SN613636, 1996). It is otherwise recorded in Wales only from two hay meadows in Brecon.

HIERACIUM

A visit by JB in July 1995 enabled much interesting material to be collected and added to the records, but the potential novelties still await confirmation by P. D. Sell. Meanwhile the main advance has been the production of tetrad maps of most of the species by JB using DMAP, highlighting areas where further exploration is needed.

RUBUS

On visits by David Allen (DEA) at the end of July in both 1995 and 1996, he and AOC visited 92 different sites, covering most parts of the VC. Tetrad maps of the commoner species are already showing distinctive distribution patterns, and many new species have been recorded. The south-west corner of the VC around Cardigan has a very different bramble flora from the rest of Cards, and one of the new species, *R. rilstonei*, previously known from an adjacent square in Pembs, is common in hedges and wood margins here. *R. briggsianus*, *R. bercheriensis* and *R. ludensis*, the latter a striking extension of range for a predominantly southern Welsh Marches endemic, were found new for the VC near St Dogmaels. In 1996 two species with their chief centres of distribution in East Anglia were found. *R. boudiccaae* grows in a hedge on the sand deposits at Penparc, SN201477. *R. norvicensis* forms a large colony in a wood near Capel Dewi, SN451421, and extends out of the wood into an adjacent stream dingle bordering a garden whose owner moved there from Essex, about ten years ago, suggesting a possible origin. There is another colony 200m away at the other end of the wood, and a more distant one 1.3km away to the SSW, but both are considerably smaller.

At the other end of the VC *R. ordovicum*, a North Wales endemic, was found at the edge of Coed Wileirog, SN603856. *R. lanaticaulis*, curiously absent from south west Wales, and *R. pampinosus* were both found nearby at Wallog, SN596854 and 593856 respectively, and in

several places in Cwm Einion, while the former was also widespread in Cwm Rheidol. *R. pascuorum*, in a considerable westward extension of range, was found in two hedges near Aberystwyth, at the Glanyrafon Industrial Estate, SN613804, and at Bryneithyn, SN580780. Two aliens are also new for the VC. In mid-April 1995 AOC found *R. spectabilis* in flower and abundant in the wooded dingle below Gwernant Home Farm, SN337460, and in 1996 DEA saw *R. armeniacus* 'Himalayan Giant' from the car naturalised on a bank on the outskirts of Cardigan, SN178456.

DRYOPTERIS AFFINIS

In October 1996 ACJ and ACP visited to investigate the morphotypes of *Dryopteris affinis* in Cards, and in company with AOC explored the Ystwyth and several other valleys in the north of the VC. Altogether seven morphotypes were found: *affinis*, *borreri*, *cambrensis*, *convexa*, *insolens*, *paleaceo-lobata* and *robusta*. Both *affinis* and *borreri* were more or less ubiquitous. Also fairly widespread, but generally much less common, was *cambrensis*; on the open, rocky north-facing slope of the Llyfnant valley, SN728974, it was abundant and by far the commonest morphotype. In the Ystwyth valley *paleaceo-lobata* was abundant on a few rocky banks both in woodland and in the open, but only a few plants were seen in the Llyfnant and none elsewhere. Both *insolens* and *robusta* were only found in woods, the former being especially abundant in Llechwedd Dyrws wood, SN616779, and *robusta* only being found as a few plants in Cwm Woods, SN599835, and in Cwm Cletwr, SN664920. Only one colony, of four plants, was found of *convexa*, in slope alder carr in the Llyfnant, SN727975. ACP also identified a large number of specimens collected by AOC over the years so that a reasonable picture of the distribution of the morphotypes in Cards is building up.

DROUGHT ON THE COAST

The dry summer of 1995 had a striking effect on the cliff slopes and pastures all along the coast. By the end of August the vegetation had been killed off over extensive areas, and by midwinter much of this bare ground was being colonised by dense growth of seedlings of winter annuals and spring ephemerals. In 1996 such species as *Aira praecox*, *Geranium molle* and *Ornithopus perpusillus* were more abundant than I have ever seen before, and rarities like *Ranunculus parviflorus* and *Trifolium ornithopodioides* were in unprecedented abundance. The most interesting species to benefit was *Moenchia erecta*. On 31 May 1995 SPC found a few dried up plants along with *Trifolium subterraneum* in short turf at Wallog, SN590851, only the second record since 1941. In the second half of May and early June 1996 AOC, joined at times by PA, ADH and JPW, walked some 35 km of likely stretches of the coast and found it in 9 new tetrads. In some sites, as on the sandy pastures at the north end of the Borth golf course and by the coast path between Borth and Wallog there were many thousands of plants. JPW and AOC found it at Mwnt near where J. A. Whellan saw it in 1941, but in spite of prolonged searching it could not be refound on Constitution Hill or Pendinas, Aberystwyth, where Salter mentions it in 1894 and 1904. However, just below the Camera Obscura on Constitution Hill, SN584827, AOC found a colony of some 80 plants of *Erodium maritimum*.

MISCELLANEOUS

CCW's Phase 1 survey continued to turn up interesting sites. Among many areas of unimproved pasture found by Anne Moorby (AM) and PD, a site at Glanrhyd south of Blaenporth, SN268470, was outstanding; flushed slopes had a variety of marsh orchids, and a steep dry slope by the farm had both *Briza media* and *Ononis repens*, the latter at its furthest inland site in the VC. Working in the south of the VC in 1996, Matt Sutton (MS) found many small flush and fen sites that provided new 10km records for species such as

Carex curta, *C. pallescens*, *C. pulicaris*, *C. rostrata* and *Hypericum elodes*, and he made a great contribution to tetrad recording in the area. In drier grasslands he found six new sites for *Briza media*, for example. In a narrow damp pasture and wet heath on the coastal slope near Tresaith, only 700m from the sea, SN276508, he found *Anagallis minima* and *Carum verticillatum*; *Carum* is very much an inland plant in Cards and occurs nowhere else so near the sea. The south-west facing slope alongside the B4570 between Cwm-cou and Capel Tygwydd in SN24 produced a number of interesting records, MS finding *Orobanche rapum-genistae* (the eighth extant site) and *Saxifraga tridactylites* (the only inland site apart from railway ballast), and AOC finding *Scleranthus annuus* as well as the *Erodium moschatum* already mentioned. MS found a ninth site for the *Orobanche* on a rocky scrub slope above Llangranog, SN319542. *O. minor* has long been known in the Chemistry (now Art) Department gardens at Aberystwyth, but in 1995 Richard Birch found a single spike 1km away among planted shrubs by the entrance to Penbryn Hall, SN597819. Richard Wistow discovered a third site for *Lathraea squamaria*, about 20 spikes in sycamore and ash woodland on a steep slope on the south bank of the Aeron 2km upstream of Aberaeron, SN467611, just 1km below the population at Abermydyr. *Galeopsis speciosa* is now a rare and sporadic plant in Cards, and was reported only twice, both times in September 1995. Justin Lyons found a turnip field full of it near Devil's Bridge, SN730759, and SPC found five plants of it at a building site at Crugiau, SN593797, an area where it has turned up as a result of disturbance several times in recent years.

AOC and PAS visited a small hazel wood on the steep N facing bank of the Pysgotwr Fawr, SN734515, in July 1995 and found *Gymnocarpium dryopteris*, *Phegopteris connectilis* and *Geum rivale*, apparently the only oasis of interest in a dull area of upland. Exploring valleys north of here, AOC found a third site for *Selaginella selaginoides* where it was abundant in flushes by the stream above the Nant-y-graig ruin, a tributary of the Camddwr, SN778541, and AOC and JPW found *Trollius europaeus* in the narrow ravine of a tributary of the Doethie Fach at SN755546. *Osmunda regalis* was recorded from two new sites. JT found it in 1996 in the Rhos-rydd valley mire, SN575737. In 1995 AOC found 15 plants on a cliff in woodland on the north bank of the Teifi at Rhuddlan, SN495429; the site looked natural enough, but the habitat was unusual as an inland one for this species, and there are old plants in an abandoned water garden at Highmead some 500m away. Whether the cliff plants were self-sown or planted, or whether the garden plants were taken from a natural population on the cliff, will probably remain uncertain. *Orchis morio* was found in two new sites in 1996. AOC found it in Bryngwenith chapel graveyard, SN341434, but it had just been mown so the population could not be counted. On the old lawn at Llanerchaeron mansion, SN479601, famous for its fungi, John Savidge found 11 spikes. This lawn is also notable for the presence of *Wahlenbergia hederacea*, and in 1995 AOC found it in quantity in lawns at Llwyncelyn, SN690962, near Glandyfi Castle where it was already known in the lawns.

The absence of *Myrica gale* from Cors Caron (Tregaron Bog) has always been one of the unexplained oddities of the Cards flora, especially as it is abundant in a small mire, Cors y Sychnant, only 3km away to the NNW. But early in 1996 John Davies, CCW's warden, found a thicket of it 4 x 3 m near the west side of the West Bog, SN682642. It is extraordinary that it had been missed before, as it must have taken some years to reach this size, and been within sight of many visiting parties and individual botanists in this not unfrequented part of the NNR (a B. S. B. I. field meeting passed within 100m of it in 1992).

In September 1996 AOC and DD attempted to do a complete survey of the minute part of SN84 in VC46. It is less than 2ha, but is a 45° and more slope above Llyn Brienne, largely

coniferised and with rocky bluffs, and almost inaccessible through windthrown trees. Only 55 species were found, the most interesting being several trees of *Betula lenta*, a native of eastern North America planted experimentally here by the Forestry commission. Just outside this square, we found an abundance of *Filago minima* on the shaley verge of a Forestry road at SN795494.

NATURALISED SPECIES

A surprising new record by AOC in 1995 was *Solanum nigrum* subsp. *schultesii*, chiefly south-eastern in Britain, growing in abundance with subsp. *nigrum* as a garden and roadside verge weed at Glyn-rheidol, Cwm Rheidol, SN712787. Several *Oxalis* species have been noticed for the first time: *O. articulata* in roadside hedgebanks by Rhydypennau school, SN629862, AOC, at Llanon, SN515668, AOC, and on the verge of Penparcau Road, Aberystwyth, SN585809, SPC; *O. debilis* in a roadside hedgebank at Aberaeron, SN458623, and in a long-disused sand quarry at Penparc, SN203477, both AOC; and *O. incarnata* on a roadside verge at Llangranog, SN315540, AOC. This last species also occurs as an abundant weed inside three buildings, a sepulchre in Llandre new churchyard, where I have known it for at least 30 years, and in conservatories at the Ynys-las market gardens and at Llanerchaeron mansion. A second record for *Lemna minuta* was found in a garden pond at Old Castle Farm, Cardigan, SN165463, where it first appeared about five years ago. Another invasive aquatic, *Azolla filiculoides*, is spreading fast; reported from ditches east of the railway at Ynys-las, SN 619930, in 1995 by Mike Bailey, it had spread to many more in 1996 and looked unstoppable. In December 1996 AOC found it abundant in a ditch at Capel Bangor, SN648802. Yet at the sites in the Clarach valley where it was first seen in the VC in 1993 it seems to have decreased considerably. It flourishes in many garden ponds.

Among new alien grasses, the most unexpected was *Ceratochloa carinata* noticed by DEA in the farmyard at Lloegr-fach, SN493621. Penny Condry found a clump of *Cortaderia richardii* by the Afon Einion at Eglwys-fach, SN684956, presumably established from a throwout washed down the stream, the second record. At Cwm-cou AOC noticed several colonies of *Festuca altissima* in the wooded grounds of a house at SN294419, doubtless having originally been planted for decoration but I think not often recorded as an introduction. Six species of *Cotoneaster* were recorded naturalised new for the VC. In the spring of 1995 AOC checked all the *Doronicum* sites in the VC and ten of the extant colonies proved to be *D. pardalianches*. There was one colony of *D. plantagineum* at Tresaith, SN286513, and JPW and AOC found another at Penbryn, SN296519, in 1996. A colony of *D. x excelsum* found at Lovesgrove in 1980, SN629816, had gone, but LG and AOC found a large colony at Penralltisaf, Llechryd, SN220446, in 1995. AOC and Paul Culyer were shown about 30 clumps of *Inula helenium* around a pasture opposite Penbryn church, SN293520, and found *Berberis vulgaris*, in only its second extant site, in two places in a roadside hedge nearby at SN289516. LG recorded *Lamium album* scattered along 70m of roadside verge at Penwenallt, Cwm-cou, SN281416. *Claytonia sibirica* is now known from eight sites in the VC, but *C. perfoliata* is much rarer and the second record was made in 1996 by ADH, a small colony among gorse on scree on Constitution Hill, Aberystwyth, SN583826.

In April 1995 AOC noticed a curious tree in a mixed woodland known as Y Glog at Rhydypfelin, SN593793; still leafless, it had conspicuous clusters of very long-pedicellate, very young fruits and looked at first glance like an alternate-leaved *Acer*. On searching for it in leaf in the summer, it seemed to have disappeared until the suspicion dawned that it must have been an elm. The following spring it was confirmed as *Ulmus laevis*, and there

were two old trees and many vigorous sucker growths; this is the first record of it being naturalised in Britain, and it seems altogether to be a rare tree in cultivation although it appears to be resistant to Elm disease. Two conifers were newly noted as being established from self-sown saplings in 1996, *Abies nordmanniana* in estate woodland at Llanerchaeron, SN479601, SPC, and *Cryptomeria japonica* in Cockshead Wood, SN630554, AOC; neither seems to have been recorded naturalised in Britain before.

CASUALS

The construction of an out-of-town supermarket complex at Parc-y-llyn east of Aberystwyth, SN594804, resulted in an impressive crop of casuals in 1995. Many hundreds of plants of *Chenopodium strictum* appeared, their reddish colour distinguishing them from the even more abundant *C. album*. There were two plants of *Datura stramonium* var. *tatula*, and two of *Amaranthus retroflexus* (which also turned up at Old Castle Farm, Cardigan), as well as a variety of forms of *Nicotiana*. In Aberystwyth itself in 1996 the site of the demolished Seito Chapel at the east end of North Parade, SN586818, had two spectacular plants of *Hyoscyamus niger*, four of *Ambrosia artemisiifolia*, colonies of *Panicum capillare* and *Setaria viridis*, and a plant of *Papaver atlanticum*, AOC, JPW and SPC. *Hyoscyamus niger* has been seen in the VC only four times since 1950; in 1977 J. E. Halfhide found it in abundance on the beach at Wallog, SN589857, but it has not been seen there since until AOC and CDP found one plant in 1996. *Phacelia tanacetifolia* appeared for the first time in the VC in a reseeded pasture at Fferm y Cwrt, Cwrt Newydd, SN497482, in 1995, per Sue Byrne. *Cichorium intybus* subsp. *sativus*, sown in a silage seed mixture in 1991 in fields at Ty-hen Farm, Penbryn, SN287516, was still present here in small numbers in 1996, AOC and JPW. (A trial plot of a New Zealand variety, 'Poona', is being grown at the Welsh Institute of Rural Studies with a view to using it as fodder for sheep; the crop seems to be a mixture of subsp. *sativus*, subsp. *intybus* and intermediates. Look out for it in the Welsh hills!)

In 1995 *Cannabis sativa* was grown under licence as a commercial crop at Monachty, SN504621. 60 acres were sown in May, and by August when most of the crop was about 2.8m high it was cut and then retted *in situ* for five weeks. In late September it was baled and taken to Essex for processing for fibre. The operation was so successful that a similar amount was grown again in 1996. Many plants from spilled seed were growing along lanes and verges around the farm. Another new or revived crop in the VC was *Lupinus albus*, 5 acres of which were sown in October 1995 at Llanerchaeron, SN484602, and harvested for the seeds, to be used as animal feed, in October 1996, but no casual plants were noticed in this case.

ACKNOWLEDGEMENTS

I am grateful to all the recorders mentioned above, in particular to Julian Woodman, David Allen, Lin Gander, Jim Bevan and Clive Jermy for their repeated help with fieldwork, and to Matt Sutton and Steve Chambers for their extensive lists. Also to all the referees and experts who have dealt with specimens, to George Hutchinson, Gwynn Ellis and Tony Tipper for the encouragement and expertise of their back-up service at NMW, and to Alan Hale of CCW especially for his help with the *Rare Plant Register*.

Arthur Chater, Windover, Penyrangor, Aberystwyth SY23 1BJ

WELSH PLANT RECORDS – 1995

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), the number in that list preceding the name, so that names changed since 1992 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 VC record
- + to indicate a new hectad record
- ! to indicate that the species is not native to Wales
- \$ to indicate a species which, although native in some parts of Wales, is not so in the locality recorded
- [] to indicate that the record, previously published in error, should be deleted
- † to indicate that the taxon is now believed to be extinct in the locality cited

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

In general only records which are additional to those given in *Flowering Plants of Wales* by R.G.Ellis (1983), *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 1 km or even a 100 m square may be included. A letter in parenthesis following a 4 figure grid reference indicates a tetrad.

