

BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH BULLETIN

Editor : R. D. Pryce

No. 56, WINTER 1993

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Line-drawing of a 'Derwydd' Daffodil from Carmarthenshire

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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 Botany, National Museum of Wales, 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 recent decision by West Glamorgan County Council to grant planning consent for the development of a major opencast coal site near Glynneath will bring about the loss of the Selar Farm Grasslands SSSI. There is no doubt that the enlightened and comprehensive mitigation package offered by British Coal and drawn up in consultation with CCW, convinced the authority that the nature conservation issue had been adequately addressed. In return for the loss of about 6.4ha of semi-natural grassland comprising seven NVC sub-communities and including the regionally scarce MG5c (*Centaurea nigra* - *Cynosurus cristatus* grassland, *Danthonia decumbens* sub-community), an area of 84.9ha to the west of the site is proposed as a nature reserve, to be managed "in perpetuity". Much of this area is already of considerable conservation interest and 17.2ha is semi-natural grassland including all of the NVC sub-communities to be lost except MG5c. The intention is to increase this area to 27ha and re-create MG5c by turf and vegetation translocation and habitat improvement.

The national wildlife resource continues to be destroyed at an alarming rate at the mercy of mineral extraction, new roads, out of town shopping, advance factory units, further agricultural intensification and general cosmetic taming of the countryside although, at least in the case of Selar, a large area will be set aside and dedicated to the maintenance of the habitats to be lost within the mined area.

Whilst it is not practical, nor desirable, to object to many of these proposals, it is essential that the planners are influenced in such a way that adequate provision is incorporated to ensure the safeguard and sustainability of natural features and wildlife habitats, together with their associated floral and faunal interest. Like Selar, an increasing number of schemes are being proposed which incorporate a "conservation element" designed to ease their passage through the planning stages. All sorts of measures may be promised, many of which, even with the best will in the world, are unlikely to be achievable without very rigorous monitoring, supervision, maintenance and management. However, very often, only lip-service is paid to these side-issues and frequently they are conveniently forgotten once planning consent is granted. Large and established developers, like British Coal, have a past record of responsibility and intention to implement such promises but smaller firms may not have the resources or commitment to achieve them.

The planning authorities and CCW do not have adequate staff to police such schemes especially where conditions of consent require on-going management. Are we therefore going to continue to see an ever increasing loss of wildlife habitat in spite of it being counter to the intended policies of the planners? With the encouragement of the entrepreneurial spirit characteristic of this government, I fear that the rate of past losses can only accelerate.

cont. overleaf

This issue of the Bulletin contains a varied selection of papers as well as the AGM notices and 1992 plant records and I hope it will be of interest to you. Included with this mailing you will also find a copy of the Index to the Welsh Bulletin covering Nos. 1 to 50 which has been laboriously compiled for our convenience by George Hutchinson. I thank him very much on your behalf.

BSBI meetings for 1994 are listed in the Year Book. Please make sure you comply with the booking details as it makes administration much smoother.

In conclusion, may I wish all of you a good field season and I look forward to seeing you during the year.

Richard Pryce, Trevethin, School Road, Pwll, Llanelli, Dyfed, SA15 4AL.
8th Feb. 1994.

IMPORTANT NOTICE
BSBI WALES QUADRENNIAL MEETING
AND
32nd ANNUAL GENERAL MEETING, 1994

Notice is hereby given that a meeting of members of the Society, normally resident in Wales, will be held at Normal College, Bangor, Gwynedd on Saturday July 9 at 4.30 pm.

AGENDA

1. Election of Chairman and member to serve as Representative on BSBI Council
2. Election of Hon. Secretary, Hon. Treasurer and members of Committee for Wales
3. Any other business

Nominations of members for election as Chairman and Representative on Council must be in writing, signed by two members normally resident in Wales, and accompanied by written consent of the candidate to serve if elected. Such nominations, and nominations for members and officers of the Committee for Wales, should be sent to the Hon. Secretary of the Committee for Wales, Mr R.G. Ellis, Department of Botany, National Museum of Wales, Cathays Park, Cardiff CF1 3NP, to arrive not later than May 30th 1994.

ANNUAL GENERAL MEETING, 1993

The 31st Annual General Meeting and 11th Exhibition Meeting of BSBI Wales was held at Parc-le-Breos, Parkmill, Gower, on Saturday July 10th 1993.

On the Friday, members staying at Parc-le-Breos enjoyed an evenings botanizing on the coast at Three Cliffs Bay. On Saturday morning and early afternoon, Quentin Kay took members to see several interesting heathland and aquatic habitats near Broad Pool and coastal habitats around Port Eynon, before returning to Parc-le-Breos for the AGM.

After tea, the Chairman opened the Annual General Meeting. Apologies for absence were received from Nigel Brown, Andy Jones and Ray Woods. The minutes of the last AGM, published in the *Welsh Bulletin* No 54, Winter 1992 pages 4-5, were then taken as read and accepted without amendment.

The Chairman, in his opening remarks, welcomed all members present and thanked the members of the Committee for Wales and the treasurer and secretary for their help and support over the last year. He also thanked Quentin Kay for organising the AGM, and the staff of the Botany Department, National Museum of Wales, for their services to botany in Wales.

Hon. Secretary's Report

The Hon. Secretary, Gwynn Ellis, then gave his report on the last year's activities. He commented that the Committee for Wales had remained at full strength throughout the year and introduced those members present, individually, to the AGM.

One issue of the *Welsh Bulletin* had been issued since the last AGM; No. 54. The editor Richard Pryce was congratulated on the high standard that had been maintained. George Hutchinson was again warmly thanked for hard work in planning and producing the *Bulletin* and hope was expressed that members would continue to send in notes and articles for publication. *Welsh Bulletin* no. 55 was in an advanced stage of preparation and would be mailed shortly. As remarked at the last AGM *Welsh Plant Records* had now caught up with the backlog and only one set of records would be published each year. Records for 1992 will appear in the Winter issue and order and nomenclature will follow Kent's *List of Vascular Plants of the British Isles* and Stace's *New Flora of the British Isles*.

The Secretary then reported that 10 field meetings had been arranged in Wales in 1993. Four had been held so far and attendance was good. Bookings for most of the others were adequate but spaces were still available at all. David Humphreys was again warmly thanked for the splendid programme he had arranged.

Topics of a conservation nature that had been discussed in Committee were mainly concerned with the Welsh Development Agency's activities in reclaiming derelict heavy metal mine sites. A great deal of damage was being done unintentionally by not seeking advice from botanists and others before the work commenced. Letters to the WDA had resulted in them asking for a meeting so that problems can be aired. It was hoped that this would take place in the near future.

The Committee had also considered whether or not to join the Welsh Wildlife Link, an organisation set up to provide liaison on wildlife and countryside protection policy development. A note was published on this in *Welsh Bulletin* 54.

The Secretary then thanked the various organisations that had helped the Society in Wales over the last twelve months, including: the 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 Parc-le-Breos for looking after us so well; and finally Quentin Kay was thanked for all the hard work he had put into organising the meeting.

Members were then reminded about the following day's field meeting looking at Whiteford Burrows, led again by the indefatigable Quentin Kay.

Finally, members were reminded that after the AGM, Quentin would be giving a talk on *The Flora of Glamorgan*, and the exhibition meeting would open and slides be shown after dinner that evening.

Hon Treasurer's Report

The Hon Treasurer, Richard Pryce, then gave his report on the financial situation which was again satisfactory. A balance sheet (reproduced below) was circulated.

**BSBI Committee for Wales
Statement of Accounts from 1 January to 31 December 1992**

RECEIPTS		PAYMENTS	
	£		£
Bull. subs./back nos.	73.00	Bull.no.52	107.02
From B.S.B.I. Treasurer	NIL	Bull.no.53	138.41
Llysfasi receipts	435.00	Llysfasi accom.	398.00
Carmarthen receipts	480.25	Carmarthen accom.	458.54
Bank interest 1990-92	9.56		
	total 997.81		total 1101 - 97
		£	
Carried forward from 1991 (adjusted)		306.60	202.44
Excess payments over receipts		104.16	
Bank account balance:			
	deposit	198.71	202.44
	current	3.73	

Statement of Accounts from 1 January to 6 July 1993

RECEIPTS		PAYMENTS	
	£		£
Bull.subs. / back nos.	42.00	Bull.no.54	125.78
From B. S. B. I. Treasurer	NIL	Ferryside deposit	35.25
Parc-le-Breos receipts	525.15		
Ferryside receipts	416.85		
Lampeter receipts	6.92		
	total £990.92		total £161.03
Carried forward from 1992		202.44	1032.33
Excess receipts over payments		829.89	
Bank account balance:			
	deposit	198.71	1032.33
	current	833.62	

Richard Pryce (Hon. Treasurer, Committee for Wales)

Elections

In the elections that followed the Hon Secretary, Gwynn Ellis and Hon. Treasurer, Richard Pryce, were re-elected unopposed for their respective posts.

Nigel Brown, David Humphreys, Elsa Wood and Ray Woods were due to retire under rule 5 of the constitution and were eligible for immediate re-election and had indicated their willingness to stand again. In the absence of any other nominations from the floor, they were duly re-elected to serve on the Committee for Wales for a further period of two years.

Welsh Wildlife Link

The possibility of BSBI being associated to Welsh Wildlife Link (WWL) was discussed. Dr Peter Macpherson reported that the BSBI in Scotland was affiliated to their 'Link' at a cost of £40 per annum. The President of the BSBI, Dr Franklyn Perring, thought it a good idea to join if volunteers to sit on Committees were forthcoming. This was agreed and it was referred back to the Committee for Wales to seek volunteers.

In the absence of any other business, the Chairman declared the meeting closed. Quentin was then invited to give his talk on *The Flora of Glamorgan*. After dinner the Exhibition was opened and slides shown.

Exhibits and slides

Among the exhibitors were:

Ann Conolly	Chromosome counts of Lleyrn species <i>Carex acuta</i> , <i>Carex acutiformis</i> and their hybrid
Trevor Evans	Hungarian grasses and sedges
George Hutchinson	New Welsh recording card. <i>Cotoneaster</i> in Wales
Quentin Kay & Rosemary John	Gleanings from the BSBI's <i>Welsh Bulletin</i> Fragmented ranges and uncertain futures

Slides were shown by:

Trevor Evans	Gwent plants and mud flats
Peter Jones	<i>Liparis</i> in South Wales

COMMITTEE FOR WALES, 1993-1994

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

Officers

Chairman	Mr T.G. Evans*
Vice-chairman	Mr P. Day
Secretary	Mr R.G. Ellis
Treasurer	Mr R.D. Pryce

Committee Members

Mr N.H. Brown	Mr S.B. Evans*
Dr D.R. Humphreys	Dr G. Hutchinson*
Mrs E.G. Wood	Dr Q.O.N. Kay*
Mr R.G. Woods	Dr G. Wynne*

* members due to retire in 1994

**8th WELSH QUADRENNIAL MEETING
32nd ANNUAL GENERAL MEETING
AND
12th EXHIBITION MEETING, 1994**

Friday 8th July to Monday 11th July at Normal College, Bangor, Gwynedd

Programme

Friday 8 July

- 4.30—5.30 pm Arrive at Normal College (George site) overlooking Menai Strait, 1 km NE of Menai Suspension Bridge (SH/563.717)
- 6.00 pm Dinner
- 7.15 pm Visit to local site to make annual count of *Orobanche rapum-genistae* followed by short visit to Treborth Botanic Garden for coffee and a look at the plant collections, including some rare Welsh plants in cultivation. Return to Normal College at c. 10 pm.

Saturday 9 July

- 8.30 am Breakfast (Packed lunches collected afterwards)
- 9.45 am Meet at Normal College for field meeting to Nant Ffrancon near Bethesda in the Snowdonia National Park (v.c. 49)
- 10.15 am Meet at Pont Ceunant (SH/633.643) 0.5 km NW of the Ty'n-y-maes Motel on A5, 2.5 km SSE of Bethesda to explore a classic glaciated valley and record plants for the Caernarfonshire Flora Project, including ferns and saxifrages. Bring packed lunch and stout footwear.
- 4.00 pm Return to Normal College for tea and Meeting of Committee for Wales
- 4.30 pm Quadrennial and Annual General Meeting
- 5.00 pm Talk: *Plant Recording in Wales* by an officer of the Countryside Council for Wales followed by Exhibition/discussion.
- 6.30 pm Dinner
- 7.45 pm Talk: *The fens of Caernarfonshire and Anglesey* by Les Colley (CCW) followed by Exhibition/members slides/discussion

Sunday 10 July

- 8.30 am Breakfast (Packed lunches collected afterwards)
- 9.45 am Meet at Normal College for trip to Newborough Warren
- 10.30 am Meet at Newborough Warren National Nature Reserve, Anglesey (v.c. 52) to explore extensive and very varied sand-dune flora and afforested dunes. Plants to be seen include *Epipactis dunensis*, *E. palustris*, *Pyrola minor*, *P. rotundifolia* subsp. *maritima*, *Monotropa hypopitys*, *Parnassia palustris*, *Equisetum variegatum* and *E. × litorale*.
- Assemble at Llyn Rhos-ddu car park (SH/426.647) just off the A4080, 1 km S of Newborough village. Bring packed lunch.
- 6.15 pm Dinner, followed by exhibitions etc.

Monday 11 July

- 8.30 am Breakfast
Optional recording in v.c. 49 on the way home

Accommodation

Accommodation is in single or twin rooms at Normal College Bangor	
Bed and Breakfast (single room)	12.00
Bed and Breakfast (twin room)	9.30
Packed lunch	2.80
3 course dinner with coffee or soft drink	6.50
Conference fee (light refreshments and use of facilities)	2.50

For further details and booking forms, please write to Mr N.H. Brown (BSBI Wales AGM) Treborth Botanic Garden, University of Wales, Bangor, Gwynedd LL57 2RQ

THE DERWYDD DAFFODIL

- R.G. Woods

As a result of my all too well known and clearly deviant taste in bizarre forms of British native wild plants, our editor kindly drew my attention in late 1992 to a paper by Alan Stepney-Gulston on the Narcissi of South Wales. It appeared in the Transactions of the Carmarthenshire Antiquarian Society and Field Club in 1907. Residing at Derwydd, near Ammanford in Carmarthenshire, Stepney-Gulston described an interesting double form of what was believed to be the Tenby daffodil *Narcissus pseudonarcissus* ssp. *obvallaris* which he called the "virescent dwarf double Derwydd daffodil". It had apparently grown at Derwydd in profusion for over two hundred years.

My interest was further roused by the description of the flowers, which when young were said to be often grass green. The trumpet segments were partially suppressed in growth whilst the perianth whorls were most luxuriant, the whole appearing much like a double rose. This was clearly a plant to tickle any deviant's fancy. Initial responses to enquiries amongst acquaintances living in the area were not hopeful. Derwydd House and gardens were apparently still in existence but no such daffodils could be recalled. A wider search was required. The help of Denys Smith, an old acquaintance from Radnor days, was enlisted. One of his regular countryside articles in the South Wales Guardian, complete with an "artist's impression" was devoted to the search for the Derwydd daffodil. By this time I had also discovered a mutual friend of the present owner of Derwydd and a visit in daffodil time was planned.

Surprisingly the newspaper article produced six responses, so in late March, accompanied by Col. Hayes an expedition was mounted. To begin with, the grounds of Derwydd, though extensive, did not look too promising. Then one isolated clump of daffodils just coming into flower set the pulse racing. There was what looked like a tight bunch of green bananas stuck on the top of a daffodil flower stalk. It was clearly the Derwydd daffodil. Other clumps were found later in the woods around the house, though flowers were few in number. Later that day other colonies were confirmed in the near vicinity and at Trapp and Carmel. None had apparently been recently planted, nor was their origin known.

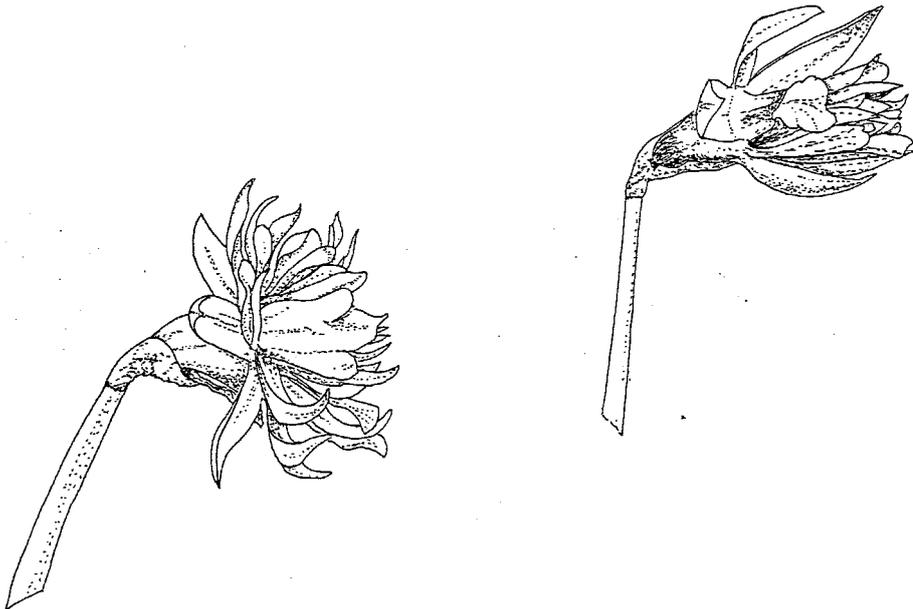
The attached line drawings compare this plant with the generally more common old cottage garden double daffodil (of unknown origin?) often called "Van Sion". The Derwydd daffodil perianth segments, when they finally turn from green to yellow, are of a more solid substance and of a fairly uniform colour. "Van Sion" comes earlier into flower and is the double form of a daffodil which had a paler coloured trumpet compared to the rest of the flower.

