

BOTANICAL SOCIETY OF THE BRITISH ISLES

# WELSH BULLETIN

*Editors: R. D. Pryce & G. Hutchinson*

**No. 70, SUMMER 2002**



Life-size photocopy of specimen of *Illecebrum verticillatum* (Coral-necklace) at NMW.  
It is new to Anglesey (v.c. 52); see p. 11.



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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 Biodiversity & Systematic Biology, National Museum & Gallery, Cathays Park, Cardiff CF10 3NP, specifying the issue number, or year (which would have to include the season or month). Large runs - price negotiable.



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EDITORIAL

As I start my term as BSBI President, we discover that Carmarthenshire County Council have again failed in their obligations to conserve the county's biodiversity by destroying the only extant site of *Silene gallica* (Small-flowered Catchfly) in the county by excessive weeding and herbiciding. Members attending the Welsh AGM in 1999 were excited by the variety of the vegetation and the considerable number of scarce species which occur at the site, Burry Port Harbour. Recently, not only has the *S. gallica* been destroyed but populations of many of the other noteworthy species have suffered including *Malva neglecta* (Dwarf Mallow), *Geranium rotundifolium* (Round-leaved Crane's-bill), *Linum bienne* (Pale Flax), *Anacamptis pyramidalis* (Pyramidal Orchid) and *Trifolium striatum* (Knotted Clover). Council staff have been aware of the botanical importance of the harbour for several years which has been documented in at least four Environmental Assessments commissioned by themselves. Not only that, I personally showed the hot-spots to a member of their staff only three months ago.

This is a local issue close to my own heart but I wonder how many other authorities and land-managers with a remit to protect wildlife around Wales are also destroying our biodiversity either inadvertently, in ignorance or just because it is too much bother to consider it. I am sure that there are also one or two rogues who, whilst paying lip-service to their biodiversity commitments, try to get developments through, come what may.

I would like to compile a dossier of incidents similar to that at Burry Port, with a view to lobbying our politicians and perhaps shaming those authorities who don't exercise enough care, into mending their ways. We could co-operate with Plantlife over this issue in order to strengthen our cause with the combined voices of both bodies and also involve CCW in promoting better practices. So please contact me with any of your horror-stories and I will pass them on, in due course.

Since my last editorial, Plantlife has appointed Trevor Dines as their Wales Officer. Trevor, of course, was formerly Co-ordinator for Atlas 2000. Congratulations Trevor, and here's to fostering an even closer relationship between the two bodies!

In collaboration with Plantlife, the BSBI has been successful in securing HLF funding for survey work over the next three years. The timing of the announcement that the application had been successful could not have been worse as it was too late to set-up a survey programme for 2002 so effectively limiting the field work to just two seasons. After much discussion it has been decided that BSBI will re-run the 1986-88 Monitoring Scheme and Plantlife will carry out Common Plant and Single Species Surveys. Pete Selby, probably already known to many of you, has been appointed as co-ordinator for the BSBI part of the project and will be getting in touch with VC Recorders and other members as it progresses and the methodology is finalised. The plan is to carry-out pilot surveys in selected vice-counties this season, before embarking on the full-scale project next year but I'm sure that Pete could point in the right direction anyone itching to make a start now.

So good luck in your endeavours this field-season, and I hope to be able to see you at one or more organised meetings during the summer.

Richard Pryce, 19 May 2002



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## IMPORTANT NOTICE

### **BSBI WALES 10<sup>TH</sup> QUADRENNIAL MEETING 40<sup>TH</sup> ANNUAL GENERAL MEETING AND 20<sup>TH</sup> EXHIBITION MEETING, 2002**

Notice is hereby given that a meeting of members of the Society, normally resident in Wales, will be held at Plas Tan-y-Bwlch, Maentwrog, Gwynedd on Saturday 6<sup>th</sup> July 2002.

#### **AGENDA**

1. Election of Chairman and member to serve as Representative on BSBI Council
2. Election of Vice-chairman
3. Election of Hon. Secretary, Hon. Treasurer and members of Committee for Wales
4. 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 Vice-chairman, Officers and Members of the Committee for Wales, should be sent to the Hon. Secretary of the Committee for Wales, Mr R.G. Ellis, 41 Marlborough Road, Roath, Cardiff, CF23 5BU, to arrive not later than Jun 14th 2002.

### **ANNUAL GENERAL MEETING, 2001 Saturday 9<sup>th</sup> June 2001 at 15.45**

The 39<sup>th</sup> Annual General Meeting and 19<sup>th</sup> Exhibition Meeting of BSBI Wales was held at Pen Rhiw, St Davids, Pembrokeshire between the 8<sup>th</sup> and 11<sup>th</sup> of June, 2001.

**Introduction:** The Chairman, Richard Pryce, welcomed all participants. He thanked the Welsh membership, the Officers and Welsh Committee members. He told the meeting that Wendy McCarthy had now taken over from David Humphries as Hon. Field Secretary and that members arranging meetings for 2002 need to contact Wendy by October 2001. Thanks were also given to Ian Bonner for his role as Minute Secretary and to Peter Jones for his work as Treasurer.

**Apologies for Absence:** Geoffrey Halliday, Jill Barter, Ian Bonner, Mike Porter, David Humphreys, Joe Phillips and Jack Donovan.

**The Minutes of the last AGM,** published in *BSBI Welsh Bulletin* 69: 4-6 (2001) were accepted without amendment, proposed by Trevor Evans and seconded by Arthur Chater.

#### **Matters arising**

The advice from Alex Lockton about Recorder 2000 was to wait and continue to use whatever system was currently in use. RDP told the meeting that CCW may be able to provide some funding for Rare Plant Registers and that records produced in Excel can then be included on CCW's GIS systems. Andy Jones from CCW had more information.

#### **HON. SECRETARY'S REPORT**

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

He said that this was his 24<sup>th</sup> year as Secretary for the Committee for Wales and congratulated Richard Pryce on being elected as President Elect of BSBI. At the elections last

year Elsa Woods decided to resign from the committee so the membership would need to nominate and vote for another Committee member later in this meeting.

Two issues of the *Welsh Bulletin* had been published since the last AGM, and the joint editors, George Hutchinson and Richard Pryce were again congratulated on the high standard that they had maintained with the *Bulletin*. George Hutchinson had also put in his usual tremendous amount of work in planning and producing the *Bulletin*. It was hoped that members would continue to send in notes and articles for publication.

Six field meetings had been arranged in Wales in 2001 in addition to those at the AGM. The ongoing, but thankfully reducing, foot-and-mouth crisis might result in some being cancelled, postponed or venue changes. Only 2 had been held so far, in Denbighshire and Flintshire. David Humphreys was thanked for the splendid programme he had arranged and also all the leaders who put in a tremendous amount of work. David had decided to retire and Wendy McCarthy had agreed to stand for election as Hon. Field Meetings Secretary. In 2002 it was hoped to continue with a mixture of traditionally led meetings to areas of interest and tetrad recording for County Floras in many of the Welsh counties.

Next Year's Welsh AGM was to be held at Plas Tan-y-bwlch, Maentwrog, Gwynedd, from July 5<sup>th</sup> to 8<sup>th</sup> 2002 and would be arranged by Trevor Dines and Ian Bonner.

Thanks were given to CCW for allowing meetings of the Welsh Committee at Plas Gogerddan and Llandrindod Wells and to NMGW and George Hutchinson for the production of the *Welsh Bulletin*. Thanks were also expressed to the Pen Rhiw staff for facilitating this AGM and Exhibition meeting. This was the first AGM to be held in Pembrokeshire and Steven Evans was thanked for finding the venue and for his meticulous arrangements. The meeting was told that his illustrated talk on Pembrokeshire would start shortly after the AGM.

### HON. TREASURER'S REPORT

The Hon. Treasurer, Peter Jones, then reported on the financial situation which was again satisfactory. The accounts are presented on a calendar year basis and the balance sheet for 2000 (see below) was passed around. Peter expressed thanks to Nigel Brown and to Ian & Pippa Bonner for efficient handling of last year's AGM which made £84.00 profit. He also recorded his thanks to George Hutchinson for arranging the production and mailing of the *Welsh Bulletin* from NMGW. He further commented that BSBI Wales had again not had to call on central funds for its operations and told the meeting that to simplify matters next year he had opted for a single Treasurer's account so there would not be a deposit account.

The Accounts were adopted without change, this being proposed by David Pearman and seconded by Jean Green.

### ELECTIONS

The Hon. Secretary, Mr Gwynn Ellis, the Minuting Secretary, Mr Ian Bonner, Hon. Treasurer and Mr Peter Jones were re-elected unopposed to their respective posts and Mrs Wendy McCarthy was elected as Hon. Field Meeting Secretary. All were proposed by Jane Hodges and seconded by Steven Evans.

One new Committee member was required to replace Elsa Woods and Trevor Dines was nominated, proposed by Goronwy Wynne and seconded by Arthur Chater.

Following the election of officers and members, the composition of the Committee for Wales was as follows:

#### Officers

|                                    |                 |
|------------------------------------|-----------------|
| Chairman and Welsh Rep. on Council | Mr R.D. Pryce   |
| Vice-chairman                      | Dr G. Wynne     |
| Secretary                          | Mr R.G. Ellis   |
| Treasurer                          | Dr P.S. Jones   |
| Field Meeting Secretary            | Mrs W. McCarthy |
| Hon Minuting Secretary             | Dr I.R. Bonner  |



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**Committee Members**

|                 |                    |
|-----------------|--------------------|
| Mr A.O. Chater* | Dr D.R. Humphreys* |
| Mr P. Day       | Dr G. Hutchinson*  |
| Dr T.D. Dines   | Dr Q.O.N. Kay*     |
| Mr S.B. Evans*  | Mr J. Phillips     |
| Mr T.G. Evans   | Mr M. Porter*      |

Mr J.P. Woodman

Co-opted Mr A. Jones and Mr R.G. Woods (CCW Observers)

\* members due to retire in 2002

### ANY OTHER BUSINESS

Arthur Chater asked members to note a minor change to his meeting on July 14th, which was detailed on slips of paper in the Exhibition room.

Andy Jones said that he foresaw a partnership between CCW and BSBI Wales to produce County Rare Plant Registers, with CCW providing funds. He said it was very helpful to CCW staff when maps are computerised.