The Vice-county Recorders from 1/7/1997 are:

MONMOUTH, VC 35; T.G.Evans, La Cuesta, Mounton Road, Chepstow, Monmouthshire NP6 5BS

GLAMORGAN, VC 41(West); Dr Q.O.N.Kay, Dept. of Botany, University College, Singleton Park, Swansea, West Glamorgan SA2 8PP

GLAMORGAN, VC 41(East); J.Woodman, c/o CCW, Unit 4, Castelton Court, Fortran Road, Cardiff CF3 0LT

BRECON, VC 42; M.Porter, Aberhoywy Farm, Cyffredyn Lane, Llangynidr, near Crickhowell, Powys NP8 1LR

RADNOR, VC 43; Dr D.R.Humphreys, Knill Court, Knill, near Presteigne, Powys LD8 2PR

CARMARTHEN, VC 44; R.D.Pryce, Treveithin, School Road, Pwll, Llanelli, Carmarthenshire SA15 4AL

PEMBROKE, VC 45; S.B.Evans, Glan-y-Mor, Dinas Cross, Newport, Pembrokeshire SA42 0UQ

CARDIGAN, VC 46; A.O.Chater, Windover, Penyrangor, Aberystwyth, Dyfed SY23 1BJ

MONTGOMERY, VC 47; Mrs M.Wainwright, Troy, 1 Green End, Oswestry, Shropshire SY11 1BT

MERIONETH, VC 48; P.M.Benoit, Pencarreg, Barmouth, Gwynedd LL42 1BL

CAERNARFON, VC 49; Mr G.Battershall, 15 Rhodfa'r Grug, Upper Colwyn Bay, Conwy LL29 6DJ

DENBIGH, VC 50; Mrs J.A.Green, Coed Duon, Tremeirchion, St Asaph, Denbighshire LL17 0UH

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

ANGLESEY, VC 52; N.H.Brown, Treborth Botanic Garden, University College of North Wales, Bangor, Gwynedd LL57 2RQ

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

- *!20/7/5. *Pinus radiata* (Monterey Pine) (Pinwydden Monterey). A line of 10 trees at field edge on B4293 for at least the last 40 years, Devauden, ST/48.98(Z), T.G.Evans, 1995.
- !20/7/wal. *Pinus wallichiana* (Bhutan Pine) (Pinwydden Bhutan). One old tree producing cones at wood edge at top of Piercefield Cliffs, ST/52.95(H), T.G.Evans, 1995.
- *47/8/13b. *Rumex crispus* subsp. *littoreus* (Curled Dock) (Tafol Crych). Sea wall near River Severn, Lamby, ST/228.777, T.G.Evans, 1995. First record for subsp.
- *!48/1/tho. *Limonium thouinii* (Viv.) O.Kuntze (a sea-lavender). Edge of path in garden, The Dyffryn, Llangwm, ST/433.992, Mrs D.Matthews, 1990, det. C.Titcombe, T.G.Evans & M.Ingrouille, spec. in NMW. First British record of this garden escape.
- +!53/6/1. *Abutilon theophrasti* (Velvetleaf). One plant in weedy field with *Lactuca serriola*, Rogiet rifle range, ST/46.86, T.G.Evans, 1995.
- *57/1/9b. *Viola palustris* subsp. *juressi* (Marsh Violet) (Fioled y Gors). Marshy area, Coed Llifos, ST/45.97, T.G.Evans, 1995.
- !61/1/4. *Populus trichocarpa* (Western Balsam-poplar) (Poplysen Gilead y Gorllewin). One clump in meadow, M.O.D. Caerwent, ST/47.91, T.G.Evans, 1995, conf. R.D.Meikle. Obviously planted originally.
- *\$61/2/1. *Salix pentandra* (Bay Willow) (Helygen Beraroglaidd). About 10 trees, obviously planted, on newly disturbed ground, F.C. Wentwood, ST/42.94, T.G.Evans, 1995, conf. R.D.Meikle.
- +61/2/4x9. *Salix* × *mollissima* nothovar. *undulata* (*S. triandra* × *S. viminalis*) (Sharp-stipuled Willow). Large bush at edge of pond near R. Rhymney, Trethomas, ST/18.88, T.G.Evans, 1993, det R.D.Meikle.
- +69/8/1. *Samolus valerandi* (Brookweed) (Claerlys). Along 17m of steep reën bank, NE of Blackrock & Passage Wharf Gout, ST/516.887, T.G.Evans, 1995.
- +75/8/15. *Rubus bertramii* (a bramble). Damp grass, Pen-y-fan Pond, SO/19.00, T.G.Evans, 1995, det. A.Newton.
- +75/8/118. *Rubus prolongatus* (a bramble)Hedgerow, minor rd S of Welsh Tree Services, SO/38.07; +damp meadow, S of Pen-y-fan Golf Club, SO/19.01; +copse edge, Wern Melin Farm, SO/41.10, all T.G.Evans, 1995, det. A.Newton.
- +75/8/142. *Rubus ulmifolius* (a bramble). Cope edge, Wern Melin Farm, SO/41.10, T.G.Evans, 1995, det. A.Newton.
- +75/8/163. *Rubus vestitus* (a bramble). Edge of withy bed, Portskewett, ST/50.88, T.G.Evans, 1995, det. A.Newton.
- +75/8/195. *Rubus moylei* (a bramble). Damp meadow, S of Pen-y-fan Golf Club, SO/19.01, T.G.Evans, 1995, det. A.Newton.
- +75/8/218. *Rubus leyanus* (a bramble). Hedge/ditch, Lower Farm S of Tredegar Country Park, SO/15.05, T.G.Evans, 1995, det. A.Newton.
- +75/8/254. *Rubus rufescens* (a bramble). Grassy bank, Cwm Tillery Reserve, SO/21.07, T.G.Evans, 1995, det. A.Newton.
- +75/8/279. *Rubus pallidisetus* (a bramble). Rough meadow, Markham Common, SO/16.01, T.G.Evans, 1995, det. A.Newton.
- *75/8/fisc. *Rubus iscanus* (a bramble). Path in wettish deciduous woodland, S end of Coed Abergwenllan, Goetre, SO/32.06, T.G.Evans, 1995, det. A.Newton.
- +75/28/8. *Sorbus anglica* [English Whitebeam](Cerddinen Seisnig). At least 3 trees near top of limestone quarry face, Pwll-du, SO/25.11, T.G.Evans, 1994 & 1995, conf. P.J.M.Nethercott.
- +75/28/9x24. *Sorbus* × *vagensis* (*S. aria* × *S. torminalis*) (a hybrid whitebeam). Rocky knoll in Gorra-shill Wood, Mounton, ST/505.936. G.Lock, 1995, conf. T.G.Evans. Third record.
- 75/35/8. *Crataegus laevigata* (Midland Hawthorn) (Draenen Ysbyddaden). Two trees on wet heath, S of Tredegar, SO/151.068, T.G.Evans, 1995. First record since 1946.
- *!84/cia/amo. *Clarkia amoena* (Godetia). Rubbish tip, Newport, ST/30.85, T.G.Evans, 1985.
- 91/2/7. *Euphorbia serrulata* (Upright Spurge) (Llaethlys Mynwy). "Track" on level among tall plants above bank of R. Trothy, Millbrook, SO/501.112, C.Titcombe, 1995. First recorded in this locality in 1980 by Dr S. Tyler but record not published.

- *115/1/1. *Borago pygmaea* (Slender Borage). Narrow band of plants among foxgloves, bracken and brambles in strip of tall plants in middle of steep field, Yew Tree Cottage, Long Lane, Penallt, SO/527.092, S.J.Tyler, 1995, det. T.G.Evans, conf. J.R.Akeroyd.
- *135/25/62. *Taraxacum fulgidum* (a dandelion). Mitchel Troy, SO/503.113, M.V.Marsden, 1995, det. A.J.Richards. First record.
- *135/25/104. *Taraxacum acutifidum* (a dandelion). Trellech, SO/493.056, M.V.Marsden, 1995, det. A.J.Richards. Marsh, Steppes Farm, SO/42.01, T.G.Evans, 1995, det. A.A.Dudman & A.J.Richards. First and second records.
- *135/25/110. *Taraxacum amplum* (a dandelion). Usk, ST/387.995, M.V.Marsden, 1995, det. A.J.Richards. First record.
- *135/25/112. *Taraxacum angulare* (a dandelion). Dingestow, SO/464.105, M.V.Marsden, 1995, det. A.A.Dudman & A.J.Richards. First record.
- *135/25/114. *Taraxacum atonolobum* (a dandelion). Onen, SO/432.147, M.V.Marsden, 1995, det. A.J.Richards. First record.
- *135/25/120. *Taraxacum cophocentrum* (a dandelion). Mitchel Troy, SO/503.113, M.V.Marsden, 1995, det. M.V.Marsden & A.J.Richards. First record.
- *135/25/127. *Taraxacum densilobum* (a dandelion). Cleddon, SO/504.038, , 1995, det. M.V.Marsden & A.J.Richards. First record.
- *135/25/144. *Taraxacum interveniens* (a dandelion). Cleddon, SO/504.038, , 1995, det. M.V.Marsden & A.J.Richards. First record.
- *135/25/160. *Taraxacum lunare* (a dandelion). Dingestow, SO/464.105, M.V.Marsden, 1995, det. A.J.Richards. First record.
- *135/25/145. *Taraxacum intumescens* (a dandelion). Rough grass, Goldcliff, ST/37.82, T.G.Evans, 1995, det. A.A.Dudman & A.J.Richards. First record.
- *135/25/177. *Taraxacum pachymerum* (a dandelion). Dingestow, SO/464.105, M.V.Marsden, 1995, det. M.V.Marsden & A.J.Richards. First record.
- *135/25/173. *Taraxacum obtusifrons* (a dandelion). Lane verge near Ty Mawr Farm, Monmouth, SO/508078, M.V.Marsden, 1995, det. A.J.Richards. First record.
- *135/25/178. *Taraxacum pallescens* (a dandelion). Mitchel Troy, SO/503.113, M.V.Marsden, 1995, det. A.A.Dudman & A.J.Richards. First record.
- *135/25/190. *Taraxacum pulchrifolium* (a dandelion). Rough grass, Goldcliff, ST/37.82, T.G.Evans, 1995, det. A.A.Dudman & A.J.Richards. First record.
- *135/25/203. *Taraxacum subcyanolepis* (a dandelion). Onen, SO/432.147, M.V.Marsden, 1995, det. A.J.Richards. First record.
- *135/25/204. *Taraxacum subexpallidum* (a dandelion). Llansoy, SO/439.018, M.V.Marsden, 1995, det. M.V.Marsden & A.J.Richards. First record.
- *135/25/207. *Taraxacum sublaeticolor* (a dandelion). Hedgebank, E of Duke's Farm, SO/41.20, T.G.Evans, 1995, det. A.A.Dudman & A.J.Richards. First record.
- *135/25/lat. *Taraxacum latens* (a dandelion). Hedgebank, Wern Melin, SO/40.10, T.G.Evans, 1995, det. A.A.Dudman & A.J.Richards. First record.
- *135/25/sah. *Taraxacum sahianum* (a dandelion). Rough grass, Goldcliff, ST/37.82, T.G.Evans, 1995, det. A.A.Dudman & A.J.Richards. First record.
- +152/16/43. *Carex extensa* (Long-bracted Sedge) (Hesgen Hirian). Along several metres of raised grassy bank, above *Juncus maritimus* salt marsh, NE of Blackrock, ST/515.886, T.G.Evans, 1995.
- +135/28/67. *Hieracium subamplifolium* (a hawkweed). Jumbled rocks below Daren cliffs, near Cwmyoy, SO/29.24, T.G.Evans & J.Bevan, 1995. +Roadside bank, A4048 near Markham, SO/173.013, T.G.Evans, 1995, det. J.Bevan.
- +135/28/69. *Hieracium acuminatum* (a hawkweed). +Nr Abercarn, ST/21.94, 1990; +Llyserry, ST/33.86, 1990; +Newport Docks, ST/31.86, 1995; +Skenfrith, SO/457.202, 1995; +Tafarnau-bach, SO/11.10, 1989; +Bedwellty, SO/157.056, 1995; all T.G.Evans, det. or conf. J.Bevan.
- +135/28/72. *Hieracium diaphanum* (a hawkweed). Roadside, SE of Bugle Bridge, Llanthony Valley, SO/29.27, T.G.Evans & J.Bevan, 1995.

- 135/28/74. *Hieracium maculatum* (Spotted Hawkweed) (Heboglys Brith). Disused rail tracks, Newport Docks, ST/31.86, T.G.Evans, 1995, det. J.Bevan.
- 135/28/129. *Hieracium pellucidum* (a hawkweed) Disused limestone quarry, Pwll Du, SO/25.11, T.G.Evans, 1995, det. J.Bevan.
- 135/28/136. *Hieracium subleptostoides* (a hawkweed). +Roadside bank SW of Llangibby Park, ST/35.97, T.G.Evans; near Cwmyoy, SO/29.24, T.G.Evans & J.Bevan; S of Llantony, SY/292.271, T.G.Evans & J.Bevan, all 1995, det. J.Bevan.
- !135/28/138. *Hieracium grandidens* (a hawkweed). Rocky limestone at woodland edge, Livox Quarry, ST54.97, T.G.Evans, 1985, det. J.Bevan.
- *!157/Eic/cra. *Eichhornia crassipes* (Water-hyacinth). 3-4 m² patch in canal at Fourteen Locks, N of Rogerston, Newport, ST/272.888, M.Brain, 1995, det. T.G.Evans. First Welsh record. Probably discarded from pond or aquarium and flourished in hot summer of 1995.

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

- +4/1/1. *Equisetum hyemale* (Rough Horsetail) (Marchrawn y Gaeaf). Large population along 200m of the N bank of River Ely, Miskin, ST/043.812, C.Lindley, 1994.
- +6/1/1. *Osmunda regalis* (Royal Fern) (Rhedyen Gyfrdwy). Two plants in ditch sides of *Molinia* pasture near Llantrisant, ST/053.848, J.Woodman, 1994.
- +17/3/8. *Dryopteris carthusiana* (Narrow Buckler-fern) (Marchredynen Gul). About 50 plants in flushed *Molinia* grassland, Lan Woods, Pontypridd, ST/074.912, J.Woodman, 1994.
- +34/2/1. *Humulus lupulus* (Hop) (Hopysen). Single patch by side of disused railway near Brynna, SS/970.835, J.Woodman, 1994.
- +59/1/1. *Frankenia laevis* (Sea-heath) (Grugeilyn Llyfn). Several clumps on sandy upper saltmarsh, East Aberthaw, ST/041.660, M.Hampton, 1995.
- *!75/21/3. *Rosa luciae* (Memorial Rose). Scrub at edge of old colliery tip below Kenwood Kennels, adjoining salt-marsh, W of Llanmorlais, Gower, SS/526.945, Q.O.N.Kay, 1995. First Welsh record. Presumably introduced or a garden throw-out but appears established.
- +75/21/11. *Rosa stylosa* (Short-styled Field-rose) (Rhosyn Ungolofn). Two large bushes in tall, old mixed hedge on N side of lane c.200m W of The Manse, Oldwalls, Gower, SS/481.922; +Locally abundant in laneside hedges, Furzehill, Ilston, Gower, SS/547.906, both Q.O.N.Kay, 1995. The most abundant hedge rose in Gower to the W of Ilston.
- +75/21/14. *Rosa obtusifolia* (Round-leaved Dog-rose) (Rhosyn Deilen Llawban). + Hedgerow, Kenexstone, Gower, SS/448.914; +several bushes in hedgerow, Penmaen, Gower, SS/529.882; +single bush in hedgerow, N of Garnswllt, SN/625.098, all Q.O.N.Kay, 1995.
- +75/21/16. *Rosa sherardii* (Sherard's Downy-rose) (Rhosyn Sherard). Roadside hedge, N of Llwyn-ifan-ddu, SN/609.071; bushy heathland on steep slope above lane, near Pentre Tân, S of Garnswllt, SN/616.077, both Q.O.N.Kay, 1995.
- +75/21/18. *Rosa rubiginosa* (Sweet-briar) (Drysen Bêr). On top of old wall near dunes (probably bird-sown), Port Eynon, Gower, SS/469.853; +several bushes in a scattered group in fixed sand dunes, S part of Oxwich Burrows, Gower, SS/502.867, both Q.O.N.Kay, 1995.
- +75/35/8. *Crataegus laevigata* (Midland Hawthorn) (Draenen Ysbyddaden). Single bush near disused railway by River Ely, St George's-super-Ely, ST/091.766, J.Woodman, 1995.
- +77/19/20. *Trifolium striatum* (Knotted Clover) (Meillionen Rychog). Scattered on old coal-spoil, Cwm Glo, Merthyr Tydfil, SO/029.053, J.Woodman, 1995.
- +124/25/1. *Pedicularis palustris* (Marsh Lousewort) (Melog y Waun). Flushed areas in *Juncus sub-nodulosus* fen, Ty du moors, near Cardiff, J.Woodman, 1995.
- +133/1/2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Llysiau'r Oen Rhychiog). Several plants on old wall, Page Street, Swansea, SS/651.929, I.K.Morgan, 1995.
- +133/2/3. *Valeriana dioica* (Marsh Valerian) (Triaglog y Gors). Scattered in flushed woodland, Lan Woods, Pontypridd, ST/074.912, J.Woodman, 1994.

- +135/22/1. *Lactuca serriola* (Prickly Lettuce) (Gwylaeth Bigog). Eight plants on waste ground near new road, N end of Nant Ong Way, Enterprise Zone, Swansea, SS/668.962, Q.O.N.Kay, 1995. First record in W Glamorgan.
- +135/25/87. *Taraxacum boeckmanii* (a dandelion). Small coppice along road embank,emt, W of Llanaedern roundabout, Cardiff, ST/201.793, G.Hutchinson, 1994, det. A.J.Richards.
- +151/1/25x26. *Juncus* × *diffusus* (*J. effusus* × *J. inflexus*) (Diffuse Rush) (Brwynen Dryledol). Base-rich damp pasture near Kenfig Hill, SS/842.821; +edge of *Juncus subnodulosus* fen, Aberthin, ST/001.754, both J.Woodman, 1994; +Clemenstone meadows, SS/919.739, G.Barter, conf. J.Woodman, 1995.
- +151/1/11. *Juncus subnodulosus* (Blunt-flowered Rush) (Brwynen Flodbwl). Covering c.0.4ha in base-rich fen near Kenfig Hill, SS/842.819, J.Woodman, 1994.
- +152/1/2. *Eriophorum latifolium* (Broad-leaved Cottongrass) (Plu'r Gweunydd Llydanddail). Base-rich flush near Peterston-super-Ely, ST/0.7; Base-rich flush Cefn Cribwr, SS/856.830, both J.Woodman, 1994; +c.1000 plants in flushes in *Juncus subnodulosus* fen, Ty du moors near Cardiff, ST/107.791, J.Woodman, 1995, (largest population in v.c.).
- +152/3/5. *Eleocharis quinqueflora* (Few-flowered Spike-rush) (Sbigfrwynen Goch). Spring-head in *Juncus subnodulosus* fen near Kenfig Hill, SS/842.819, J.Woodman, 1994.
- +152/3/3. *Eleocharis uniglumis* (Slender Spike-rush) (Sbigfrwynen Un Plisgyn). Spring-head in *Juncus subnodulosus* fen near Kenfig Hill, SS/842.819, J.Woodman, 1994.
- +152/13/1. *Rhynchospora alba* (White Beak-sedge) (Corsfrwynen Wen). Three small patches in Cwm Rhydymilgwr, SS/972.854, A.Peterken & M.Yeo, 1995.
- +152/16/41. *Carex distans* (Distant Sedge) (Hesgen Bell). About 100 plants in base-rich flush near Peterston-super-Ely, ST/0.7, J.Woodman, 1994.
- +152/16/46a. *Carex viridula* subsp. *brachyrrhyncha* (Long-stalked Yellow-sedge) (Hesgen Felen Badladr Hir). In flushes in *Juncus subnodulosus* fen, Ty du moors near Cardiff, J.Woodman, 1995.
- +153/50/3. *Bromus racemosus* (Smooth Brome) (Pawrwellt Llyfn). Frequent in 1ha hay meadow near Kenfig Hill, SS/841.821, J.Woodman, 1994.
- +153/54/2. *Brachypodium pinnatum* (Tor-grass) (Breichwellt y Tŵr). Several plants in base-rich mesotrophic grassland, Cwm Nash, SS/905.700, J.Woodman, 1994.
- +153/39/6. *Agrostis curtisii* (Bristle Bent) (Maeswellt Gwrychog). Frequent over 2ha of grass/heath, Cwm Cyffog SSSI, SS/921.904, J.Woodman & G.Barter, 1994.
- *+162/3/6. *Epipactis leptochila* (Narrow-lipped Helleborine) (Caldrist Gwefus-gul). Wood near Cardiff, ST/1.8, R.Bailey-Wood, 1995, det. K.L.Davies, conf. A.J.Richards (from photographs). Confirmation of old (1974) unpublished record by M.Gillham.
- +162/6/1. *Listera ovata* (Common Twayblade) (Ceineirian). Coed Bryn Glas, Shelf, near Bridgend, SS/933.803, G.Barter, 1995.
- +162/18/3. *Dactylorhiza incarnata* (Early Marsh-orchid) (Tegeirian Rhuddgoch). Base-rich flush, Ty du moors, ST/107.791, J.Woodman, 1995.