Once these differences had been sorted out the Derwydd daffodil turned out to be no rarity. I began to find it in churchyards in Radnorshire. Specimens sent to Arthur Chater brought the quick response that it also occurred in Cardiganshire. A further search of the literature turned up an interesting paper by Charles Vachell in the Transactions of the Cardiff Naturalists Society of 1894. Here is illustrated a double daffodil indistinguishable from the Derwydd daffodil but called "Thomas' virescent daffodil of Penylan". Described as "by no means a handsome flower" but one which "gives an impression of degeneracy", it was said to cover some two or three acres of sloping meadow, with a south aspect, on the Old Red Sandstone at the Chapel Farm, Penylan, near Cardiff. Is it still present in this area? Vachell sent material to various experts of that time. Conclusions were tentative but at least one person leant towards the possibility of this being a double Tenby daffodil. Vachell also

notes that double daffodils had been found near Tenby at Knightson and that Wolley-Dod reported to him that the former had obtained double flowered forms from sown seed of the Tenby daffodil.

The great rarity of double flowered forms of our common wild daffodil must also be remarked upon. Do they occur in Wales? I have never seen any and the 1992-3 edition of "The Plant Finder" (T. Lord edit., Hardy Plant Soc.) lists no supplier, whilst two nurseries supply a plenus form of Tenby daffodil. I would be pleased to examine fresh material of any naturalized double daffodils or make available material of both the Derwydd and Tenby daffodils to anyone able to compare them chemically.

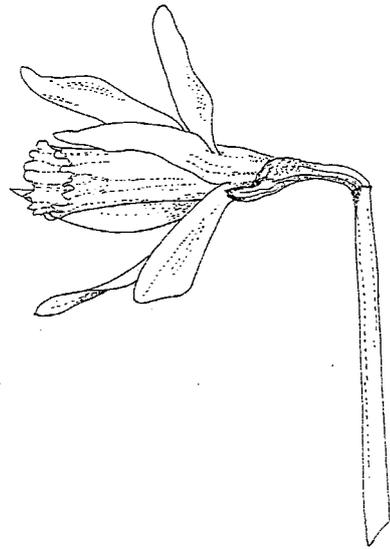
R.G. Woods, c/o Countryside Council for Wales, Gwalia, Ithon Road, Llandrindod Wells, Powys.



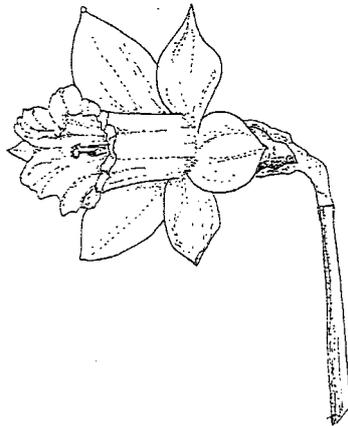
Derwydd Daffodil



"Van Sion"



Common Wild Daffodil



Tenby Daffodil

R. G. Woods
1993

NOTES ON NORTH WALES RUBI 1993

A. Newton

Thanks to the good offices of Mr G. Battershall and Miss A. Conolly, I was able to spend a week in August renewing acquaintance with the brambles of North Wales in three areas: the hinterland of Colwyn Bay and the Conway valley (chiefly SH 77, 85-7) - behind Bangor (SH 56-7) and East Lleyrn (SH 34, 43-5). One of the objects was to examine the interface between the West Lleyrn bramble florula and the Bangor brambles (*R. lentiginosus*, *R. chrysoxylon*, *R. griffithianus*, *R. semiglaber*) and to study the relative frequency of the W. Lleyrn brambles around the Snowdon Range foothills.

37 well-defined taxa were found in the area of search, of which the following 8 are regarded as common and widespread in North Wales as a whole [present in at least 7 of the 11 10km² visited]:

<i>R. nemoralis</i>	<i>R. cardiophyllus</i>	<i>R. ulmifolius</i>	} on the less exposed lower ground
<i>R. incurvatus</i>	<i>R. bartonii</i>	<i>R. tuberculatus</i>	
<i>R. polyanthemus</i>	<i>R. dasyphyllus</i>		

Scarcer but present in 5-6 10km² are the widespread species:-

<i>R. lindleianus</i>	<i>R. dentatifolius</i>	<i>R. leyamus</i>
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The Bangor brambles, while all present on the hedgebanks and rough moorland behind Bangor in SH 56/7 were found to vary considerably in extent; *R. griffithianus* was found only on one bank near Henryrd at SH 7773 and another to the south at SH 4541; *R. lentiginosus* only at its well-known Ogwen Bank (6265) and at heathy roadsides at SH 4654 and SH 4547 (Bwlch derwin). *R. chrysoxylon* was found once behind Colwyn Bay and near Nebo at SH 8256 but was also found at SH 4654 and may well extend further south; *R. semiglaber* on the other hand is common around the lower Conway valley in SH 77/86/87 but was absent elsewhere.

The more regional brambles showed a predictably 'occasional' distribution. *R. riparius* was present at most localities examined in SH 34/43/4/56. Comparably with W. Lleyrn, *R. ordovicum*, so prominent in W. Lleyrn, is present but less conspicuous in 34/43-5/57 while *R. segontii* MS was not observed east of the 34/43/4 line, though there are old records from the Llanberis area. *R. lanaticaulis* was visible in 44/5 and also east in the Conway valley in SH 77. *R. monensis* (34/44/56) and *R. briggsianus* (45/47) characteristic of rough moorland in Anglesey cross the Menai Strait behind Bangor and continue through Pontllyfni along the Snowdonia fringe *en route* for Portmadoc; neither deviates into Lleyrn apparently. On the other hand, *R. infestus* (34/45/56) and *R. vigorosus* (34/43/4) both stretch west of Yr Eifl along the Padarn ridge.

Other noteworthy observations include:-

R. vestitus, one of the "top 10" for records in UK, was seen only once south of Llanrwst in SH 85. This rarity reflects a similar position in Cornubia and Pembroke. *R. longithyriger*, collected by Babington and Charles Bailey a century and more ago was still abundant around Llanberis - but found nowhere else! *R. scissus* was unexpectedly scarce, only on the damp moors in 44/5. *R. dumnoniensis*, *R. raduloides* and *R. altiarcuatus* all present in W. Lleyrn stretch no further east than 34; *R. amplificatus* however occurs sparsely further east in 45/6.

R. fuscicortex, essentially a bramble of the Festiniog/Maentwrog area, was found once further north in SH 85. A handsome grey-green Rhamnifolian bramble with stout arching stems and long, thyrsoid, white-flowered panicles was seen in several hedges and thickets (SH 7370, 7871, 5967, 8477) but remained unnamed in the field. This turns out to be *R. incurvatiformis* Edees, a frequent Pennine bramble whose only Welsh record hitherto was in South Flintshire and whose range is now significantly extended.

Finally, *R. albionis* a frequent bramble further south in Wales was seen at two sites in 45, perhaps the furthest north in Britain for this species. Interestingly it is found in Western Ireland at a higher latitude.

CARMARTHENSHIRE FLORA: PROGRESS IN 1992

Progress with recording continues apace with emphasis being placed not only upon site recording but also upon the more critical taxa: *Rosa*, *Salix* and *Taraxacum* for instance. The annual recording meeting based in Carmarthen provided the usual tally of new records and during the year both George Hutchinson (GH) and Ian Morgan (IKM) continued unrelentingly to bombard me with data. In fact, for the second year running, Ian has provided me with a short report of his most significant records and I am grateful to him for allowing me to reprint extracts below. The following account can only mention a selection of the most notable and interesting records made during the year.

Several significant discoveries were made in 1992 although new vice-county records (vcr) were mainly confined to the micro-specific level or aliens. The first Welsh record of *Symphoricarpos x chenaultii* (Pink Snowberry) was found in the disused Forge Quarry, north of Cwmdwyfran (22/408257) in August by GH (det. Rodney Burton) but is likely to be a relic of cultivation growing near the site of possible old offices. Another first Welsh record was of *Portulaca oleracea* (Common Purslane), a native of the Mediterranean region, which was discovered as a garden weed in Laugharne (22/299106) by John Rees (JR) who also submitted a specimen of an *Amaranthus* (an amaranth) found growing in the garden of Dylan Thomas' Boathouse (22/304108) which unfortunately was too immature to determine with certainty but is probably *A. retroflexus* (JR, ref. B. Ryves). Also from Dylan's Boathouse was the second vcr for the grass *Digitaria sanguinalis* (Hairy Finger-grass) (JR, det. GH).

R. D. Meikle (RDM) confirmed first vcrs of the White Willow varieties, *Salix alba* var. *alba* from the western bank of the River Loughor near Llanedi (22/588061) (IKM) and *S. alba* var. *caerulea* (the "Cricket-bat Willow") from near Kidwelly (22/413043 & 22/415049) (IKM). He also confirmed the second vcr of *S. alba* var. *vitellina* (the "Golden Willow") from a hedge near Llwynhendy (21/541986) (IKM & RDP, 1982). The white willows of the coastal lowlands southeast of Llanelli are almost entirely *S. alba* var. *vitellina*, though var. *caerulea* occurs in the Lower Gwendraeth valley, for example alongside the main road between Pembrey and Kidwelly. Many specimens of *S. fragilis* (Crack Willow) were det. to variety level by RDM and included a first vcr for var. *furcata* from near Morfa'r Ynys Farm, Morfa (21/522991) (IKM). However, most of the *S. fragilis* found on the coastal belt between Bynea and Kidwelly has proved to be var. *russelliana* (the "Bedford Willow"), though other individuals of var. *furcata* occur, for example, near Dafen Pond, 22/530013, and on the bank of the Loughor at Pant-y-ffynnon, 22/621109. Other notable willow finds included the second vcr of *S. daphnoides* (Violet Willow) comprising a line of specimens at least 10m high noted by members of the Pembrey Forest Conservation Panel from within the forest close to the boundary with the Pembrey Country Park (22/405012) (col. RDP, det. GH). Many additional records of various hybrid willows have been made by GH and IKM (conf. or det. RDM) which they intend to write-up in a future report.

With the publication of the BSBI *Rosa* Handbook imminent, the referees Tony Primavesi (ALP) and Gordon Graham (GGG), between them, checked and redetermined all *Rosa* material in NMW except that qualifying under the "criteria" (Graham *et al.*, c.1992) which were accepted as having been determined correctly in the past. In addition GH, IKM & RDP made several forays specifically to collect new material. Resulting from this, a specimen collected by GH & RDP from a hedge at Marros (22/206084) subsequently proved to be *Rosa arvensis* (female) x *R.*

tomentosa (male), a hybrid new to science (det. ALP, conf. GGG). On the same day (7 Sept.), GH & RDP also collected *Rosa arvensis* (female) x *R. caesia* subsp. *glauca* (det. ALP), the first Welsh record for a *R. arvensis* x *R. caesia* cross. First vcrs also included the following: *R. arvensis* (f) x *R. stylosa* (m), near Gilman Point, 22/222090, col. GH & RDP, det. GGG; *R. caesia* subsp. *caesia* (f) x *R. canina* (m), Cynghordy, 22/8040, I.M. Vaughan (IMV), 1958, det. ALP; *R. caesia* subsp. *glauca* (f) x *R. canina* (m), near Ystradffin, 22/790473, IMV, 1952, det. ALP; *R. canina* (f) x *R. caesia* subsp. *glauca* (m), near Cenarth, 22/261404, GH & RDP, det. GGG; *R. canina* (f) x *R. stylosa* (m), Ferryside, 22/3610, IMV, 1977, det. ALP; *R. canina* (f) x *R. tomentosa* (m), near Telpyn Farm, 22/181076, GH & RDP, det. ALP; *R. pimpinellifolia* x *R. sherardii* (= *R. x involuta*), 2km south of Capel Gwynfe, 22/713215, M&JI, 1987, det. ALP; *R. stylosa* (f) x *R. canina* (m), Cwm Felin, Bynea, 21/546996, IKM, det. ALP, 1993 and *R. tomentosa* (f) x *R. canina* (m) (= *R. x curvispina*), Rhiw, Cilycwm, 22/760421, IMV, 1966, det. ALP.

Neither were the dandelions neglected. About 25 specimens were submitted to John Richards who determined several first vcrs (in Jan. 1993): *Taraxacum inane* from Burry Port, 22/442002 (GH, 1990), *T. intumescens* and *T. undulatiflorum* from near Carmarthen railway station, 22/412197 (GH, 1989) and *T. expallidiforme*, *T. necessarium*, *T. piceatum*, and *T. porteri* from the banks of the reinstated section of the River Lash following opencast working, near Llandybie, 22/610146, (RDP, 1990).

Also on land disturbed by past opencast working near Llandybie, a dense stand c. 1m x 0.6m of *Genista tinctoria* (Dyer's Greenweed) was found on the side of the old site access road (22/597143). The area was generally species-rich and showed good recolonisation.

In contrast to the fifty or so plants found in the previous year, only about twelve plants of *Parentucellia viscosa* (Yellow Bartsia) were counted growing on disturbed ground at the periphery of the working Garnant opencast site in 1992. The decrease in numbers may be due to insufficient disturbance to the soil which resulted in less than optimum conditions for germination.

IKM found *Persicaria minor* (= *Polygonum minus*) (Small Water-pepper) growing in the muddy, grazed margins of the Gwaith Go-bach pond below Dinefwr Castle Woods (22/619221), providing the second recent record for this small knotweed. Late May saw the discovery, also by IKM, of *Trifolium ornithopodioides* (Fenugreek), growing amongst a sward of other small legumes on low-lying clayey ground below the disused Morlais Colliery, Llangennech (22/571021) and was the second post 1970 vcr.

Undoubtedly the most notable upland record was a population of *Moenchia erecta* (Upright Chickweed), the 2nd recent vcr, found, together with abundant *Ornithopus perpusillus*, (Bird's-foot) on a dry, sunny, bank in Cwm Crychan (22/820390) (IKM). In the same vicinity, M&JI recorded *Ornithopus* at 22/824390 whilst *Dryopteris carthusiana* (Narrow-leaved Buckler-fern), *Wahlenbergia hederacea* (Ivy-leaved Bellflower), *Narthecium ossifragum* (Bog Asphodel) and *Carum verticillatum* (Whorled Caraway) were growing in an acid mire nearby at 22/824388. *Ornithopus* was also discovered growing on a roadside bank at Taliaris (22/634281) independently by both IKM and GH & RDP.

Following the previous year's discovery of a single plant of *Huperzia selago* (Fir Clubmoss) in an old limestone quarry on the northern flanks of Mynydd Du (IKM & RDP), another singleton was found by IKM in April 1992 in dwarf-shrub heath of

Empetrum nigrum (Crowberry) amongst southeast-facing rocks on the Tair Carn Ridge (22/687168). There is no doubt that the overstocking of sheep is responsible for the extreme rarity of clubmosses in the vice-county.

Noteworthy sites discovered during the Carmarthen-based Recording Meeting at the end of July included: a *Molinia caerulea* (Purple Moor-grass) dominated wetland near Goetre Wen (22/550047) with *Calluna vulgaris* (Heather), *Erica tetralix* (Cross-leaved Heath), *Genista anglica* (Petty Whin), *Scutellaria minor* (Lesser Skullcap), *Salix repens* (Creeping Willow) and *Carum verticillatum* (John Killick (HJK) & Dorothy Brookman (DB)); acid moorland near Maesllan (22/587425) with *Rhynchospora alba* (White Beak-sedge), *Drosera rotundifolia* (Common Sundew), *Menyanthes trifoliata* (Bogbean), *Carum*, *Wahlenbergia* and *Narthecium* (HJK, Jim Bevan (JB) & Mike Smith (MS)); a mire at Crugydeirne (22/297248) with *Hypericum elodes* (Bog St. John's Wort), *Scutellaria minor* and *Wahlenbergia* (HJK, JB & MS); marshy fields dominated by *Molinia* east of Abergorlech (c.22/6032) with *Platanthera chlorantha* (Greater Butterfly Orchid), *Carex hostiana* (Tawny Sedge) and *Carum* (Trevor Crosby (TSC)); *Molinia* - *Filipendula ulmaria* (Meadow-sweet) dominated marshy grassland east of Lliadiad-Nenog (22/555374) with *Carex pallescens* (Pale Sedge) and *Equisetum sylvaticum* (Wood Horsetail) (Jean Green (JAG) & DB); a small area of acid mire near Pen-Lifau (723398) with *Rhynchospora alba*, *Drosera rotundifolia*, *Narthecium*, *Erica tetralix* and *Carum* with *Lycopus europaeus* (Gipsywort) and *Hypericum elodes* nearby (M&JI); various habitats in the vicinity of Dolau Bran (22/7938) with *Cirsium dissectum* (Meadow Thistle), *Carex pallescens*, *Veronica scutellata* (Pink Water-speedwell) and *Scutellaria galericulata* (Common Scullcap) (M&JI); a remnant valley mire and flushes east of Blodeuen (22/485361 to 22/485359) with *Hypericum elodes*, *Narthecium*, *Drosera rotundifolia* and *Carum* (RDP) and various acid wetland habitats at Mynydd Figyn (22/53v) with *Sanguisorba officinalis* (Great Burnet), *Potentilla palustris* (Marsh Cinquefoil), *Dryopteris carthusiana*, *Hypericum elodes*, *Menyanthes*, *Drosera rotundifolia*, *Carum* etc (JAG).

Carum verticillatum was frequently noted by many recorders and was found to be new to seven tetrads: 22/42p, 22/43m, 22/43x, 22/43y, 22/53g, 22/62g and 22/73f. However, the species continues to be elusive from several 10km squares but I remain hopeful that it may be discovered in 22/21, 22/30 and 22/82.