Goronwy Wynne told the meeting that he had some copies of a Natural history publication, in Welsh, for sale.

The Chairman thanked everyone for attending and the meeting closed at 4.25 p.m.

### Statement of Accounts, 1 January 2000 - 31 December 2000

#### Current Account

|                     | Receipts |                         | Payments |
|---------------------|----------|-------------------------|----------|
| From BSBI Treasurer | 0.00     |                         |          |
| 2000 AGM            | 876.00   | 2000 AGM                | 802.00   |
| Welsh Bull. Subs.   | 47.00    | Welsh Bull. 66 printing | 103.00   |
|                     |          | Welsh Bull. 66 postage  | 40.77    |
|                     |          | Welsh Bull. 67 printing | 115.00   |
|                     |          | Welsh Bull. 67 postage  | 42.20    |
| Totals              | 923.00   |                         | 1102.97  |

Excess of receipts over payments      -£179.97

Carried forward from 1999      £419.89

Balance, 31/12/00      £239.92

#### Deposit Account

Balance, 20/11/00      £356.72

Dr Peter S. Jones Hon. Treasurer, BSBI Committee for Wales. 7 June 2001

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**10th WELSH QUADRENNIAL MEETING  
40th ANNUAL GENERAL MEETING  
and 20th EXHIBITION MEETING**

**Friday 5<sup>th</sup> – Sunday 7<sup>th</sup> July 2002**

**Plas Tan-y-Bwlch, Maentwrog, Caernarfonshire (GR SH655406)**

For full details of this years AGM, please see the blue flier that was enclosed with the last edition of BSBI News. Apologies that the dates on the actual booking form were incorrect - the dates on the provisional programme given in the flier are the right ones (Friday 5th to Sunday 7th)!

Please note that accommodation is still available at the superb Plas Tan-y-bwlch (book with them first by telephone and then send Ian Bonner your form and full money as instructed on the blue flier). If anyone that has booked at Plas Tan-y-bwlch subsequently cannot make the meeting, please let us know four days before the event and a full refund will be possible.

Full details of the programme and field meetings will be sent out to those that have booked. For the field meeting to Cwm Idwal on Saturday, please note that several different walks will be led, catering for all walking abilities (there is plenty to see without climbing the cliffs!).

Finally, remember that Summerfield Books will be bringing a small collection of books for sale, and that we will have a large area available for posters. We feel that the posters are an important part of the AGM, and encourage as many people as possible to bring their contributions.

Trevor Dines (Tel 01248 385445 or e-mail [trevor.dines@plantlife.org.uk](mailto:trevor.dines@plantlife.org.uk))

**FIELD MEETINGS PROGRAMME 2002**

For full list and procedure for 2002, see BSBI Yearbook 2002.

## RECORDING IN MONMOUTHSHIRE (VC 35) 2001

2001 URGH !! All the countryside shut down to walkers and botanists for the first half of the year and some for all of the botanist's year.

At the start of the year mastery of the computer was an unfulfilled aim and practice a daily battle. Walks, to keep the knees going another battle, bringing me into contact with the plant that is the first/last plant to flower viz. *Petasites fragrans* (Winter Heliotrope). This is a species that has spread widely in my lifetime, a distribution map of it resembles a map of Monmouthshire roads, indicating its preferred habitat. A New Year's resolution was to keep a record of the first flower for each species. First flowering turned out to be later than in many recent seasons, few were noticed before March. *Mercurialis perennis* (Dog's Mercury), was the only plant flowering in February. The flowering order in March was *Ranunculus ficaria* (Lesser Celandine), *Viola odorata* (Sweet Violet), *Daphne laureola* (Spurge Laurel), *Erysimum cheiri* (Wallflower), *Cardamine hirsuta* (Hairy Bittercress), *Arabidopsis thaliana* (Thale Cress), *Lamium purpureum* (Red Dead-nettle), *Stellaria media* (Common Chickweed), *Primula vulgaris* (Primrose), *Narcissus pseudonarcissus* (Wild Daffodil), *Veronica hederifolia* ssp. *lucorum* (Ivy-leaved Speedwell), the commoner subspecies, *Cochlearia danica* (Danish Scurvygrass), origin central reservations but spreading to lesser roads, *Euphorbia pepus* (Petty Spurge), *Veronica persica* (Common Field-speedwell), *Senecio vulgaris* (Groundsel), *Poa annua* (Annual Meadow-grass), *Plantago lanceolata* (Ribwort Plantain), *Sinapis arvensis* (Charlock), *Ranunculus bulbosus* (Bulbous Buttercup), *Fumaria officinalis* (Common Fumitory) and *Anemone nemorosa* (Wood Anemone). "Foot and Mouth" really was limiting the recording and some of the above were only viewed from the car, used in an unavailing search for a footpath still open. Roadsides and their views do not yield all available plants and the New Year's resolution would have to be abandoned for the year.

The R. Severn shore was unavailable, apart from a small part of it between the Pulp Mill and the Severn Tunnel Pumping Station at Sudbrook, where lies an iron-age fort, a flat central area surrounded by two defensive high banks of earth, only the southern portion is missing where there is a cliff that has been eroded by the high tides. The central area affords Sudbrook with a football pitch. As I walked from east to west along the cliff I became aware that the scene had changed from the previous year. The pitch was a luscious green, with no bare patches. The inner defensive bank that was normally covered with short turf the home of such vc rarities as *Trifolium subterraneum* (Subterranean Clover), *Myosotis ramosissima* (Early Forget-me-not), *Cerastium diffusum* (Sea Mouse-ear) and *C. semidecandrum* (Little Mouse-ear) was now a coarse growth of mainly *Raphanus maritimus* (Sea Radish). Why such a transformation? Enquiries revealed that a TV film company making a film called "Score" for Welsh TV, about a football team had decided that the football pitch was an ideal situation to stage match(es). The pitch like all local ones had bare patches that needed to be repaired, especially around the goalmouths. Whatever they did did the uncommon plants no favours as none were in evidence. In previous years, the outer defensive bank, which is the only vc home for *Helictotrichon pratense* (Meadow Oat-grass) and *Koeleria macrantha* (Crested Hair-grass) has suffered from activities from bikers and worse from the Pulp Mill. The timber is shredded and blown through a large pipe to form stacks waiting for the next process of being boiled with pure Severn Tunnel water to form pulp for paper manufacture. Unfortunately, when there was a SW gale blowing some of the shredded material sailed over the boundary fence and found its way onto the bank. Decomposition was slow and disastrous to the uncommon plants, which were eliminated by the overgrowth of coarse vegetation.

The Rock and a Pontllanfraith wet heath site needed to be checked to see if my BSBI field meeting could go ahead on July 1. Fortunately, both sites were open. While viewing the sites, I noted *Pedicularis sylvatica* (Lousewort) scattered over the heath and checked several plants that proved to be the common subspecies *sylvatica*, with glabrous pedicels and calices. During the walk on the 1<sup>st</sup>, Mark Kitchen found a specimen that appeared to be the

subspecies *hibernica*, with hairy pedicels and calices. The bit of plant, now, in my possession was quite inadequate as a voucher specimen for a vc 35 first record. Mark had no better, so another visit was made to the heath but no confirmatory specimen could be found though a score of plants was examined; a job for 2002.

A check on all Lousewort sites would keep me occupied as some footpaths were now being re-opened. All examined sites had only the common subspecies on them, but is subspecies *hibernica* elsewhere? Checking a meadow lying between Gethley Wood and Kilgwrrwg a number of Marbled White butterflies caught my attention. Usually their presence heralded other gems. First found, in a rough patch *Carex pallescens* (Pale Sedge) and *Carex laevigata* (Smooth-stalked Sedge); looking up from them, white spikes over towards the far hedge caused real excitement. A quick look at the diverging polinia identified them as *Platanthera chlorantha* Greater Butterfly Orchids, 16, though eight had their tops bitten off by rabbits or sheep; there was evidence of both on the grass. This was the first post-1930 record for this 10K.

*Trichophorum cespitosum* (Deergrass) also has two subspecies, the one at Pontllanfraith was the common one ssp. *germanicum*. The ssp. *cespitosum* had been found only in the north of England. A search of the known Deergrass sites, mainly upland, was begun. On Mynydd Maen at 447m among pools, lined with the Cottongrasses *Eriophorum vaginatum* & *angustifolium* and wet peat were tufts of the common Deergrass and a few of *Trichophorum* nothosubspecies *foersteri*, the hybrid between the two subspecies, later confirmed by Prof. Swan. Subspecies *cespitosum* did not occur. Waun Afon Bog, the vc's largest, had numerous tufts of what seems to be the hybrid among quantities of the *T.c.* ssp. *germanicum*, but stem sections have to be cut to confirm this. All other sites so far looked at have only the common subspecies. One place unrewardingly searched was the top of Coity Mountain. Looking down towards Forgeside was an extremely promising bog, not visible except from above. On closer examination it provided the vc's best populations of *Ranunculus omiophyllus* (Round-leaved Crowfoot), *Drosera rotundifolia* (Round-leaved Sundew) and *Scutellaria minor* (Lesser Skullcap) with good numbers of *Mimulus moschatus* (Musk), *Eriophorum angustifolium* (Common Cottongrass), *Viola palustris* ssp. *palustris* (Marsh Violet) and nearby *Wahlenbergia hederacea* (Ivy-leaved Bellflower) and *Equisetum sylvaticum* (Wood Horsetail). With all the other plants it is the best new site discovered for some years.