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

- !61/2/6. *Salix daphnoides* (European Violet-willow) (Helygen Borffor). Waste ground along new road, Penderyn, SN9507, R.G.Woods, 1995.
- *75/8/317. *Rubus tenuiarmatus* (a bramble). Rough grassland and hedge, Ffawyddog, near Llangattock, SO/201.182, M.Porter, 1995.
- +135/28/67. *Hieracium subamplifolium* (a hawkweed). Ledges on limestone quarry face, Trevil Quarry, SO/11.13, T.G.Evans, 1995, det. J.Bevan.
- +135/28/70. *Hieracium diaphanoides* (a hawkweed). Ledges on limestone quarry face, Trevil Quarry, SO/11.13, T.G.Evans, 1995, det. J.Bevan.
- +135/28/123. *Hieracium stenstroemii* (a hawkweed)Ledges on limestone quarry face, Trevil Quarry, SO/11.13, T.G.Evans, 1995, det. J.Bevan.
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- +135/28/168. *Hieracium hypochaeroides* (a hawkweed) Ledges on limestone quarry face, Trevil Quarry, SO/11.13, T.G.Evans, 1995, det. J.Bevan.
- *1135/71/2. *Petasites japonicus* (Giant Butterbur) (Alan Gawr). Well established along river bank, near Builth Wells, SO/032.515. I.Stadbish & R.G.Woods, 1995.

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

- +120/3/1. *Tsuga heterophylla* (Western Hemlock-spruce) (Hemlog y Gorllewin). A number of self-sown saplings near parent trees at edge of forestry road, Fforest-fach, Radnow Forest, SO/193.679, R.G.Woods, 1995.
- +§36/1/2. *Urtica urens* (Small Nettle) (Danhadlen Leiaf). With *Lolium* spp., by hay feeding rack, Tyn Llisiart, Elan Valley, SN/910.660, R.G.Woods, Dr Drewett, P.Jennings & R.Lowther, 1994. Probably introduced with the hay.
- +46/10/1. *Sagina nodosa* (Knotted Pearlwort) (Corwlyddyn Clymog). River bank, Upper Teme Gorge, SO/125.834, E.R.Dean, 1995, conf. D.R.Humphreys. Second record.
- !62/11/4. *Barbarea verna* (American Winter-cress) (Berwr Tir). Old railway ballast, Stanner railway station, SO/261.582, R.G.Ellis, 1985, det. T.C.G.Rich.
- *62/12/2. *Rorippa microphylla* (Narrow-fruited Water-cress) (Berwr Dŵr Lleiaf). Wet depressions in seasonally flooded grassland, Rhosgoch Common NNR, SO/19.48, Q.O.N.Kay, 1995.
- +!62/30/8a. *Lepidium draba* subsp. *draba* (Hoary Cress) (Pupurllys Llwyd). Gravel covered storage yard, farmer's suppliers in old station yard, Penybont, SO/098.648, R.G.Woods, 1995. Second record.
- 62/35/1. *Sinapis arvensis* (Charlock) (Cedw Gwylt). Roadside, Llanfaredd, SO/06.50, R.G.Ellis, 1978, det. T.C.G.Rich.
- +63/1/3. *Reseda lutea* (Wild Mignonette) (Melengu Wylt Ddisawr). Edge of potato field, Glasbury, SO/181.400, J.Port, 1995. First record since 1956.
- +121/1/1. *Plantago coronopus* (Buck's-horn Plantain) (Llwynhidydd Corn Carw). Several plants – small and in flower – in gravel in little-used part of car park, Elan Valley Visitor Centre, Elan Village, SN/926.646, R.G.Woods *et al.*, 1995.
- 124/1/9. *Verbascum nigrum* (Dark Mullein) (Pannog Tywyllddu). Two plants in flower in roadside verge at wood edge on N side of road, 0.8km E of Elan Valley Hotel, Llansantffraed Cwmdeuddwr, SN/945.663, R.G.Woods, 1995.
- *135/6/3x9. *Cirsium* × *forsteri* (*C. dissectum* × *C. palustre*) (a hybrid thistle). Meadow, Cors y Llyn NNR, SO/01.55; + damp grassland, Rhosgoch Common NNR, SO/19.48, both BSBI group, 1995, det. R.G.Ellis. First records, with both parents in both localities.
- +137/3/1. *Luronium natans* (Floating Water-plantain) (Dŵr-lyriad Nofiadwy). Non-flowering specimens frequent at 2m depth on peaty substrate in oligotrophic lake, Llyn Cerrigllwydion Isaf, SN/843.699, R.A.Jones, 1995.
- +153/47/4. *Alopecurus aequalis* (Orange Foxtail) (Cynffonwellt y Llyn). Dried pool, Llanfawr Hill, SO/249.667, D.R.Humphreys, 1994.

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

- +6/1/1. *Osmunda regalis* (Royal Fern) (Rhedynen Gyfrdwy). About 100 plants scattered over an area of 40m×10m, acid flush and ditched stream, near Pont Morlais, Llannon, SN/528.072, R.D.Pryce, 1995.
- 14/2/1. *Phegopteris connectilis* (Beech Fern) (Rhedynen y Graig). 'Woodland, just above the road, Nr Rhydyffynnon Gate', SN/609.194, W.Davies, 1858. Reported by William Davies in *Llandeilo Vavr and its Neighbour: Past and Present*. 1858, p.168. Site searched by I.K.Morgan in October 1996 but not found.

- +17/3/8. *Dryopteris carthusiana* (Narrow Buckler-fern) (Marchredynen Gul). Rough undergrowth above stream, Brechfa Forest, SN/498.331, M.& J.Illiff, 1993, det. G.Hutchinson.
- 131/1/1. *Dicentra formosa* (Western Bleeding-heart). Escaping along bank of stream from garden on W side of road, near Blaenwaun, SN/219.280, G.Hutchinson & J.Bevan, 1995, conf. A.O.Chater.
- +\$40/3/1. *Carpinus betulus* (Hornbeam) (Oestrwydden). Established on roadside, Froodvale Farm, SN/648.389, J.A.Green, 1995.
- +47/8/13x19. *Rumex* × *pratensis* (*R. crispus* × *R. obtusifolius*) (Meadow Dock) (Tafol y Maes). Rough grassland above Amroth, SN/182.076, G.Kitchener, 1995.
- *61/1/3a. *Populus nigra* subsp. *betulifolia* (Black Poplar) (Poplysen Ddu). +†Morfa, Llanelli, SS/5.9, J.A.Webb, 1945, det. G.Hutchinson & I.K.Morgan. First record but tree now probably destroyed; +Four trees on edge of footpath adjacent to reed-swamp, Dyfatty Marsh, Burry Port, SN/454.008, G.Hutchinson, 1993; +1 tree in hedgerow near start of farm track, near Tir Morfa-fawr, Llwynhendy, SS/533.985, G.Hutchinson, I.K.Morgan, A.O.Chater & R.D.Pryce, 1994. Second and third records. Specimens in **NMW**.
- *61/2/10x12. *Salix* × *capreola* (*S. caprea* × *S. aurita*) (a hybrid willow). Edge of scrub, acid moorland valley, Glanrhyd Farm, Maudsland, SN/332.321, R.D.Pryce, 1992, det. R.D.Meikle. First confirmed record.
- +62/12/3. *Rorippa islandica* (Northern Yellow-cress) (Berwr Melyn y Gogledd). One plant in silt at side of stream, Nant Gurrey fach, E of Llandeilo, SN/632.230, G.Hutchinson; +Pen-y-Dinas Quarry, Llansawel, SN/629.355, A.O.Chater, both 1995.
- 62/23/5. *Cochlearia danica* (Danish Scurvygrass) (Llwylys Denmarc). Central reservation of M4 motorway, from Henty to Pont Abraham, SN/575.035, 572.042, 572.055, 573.067, R.D.Pryce, 1995.
- +173/1/3. *Crassula helmsii* (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Recently constructed pool, Glandwr, Llanpumsaint, SN/411.301, H.Harries, 1995. Third record.
- +74/5/18. *Saxifraga granulata* (Meadow Saxifrage) (Tormaen Gwyn y Gweunydd). Bank of streamlet c.50m above lake at NW corner of Llyn-y-Fan Fach, SN/798.218, A.O.Chater & P.A.Smith, 1995.
- +174/8/1. *Tellima grandiflora* (Fringe-cups) (Clychau'r Clawdd). Probable garden escape in hedgerow, 0.5km W of Blaen-y-cwm, SN/661.341, H.J.Killick & J.Brookman, 1995.
- +75/8/27. *Rubus plicatus* (a bramble). Edge of ungrazed *Molinia* dominated field being invaded by scrub, Cwm Garenig, Glanamman, SN/672.122, R.D.Pryce, 1995, det. M.Porter. Second record.
- +175/32/21. *Cotoneaster horizontalis* (Wall Cotoneaster) (Cotoneaster y Mur). One large plant at roadside to Bank Farm, Llidiadnenog, SN/557.336, M.& J.Illiff, 1995.
- !77/15/7. *Lathyrus grandiflorus* (Two-flowered Everlasting-pea). Established in roadside hedgerow, N side of A476 at Gate Square, near Penygroes, SN/578.148, R.D.Pryce, 1991, det. G.Hutchinson. Second record, still present in 1996.
- 84/1/12x8. *Epilobium brunnescens* × *E. ciliatum* (a hybrid willowherb). Acid quarry spoil heap, Pen-y-Dinas Quarry, Llansawel, SN629.355, A.O.Chater, 1995, det. T.D.Pennington. First Welsh record.
- +\$87/1/1. *Viscum album* (Mistletoe) (Uchelwydd). +One plant on old apple tree in garden, Primrose Cottage, Croesyceiliog, SN/407.165, Mr & Mrs Draper, 1995; +two huge bunches on the main trunk of an old apple tree about 1m from the ground (1 male, 1 female), garden Bethlehem, SN/684.251, M.Williams, 1995.
- *191/2/obl. *Euphorbia oblongata* (Balkan Spurge). Established on garden rubbish tip, Llanelli, SN/49.01, I.K.Morgan, 1995, det. E.J.Clement. First Welsh record.
- +1102/1/6. *Oxalis stricta* (Upright Yellow-sorrel) (Suran Felen Unionsyth). Farmyard weed, near Bwlch-y-Rhyd, 1.5km NW of Talley, SN/621.337, H.J.Killick & D.Brookman, 1995.
- !*107/30/1. *Sison amomum* (Stone Parsley) (Githran). About 50 plants, presumably introduced with material from Slimbridge, in marshy area at edge of path, S of main wildfowl lake, Penclacwydd Wildfowl and Wetland Trust Centre, Llanelli, SS/530.986, B.Stewart, 1991, det. I.K.Morgan. First post 1930 record.

- !110/1/1. *Nicandra physalodes* (Apple-of-Peru) (Afal Periw). +Occasional garden weed on disturbed soil, Maesquare, W of Crymlyn Manor, Bethlehem, SN/653.233, Mrs M.Williams, 1995, det. G.Hutchinson.
- *111/3/4. *Calystegia silvatica* var. *quinquepartita* (Large Bindweed) (Tagllys Estron). Scrambling over old tree-stump, SE edge of Llanedi churchyard, SN/588.066, A.M.Pell, 1995, conf. G.Hutchinson & R.D.Pryce. First record for variety.
- +124/13/3x4. *Linaria* × *dominii* (*L. purpurea* × *L. repens*) (a hybrid toadflax). Base of wall, SW end of Llandovery Railway Station, SN/762.344, G.Hutchinson, 1995, conf. A.O.Chater.
- +135/25/3. *Taraxacum argutum* (a dandelion). Disused Carboniferous Limestone quarry, Mynydd Du, SN/73.18, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards. Second record.
- +135/25/4. *Taraxacum brachyglossum* (a dandelion). Bare floor of disused Carboniferous Limestone quarry, Mynydd Du, SN/737.188, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- *135/25/22. *Taraxacum rubicundum* (a dandelion). Disused Carboniferous Limestone quarry floor, Mynydd Du, SN/735.189, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/39. *Taraxacum euryphyllum* (a dandelion). Llanddeusant churchyard, SN/777.245; +grassy area in Bwlchyrhiw churchyard, 3.4km NE of Myddfai, SN/801.319; both G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- 135/25/55. *Taraxacum bracteatum* (a dandelion). Bank of ford, near Derwydd, SN/613.177, R.D.Pryce, 1994, det. A.J.Richards.
- 135/25/64. *Taraxacum gelertii* (a dandelion). Lan Farm entrance, E side of B4333, N of Cynwyl Elfed, SN/367.289, R.D.Pryce, 1994, det. A.J.Richards.
- .135/25/66. *Taraxacum hesperium* (a dandelion). Roadside verge, E side of minor rd, near Bwlchydomen, SN/326.371, R.D.Pryce, 1994, det. A.J.Richards. Second record.
- +135/25/68. *Taraxacum inane* (a dandelion). E facing side of disused Carboniferous Limestone quarry, Mynydd Du, SN/736.188, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards who comments 'This is the first time this sp. has been discovered with pollen'. Second record.
- *135/25/70. *Taraxacum landmarkii* (a dandelion). Acid pasture, N corner of Crug Melyn NR, SN/502.281, R.D.Pryce & E.Flood, 1994, det. A.J.Richards.
- +135/25/72. *Taraxacum nordstedtii* (a dandelion). Colliery shale, S of Erw-las, Llwynhendy, Llanelli, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce; +acid pasture, N corner of Crug Melyn NR, SN/502.281, R.D.Pryce & E.Flood; +grassy roadside verge, near Belli-bedw Farm, Sawdde Valley, SN/742.229; +sheep grazed grassy bank by bridge over R. Usk, S of Usk Reservoir; both G.Hutchinson & R.D.Pryce; all 1994, det. A.J.Richards.
- +135/25/80. *Taraxacum subbracteatum* (a dandelion). SW corner of Llanddeusant churchyard, SN/777.245, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/83. *Taraxacum unguilobum* (a dandelion). Disused Carboniferous Limestone quarry, Mynydd Du, SN/73.18, G.Hutchinson & R.D.Pryce; +limestone crags, Banc Wern Wgan, R.D.Pryce; both 1994, det. A.J.Richards.
- +135/25/84. *Taraxacum atactum* (a dandelion). Grassy roadside verge, NW side of minor road NE of Bwlchyrhiw churchyard, 3.4km NE of Myddfai, SN/802.320, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/85 *Taraxacum boekmanii* (a dandelion). NE side of Penybedd Wood, Pembrey, SN/418.018, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards. Second record.
- +135/25/87. *Taraxacum hamatiforme* (a dandelion). N corner of Crug Melyn NR, SN/502.281, R.D.Pryce & E.Flood, 1994, det. A.J.Richards.
- +135/25/89. *Taraxacum hamatum* (a dandelion). Penclacwydd Farm, Bynea, SS/539.987, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce; +Llanddeusant churchyard, SN/777.245; +grassy area in Bwlchyrhiw churchyard, 3.4km NE of Myddfai, SN/801.319; both G.Hutchinson & R.D.Pryce, all 1994, det. A.J.Richards.
- +!135/25/90. *Taraxacum hamiferum* (a dandelion). Cyffig churchyard, Brandy Hill, SN/207.139, R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/94. *Taraxacum marklundii* (a dandelion). NE side of Penybedd Wood, Pembrey, SN/418.018, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.

- *135/25/100. *Taraxacum spiculatum* (a dandelion). Grassy picnic site, N of Maudsland, SN/330.348, R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/101. *Taraxacum subhamatum* (a dandelion). NE bank of Old Castle Pond, Llanelli, SN/500.004, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- *135/25/105. *Taraxacum acutifrons* (a dandelion). Berwick roundabout, Bynea, SS/542.987, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/111. *Taraxacum ancistrolobum* (a dandelion). Grassy area in Bwlchyrhiw churchyard, 3.4km NE of Myddfai, SN/801.319, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/121. *Taraxacum cordatum* (a dandelion). Grassy roadside verge, near Belli-bedw Farm, Sawdde Valley, SN/742.229, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/123. *Taraxacum croceiflorum* (a dandelion). NE bank of Old Castle Pond, Llanelli, SN/500.004, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/130. *Taraxacum dilatatum* (a dandelion). Wall in Cyffig churchyard, Brandy Hill, SN/207.139, R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/131. *Taraxacum ekmanii* (a dandelion). Grassy area in Bwlchyrhiw churchyard, 3.4km NE of Myddfai, SN/801.319, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- !135/25/149. *Taraxacum laeticolor* (a dandelion). S end of Waun Road, Llanelli, SN/512.011, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce; +bank of ford, near Derwydd, R.D.Pryce; both 1994, det. A.J.Richards.
- *!135/25/161. *Taraxacum macranthoides* (a dandelion). Pontyfenni, SN/238.168, R.D.Pryce, 1994, det. A.J.Richards.
- *!135/25/171. *Taraxacum obliquilobum* (a dandelion). Grassy roadside verge, NW side of minor road, NE of Bwlchyrhiw churchyard, 3.4km NE of Myddfai, SN/801.319, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/181. *Taraxacum pannulatifforme* (a dandelion). Cemetery, Whitlans, SN/196.178, R.D.Pryce, 1994, det. A.J.Richards. Second record.
- +!135/25/184. *Taraxacum piceatum* (a dandelion). Pontyfenni, SN/238.168, R.D.Pryce; +SE corner of level-crossing, Burry Port, SN/452.007, G.Hutchinson; both 1994, det. A.J.Richards.
- +135/25/197. *Taraxacum sellandii* (a dandelion). Penclacwydd Farm, Bynea, SS/539.987, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/199. *Taraxacum sinuatum* (a dandelion). Cyffig churchyard, Brandy Hill, SN/207.139, R.D.Pryce, 1994, det. A.J.Richards.
- +!135/25/216. *Taraxacum undulatiflorum* (a dandelion). S end of Waun Road, Llanelli, SN/512.011, I.K.Morgan, A.O.Chater, G.Hutchinson & R.D.Pryce, 1994, det. A.J.Richards.
- *135/25/nig. *Taraxacum nigridentatum* (a dandelion). Lan Farm entrance, E side of B4333, N of Cynwyl Elfed, SN/367.289, R.D.Pryce, 1994, det. A.J.Richards.
- +135/25/sah. *Taraxacum sahianum* (a dandelion). Pontyfenni, SN/238.168, R.D.Pryce, 1994, det. A.J.Richards.
- *135/28/165. *Hieracium lasiophyllum* (a hawkweed). One plant only on acid crag, Craig Allt-y-berau, SN/77.46, J.Bevan, R.D.Pryce & G.Hutchinson, 1995.
- *\$152/11/1. *Cyperus longus* (Galingale) (Ysnoden Fair). SW corner of lake margin, Sandy Water Park, Llanelli, SN/493.004, I.K.Morgan, 1995. Source unknown, lake constructed c.5 years ago.
- +152/13/1. *Rhynchospora alba* (White Beak-sedge) (Corsfrwynen Wen). Species-rich unimproved grassland, near Garthynty, SN/714.469, M. & J.Iliff, 1994.
- +152/16/9. *Carex vesicaria* (Bladder-sedge) (Hesgen Chwysigennaidd). 100s of stems filling pond, Glan Rhyd-y-gwial, Nant-y-ffin, Cothi Valley, SN/559.321, M. & J.Iliff, 1995.
- +152/16/28. *Carex rostrata* (Bottle Sedge) (Hesgen Ylfinfain). Over 100 stems along streamside, Blaengorlech, SN/551.388, M. & J.Iliff, 1995.
- *153/12/7g. *Festuca rubra* subsp. *megastachys* (a red fescue). +Roadside verge, near Edwinsford, SN/635345, A.O.Chater; +Roadside near Maesteilo, Capel Isaac, SN/592.265, J.A.Green, D.M.George & E.Stephenson, det. A.O.Chater, both 1995. First & second records for subspecies.
- +153/51/3. *Alopecurus bulbosus* (Bulbous Foxtail) (Cynffonwellt Oddfog). Upper edge of saltmarsh, Bryngwili Manor, near Henty, SN/581.033, R.D.Pryce, 1995.