Dinefwr District was surveyed by the Countryside Council for Wales' Phase 1 Grassland Survey Team led by Pippa Whitton. Every field was examined and vegetation types were recorded. New sites for many notable species were recorded and the new 10km square records are listed below. All were recorded by Alison Cox. *Ophioglossum vulgatum* (Adder's-tongue) from Pen-y-graig, Upper Brynamman (22/720148); *Equisetum sylvaticum* from near Maes-Llech (22/638096 & 22/639097); *Genista anglica* from near Henrhyd (22/676097) and near Upper Brynamman (22/702145); *Genista tinctoria* from near Henrhyd (22/676097) and near Upper Brynamman (22/705144); *Menyanthes trifoliata* from west of Cwmgors (22/698095); *Serratula tinctoria* (Saw-wort) from near Upper Brynamman (22/702145); *Isolepis setacea* (Bristle Club-rush) from near Hafod (22/677092); *Briza media* (Quaking Grass) from near Maes-Llech (22/640095); *Gymnadenia conopsea* (Fragrant Orchid) from near Upper Brynamman (22/702145).

The best unimproved grassland sites found in the Phase 1 survey were subsequently re-examined by Phase 2 surveyors, Jamie Bevan and Dawn Gray (JMB & DG) who identified the National Vegetation Classification (NVC) types present. Two such sites produced the second and third vcs of *Carex montana* (Soft-leaved Sedge) "growing in a dry acid grassland community with slight calcareous influence".

Both sites, one above Betws, southeast of Ammanford (22/655117) (which had about five plants), and the other at Dolycoed, west of Brynamman (22/699144) (about fifteen plants), also had *Vicia orobus* (Wood Bitter-vetch) and *Sanguisorba officinalis* (Great Burnet). The former also had *Genista anglica* (Petty Whin), *Cirsium dissectum* (Meadow Thistle), *Salix repens* (Creeping Willow) and *Pimpinella saxifraga* (Burnet Saxifrage). These two sites, at 160m and 200m elevation respectively, contrast very strongly with the only other *C. montana* population in the vc, on the limestone grassland at Carreg-yr-Ogof, on Mynydd Du (22/777215) at 570m. Here associates include *Carex caryophyllea* (Spring Sedge), *Gymnocarpium robertianum* (Limestone Fern), *Asplenium viride* (Green Spleenwort), *Galium boreale* (Northern Bedstraw), *Saxifraga hypnoides* (Mossy Saxifrage), and *Thalictrum minus* (Lesser Meadow-rue). *Vicia orobus* was also found at Llwyn-y-cwn, again near Betws (22/642101), where a small stand covered an area of c.5m x 5m.

Another site surveyed at Phase 2 level was Pwll Edrychiad, near Carmel (22/584162) and referred to as Caeau Carmel by JMB & DG. This site forms the floor and flanks of a depression in the Carboniferous Limestone outcrop and includes mesotrophic and calcareous grassland as well as a damp acidic element with rushes and *Molinia*. Particularly notable were the large populations (c.200-300 spikes) of *Platanthera chlorantha* (Greater Butterfly Orchid) (Davies, 1993) and *Carum verticillatum* (Whorled Caraway) with a few plants of *Cirsium dissectum*. Also recorded were *Sanguisorba officinalis* (Greater Burnet), *Pimpinella saxifraga* (Burnet Saxifrage) and *Succisa pratensis* (Devil's-bit Scabious) (A Llanelli Naturalists meeting is to be held here on 17 July).

IKM reported another population of *P. chlorantha* comprising some 65 spikes in a pasture northeast of Middleton Hall (22/524187), adorning a sloping area of unimproved, neutral grassland.

A ditch near Llwynhendy (21/539989) supported the probably under-recorded *Rorippa microphylla* (Narrow-fruited Watercress) (IKM, conf. GH). The old settling lagoons and nearby dry grassland just east of the now demolished Burry Port Power Station (22/457005) have a surprisingly diverse and colourful flora based on soils derived from pulverised fuel ash with, for example, hundreds of spikes of *Dactylorhiza praetermissa* (Southern Marsh-orchid). Nearby at Tywyn Bach (22/457005), 1992 was a good year for *Glaucium flavum* (Yellow-horned Poppy) where IKM counted 223 plants on the shingle in early May. He also discovered six plants of *Osmunda regalis* (Royal Fern) growing on "floating islands" in one of the remaining flooded pfa lagoons near the western end of Pwll (22/472010), an unexpected find, the species being more typical of rank bog margins and willow carr.

The stonewort, *Chara vulgaris* var. *longibracteata* (RDP, det. Alan Orange (AO)), growing in the Pembrey Canal at Trelle (22/422016) proved to be only the second vcr for the var. and was demonstrated to members of the Llanelli Naturalists at a field meeting in April together with other aquatics, for example, the water crowfoots *Ranunculus trichophyllus* and *R. baudotii* and *Potamogeton crispus* (Curled Pondweed) (Pryce, 1992a). In August *Kickxia elatine* (Sharp-leaved Fluellen) together with *Linaria supina* (Prostrate Toadflax) was frequent on the disused mineral railway track alongside the canal at Trelle (22/421018). *Kickxia* was also present on the old railway south of Pembrey Church (22/428012) and the canal nearby held another stonewort, *Nitella flexilis* (IKM, det. AO) together with an abundance of *Lemna minuta* (= *L. minuscula*) (Least Duckweed), the individual floating fronds appearing tiny next to those of *L. minor* (Common Duckweed).

An extensive population of *Linaria supina* was discovered by GH on a large, recently disturbed, sandy area north of the harbour at Burry Port (22/444006), within a few hundred yards of the railway sidings site where populations were noted in the 1960s and 70s. At least 200 plants were counted. In the same disturbed area there was a large flowering of *Papaver dubium* (Long-headed Poppy) and a few *P. rhoeas* (Common Poppy). No doubt, as soon as the grass becomes re-established, all of these species will again become obliterated. Also at Burry Port, several prostrate plants of *Malva neglecta* (Dwarf Mallow) were found growing in fissures in the concrete capping to the western wall of the harbour in front of the Yacht Club (22/445003) (IKM). This is the second post-1970 record of the species which is more frequent on the lighter soils of south and east England.

In September, a potato field at Marros Mill (22/206077) was found by GH & RDP to be over-run by *Chenopodium polyspermum* (Many-seeded Goosefoot) but extensive searching did not reveal any other significant arable weeds.

Lemna gibba (Fat Duckweed) was found in three new localities: in a ditch southeast of Cors Goch, Llanllwch (22/362185); in another ditch by the railway bridge at Morfa, Llanelli (21/517992) and in the old canal along the northeastern perimeter of Ffrwd Fen (22/421017) (all IKM). This species, no doubt, has been overlooked in the vc in the past due to the fact that it rarely attains its fully gibbous state and should be searched for in suitable habitat.

One plant of *Lamium amplexicaule* (Henbit), growing on a mound of dumped soil with several plants of *Lamium hybridum* (Cut-leaved Dead-nettle), *Mercurialis annua* (Annual Mercury) and abundant *Stachys arvensis* (Field Woundwort) at the recreation area behind Bethlehem Chapel, Pwll (22/473009) was a noteworthy find in late September. This is only the 2nd recent vcr of *L. amplexicaule*. A month later, a single but strongly growing plant of *Misopates orontium* (Weasel-snout) was also noted at the same site (all IKM). IKM also found *Mercurialis annua* again on dumped soil, beside the Afon Dafen at 21/505987, whilst nearby he recorded a tall plant of *Angelica archangelica* (Garden Angelica), doubtless a garden throw-out.

On 29th July, almost forty plants of *Lactuca serriola* (Prickly Lettuce) were discovered by IKM on disturbed soil alongside the new arterial road extending south into the Machynys peninsula (21/511987). This was the first record for the species in the vice county since 1912 and the population was subsequently independently found by GH who was able to demonstrate it, together with other notable casuals and weeds, to members of the Llanelli Naturalists at the field meeting on 5th September (Hutchinson, 1993). These included the first vcr of *Helianthus annuus* (Sunflower) at 21/508987 and *Lamium hybridum* (Cut-leaved Dead-nettle) at 21/507986 in the vicinity of South Dock.

On the site of the old railway sidings at Morfa, Llanelli (21/517992), GH discovered four plants of *Papaver dubium* subsp. *lecoqii* (Yellow-juiced Poppy). This was the only the second vcr and a few days afterwards, IKM also discovered the population but was able to find twelve plants. Associated with the sp. were several *Papaver somniferum* (Opium Poppy) and a single *Papaver rhoeas* (Common Poppy). At the same site, GH noted three clumps of *Lychnis coronaria* (Rose Campion) in 1992, a species he discovered here the previous season.

1991 records made by IKM thought to be of *Sisymbrium altissimum* (Tall Rocket) from the area east of Llanelli were determined by GH as *Coincya monensis* subsp.

recurvata (*Rhynchosinapis cheiranthos*) (Wallflower Cabbage). Specifically they refer to plants found at Loughor Bridge (21/59n), Penrhynwyn, Machynys (21/59d) and Llangennech (22/50q). In 1992 the species was also seen at Penrhynwyn (21/517973).

Marrubium vulgare (White Horehound) is a rather rare labiate of dry situations which has only previously been noted in the vc on three occasions. The species was noted at Pembrey Burrows by Dr. W.A. Shoolbred in 1899 but on 5th June 1992, two, rather poor plants were discovered by IKM & RDP growing in the foundations of the now-abandoned road to the west of Pembrey Harbour (22/436002) where a diverse weed flora has appeared amongst the mix of disturbed sandy-soil and rubble. One majestic plant of *Onopordum acanthium* (Cotton Thistle) was also present, this only the second recent record. The burrows between here and Pembrey Country Park were a magnificent sight in late spring with the most prolific flowering for many years of *Orchis morio* (Green-winged Orchid) amounting to many thousands of spikes on dry dune hollows and slopes covering several acres. Although rather past their peak, the population was stared at in wonderment by the members of the Dyfed Wildlife Trust field meeting led by GH & RDP on 24 May (Pryce, 1992c). Several small populations of *Silene conica* (Sand Catchfly) as well as frequent *Vulpia fasciculata* (Dune Fescue) were also noted on this occasion. A few weeks later on 21st August, also on Pembrey Burrows, Dr. P.A. Jones collected specimens of *Asperula cynanchica* (Squinancywort) from two separate populations (22/433002 & 22/432002), the first records from the site since 1936.

The *Verbascum nigrum* (Black Mullein) recorded by IKM at Glan Towy (22/672248) in October 1990 has been redetermined by GH as *Verbascum virgatum* (twiggy Mullein) and is the first inland record. In 1992 five plants of *V. virgatum* were noted growing on the bank of the River Gwendraeth fach (22/404068) and one plant appeared spontaneously in the vegetable plot of a garden at Erw-las, Llwynhendy (21/537993) (IKM, det. GH). In the same garden, a single plant of *Oxalis stricta* (Upright Yellow-sorrel) was found (IKM, det. A.O. Chater (AOC)) which was only the third vcr. A related species, *Oxalis exilis* (Procumbent Yellow-sorrel), was found in front of a house at Llanwrda (22/713315) (IKM, conf. AOC) and is a new vcr. Another first vcr was GH's *Allium moly* (Yellow Garlic) growing on a roadside verge about forty yards from a house in Llanpumsaint (22/412296).

The first vcr of escaped *Brassica oleracea* subsp. *gemmifer* (Brussels Sprout) was made by Annie Mary Pell on a woodland edge at Talley (22/630332) well away from any garden. Escaped specimens of the garden, pink-flowered 'mossy-saxifrage' have been determined by R.J. Gornall as *Saxifraga x arendsii* group. The first and second vcrs are respectively from Llanwrda (22/7131) (GH, 1986) and Llanfihangel-ar-Arth (22/452393) (GH, 1988)

It is likely that a bird was the seed dispersal agent responsible for the first vcr of *Cotoneaster helmqvistii* (Helmqvist's Cotoneaster), a young plant of which was found at the base of the perimeter wall of St. David's Church, Llwynhendy (21/539997) (IKM, det. J. Fryer (JF)); a mature plant of this species grows in a nearby cottage garden. Other first vcr cotoneasters det. by JF were *C. sternianus* (Stern's Cotoneaster) in a hedgebank south of Llanybydder (22/5242) (GH, 1991); *C. salicifolius* (Willow-leaved Cotoneaster) in a mixed plantation near Ferryside (22/366095) (GH, 1991) and *C. rehderi* (Bullate Cotoneaster) from a streamside wood near the Crychan Forest (22/818394) (M&JI, 1991). In addition, JF has confirmed the redetermination of all *C. microphyllus* material in NMW, (the species which is so abundant in quarries along the outcrop of the Carboniferous Limestone), as

C.integrifolius (Small-leaved Cotoneaster).

Trachystemon orientalis (Abraham, Isaac and Jacob) is a comfrey-like member of the borage family which flowers in late winter. Material thrown-out from a garden in Denham Avenue, Llanelli has spread and become dominant in an area of secondary woodland near the now-derelict Penywern Cottage at the edge of Stradey Woods (22/495014). *Carex pendula* (Pendulous Sedge), the rampant garden form of Yellow Archangel (*Lamium galeobdolon* subsp. *argentatum*) and *Allium triquetrum* (Three-cornered Leek) have also established themselves here to varying degrees (IKM). Offshoots of *Trachystemon* given to the Stradey Castle garden, have likewise been apparently discarded (or removed) to nearby areas of woodland where they now thrive (eg near "The Lodge", 22/494015) (Morgan, 1992).

As usual my thanks go to all who have submitted records without whom recording for the flora would never have reached this advanced state. But my special gratitude must go to both Ian Morgan whose continued encouragement is never absent due to his own contagious enthusiasm and, of course, to George Hutchinson who not only probably does more than 50% of all the annual field work but also finds time to determine his own as well as other recorders' specimens and also insulates me from the chore of sending specimens to referees. His meticulous cataloguing and record keeping always keeps me on my toes and he is never averse to picking me up on any minor error or omission (or anyone else's!). I must also thank the numerous BSBI referees whom George has consulted: the speed by which some of them are able to reply can be quite astonishing! Finally I must thank George and Ian for correcting and suggesting various additions to the first draft of this report.

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R.D.Pryce, BSBI Recorder, 23 April 1993.

WELSH PLANT RECORDS - 1992

Welsh Plant Records are compiled by R. Gwynn Ellis, Dept. of Botany, National Museum of Wales, CARDIFF CF1 3NP, from reports of BSBI vice-county Recorders to whom records should preferably be sent. Plants are 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) or, if not in that list, C.A. Stace's *New Flora of the British Isles* (1991), authorities for Latin names are no longer given unless the name is not in either 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 (1991).

The following symbols are used:

* to indicate a new v.c. record

+ to indicate a new 10km square record

! to indicate that the species is not native to Wales

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

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

¶ 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) or *Distribution of Pteridophyta in Wales* by G.Hutchinson & B.A.Thomas (1992) are listed. Other records are included at the discretion of the vice-county Recorder. The minimum grid reference is to a 10km square but, if supplied by the recorder, references to a 1km or even a 100m square may be included.

The Vice-county Recorders from 1/1/1994 are:

MONMOUTH, v.c. 35; T.G.Evans, La Cuesta, Moun-ton Road, Chepstow, Gwent NP6 5BS

GLAMORGAN, v.c. 41(East); P.S.Jones, 13 The Mount, Dinas Powis, Cardiff CF6 4DP

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

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

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

CARMARTHEN, v.c. 44; R.D.Pryce, Trevethin, School Road, Pwll, Llanelli, Dyfed SA15 4AL

PEMBROKE, v.c. 45; S.B.Evans, Glan-y-Mor, Dinas Cross, Newport, Dyfed SA42 0UQ

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

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

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

CAERNARFON, v.c. 49; N.H.Brown, Treborth Botanic Garden, University College of North Wales, Bangor, Gwynedd

DENBIGH, v.c. 50; Mrs J.A.Green, Coed Duon, Tremeirchion, St Asaph, Clwyd LL17 0UH

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

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

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

- +5/2/1. *Botrychium lunaria* (Moonwort). Hay meadow, Garn yr Erw, SO/23.09, J.Woodman & C.Lindley, 1992; cattle grazed meadow, Cwmynyscoy, ST/285.997, M.Yeo, C.Mockridge & J.Woodman, 1992.
- +46/7/12. *Cerastium semidecandrum* (Little Mouse-ear). Wall at Upper Gocket, SO/49.07, J.Harper, 1992.
- +52/1/2. *Tilia cordata* (Small-leaved Lime). Streamside near weir at Pontyspig, SO/28.21, S.Rippin, 1992.
- +!62/31/2. *Coronopus didymus* (Lesser Swine-cress). Disturbed ground on bank, Upper House, Grwyne Fawr, SO/28.23, S.Rippin, 1992.
- *!73/1/3. *Crassula helmsii* (New Zealand Pigmyweed). Large patch several years old, at stream margin near source of spring, Trethomas, ST/18.88, J.Woodman, 1992; +Small patch (a recent arrival) on margin of artificial lake (Borrow Pit) created to take River Monnow flood water, Monmouth, SO/50.12, J.F.Harper, 1992. First and second records.
- +!73/3/1. *Sempervivum tectorum* (House-leek). Walls at roadside verge near Monmouth, SO/5.1, B.J.Gregory, 1992. Tetrads C, H & L.
- *!75/8/2. *Rubus tricolor* (Chinese Bramble). Spreading from urban planting under E end of George Bridge, Newport, ST/32.87, G.Hutchinson, 1990, det. A.Newton. Second Welsh and first county record.
- +75/9/14. *Potentilla anglica* (Trailing Tormentil). Meadow at Portskewett, ST/50.88, T.G. & U.T.Evans, 1992.
- +75/21/5. *Rosa pimpinellifolia* (Burnet Rose). One well established plant, suckering on coal waste at side of B4245 road, Bunker's Hill, Blaenavon, no house nearby but within 50m of a small double-flowered pink rose bush, SO/24.09, T.G.Evans & R.Fraser, 1992, conf. A.L.Primavesi. Second record.
- +!75/21/6. *Rosa rugosa* (Japanese Rose). Edge of River Ebbw at Risca, ST/2.9F, J.Harper, 1992.
- 75/21/11. *Rosa stylosa* (Short-styled Field-rose). +Woodland trackside, Minnets Wood, ST/45.89; +ditch on E side of meadow, Rich's Brake, R.A.F. Caerwent, ST/46.91, both T.G.Evans, 1992, conf. G.G.Graham. First certain records.
- 75/21/11×12. *Rosa* × *andegavensis* (*R. stylosa* × *R. canina*) (a hybrid rose). +Between meadow and copse, Rich's Brake, R.A.F. Caerwent, ST/46.91; +hedgerow on River Severn Moors, E of Whitson, ST/39.83, both T.G.Evans, 1992, conf. G.G.Graham.
- *75/21/11×14. *Rosa stylosa* × *R. obtusifolia* (a hybrid rose). Hedge separating two meadows, Barnett's Farm, Bayfield, ST/51.93, T.G.Evans, 1992, det. G.G.Graham & A.L.Primavesi. First verified record.
- *75/21/12×13b. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *glauca*) (a hybrid rose). N facing grassy bank, The Brockwells, Caldicot, ST/46.89, T.G.Evans; hedgebank on E side of road, Lower White Castle, SO/38.16, T.G. Evans; roadside bank at entrance to disused coalmine, Talywain, SO/25.04, T.G.Evans & R.Fraser, all 1992, det. G.G.Graham. First second and third records.
- +75/21/15. *Rosa tomentosa* (Harsh Downy-rose). Between grassland and narrow woodland, Llantarnam Abbey, ST/30.92, T.G.Evans, 1992, det. G.G.Graham. Only the second post-1930 record.
- *75/21/15×18. *Rosa* × *avrayensis* (*R. tomentosa* × *R. rubiginosa*) (a hybrid rose). Unimproved bank in grassy meadow, The Cross Hands, between Llansoy and Llandenny, SO/43.03, T.G.Evans & D.Lewis, 1992, det. G.G.Graham. First record.
- *75/21/16×17. *Rosa* × *shoobredii* (*R. sherardii* × *R. mollis*) (a hybrid rose). Ditch forming upland meadow boundary, SW Trinant, ST/20.99, T.G.Evans & R.Fraser, 1992, det. G.G.Graham. First record.