A call of help from Mrs Blakemore reached me via the Welsh National Botanic Garden and the National Museum & Gallery of Wales concerning a narrow strip of land between the A467 and the Ebbw river at Pontymister. In walking her dog on this land, owned by her family before the war, she had noticed *Ophrys apifera* (Bee Orchids) and other orchids and had heard that permission to develop the land for industrial purposes was being sought. A joint visit to the site, with her, revealed a wet, clayey strip much overgrown with brambles and shrubs, which made accurate counting difficult but there were about 13 Bee Orchids, c. 15 *Dactylorhiza fuchsii* (Common Spotted Orchids), 56 *Dactylorhiza praetermissa* (Southern Marsh Orchids) and 4 *Dactylorhiza* x *grandis* (a *D. praetermissa* x *D. fuchsii* hybrid). Without Mrs Blakemore's interest the site would have remained undetected. I have just heard from Mrs Alison Jones for Caerphilly Council that she has to try and save the site against pressure for its development. In defending sites of biodiversity interest against building pressure Gwent conservationists have a big problem in that so many sites are not natural; so much is reclaimed coal waste tips, colliery sites or all the secondary industrial sites based on the coal. Large areas of Newport Docks show evidence of how important the export of coal was to the county. The plants that have colonised the artificial habitats have probably invaded from natural, nearby habitats. Developers claim that the exciting, diverse, wildlife communities resulted from man's activities, and conservationists have no right to prevent man from changing it all again, if its going to bring prosperity or housing to the area. The wildlife that survived the original desecration of their habitat and adapted to the then new conditions does not deserve consideration – so they argue!

It is beneficial to have the company of Colin Titcombe and Graham Harris at least once a week on field trips in the vc; three pairs of eyes are better than one. On Mynydd Maen this enabled us to record Grayling butterflies, green Tiger Beetles and a Wood Tiger Moth, the latter last seen by me c.1960. In a side valley off Cwm Tillery, the combination resulted in only the third vc site for *Eleocharis multicaulis* (Many-stalked Spike-rush) being discovered, with the added bonus of several Broom Moth and one colourful and striking Emperor Moth, caterpillars being revealed. These two also provide useful records when apart. Graham drew my attention to plants of *Galinsoga quadriradiata* (Shaggy-soldier) poking up through cracks in the cobbles in the middle of Usk Square.

A call from a firm of Ecology Advisers for information about three sites that were being assessed for possible development sent me haring off to remind me of their plant interest. The second one, a narrow meadow lay between the A467 and a piece of the Mon.-Brecon Canal perched high above it on its east side, at Pontywaun. It had marshy patches and a small stream in it. The northern end of it had the best area of *Carex muricata* ssp. *lamprocarpa* (Prickly Sedge) I have encountered in the vc. The third site lay along side the Ebbw river just south of Newbridge where a colliery had been demolished and the rubble had been spread to level the area. The colonisers were surprising. Large patches of *Anaphalis margaritacea* (Pearly Everlasting), *Juncus tenuis* (Slender Rush), *Poa compressa* (Flattened Meadow-grass), *Oenothera cambrica* (Small-flowered Evening-primrose) and planted *Alnus incana* (Grey Alder) dominated the vegetation.

Steve Williams, Ecologist for Torfaen, provides records from his own observations but especially from his Council work. His report of *Parentucellia viscosa* (Yellow Bartsia) at Llantarnam drew me to meet him there on 7<sup>th</sup> July. A field had been prepared for industrial development by having large rectangular plots levelled ready for installation of light industrial buildings. On one rather clayey site the Bartsia was scattered over a large part of it and we counted c.500 plants. The only other record I've had in 30 years as BSBI Recorder is one plant when the R.Usk bank was being raised at Llanbadoc. It only just fails to be considered a British Scarce Plant, however, it is rare in vc 35.

VC 35 has been divided into SIX political divisions and each has to provide a Biodiversity Plan of action, these many-paged glossy documents have been produced after countless meetings arranged by special officers, appointed on short-termed contracts, with experts from many wildlife interests drawn into the process. It's the next stage that worries me. What happens to the officers whose contracts are coming to an end. The finance to support the posts is uncertain and an excellent lass, Georgina Holdsworth, has gone already. The documents are fine but finance is needed to keep the good officers in their posts and to implement the measures recommended to ensure that the vc not only maintains the current biodiversity but restores it to its position in the 1950's, and even improve on that.

Fourteen Locks, at Newport, have remained open all year and though no boats can use them *Bidens frondosa* (Beggarticks – how appropriate when a mass of dark, barbed fruits attach themselves to your clothes) filled a couple of sections of the locks. It is becoming more common than *B. tripartita* (Trifid Bur-marigold), once common in reens.

To compensate for the loss of the mud flats by the Cardiff Bay development, lagoons have been created where the Uskmouth Power Station ash pans lay, to the east of Newport. A different group of birds have benefited from the change, but plants will also benefit. *Zannicellia palustris* (Horned Pondweed), that favoured the sea "wall" reens has suffered from the lowering of the water table because the reens are so often dry, but has found the margin of at least one lagoon a good substitute. *Chenopodium glaucum* (Oak-leaved Goosefoot), *Lathyrus nissolia* (Grass Vetchling) and *Lepidium latifolia* (Dittander) recorded for years have not been adversely affected by operations and plenty can be seen. Here I heard that a pair of Little Egrets had nested for a county first. They had chosen a nearby heronry, not surprising for such gregarious nesters.

Once the Severn shore was open to walkers I tried to repeat the walk from Chepstow to Cardiff to record *Bupleurum tenuissimum* (Slender Hare's-ear) but it soon became obvious

that September was too late and though the species was present in many of the 1996 positions, numbers were vastly down. A pity, as the change of grazing regime, forced by foot & mouth, and its effect on plants of the shore might have been useful. Was it the change that allowed *Carex distans* (Distant Sedge), 3 plants, to flower on the upper saltmarsh E. of Sutton Farm? The first record outside Newport Docks since 1972. Walking up the mouth of the R. Rhymney, at Lamby, on 18<sup>th</sup> September to see the extensive colony of *Limonium vulgare* (Common Sea-lavender), Colin, Graham and I came across the largest vc colony of *Carex extensa* (Long-bracted Sedge), we counted 137 tufts on the upper edge of the saltmarsh. Further up was a 24 square metre patch of Dittander. A large number of *Araneus diadematus*, the large spider with a white cross on its brownish abdomen that builds the large web often in our porches, and a few of *Araneus quadratus*, about the same size but with an olive-green abdomen, were noted in the vegetation quite close to the river. What happens at spring-tides?

*Datura stramonium* (Thorn-apple) turns up somewhere in the county in most years. Clive Jones, my brother-in-law, showed me a plant that appeared in a border near his front lawn in Mathern ST 5191. When the fruit formed it proved to be *Datura ferox* (Angels'-trumpets), the fruits of which have fewer spines though larger than those of Thorn-apple. The previous year Clive had had a load of manure from a nearby farm - the source? Then C.W. Thomas reported an unusual plant in his garden near Llanvair Discoed ST4591. This proved to be another Angels'-trumpets, but growing near his wild bird feeding station. Bob Harding reported numbers of Angels'-trumpets in a crop between Chapel Lane and Pwll-meyric ST5192. A new county record appears in three separate sites in one year. Thorn-apple is widespread in N. America and Angels'-trumpets is widespread in China. It is said that the world is getting smaller but this is ridiculous. A few years ago I identified Angels'-trumpets for Pen Lewis in her garden on Miss Grace's Lane, Tidenham vc 34 Glos. also associated with a wild bird feeding station.

*Tragopogon porrifolius* (Salsify) was often seen on a raised bank below Lancut Church in vc 34 Glos. in the 1950's. In 1984 Derek Upton reported seeing numbers into double figures on the Monmouthshire side. They grow on a narrow curved spit formed by the Wye swirling around the Lancut bend and eating into the Monmouthshire bank. I saw 3 in 1994. On 24 September there were 85 with one more on the opposite part of the cut into the bank.

Let's hope for better in 2002 --- the weather has not yet relented.

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### **ILLECEBRUM VERTICILLATUM L., CORAL-NECKLACE, NEW TO ANGLESEY**

Amongst the undetermined material in the N. Woodhead herbarium acquired by the Welsh National Herbarium (NMW) from University Collage North Wales I have found a specimen of *Illecebrum verticillatum* (det. T. Rich 28 November 2001) labelled as collected from 'Bwrdd Arthur, Anglesey, limestone quarry, N. Woodhead, 27 April 1958'. The specimen is a large sprawling plant with fine mud, and with ripe fruit.

This appears to be a new record for Anglesey, but given its location in a quarry it is likely to be an introduction.

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## THE STREET FLORA OF CENTRAL ABERYSTWYTH REVISITED

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In 1970-73 I surveyed the flora of the streets of central Aberystwyth and published the results in what was then the *B.S.B.I. Welsh Region Bulletin* (Chater 1974). Twenty five years later Philip Oswald and I decided to repeat this survey, I doing Aberystwyth and he doing a similar survey in Cambridge. As well as showing any changes that had taken place over this period in Aberystwyth, we hoped that our surveys would enable an interesting comparison to be made between a coastal town with a distinctly oceanic climate and an inland city at about the same latitude but in what is climatically one of the most continental parts of Britain. Chris Preston provided much of the phytogeographical, ecological and climate-related interpretation of our results, which were published in *Nature in Cambridgeshire* (Chater, Oswald & Preston, 2000). As the overlap in readership between the two journals is likely to be almost as minimal as that between Beech Fern and Marsh Fern, it seems worth summarising here the parts of our paper that concern Aberystwyth and the changes in the flora there between the two surveys.

The repeat survey was done during 1998-99, using exactly the same 54 street units (amounting to 4.2 km in all) as before. In 1970-73 a total of 108 species was recorded, while in 1998-99 the total was 125. 41 of those recorded in 1970-73 were not seen in 1998-99, while 57 of those recorded in the later survey were not recorded in the earlier one. This confirms what casual observation strongly suggests, that street floras are always in a considerable state of flux. Species absent from one or other survey include both natives and aliens, annuals and perennials, and their arrival or departure can be attributed to a variety of causes. Some of the losses, such as *Pteridium aquilinum* and *Circaea lutetiana*, are long-persisting perennials whose habitats - cracks in house walls, and disused cellars under gratings respectively - have been destroyed by house restorations. Others, like *Geranium molle* and *Lamium purpureum*, are annual weeds that would not be expected to be very permanent in the miniature flowerbeds or beds of earth around street trees where they were recorded. The annual *Solanum nigrum* persisted for at least 20 years around a doorstep in Cambrian Place beneath a pigeon roost, but disappeared and was replaced about 1991 by the perennial *Oxalis exilis*. The loss of *Athyrium filix-femina*, recorded from seven streets in 1970-73 but from none in 1998-99, and the reduction of *Dryopteris filix-mas* from 34 to seven streets and of *Phyllitis scolopendrium* from 27 to nine are striking changes, and there has been no overall loss of their preferred habitats - cellars and crevices in walls - great enough to explain them. *Epilobium obscurum* was recorded from 11 streets in 1970-73 and was not recorded in 1998-99, while *E. ciliatum*, unrecorded in the first survey, was found in ten streets in the second. (I was familiar with *E. ciliatum* at the time of the first survey, and had made the first record for the county in 1962, but the fact that *E. obscurum* was so often recorded in the first survey, yet not at all in the second, must raise the possibility of misidentification; the latter is anyway uncharacteristic of dry habitats.) Another annual, *Cardamine hirsuta*, like *E. ciliatum* growing chiefly in pavement crevices, was not seen in the first survey but was in 13 streets in the second.