- 153/31/2. *Koeleria macrantha* (Crested Hair-grass) (Cribwellt). Northern slopes leading up to limestone pavement area, Carreg-yr-ogof, SN/776.215, G.Hutchinson, 1988, det. T.B.Ryves
 +\$153/54/2. *Brachypodium pinnatum* (Tor-grass) (Breichwellt y Tŵr). Grassy quarry slope, Pen-y-Dinas Quarry, Llansawel, SN/629.355, A.O.Chater, 1995. First inland record.
 *!153/62/tric. *Cortaderia richardii* (Endlicher) Zotov (Early Pampas-grass). Waste ground, below Cwmbach Road, Llanelli, SN/498.012, G.Hutchinson & I.K.Morgan, 1994, det. T.B.Ryves.
 +162/18/5. *Dactylorhiza purpurella* (Northern Marsh-orchid) (Tegeirian y Ffig). Unimproved meadow with *Carum verticillatum*, *Epipactis helleborine*, *Pedicularis palustris*, Pant Soar, SN/62.28, G.S.Motley & J.Murphy, 1994.

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

- Chara vulgaris* (a stonewort). Flooded pool in dune slack, Kilpaison Burrows, 8km WSW of Pembroke, SM/889.001, A.D.Hale & R.J.Haycock, 1995, det. N.F.Stewart.
Chara hispida (a stonewort). Flooded pool in dune slack, Kilpaison Burrows, 8km WSW of Pembroke, SM/889.001, A.D.Hale & R.J.Haycock, 1995, det. N.F.Stewart.
Chara contraria (a stonewort). Flooded pool in dune slack, Kilpaison Burrows, 8km WSW of Pembroke, SM/889.001, A.D.Hale & R.J.Haycock, 1995, det. N.F.Stewart.
 17/3/3b. *Dryopteris affinis* subsp. *cambrensis* (a scaly male-fern). Cwm Bach, Llanychlwdog, SN/04.35, BPS meeting, 1995.
 !19/1/1. *Azolla filiculoides* (Water Fern) (Rhedyen y Dŵr). With *Lemma* in slack water of Afon Solfach, Cerbid bridge, Llanhowell, SM/820.272, J.R.Etherington, 1995.
 28/13/4. *Ranunculus sardous* (Hairy Buttercup) (Crafanc y Frân Blewog). Two specimens only in short turf in field by sea, Pencarnan Farm, St David's, SM/725.259, P.Harkness, 1994.
 43/1/6. *Chenopodium rubrum* (Red Goosefoot) (Troed yr Wÿdd Ruddog). Farmland, Bridge Farm, Hundleton, SR/923.993, R.D.Pryce, 1994.
 43/1/8. *Chenopodium polyspermum* (Many-seeded Goosefoot) (Troed yr Wÿdd Luos-hadog). Farmland, Bridge Farm, Hundleton, SR/923.993, R.D.Pryce, 1994.
 46/20/11. *Silene gallica* (Small-flowered Catchfly) (Gludlys Amryliw). Fallow field with *Linum bienne*, *Sherardia arvensis*, *Stachys arvensis*, *Misopates orontium*, *Scleranthus annuus*, *Kickxia elatine*, etc., Bullwell Bay, Rhoscrowther, SM/901.036, S.Gooch, 1994.
 *50/1/1. *Elatine hexandra* (Six-stamened Waterwort) (Gwybybyr Chwe Brigerog). Scattered over an area of 400² m of exposed mud on shore of Rosebush Reservoir, SN/062.297, E.Hughes, 1995.
 61/2/1. *Salix pentandra* (Bay Willow) (Helygen Beraroglaidd). Hedgebank alongside wetland, Hollybush Farm, Llanreithan, SM/863.291, F.Lanc, 1995.
 62/30/6. *Lepidium latifolium* (Dittander) (Berwr Gwylt). Open, ex-industrial ground, demolished Esso refinery, Herbrandston, SM/870.059, J.W.Donovan, 1994.
 75/8/15. *Rubus bertramii* (a bramble). Bracken hillside, formerly woodland, Clydey, SN/256.355, T.A.W.Davis, 1974, det. D.E.Allen 1995.
 75/8/68. *Rubus perdigitatus* (a bramble). Overgrown hedgebank besides small stream, St Ishmaels, SM/817.080, T.A.W.Davis, 1973, det. D.E.Allen 1995.
 75/8/87. *Rubus viridescens* (a bramble). Bank of small stream with *R. rubritinctus*, St Ishmaels, SM/819.086, T.A.W.Davis, 1970, det. D.E.Allen 1995.
 75/8/89. *Rubus altiarcuratus* (a bramble). At foot of wall in wooded valley, St Ishmaels, SM/82.06, T.A.W.Davis, 1964, det. D.E.Allen 1995. [Previously det. as *R. macrophyllus*.]
 75/8/92. *Rubus boudicca* (a bramble). In moist scrub woodland, St Ishmaels, SM/817.080, 1963; bank of shady lane, Llys-y-fran, SN/03.24, 1966; river bank, Haverfordwest, SM/95.16, 1968; all T.A.W.Davis, det. D.E.Allen 1995.
 75/8/101. *Rubus dunnoniensis* (a bramble). Hedgebank, Sandy Lane, Marloes, SM/782.080, T.A.W.Davis, 1963, det. D.E.Allen 1995. [previously det. as *R. altiarcuratus*.]
 75/8/106. *Rubus incurvatus* (a bramble). Hedge bottom in rushy moor, Pant-y-Crwyn, Letterston, SM/93.28, T.A.W.Davis, 1964, det. D.E.Allen 1995.

- 75/8/157. *Rubus longus* (a bramble). Scrub on steep bank besides disused railway, Rosemarket, SM/950.082, T.A.W.Davis, 1973, det. D.E.Allen 1995.
- 75/8/209. *Rubus dentatifolius* (a bramble). Besides path in bracken, Pointz Castle, Brawdy, SM/828.234, T.A.W.Davis, 1964, det. D.E.Allen 1995.
- *77/19/3. *Trifolium occidentale* (Western Clover) (Meillionen y Gorllewin). Several flowering patches on coastal cliff grassland, Stack Rocks, Castlemartin, SR/92.5944; +several flowering patches in coastal cliff grassland, Short Point, Dale, SM/798.044; +NW of St Ann's Head, Dale, SM/802.033, all R.S.Cropper, 1995. First, second & third records.
- 77/25/4. *Genista anglica* (Petty Whin) (Cracheithin). Dozens of specimens on sea-cliff, Porth Dwfn, Porth-gain, SM/806.326, J.Hughes, 1995.
- 184/1/13. *Epilobium pedunculare* (Rockery Willowherb). Woodland garden, Colby Lodge, SN/156.078, G.Kitchener, 1995.
- 84/4/3x4. *Oenothera biennis* × *O. cambrica* (a hybrid evening-primrose). Broad Haven dunes, Stackpole NNR, SR/97.94; Barafundle dunes, Stackpole NNR, SR/991.951; dunes near Black Rock, The Burrows, Tenby, SS/126.997; Sea front over sandy limestone cliffs, Tenby, SN/138.005; all J.C.Bowra, 1995.
- 184/4/4. *Oenothera cambrica* (Small-flowered Evening-primrose) (Melyn yr Hwyr Cymreig). Broad Haven dunes, Stackpole NNR, SR/97.94, J.C.Bowra, 1995.
- *108/5/5. *Gentianella anglica* (Early Gentian) (Crwynllys Cynnar). Near Tenby, SS/1.9, J.E.Arnott, 1921, det. T.C.G.Rich; +dry hollow, Stackpole NNR, SR/984.944, A.Jones, 1994. First Welsh records.
- 118/8/1. *Melittis melissophyllum* (Bastard Balm) (Gwenynog). Hedgebank, Lancych, 2km NE of Bwlch-y-Groes, SN/261.382, V.Kirby, 1994, conf. A.Wheeler.
- 134/5/1. *Scabiosa columbaria* (Small Scabious) (Clafrllys Bychan). Two populations in open, ex-industrial ground, demolished Esso refinery, Herbrandston, SM/87.06, J.W.Donovan, 1994.
- 152/5/1. *Scirpus sylvaticus* (Wood Club-rush) (Clwbfrwynen y Coed). Marshy grassland, Millards, Jeffreston, SN/077.075, S.B.Evans, 1995.
- !159/2/1. *Sisyrinchium bermudiana* (Blue-eyed-grass) (Glaswellt Llygatlas). Open, ex-industrial ground, demolished Esso refinery, Herbrandston, SM/870.057, J.W.Donovan, 1994.
- +162/16/1. *Gymnadenia conopsea* (Fragrant Orchid) (Tegeirian Pêr). One spike only at edge of minor road in neutral grassland on sea cliff, Stack Rocks, Castlemartin, SR/926.946, S.Mackie & R.J.Haycock, 1995. Second extant record.
- 162/23/3. *Ophrys apifera* (Bee Orchid) (Tegeirian y Gwenyn). Gelli-halog Quarry, SN/157.106, P.R.Chapman, 1983; 31 flowering spikes in dune grassland, Poppit sand dunes, SN/155.486, P.Halewood, 1995.

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

- 2/1/1. *Selaginella selaginoides* (Lesser Clubmoss) (Cnwfwfsgl Bach). Frequent in flushes along 300m of slope above stream, 1km NNW of Soar y Mynydd, SN/778.541, A.O.Chater, 1995.
- 3/1/2. *Isoetes echinospora* (Spring Quillwort) (Gwair Merllyn Bychan). Abundant in SE bay of Llyn Ffronoch, Llantrisant, SN/722.751, A.O.Chater, 1995. Not seen on numerous previous visits and presumably a new arrival.
- 4/1/4×5. *Equisetum* × *litorale* (*E. fluviatile* × *E. arvense*) (Shore Horsetail). Disturbed clay ground by stream 150m SSW of Ferwig church, SN/182.494, A.O.Chater, 1995.
- *4/1/4×8. *Equisetum* × *dycei* (*E. fluviatile* × *E. palustre*)(a hybrid horsetail). With both parents on peaty mud of summer-dry leadmine reservoir, Bog Pond, 2km NW of Ponterwyd, SN/732.824, A.O.Chater, 1994, conf. A.C.Jermy. First record for Wales.
- +5/1/1. *Ophioglossum vulgatum* (Adder's-tongue) (Tafod y Neidr). Bracken slope above sea, 300 m NE of Cwm Cilfforch, SN/442.618, J.P.Woodman & A.O.Chater, 1995.
- +6/1/1. *Osmunda regalis* (Royal Fern) (Rhedynden Gyfrdwy). 15 plants on cliff in wood above Afon Teifi, 200m E of Cledyn bridge, Rhuddlan, SN/495.429, A.O.Chater, 1995.

- +10/1/2. *Hymenophyllum wilsonii* (Wilson's Filmy-fern) (Rhodynach Teneuwe Wilson). Wooded ravine of Nant Cnwch-gwyn 550m up from Doethie confluence, SN/761.516, J.P.Woodman & A.O.Chater, 1995.
- +16/4/1. *Gymnocarpium dryopteris* (Oak Fern) (Llawredynen y Derw). N facing rocks in hazel wood, S bank of Pysgotwr Fawr 230m SSE of Pysgotwr ruin, SN/734.515, A.O.Chater & P.A.Smith, 1995. Wooded ravine of Nant Cnwch-gwyn, 550m up from Doethie confluence, SN/761.516, J.P.Woodman & A.O.Chater, 1995.
- 17/3/1. *Dryopteris oreades* (Mountain Male-fern) (Marchredynen Fach y Mynydd). Dry, NE facing acidic cliffs, Pistyll y Llyn, SN/753.942, A.O.Chater, 1990, det. A.C.Jermy.
- *17/3/1x2. *Dryopteris* × *mantoniae* (*D. oreades* × *D. filix-mas*) (a hybrid Male-fern). Mixed colony with *D. filix-mas* on walls of ruined leadmine, Bwlch-glas, 3km ENE of Elerch, SN/710.877, S.P.Chambers, 1994, conf. H.V.Corley.
- 17/3/8x9. *Dryopteris dilatata* × *D. carthusiana* (*D. deweveri*) (a hybrid fern). With both parents among *Molinia* tussocks in clearing in mixed birch and conifer wood, W part of Coed Cnwch, 1km SSE of Ponrhydfendigaid, SN/734.653, A.O.Chater, 1995, conf. A.C.Jermy.
- +19/1/1. *Azolla filiculoides* (Water Fern) (Rhedynen y Dŵr). Ditches alongside B4353 for 300 m E of level crossing, Ynys-las, SN/619.930, M.Bailey, 1995.
- *128/9/hupxvit. *Anemone* × *hybrida* (*A. hupehensis* × *A. vitifolia*) (a hybrid anemone). In crevices of retaining wall above road, below houses, 200m up from beach, Llangranog, 4 plants, SN/315.540, J.P.Woodman & A.O.Chater, 1995.
- +28/13/7. *Ranunculus parviflorus* (Small-flowered Buttercup) (Crafanc y Frân Manflodeuog). 100 or more plants on rabbit-grazed gorse slope 150m W of Clogfryn, 1km SW of Aberaeron, SN/446.621, J.P.Woodman & A.O.Chater, 1995.
- +129/1/1. *Berberis vulgaris* (Barberry) (Eurdrain). Dominant along 2 lengths of hedge of 4 and 7m, 250m SSW of Ty-hen, Penbryn, SN/289.516, A.O.Chater & P.Culyer, 1995. Second extant record.
- *133/1/lae. *Ulmus laevis* (European White-elm). Well established by suckers from two mature trees in mixed woodland, Y Glog, Rhydyfelin, SN/593.793, A.O.Chater, 1995. First British record.
- +134/1/1. *Cannabis sativa* (Hemp) (Cywarch). Frequent casual around Monachty where 60 acres was grown for fibre, SN/506.620, A.O.Chater, 1995. Many plants here have both male and female flowers in the same inflorescence.
- +43/1/6. *Chenopodium rubrum* (Red Goosefoot) (Troed yr Wÿydd Ruddog). c.10 plants around slurry pit, Brynblodau, Capel Betws Leucu, SN/608.567, A.O.Chater, 1995.
- 43/3/4. *Atriplex longipes* (Long-stalked Orache) (Llygwyn Hirgoes). Top of saltmarsh S of Afon Teifi, 150m E of Cardigan bypass bridge, SN/183.458, A.O.Chater, 1995.
- +43/3/8. *Atriplex laciniata* (Frosted Orache) (Llygwyn Ariannaidd). Three plants in sandy bay 300m N of Cliff Hotel, Gwburt, SN/160.503, A.O.Chater, 1995. One plant on shingle 700m N of Lifeboat Station, Borth, SN/608.897, A.O.Chater, 1995.
- !44/1/1. *Amaranthus retroflexus* (Common Amaranth) (Chwyn Moch). Embankment of new footpath, Parc-y-llyn, 1km S of Aberystwyth, SN/592.807, A.O.Chater, 1995. Second record since 1928, det. T.B.Ryves.
- +46/1/1b. *Arenaria serpyllifolia* subsp. *lloydii* (Thyme-leaved Sandwort) (Tywodwlydd Gruwdail). Rabbit-grazed turf by caravans on sand dunes, Penyregyd, Gwburt, SN/162.487, S.P.Chambers & BSBI Field Meeting, 1995.
- +46/7/10. *Cerastium diffusum* (Sea Mouse-ear) (Clust Llygoden Arfor). Open shaley areas on steep, acidic SE facing slope above A487(T), 2.5km SSW of Tal-y-bont, SN/642.871, A.O.Chater, 1995. Gravelly, bare soil on SW facing pasture slope 100m W of Glanceri, Brynhoffnant, SN/337.511, A.O.Chater, 1995. 3.5 and 4.2km from the sea, and the only inland records apart from the Penparc sand quarries, SN/200.483, 1991, 3.2km from the sea.
- *\$46/8/1. *Myosoton aquaticum* (Water Chickweed) (Llinesg y Dŵr). Flowerbed and roadside weed, Newman's Garden Centre, Capel Dewi, SN/625.823, S.P.Chambers, 1995. In 1993 one plant was found by A.O.Chater in a wet patch on the vegetated part of the refuse tip on the SW side of Pendinas, SN/584.799. First records.