- 77/13/1. *Securigera varia* (Crown Vetch). Horse trampled pasture, Monmouth, SO/50.12, B.J.Gregory, 1992.
- +77/19/23. *Trifolium arvense* (Hare's-foot Clover). +Waste ground and rail ballast, Griffithstown, ST/29.99, T.G. & U.T.Evans, 1986; on top of concrete on bank of River Ebbw, Risca, ST/23.91, J.Harper, 1992. Uncommon in the county and usually spread by rail.
- +77/25/2a. *Genista tinctoria* subsp. *tinctoria* (Dyer's Greenwood). Roadside verge between Long Barrow and Withy Bed, Portskewett, ST/50.88, T.G. & U.T.Evans, 1992.
- +!91/1/2. *Mercurialis annua* (Annual Mercury). Disturbed and waste ground, Caldicot Castle, ST/48.88, T.G. & U.T.Evans, 1992.
- !107/10/1. *Smyrniium olusatrum* (Alexanders). +Roadside near The Garth, Monmouth, SO/52.13, B.J.Gregory; +and several sites near the River Ebbw, Risca, ST/2.9F, J.Harper, both 1992.
- +!107/21/1. *Foeniculum vulgare* (Fennel). Wasteland near Risca, ST2.9F, J.Harper, 1992.
- 108/5/4a. *Gentianella amarella* subsp. *amarella* (Autumn Gentian). +Limestone quarry at Ochrwyth, S of Risca, ST/23.89, J.Harper, 1992; +edge of Danygraig (limestone) Quarry, ST/23.90, J.Harper, 1991.
- +118/23/1×2×3. *Mentha* × *smithiana* (*M. arvensis* × *M. aquatica* × *M. spicata*) (Tall Mint). Edge of River Ebbw, Risca, ST/2.9F, J.Harper, 1992.
- +118/23/2×3. *Mentha* × *piperita* (*M. aquatica* × *M. spicata*) (Peppermint). Stream near Upper House, Grwyne Fawr, SO/28.23, Mrs S.Rippin, 1992.
- *!123/1/sus×vir. *Forsythia* × *intermedia* (*F. suspensa* × *F. intermedia*) (Forsythia). Bank of River Ebbw, Risca, ST/2.9F, J.Harper, 1992. First record.
- *124/24/1. *Rhinanthus angustifolius* (Greater Yellow-rattle). 15-20 plants on artificial grassy bank, Greenmeadow Community Farm, ST/27.96, C.Titcombe *et al.*, 1992. First county and second Welsh record.
- +130/6/7a. *Galium mollugo* subsp. *mollugo* (Hedge-bedstraw). Hedgebank, Portskewett, ST/50.88, T.G. & U.T.Evans, 1992.
- 135/26/3. *Crepis biennis* (Rough Hawk's-beard). Ten plants at edge of maize crop near Monmouth, SO/51.12; and a huge quantity possibly imported with soil on a new roadside verge near Monmouth, SO/50.11-50.12, both B.J.Gregory, 1992. A rare county plant.
- 135/28/1. *Hieracium sabaudum* L. (a hawkweed). Recorded from the following squares: +SO/38.04 (1987), +SO/34.19 (1986), SO/49.05 (1984), +SO/46.18 (1985), +SO/52.03 (1983), +ST/19.89 (1988), +ST/27.90 (1989), +ST/30.86 (1977 & 1991), +ST/44.88 (1977) and +ST/41.91 (1985).
- +!138/4/2. *Elodea nuttallii* (Nuttall's Waterweed). Pond (deliberately planted with aquatics), Danygraig Reserve, ST/23.90, J.Harper, 1992.
- +152/16/9a. *Carex divulsa* subsp. *divulsa* (Grey Sedge). Roadside verge between Long Barrow and Withybed, Portskewett, ST/50.88, T.G. & U.T.Evans, 1992.
- *152/16/20. *Carex elongata* (Elongated Sedge). Nine tussocks with fruiting specimens and several more eaten to ground level, with *Carex pseudocyperus*, in boggy ditch at woodland margins, Coed Robert Wood near Raglan, SO/39.09, R.Fraser, 1992. First record. A later count by T.G. Evans, R. Fraser & R. David revealed 91 tussocks.
- +152/16/51. *Carex caryophyllea* (Spring-sedge). In nine tetrads (A, B, C, D, F, G, H, I, J) in meadows between Tintern and Lower Redbrook, SO/5.0. E.Wood, 1985-1992.
- *153/32/1b. *Deschampsia cespitosa* subsp. *parviflora* (Tufted Hair-grass). Several plants on shady cliff top, near Lover's Leap, Piercefield Park, ST/52.96, T.G.Evans, 1988. First record of the subspecies.
- +153/50/3. *Bromus racemosus* (Smooth Brome). Meadow at Portskewett, ST/50.88, T.G. & U.T.Evans, 1992.

GLAMORGAN, v.c. 41 (comm. P.S.Jones & Q.O.N.Kay)

- *46/9/1. *Moenchia erecta* (Upright Chickweed). A patch about 5m² near two paths in *Agrostis curtisii* heath, on acid soil on S facing hillside, E of Nottill, Penmaen, Gower, SS/537.885, Q.O.N.Kay, 1992. First record.
- +46/11/2. *Scleranthus annuus* (Annual Knawel). Locally abundant on acid soil in potato field/market garden on S facing slope, Cefn Bychan near Blue Anchor, N Gower, SS/544.952, Q.O.N.Kay, 1992. First record in area since 1923.
- +162/34/4. *Brassica juncea* (Chinese Mustard). Raised flower bed, The Hayes, Cardiff, ST186.764, K.L.Davies, 1986, det. T.C.G.Rich. Originally mis-identified as *Erysimum cheiranthoides*.
- 75/21/12×13a. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *caesia*) (a hybrid rose). +Porthkerry Bay, ST/0.6, A.E.Wade, 1969; +hedgerow, Coychurch Higher, SS/965.845, A.E.Wade, 1970, both det. A.L.Primavesi. First and second records with subsp. *caesia* as parent.
- +75/28/24. *Sorbus torminalis* (Wild Service-tree). Population of about six trees on Carboniferous limestone cliff edge adjacent to beech woodland, Castell Coch, ST/128.828, G.M.Barter, 1992. Only the 2nd extant site in the county.
- +¶75/32/10. *Cotoneaster salicifolius* (Willow-leaved Cotoneaster). Steep bank of railway cutting, Gabalfa, Cardiff, ST/166.791, G.Hutchinson, 1986, det. J.Fryer. Second record, site now destroyed.
- *!75/32/11×18. *Cotoneaster* × *suecicus* (*C. dammeri* × *C. conspicuus*) (Swedish Cotoneaster). Waste ground, Bridgend Industrial Estate, SS/92.79, G.Hutchinson, 1990, det. J.Fryer. First record.
- *¶75/32/18. *Cotoneaster conspicuus* (Tibetan Cotoneaster). Embankment of railway sidings, Gabalfa, Cardiff, ST/168.791, G.Hutchinson, 1986, det. J.Fryer. First record, site now destroyed.
- *¶75/32/22. *Cotoneaster hjelmqvistii* (Hjelmqvist's Cotoneaster). Embankment of railway sidings, Gabalfa, Cardiff, ST/168.791, G.Hutchinson, 1986, det. J.Fryer. First record, site now destroyed.
- *!75/32/40. *Cotoneaster sternianus* (Stern's Cotoneaster). Waste ground on site of old brickworks pools, Birchgrove, Cardiff, ST/165.804, A.D.Tipper, 1988, det. J.Fryer. First record.
- 77/16/2. *Ononis reclinata* (Small Restharrow). Four plants seen in small area 5.5km W of previously known sites, near Rhosili, Gower, SS/4.8, T.C.G.Rich, 1991, conf. Q.O.N.Kay.
- *!77/16/mit. *Ononis mitissima* (Mediterranean Restharrow). Garden lawn, Dinas Powis, ST/154.709, J.P.Curtis, 1992, det. R.M.Burton. First Welsh record, probably introduced with bird seed.
- *!77/18/scu. *Medicago scutellata* (L.) Miller (an alien medick). Garden weed, Cyncoed, Cardiff, ST/198.812, J.C.Deeming, 1985, det. R.M.Burton. First Welsh record. Came up in garden where bird seed had been scattered but E.J.Clement writes 'I would not expect it to be a constituent of bird seed as the fruit would probably be too hard to break into seeds'.
- +107/34/2. *Carum verticillatum* (Whorled Caraway). Small localised population in *Molinia* mire, Banwen, SN/857.096, and abundant in species rich mesotrophic grassland, Blaenclairch, Blaengwrach, Glyn Neath, SN/873.052, both R.D.Pryce, 1992.
- 116/4/3. *Symphytum tuberosum* (Tuberous Comfrey). Abundant in at least 3ha. in mixed woodland and plantation, Penrice Woods, Gower, SS/488.880, Q.O.N.Kay, 1992. Appears to have spread greatly since it was first recorded by B.E.Jones in 1972. Likely to appear at other sites spread by forestry machinery (heavy vehicles are logging woods).
- +124/16/11. *Veronica anagallis-aquatica* (Blue Water-speedwell). Four large plants seen, with *V. catenata*, in dry stream-bed and ford, Llandewi, Gower, SS/461.891, Q.O.N.Kay, 1991. First confirmed record in Gower.
- 135/26/5. *Crepis vesicaria* (Beaked Hawk's-beard). +One plant on verge of A465 opposite turning to Blaengwrach, S of Glyn Neath, SN/868.060; +and frequent on verge of A465 at Neath Abbey Industrial Park, SS/730.967, both R.D.Pryce, 1992.
- 152/16/47. *Carex pallescens* (Pale Sedge). One clump in sedge-rich grassy clearing in F.C. plantation adjacent to Blaenclairch near Blaengwrach, SN/875.048, R.D.Pryce, 1992.

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

- +4/1/1. *Equisetum hyemale* (Rough Horsetail). Stream bank near Hay-on-Wye, SO/243.404, W.J.H.Price, 1992. Second record.
 +153/51/2. *Bromopsis benekenii* (Lesser Hairy-brome). Limestone gorge N of Cefn Coed y Cymmer, SO/024.087, T.C.G.Rich, 1992. Second record and first since 1899.

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

- +3/1/1. *Isoetes lacustris* (Quillwort). 100's of plants with *Juncus bulbosus*, Dol y Mynach Dam, Claerwen Valley, SN/905.616, R.G.Woods, 1992.
 +17/1/2. *Polystichum aculeatum* (Hard Shield-fern). Base-rich rock outcrop with *Cystopteris fragilis*, Cerrig Gwalch, Nannerth, SN/936.709, R.G.Woods, 1992.
 +45/1/4. *Arenaria balearica* (Mossy Sandwort). In silt on top of concrete on unfinished dam, Dolymynach Reservoir, Claerwen Valley, SN/909.619, R.G.Woods, 1992.
 +62/14/6. *Cardamine impatiens* (Narrow-leaved Bitter-cress). Dense stand, about 1m² in damp roadside verge, on A470 opposite turning to Smithfield Farm, SO/023.549, S.M.Gooch, 1992.
 +75/8/3. *Rubus saxatilis* (Stone Bramble). Base-rich wooded cliff ledges, Cerrig Gwalch, Nannerth, SN/936.709, CCW survey, 1992.
 *!106/1/1/. *Hedera colchica* (Persian Ivy). Naturalised in broad-leaved woodland, in a remote part of Garth Dingle Wood, Llowes, SO/189.420, R.G.Woods, 1992. First record.
 +110/8/1a. *Solanum nigrum* subsp. *nigrum* (Black Nightshade). At side of farm track, rather stony bare ground, Treflyn Farm, SO/015.643, S.M.Gooch, 1992.
 *135/25/90. *Taraxacum hamiferum* (a dandelion). Roadside, near bridge over River Wye, Newbridge-on-Wye, SO/012.566, R.G.Ellis, 1988, det. A.J.Richards.
 135/6/6. *Cirsium heterophyllum* (Melancholy Thistle). +Large clump on E side of road, small clump by chapel gate on W side of road, near old chapel, Pant y Dwr, SN/984.747; and E side of road on herb-rich bank of A483, N of Llanbadarn Fynydd, SO/085.794, both R.G.Woods, 1992.
 +!135/11/3. *Centaurea cyanus* (Cornflower). Disturbed ground of former field, Presteigne Withy Beds Nature Reserve, SO/309.650, D.R.Hargreaves, 1992. A wild flower mix was sown on adjacent ground but no cornflower grew there!
 *136/1/1. *Butomus umbellatus* (Flowering-rush). In shallow water at edge of River Wye, Cabalva, Clyro, SO/233.456, D.R.Drewett & D.C.Boyce, 1992. First record.
 +152/16/11. *Carex disticha* (Brown Sedge). Growing amongst *Juncus acutiflorus* and *Ranunculus flammula* in damp peaty hollow, Llanelwedd, SO/050.536, S.M.Gooch, 1992. Second record.
 +153/25/1. *Melica nutans* (Mountain Melick). Base-rich wooded cliff ledges, Cerrig Gwalch, Nannerth, SN/936.709, R.G.Woods, 1992.
 +153/59/2. *Hordeum murinum* (Wall Barley). One plant just on Radnor side of central niche of bridge over River Wye, Llanelwedd, SO/043.513, R.G.Woods, 1992.
 +153/39/8. *Agrostis vinealis* (Brown Bent). Dry acidic grassland, Camnant, SO/080.835, R.G.Woods, 1992. Second record.
 +158/13/1. *Convallaria majalis* (Lily-of-the-valley). One colony on inaccessible cliff ledge, Cerrig Gwalch, Nannerth, SN/936.709, CCW survey, 1992.