Of the other species new or greatly increased in the second survey the most striking are the garden escapes *Buddleja davidii* (from one to 28 streets) and *Centranthus ruber* (from none to 11). This probably follows a general trend in West Wales, where both species are becoming commoner. Why *Cymbalaria muralis* should have increased from 20 to 39 streets, while several other species occupying the same habitat, such as *Asplenium ruta-muraria* (16 in both surveys), *Polypodium vulgare* (nine in both surveys) and *A. trichomanes* (increased from 12 to 19), show no or a lesser increase, is unknown. In general, wall and cellar perennials, especially ferns, have shown no increase or have even decreased, in striking contrast to the wall annual *Cymbalaria muralis*, but why?

Analysis of the phytogeographical and ecological characteristics of the native species in the surveys, using the criteria in Preston & Hill (1997) and Ellenberg values in Hill et al. (1999), shows many interesting features. Summarising the situation very briefly, 30% of all the species in the Cardiganshire vice-county list occur in southern Europe, compared to 40% of those in the street flora in 1970-73 and 50% in 1998-99. Thus, as one might expect, plants which colonise the streets tend to be those which characteristically grow in relatively warm, dry climates. Similarly significant is the fact that while 9% of the total Cardiganshire species are Oceanic and 10% Suboceanic, the percentages in the street flora are 4% and 4% respectively (the percentages are similar in both surveys); the percentage of oceanic species in the streets is lower than that in the county as a whole. (Considering just those species confined to one town or the other, there is a tendency for the species confined to Aberystwyth to be less southern and more oceanic, and those confined to Cambridge to be more southern and more continental.)

The decrease in the fern flora is an example of several striking changes in the characteristics of the Aberystwyth flora between the two surveys. As well as the increase in the southern phytogeographical element noted above, there was a fall in the percentage of plants characteristic of partial shade from 79% to 71% and a rise in that of light-loving plants from 17% to 25%, and an increase in species characteristic of drier habitats. The Aberystwyth flora had become more similar to the Cambridge one (as the latter stood in 1998-99) in phytogeographical and ecological characteristics over the 25 year period. Examples of northern species lost in Aberystwyth include *Athyrium filix-femina*, *Veronica serpyllifolia* and *Ranunculus acris*, while southern species gained include *Cardamine hirsuta*, *Sagina maritima* and *Parietaria judaica*. An attempt was made to see if any climate changes were directly correlated with these trends. Unfortunately there were no satisfactory meteorological records for Aberystwyth, so the records of the Welsh Plant Breeding Station (now IGER) were used to make a climatic comparison of the decade leading up to each survey. This station is 4 km inland and probably reflects the same trends, if not the actual conditions, as occur in the town, but the results were not very revealing. The July and August temperature maxima increased by about degree centigrade, which may well have been a contributory factor in the changes in species composition, but the annual rainfall averages were 1004.9 mm and 1064.0 mm and the rainfall averages for the summer months also mostly showed a slight increase rather than the expected decrease.

The structure of the streets of Aberystwyth did not change very noticeably between the two surveys, although there had been a general improvement in the maintenance of house walls demonstrably leading to the loss of a small proportion of plants. The only obvious local factor likely to have been responsible for any significant part of the change in the flora is the use of herbicides. None were being used in 1970-73, and it seems that none were being used regularly until 1992. From then on the pavements of most of the streets were sprayed with 'Touché', containing 13% isopropylamine salt of glyphosate and 20% diuron, in mid or late July. This regime still continues, and the spray both kills growing plants and is a germination inhibitor, although there is little obvious evidence of the latter property. Most annual pavement weeds have seeded by the time of spraying, and it has chiefly been *Epilobium* species that have been killed before fruiting. Some perennials have been killed, and a certain amount of herbicide has undoubtedly got under gratings and into cellars and may have been responsible for some of the reduction of ferns. The remarkable 20 species noted in the grating at the north end of Pier Street in the 1974 paper had been reduced to four in 1999, presumably by herbicide. Walls, however, mostly escaped the treatment, so herbicide is unlikely to have been a factor in the increase in *Cymbalaria* noted above. It is interesting that the two annuals that have increased most strikingly, *Cochlearia danica* and *Cardamine hirsuta*, are both very early-fruited plants predominantly of pavement crevices, and they may well have benefited from the July spraying.



As I had noted in 1974, surprisingly few maritime species are found in Aberystwyth, considering the proximity of the sea and the amount of salt deposited in the streets during storms. In 1970-73 only four were recorded. Of these, *Cochlearia danica* increased astonishingly by 1998-99 from four to 30 streets, *Plantago coronopus* increased from two to four, *Tripleurospermum maritimum* was found in one street in both surveys, and *Catapodium maritimum*, which was abundant in Laura Place and Sea View Place and occurred in small numbers in two other streets, was not found in 1998-99. *Sagina maritima* appeared in South Road in the second survey. Perhaps the later fruiting of *Catapodium* explains why it has fared so differently from its fellow maritime annual, the early fruiting *Cochlearia danica*.

Of the 165 species recorded in the two Aberystwyth surveys, 35 (21%) were not native, at least in this part of Cardiganshire. Of these 35, 22 are grown in gardens deliberately for decoration or food and may well have got into the streets from this source. Some have demonstrably come from nearby gardens or window boxes and are very rare or absent in the wild in the county, such as the fern *Cyrtomium falcatum* in cellar wells in Laura Place, *Erigeron glaucus* on walls in Grays Inn Road, or *Campanula portenschlagiana* and *C. poscharskyana* on walls in several streets. Some others are just part of the general pool of aliens in the county and can turn up anywhere (though most often in or near towns and villages). These include such species as *Centranthus ruber* and *Buddleja davidii*. The turnover of aliens, 29 out of 35 species (82%) not being recorded from one or other of the surveys, was much greater than that of the natives, 63 out of 130 (48%). It is to be expected that aliens are more likely than natives to be a less permanent feature of the habitats they occupy, and it is interesting that they seem relatively so unsuccessful at retaining a foothold in the urban environment.

Several of the more frequent species did not significantly change in abundance. *Poa annua* was in 54 streets in the first survey and 52 in the second, *Sagina procumbens* in 49 in both, *Senecio vulgaris* in 48 and 42, *Plantago major* in 28 and 36, *Taraxacum* agg. in 47 and 43, and *Sonchus oleraceus* in 31 in both; *S. asper* was in seven and nine. *Rubus fruticosus* agg. decreased from 18 to 11, and *Senecio jacobaea* increased from 18 to 24. The persistence of some species in precarious habitats is remarkable. *Solanum nigrum* has already been mentioned. *S. dulcamara* is still growing in the same quantity on the top and upper parts of a free-standing mortared wall in Moor Lane as it was in 1970. *Pteridium aquilinum* grew as a few fronds 1-2 m up on the front wall of No. 36A North Parade for at least 20 years up to 1974. One large plant of *Viola riviniana* grew at the inner edge of the pavement in Portland Street, above a cellar, from at least 1965 to 1973, and a smaller adjacent plant survived here until about 1985, flowering prolifically.

In the 1998-99 survey, the habitats in which each species occurred in each street were recorded. Eight habitat types were used: road(including gutters), pavement, level area separate from road or pavement, flowerbed, basement area or cellar-well (open or with grating on top), grating with substrate, steps (up to door or down to basement or cellar) and wall (including roof). For purposes of comparison in any future resurvey it would be useful to use these same categories. Full details of both surveys, including much information not even in our 2000 paper, has been deposited in the Department of Biodiversity, National Museum and Gallery of Wales, Cardiff.

## References

- Chater, A.O. (1974). The street flora of central Aberystwyth. *B.S.B.I. Welsh Region Bulletin* 21: 2-17 (and map).  
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### ***POTENTILLA ERECTA* SUBSP. *STRICTISSIMA* NEW TO V.C. 52 ANGLESEY**

On 12 June 1999, I collected a robust *Potentilla erecta* (L.) Raeusch from *Calluna vulgaris* – *Ulex gallii* heathland on Holyhead Mountain about 300 m NE of the South Stack car park, V.c. 52 Anglesey (SH/210.824), which John Richards has now confirmed as subsp. *strictissima* (Zimmeter) A. J. Richards (the specimen has been deposited in **NMW**).

This subspecies is quite widespread in Britain and Ireland, in both the uplands and lowlands. This is the first record for Anglesey; it may prove to be more widespread on coastal heaths.

I would like to thank John Richards and Ian Bonner for their help.

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## WELSH PLANT RECORDS – 2000

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

The following symbols are used:

- \* to indicate a new v.c. record
- + to indicate a new or updated hectad record
- † before the species number: to indicate that the species is not native to Wales
- † before the record: to indicate a species which although native in some parts of Wales, is not so in the locality recorded
- [] to indicate that the record, previously published in error, should be deleted
- ‡ to indicate that the taxon is now believed to be extinct in the locality cited

In general only records which are additional to those given in *Flowering Plants of Wales* by R.G. Ellis (1983), *Distribution of Pteridophyta in Wales* by G. Hutchinson & B.A. Thomas (1992), *Flora of Flintshire* by G. Wynne, *Flora of Radnorshire* by R.G. Woods, *Flora of Glamorgan* by A.E. Wade *et al.*, and *Flora of Montgomeryshire* by I. Truman *et al.* are listed (**but please note** that in future, only records additional to those given in the *New Atlas of the British and Irish Flora* (2002) will be listed). Other records are included at the discretion of the vice-county recorder. The minimum grid reference is to a hectad but, if supplied by the recorder, references to a 1km or even a 100m square may be included. A letter in parenthesis following a 2 or 4 figure grid reference indicates a tetrad.