- 46/9/1. *Moenchia erecta* (Upright Chickweed) (Cornwlyddyn Syth). Remains of c.8 plants, with *Trifolium subterraneum* & *T. striatum*, on grassy ledge at 105m a.s.l. on coast 600m S of Wallog, SN/590.851, S.P.Chambers. Second extant record.
- *47/1/16. *Persicaria minor* (Small Water-pepper) (Clymog Bychan). With *P. hydropiper* and *Callitriche brutia* on poached muddy area where track crosses a gravelly stream on E side of Afon Teifi, 400m NW of Maesllyn, Cors Caron NNR, SN/689.634, A.O.Chater, 1994, det. J.R.Akeroyd.
- +50/1/1. *Elatine hexandra* (Six-stamened Waterwort) (Gwybydyr Chwe Brigerog). Clay pit dug c.1970 in Camddwr valley 1km N of Maesglas, SN/773.564, A.O.Chater, 1995.
- 53/1/7. *Malva neglecta* (Dwarf Mallow) (Hocys Bychan). Abundant in sandy pasture by sea, Tan-y-bwlch, Aberystwyth, SN/580.799, A.O.Chater. Second extant record.
- *153/2/3. *Lavatera thuringiaca* (Garden Tree-mallow). Two plants on roadside verge 900m ESE of Capel Tygwydd, not appearing planted, SN/279.431, 1994, A.O.Chater. Plant originating from throw-out in scrub in dingle, Cliff Terrace, Aberystwyth, SN/590.827, A.O.Chater, 1992.
- 57/1/4x7. *Viola riviniana* × *V. lactea* (a hybrid dog-violet). Several plants with *V. riviniana*, in heathy coastal grassland on N facing sea cliffs 250m ENE of Mwnt church, SN/196.521, A.O.Chater, 1992. Many plants seen with both parents in mown coastal heath at NW corner of RAE site, Aber-porth, SN/239.524, A.O.Chater, S.P.Chambers & J.P.Woodman, 1995. First & second records, both det. D.M.Moore.
- 57/1/6a. *Viola canina* subsp. *canina* (Heath Dog-violet) (Fioled y Cŵn). Seaward tip of dunes, Penrygyd, Gwbert, SN/160.485, S.P.Chambers & BSBI Field Meeting, 1995. Previously recorded here in the 1940s and 1970s, this species appears to be confined to the dunes here and at Ynyslas; previous records from coastal cliffs and heaths are probably all referable to *V. riviniana* or *V. lactea* × *V. riviniana*.
- 57/1/7. *Viola lactea* (Pale Dog-violet) (Millyn Gwelw Grugog). Many plants on recently burnt area among brambles and gorse at edge of heathy pasture, Rhos Cwmsaeson, Oakford, SN/461.587, A.O.Chater, J.Turner & J.P.Woodman, 1994. 50 or more plants seen on mown coastal heath at NW corner of RAE site, Aber-porth, SN/239.524, A.O.Chater, S.P.Chambers & J.P.Woodman, 1995. Both det. D.M.Moore.
- +57/1/9b. *Viola palustris* subsp. *juressi* (Marsh Violet) (Fioled y Gors). Damp rocks by stream 900m S of Glasbwl, Llyfnant, SN/729.974, A.O.Chater & J.P.Woodman, 1995. Second record.
- 61/2/11x16. *Salix subsericea* (*S. cinerea* × *S. repens*) (a hybrid willow). 'Damp meadow of the Peris Brook, Llanon', SN/5.6, J.H.Salter, 1930, det. R.D.Meikle (previously recorded as *S. aurita* × *S. repens*).
- 61/2/11 × 12. *Salix multinervis* (*S. cinerea* × *S. aurita*) (a hybrid willow). Wet heath SE of Tryalbach, Llanon, SN/522.655, A.O.Chater & D.Glyn Jones, 1978, det. R.D.Meikle (previously det. R.D.Meikle as *S. aurita* × *S. repens* in *Watsonia* 12: 355 (1979) and *Nature in Wales* 16: 16 (1979)).
- +169/3/1. *Cyclamen hederifolium* (Cyclamen) (Bara'r Hwch). Shaded bank of Afon Einion by Ynys-hir bridge, Eglwys-fach, SN/684.957, E.Greenwood, P. & W.M.Condry, 1995. Second record.
- +69/4/3. *Lysimachia vulgaris* (Yellow Loosestrife) (Trewynyn). Ystwyth bank 200m W of Llanfarian bridge, SN/587.777, S.P.Chambers. 1995.
- *1†74/5/are. *Saxifraga 'arendsii* hybrid' (a hybrid saxifrage). Large patch at top of mine shaft, Bwlch leadmine, 1km SE of Cwmerfyn, SN/701.823, S.P.Chambers, 1993, det. R.J.Gornall. This site has since been destroyed.
- *75/8/6. *Rubus briggisianus* (a bramble). One bush only in roadside hedgebank 250m ESE of Pen-waun, St Dogmaels, SN/157.442, D.E.Allen & A.O.Chater, 1995, conf. A.Newton.
- *175/8/9. *Rubus spectabilis* (Salmonberry) (Mwyaren Oren). Abundantly established over 3 acres in wooded dingle E of Gwernant Home Farm, Troed-yr-aur, SN/337.460, A.O.Chater, 1995.
- *75/8/61. *Rubus ludensis* (a bramble). Roadside hedgebank 100m S of Waunwhiod, St Dogmaels, SN/145.450, D.E.Allen & A.O.Chater, 1995, conf. A.Newton.
- *75/8/113. *Rubus pampinosus* (a bramble). Colony at edge of larch plantation 100m W of Ty'n-y-cwm, Cwm Einion, SN/699.943, D.E.Allen & A.O.Chater, 1995, conf. A.Newton.

- *75/8/154. *Rubus lanaticaulis* (a bramble). By lane in open woodland 600m E of Wallog, SN/596.854, D.E.Allen & A.O.Chater, 1994, det. A.Newton.
- *75/8/159. *Rubus ordovicum* (a bramble). Wood margin, Coed Wileirog, 1.5km N of Llangorwen, SN/603.856, D.E.Allen & A.O.Chater, 1994, conf. A.Newton.
- *75/8/221. *Rubus pascuorum* (a bramble). Roadside bank, Glanyrafon Industrial Estate, SN/613.804, D.E.Allen & A.O.Chater, 1994, conf. A.Newton.
- *75/8/266. *Rubus bercheriensis* (a bramble). Bank below road, Cwm Degwel, 200m S of St Dogmaels Abbey, SN/163.454, D.E.Allen & A.O.Chater, 1995, conf. A.Newton.
- *75/8/284. *Rubus rilstonei* (a bramble). Roadside hedgebank 250m ESE of Penwaun, St Dogmaels, SN/157.442, D.E.Allen & A.O.Chater, 1995, conf. A.Newton. Common in hedges throughout much of the SW part of the county.
- *75/21/1. *Rosa stylosa* (Short-styled Field-rose) (Rhosyn Ungolofn). One bush in hedgebank 180m NNE of Pont Gilfach, Gilfach-yr-Halen, SN/437.613, J.P.Woodman & A.O.Chater, 1995, conf. G.G.Graham. First noticed by JPW in 1994, but not confirmed until fruits were present in 1995.
- *75/21/18. *Rosa rubiginosa* (Sweet-briar) (Drysen Bêr). Two bushes in overgrown hedge at S corner of rough pasture S of Afon Mwldan, 200m up from Teifi, Cardigan, SN/176.461, 1995, A.O.Chater, conf. G.G.Graham. Although recently planted on several roadside slopes, this is the first record of it as a native.
- *175/30/1. *Amelanchier lamarckii* (Juneberry) (Hefinwydden). *Quercus petraea* wood on rocky ridge 200m S of Eglwys-fach church, SN/685.953, A.O.Chater, 1994. Heathy carr, Covert Coch and West Marsh, Ynys-hir RSPB Reserve, SN/676.955, A.O.Chater & W.M.Condry, 1995. First and second records; self-sown bushes scattered in these areas and in other woods nearby.
- *175/32/9x10. *Cotoneaster* × *watereri* (*C. frigidus* × *C. salicifolius*) (Waterer's Cotoneaster). Large self-sown bush on scrub slope at SW corner of East Bay, Aberporth, SN/258.514, A.O.Chater, 1992, conf. J.Fryer.
- *175/32/10. *Cotoneaster salicifolius* (Willow-leaved Cotoneaster). Self-sown on rocks by Afon Castell, Ponterwyd, SN/749.808, A.O.Chater, 1991, det. J.Fryer.
- *175/32/22. *Cotoneaster hjelmqvistii* (Hjelmqvist's Cotoneaster). Self-sown on wooded cliff above road SW of Glandyfi, SN/694.968, A.O.Chater, 1993, conf. J.Fryer.
- *175/32/35. *Cotoneaster rehderi* (Bullate Cotoneaster). Gorse scrub NW of Golf Course, Aberystwyth, SN/587.824, A.O.Chater & S.P.Chambers, 1994, conf. J.Fryer. Scrub below A487(T) SW of Ffos-y-ffin, SN/444.601, A.O.Chater, 1992, conf. J.Fryer. First and second records; seen in half a dozen other sites, and, after *C. simonsii*, the most frequently established species in Cards.
- *175/32/37. *Cotoneaster dielsianus* (Diels' Cotoneaster). Rocky scrub 150m SSW of Gwynfa, Tre-saith, SN/283.511, A.O.Chater & P.Culyer, 1995.
- *175/32/39. *Cotoneaster franchetii* (Franchet's Cotoneaster). Two bushes in scrub on railway embankment 200m W of Einion bridge, Glandyfi, SN/686.966, A.O.Chater, 1992, conf. J.Fryer.
- *177/15/9. *Lathyrus latifolius* (Broad-leaved Everlasting-pea) (Ytbyesen Barhaus Lydanddail). Roadside bank, Felin-y-mor, Aberystwyth, SN/580.806, S.P.Chambers, 1995.
- +77/16/4. *Ononis repens* (Common Restharrow) (Tagaradr). Steep neutral pasture above Ystwyth, 400m W of Pen-y-banc Bridge, Llanilar, SN/614.755, J.P.Lyons, 1995. Similar pasture S of Glanrhyd, 2km SSE of Blaenporth, SN/268.470, P.Dalley & A.Moorby, 1995. The most inland records of this predominantly coastal species in Cards.
- 77/19/25. *Trifolium subterraneum* (Subterranean Clover) (Meillionen Wen Ymgudd). Two plants with *Moenchia*, in dry pasture 450m W of Banc, Llanrhystud, SN/534.703, S.P.Chambers, 1995. 8 plants with *Moenchia*, on dry grassy ledge at 105m a.s.l. on coast 600 m S of Wallog, SN/590.851, S.P.Chambers, 1995.
- !79/2/2. *Myriophyllum aquaticum* (Parrot's-feathers). Hollow by stream in wooded gorge, Ponthir-waun, SN/263.451, A.O.Chater, 1994. Second record.
- *84/11/2x9. *Epilobium* × *rivulare* (*E. parviflorum* × *E. palustre*) (a hybrid willowherb). Abundant in *Molinia* tussock marsh, Rhos Gellie, 1.5km NE of Plwmp, SN/379.536, A.O.Chater & D.P.Stevens, 1994, conf. T.D.Pennington. Frequent in *Molinia* marsh, Cors y Cletwr NNR, Tal-garreg, SN/419.496, A.O.Chater, 1994, conf. T.D.Pennington. Also seen in several other similar sites, and sometimes commoner than *E. palustre*. First and second records.

- 84/1/7. *Epilobium roseum* (Pale Willowherb) (Helyglys Coesig). Weed in flowerbeds and pavement, Portland Street and Belle Vue Hotel, Aberystwyth, SN/583.819, S.P.Chambers, 1995.
- *84/1/9x12. *Epilobium palustre* × *E. brunescens* (a hybrid willowherb). With both parents on damp shaley ground by Forestry road 2km S of Hafdre, Llyn Brianne, SN/804.512, A.O.Chater, 1995, conf. T.D.Pennington, G.Kitchener & D.McKean. First British record.
- +85/1/1. *Cornus sanguinea* (Dogwood) (Cwyros). Many self-sown plants from planted bushes on roadside banks, Llanfarian, SN/591.781, S.P.Chambers, 1995.
- 191/1/2. *Mercurialis annua* (Annual Mercury) (Bresych y Cŵn Blynnyddol). Pavement of Quay Road, Aberystwyth, SN/580.813, A.O.Chater, 1995. Second record.
- +92/2/1. *Frangula alnus* (Alder Buckthorn) (Breuwyddden). Rocky knolls at 450m a.s.l. in conifer forest, Truman, 1.9km NE of The Arch, SN/778.768, A.O.Chater, 1995. Self-sown bushes from decorative plantings by Forestry Commission.
- 193/2/1. *Parthenocissus quinquefolia* (Virginia-creeper) (Dringwr Fflamgloch). Roadside hedge S of Llandre, SN/626.865, A.O.Chater, 1995. Second record.
- *102/1/8. *Oxalis articulata* (Pink-sorrel) (Suran Ruddgloch). Roadside hedgebank E of Rhydyppennau school, SN/629.862, A.O.Chater, 1995.
- !102/1/10. *Oxalis debilis* (Large-flowered Pink-sorrel) (Suran Oddfog). Several plants on roadside hedgebank by gardens S of A482 bridge, Aberaeron, SN/458.623, A.O.Chater, 1994.
- !103/1/1x2. *Geranium* × *oxonianum* (*G. endressii* × *G. versicolor*) (Druce's Crane's-bill). Large patch in scrub in Ysbyty Ystwyth churchyard, SN/732.715, A.O.Chater, 1995. Second record.
- +103/1/4. *Geranium rotundifolium* (Round-leaved Crane's-bill) (Pig yr Aran Crynddail). Grassy area at NE corner of the square, Llanbadarn Fawr, SN/600.809, A.O.Chater, 1995.
- +103/1/10. *Geranium columbinum* (Long-stalked Crane's-bill) (Pig yr Aran Hirgoesog). Dry bank of disused railway, 500m N of Lampeter College, SN/581.488, S.P.Chambers, 1995. The most inland record of this predominantly coastal species in Cards.
- +107/1/71. *Crithmum maritimum* (Rock Samphire) (Corn Carw'r Môr). Shingle beach 700m N of Lifeboat Station, Borth, SN/608.897, A.O.Chater, 1995.
- *!10/8/1b. *Solanum nigrum* subsp. *schultesii* (Black Nightshade) (Codwarth Du). Abundant with subsp. *nigrum* (and fruiting rather later) on roadside verge and as a garden weed, Glyn-Rheidol, Cwm Rheidol, SN/712.787, A.O.Chater, 1995.
- +!10/9/1. *Datura stramonium* var. *tatula* (Thorn-apple) (Meiwyn). Recently constructed embankment of footpath, Parc-y-llyn, 1km SE of Aberystwyth, SN/591.807, A.O.Chater, 1995.
- +11/3/2b. *Calystegia sepium* subsp. *roseata* (Pink Hedge Bindweed) (Taglys Mawr). Carr on NW side of disused railway, Cors Caron NNR, SN/686.619, A.O.Chater & A.D.Hale, 1995. 17.5km from the sea.
- +11/3/2x4. *Calystegia* × *lucana* (*C. sepium* × *C. silvatica*) (a hybrid bindweed). Roadside hedgebank 200m SW of Brynllynan, Ferwig, SN/188.484, A.O.Chater, 1995, det. R.K.Brummitt. Of 16 widely scattered collections from Cards of *C. silvatica*-like plants in autumn 1995, half were determined as this hybrid by Brummitt; it is clearly widespread and common.
- +112/1/3. *Cuscuta epithymum* (Dodder) (Llindag Lleiaf). Abundant on *Lotus corniculatus* over c.½ acre of tussocky pasture, Cwm Rheidol, SN/727.782, T.Doidge, 1995. Second extant locality.
- 118/5/1. *Lamium album* (White Dead-nettle) (Marddanhadlen Wen). Scattered along c.70m of roadside verges just NW of Penwenallt, Cwm Cou, SN/281.416, L.Gander, 1995.
- +118/23/1. *Mentha arvensis* (Corn Mint) (Mintys yr Yd). Several colonies in strawberry field 300m N of Penlan-las, Llanfarian, SN/607.771, A.O.Chater, 1995. Only the second recent record.
- +!118/23/3xlon. *Mentha* × *villosanervata* (*M. longifolia* × *M. spicata*) (a hybrid mint). In rank vegetation on reclaimed part of refuse tip, SW side of Pendasin, Aberystwyth, SN/582.799, A.O.Chater & J.P. Woodman, 1994. Hedgebank by Drefnewydd farm, Aberaeron, SN/463.632, A.O.Chater, 1994.
- +124/2/2. *Scrophularia auriculata* (Water Figwort) (Gornerth y Dŵr). Marsh on old woodyard site, Lampeter, SN/579.488, S.P.Chambers, 1995.
- +124/4/2x3. *Mimulus* × *robertsii* (*M. guttatus* × *M. luteus*) (Hybrid Monkeyflower). In farmyard ditch, Ty-mawr, Cwm Ystwyth, SN/814.747, A.O.Chater, 1994. Known here since at least 1985.

- +124/18/1. *Sibthorpia europaea* (Cornish Moneywort) (Ceiniog[lys]). Abundant in flush by Teifi 600m W of Pont Tyweli, SN/408.403, J.Bevan & A.O.Chater, 1995. Second extant locality.
- *124/20/1b. *Euphrasia rostkoviana* subsp. *montana* [Mountain Eyebright](Torfagl Mynyddog). Unimproved pasture, Caeau Llety-cybi DWT Reserve, SN/603.535, A.O.Chater, 1982. Hay meadow S of Ty-mawr, Ysbyty Cynfyn, SN/756.789, A.O.Chater, 1990. First & second records, and previously confirmed from Wales in one site in Brecon; both det. A.J.Silverside
- +124/20/6x9. *Euphrasia tetraquetra* × *E. confusa* (a hybrid eyebright). Steep W facing grassy slope, Cwm Cilfforch, SN/439.616, A.O.Chater & J.P.Woodman, 1994, det. A.J.Silverside.
- *124/20/7x1a. *Euphrasia confusa* × *E. rostkoviana* subsp. *rostkoviana* (a hybrid eyebright). Acidic pasture, Rhydtalog, Soar y Mynydd, SN/791.521, A.O.Chater, 1995. Grassy slope among bracken below road, 1200m NNW of Soar y Mynydd, SN/782.545, A.O.Chater, 1995, First and second records; both det. A.J.Silverside.
- *124/20/7x9. *Euphrasia confusa* × *E. nemorosa* (a hybrid eyebright). Mown grassland, RAE Site, Aber-porth, SN/249.520, A.O.Chater, 1993. *Nardus* grassland, Esgair-fraith leadmine, SN/739.911, A.O.Chater, 1991. First and second records; both det. A.J.Silverside; recorded from 7 other sites and probably widespread throughout Cards.
- 124/20/18. *Euphrasia micrantha* [Slender Eyebright](Gloywlys Eiddil Cyffredin). With *Calluna* and *Festuca ovina* on peaty ground on leadmine site by gate on road, 550m S of Cwmerfyn upper chapel, SN/701.822, A.O.Chater, 1991, det. A.J.Silverside.
- 125/2/10. *Orobanche minor* (Common Broomrape) (Gorfanc Lleiaf). One plant on *Cotoneaster* in shrubbery on UCW campus, Penglais, Aberystwyth, SN/597.819, R.Birch, 1995.
- +129/3/1. *Wahlenbergia hederacea* (Ivy-leaved Bellflower) (Clychlys Eiddew). Marshy pasture 400m E of Pantyhohiad, Brynhoffnant, SN/338.501, A.O.Chater, 1995.
- *1131/6/6. *Lonicera japonica* (Japanese Honeysuckle). Long-abandoned allotment site, Felin-y-mor Road, Aberystwyth, SN/581.805, A.O.Chater, 1995.
- +133/1/1. *Valerianella locusta* ssp. *dunensis* (Common Cornsalad) (Llysiau'r Oen). Sandy verges of path to chalets, Penyregyd, Gwbart, SN/163.486, A.O.Chater, 1995.
- *135/6/3x9. *Cirsium* × *forsteri* (*C. dissectum* × *C. palustre*) (a hybrid thistle). Marshy pasture, Rhos Bwlch y Rhandır, 4km SW of Llanilar, SN/593.733, J.Turner, 1994, det. R.F.John & Q.Kay. Fen 200m ESE of Ty'n-y-ddraenen, Capel Betws Leucu, SN/614.564, P.Dalley, 1995, conf. A.O.Chater. First and second records.
- +135/12/1. *Cichorium intybus* (Chicory) (Ysgellog). Casual in field 250m ESE of Pontrhydfendigaid crossroads, SN/732.666, J.Harvey, 1979.
- *135/15/2. *Hypochoeris glabra* (Smooth Cat's-ear) (Melynydd Moel). Sandy margin of track through gorse, rabbit-grazed dunes, Penyregyd, Gwbart, SN/163.486, A.O.Chater, 1995.
- *135/21/4gla. *Sonchus asper* subsp. *glaucescens* (Prickly Sow-thistle) (Llaethysgallen Arw). Roadside by Teifi estuary, Nantferwig, Gwbart, SN/166.483, A.O.Chater, 1995; disturbed ground by supermarket development, Parc-y-llyn, Llanbadarn Fawr, SN/593.806, A.O.Chater, 1995. First and second records.
- +135/24/1. *Mycelis muralis* (Wall Lettuce) (Gwylaeth y Fagwyr). Wheelpit of disused leadmine, Cwmsymlog, SN/702.838, A.O.Chater, 1995. c.6 plants, not noticed before on numerous visits and presumably a new arrival.
- *135/28/34. *Hieracium sparsifolium* (a hawkweed). Mynach Vale leadmine, Devil's Bridge, SN/772.775, A.O.Chater, 1994, det. P.D.Sell.
- *135/28/45. *Hieracium scoticum* (a hawkweed). Acidic cliffs by waterfalls at head of Afon Myherin, SN/798.806, A.O.Chater, 1991. Ruined mortared walls of wheelpit, Nantycreuau leadmine, Myherin valley, SN/789.802, A.O.Chater, 1991. First and second records; both det. P.D.Sell.
- *†135/28/58. *Hieracium pollichiae* (a hawkweed). Several plants on ballast of railway line closed in 1965, in cutting by Felin-y-mor Road, Aberystwyth, SN/581.808, A.O.Chater, 1993, det. P.D.Sell. This species is known only from SE England, so it was doubtless an introduction here; the site was destroyed in 1994.
- *135/28/68. *Hieracium cheriense* (a hawkweed). Roadside hedgebank 100m S of B4578/B4342 crossroads 2km ESE of Llangeitho, SN/640.589, A.O.Chater, 1994. Roadside hedgebank by oakwood