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

- 4/1/7. *Equisetum sylvaticum* (Wood Horsetail). Small colony by roadside on woodland edge, near Maes-llech, SN/638.096, A.Cox, 1992

- +5/1/1. *Ophioglossum vulgatum* (Adder's-tongue). Rare in hayfield with occasional *Briza media*, Pen-y-graig, Upper Brynamman, SN/720.148, A.Cox, 1992.
- +30/1/4. *Papaver rhoeas* (Common Poppy). Penfarch, Darren Fawr, SN/536.280, T.S.Crosby, 1992.
- +!30/6/1. *Eschscholzia californica* (Californian Poppy). One plant N of Brynhyfred, SN/632.245, G.Hutchinson, 1992. Third record.
- +!45/1/1. *Portulaca oleracea* (Common Purslane). Garden weed, Laugharne, SN/299.106, J.Rees, 1992, det. G.Hutchinson. First Welsh record.
- +46/9/1. *Moenchia erecta* (Upright Chickweed). On dry, S facing bank with frequent *Ornithopus perpusillus*, Cwm Crychan, SN/820.390, I.K.Morgan, 1992, conf. G.Hutchinson. Third record, second since about 1908.
- +47/1/6. *Persicaria bistorta* (Common Bistort). Substantial population scattered within sward in semi-improved hay field, covering about 1 acre, near Garn Fach, Tumble, SN/537.099, R.D.Pryce, 1992.
- +47/1/16. *Persicaria minor* (Small Water-pepper). Edge of pond, Gwaith Go-bach Pond, Dinefwr Castle Woods, Llandeilo, SN/619.221, I.K.Morgan, 1992, det. G.Hutchinson. Second record.
- *51/1/6×7. *Hypericum* × *desetangsii* nothosubsp. *desetangsii* (*H. perforatum* × *H. maculatum* subsp. *obtusiusculum*) (Des Etangs' St John's-wort). One clump in corner of hay meadow, Pencarreg, SN/567.460, H.J.Killick, 1985; +roadside, Farm above Goitre, SN/373.234, H.J.Killick, J.Bevan & M.E.Smith, 1992, both conf. N.K.B.Robson. First and second confirmed records.
- +53/1/7. *Malva neglecta* (Dwarf Mallow). About 30 plants in crack in concrete promenade, Burry Port Harbour, SN/444.004, I.K.Morgan, 1992.
- +!61/2/6. *Salix daphnoides* (European Violet-willow). Established on coastal dunes, planted by F.C., Pembrey Forest, SN/405.012, F.C. Conservation Panel, 1992. Second record.
- +!62/37/1b. *Coincya monensis* subsp. *recurvata* (Wallflower Cabbage). Penrhyngwyn, Machynys, Llanelli, SS/517.973, I.K.Morgan, 1992, conf. G.Hutchinson. Second record.
- *!62/34/1. *Brassica oleracea* subsp. *gemmifera* (Brussels-sprout). Woodland edge, Talley, SN/630.332, A.M.Pell, 1992. First record.
- *!75/32/40. *Cotoneaster sternianus* (Stern's Cotoneaster). Lane up hill to Waungron Farm, S of Llanybydder, SN/52.42, G.Hutchinson, 1991, det. J.Fryer; +Stradey Woods, Llanelli, SN/495.014, I.K.Morgan, c.1969, det. G.Hutchinson. First and second Welsh and county records.
- +77/14/1. *Vicia orobus* (Wood Bitter-vetch). One plant covering about 5m² in dry acid grassland, Llwyn-y-cwn, SN/642.101, J.M.S.Bevan & D.E.Gray, 1992.
- +77/19/1. *Trifolium ornithopodioides* (Bird's-foot Clover). Frequent, with *Trifolium scabrum* on flattened shale spoil from disused colliery, Morlais Colliery, Llangennech, SN/571.021, I.K.Morgan, 1992, conf. G.Hutchinson. Second record.
- +!77/22/2. *Laburnum alpinum* (Scottish Laburnum). Hedgerow along B4333, E of Dangoilan, SN/342.332, I.K.Morgan, 1992, det. A.O.Chater. Second record.
- 77/25/2. *Genista tinctoria* (Dyer's Greenweed). +Scrubby disturbed ground, Glyn Glas, SN/597.143, R.D.Pryce; +locally frequent in marshy grassland, SE of Henrhyd, SN/676.097, A.Cox; +rare in heathy *Molinia* grassland, Upper Brynamman, SN/705.144, A.Cox, all 1992.
- 77/25/4. *Genista anglica* (Petty Whin). Locally frequent in marshy grassland, SE of Henrhyd, SN/676.097; +rare in marshy grassland, Upper Brynamman, SN/702.145, both A.Cox, 1992.
- +113/1/1. *Menyanthes trifoliata* (Bogbean). Locally frequent in flushed ground in *Molinia* dominated grassland, W of Cwmgors, SN/698.095, A.Cox, 1992.
- +118/9/1. *Marrubium vulgare* (White Horehound). One rather desiccated plant in grey dunes, Pembrey Burrows, SN/435.002, I.K.Morgan & R.D.Pryce, 1992. First record since 1961 and first in this area since 1899.
- +!124/1/2. *Verbascum virgatum* (Twiggy Mullein). On waste ground/dung heap, Glan-towy Farm, SW of Bethlehem, SN/672.248, I.K.Morgan, 1990, det. G.Hutchinson. Redet. of *V. nigrum*.

- *124/20/5×9. *Euphrasia arctica* × *E. confusa* (a hybrid eyebright). Disturbed ground (recolonised ash-tip), Machynys, Llanelli, SS/51.98, R.D.Pryce, 1986; +W facing grassy hillside, 0.5km E of Pont Ricket, SN/34.21, G.Hutchinson, 1987, both det. A.J.Silverside. First and second records.
- *124/20/5×19. *Euphrasia arctica* × *E. scottica* (a hybrid eyebright). Heathy roadside, 0.8km ENE of Llidiadenog, SN/553.367, R.D.Pryce; +boggy turf beside stream, near Llyn Brianne, SN/804.489, M. & J.Iliff, both 1986, det. A.J.Silverside. First and second Welsh and county records.
- *124/20/7×3. *Euphrasia* × *glanduligera* (*E. nemorosa* × *E. anglica*) (a hybrid eyebright). Rough pasture, Cefn Parcin, Llanybydder, SN/54.42, I.M.Vaughan, 1972, det. A.J.Silverside. Third Welsh and first county record.
- *124/20/9×1a. *Euphrasia confusa* × *E. rostkoviana* subsp. *rostkoviana* (a hybrid eyebright). Acid, sheep-grazed turf, upstream of Pont Clydach, Mynydd Du, SN/740.195, R.D.Pryce, 1982, det. A.J.Silverside. Second Welsh and first county record.
- *125/2/10. *Orobanche minor* var. *maritima* (Carrot Broomrape). About 15 plants growing beside a trackway in dunes, with *Crepis* spp. and *Hypochaeris radicata*, Pembrey Burrows, SS/414.997, I.K.Morgan, 1990, det. D.J.Hambler. First record for variety.
- 130/5/1. *Asperula cynanchica* (Squinancywort). Dry coastal dunes, Ashburnham Golf Course, Pembrey Burrows, SN/433.002, P.A.Jones, 1992. First record at this site since 1936.
- +135/7/1. *Onopordum acanthium* (Cotton Thistle). One plant in 'grey' dunes, Pembrey Burrows, SN/435.002, I.K.Morgan, 1992. Fourth record.
- +135/9/1. *Serratula tinctoria* (Saw-wort). Wet heath/acid grassland, Upper Brynamman, SN/702.145, A.Cox, 1992.
- +!135/22/1. *Lactuca serriola* (Prickly Lettuce). About 37 plants (presumably from soil seed-bank) on newly built roadside verge, Machynys, Llanelli, SS/511.987, I.K.Morgan, 1992, conf. G.Hutchinson. Third record and first since 1912.
- 135/26/5. *Crepis vesicaria* subsp. *taraxacifolia* (Beaked Hawk's-beard). Roadside verge, Pwll, Llanelli, SN/470.013, R.D.Pryce, 1992.
- +152/8/1. *Isolepis setacea* (Bristle Club-rush). Marshy grassland, SW of Hafod, SN/677.092, A.Cox, 1992.
- +152/16/54. *Carex montana* (Soft-leaved Sedge). Two small populations in same field, with *Vicia orobus*, dry acid grassland, Dolycoed, near Brynamman, SN/699.144, and Castell-du, near Ammanford, SN/655.117, both J.M.S.Bevan & D.E.Gray, 1992. Second and third records.
- +153/17/1. *Briza media* (Quaking-grass). Occasional in grassland, SE of Maes-lllech, SN/640.095, A.Cox, 1992.
- *153/63/1b. *Molinia caerulea* subsp. *arundinacea* (Purple Moor-grass). Damp grassy area NE of Witchett Pool, Laugharne Burrows, SN/283.077, G.Hutchinson & I.K.Morgan, 1992. First record for subspecies.
- !153/71/san. *Digitaria sanguinalis* (Hairy Finger-grass). Garden weed, probably introduced with garden plants, Dylan Thomas' Boathouse, Laugharne, SN/306.110, J.Rees, 1992.
- +162/16/1. *Gymnadenia conopsea* (Fragrant Orchid). Small colony in grassland, Upper Brynamman, SN/702.145, A.Cox, 1992.

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

- +9/1/1. *Pilularia globulifera* (Pillwort). Hundreds of plants in 1 × 16 metre area of 1.5 metre wide ditch with gravelly bottom, many pills present with much *Equisetum fluviatile* and *Potamogeton polygonifolius*, Big Moor, Llangloffan, SM/911.321, S.B.Evans & R.J.Haycock, 1992.

- +28/13/30. *Ranunculus tripartitus* (Three-lobed Crowfoot). 10-20 plants in 4" deep ruts filled with water around *Salix* bushes on pony trampled clay on wet heath, North Moor Common, Freystrop, SM/948.119, S.B.Evans & A.McConnell, 1992.
- +28/17/3. *Thalictrum flavum* (Common Meadow-rue). *Phragmites* dominated fen, Castelmartin Corse, SR/900.997, O.Mountford, 1984, S.B.Evans, 1987; scattered along ditch, Castlemartin Corse, SR/899.997, F.A.Abraham, 1992. First and second records.
- +77/16/2. *Ononis reclinata* (Small Restharrow). 50-100 plants in 10 × 20 metre area at bottom of vegetated slope on limestone sea cliff, W end of Whitesheet Rock Bay, Lydstep, SS/090.975, S.B. & A.E.Evans, 1992.
- *111/3/2b. *Calystegia sepium* subsp. *roseata* (a bindweed). Behind shingle cobble ridge, Newgale, SM/849.218, S.B.Evans, 1987. First record for subspecies.
- +124/2/2. *Orobanche rapum-genistae* (Greater Broomrape). Three large spikes in a clump up to 20" high on *Ulex europaeus*, Old Esso Refinery, SM/873.057, J.W.Donovan, 1992.
- 128/1/1. *Pinguicula lusitanica* (Pale Butterwort). 30-50 plants in 6 × 4 metre area of acidic flush at spring source with *Eleocharis multicaulis*, *Potamogeton polygonifolius*, *Hypericum elodes* & *Carex panicea*, formerly grazed by horses, Cwm Clydach, Newport, SN/07.38, K. Lynch, 1992. Lowest altitude site in the county.
- +162/20/3. *Orchis morio* (Green-winged Orchid). 74 spikes over 30² metres on top of covered reservoir constructed in 1900, neutral grassland dominated by *Anthoxanthum odoratum*, *Lotus corniculatus*, *Leontodon hispidus* and *Helictotrichon pubescens*, 'Golden Hill' Reservoir, Pembroke, SM/989.022, S.B.Evans & P.Brown, 1992.

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

- +5/1/1. *Ophioglossum vulgatum* (Adder's-tongue). Mown grassland, R.A.E. site, Aber-porth, SN241.524, P.Dalley, 1992.
- *15/2/6. *Asplenium trichomanes-ramosum* (Green Spleenwort). Wheelpit and shafts of Esgair-fraith leadmine, SN/741.912, S.P.Chambers & J.A.Martin, 1992. First record. Mostly on mortared walls and decayed masonry in the shafts, but at least 7 plants on natural rock in one shaft exposed when covering collapsed c.1987.
- +17/1/2. *Polystichum aculeatum* (Hard Shield-fern). Wheelpit of Esgair-hir leadmine, SN/728.910, S.P.Chambers & J.A.Martin, 1992.
- 28/13/7. *Ranunculus parviflorus* (Small-flowered Buttercup). One plant, with *Silene gallica* and *Trifolium subterraneum*, shaley margin of arable field 300m NE of Ty-gwyn, Mwnt, SN/199.521; one plant on disturbed ground, 450m NNW of main entrance, R.A.E. site, Aber-porth, SN/244.519, both A.O.Chater, 1992. First records since 1954.
- *\$29/17/4. *Thalictrum minus* (Lesser Meadow-rue). Colony 3×1m on roadside verge and in scrub, 250m W of Pen-bont Rhydybeddau post office, SN/676.836; +interrupted colony 12m long on bank between road and river 50m E of Pont Tanycastell, Llanychaiarn, SN/589.788, both A.O.Chater, 1992. First and second records; nowhere native in Cards.
- +!30/1/3a. *Papaver somniferum* (Opium Poppy). Abundant on disturbed ground, R.A.E. site, Aber-porth, SN/244.519, M.Edwards, 1992.
- *!40/2/1×2. *Alnus* × *pubescens* (*A. glutinosa* × *A. incana*)(a hybrid alder). About 7 bushes 3-5m tall among abundantly regenerating trees and bushes of both parents in wet woodland and on waste ground, site of woodyard and former railway station, Llanilar, SN/628.752, A.O.Chater, 1992. First record.
- +43/1/8. *Chenopodium polyspermum* (Many-seeded Goosefoot). Potato patch 300m NNW of Frongoch, Llechryd, SN/223.441, A.O.Chater, 1992.

- +!46/19/1. *Agrostemma githago* (Corncockle). About 25 plants among grass on recently disturbed ground at SW corner of Glanrafon Industrial Estate, Llanbadarn Fawr, SN/609.801, A.O.Chater, 1992. Not appearing to have been deliberately sown.
- +47/4/6. *Polygonum rurivagum* (Cornfield Knotgrass). Abundant weed in trial plots of spring oats, Welsh Plant Breeding Station, Plas Gogerddan, SN/627.823, A.O.Chater & J.Valentine, 1992.
- +47/8/13×19. *Rumex* × *pratensis* (*R. crispus* × *R. obtusifolius*) (a hybrid dock). Waste ground on disused railway, Llanfarian, SN/591.778, A.O.Chater, 1992.
- 53/1/7. *Malva neglecta* (Dwarf Mallow). Castle grounds, Aberystwyth, SN/579.814, S.P.Chambers, 1992. First recorded here by G.Rees in 1890; first sighting in Cards since 1936.
- +57/1/7. *Viola lactea* (Pale Dog-violet). One plant at edge of wet heath, 1.5km NE of Oakford, SN/463.588, R.P.Bray & A.O.Chater, 1992. Since the destruction of the site where the species was found in 1988, this is the only site known in Cards.
- *61/2/10×12. *Salix* × *capreolata* (*S. caprea* × *S. aurita*)(a hybrid willow). Bush 4m tall in scrub on S bank of Afon Rheidol by Glanrafon Industrial Estate, SN/614.804, A.O.Chater, 1991, det. R.D.Meikle. First record.
- *!61/2/13. *Salix eriocephala* (Heart-leaved Willow). Two colonies, 8×7m and 12×7m, 25m apart on sandy bank of Afon Ystwyth 200m WNW of A487(T) bridge in Llanfarian, SN/588.778, S.P.Chambers & A.O.Chater, 1992, conf. R.D.Meikle. First records.
- *!62/7/1. *Erysimum cheiranthoides* (Treacle Mustard). Several plants on recently reconstructed verge of A44(T) at National Eisteddfod site, Lovesgrove, SN/631.811, A.O.Chater, 1992. First record. With *Thlaspi arvense* and other arable weeds.
- 62/28/1. *Thlaspi arvense* (Field Penny-cress). Many plants on recently reconstructed verge of A44(T) at National Eisteddfod site, Lovesgrove, SN/633.811, A.O.Chater, 1992. First record since 1932.
- 62/28/4. *Thlaspi caerulescens* (Alpine Penny-cress). Banks of Afon Ystwyth, strengthened by stones, 200m NNW of A487(T) bridge in Llanfarian, SN/589.779, S.P.Chambers, 1992. 6 fruiting plants and 3 seedlings, probably the only extant colony in the v.c. as all other sites have been searched in vain in 1991-92.
- +!62/38/1. *Hirschfeldia incana* (Hoary Mustard). Along 600m of verge of A487 (T) SW from Llannon, SN/507.662, A.O.Chater, 1992.
- *!62/42/sat. *Raphanus sativus* (Garden Radish). 5 plants along a 25m stretch of sandy shingle among *Cakile*, *Eryngium maritimum* and *Elytrigia juncea*, Tany-y-bwlch Beach, Aberystwyth, SN/580.800 - 580.799, J.Williams & A.O.Chater, 1992. First record. Origin unknown but appearing well-established.
- *!75/3/can. *Spiraea canescens* (Himalayan Spiraea). Naturalised in rocky scrub by old cottage site, Allt Goch quarries, Cwrtnewydd, SN/491.483, A.O.Chater, 1991. First record.
- +75/19/10b. *Alchemilla filicaulis* subsp. *vestita* (a lady's-mantle). A few plants in small hay meadow by A482 opposite Ddol-wen cottage, 2km SE of Aberaeron, SN/467.611, A.O.Chater, 1992. Second record.
- +!75/19/15. *Alchemilla mollis* (a lady's-mantle). Scattered throughout pasture immediately SE of Old Cilgwyn, Adpar, SN/316.418, A.O.Chater, 1992. Occurring up to 50m from edge of adjacent garden and much more completely naturalised than elsewhere in Cards.
- *75/21/4×12. *Rosa* × *verticillacantha* (*R. arvensis* × *R. canina*)(a hybrid rose). Roadside bank 800m NW of Blaen-twrch, SN/677.501, A.O.Chater, 1990, det. A.L.Primavesi. First record.
- *!75/21/7. *Rosa* 'Hollandica' (Dutch Rose). Dense thicket 6×5m amongst scrub on waste ground at edge of former woodyard, Llanilar railway station site, SN/625.753, A.O.Chater, 1992. First record.
- *75/21/12×13. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *caesia*)(a hybrid rose). Hedge 400m S of Blaenpistyll, Tremaen, SN/232.475, A.O.Chater, 1985, det. A.L.Primavesi. First record.
- *75/21/15×16. *Rosa* × *suberectiformis* (*R. tomentosa* × *R. sherardii*)(a hybrid rose). Hedge, Derlwyn, 2km WNW of Tregaron, SN/662.605; +hedge, 300m WSW of Pen Rhiw Pistyll, New Quay,