The Vice-county Recorders from 1/1/2002 are:

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

GLAMORGAN, v.c. 41 (West); Dr Q.O.N. Kay, School of Biological Sciences, University of Wales, Swansea, SA2 8PP

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

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

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

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

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

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

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

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

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

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

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

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

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

- 1/1.1. *Huperzia selago* (Fir Clubmoss) (Cnwpfwsogl Mawr). One plant on barish area of coal waste, W of Keepers pond, Blorengce, SO250106, H. Wray, 2000. 2<sup>nd</sup> recent record.
- +1/2.1. *Lycopodium clavatum* (Stag's-horn Clubmoss) (Cnwpfwsogl Corn Carw). Heather covered mound, partially eroded, Blorengce, SO261106, G.S. Motley & S.D.S. Bosanquet, 2000, conf. T.G. Evans.
- 28/17.4. *Thalictrum minus* (Lesser Meadow-rue) (Arianllys Bach). Several plants between N edge of playing fields and River Usk, Glebelands recreational ground, Newport, ST317904, T.G. Evans, 2000, NMW.
- +043/3.2×4. *Atriplex* × *gustafssoniana* (*A. prostrata* × *A. longipes*) (Kattegat Orache). Over 10 plants scattered in upper saltmarsh, SSW of transporter bridge, Newport, ST3285, T.G. Evans, 2000.
- +43/3.3. *Atriplex glabriuscula* (Babington's Orache) (Llygwyn y Tywod). Several scattered plants in saltmarsh, between the transporter bridge & Alpha Steel, Newport, ST3285, T.G. Evans, 2000. 1<sup>st</sup> recent record.
- +43/3.4. *Atriplex longipes* (Long-stalked Orache) (Llygwyn Hirgoes). Several plants in saltmarsh, just above mud of River Usk, NW of Alpha Steel, Newport, ST326854, T.G. Evans, 2000, NMW. 2<sup>nd</sup> record.
- +†46/19.1. *Agrostemma githago* (Corncockle) (Bulwg yr Yd). Single large plant in crack between base of wall and patio, Lion Inn, Trellech, SO501055, G. Harris, 2000, det. T.G. Evans. 1<sup>st</sup> recent record.
- +†47/3.1. *Fagopyrum esculentum* (Buckwheat) (Gwenith yr Hydd). Bird seed alien in cracks in patio paving stones, Orchard Cottage, SO502012, Mrs A. Booker, 2000, det. T.G. Evans.
- +†82/1.2. *Daphne laureola* (Spurge-laurel) (Clust yr Ewig). Over 10 plants on steep W facing slope, Beech Hill, Usk, SO372017, R. Hewitt, 2000, conf. T.G. Evans. +50-100 plants in narrow woodland on bank of River Usk, between Llanellen and Llanover, SO317105, G. Harris & C. Titcombe, 2000.
- +91/2.7. *Euphorbia serrulata* (Upright Spurge) (Llaethlys Mynwy). Over 70 plants on E side of stony track, Chepstow Park Wood, ST502983, T.G. Evans, M. Porter & R.D. Randall, 2000.
- \*103/1.20. *Geranium purpureum* (Little-Robin) (Llys Robert Bychan). 20m<sup>2</sup> colony among shrubs in childrens play area, Blaenavon, SO253085, R. Hewitt, 2000, NMW, det. T.G. Evans.
- \*106/1.2b. *Hedera helix* subsp. *hibernica* (Atlantic Ivy). E wall of churchyard, Penhow Castle, ST424908, T.G. Evans, 2000, NMW. +Climbing trees on bank of River Usk, Glebelands recreational ground, Newport, ST315902, T.G. Evans, 2000. 1<sup>st</sup> & 2<sup>nd</sup> record.
- +111/3.3. *Calystegia pulchra* (Hairy Bindweed) (Taglys Blewog). Hedge, between Ebbw Vale and Beaufort, SO170107, T.G. Evans, 2000, herb. T.G.E.
- +128/1.3. *Pinguicula vulgaris* (Common Butterwort) (Tafod y Gors). Two plants in very wet area just above stream on N side of Cwm Bwchel, SO279270, T.G. Evans & G. Harris, 2000.
- \*135/25.162. *Taraxacum macrolobum* (a dandelion). Grassy verge, W of A4042, Little Mill, SO317026, T.G. Evans, 2000, NMW, det. A.J. Richards.
- \*135/25.213. *Taraxacum tenebricans* (a dandelion). Damp meadow, S of Coed Abergwenllan, SO324065, T.G. Evans, 2000, NMW, det. A.J. Richards.
- \*135/25.akt. *Taraxacum akteum* (a dandelion). Unimproved meadow over Old Red Sandstone, Fernlea, SO475015, T.G. Evans, 2000, NMW, det. A.J. Richards. 1<sup>st</sup> Welsh record.
- +135/74.1. *Ambrosia artemisiifolia* (Ragweed) (Bratlys). Bird seed alien in cracks in patio paving stones, Orchard Cottage, SO502012, Mrs A. Booker, 2000, NMW, det. T.G. Evans.
- +†135/GULaby. *Guizotia abyssinica* (Niger) (Olewlys) (Niger). Bird seed alien in cracks in patio paving stones, Orchard Cottage, SO502012, Mrs A. Booker, 2000, det. T.G. Evans.
- +152/11.2. *Cyperus eragrostis* (Pale Galingale) (Ysnoden Fair Welw). Several plants in grassy hollow by small stream, E of St Mellons, ST239821, W. Mathias, 2000, NMW, det. G. Hutchinson & T.G. Evans.
- +154/1.1c. *Sparganium erectum* subsp. *neglectum* (Branched Bur-reed) (Cleddlys Canghennog). Large patch at waters edge by bank of River Usk, Llancayo, SO362025, T.G. Evans, 2000.

- 162/14.1. *Anacamptis pyramidalis* (Pyramidal Orchid) (Tegeirian Bera). Two plants in rough grassland by electricity sub-station, SE of Newhouse Industrial Estate, ST537905, Dr S. Jacks, 2000, conf. T.G. Evans.
- +162/23.3. *Ophrys apifera* (Bee Orchid) (Tegeirian y Gwenyn). 5-10 plants in rough field bank, just N of A48(M), Castleton, ST249837, H.V. Colls, 2000. +Over 120 plants in grassy area, NW of New Inn, ST295998, S. Williams, 2000. Over 5 plants in grassland adjacent to railway, Pont-y-felin, ST298985, S. Williams, 2000. Two plants in waste ground, E of Two Locks, Cwmbran, ST299945, S. Williams, 2000. + Over 100 plants in flower, disturbed grassland, SW of Newhouse Industrial Estate, ST537904, Drs T.A. & S. Jacks, 2000, conf. T.G. Evans.

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

- +11/1.1×2. *Polypodium × mantoniae* (*P. vulgare* × *P. interjectum*) (a hybrid polypody). In hedgebank near 'Broomwell', Llanccarfan, ST055702, J.P. Woodman & A.O. Chater, 2000.
- +11/1.3. *Polypodium cambricum* (Southern Polypody) (Llawredynen Gymreig). On *Fraxinus excelsior* in Nicholaston Woods, SS519880, B. Stewart, 2000, det. G. Hutchinson. 1<sup>st</sup> confirmed record for S. Gower coast.
- +†19/1.1. *Azolla filiculoides* (Water Fern) (Rhedynen y Dwr). In disused settling tank at Castell-du, Waungron, SN548021, A.S. Lewis, 2000.
- +28/17.4. *Thalictrum minus* (Lesser Meadow-rue) (Arianllys Bach). †On waste ground at Langdon Road, Swansea, SS678930, A.S. Lewis, 2000.
- +†35/2.1. *Ficus carica* (Fig) (Ffigysbren). Old retaining wall by The Strand, Swansea, SS645927; wall by River Afan, SS760897; both A.S. Lewis, 2000.
- +43/3.6. *Atriplex littoralis* (Grass-leaved Orache) (Llygwyn Arfor). One plant at foot of seaside road, Norton, Mumbles, SS614889, A.S. Lewis, 2000.
- +†47/1.3. *Persicaria wallichii* (Himalayan Knotweed) (Clymog yr Himalaya). Large stand at southern edge of Cefn Bryn Common, Nicholaston, SS518886, T. Davies & A.S. Lewis; with *Fallopia japonica* on streambank near Stonemill, SS551891, A.S. Lewis; both 2000.
- \*†47/1.cap. *Persicaria capitata* (Pink-headed Knotweed). On brick paving in Swansea Marina, SS661927, A.S. Lewis, 2000.
- +57/1.5. *Viola reichenbachiana* (Early Dog-violet) (Gwiolydd y Goedwig). Near St Marys Well Bay, ST16T, J.P. Woodman & A.O. Chater, 2000.
- +†73/1.3. *Crassula helmsii* (New Zealand Pigmyweed) (Corchwyn Seland Newydd). +Fairwood Corner Pond, SS567923, A.S. Lewis; +Tennant Canal, SS729967, B. Stewart; both 2000.
- \*†73/5.4. *Sedum spectabile* (Butterfly Stonecrop) (Briweg Iar Fach yr Haf). Gorse scrub by roadside, Pennard Burrows, SS551883, A.S. Lewis, 2000.
- +†75/32.34. *Cotoneaster bullatus* (Hollyberry Cotoneaster). In dense scrub on limestone rubble, Port Eynon Point, SS467847, A.S. Lewis, 2000.
- +75/35.8. *Crataegus laevigata* (Midland Hawthorn) (Draenen Ysbyddaden). †Two bushes in old species rich hedgerow near Lavernock, ST179683, J.P. Woodman & A.O. Chater, 2000.
- +77/15.3. *Lathyrus linifolius* (Bitter-vetch) (Pysen y Coed Gnapwreiddiog). Under bracken near Western Mill, Gower, SS460923, A.S. Lewis, 2000.
- +†77/17.4. *Melilotus indicus* (Small Melilot) (Gwydro Blodau Bach). Forest Farm, Cardiff, ST139805, J.P. Curtis, 2000.
- +†77/18.2c. *Medicago sativa* subsp. *sativa* (Lucerne) (Maglys Rhuddlas). Waste ground by Afon Lliw, Gorseinon, SS593980, A.S. Lewis, 2000.
- +†79/2.2. *Myriophyllum aquaticum* (Parrot's-feathers). +Duck pond at Hael Farm, Pennard, SS560877; +Fairwood Corner Pond, SS567923; both A.S. Lewis, 2000.
- +†84/5.1. *Fuchsia magellanica* (Fuchsia) (Fffwsia). Apparently self-sown on rough stony bank, near Bay View Farm, Overton, SS460855, A.S. Lewis, 2000.
- +94/1.1. *Linum bienne* (Pale Flax) (Lin Culddail). Disturbed dune grassland, Crymlyn Burrows, SS717932, A.S. Lewis, 2000.