- 500m WNW of Pont Rhyd-y-groes, SN/736.729, A.O.Chater, 1994. First and second records; both det. P.D.Sell.
- !135/35/1. *Inula helenium* (Elecampane) (Marchalan). c.30 clumps along field hedges S of Penbryn church, SN/293.520, A.O.Chater & P.Culyer, 1995.
- +1135/41/3x4. *Aster* × *versicolor* (*A. laevis* × *A. novi-belgii*) (Late Michaelmas-daisy). Saltmarsh by Afon Rheidol, Aberystwyth, SN/584.811, A.O.Chater, 1993. Second record; det P.D.Sell & P.F.Yeo as "not the common garden plant but nearer to *A. novi-belgii*".
- +1135/69/1x2x3. *Doronicum* × *excelsum* (*D. pardalianches* × *D. plantagineum* × *D. columnae* (Harpur-Crewe's Leopard's-bane). In scrub on bank of disused pond, Penralltisar, Llechryd, SN/220.446, A.O.Chater & L.Gander, 1995. Second record.
- +142/1/5. *Potamogeton bercholdii* (Small Pondweed) (Dyfrllys Eiddil). Clay pit (dug c.1970) in Camddwr valley 1km N of Maesglas, SN/773.564, A.O.Chater, 1995.
- +152/3/4. *Eleocharis multicaulis* (Many-stalked Spike-rush) (Sbigfrwynen Gadeiriog). Flushes on SE bank of Afon Teifi 200m WNW of Frongoch, Strata Florida, SN/763.667, A.O.Chater & P.A.Smith, 1995.
- +152/8/1. *Isolepis setacea* (Bristle Club-rush) (Clwbfrwynen Fach). Unimproved pasture, Tyngwndwm, Llanfair Clydogau, SN/633.499, S.P.Chambers, 1995.
- *152/16/54. *Carex montana* (Soft-leaved Sedge) (Hesgen Feddal). Among *Molinia*, *Festuca ovina* and *Ulex gallii* on rocky slope by Nant Cnwch-gwyn 800m up from confluence with Afon Doethie, SN/759.518, J.P.Woodman & A.O.Chater, 1995. Among *Molinia* on rocky slope, Banc Hendre'r-dail, 650m SSE of Rhydtalog, Llyn Brianne, SN/794.513, A.O.Chater & D.Davies, 1995. First and second records.
- 152/16/59a. *Carex magellanica* subsp. *irrigua* (Tall Bog-sedge) (Hesgen Eurwerdd Lefn). Abundant in level mire in *Sphagnum*, 500m SSW of Bryn yr Hyrddod, Claerwen, SN/808.689, A.O.Chater, 1995. Second record.
- *1153/Far/spa. *Fargesia spathacea* (Chinese Fountain-bamboo). Several large thickets in damp estate woodland, Highmead, Llanybydder, SN/499.431, A.O.Chater, 1985, det. C.Stapleton; previously erroneously published as 153/1/1 *Semiarundinaria anceps* (under *Arundinaria jansaurensis*), *Watsonia* 16:196 (1986) and *BSBI Welsh Bull.* 44: 29(1986); colony in wood near gardens, Y Glog, Rhydyfelin, SN/593.793, A.O.Chater, 1985. First and second records.
- +\$153/12/4. *Festuca altissima* (Wood Fescue) (Peisgwellt y Gwigoedd). Well-established in wooded grounds of Aberceri, Cwm Cou, SN/294.419, A.O.Chater, 1995. Presumably originally planted for decoration; otherwise currently known only from the Rheidol woods around Devil's Bridge.
- *153/13/12. *Lolium* × *boucheanum* (*L. perenne* × *multiflorum*) (a hybrid rye-grass). Weed in arable field, Tygwyn, Mwnt, SN/197.521, A.O.Chater, 1995. Disturbed ground by building site, Pen-y-bont, Llanbadarn Fawr, SN/594.804, A.O.Chater, 1995. First and second records.
- +153/14/3. *Vulpia myuros* (Rat's-tail Fescue) (Peisgwellt y Fagwyr). Gravelly ground, Devil's Bridge railway station, SN/738.769, A.O.Chater, 1995.
- +153/30/1. *Trisetum flavescens* (Yellow Oat-grass) (Ceirchwellt Melyn). Unimproved pasture, Tyngwndwn, Llanfair Clydogau, SN/632.497, S.P.Chambers, 1995.
- +153/50/3. *Bromus racemosus* (Smooth Brome) (Pawrwellt Llyfn). Hay meadow 200m W of Old Cilgwyn, SN/314.418, J.P.Woodman & A.O.Chater, 1995.
- *1153/53/1. *Ceratochloa carinata* (California Brome) (Pawrwellt California). Strong colony in farmyard, Lloegr-fach, 2km SE of Aber-arth, SN/493.621, D.E.Allen & A.O.Chater, 1995. The appearance of this species here is unexplained.
- !153/62/ric. *Cortaderia richardii* (Endlicher) Zotov (Early Pampas-grass). Well-established, presumably from garden through-out, on wooded streambank 100m S of road bridge, Ynys-hir, SN/684.956, P.Condry, det. A.O.Chater. Second record.
- +\$158/13/1. *Convallaria majalis* (Lily-of-the-valley) (Clych Enid). Several colonies well-naturalised in Penparc chapel graveyard, SN/212.478, A.O.Chater, 1995.
- !159/8/2. *Crocus tommasinianus* (Early Crocus). Chapel graveyard, Blaenannerch, SN/247.490, A.O.Chater, 1994. Lawns of Welsh Agricultural College, Llanbadarn Fawr, SN/602.811, S.P.Chambers, 1994. First and second records.

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

- *120/3/1. *Tsuga heterophylla* (Western Hemlock-spruce) (Hemlog y Gorllewin). Cwm wood, Aberhafesp, SO/05.95, I.C.Trueman & M.Oliver; +Hafren Forest, SN/86.85, A.J.Morton, both 1988. First & second records. Regeneration observed in both sites.
- *120/5/2. *Larix kaempferi* (Japanese Larch) (Llarwydden Japan). Plentiful regeneration on forestry tracksides, Uwch-y-garreg, SN/77.93, A.J.Morton & W.A.Thompson, 1990.
- +28/13/4. *Ranunculus sardous* (Hairy Buttercup) (Crafanc y Frân Blewog). Lead-mine spoil, Fan near Llanidloes, SN/94.87, W.A.Thompson & J.Bevan, 1995. The only extant record.
- *61/2/10x11. *Salix* × *reichardtii* (*S. caprea* × *S. cinerea*) (a hybrid willow). +Canal tow-path, Red Bridge, Arddlin, SJ/25.14, F.H.Perring, 1975; +beside River Rhiw, NE of Manafon, SJ/122.028, E.Roberts & M.Wainwright, 1991, det. C.A.Sinker; +hedgerow by A489, Cemmaes Road, SH/804.036, A.O.Chater, 1991, det. R.D.Meikle. First second and third records.
- *169/3/1. *Cyclamen hederifolium* (Cyclamen) (Bara'r Hwch). Bank of Bachan Brook which adjoins the roadside, Aberbechan, SO/13.93, C.A.Small, 1989. First localised record. Clearly a roadside dumping in the first place, but known for 9 years and now two well-established clumps.
- 75/21/4x11. *Rosa* × *verticillacantha* (*R. arvensis* × *R. canina*). Scrub by oakwood at Gregynog Hall, SO/08.96, I.M.Vaughan, 1970; Llanymynech Hill, SJ/26.21, R.Maskew, 1995. First records.
- 75/21/12dum. *Rosa canina* group 'Dumales' (a dog-rose). Breidden Hill, SJ/28.13; Llanymynech Hill, SJ/26.21; lane W of Lower Penygelly, near Hodley, SO/17.91, all R.Maskew, 1995.
- 75/21/12pub. *Rosa canina* group 'Pubescentes' (a dog-rose). Llanymynech Hill, SJ/26.21; lane W of Lower Penygelly, near Hodley, SO/17.91, both R.Maskew, 1995.
- 75/21/12tra. *Rosa canina* group 'Transitoriae' (a dog-rose). Breidden Hill, SJ/28.13; Llanymynech Hill, SJ/26.21; lane W of Lower Penygelly, near Hodley, SO/17.91, all R.Maskew, 1995.
- 75/21/13a. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *caesia*). Llanymynech Hill, SJ/26.21, R.Maskew, 1995.
- 75/21/13b. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *glauca*). In laneside hedge near Cwm, SO/04.94, A.Franks & J.Clarke, 1991, det. A.L.Primavesi.
- *75/21/12x19. *Rosa* × *toddiae* (*R. canina* × *R. micrantha*) (a hybrid rose). Llanymynech Rocks, SJ/26.21, R.Maskew, 1995.
- 75/21/12 × 14. *Rosa* × *dumetorum* (*R. canina* × *R. obtusifolia*). Llanymynech Hill, SJ/26.21; lane W of Lower Penygelly, near Hodley, SO/17.91, both R.Maskew, 1995.
- 75/21/16. *Rosa sherardii* (Sherard's Downy-rose) (Rhosyn Sherard). Lane W of Lower Penygelly, near Hodley, SO/17.91, R.Maskew, 1995.
- 75/21/19. *Rosa micrantha* (Small-flowered Sweet-briar) (Rhoslwyn Pêr). Llanymynech Hill, SJ/26.21, R.Maskew, 1995.
- *175/28/7. *Sorbus intermedia* (Swedish Whitebeam) (Cerddinen Dramor). One small tree on roadside bank, Berriew, SJ/16.00, P.J.Nethercott, 1989 (possibly the basis for the erroneous 1958 record for *S. anglica* – 'roadside hedge above Vaynor'). +Roadside hedge and woodland, Brooks, SO/14.99, P.J.Nethercott, 1990. First & second records.
- *175/28/18. *Sorbus decipiens* (Sharp-toothed Whitebeam). Berriew, SJ/16.00, P.J.Nethercott, 1990.
- *175/28/23. *Sorbus latifolia* (Broad-leaved Whitebeam) (Cerddinen Lydanddail). +Several plants with *S. aria* cut back into roadside hedge, Brooks, SO/14.99, M.Wainwright & V.Morgan, 1989, det. P.J.Nethercott. +One medium-sized tree in hedgebank beside road, Berriew, SJ/16.00, P.J.Nethercott, 1989. First & second records.
- +107/22/1. *Silaum silaus* (Pepper-saxifrage) (Ffenigl yr Hwch). Unimproved fields, Churchstoke, SO/2.9, T.Tearu, 1995, det. I.C.Trueman. Second record.
- !!114/1/1. *Polemonium caeruleum* (Jacob's-ladder) (Ysgol Jacob). Known for at least 4 years on spoil bank by car park, Roundton M.W.T. reserve, SO/29.94, C.A.Small, 1992. Probably originated from garden dumping!
- +121/1/1. *Plantago coronopus* (Buck's-horn Plantain) (Llwynhidydd Corn Carw). Sandy saltmarsh, near Dovey Junction Station, SN/694.987, Flora project field party, 1989. Second record.
- *\$135/22/1. *Lactuca serriola* (Prickly Lettuce) (Gwylaeth Bigog). About 50 plants on waste ground at roadside adjoining council storage area, Abermule, SO/162.953, P.Oswald, 1995.

- *1135/22/2. *Lactuca virosa* (Great Lettuce) (Gwylaeth Chwerwaidd). Bank beside new by-pass, Llanidloes, SN/954.839, P.Oswald, 1995.
- +135/60/1. *Tripleurospermum maritimum* (Sea Mayweed) (Ffenigl Arfor). Saltmarsh, Morben-isaf, SN/70.98, T.Kohler, T.Tearu & E.Lomas, 1988. Second record.
- 135/62/10x11. *Senecio* × *ostenfeldii* (*S. jacobaea* × *S. aquaticus*) (a hybrid ragwort). Marshy meadows by the Dovey below Pennal, growing with both parents, SN/70.99, P.M.Benoit, 1987; several plants with both parents on overgrown marshy streambank, Afon Llyfnant just W of Pont Llyfnant, SN/70.97, P.M.Benoit, 1989; W bank of Dovey at Cennmaes, SH/83.06, I.Francis, 1989, det. P.M.Benoit.
- +141/1/1. *Triglochin maritima* (Sea Arrowgrass) (Saethbennig Arfor). Dovey Junction, SN/70.98, M.Hogan & C.Fieldhouse, 1986. Second record.
- *1148/2/4. *Lemna minuta* (Least Duckweed) (Corlinad). Montgomery Canal, Welshpool, SJ/22.07, I.C.Trueeman; +Montgomery Canal at Walls Bridge, Llanymynech, SJ/26.20, M.Wainwright, both 1995. First & second records.
- +1153/18/7. *Poa chaixii* (Broad-leaved Meadow-grass) (Gweunwellt Llydanddail). Park woodland under beech, Berriew, SJ/19.00, E.Roberts & M.Wainwright, 1989. Second record. Possibly planted for pheasant cover.
- +162/5/1. *Neottia nidus-avis* (Bird's-nest Orchid) (Tegeirian Nyth Aderyn). Old valley woodland, Abermule Dingle, SO/1.9, J.Clarke & A.Franks, 1992. Second and only extant record.

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

- 47/1/16. *Persicaria minor* (Small Water-pepper) (Clymog Bychan). Frequent in marshes by the Afon Glaslyn near Minffordd, SH/53, P.M.Benoit, 1994. One plant was seen in 1970.
- *162/Eru/ves. *Eruca vesicaria* subsp. *sativa* (Garden Rocket) (Roced yr Ardd). One patch on roadside by houses, between Tal-y-bont and Dyffryn Ardudwy, SH/58.22, P.M.Benoit, 1995.
- 75/8/76. *Rubus pyramidalis* (a bramble). Hedgerow near Harlech, SH/59.30, G.Battershall, 1995, conf. A.Newton.
- 75/8/90. *Rubus amplificatus* (a bramble). Hedgerow near Talsarnau, SH/61.35, G.Battershall, 1995, conf. A.Newton.
- 75/8/117. *Rubus polyanthemus* (a bramble). Hedgerow near Harlech, SH/59.30; hedgerow near Llanfair, SH/60.29; both G.Battershall, 1995, conf. A.Newton.
- 75/8/159. *Rubus ordovicum* (a bramble). Hedgerow near Llanfair, SH/60.29, G.Battershall, 1995, conf. A.Newton.
- 75/8/209. *Rubus dentatifolius* (a bramble). Hedgerow near Llanfair, SH/60.29, G.Battershall, 1995, conf. A.Newton.
- 75/8/229. *Rubus celticus* (a bramble). Hedgerow near Llanfair, SH/60.29, G.Battershall, 1995, conf. A.Newton.
- 110/10/1. *Hyoscyamus niger* (Henbane) (Ffa'r Moch). Still on disturbed duneland at Mochras, SH/52, where collected by D.A.Jones in 1899 (NMW), one plant, P.M.Benoit & D.J.Brown, 1994.
- 135/1/5/2. *Hypochaeris glabra* (Smooth Cat's-ear) (Melynydd Moel). Still on fixed dunes at Fairbourne, in very small quantity, SH/61, P.M.Benoit, 1994. A severely declining species in Merioneth.

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

- +1/2/1. *Lycopodiella inundata* (Marsh Clubmoss) (Cnwfwfsgol y Gors). Heath at edge of stream, near Tal-y-braich uchaf, Capel Curig, SH/69.60, M.Howe & W.McCarthy, 1995.
- 15/2/3. *Asplenium obovatum* (Lanceolate Spleenwort) (Duegredynen Reiniolaidd). Colony of 6 plants in underhang of high crags of the Aberllyn gully, Bettws-y-Coed, SH/795.580, S.Chambers, 1994.