- SN/389.590, both A.O.Chater, 1992, det. G.G.Graham. First and second records. Also in several other hedges in the Tregaron area.
- *75/21/15×19. *Rosa* × *longicolla* (*R. tomentosa* × *R. micrantha*)(a hybrid rose). Roadside hedge, Brongest, SN/323.453; +field hedge 500m S of Pentood-isaf, Teifi Marshes DWT Reserve, SN/182.450, both A.O.Chater, 1992, det. G.G.Graham. First and second records. Also in several other hedges in the Brongest — Penrhiw-pal area.
- *75/21/16×19. *Rosa sherardii* × *R. micrantha* (a hybrid rose). Hedge 170m W of Capel Maen-y-groes, New Quay, SN/384.589, A.O.Chater, 1992, det. G.G.Graham. First record.
- +75/28/24. *Sorbus torminalis* (Wild Service-tree). Four trees among oaks and near aspens on steep N facing cliff slope above sea, R.A.E. site, Aber-porth, SN/245.525, G.Williams, 1992. There are colonies in the woods bordering the Teifi estuary, but this is the first record from the sea coast in Cards and further suggests the ancient nature of these cliff oakwoods.
- +!75/32/16. *Cotoneaster integrifolius* (Small-leaved Cotoneaster). Massive thicket on spoil heap, Llwynmalis leadmine, 1.5km S of Tyn-y-graig, SN/690.679, S.P.Chambers, 1992.
- 77/14/8. *Vicia tetrasperma* (Smooth Tare). +Waste ground on site of railway station, Llanfarian, SN/591.778, A.O.Chater, 1992; +waste ground at Glanrafon Industrial Estate, Llanbadarn Fawr, SN/611.802, S.P.Chambers, 1992.
- +!77/17/1. *Melilotus altissimus* (Tall Melilot). Waste ground SE of Park Avenue, Aberystwyth, SN/587.811, A.O.Chater, 1992. *M. albus* and *M. officinalis* also occur here.
- +!77/21/1. *Lupinus arboreus* (Tree Lupin). Several large thickets on sandy, grassy slope behind houses, Penparc, SN/207.479, A.O.Chater, 1992.
- +79/2/4. *Myriophyllum alterniflorum* (Alternate Water-milfoil). In Afon Rheidol just above railway bridge over river, Llanbadarn Fawr, SN/602.804, S.P.Chambers, 1992.
- !84/4/1. *Oenothera glazoviana* (Large-flowered Evening-primrose). +Waste ground on site of railway station, Llanfarian, SN/591.778, S.P.Chambers, 1992; +parking area by village hall, Aber-arth, SN/477.638; +and abundant over an acre of sandy, grassy slope behind houses, Penparc, SN/207.479, both A.O.Chater, 1992.
- *!84/4/2. *Oenothera fallax* (Intermediate Evening-primrose). c.20 plants on waste ground on disused railway, Llanfarian, SN/591.778, S.P.Chambers, 1992, conf. J.C.Bowra. First record.
- +\$85/1/1 *Cornus sanguinea* (Dogwood). Large bush on disused railway embankment, Birchgrove, Trawsgoed, SN/663.733, S.P.Chambers, 1990. Clearly self sown; not native in Cards.
- *!89/1/1×per. *Ilex* × *altaclerensis* (*I. aquifolium* × *I. perado*)(Highclere Holly). Abundant self-sown trees and saplings in mixed estate woodland, Penglais Woods, Aberystwyth, SN/590.821; +self-sown trees and saplings on wooded slope below Capel Bangor churchyard, SN/657.800, both A.O.Chater, 1992. First and second records. Widespread in estate woodlands throughout the v.c., and intergrading with *I. aquifolium*.
- *!93/1/1. *Vitis vinifera* (Grape-vine). Large plant with stems sprawling over 7×5m of natural scrub on SW bank of Afon Rheidol, 500m NW of Pont Pen-y-bont, Penparcau, SN/590.806, A.O.Chater, 1992. First record.
- !102/1/4. *Oxalis exilis* (Least Yellow-sorrel). +Pavements and alleys by B4343, Adpar, SN/306.411, A.O.Chater, 1991; +pavements, Buarth Mawr, Aberystwyth, SN/588.816, A.O.Chater, 1992; +pavements and bases of walls just S of Cardigan bridge, SN/178.457, A.O.Chater, 1992. Second and subsequent records.
- *\$103/1/9. *Geranium sanguineum* (Bloody Crane's-bill). Naturalised on grassy laneside verge by entrance to sand quarries, Penparc, SN/201.479, A.O.Chater, 1992. First record.
- +110/8/1a. *Solanum nigrum* subsp. *nigrum* (Black Nightshade). Dominant and 100-140cm tall under maize crop 200m SW of Pant-y-dwr, Penparc, SN/203.480, A.O.Chater, 1992. The immense luxuriance of these plants is presumably due to the use of slurry as a fertiliser for the maize.

- +!110/9/1. *Datura stramonium* (Thorn-apple). In maize field and pasture by Oernant, Penparc, SN/195.476, A.O.Chater, 1992. Known here as a troublesome weed in his maize crop by Mr Emyr Jones since 1986, origin unknown.
- *!113/2/1. *Nymphoides peltata* (Fringed Water-lily). Ditch in marsh by Brimstone Wildlife Centre, Penuwch, SN/609.630, I.S.Francis, 1992, spread from pond in Centre where planted; +3 colonies 1-4m in diameter in Afon Aeron at Winllan, 1.5km E of Trefilan, SN/567.573, A.O.Chater & I.S.Francis, 1992, spread from garden pond c.100m away. First and second records.
- +116/6/4. *Anchusa arvensis* (Bugloss). Abundant on disturbed ground by R.A.E. installation, 2km NW of Felin-wynt, SN/209.520, A.O.Chater, 1992.
- !118/4/1c. *Lamium galeobdolon* subsp. *argentatum* (a variegated Yellow Archangel). +Roadside verge, Felin-wynt, SN217.515; +hedgebank and waste ground, Rhydowen, SN/442.456; +along 30m of roadside hedgebank, Bronnant, SN/641677; wet woodland by Afon Melindwr, E end of Capel Bangor, SN/665.802; +hedgeside verge and hedge W of the Tollgate, Penparcau, SN/590.799, all A.O.Chater, 1992. Spreading rapidly in Cards and now naturalized in 17 sites.
- 118/5/4. *Lamium hybridum* (Cut-leaved Dead-nettle). +Margin of Two-rowed Barley field, 500m NNW of Morfa Mawr, Llanon, SN/501.662; +mixed arable field, Ty-gwyn, Mwnnt, SN/199.521, both A.O.Chater, 1992.
- +!118/9/1. *Marrubium vulgare* (White Horehound). One large plant in deserted farmyard, Pen-y-graig, Llandysiliogogo, SN/363.579, A.O.Chater, 1992. First record since 1936.
- +124/1/5. *Verbascum phlomoides* (Orange Mullein). Chicken yard behind 1 Melindwr Terrace, Capel Bangor, SN/661.801, A.O.Chater, 1992. Known here by owner since c.1940 and said to have been introduced by his grandfather (probably pre-1914) to make his bees produce yellower honey.
- 125/2/2. *Orobanche rapum-genistae* (Greater Broomrape). c.6 spikes by gorse and broom by hide, 100m E of Pentood-isaf, Teifi Marshes DWT Reserve, SN/183.454, M.E.Baines, 1991.
- +129/3/1. *Wahlenbergia hederacea* (Ivy-leaved Bellflower). Lawn of Llanaeron mansion, SN/479.601, Dyfed Wildlife Trust fungus foray, 1992. Possibly escaped but more likely native in this 'wild' lawn.
- *!131/3/orb×mic. *Symphoricarpos* × *chenaultii* (*S. orbicularis* × *S. microphyllus*)(Pink Snowberry). Colony 1m across on E bank of Nant Adal just below main road bridge, Llanilar, SN/623.751, S.P.Chambers, 1992. First record.
- +133/1/4. *Valerianella dentata* (Narrow-fruited Cornsalad). Corner of Two-rowed Barley field S of Penrhiw chapel, Felin-wynt, SN/227.498, A.O.Chater, 1992.
- *135/3/1. *Arctium lappa* (Greater Burdock). Several plants by path to hide, 100m NE of Pentood-isaf, Teifi Marshes DWT Reserve, A.O.Chater, 1992. First record.
- +135/3/2a. *Arctium minus* subsp. *pubens* (Lesser Burdock). Paddock by smallholding 500m E of St Dogmaels Abbey, SN/168.459, A.O.Chater, 1992. Second record. Also found in 6 other sites in the v.c. in 1992. The commonest subspecies is subsp. *nemorosum*, but many populations are intermediate between subsp. *nemorosum* and subsp. *minus*.
- !+135/22/1. *Lactuca serriole* (Prickly Lettuce). About 80 plants on building site on part of St Anne's churchyard, Penparcau, SN/592.799, +building site 300m NNE of Pont Trecefel, Tregaron, SN/674.593, both A.O.Chater, 1992. Second and third records. Perhaps now beginning to spread in the v.c. Still present at Cardigan cattle market where first seen in 1987.
- *135/28/185. *Hieracium eustomum* (a hawkweed). Base of sea cliffs, Penbryn, SN/2.5, J.H.Salter, 1928, det. J.Bevan on specimen in NMW. First record.
- +!135/44/1. *Conyza canadensis* (Canadian Fleabane). Reconstructed roadside verge, Pont Trecefel, Tregaron, SN/674.592, A.O.Chater, 1992. The first inland record in Cards.
- *135/60/1×2. *Tripleurospermum maritimum* × *T. inodorum* (a hybrid mayweed). Disturbed slope by sewage works, Aberystwyth harbour, SN/582.813; +stoney waste ground by Teifi estuary by cattle market, Cardigan, SN/180.458, both A.O.Chater, 1992. First and second records.

- !138/4/2. *Elodea nuttallii* (Nuttall's Waterweed). +Pond in *Phragmites* bed, Coedmawruchaf, Llangeitho, SN/622.579, D. Glyn Jones, 1992, det. A.O.Chater; +pond by stream in Rhydlewic village, SN/347.473, A.O.Chater, 1992.
- *!148/2/4. *Lemna minuta* (Least Duckweed). Garden pond, 300m NW of Cenarth bridge, SN/266.417, A.O.Chater, 1992, conf. A.C.Leslie. First record. Appeared in the pond c.1985, origin unknown, and has resisted strenuous efforts by the owner to exterminate it ever since.
- 151/1/6. *Juncus foliosus* (Leafy Rush). +Flushes in unimproved pasture on coastal slope 1.5km NE of Aber-arth, SN/489.648, A.O.Chater, 1992; +recently cleared ditch, Rhos Bwlchyrhandir SSSI, 3km SSW of Aber-mad, SN/593.732, A.O.Chater & A.P.Fowles, 1992.
- +152/16/26. *Carex riparia* (Greater Pond-sedge). Dominant in swamp 300m WNW of Tygwyn, 1km SE of LLanbadarn Fawr, SN/607.800, 1992. *C. vesicaria* was recorded here by Salter in 1904, and is still present; he knew the site well until c.1940 and as he did not record *C. riparia* it may well have arrived since then.
- *153/12/6. *Festuca arenaria* (Rush-leaved Fescue). 'Borth towards Ynyslas', SN/6.9, C.E.Hubbard, 1929, det. A.-K.A.Al-Bermami on specimen in NMW; embryo dunes, Ynys-las dunes, just S of NNR, SN/405.928, A.O.Chater, 1992, conf. C.A.Stace. First records.
- +153/12/9. *Festuca vivipara* (Viviparous Fescue). Damp ledges on NE facing cliffs, Lluest y Graig, Pumlumon Fawr, SN/801.891, A.O.Chater & W.M.Condry, 1992.
- +153/18/9. *Poa compressa* (Flattened Meadow-grass). Waste ground on site of railway station, Llanfarian, SN/591.778, A.O.Chater, 1992.
- 153/26/1. *Helictotrichon pubescens* (Downy Oat-grass). Abundant over ½ acre of level dunes, Ynys-las Dunes NNR, SN/607.935, A.O.Chater, 1992. The first record for the N half of Cards, but long known in the same 10km square at Aberdyfi in Merioneth.
- !153/28/2. *Avena strigosa* (Bristle Oat). +5% impurity in crop of Black Oats (*A. sativa*, S.220), 300m NNW of Frongoch, Llechryd, SN223.440; +5-10% impurity in crop of Black Oats, and abundant in grassy verges of field, Dol-goch, Brongest, SN/315.453; casual on roadside verge by horse stables, The Mill, Brongest, SN/320.453, all A.O.Chater, 1992.
- !153/28/3. *Avena fatua* (Wild-oat). +Reconstructed roadside verge, Aberaeron, SN/465.631; +in crop of Black Oats, Frongoch, Llechryd, SN/223.440; +waste ground, Trefechan, Aberystwyth, SN/582.811; +in Two-rowed Barley crop opposite Brynawelon, Llanon, SN/521.679; +in Two-rowed Barley crop 400m SSE of Pont-faen, Ciliau Aeron, SN/494.591; +corner of cut arable field 1km NNE of Nanternis, SN/377.576; +in carrot crop 400m NE of Ty-gwyn, Mwnt, SN/200.521, all A.O.Chater, 1992.
- +153/31/2. *Koeleria macrantha* (Crested Hair-grass). Abundant on rocky ridge at summit of coast footpath 600m WSW of Tregynon-isaf, Llanddeiniol, SN/540.710, A.O.Chater, 1992.
- +153/40/1. *Calamagrostis epigejos* (Wood Small-reed). Colony 40×5m in flush on sea cliffs 700m WSW of Pen-y-graig, Llanddeiniol, SN/546.723, A.O.Chater, 1992. The first record from N Cards.
- +153/50/3. *Bromus racemosus* (Smooth Brome). Hay meadow, Winllan, 1.5km E of Trefilan, SN/566.572, A.O.Chater, 1992, conf. P.J.O.Trist.
- +153/54/1. *Brachypodium pinnatum* (Tor-grass). Dense colony 5m in diameter in clifftop grassland, R.A.E. site, Aber-porth, SN/248.524, M.Edwards, det. A.O.Chater, 1992. The only other sites in Cards are Lampeter churchyard and the disused railway at Cardigan.
- 153/57/1. *Leymus arenarius* (Lyme Grass). Colony 4×1m on sandy shore of Teifi estuary by yacht club, Gwburt, SN/164.485, A.O.Chater, 1992. Has been extinct as a native in Cards for some years; present nearby in Pembs and recently spread across estuary. A large colony by Moel Ynys Pool, Ynys-las, SN/607.923, derives from throw-outs from garden opposite, where it has been grown from a garden centre by Mrs Scattergood since 1982.
- 153/59/4. *Hordeum secalinum* (Meadow Barley). +Abundant in grass by old farm track, and in several places in adjacent pastures, Denmark Farm, Llangybi, SN/585.537, J.Higgins, 1991;

+Roadside hedgebank 700m W of Llanfihangel-y-Creuddyn, SN/658.761, A.O.Chater, 1992. Second and third records.

- +153/64/1. *Phragmites australis* (Common Reed). Mire in corner of Forestry Commission plantation 400m E of Draenllwyn-du, SN/711.515, A.V.Cross, 1992. Only the fourth upland site in the v.c.
 *154/1/1d. *Sparganium erectum* subsp. *oocarpum* (Branched Bur-reed). Ditch at edge of swamp, Teifi Marshes DWT Reserve, SN/184.449, A.O.Chater & A.P.Fowles, 1990. First record.

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

- +117/19/1. *Azolla filiculoides* (Water Fern). Completely covering the water surface in places, Montgomery Canal, near Red Bridge, SJ/25.13, M.Wainwright, 1992. Possibly introduced with residue from fish tanks.
 +61/1/3. *Populus nigra* (Black Poplar). One tree now reduced to stump in hedge, but alive and sprouting, a massive fallen trunk lies beside it, having blown down some years ago, Penstrowed near Newtown, SO/06.90, M.Wainwright, 1992. Rediscovery of tree reported to E.Milne-Redhead by E.A.Ellis and believed to be at the highest altitude for this species (c.300m)
 *62/30/5. *Lepidium ruderae* (Narrow-leaved Pepperwort). Flower bed near Woolworth's, in main street, Newtown, SO/10.91, R.G.Woods, 1992, conf. G.Hutchinson. First record.
 *!75/4/1. *Aruncus dioicus* (Buck's-beard). Uncut meadow below castle, Powis Castle, Welshpool, SJ/21.06, G.Hutchinson, 1989. First Welsh and county record.
 *!75/8/2. *Rubus tricolor* (Chinese Bramble). Spreading in wooded area SW of Powis Castle, Welshpool, SJ/21.06, G.Hutchinson, 1989, det. A.Newton. First Welsh and county record.
 +75/8/146. *Rubus bartonii* (a bramble). Picnic area, Deri Wood near Llanfair Caereinion, SJ/09.06, R.G.Ellis, 1978, det. A.Newton.
 *!75/32/10. *Cotoneaster salicifolius* (Willow-leaved Cotoneaster). One plant, with *Verbascum thapsus*, among anthills and scrub on limestone, SJ/26.21, M.Wainwright & J.Pedlow, 1989, det. J.Fryer. First record.
 *!75/32/21. *Cotoneaster horizontalis* (Wall Cotoneaster). Floor of disused limestone quarry, Llanymynech rocks, SJ/26.21, H.Webster, 1986.
 *!75/32/34. *Cotoneaster bullatus* (Hollyberry Cotoneaster). One plant near Giant's Head, limestone scree, I.C.Trueaman & R.Dawes; and 3 plants in scrub near Offa's Dyke footpath, M.Wainwright & J.Pedlow, both Llanymynech Rocks, SJ/26.21, 1989, det. J.Fryer. First records.
 *!75/32/37. *Cotoneaster dielsianus* (Diel's Cotoneaster). Several plants naturalised in woodland on limestone, Llanymynech Rocks, SJ/26.21, M.Wainwright, 1989, conf. J.Fryer. First record.
 [116/4/3. *Symphytum tuberosum* recorded from Penstrowed churchyard, SO/07.91, in error for the following]
 *!116/4/4. *Symphytum grandiflorum* (Creeping Comfrey). Penstrowed churchyard, SO/07.91, C.A.Small, 1992, det. F.H.Perring. First record.
 124/20/9. *Euphrasia confusa* (an eyebright). +Trampled open turf N of Foel, SH/99.12, S.Stafford, 1984; +flushed grassland surrounded by high *Molinia* moor, Cefn, SW of Llangurig, SN/85.77, I.C.Trueaman, 1991.