- +†94/1.2. *Linum usitatissimum* (Flax) (Llin Amaeth). Disturbed sandy waste at Port Eynon, SS467852, A.S. Lewis, 2000.
- +†91/2.15. *Euphorbia cyparissias* (Cypress Spurge) (Fflamgoed Gyprysol). On stony waste ground near Hendrefoilan House, SS612936; on grassy roadside in Fforestfach, SS627962, both A.S. Lewis, 2000.
- +†107/41.2. *Heracleum mantegazzianum* (Giant Hogweed) (Efwr Enfawr). Large stand on east bank of Clyne River, SS598924, T. Davies & A.S. Lewis, 2000; 10+ plants on rough ground by car park, Hendrefoilan House, SS612936, A.S. Lewis, 2000.
- +†103/1.1×2. *Geranium* × *oxonianum* (*G. endressii* × *G. versicolor*) (Druce's Crane's-bill). Laneside, Overton, SS460855, A.S. Lewis, 2000.
- +†110/2.1. *Lycium barbarum* (Duke of Argyll's Teapant) (Ysbeinwydd Hardd). Roadside bank in Oxwich village, SS494868, A.S. Lewis, 2000.
- +118/18.4. *Clinopodium vulgare* (Wild Basil) (Brenhinllys Gwyllt). Roadside bank, Llanmorlais, SS526945, A.S. Lewis, 2000.
- +†127/1.1. *Acanthus mollis* (Bear's-breech) (Drainllys). Spreading on roadside bank in Oxwich village, SS494868, A.S. Lewis, 2000.
- +135/9.1. *Serratula tinctoria* (Saw-wort) (Dant y Pysgodyn). Lavernock Nature Reserve, ST1868, J.P. Woodman & A.O. Chater, 2000.
- +†135/58.lac×max. *Leucanthemum* × *superbum* (*L. lacustre* × *L. maximum*) (Shasta Daisy) (Llygad Ych Mawr). Grassy roadside bank, Fabian's Way, SS707931, A.S. Lewis, 2000.
- +135/30.1. *Filago vulgaris* (Common Cudweed) (Edafeddog). Large population, with some *F. minima*, on a gravel path near Bryn, SS822922, C.R. Hipkin, 2000.
- +†135/43.4. *Erigeron karvinskianus* (Mexican Fleabane) (Cedowydd y Clogwyn). On walls and pavements in Uplands, Swansea, SS639929; on steps by cycleway, SS615932, both A.S. Lewis, 2000.
- \*†135/45.avi×mos. *Olearia* × *haastii* (*O. avicennitifolia* × *O. moschata*) (Daisy-bush). Self-seeded in rock cutting near The Knab, Mumbles, SS628875, A.S. Lewis, 2000.
- +†135/62.1. *Senecio cineraria* (Silver Ragwort) (Llys y Lludw). Roadside in Dunvant, SS595939, T. Davies & A.S. Lewis, 2000.
- +†147/5.2b. *Arum italicum* subsp. *italicum* (Italian Lords-and-Ladies) (Pidyn y Gog Eidalaidd). Lane bank at Cockett, Swansea, SS628941, A.S. Lewis, 1998.
- +†148/2.4. *Lemna minuta* (Least Duckweed) (Corlinad). Peaty pools above Margam Park, SS828896; and above Afan Argoed, SS840934; both C.R. Hipkin, 2000.
- \*†149/1.2. *Tradescantia fluminensis* (Wandering-jew). Persistent in shrubbery by multistorey car-park in central Swansea, SS655926, A.S. Lewis, 2000.
- +152/16.3. *Carex divisa* (Divided Sedge) (Hesgen Ranedig). Penarth Moors, ST1772, D.K. Clements, 1998. Only extant record; recorded from this square by Eleanor Vachell in 1937.
- \*153/18.9. *Poa compressa* (Flattened Meadow-grass) (Gweunwelt Cywasg). Dry open grassland on Baglan Moor, SS748915, C.R. Hipkin, 2000. 1<sup>st</sup> native record.
- +†158/5.1. *Hemerocallis fulva* (Orange Day-lily). +Several clumps on rough ground, Clyne Common, SS599896; +large patches in fixed dunes far from road, Crymlyn Burrows, SS704928, both A.S. Lewis, 2000.
- \*†158/14.1×2. *Polygonatum* × *hybridum* (*P. multiflorum* × *P. odoratum*) (Garden Solomon's-seal). Patch at foot of limestone scarp in Cwm Ivy Wood, SS441938, long established, A.S. Lewis, 2000.
- +158/20.2×3. *Hyacinthoides non-scripta* × *H. hispanica* (a hybrid bluebell). †Llancarfan village, ST0570, J.P. Woodman & A.O. Chater, 2000.
- +†158/24.7 *Allium triquetrum* (Three-cornered Garlic) (Cenhinen Drichornel). Roadside, Cosmeston, ST16U, J.P. Woodman & A.O. Chater, 2000.
- \*†159/1.1. *Libertia formosa* (Chilean-iris). Self-sown on walls at Hendrefoilan House, Swansea, SS612936, A.S. Lewis, 2000.
- +162/7.1. *Spiranthes spiralis* (Autumn Lady's-tresses) (Caineirian Troellog). Very scarce in sheep-grazed shallow turf, Fairwood Common, SS574919, T.Davies, 1996 & A.S. Lewis, 2000. 1<sup>st</sup> post-1960 records from hectad.

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

- +10/2.1gam. *Trichomanes speciosum* (gametophyte) (Killarney Fern) (Rhedynen Wrychog). Recesses of sandstone outcrop in woodland, Coed y Fedw, Felin Fach, SO088340, R.G. Woods, 1999. 2<sup>nd</sup> record. +Shaded recess in riverside cliff, near Trericket Mill, Llyswen, SO111414, R.G. Woods, 2000. 3<sup>rd</sup> record.
- +†30/1.3. *Papaver somniferum* (Opium Poppy) (Cwsglys). Hedgebank of lane, near chapel, Maesmynis, SO017476, M. & C. Porter, 2000.
- +46/20.9×10. *Silene × hampeana* (*S. latifolia* × *S. dioica*) [Pink Campion]. Bank of lane, 3km E of Llanbedr, SO267206, M. & C. Porter, 2000.
- +†74/5.8×9. *Saxifraga × urbium* (*S. umbrosa* × *S. spathularis*) (Londonpride) (Balchder Llundain). Edge of forestry track, with tipped rubbish, Cwm Dyfnant, 2km S of Cefn-gorwydd, SN9043, R.G. Woods, 2000.
- \*75/8.38. *Rubus cambrensis* (a bramble). Rocky bank, edge of woodland, track beside Afon Giedd, N of Cwmgiedd, SN789124, BSBI field meeting, 2000.
- +75/8.221. *Rubus pascuorum* (a bramble). Woodland edge, Abercraf, SN820127, M. Porter, 2000.
- \*75/8.231. *Rubus echinatoides* (a bramble). Scrub on bank of Afon Tawe, Abercraf, SN813126, M. Porter, 2000.
- \*75/8.302. *Rubus adenoleucus* (a bramble). Woodland edge near car-park, Henrhyd Falls, Coelbren, SN854120, M. Porter, 1983, **herb. M.P.** +Woodland glades, Craig y Ddinas, SN918079, M. Porter, 1994, **herb. M.P.** 1<sup>st</sup> & 2<sup>nd</sup> records.
- +†75/19.15. *Alchemilla mollis* (a lady's-mantle). Road verge, Caehopkin, SN826122, M. & C. Porter, 1998. +Forestry plantation track, Cwm Tarell, 3km W of Libanus, SN977238, M. & C. Porter, 1999. +Road bank, Upper Chapel, SO007406, M. & C. Porter, 1999. +Side of track, entrance to farm lane near Garth, SN965490, M. & C. Porter, 2000. 2<sup>nd</sup> & subsequent records.
- \*75/28.12. *Sorbus eminens* [Wye Valley Whitebeam] (Cerrddinen Mynwy). Limestone cliff, Craig y Cilau NNR, SO188158, T.C.G. Rich, 2000, NMW.
- +77/19.23. *Trifolium arvense* (Hare's-foot Clover) (Meillionen Gedenog). Road verge, 1km W of Garth, SN940498, L.J. Smith, 1996.
- +†99/1.1. *Acer platanoides* (Norway Maple) (Masarnen Norwy). Lane hedge, 3km E of Llanbedr, SO266205, M. & C. Porter, 2000.
- \*118/5.4. *Lamium hybridum* (Cut-leaved Dead-nettle) (Marddanhadlen Rwygddail). †Swede field, 1.5km SE of Garth, SN963489, M. & C. Porter, 2000.
- +118/5.6. *Lamium amplexicaule* (Henbit Dead-nettle) (Marddanhadlen Goch Gron). †Base of wall in car-park, Brecon, SO046284, P. Sinnadurai, 2000. 2<sup>nd</sup> record.
- \*124/18.1. *Sibthorpia europaea* (Cornish Moneywort) (Ceinioglys). Marshy grassland, moorland NE of Bryn-mawr, Mynydd Llangatwg, SO205135, R.J. Williams, R. Jacques & S.P. Chambers, 2000, conf. A.O. Chater.
- †\*135/79.1 *Helianthus annuus* (Sunflower) (Blodau'r Haul). Waste ground around new car-park, Brecon, SO049284, M. & C. Porter, 2000.
- \*151/1.8. *Juncus ambiguus* (Frog Rush) (Brwynen y Broga). ?†Verge of B4560 (probably regularly salted in winter), 2km NW of Bryn-mawr (Mynydd Llangatwg), SO167136, S.P. Chambers, 2000, conf. T.A. Cope.
- +153/16.2. *Puccinellia distans* (Reflexed Saltmarsh-grass) (Gweunwellt Gwrthblygedigaidd). †Road verge, 2km SW of Gilwern, SO222125, G.S. Motley, 2000. 2<sup>nd</sup> record.
- 162/7.1. *Spiranthes spiralis* (Autumn Lady's-tresses) (Caineirian Troellog). Damp pasture, Llangattock, SO21, A. Lewis & J. Sansom, 2000. 3<sup>rd</sup> record.