- +121/3/1. *Thuja plicata* (Western Red-cedar) (Cedrwydden Goch). Spinnies NR, near Bangor, SH/613.721, G.Battershall, 1994. First record.
- +124/1/1. *Laurus nobilis* (Bay) (Llawrwydden). Probably planted at Coed Gaer near Llandudno, SH/81.80, G.Battershall, 1995. First record.
- +144/1/1. *Amaranthus retroflexus* (Common Amaranth) (Chwyn Moch). Spontaneous garden weed (one plant only), Degannwy, SH/78.78, P.Chapman, 1995, det. B.T.Ryves. Second and only extant record.
- +46/20/5. *Silene uniflora* (Sea Campion) (Gludlys Arfor). On a landscaped area of lead mine waste on east side of B5106 road, c. 0.75km W of Llanrwst, SH/79.61, R.Lewis, 1995.
- +147/1/3. *Persicaria wallichii* (Himalayan Knotweed) (Clymog yr Himalaya). Near bridge, Afon Conwy, Dolgarrog, SH/780.667, W.McCarthy, 1995.
- +47/4/3. *Polygonum arenastrum* (Equal-leaved Knotgrass) (Clymog â Dail Bach). Stoney track, Bardsey Island, SH/11.21, A.P.Conolly, 1995, det. C.A.Stace.
- 47/4/4. *Polygonum aviculare* (Knotgrass) (Canclwm). In newly ploughed arable field, Bardsey Island, SH/11.21, A.P.Conolly, 1995, det. C.A.Stace.
- 47/8/1a. *Rumex acetosella* subsp. *acetosella* (Sheep's Sorrel) (Suran yr Ŷd). In newly ploughed arable field, Bardsey Island, SH/11.21, A.P.Conolly, 1995.
- +51/1/3. *Hypericum androsaemum* (Tutsan) (Dail y Beiblau). Old quarry, Nant y Gamar near Llandudno, SH/80.81, G.Battershall, 1995.
- +51/1/14. *Hypericum hirsutum* (Hairy St John's-wort) (Eurinllys Blewog). On former mine-spoil tip, Gwdyr Forest near Llanrwst, SH/788.607, S.Chambers, 1994.
- +61/2/9x10. *Salix x sericans* (*S. viminalis* x *S. caprea*) (Broad-leaved Osier). Field edge, Bodafon, Llandudno, SH/799.819, W.McCarthy, 1995.
- +162/1/5. *Sisymbrium altissimum* (Tall Rocket) (Berwr Treigledigol). Waste ground near Conwy Morfa, Conwy, SH/76.78, W.McCarthy, 1995.
- +62/2/1. *Descurainia sophia* (Flixweed) (Berwr y Fam). Waste ground near Conwy Morfa, Conwy, SH/76.78, W.McCarthy, 1995.
- +62/4/1. *Arabidopsis thaliana* (Thale Cress) (Berwr y Fagwyr). Pavement edges, Bryn-y-Bia, Llandudno, SH/807.820, W.McCarthy, 1995.
- +72/2/3. *Ribes nigrum* (Black Currant) (Rhyfon Duon). Coed Gaer near Llandudno, SH/81.80, G.Battershall, 1995.
- +173/5/17. *Sedum dasyphyllum* (Thick-leaved Stonecrop) (Briweg Praffddail). Car park walls, Bettws-y-Coed, SH/794.565, S.P.Chambers, 1994.
- +75/8/23. *Rubus nessensis* (a bramble). Hedgerow near Betws y Coed, SH/80.53, G.Battershall, 1995, conf. A.Newton
- +75/8/93. *Rubus cardiophyllus* (a bramble). Hedgerow near Tal-y-bont, SH/61.71, G.Battershall, 1995, conf. A.Newton
- +75/8/106. *Rubus incurvatus* (a bramble). hedgerow near Rowen, SH/77.73, G.Battershall, 1995, det. A.Newton.
- +75/8/146. *Rubus bartonii* (a bramble). Caravan site, Ogwen Bank near Bethesda, SH/62.65; +hedgerow near Rowen, SH/77.73; both G.Battershall, 1995, det. A.Newton.
- +75/8/185. *Rubus griffithianus* (a bramble). Hedgerow near Tal-y-bont, SH/61.71; +hedgerow near Rowen, SH/77.73; both G.Battershall, 1995, det. A.Newton.
- +75/8/270. *Rubus hylocharis* (a bramble). Hedgerow near Betws y Coed, SH/80.53, G.Battershall, 1995, conf. A.Newton
- *75/21/20. *Rosa agrestis* (Small-leaved Sweet-briar) (Miaren Gulddail). Limestone quarry, Bodafon, Llandudno, SH/807.820, W.McCarthy, 1995, det. A.L.Primavesi. First record this century.
- *175/22/13. *Prunus lusitanica* (Portugal Laurel) (Llawr-sirjanen Portiwgal). Steeply sloping copse near roadside, btwn Tyn-y-groes and Talycfafn Bridge, SH/785.719, R.Lewis, 1993. Originally planted but now spreading from bird-sown plants. [The record for this species from Llanbedr-y-cennin in *Watsonia* 20(3): 292 (1995) should be deleted and replaced by the above]. +Edge of woodland above B5106, Gwydir Castel, Llanrwst, SH/79.60, R. Lewis, 1976. First record and second records.

- +!77/17/1. *Melilotus altissimus* (Tall Melilot) (Meillionen y Ceirw). Waste ground, Glan Conwy RSPB Reserve, SH/80.77, G.Battershall, 1995.
- +!77/17/2. *Melilotus albus* (White Melilot) (Meillionen Tair Dalen Wen). Roadside, Penmaenmawr, SH/725.770, W.McCarthy, 1995.
- +!102/1/1. *Oxalis valdiviensis* (Chilean Yellow-sorrel). Weed in flower-beds, Happy Valley, Llandudno, SH/780.830, W.McCarthy, 1995.
- +!03/1/9. *Geranium sanguineum* (Bloody Crane's-bill) (Pig yr Aran Rhuddgoch). By footpath along shore, W of Borth-y-Gest near Porthmadog, SH/562.372, S.Chambers, 1993.
- +!08/4/1. *Blackstonia perfoliata* (Yellow-wort) (Canri Felen). On a landscaped area of leadmine waste at side of minor road leading from B5106 to Bwlch-yr-haiarn, c. 1.5km SW of Llanrwst, SH/78.60, R.Lewis, 1995.
- +55/1/3. *Drosera intermedia* (Oblong-leaved Sundew) (Gwlithlys Hirddail). In peaty rills, Cors y Gwaed, Nantlle Ridge, SH/50.45, M.Yeo, 1986.
- +!116/3/1. *Pulmonaria officinalis* (Lungwort) (Llys yr Ysgyfaint). Roadside and field-edge, Llanrhos, Llandudno, SH/794.799, W.McCarthy, 1995.
- +!116/4/6. *Symphytum orientale* (White Comfrey) (Cyfardwf Gwyn). Trackside near Little Orme, Llandudno, SH/81.81, G.Battershall, 1995.
- +!118/5/2. *Lamium maculatum* (Spotted Dead-nettle) (Marddauhadlen Fraith). Farmyard near Rowen, SH/76.71, G.Battershall, 1995.
- 124/12/1. *Kickxia elatine* (Sharp-leaved Fluellen) (Llyisiau Llywelyn). In newly ploughed arable field, Bardsey Island, SH/11.21, A.P.Conolly, 1995, det. C.A.Stace.
- *124/19/4. *Melampyrum sylvaticum* (Small Cow-wheat) (Gliniogai'r Coed). Near Llanrwst, SH/8.6, F.A.Handbury, 1864, det. T.C.G.Rich. Specimen in OXF. First and only Welsh record.
- *124/24/2f. *Rhinanthus minor* subsp. *borealis* (Yellow-rattle) (Cribell Felen). At over 600m on Moel Siabod, SH/7.5, E.Roberts, 1950's, det. D.J.Hambler. Com. C.A.Stace.
- +!130/6/2. *Galium odoratum* (Woodruff) (Briwydden Bêr). Limestone woods, Bodafon, Llandudno, SH/803.815, W.McCarthy, 1995.
- +!135/43/4. *Erigeron karvinskianus* (Mexican Fleabane) (Cedowydd y Clogwyn). Cracks in wall, Cwllach, Great Orme, Llandudno, SH/775.825, W.McCarthy, 1995.
- +!135/56/1. *Chrysanthemum segetum* (Corn Marigold) (Melyn yr Yd). Waste ground, Penrhynside, SH/81.81, G.Battershall, 1995.
- *!135/79/1. *Helianthus annuus* (Sunflower) (Blodau'r Haul). Demolition site, Llandudno, SH/784.821, W.McCarthy, 1995.
- !135/Car/tin. *Carthamus tinctorius* (Safflower) (Cochlys). Edge of sand dune, Pwllheli Promenade, SH/37.34, A.Burns & A.P.Conolly, 1995, conf. C.A.Stace. Second record and first post 1930.
- +!147/2/1. *Lysichiton americanus* (American Skunk-cabbage). River bank near Rowen, SH/76.71, G.Battershall, 1995.
- +!151/1/13x14. *Juncus* × *surrejanus* (*J. articulatus* × *J. acutiflorus*) (a hybrid rush). Stream banks, near Maen-y-Bardd, Rowen, SH/744.715, W.McCarthy, 1995.
- +!151/1/18. *Juncus triglumis* (Three-flowered Rush) (Brwynen Dri-flodeuog). Among mosses on damp rock ledges, above Llyn Afor, Carneddau, SH/70.69, M.Yeo, 1987.
- !152/16/8b. *Carex muricata* subsp. *lamprocarpa* (Small-fruited Prickly-sedge) (Hesgen Bigog Hwyr). Grass bank near Bont Newydd, Aber, SH/662.720, W.McCarthy, 1995.
- *!152/16/27. *Carex pseudocyperus* (Cyperus Sedge) (Hesgen Hopysaidd). Fen, Cors Llyferin S of Abersoch, SH/31.26, D.Jones, 1995.
- +!153/32/1c. *Deschampsia cespitosa* subsp. *alpina* (Alpine Hair-grass) (Brigwellt Alpaidd). NW facing gully, Creigiau Gleision, SH/733.622, R.Smith, 1991.
- *!153/68/1. *Echinochloa crusgalli* (Cocks spur) (Cibogwellt Rhydd). Pavement at base of wall, Llandudno, SH/794.819, W.McCarthy, 1995.
- !153/Pan/mil. *Panicum miliaceum* (Common Millet) (Miled). One plant on shingle at strand line, Borth-y-Gest, SH/566.376, S.Chambers, 1991, det. T.Cope.
- +!158/14/2. *Polygonatum odoratum* (Angular Solomon's-seal) (Llyisiau Solomon Persawrus). On top of small enclosed reservoir, Hafod Las Quarry, Bettws-y-Coed, SH/781.563, M.Burgoine, 1990.

+158/24/cep. *Allium cepa* (Onion) (Wnionyn). Waste ground, Glan Conwy RSPB Reserve, SH/79.77, G.Battershall, 1995.

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

- +7/1/1. *Cryptogramma crispa* (Parsley Fern) (Rhedynen Bersli). Rocks in river gorge, Llanarmon Dyffryn Ceiriog, SJ/131.369, G.Kay & J.Hawsford, 1995.
- +15/3/1. *Ceterach officinarum* (Rustyback) (Rhedynen Gefngoch). Bridge (limestone), Llangernyw, SH/884.667, BSBI group, 1995.
- +16/5/1. *Cystopteris fragilis* (Brittle Bladder-fern) (Rhedynen Frau). Rocks in river gorge, Llanarmon Dyffryn Ceiriog, SJ/131.369, G.Kay & J.Hawsford, 1995.
- *17/1/1x2. *Polystichum* × *bicknellii* (*P. setiferum* × *P. aculeatum*) (a hybrid shield-fern). Bank of old railway, Pwllglas, SJ/125.551, M.Keene, 1995, det. A.Paul.
- +17/3/1. *Dryopteris oreades* (Mountain Male-fern) (Marchredynen Fach y Mynydd). Roadside bank-wall, Llangwm, SH/949.445, J.A.Green, 1995.
- +17/3/8. *Dryopteris cartusiana* (Narrow Buckler-fern) (Marchredynen Gul). Wet moor, Llanarmon Dyffryn Ceiriog, SJ/158.357, H.Hughes, 1995
- +119/1/1. *Azolla filiculoides* (Water Fern) (Rhedynen y Dŵr). Ditch near the sea, Kinnel Bay, SH/985.804, J.A.Green, 1995.
- +27/1/1. *Ceratophyllum demersum* (Rigid Hornwort) (Cyrnndail). Shallow eutrophic lake, Hanmer, SJ/453.393, J.A.Green, 1995.
- +28/13/1. *Ranunculus sceleratus* (Celery-leaved Buttercup) (Crafauc yr Eryr). Ditch near the sea, Kinnel Bay, SH/985.804, J.A.Green, 1995.
- +28/13/24. *Ranunculus aquatilis* (Common Water-crowfoot) (Crafauc y Dŵr). Field pond, Gresford, SJ/360.535, R.Mileto, 1995.
- +30/2/1. *Meconopsis cambrica* (Welsh Poppy) (Pabi Cymreig). Churchyard, Llangernyw, SH/875.675, BSBI group, 1995.
- +34/2/1. *Humulus lupulus* (Hop) (Hopysen). Hedge, Llanelidan, SJ/112.516, J.A.Green, 1995.
- +36/2/1. *Parietaria judaica* (Pellitory-of-the-wall) (Murlys). Wall base, Llanelidan, SJ/107.505, J.A.-Green, 1995.
- +39/4/2. *Quercus cerris* (Turkey Oak) (Derwen Twrci). Hedge near churchyard, Llangollen, SJ/194.435, P.Williams, 1995.
- +40/3/1. *Carpinus betulus* (Hornbeam) (Oestrwydden). Field hedge, Llandoged, SH/804.638, W.McCarthy, 1995.
- 53/1/4. *Chenopodium bonus-henricus* (Good-King-Henry) (Sawdl y Crydd). Farm gateway, Llangernyw, SH/884.668, BSBI group, 1995.
- +43/1/6. *Chenopodium rubrum* (Red Goosefoot) (Troed yr Ŵydd Ruddog). Riverbank, Llangollen, SJ/240.422, J.A.Green; +edge of lake, Fenns Bank, SJ/507.387, K.Watson; both 1995.
- +43/1/10. *Chenopodium hybridum* (Maple-leaved Goosefoot) (Troed yr Ŵydd Fasarnddail). New footpath, Llangernyw, SH/882.667, BSBI group, 1995.
- +46/9/1. *Moenchia erecta* (Upright Chickweed) (Cornwlyddyn Syth). Rocky outcrops in grazed grassland, Llangernyw, SH/882.681, W.McCarthy, 1995.
- +46/10/7a. *Sagina apetala* subsp. *apetala* (Annual Pearlwort) (Corwlyddyn Anaf-flodeuog). Old railway, Fenns Moss, SJ/478.366, BSBI group; +paving cracks, Kinnel Bay, SH/987.806, J.A.-Green; both 1995.
- +46/19/1. *Agrostemma githago* (Corncockle) (Bulwg yr Ŵd). Roadside seeded with 'wildflowers', Llansannan, SH/931.659, J.A.Green, 1995. Second post 1930 record.
- +47/1/3. *Persicaria wallichii* (Himalayan Knotweed) (Clymog yr Himalaya). Roadside near houses, Gellioedd, SH/937.447, J.A.Green, 1995, det. A.P.Conolly. First record since 1960.
- +47/1/9. *Persicaria amphibia* (Amphibious Bistort) (Canwraidd Goch). Riverside, Llanrwst, SH/797.616; +seeded road verge, Llansannan, SH/931.659; both J.A.Green, 1995.

- +51/1/3. *Hypericum androsaemum* (Tutsan) (Dail y Beiblau). Riverside, Llanrwst, SH/797.616, J.A.-Green, 1995.
- +52/1/1. *Tilia platyphyllos* (Large-leaved Lime) (Pisgwydden Deilen Fawr). +Woods, Eyarth Hall, Ruthin, SJ/125.543, W.McCarthy; +canal bank hedge, Bettisfield, SJ/459.355, BSBI group; both 1995.
- +52/1/2. *Tilia cordata* (Small-leaved Lime) (Pisgwydden Deilen Fach). Field near farm, Capel Garmon, SH/805.557, W.McCarthy; +roadside, Ruthin, SJ/105.565, J.A.Green; both 1995.
- +53/1/7. *Malva neglecta* (Dwarf Mallow) (Hocys Bychan). Disturbed ground, Bronington, SJ/481.393, W.McCarthy, 1995.
- +61/2/11x12. *Salix* × *multinervis* (*S. cinerea* × *S. aurita*) (a hybrid willow). Streamside Llangwm, SH/938.447, J.A.Green; +canal bank, Fenns Moss, SJ/475.351, K.Watson: both 1995.
- +61/2/12. *Salix aurita* (Eared Willow) (Helygen Grynglustiog). Hedge, Dawn, SH/84.73, G.Battershall, 1995.
- +61/2/16. *Salix repens* (Creeping Willow) (Corhelygen). Moorland, Llanarmon Dyffryn Ceiriog, SJ/13.36, G.Kay & J.Hawksford, 1995.
- +!62/11/3. *Barbarea intermedia* (Medium-flowered Winter-cress) (Berwr Cyfryngol). Riverside, Llanrwst, SH/797.616, J.A.Green, 1995.
- +!62/11/4. *Barbarea verna* (American Winter-cress) (Berwr Tir). Waste ground, Llanrwst, SH/795.623, G.Battershall, 1995.
- +62/12/4. *Rorippa palustris* (Marsh Yellow-cress) (Berwr Melyn y Gors). Artificial lake, Llanelidan, SJ/112.515, J.A.Green, 1995.
- +62/31/1. *Coronopus squamatus* (Swine-cress) (Olbrain). Roadside, Kinnel Bay, SH/986.806, J.A.-Green, 1995.
- +!62/31/2. *Coronopus didymus* (Lesser Swine-cress) (Olbrain Lleiaf). Riverside walk, Llanrwst, SH/797.616, J.A.Green, 1995.
- +69/1/1x3. *Primula* × *polyantha* (*P. vulgaris* × *P. veris*) (False Oxlip) (Briallu Tal Ffug). Grass bank, Hammer, SJ/441.383, K.Watson, 1995.
- *!69/4/5. *Lysimachia punctata* (Dotted Loosestripe) (Trewynyn Brych). Road verge, Llanrwst, SH/795.623, G.Battershall, 1995.
- *!73/1/3. *Crassula helmsii* (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Garden pond, Chirk Castle, SJ/271.380, J.A.Green; +Lake, Fenns Wood, SJ/505.386, K.Watson, both 1995. First and second records.
- +73/5/5. *Sedum telephium* (Orpine) (Berwr Taliesin). Green lane, Bronington, SJ/478.382, K.Watson, 1995.
- +75/8/27. *Rubus plicatus* (a bramble). Hedge, Pentrefoelas, SH/86.52, G.Battershall, 1995, det. A.Newton.
- +75/8/28. *Rubus scissus* (a bramble). Hedge, Pentrefoelas, SH/86.52, G.Battershall, 1995, det. A.Newton.
- +75/8/42. *Rubus chrysoxylon* (a bramble). Hedge, Pentrefoelas, SH/86.52, G.Battershall, 1995, det. A.Newton. Second record.
- +75/8/57. *Rubus lentiginosus* (a bramble) Forestry track, Dawn, SH/85.74, G.Battershall, 1994, det. A.Newton. Second record.
- *75/8/65. *Rubus monensis* (a bramble). Hedge, Pentrefoelas, SH/86.52, G.Battershall, 1995, det. A.Newton.
- +75/8/82. *Rubus silurum* (a bramble). Hedge, Pentrefoelas, SH/86.52, G.Battershall, 1995, det. A.Newton.
- +75/8/93. *Rubus cardiophyllus* (a bramble). Hedge, Talycafn, SH/78.68, G.Battershall, 1995, det. A.Newton.
- *75/8/101. *Rubus dummoniensis* (a bramble). Hedge, Pentrefoelas, SH/82.57, G.Battershall, 1995, det. A.Newton.
- +75/8/106. *Rubus incurvatus* (a bramble). Hedge, Talycafn, SH/78.68, G.Battershall, 1995, det. A.Newton.
- +75/8/112. *Rubus nemoralis* (a bramble). Forestry track, Dawn, SH/85.74, G.Battershall, 1995, det. A.Newton.