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

- +111/3/2×4. *Calystegia* × *lucana* (*C. sepium* × *C. silvatica*)(a hybrid bindweed). Thicket of *Ulex europaeus* and *Rubus fruticosus* agg, Gloddfa Road, Barmouth, SH/61.15, P.M.Benoit, 1992. Confirmation of this hybrid in Merioneth.

*!125/1/2. *Lathraea clandestina* (Purple Toothwort). Semi artificial woodland, W bank of Afon Dulas near Esgair-geiliog, N of Machynlleth, SH/7.0, S.Grasse & A.Morton, 1990. First Welsh and county record.

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

- +1/3/1. *Lycopodium clavatum* (Stag's-horn Clubmoss). Grassy place on Talyfan near Conwy, SH/7.7, D.Jones & R.Lewis, 1989.
- +15/3/1. *Ceterach officinarum* (Rustyback). On roadside wall, opposite Maenan School, in portion of the vice-county lying to the E of the River Conwy, SH/79.66, R.Lewis, 1992.
- +20/7/5. *Pinus radiata* (Monterey Pine). Edge of woodland, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988.
- *!21/2/2/. *Chamaecyparis pisifera* (Sawara Cypress). Overgrown cemetery of redundant church, Llangelynin church, c.1.75km NE Rowen, SH/771.735, R.Lewis, 1992, det. V.Schilling. First record; probably planted originally.
- +28/3/1. *Helleborus foetidus* (Stinking Hellebore). Amongst *Rubus* scrub at edge of woodland E of A470 opposite Maenan Abbey Hotel, SH/79.65, R.Lewis, 1992.
- 28/6/1. *Aconitum napellus* (Monk's-hood). +Shady streamside, c.0.3km E of Maenan Abbey Hotel, SH/79.65; +on waste ground with *Fallopia japonica* at side of lane leading to Youth Hostel, Rowen, SH/75.71, both R.Lewis, 1992.
- +28/13/12. *Ranunculus lingua* (Greater Spearwort). Damp woodland, near Betws-y-Coed, SH/78.53, G.Battershall, 1991.
- 28/13/21. *Ranunculus baudotii* (Brackish Water-crowfoot). +Brackish pools, Glan Conwy RSPB Reserve, SH/79.77 & SH/80.77; +brackish pool, North Wales Golf Course, Llandudno, SH/77.81, all G.Battershall, 1992.
- +28/17/5. *Thalictrum alpinum* (Alpine Meadow-rue). Rock ledge, Creigiau Gleision, near Capel Curig, SH/73.62, G.Battershall, 1992.
- +!29/1/9. *Berberis darwinii* (Darwin's Barberry). Waste ground, Conwy, SH/78.77, G.Battershall, 1988.
- +!29/2/1. *Mahonia aquifolium* (Oregon-grape). Overgrown cemetery of redundant church, Llangelynin Church, W side of road between Groes Hotel and Rowen c.1.75km NE of Rowen, SH/771.735, R.Lewis, 1992
- +!37/1/1. *Juglans regia* (Walnut). In hedgerow between two fields, N of Ddol Castell Farm, c.0.5km SE of Rowen, SH/765.716, R.Lewis, 1992. Probably planted.
- +!39/4/2. *Quercus cerris* (Turkey Oak). Woodland bank, Great Orme, Llandudno, SH/77.82, G.Battershall, 1989.
- +40/3/1. *Carpinus betulus* (Hornbeam). Hedgerow, roadside, W side of A470, c.3km S of Talycafn, SH/7.6, R.Lewis, 1992.
- +!45/2/1. *Claytonia perfoliata* (Springbeauty). Waste ground, Llandudno, SH/77.81, G.Battershall, 1992.
- *46/7/2×3 *Cerastium* × *maueri* (*C. arvense* × *C. tomentosum*)(a hybrid mouse-ear). Grassy bank, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988, det. A.Leslie. First Welsh and county record.
- !46/7/3. *Cerastium tomentosum* (Snow-in-summer). +Grassy bank, Great Orme, Llandudno, SH/77.82, 1988; +roadside near Pydew, Mochdre, SH/81.79, 1989, both G.Battershall.
- *!62/9/1. *Malcolmia maritima* (Virginian Stock). Amongst *Cymbalaria muralis* on Marine embankment below Mor Heli Hotel, Criccieth, SH/498.377, R.E.Hughes, 1987.
- +62/28/1. *Thlaspi arvense* (Field Penny-cress). Waste ground, Great Orme, Llandudno, SH/78.83, G.Battershall, 1992.

- *62/38/1. *Hirschfeldia incana* (Hoary Mustard). Grassy bank, Great Orme, Llandudno, SH/77.82, G.Battershall, 1992.
- *!72/1/1. *Escallonia macrantha* (Escallonia). Growing out of rock on Great Orme, Llandudno, SH/78.82, G.Battershall, 1988; +woodland edge, Coed Tan yr Allt, between Pontwgan and Rowen, SH/761.717, R.Lewis, 1992, conf. R.G.Ellis & G.Hutchinson. First and second records.
- +\$72/2/1. *Ribes rubrum* (Re Currant). Edge of woodland, Coed Tan yr Allt, c.0.5km N of Plas Menan Hotel, SH/78.67, R.Lewis, 1992. Probably bird-sown.
- !72/2/4. *Ribes sanguineum* (Flowering Currant). One bush in grassland at side of track, Bwlch-y-Gaer, c.1.75km SW of Llanbedr y Cennin, SH/74.69, R.Lewis, 1992. Probably bird-sown. Second record.
- +!75/3/1×3. *Spiraea* × *pseudosalicifolia* (*S. salicifolia* × *S. douglasii*)(Confused Bridewort). Top of rock outcrop W side of B5106 opposite chapel in Tyn-y-groes, SH/775.718, R.Lewis, 1992.
- *75/17/3b. *Sanguisorba minor* subsp. *muricata* (Fodder Burnet). Waste ground, Llandudno, SH/77.81, G.Battershall, 1988.
- *75/21/4×12. *Rosa* × *verticillacantha* (*Rosa arvensis* × *R. canina*)(a hybrid rose). Steep bank of track through open grazing, between Plas yn Rhiw and the beach at Tan-yr-Allt, Porth Neigwl, SH/237.279, A.P.Conolly, 1988, det. A.L.Primavesi. First record.
- 75/21/5. *Rosa pimpinellifolia* (Burnet Rose). sand dune amongst marram, Llanbedrog Warren chalet - caravan site, SH/326.301, A.P.Conolly, 1991.
- 75/21/12. *Rosa canina* (Dog-rose). Recorded from the following squares: +SH/16.26 (1978); +SH/19.32 (1991); SH/19.33, (1966); +SH/23.27 (1985); SH/29.29 (1991); +SH/28.31, (1985); SH/29.31, (1985); +SH/30.26 (1991); +SH/31.35 (1978); SH/31.38 (1985), all A.P.Conolly, det. A.L.Primavesi.
- 75/21/12×13a. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *caesia*)(a hybrid dog-rose). Recorded from the following squares: +SH/15.25, (1985); +SH/20.33 (1985); SH/24.33 (1978); SH/27.37 (1983); all A.P.Conolly, det. A.L.Primavesi.
- 75/21/12×13b. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *glauca*)(a hybrid rose). Roadside bank/hedge, near Aberdaron, SH/174.280, A.P.Conolly, 1985, det. A.L.Primavesi
- 75/21/12×16. *Rosa canina* × *R. sherardii* (a hybrid rose). Roadside SE of Pen-y-Groeslon, Lley, SH/21.30, A.P.Conolly, 1971; +roadside hedge, near Llandegwning, SH/26.29, A.P.Conolly, 1957, det. A.L.Primavesi.
- +75/21/13b. *Rosa caesia* subsp. *glauca* (Glaucous Dog-rose). Bank with garden hedge beside road on hill on western exit, Abersoch, SH/30.28, A.P.Conolly, 1991, det. A.L.Primavesi.
- +\$75/21/18. *Rosa rubiginosa* (Sweet-briar). Hedge of field formerly a garden, Llanbedrog, SH/32.31, A.P.Conolly, 1978. Apparently originally planted in a row of garden hedge.
- *!75/22/3. *Prunus cerasifera* (Cherry Plum). 2 trees in small copse N of B5279, between Tan-y-groes and Talycafn, SH/783.718, R.Lewis, 1992, det. R.G.Ellis & G.Hutchinson. First record.
- +!75/22/14. *Prunus laurocerasus* (Cherry Laurel). Edge of woodland, opposite Maenan Abbey Hotel, SH/79.65; +small copse N of B5279 between Tyn-y-groes and Tal-y-cafn Bridge, SH/78.71, both R.Lewis, 1992. First post-1930 records.
- +75/28/16. *Sorbus rupicola* (Rock Whitebeam). Limestone cliff, Mynydd Pant, SH/81.81, G.Battershall, 1990.
- *75/28/20. *Sorbus devoniensis* (a broad-leaved whitebeam). Limestone bank, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988, det. A.Leslie. First Welsh and county record.
- *!75/32/18. *Cotoneaster conspicuus* (Tibetan Cotoneaster). Among *Ulex* and *Rubus* scrub on steep slope on N side of B5279 opposite Ferry Hotel, between Ty'n-y-groes and Talycafn, SH/785.719, R.Lewis, 1992, conf. J.Fryer. First Welsh and county record.
- !75/32/21. *Cotoneaster horizontalis* (Wall Cotoneaster). One plant on rocky bank at side of track leading to Tu hwynt i'r Fanog Farm, c.1km NE of Maenan Abbey Hotel, SH/798.666; +one plant on wall top, side of minor road between Pontwgan and Rowen, SH/76.71, both R.Lewis, 1992;

- Probably bird sown; grassy bank on limestone, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988.
- *!75/33/1. *Pyracantha coccinea* (Firethorn). Woodland bank, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988. First record.
- *77/6/1. *Onobrychis viciifolia* (Sainfoin). Waste ground, Llandudno, SH/77.81, G.Battershall, 1988. First record.
- +!77/17/3. *Melilotus officinalis* (Ribbed Melilot). Disturbed ground, roadside W side of B5106, c.0.5km S of Tyn y Groes, SH/77.71, R.Lewis, 1992.
- +77/18/2a. *Medicago sativa* subsp. *falcata* (Sickle Medick). Edge of dunes, Llandudno, SH/77.81, G.Battershall, 1989.
- +!77/21/1. *Lupinus arboreus* (Tree Lupin). Waste ground, Glan Conwy RSPB Reserve, SH/79.77 & SH/80.77, G.Battershall, 1992.
- !84/5/1. *Fuchsia magellanica* (Fuchsia). +Overgrown cemetery of redundant church, Llangelynen Church W side of road between Groes Hotel and Rowen, c.1.75km NE of Rowen, SH/771.735, R.Lewis, 1992; +sand dunes, Llandudno, SH/77.81, G.Battershall, 1988.
- +!84/1/8. *Epilobium ciliatum* (American Willowherb). Side of minor road to Maenan off A470, opposite Maenan Abbey Hotel, SH/79.65, R.Lewis, 1992
- +!98/1/1. *Aesculus hippocastanum* (Horse-chestnut). At base of small bridge carrying track over stream on E side of A470 road opposite Maenan Abbey Hotel, SH/79.65, R.Lewis, 1992. Status doubtful but appears to be spreading by grey squirrel burying nuts. Apart from a number of saplings growing from soil at the base of the bridge, two saplings have been noted in the vicinity and appear to have originated from a large specimen of *Aesculus* with abundant fruit in a nearby garden. My theory of spread by grey squirrels is supported by a similar situation which has occurred in my own garden here at Tyn-y-Groes, where numerous *Corylus* seedlings suddenly appeared scattered throughout the garden in the spring of 1992.
- +103/1/1×2. *Geranium* × *oxonianum* (*G. endressii* × *G. versicolor*)(a hybrid crane's-bill). Roadside verge, Great Orme, Llandudno, SH/77.82, G.Battershall, 1991. Second record.
- +!116/10/1. *Trachystemon orientalis* (Abraham-Isaac-Jacob). Naturalised under trees on bank of River Ro, near entrance to Buckley Mill, Rowen, SH/762.717, R.Lewis, 1992. Second record.
- +!118/16/1. *Melissa officinalis* (Balm). Grassy bank, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988.
- +118/23/3×4. *Mentha* × *villosa* (*M. spicata* × *M. suaveolens*)(Apple Mint). Waste ground at entrance to a small disused quarry E side of minor road S of Glas Drain Farm, c.2km NE of Llanddoget, near Llanrwst, SH/818.655, R.Lewis, 1992
- 124/4/2×3. *Mimulus* × *robertsii* (*M. guttatus* × *M. luteus* var. *rivularis*)(Hybrid Monkeyflower). River Soch near Abersoch, SH/28.27, J.Parker, 1975, det. A.J.Silverside. A chromosome count of $2n=54$ and pollen fertility of 70% indicate that this may be a 'pentaploid variant of this hybrid'.
- *!124/10/1. *Asarina procumbens* (Trailing Snapdragon). Wall, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988. First record.
- +!124/11/2. *Cymbalaria pallida* (Italian Toadflax). Wall and tree base, Great Orme, Llandudno, SH/76.83, G.Battershall, 1988.
- +!130/5/1. *Leycesteria formosa* (Himalayan Honeysuckle). Grassy bank, Great Orme, Llandudno, SH/77.82, G.Battershall, 1988.
- +!135/11/2. *Centaurea montana* (Perennial Cornflower). Overgrown cemetery of redundant church, Llangelynen Church between Groes Hotel and Rowen, c.1.75km NE of Rowen SH/771.735, R.Lewis, 1992. Second, and only extant, record; the first record, for SH/7.6, is no longer extant.
- *!135/45/2. *Olearia macrodonta* (New Zealand Holly). Sand dunes, Llandudno, SH/77.81, G.Battershall, 1988. First Welsh and county record.
- 135/49/1. *Seriphidium maritimum* (Sea Wormwood). 40-50 plants in clefts of rock face of low cliffs, edge of Coed yr Arw overlooking River Conwy at site of two small caves, c.0.75km S of

Talycfafn Bridge, SH/783.710, 1992. This is probably the only extant site in Caerns. Griffiths (1895) records it for Cymryd (SH/7.7) but as in the case of Wilson (1955) I have been unable to find it there although it occurs on the Denbighshire side of the river (SH/7.7). It was first noted at the Coed yr Ar site during the course of recording for the BSBI Monitoring Scheme in 1987 but was then in much smaller quantity.

- *!135/66/1. *Brachyglottis monroi* (Monro's Ragwort). Sand dunes, Llandudno, SH/77.81, G.Battershall, 1988, det. A.Leslie. First Welsh and county record.
- (+!147/2/1. *Lysichiton americanus* Hulten & St John (American Skunk-cabbage). Bank of stream at entrance to Fynnon Bedr Farm on S side of minor road between Talybont and Llanbedr-y-cennin, SH/7669, R.Lewis, 1991. [The comment in *Welsh Bulletin* 54 p. 36 that this locality is in a portion of the vice-county lying to the E of the Afon Conwy is incorrect and should be deleted]).
- +!151/1/2. *Juncus tenuis* (Slender Rush). On track leading to Cefn Coch and Nant y wrach Farms, c. 0.5km SW of Cefn Coch Farm, c. 2.5km E of Llanddoget near Llanrwst, SH/834.639, R.Lewis, 1992.
- +153/12×14/7×1. × *Festulpia hubbardii* (*Festuca rubra* × *Vulpia fasciculata*). S of Abersoch; SH/31.27, J.Bailey, 1992. Second record.
- +!153/59/3. *Hordeum jubatum* (Foxtail Barley). Grass verge on side of B5279 between Tyn y groes and Talycfafn Bridge, SH/782.717, R.Lewis, 1992. Probably introduced with soil following improvement scheme to B5279 road. Third record.
- +158/24/7. *Allium triquetrum* (Three-cornered Leek). Roadside on Great Orme, Llandudno, SH/77.82, G.Battershall, 1991.
- *162/18/1×3. *Dactylorhiza* × *kerneriorum* (*D. fuchsii* × *D. incarnata*)(a hybrid orchid). Dune slack, Llandudno, with both parents, SH/77.81, G.Battershall, 1989. First record.
- +162/18/5. *Dactylorhiza purpurella* (Northern Marsh-orchid). one plant only seen in grassland E of Parc Mawr Woodland Trust reserve, c.1km SW of Henryd, SH/76.73, R.Lewis, 1992.

Griffiths, J.E. [1895]. *The Flora of Anglesey and Caernarvonshire*, Bangor.