## RADNOR, v.c. 43 (Comm. D.R. Humphreys)

- 124/20.5b. *Euphrasia arctica* subsp. *borealis* [Arctic Eyebright] (Effros â Gwallt Byr). Meadow, Hirnant, SN887700; Meadow, Troedrhwdraen, SN900673, both BSBI meeting, 2000, det. A.O. Chater.
- 124/20.19. *Euphrasia scottica* [Scottish Eyebright] (Effros Eiddil y Fignen Fynyddig). Wet meadow, Penyarreg Reservoir, SN900674, BSBI meeting, 2000, det. A.O. Chater.
- +135/27.2eur. *Pilosella officinarum* subsp. *euronota* (Mouse-ear-hawkweed) (Clust y Llygoden). Meadow, Hirnant, SN887700, BSBI meeting, 2000, det. A.O. Chater.
- +135/27.2off. *Pilosella officinarum* subsp. *officinarum* (Mouse-ear-hawkweed) (Clust y Llygoden). Meadow, Hirnant, SN887700, BSBI meeting, 2000, det. A.O. Chater.

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

- \*10/1.1. *Hymenophyllum tunbrigense* (Tunbridge Filmy-fern) (Rhedynach Teneuwe). With *H. wilsonii* & *Phegopteris connectilis* on low cliffs on bank of stream in wooded valley, 1km WNW of Gwernogle, SN520345, R.G. Woods, 2000.
- +10/1.2. *Hymenophyllum wilsonii* (Wilson's Filmy-fern) (Rhedynach Teneuwe Wilson). With *H. tunbrigense* & *Phegopteris connectilis* on low cliffs on bank of stream in wooded valley, 1km WNW of Gwernogle, SN520345, R.G. Woods, 2000.
- +17/3.5. *Dryopteris aemula* (Hay-scented Buckler-fern) (Marchredynen Aroglius). At least 8 plants in ravine woodland, tributary of Afon Gwendraeth, Glynhir, near Ponthenri, SN473103; +One mature and 2 young plants at base of sandstone cliff under oak/birch woodland, SE of Craig Fach, Troserch Wood, Llangennech, SN549042; both I.K. Morgan, 2000.
- †\*28/2.3. *Clematis tangutica* (Orange-peel Clematis). Escape from nearby garden, self sown seedlings nearby, Penyfan, Llanelli, SS518998, I.K. Morgan, 2000, NMW, det. G. Hutchinson.
- †\*30/1.3b. *Papaver somniferum* subsp. *setigerum* (Opium Poppy) (Cwsglys). Several plants in sandy grassland of golf course, Pembrey Burrows, SN431003, V. & A. Lewis, 2000.
- †35/2.1. *Ficus carica* (Fig) (Ffigysbren). Still surviving at base of wall, chapelyard, Christian Temple, Ammanford, SN631123, V. & A. Lewis, 2000.
- +43/1.6. *Chenopodium rubrum* (Red Goosefoot) (Troed yr Wydd Ruddog). Frequent on roadside dung-heap, N of Ynys Brechfa, Brechfa, SN537297, I.K. Morgan, 2000, NMW, det. G. Hutchinson.
- +†44/1.1. *Amaranthus retroflexus* (Common Amaranth) (Chwyn Moch). New embankment for cycleway, Morfa Bacas, SS547983, A. & V. Lewis, 1999. 2<sup>nd</sup> record.
- 46/20.12. *Silene conica* (Sand Catchfly) (Gludlys Rhesog). †Hundreds of plants on disturbed dunes on seaward side of cycleway (?hand-sown), Pembrey Burrows, SN426002, V. & A. Lewis, 2000.
- †46/25.7. *Dianthus armeria* (Deptford Pink) (Penigan y Porfeydd). 58 flowering plants and 24 seedling rosettes, Bryndinas, Pinged, SN434034, P. Wilson, 2000.
- †47/1.3. *Persicaria wallichii* (Himalayan Knotweed) (Clymog yr Himalaya). A large stand, with *Fallopia japonica*, on roadside verge, Pont Cwmmawr-du, Afon Clydach, Brechfa, SN534326, V. & A. Lewis, 2000.
- +†62/2.1. *Descurainia sophia* (Flixweed) (Berwr y Fam). Several plants at edge of cinder-surfaced trackway, Pembrey Saltings LNR, SN417002, I.K. Morgan, 2000, 1<sup>st</sup> record since Motley's of c.1850.
- +†73/1.3. *Crassula helmsii* (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Pond on flood plain of River Taf, in reach of highest tides, Llyn-y-gors, St Clears, SN272152, F. Lang, 2000, There is a danger that the plant could spread by flood or tidal waters.
- +77/14.12. *Vicia lathyroides* (Spring Vetch) (Ffugbysen y Gwanwyn). Shingle ridge, Penrhyngwyn, S of Llanelli, SS516973, V. & A. Lewis, 2000.
- +†77/24.1. *Spartium junceum* (Spanish Broom) (Banadl Sbaeneg). Several plants in sandy grassland on seaward edge of golf course, Pembrey Burrows, SN426004, V. & A. Lewis, 2000. 2<sup>nd</sup> record.



- +94/2.1. *Radiola linoides* (Allseed) (Gorhilig). Accreting sandy 'nose' at E end of Burrows, Pembrey Saltings LNR, SS433993, M.V. Prosser & H.L. Wallace, 1998. 1<sup>st</sup> recent record.
- †\*102/1.10. *Oxalis debilis* (Large-flowered Pink-sorrel) (Suran Oddfog). Disturbed coastal dunes, Pembrey Harbour, SN436002, V. & A. Lewis, 2000.
- 103/1.10. *Geranium columbinum* (Long-stalked Crane's-bill) (Pig yr Aran Hirgoesog). Disused sidings, Pantyffynon, SN625112, V. & A. Lewis, 2000.
- †\*106/2.2. *Aralia elata* (Japanese Angelica-tree). Suckering freely down steep, shaded, roadside bank, Nant-Gwilw, Llanfynydd, SN534268, V. & A. Lewis, 2000.
- +116/15.10. *Myosotis discolor* (Changing Forget-me-not) (Ysgorpiionllys Amryliw). Among plantings in car-park, Penclacwydd WWTC, SS532984, V. & A. Lewis, 2000.
- †118/17.1. *Satureja montana* (Winter Savory) (Safri Fach). Well established on garden wall and outbuildings, Bryn Avenue, Burry Port, SN453009, V. & A. Lewis, 2000.
- +124/8.2. *Chaenorhinum minus* (Small Toadflax) (Gingroen Bychan). †Possibly introduced with 'ballast' on waste ground, quarry floor, Carmel NNR, SN605164, V. & A. Lewis, 2000.
- +†131/3.1. *Symphoricarpos albus* (Snowberry) (Llus Eira). Fruiting seedling in mortar of stone wall adjoining chapelyard, Christian Temple, Ammanford, SN631123, V. & A. Lewis, 2000. 1<sup>st</sup> record of self-sown plant.
- +134/1.3. *Dipsacus pilosus* (Small Teasel) (Ffon y Bugail). Single plant in area with several introductions, woodland edge, Denham Avenue, Llanelli, SN496014, V. & A. Lewis, 2000.
- +135/28.29. *Hieracium placherophylloides* (a hawkweed). Small low cliffs, W end of Llyn-y-fan Fach, SN797216; +Small low cliffs, W end of Llyn-y-fan Fach, SN802215, both T.C.G. Rich & A.D. Tipper, 1999, NMW. 1<sup>st</sup> & 2<sup>nd</sup> record since Ley's of 1906.
- +†135/45.2. *Olearia macrodonta* (New Zealand Holly). Spontaneous seedlings in mortar of stone wall, Cwmbach Road, Llanelli, SN497014, V. & A. Lewis, 2000.
- +135/55.3. *Anthemis cotula* (Stinking Chamomile) (Camri'r Cwn). One plant in grazed horse pasture, S of Garn Farm, Mynydd-y-Cerrig, SN513142, I.K. Morgan, 1999. 2<sup>nd</sup> record.
- +135/59.1. *Matricaria recutita* (Scented Mayweed) (Amranwen). Re-seeded area behind dunes, Pembrey Harbour, SN435003, V. & A. Lewis, 2000.
- †\*135/80.1. *Galinsoga parviflora* (Gallant-soldier) (Galinsoga). Three plants on waste ground, N of main Machynys Pond, Llanelli, SS511983, R.N. Stringer & R.H. Davies, 1999.
- †\*153/43.1. *Lagurus ovatus* (Hare's-tail) (Cwt Ysgyfarnog). Casual in gravelly front yard at edge of road Station Road, Llangennech, SN562015, R.D. Pryce & K.A. Cottingham, 2000.
- †\*153/54.2rup. *Brachypodium pinnatum* subsp. *rupestre* (Tor-grass) (Breichweltl y Twr). Many plants along track Pembrey Burrows, SN398003, Q.O.N. Kay, 1997, NMW, det. T.C.G. Rich. 1<sup>st</sup> localised record of subsp. and 2<sup>nd</sup> record of species.
- †\*153/66.1. *Cynodon dactylon* (Bermuda-grass) (Gwair Bermuda). Grass verges in housing estate and childrens playground, Burry Port, SN451005, E.J. Clement & P. Stanley, 2000.
- +155/1.2. *Typha angustifolia* (Lesser Bulrush) (Cynffon y Gath Gulddail). †In flushed trackway on N side of re-vegetated tip, Pont-y-Clerc Tip, Penybanc, Ammanford, SM615114, I.K. Morgan, 2000, NMW, conf. G. Hutchinson. 1<sup>st</sup> recent record.
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## PEMBROKE, v.c. 45 (Comm. S.B. Evans)