- *!75/8/134. *Rubus armeniacus* ('Himalayan Giant'). Waste ground, Llanrwst, SH/795.623, G.Battershall, 1995, det. A.Newton.
- +75/8/142. *Rubus ulmifolius* (a bramble). Hedge, Talycafn, SH/78.68, G.Battershall, 1995, det. A.Newton.
- +75/8/174. *Rubus wirralensis* (a bramble). Hedge, Talycafn, SH/78.68, G.Battershall, 1995, det. A.Newton.
- *75/8/185. *Rubus griffithianus* (a bramble). +Hedge, Betws y Coed, SH/79.54; +hedge, Talycafn, SH/78.68; +forestry track, Dawn, SH/85.74; +hedge, Pentrefoelas, SH/86.52, all G.Battershall, 1995, det. A.Newton. First & subsequent records since 1905.
- +75/8/209. *Rubus dentatifolius* (a bramble). Forestry track, Dawn, SH/85.74, G.Battershall, 1995, det. A.Newton. Second record.
- +75/8/268. *Rubus dasyphyllus* (a bramble). Hedge, Betws y Coed, SH/79.54; +hedge, Talycafn, SH/78.68; both G.Battershall, 1995, det. A.Newton.
- +75/8/287. *Rubus semiglaber* (a bramble). Hedge, Talycafn, SH/78.68; +hedge, Pentrefoelas, SH/86.52, both G.Battershall, 1995, det. A.Newton.
- *75/8/299. *Rubus pedemontanus* (a bramble). Hedge, Pentrefoelas, SH/86.52, G.Battershall, 1995, det. A.Newton.
- +75/8/319. *Rubus tuberculatus* (a bramble). Hedge, Talycafn, SH/78.68, G.Battershall, 1995, det. A.Newton.
- *75/8/seg. *Rubus segontii* (a bramble). Hedge, Tal-y-cafn, SH/78.68, G.Battershall, 1995, det. A.Newton.
- *75/9/14x15. *Potentilla* × *mixta* (*P. erecta* × *P. reptans* & *P. anglica* × *P. reptans*) (Hybrid Cinquefoil) (Stace). Lowland meadow, Bangor-is-y-coed, SJ/498.435, J.Phillips, 1994, det. B.Harold.
- +75/15/2. *Agrimonia procera* (Fragrant Agrimony) (Llys y Dryw Peraroglus). Lane edge, Eglwysbach, SH/814.670, W.McCarthy, 1995. Second record since 1928.
- +!75/22/3. *Prunus cerasifera* (Cherry Plum) (Gaugeiriosen). Old road hedge, Rhewl, Ruthin, SJ/110.601, J.A.Green, 1995.
- !75/32/33. *Cotoneaster simonsii* (Himalayan Cotoneaster) (Cotoneaster y Graig). Woods near canal, Llangollen, SJ/199.433, BSBI group, 1995.
- *!77/14/11c. *Vicia sativa* subsp. *sativa* (Common Vetch) (Ffugbysen Faethol). Seeded road verge, Llansannan, SH/931.659, J.A.Green, 1995.
- +!77/17/2. *Melilotus albus* (White Melilot) (Meillionen Tair Dalen Wen). Roadside, Llansannan, SH/931.659, J.A.Green, 1995.
- !77/18/2c. *Medicago sativa* subsp. *sativa* (Lucerne) (Maglys Rhuddlas). Roadside, Llansannan, SH/931.659, J.A.Green, 1995.
- +77/19/20. *Trifolium striatum* (Knotted Clover) (Meillionen Rychog). Roadside, Fenns Wood, SJ/508373, K.Watson; +hillside pasture, Llangernyw, SH/881.682, W.McCarthy; both 1995.
- +81/1/1. *Lythrum salicaria* (Purple-loosestrife) (Llys y Milwr). Artificial lake, Llanelidan, SJ/112.515, J.A.Green, 1995.
- +81/1/3. *Lythrum portula* (Water-purslane) (Troed y Gywen). Artificial lake, Llanelidan, SJ/112.515, J.A.Green, 1995.
- +!84/4/1. *Oenothera glazioviana* (Large-flowered Evening-primrose) (Melyn yr Hwyr Mwyaf). Canal bank, Bettisfield, SJ/470.356, K.Watson; +canal bank, Fenns Moss, SJ/470.356; both K.Watson 1995.
- +!84/4/4. *Oenothera cambrica* (Small-flowered Evening-primrose) (Melyn yr Hwyr Cymreig). Old railway, Fenns Moss, SJ/478.367, K.Watson, 1995. Second record and first since 1943.
- +84/6/1x2. *Circaea* × *intermedia* (*C. luetiana* × *C. alpina*) (Upland Enchanter's-nightsshade) (Gwynlys Mynydd-dir). Deciduous wood, Maeshafn, SJ/199.616, J.A.Green, 1995.
- +91/2/9. *Euphorbia lathyris* (Caper Spurge) (Llysiau y Cyfog). River bank, Llangollen, SJ/195.433, BSBI group; +river shingle, Llangollen, SJ/242.423, R.I.Green; both 1995.
- *!103/1/17. *Geranium macrorrhizum* (Rock Crane's-bill). Edge of wood, Colwyn Bay, SH/832.801, G.Battershall, 1995. First Welsh record.
- *!105/1/2. *Impatiens capensis* (Orange Balsam) (Ffromlys Oren). Canal bank, Bettisfield, SJ/465.356, BSBI group, 1995.

- +110/8/1. *Solanum nigrum* (Black Nightshade) (Codwarth Du). Roadside, Kimmel Bay, SH/986.806, J.A.Green, 1995.
- !111/3/3. *Calystegia pulchra* (Hairy Bindweed) (Taglys Blewog). Hedge, Colwyn Bay, SH/855.784, G.Battershall, 1995.
- +1116/4/3. *Symphytum tuberosum* (Tuberous Comfrey) (Cyfardwf Oddfynog). Woods on estate, Chirk, SJ/27.38, **BSBI group, 1995.**
- +116/8/1. *Pentaglottis sempervirens* (Green Alkanet) (Llys y Gwrid). Car park, Kimmel Bay, SH/987.806, J.A.Green, 1995.
- +118/1/5x6. *Stachys* × *ambigua* (*S. sylvatica* × *S. palustris*) (Hybrid Woundwort) (Briwlys Croesryw). Side of R. Dee, Llangollen, SJ/236.424, J.A.Green, 1995.
- +118/5/4. *Lamium hybridum* (Cut-leaved Dead-nettle) (Marddanhadlen Rwyddail). Golf club-house garden, Llangollen, SJ/239.416, J.A.Green, 1995.
- +118/6/5. *Galeopsis bifida* (Bifid Hemp-nettle) (Penboeth Lleiaf). Field, Llangernyw, SH/846.638, W.McCarthy, 1995.
- +118/22/1. *Lycopus europaeus* (Gipsywort) (Llys y Sipsiwn). Farm pond, Gresford, SJ/360.535, R.Mileto, 1995.
- !118/23/2x3. *Mentha* × *piperita* (*M. aquatica* × *M. spicata*) (Peppermint) (Mintys Poethion). Gravel of R. Dee, Llangollen, SJ/244.421, J.A.Green, 1995.
- +!122/1/2. *Buddleja davidii* (Butterfly-bush) (Llwyn Iâr Fach). Roadside quarry, Llangwm, SH/938.447, J.A.Green, 1995.
- +!124/4/2. *Mimulus guttatus* (Monkeyflower) (Blodyn y Mwnci). Island in River Dee, Llangollen, SJ/195.433, M.Rogers, 1995.
- +!124/7/1. *Antirrhinum majus* (Snapdragon) (Safn y Llew). Waste ground, Llanrwst, SH/795.623, G.Battershall, 1995.
- *124/20/9×19. *Euphrasia confusa* × *E. scottica* (a hybrid eyebright). Wet flush by stream, Gors Maen Llwyd, SH/974.576, W.Hay, 1993, det. A.J.Silverside.
- +130/7/1. *Cruciata laevipes* (Crosswort) (Croeslys). By grassland at side of footpath alongside Afon Conwy on E side of river, c. 0.3km W of Llanrwst, SH/79.61, R.Lewis, 1995.
- +134/1/1. *Dipsacus fullonum* (Wild Teasel) (Crib y Pannwr). Llanrwst, SH/797.616, J.A.Green, 1995.
- +134/1/3. *Dipsacus pilosus* (Small Teasel) (Ffon y Bugail). Canal bank, Trefor, SJ/241.424, M.Rogers, 1995.
- +!135/1/3. *Echinops bannaticus* (Blue Globe-thistle). Riverside, Llangernyw, SH/877.674, W.McCarthy, 1995. Second record.
- +!135/11/3. *Centaurea cyanus* (Cornflower) (Penlas yr Ŷd). Roadside, Llamsannan, SH/931.659, J.A.Green, 1995.
- +135/25/64. *Taraxacum gelertii* (a dandelion). Roadside bank over shale outcrop, Mynydd Merci, Mochdre, Colwyn Bay, SH/826.762, J.M.Brummitt, 1978, det. A.J.Richards & A.A.Dudman. Second record.
- *135/25/15. *Taraxacum lacistophyllum* (a dandelion). Short turf at roadside over shale outcrop, Mynydd Merci, Mochdre, Colwyn Bay, SH/826.762, J.M.Brummitt, 1978, det. A.J.Richards & A.A.Dudman. Second record.
- +!135/27/6b. *Pilosella aurantiaca* subsp. *carpathicola* (Fox-and-cubs) (Heboglys Euraid). Waste ground, Llanrwst, SH/795.623, G.Battershall, 1995. First record since 1950.
- !135/40/3. *Solidago canadensis* (Canadian Goldenrod) (Eurwialen Canada). Road verge, Ruthin, SJ/127.555, J.Thompson, 1995.
- *!135/43/1. *Erigeron glaucus* (Seaside Daisy). Along A55, Old Colwyn, SH/86.78, G.Battershall, 1995. First Welsh record.
- !135/43/4. *Erigeron karvinskianus* (Mexican Fleabane) (Cedowydd y Clogwyn). Lowest W facing crags above woodland, W side of Bryn Euryu, Colwyn Bay, SH/83.79, R.Lewis, 1993, det. Mrs R. Lever. [The determiner was erroneously given as Mrs R.Lewis in *Watsonia* 20(3): 298.]
- +135/55/2. *Anthemis arvensis* (Corn Chamomile) (Camri'r Ŷd). Roadside, Llansannan, SH/931.659, J.A.Green, 1995.

- !135/58/lac×max. *Leucanthemum × superbum* (*L. lacustre × L. maximum*) (Shasta Daisy) (Llygad Ych Mawr). Waste ground, Llanrwst, SH/795.623, G.Battershall; +sand dunes near garden, Kinmel Bay, SH/985.805, J.A.Green: both 1995.
- +135/62/1×10. *Senecio × albescens* (*S. cineraria × S. jacobaea*) (a hybrid ragwort). Road verge, Llanrwst, SH/795.623, G.Battershall, 1995. Second record.
- +148/2/3. *Lemna trisulca* (Ivy-leaved Duckweed) (Llinad Eiddew). Farm pond, Gresford, SJ/360.535, R.Mileto, 1995.
- +154/1/2. *Sparganium emersum* (Unbranched Bur-reed) (Cleddlys Di-gainc). Farm pond, Gresford, SJ/360.535, R.Mileto, 1995.
- +152/4/1. *Bolboschoenus maritimus* (Sea Club-rush) (Clwbfrwynen Arfor). Brackish ditch, Kinmel Bay, SH/985.804, J.A.Green: both 1995.
- 152/9/1. *Eleogiton fluitans* (Floating Club-rush) (Clwbfrwynen Nawf). Stream, Fenns Moss, SJ/478.386, K.Watson, 1995.
- +153/12/13/1×1. × *Festulolium loliaceum* (*F. pratensis × L. perenne*) (Hybrid Fescue) (Peisgwelw Croesryw). Wet meadow, Llangollen, SJ/195.434, W.McCarthy, 1995.
- +!153/60/1. *Triticum aestivum* (Bread Wheat) (Gwenith). Road verge, Ruthin, SJ/15.58, J.Thompson; +roadside, Bettisfield, SJ/454.355, K.Watson; both 1995. Only the third & fourth record of this very underrecorded species.
- *!153/68/1. *Echinochloa crus-galli* (Cockspur) (Cibogwellt Rhydd). Waste ground, Ruabon, SJ/290.434, B.Formstone, 1995, det. B.Wurzell.
- !153/70/pum. *Setaria pumila* (Yellow Bristle-grass) (Cibogwellt Melyn). Waste ground, Ruabon, SJ/290.434, B.Formstone, 1995, det. B.Wurzell.
- +!153/Pan/mil. *Panicum miliaceum* (Common Millet) (Miled). Garden weed, Wrexham, SJ/340.495, B.Formstone, 1995. Second record.
- !159/13/3×aur. *Crocossia × crocosmiiflora* (*C. pottsii × C. aurea*) (Montbretia) (Montbretlys). Edge of golf course, Llangollen, SJ/241.415, J.A.Green, 1995.
- 162/6/2. *Listera cordata* (Lesser Twayblade) (Ceineirian Bach). Under heather, Llanarmon Dyffryn Ceiriog, SJ/153357, H.Hughes. 1995.

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

- +!28/4/1. *Eranthis hyemalis* (Winter Aconite) (Bleidd-dag y Gaeaf). Roadside at edge of wood, Nanerch Lodge, SJ/158.701, J.Hermes, 1995. Probable garden throwout but seems well established.
- +!47/3/1. *Fagopyrum esculentum* (Buckwheat) (Gwenith yr Hydd). Waste tip, Connah's Quay, SJ/301.697, J.A.Green, 1995. First record since 1942.
- +!52/1/1. *Tilia × europaea* (*T. platyphyllos × T. cordata*) (Lime) (Pisgwydden!). Garden, Prestatyn, SJ/066.821, J.A.Green, 1995.
- *!75/8/134. *Rubus armeniacus* ('Himalayan Giant'). Waste ground by car park, Walwen, Bagillt, SJ/205.766, D.P.Earl, 1995.
- 153/50/1. *Bromus arvensis* (Field Brome) (Pawrwellt y Maes). Lowland meadow behind sand dunes, between Talacre and Ty'n-y-Morfa, SJ/112.842, D.Green, 1995, det. P.J.O.Trist.
- 153/50/4×5. *Bromus × pseudothominei* (*B. hordeaceus × B. lepidus*) (Lesser Soft-brome) (Pawrwellt Minffordd). Lowland meadow behind sand dunes, between Talacre and Ty'n-y-Morfa, SJ/112.842, D.Green, 1995, det. P.J.O.Trist.
- +!153/Pan/mil. *Panicum miliaceum* (Common Millet) (Miled). Waste tip, Connah's Quay, SJ/30.69, V.Gordon, 1975 and J.A.Green, 1995. First & second records.

ANGLESEY, v.c. 52 (comm. N.H. Brown)

- 1/1/1. *Huperzia selago* (Fir Clubmoss) (Cnwfwfwsogl Mawr). Disused quarry, Llangaffo, SH/43.68, N.H.Brown, 1995.
- +145/2/1. *Claytonia perfoliata* (Springbeauty) (Trydwl). Sandy ground, Malltraeth, SH/402.687, P.Hope Jones, 1995. Second record and first since 1926.
- +62/12/5. *Rorippa sylvestris* (Creeping Yellow-cress) (Berwr Melyn Ymlusgol y Dŵr). Damp cultivated ground, Brynsiencyn, SH/49.67, G.Halliday, 1995. Second record.
- *62/22/1. *Erophila majuscula* (Hairy Whitlowgrass) (Bystwn Blewog). Sandy soil on roadside verge, Malltraeth, SH/40.68, SH/40.68, R.H.Roberts, 1995, det. T.T.Elkington.
- 75/8/65. *Rubus monensis* (a bramble). Heathland, Cors Goch near Benllech, SH/50.81; Rhos-lligwy heath near Benllech, SH/48.85; both G.Battershall, 1995, conf. A.Newton.
- 75/8/76. *Rubus pyramidalis* (a bramble). Heathland, Cors Goch near Benllech, SH/50.81; roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, both G.Battershall, 1995, conf. A.Newton.
- 75/8/78. *Rubus riparius* (a bramble). Roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, G.Battershall, 1995, conf. A.Newton.
- 75/8/93. *Rubus cardiophyllus* (a bramble). Roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, G.Battershall, 1995, conf. A.Newton.
- 75/8/117. *Rubus polyanthemus* (a bramble). Heathland, Llandegfan Common, SH/57.75; heathland, Rhos-lligwy heath near Benllech, SH/48.85; Cors Goch near Benllech, SH/50.81; all G.Battershall, 1995, conf. A.Newton.
- 75/8/146. *Rubus bartonii* (a bramble). Heathland, Cors Goch near Benllech, SH/50.81; roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, both G.Battershall, 1995, conf. A.Newton.
- 75/8/154. *Rubus lanaticaulis* (a bramble). Roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, G.Battershall, 1995, conf. A.Newton.
- *75/8/159. *Rubus ordovicum* (a bramble). Heath, Llanestyn Common near Llandonna, SH/58.79, A.Newton & G.H.Battershall; Caravan site, Rhos-lligwy heath near Benllech, SH/48.86; G.Battershall, all 1995.
- 75/8/163. *Rubus vestitus* (a bramble). Roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, G.Battershall, 1995, conf. A.Newton.
- 75/8/185. *Rubus griffithianus* (a bramble). Heathland, Cors Goch near Benllech, SH/50.81; roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, both G.Battershall, 1995, conf. A.Newton.
- 75/8/268. *Rubus dasyphyllus* (a bramble). Roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, G.Battershall, 1995, conf. A.Newton.
- 75/8/315. *Rubus pruinosis* (a bramble). Roadside verge, Mynydd Bodafon near Moelfre, SH/46.85, G.Battershall, 1995, conf. A.Newton.
- 75/8/319. *Rubus tuberculatus* (a bramble). Heathland, Llandegfan Common, SH/57.75; heathland, Rhos-lligwy heath near Benllech, SH/48.85; both G.Battershall, 1995, conf. A.Newton.
- *75/8/seg. *Rubus segontii* (a bramble). Heath, Llandegfan Common, SH/57.75, A.Newton & G.H.Battershall; Llanestyn Common near Llandonna, SH/58.79; Cors Goch near Benllech, SH/50.81; both G.Battershall, all 1995, conf. A.Newton.
- +177/18/2c. *Medicago sativa* subsp. *sativa* (Lucerne) (Maglys Rhuddlas). Roadside verge, near Malltraeth, SH/412.680, B.Woodward, 1995.
- 108/3/3. *Centaurium littorale* (Seaside Centaury) (Canri Goch Arfor). Disused quarry, Llangaffo, SH/43.68, N.H.Brown, 1995. Apparently introduced to this site with sand from coastal dunes.
- *1135/62/1. *Senecio cineraria* (Silver Ragwort) (Llys y Lludw). Maritime limestone cliff, Benllech, SH/523.829, B.Ducker, 1995.
- 151/1/10. *Juncus capitatus* (Dwarf Rush) (Corfrwynen). Damp sand, near Valley, SH/3.7, T.H.Blackstock, 1995. Re-found in the original locality where it was discovered by Bolton King in 1915.
- +162/18/3x5. *Dactylorhiza* × *latirella* (*D. incarnata* × *D. purpurella*) (a hybrid marsh-orchid). Single plant in dune slack, Aberffraw Common, SH/35.68, N.H.Brown, 1995.