Wilson, A. (1955). The Altitudinal range of British plants, 2nd ed., revised and enlarged, 1949. *North Western Naturalist*, N.S. 3 supp.: 1-117

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

- +1/1/1. *Huperzia selago* (Fir Clubmoss). Forest ride, Moel Fammau, SJ/16.60, I.Lloyd, 1992.
- *!28/6/1×var. *Aconitum* × *cammarum* (*A. napellus* × *A. variegatum* (Hybrid Monk's-hood). Roadside, Trefnant, SJ/056.712, G.Battershall, 1992.
- +38/1/1. *Myrica gale* (Bog-myrtle). About 50 plants at edge of wet wood, Cadney Moss, SJ/47.34, J.A.Green, 1992.
- *!40/2/2. *Alnus incana* (Grey Alder). Roadside wood, Nant y Garth pass, Llanfair D.C., SJ/169.506, J.A.Green; +hedge near Talwrn, SJ/294.485, BSBI group, both 1992. First and second records.
- +!45/2/2. *Claytonia sibirica* (Pink Purslane). Betws Gwerfyl Goch, SJ/01.46, P.W.Williams, 1992.
- +!46/7/3. *Cerastium tomentosum* (Snow-in-summer). On rock face of disused quarry, N side of Bryn Eurn, Colwyn Bay, SH/8.8, R.Lewis, 1992.
- 46/7/11. *Cerastium pumilum* (Dwarf Mouse-ear). +Limestone grassland, Rhyd y foel, SH/91.77; +limestone grassland, Colwyn Bay, SH/83.79, both G.Battershall, 1992. First and second post-1930 records.
- *47/5/1×2. *Fallopia* × *bohemica* (*F. japonica* × *F. sachalinensis*)(a hybrid knotweed). Wasteground, S of Wrexham, SJ/33.49, K.Watson, 1992, conf. V.Gordon. First record.
- 47/8/10. *Rumex hydrolapathum* (Water Dock). Canal bank, Fenns Moss, SJ/47.35, J.Daniels, 1992.

- 124/12/1. *Kickxia elatine* (Sharp-leaved Fluellen). Llanrwst station yard, SH/79.62, G.Battershall, 1992.
- +124/13/4. *Linaria repens* (Pale Toadflax). On waste ground at junction of A548 and B5113 roads near farm marked on OS map as 'Farm Yard', c.2.5km E of Llanddoget village, near Llanrwst, SH/8.6, R.Lewis, 1992.
- 129/3/1. *Wahlenbergia hederacea* (Ivy-leaved Bellflower). Streamside, Capel Garmon, SH/807.558, G.Battershall, 1992.
- *!135/1/3. *Echinops bannaticus* (Blue Globe-thistle). In tall roadside vegetation, Gwersyllt, SJ/318.533, K.Watson, 1992. First record.
- *135/3/2a. *Arctium minus* subsp. *pubens* (Lesser Burdock). Roadside, Holt, SJ/401.538, K.Watson, 1992. First confirmed record.
- *135/62/1×10. *Senecio* × *albescens* (*S. cineraria* × *S. jacobaea*) (a hybrid ragwort). Roadside, Colwyn Bay, SH/856.776, G.Battershall, 1992. First record.
- *!135/69/1×2×3. *Doronicum* × *excelsum* (*D. pardalianches* × *D. plantagineum* × *D. columnae*) (Harpur-Crewe's Leopard's-bane). Grassland, Bryn Euryn, Colwyn Bay SH/832.798, G.Battershall, 1992, conf. C.Jeffrey. First Welsh and county record.
- +138/1/1. *Hydrocharis morsus-ranae* (Frogbit). Oxbow on River Dee, Ridley Wood, SJ/417.515, J.A.Green, 1991.
- +142/1/7. *Potamogeton alpinus* (Red Pondweed). Stream near Llyn Brenig, SH/98.56, J.A.Green, 1992.
- +142/1/14. *Potamogeton obtusifolius* (Blunt-leaved Pondweed). Farm pond near Wrexham, J.A.Green, SJ/35.46, 1992.
- +151/1/13×14. *Juncus* × *surrejanus* (*J. articulatus* × *J. acutiflorus*)(a hybrid rush). Wet flush near Worlds End, Llangollen, SJ/23.48, BSBI group, 1992.
- 152/16/1. *Carex paniculata* (Greater Tussock-sedge). Below Llyn Gweryd, SJ/17.55, P.Day, 1992.
- +153/12/2. *Festuca arundinacea* (Tall Fescue). Llysfasi college, Ruthin, SJ/14.52, P.Day, 1992.
- *!153/60/1. *Triticum aestivum* (Bread Wheat). Waste ground near railway station, Pensarn, SH/946.789, G.Battershall, 1992. First record.
- *!153/Pan/mil. *Panicum miliaceum* (Common Millet). Railway waste, Pensarn, SH/946.787, G.Battershall, 1992. First record.
- *158/20/2×3. *Hyacinthoides non-scripta* × *H. hispanica* (a hybrid bluebell). Grassland, Bryn Euryn, Colwyn Bay, SH/832.798, G.Battershall, 1992. First record.
- *158/24/13bab. *Allium ampeloprasum* var. *babingtonii* (Babington's Leek). Railway bank, Llandulas, SH/918.783, G.Battershall, 1992.
- 162/5/1. *Neottia nidus-avis* (Bird's-nest Orchid). Wood near Pwllglas, SJ/12.55, R.Whitehead; edge of path, Llanferres, SJ/19.60, P.Day, both 1992.
- *162/16×18/1×1. × *Dactylodenia st-quintinii* (*Gymnadenia conopsea* × *Dactylorhiza fuchsii*)(a hybrid orchid). Quarry waste, Minera, Wrexham, SJ/258.521, BSBI group, 1992, det. D.Hill & T.G.Evans. First record.

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

- *!46/18/1. *Lychnis coronaria* (Rose Champion). Track leading to disused sand pit, near Ddol Uchaf Nature Reserve, Ysceifiog, SJ/140.715, J.Hughes, 1992. First record.
- +53/2/1. *Lavatera arborea* (Tree Mallow). Disturbed ground near dunes, Ffrith Beach, Prestatyn, SJ/047.833, J.Phillips, 1992. First post-1930 record.
- +107/26/3. *Bupleurum tenuissimum* (Slender Hare's-ear). 100m E of railway bridge, Shotton side of River Dee, SJ/311.693, G.R.Sloman, 1992. First post-1930 record.

- 51/1/6×7. *Hypericum* × *desetangsii* nothosubsp. *desetangsii* (*H. perforatum* × *H. maculatum* subsp. *obtusiusculum*)(Des Etang's St John's-wort). +Grassy roadside bank, Perth i chwareu Farm near Llandegla, SJ/188.538, A.P.Conolly & D.Hill, 1992, conf. N.K.Robson; +waste ground, Gwersyllt, SJ/31.53, Liverpool Bot. Soc. excursion, 1992.
- +52/1/1. *Tilia platyphyllos* (Large-leaved Lime). Hedge boundary, Colwyn Bay, SH/83.77, G.Battershall, 1992.
- +561/1/3a. *Populus nigra* subsp. *betulifolia* (Black Poplar). 1 male tree, probably planted, in grassland adjacent to farm buildings, Hendre Wen Farm, W of A470, c.3km S of Llanrwst, SH/807.588, R.Lewis, 1991.
- +!61/1/4. *Populus trichocarpa* (Western Balsam-poplar). Edge of path, Talwrn, SJ/29.48, BSBI group, 1992.
- 61/2/4. *Salix triandra* var. *hoffmanniana* (Almond Willow). Bank of River Clwyd, SJ/08.64, J.A.Green, 1992.
- +!62/16/1. *Aubrieta deltoidea* (Aubretia). On rock face of disused quarry, N side of Bryn Euryn, Colwyn Bay, SH/8.8, R.Lewis, 1992. Second record.
- +62/28/1. *Thlaspi arvense* (Field Penny-cress). On waste ground at side of track leading to Nant y wrach Farm, near Llyn Chwythlyn, c.3.5km NE of Llanrwst, SH/8.6, R.Lewis, 1992. This site is just outside the boundary of the detached portion of v.c. 49.
- +\$62/34/5. *Brassica nigra* (Black Mustard). Near a pond in corner of arable field, near Fenn's Old Hall, Bronington, SJ/503.398, J.A.Green, 1985, det. T.C.G.Rich.
- 62/41/1. *Crambe maritima* (Sea-kale). 24 plants, Rhos on Sea, SH/84.81, J.Osley, 1992.
- *62/42/1b. *Raphanus raphanistrum* subsp. *maritimus* (Sea Radish). Abundant on gravel bank, Pensarn, SH/948.788, K.Watson, 1991. First record.
- +75/8/2. *Rubus saxatilis* (Stone Bramble). Roadside, Llanferres, SJ/19.60, P.Day, 1992.
- *!75/8/6. *Rubus parviflorus* (Thimbleberry). Deciduous wood, Gresford, Wrexham, SJ/340.542, K.Watson, 1992, conf. V.Gordon. First record.
- 75/9/12. *Potentilla neumanniana* (Spring Cinquefoil). Rhyd y Foel, SH/91.76, J.A.Green, 1992.
- +!75/17/3b. *Sanguisorba minor* subsp. *muricata* (Fodder Burnet). Roadside, Nant y Garth pass, SJ/17.51, BSBI group, 1992. Second record.
- +75/21/12×16. *Rosa canina* × *R. sherardii* (a hybrid rose). Laneside, Minera quarry, SJ/25.52, A.P.Conolly & BSBI meeting, 1992. Second record.
- +!75/26/2. *Pyrus pyraster* (Wild Pear). Lane edge, Fenns Moss, SJ/50.36, J.A.Green, 1992.
- +75/28/16. *Sorbus rupicola* (Rock Whitebeam). Limestone cliff near Llandulas, SH/90.76, J.A.Green, 1992.
- !78/8/1. *Tellima grandiflora* (Fringe-cups). Edge of path, Marford, SJ/35.56, R.Hesketh, 1992.
- *84/1/5lam. *Epilobium tetragonum* subsp. *lamyii* (Square-stalked Willowherb). Bank of River Clwyd, SJ/090.635, J.A.Green, 1992. First record for subspecies.
- +!91/2/9. *Euphorbia lathyris* (Caper Spurge). Railway bank, Llandulas, SH/92.78, P.I.Morris, 1992.
- 103/1/9. *Geranium sanguineum* (Bloody Crane's-bill). Limestone cliffs, Rhyd y Foel, SH/90.76, P.Day, 1992.
- !111/3/3. *Calystegia pulchra* (Hairy Bindweed). Old quarry, Minera, SJ/260.519, BSBI group, 1992.
- +118/1/5×6. *Stachys* × *ambigua* (*S. palustris* × *S. sylvatica*)(a hybrid woundwort). Damp grassland, Llay, SJ/325.553, K.Watson, 1992. Second record.
- *!118/13/rac×nep. *Nepeta* × *faassenii* (*N. racemosa* × *N. nepetella*)(Garden Cat-mint). Railway bank, Llandulas, SH/91.78, G.Battershall, 1992. First record.
- 124/1/2. *Verbascum virgatum* (Twiggy Mullein). 20+ plants on waste ground near parish church, Wrexham, SJ/33.50, R.Hesketh, 1992.
- +!124/2/5. *Scrophularia vernalis* (Yellow Figwort). Overton, SJ/35.41, A.Showler, 1991.
- +124/8/2. *Chaenorhinum minus* (Small Toadflax). Station yard, Llanrwst, SH/79.62, G.Battershall, 1992.

*1135/22/1. *Lactuca serriola* (Prickly Lettuce). Locally abundant on weedy roadside bank, Sandycroft Industrial Estate, SJ/328.667, T.Edmondson, 1992. First confirmed record.

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

+11/1/3. *Polypodium cambricum* (Southern Polypody). Crevices in basic rock outcrops between Llyn Penrhyn and Llyn Treflesg, SH/310.772, R.H.Roberts, 1992.

+17/1/2. *Polystichum aculeatum* (Hard Sheild-fern). Basic bank in woodland, near Pont-Dic, Brynsiencyn, SH/486.682, R.H.Roberts, 1992.

*1162/11/2. *Barbarea stricta* (Small-flowered Winter-cress). Disturbed soil on new road, near Dwyran, SH/452.655, B.Woodward, 1991. First record, not seen since.

62/28/1. *Thlaspi arvense* (Field Penny-cress). Stabilised dunes, Newborough Warren Nature Reserve, SH/42.64, B.Woodward, 1990. Noticed as single plants annually from 1990 onwards.

+77/19/13. *Trifolium micranthum* (Slender Trefoil). Weed in lawn, Llangristiolus, SH/43.73, D.Stevens, 1992.

+1151/1/2. *Juncus tenuis* (Slender Rush). Damp, grassy lane, Llangristiolus, SH/427.731, D.Stevens, 1992.

151/1/25×26. *Juncus* × *diffusus* (*J. inflexus* × *J. effusus*). Base-rich meadow, SH/48.76, D.Guest & S.Smith, 1992.

+152/16/8b. *Carex muricata* subsp. *lamprocarpa* (Small-fruited Prickly-sedge). Hedgebank NW of Llanerchymedd, SH/411.851, R.H.Roberts, 1992.

153/20/1. *Catabrosa aquatica* (Whorl-grass). Stream, Llanddona, SH/57.78, D.Stevens, 1992.

+153/50/3. *Bromus racemosus* (Smooth Brome). Base-rich meadow, near Talwrn, SH/48.76, and base-rich meadow N of Llangefni, SH/473.773, both D.Guest & S.Smith, 1992.

WELSH FIELD MEETINGS - 1994

SUNDAY 12th JUNE
WHIXALL and FENN'S MOSS, CLWYD (v.c. 50)
Leaders: Mr P. Day and Dr J. Daniels

A visit to Fenn's and Whixall Mosses, a large lowland raised mire on the English-Welsh border, with an opportunity to see rehabilitation work carried out by EN and CCW to preserve and recreate the typical flora of a cut-over mire in a commercially exploited area. Interesting plants include *Andromeda polifolia* and *Rhynchospora alba*. The visit may include another wetland site with a mesotrophic type of flora. Wellingtons will be advisable, walk about 3 hours, and carry packed lunch.

Meet at 11.00am at Manor House, Whixall, the English Nature Interpretative Centre (SJ/505.366) about 2 miles NW of Whixall.

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

SUNDAY 26th JUNE
EBBW VALE GARDEN FESTIVAL SITE, GWENT (v.c. 35)
Leader: Mrs E. Wood

An opportunity to look at the botanical developments that have occurred at the site of the 1992 Garden Festival in Ebbw Vale. The site includes an area of natural woodland and a pond.

Meet at 10.30am at SO/180.065 on the road to Silent Valley, 100 metres off the A4046, about 1km north of Cwm. Walk of about 3-4 kms.

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

FRIDAY 1st to MONDAY 4th JULY
FERRYSIDE, CARMARTHENSHIRE (v.c. 44)
Leader: Mr R.D. Pryce

A meeting to assist in recording for the Flora of Carmarthenshire. It is intended to concentrate on less well-recorded areas in this part of the county, by splitting participants into small groups.

Accommodation will be in single rooms in the Educational Resource Centre in Ferryside. The meeting will also be open for non-residents. Approximate cost per day will be £25.00.

Full details of the meeting place and booking forms are available from Richard Pryce, Trevethin, School Road, Pwll, Llanelli, Dyfed SA15 4AL. Please apply **before 18th June**.

FRIDAY 8th to MONDAY 11th JULY
BANGOR, GWYNEDD (v.c. 49 & 52)
(in conjunction with the Welsh AGM and Exhibition Meeting)
Leader: Mr N.H. Brown

This meeting will include various talks and meetings in conjunction with the Welsh AGM as well as visits to CCW Headquarters in Bangor and opportunities to record in several interesting botanical sites in the county.

Friday evening will include a visit to a local site for annual count of *Orobanche rapum-genistae* and visit to Treborth Botanic Gardens.

Saturday will include a field meeting to Nant Ffrancon in Snowdonia, the Welsh Annual General & Exhibition Meeting and talks by CCW officers on *Plant recording in Wales* and *The fens of Caernarfonshire and Anglesey*.

Sunday will be a field meeting to Newborough Warren National Nature Reserve, Anglesey.

The meeting will be based on Bangor Normal College and single room accommodation will cost approximately £24.00 full board per night. Full details of meeting places and booking forms for accommodation are available from Nigel Brown, Treborth Botanic Garden, University College of North Wales, Treborth, Bangor, Gwynedd. The meeting is also open to non residents and day visitors.

THURSDAY 21st to SUNDAY 24th JULY
'Rubus'
TRINITY COLLEGE CARMARTHEN (v.c. 44)
Leader: Mr A. Newton

Although the distribution of *Rubus* species in Carmarthenshire is now partly known, further work is required for the forthcoming Flora of the county. The meeting is aimed at augmenting the data already collected.

This will be a non-tutorial meeting, and only those prepared to be self-driven taxonomically will really benefit, though the leader will advise in the evening for an hour or so when looking at specimens collected that day. Participants will be limited to ten.

Accommodation will be in single rooms, and bed, breakfast and evening meal will be around £25 per day.

Intending participants should contact Mr R.D. Pryce, Trevethin, School Road, Pwll, Llanelli, Dyfed SA15 4AL, **before 3rd July and not the leader**.

SATURDAY 30th JULY
TEIFI VALLEY, DYFED (v.c. 44)
Leader: Mr R.D. Pryce

A meeting to explore some of the hay meadows around Lampeter, and to visit areas along the River Teifi where *Rorippa islandica* has been found. Footwear suitable for wet ground.

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

SUNDAY 31st JULY
RAMSEY ISLAND, DYFED (v.c. 45)
Leader: Mr S.B. Evans

Ramsey Island is a RSPB Reserve, but has a rich maritime heath and wet heath flora including *Luronium natans*, *Pihularia globulifera*, *Cicendia filiformis*, *Hypericum undulatum*, *Asplenium obovatum* subsp. *lanceolatum*, etc.

The cost of between £10 - £15 will include the boat trip and landing fee at Ramsey Island, but landing is free for RSPB members. Numbers inevitably limited to 20.

Meet at 09.45am at St Justinians car park opposite the harbour (SM/723.252) for boat trip at 10.00am.

Should the weather be too bad for the boat trip, alternative exploration around St David's Head will be arranged.

Please apply for bookings, **by July 1st**, to Dr D.R. Humphreys, Knill Court, Knill, Nr Presteigne, Powys LD8 2PR, and not to the leader.