- 43/3.10. *Atriplex portulacoides* (Sea-purslane) (Helys Can). Several large stands scattered in crevice zone of Old Red Sandstone sea-cliff, Rennet Slip, Marloes, SM760086, S.B. Evans; Large patch in crevice zone of Old Red Sandstone sea-cliff, Monk Haven, St Ishmaels, SM827064, S.B. & G.R. Evans; Nine patches in crevice zone of Old Red Sandstone sea-cliff, Presipe, Manorbier, SS069970, S.B. Evans; Two patches in crevice zone of Old Red Sandstone sea-cliff, Greenala Point, East Trewent, SS007964, S.B. Evans; all 2000. A normally saltmarsh species.
- +47/1.6. *Persicaria bistorta* (Common Bistort) (Llys y Neidr). Neutral grassland, St Peters Churchyard, Little Newcastle, SM979288, S.B. & A.E. Evans, 2000.
- +47/8.16. *Rumex rupestris* (Shore Dock) (Tafolen y Traeth). Four flowering plants in flushed strand zone of cobbles, sand & rock platform, SE end of Marloes sands, SM789068, S.B. & A.E. Evans; +Over 25 flowering plants on damp ledges of sea cliff, Watery Bay, Marloes, SM760978, S.B. Evans; both 2000. 1<sup>st</sup> & 2<sup>nd</sup> recent records.
- +48/1.9. *Limonium procerum* (a sea-lavender). Crevice zone of sea-cliff Rennet Slip, Marloes, SM759087, S.B. Evans, 2000.
- 48/1.9c. *Limonium procerum* subsp. *cambrense* (a sea-lavender). Limestone at head of small tidal inlet, 0.5km SW of West Williamston, SN031054, T.D. Dines, *et al.*, 1999.
- +51/1.8. *Hypericum undulatum* (Wavy St John's-wort) (Eurinllys Tonnog-ddail). Sea-cliff flush by waterfall, Monkstone Point, Saundersfoot, SN144033, S.B. & A.E. Evans, 2000.
- +57/1.12a. *Viola tricolor* subsp. *tricolor* (Wild Pansy) (Trilliwi). Coastal reversion field, Llanferran Farm, 3km N of St Davids, SM754288, S.B. & A.E. Evans, 2000. Only extant record.
- +61/1.2. *Populus tremula* (Aspen) (Aethnen). Large stand on edge of sea-cliff with hazel and holly, W end of Traeth Cell-Howell, 4km W of Moylegrove, SN079434, S.B. Evans, J. Webber & J. Hodges, 2000.
- +61/1.3a. *Populus nigra* subsp. *betulifolia* (Black Poplar) (Poplysen Ddu). Twin stemmed tree c.18m high on river bank, Western Cleddau near old paper mills, Haverfordwest, SM953177, S.B. Evans, 2000. 1<sup>st</sup> record as possible native.
- +62/33.1. *Diplotaxis tenuifolia* (Perennial Wall-rocket) (Cedw Meindwf y Tywod). †Abundant on disturbed ground, Pennar Park, Pembroke Dock, SM945027, S.B. Evans, 2000.
- +77/15.12. *Lathyrus nissolia* (Grass Vetchling) (Ytbysen Goch). †Eight stems counted on recently created grassy bank, Disused airfield, St Davids, SM793254, J. Etherington; †Several clumps in set-aside grassland, Trevigan Farm, Croesgoch, SM830293, S.B. Evans; both 2000.
- †\*84/4.5. *Oenothera stricta* (Fragrant Evening-primrose) (Melyn yr Hwyr Peraroglus). Two patches in sand dunes, Poppit Sands, SN153485, S.B. Evans; +Disturbed sandy ground, B4327 S of Crabhall Farm, SM808070, S.B. & A.E. Evans; both 2000. 1<sup>st</sup> & 2<sup>nd</sup> records.
- +91/2.10. *Euphorbia exigua* (Dwarf Spurge) (Fflamgoed Fach yr Yd). Five plants in open limestone turf in disused quarry, West Williamston NR, SN026060, S.B. & A.E. Evans, 2000.
- +103/1.9. *Geranium sanguineum* (Bloody Crane's-bill) (Pig yr Aran Rhuddgoch). †Several plants long naturalised on freely draining bank in chapelyard, Ffynnon Chapel, Llandewi Velfrey, SN136168, S.B. Evans, 2000. Not native in Pems.
- 107/17.1. *Crithmum maritimum* (Rock Samphire) (Corn Carw'r Môr). Rocks of sea-cliff under oak, Lawrenny Wood, SN009006, S.B. Evans, 2000.
- 125/2.2. *Orobancha rapum-genistae* (Greater Broomrape) (Gorfanc Mwyaf). Ten spikes in two clumps on Cytisus by footpath in young conifer plantation, NW of Holgan, Llanhaden, SN072181, J. George & M. Sutton, 2000. 1<sup>st</sup> recent record for hectad.
- \*146/1.3. *Zostera noltei* (Dwarf Eelgrass) (Corwellt y Gamlas). Inter-tidal mud flats, E side of Angle Bay, SM896023, S.B. Evans; Inter-tidal mud flats, Sandy Haven Pill, SM864087, S.B. Evans; Inter-tidal mud flats, S side of Pembroke River, SM948016, S.B. Evans; all 2000, det. F. Rumsey. 1<sup>st</sup> published records; all previous records of *Zostera angustifolia* are now believed to be *Z. noltei*.
- 151/1.11. *Juncus subnodulosus* (Blunt-flowered Rush) (Brwynen Flodbwl). Flush on Old Red Sandstone sea-cliff, East Pickard Bay, Angle, SM864010, S.B. Evans; +Sandy flush over rock

- platform, Freshwater East SS021981, S.B. Evans & M. King; both 2000. 1<sup>st</sup> records away from fens or dune slacks.
- +151/1.20. *Juncus maritimus* (Sea Rush) (Brwynen Arfor). Sandy flush over rock platform, Freshwater East SS021981, S.B. Evans & M. King, 2000.
- +152/8.1. *Isolepis cernua* (Slender Club-rush) (Clwbfrwynen Eiddil). Neutral flush in rushy pasture Upper Newton Farm, Wolf's Castle, SM944266, S. Bosanquet, 2000. An unusual inland record.
- †152/11.2. *Cyperus eragrostis* (Pale Galingale) (Ysnoden Fair Welw). Grass verge opposite high wall in vicarage, West Williamston, SN034058, T.D. Dines, *et al.*, 1999.
- 152/12.1. *Schoenus nigricans* (Black Bog-rush) (Corsfrwynen Ddu). Flush on sea-cliff, N of Great Furzenip, Castlemartin, SR887988, S.B. Evans, 2000. 1<sup>st</sup> sea-cliff record for S. Pems.
- +153/51.1. *Bromopsis ramosa* (Hairy-brome) (Pawrwellt Blewog). 2m high culms in scrub on both sides of coastal path, SE of Cwm-yr-Eglwys, SN019397, S.B. Evans, 2000.
- 153/52.5. *Anisantha madritensis* (Compact Brome) (Pawrwellt Dwysedig). †Disturbed ground, Texaco Refinery, SN019398, S.B. Evans & J. Hayes, 2000.
- †\*153/70.1. *Setaria viridis* (Green Bristle-grass) (Cibogwellt Gwyrddlas). Six flowering plants, producing seed, in maize field, Norton Farm, Manorbier, SS061989, S. Bosanquet, 2000.
- 162/3.4. *Epipactis helleborine* (Broad-leaved Helleborine) (Caldrist Llydanddail). Secondary woodland, Rhyd-y-beinw, Bridell, SN019399, C. Thomas, 2000.
- +162/14.1. *Anacamptis pyramidalis* (Pyramidal Orchid) (Tegeirian Bera). Over 60 spikes on disturbed ground, Texaco Refinery, SN019400, J. Hayes & S.B. Evans, 2000.
- +162/23.3. *Ophrys apifera* (Bee Orchid) (Tegeirian y Gwenyn). 670 spikes counted in open stony ground on Old Red Sandstone, Texaco Refinery, SM917031, J. Hayes, 2000.

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

- +3/1.1. *Isoetes lacustris* (Quillwort) (Gwair Merllyn). Abundant, and apparently replacing *I. echinospora*, around Llyn Berwyn, SN742570, A.O. Chater & R.D. Pryce, 2000.
- +4/1.8. *Equisetum palustre* (Marsh Horsetail) (Marchrawn y Gors). Mire by Afon Ystwyth at Henblas, Abermad, SN599763, S.P. Chambers, 2000.
- 5/2.1. *Botrychium lunaria* (Moonwort) (Lloerlys). One spike in unimproved pasture, Cae Ty-hen SSSI, Staylittie, SN641893, J. Turner, 2000. The first sighting here, in spite of many searches, since 1956.
- +17/3.1. *Dryopteris oreades* (Mountain Male-fern) (Marchredynen Fach y Mynydd). S facing cliff above Llyn Brianne 2.8km SSW of Soar y Mynydd, SN799508, A.O. Chater, 1995, NMW, conf. A.C. Jermy.
- +†19/1.1. *Azolla filiculoides* (Water Fern) (Rhedynen y Dwr). In pond in Forestry plantation, Coed Tynbedw, Llanafan, SN692712, A.O. Chater, 1999. +Abundant all down the flooded Afon Teifi and in backwaters and bays, at least from just above Newcastle Emlyn to just below Cenarth, SN314407, SN269416, etc., A.O. Chater, 2000.
- +27/1.1. *Ceratophyllum demersum* (Rigid Hornwort) (Cyrrddail). Ox-bow in pasture by Afon Teifi 450m W of Alltybwla, Cenarth, SN256422, A.O. Chater, 2000, NMW. 2<sup>nd</sup> record.
- +29/1.1. *Berberis vulgaris* (Barberry) (Eurdrain). Chapel graveyard hedge, Capel Dewi, SN449423, B. & G. Harrison, 2000. +Roadside hedge 300m WSW of Glanrheidol, Capel Bangor, SN661792, S.P. Chambers, 2000. Now known from seven sites, all in hedges.
- \*28/13.19×20. *Ranunculus × novae-forestae* (*R. omiophyllus* × *R. tripartitus*) (New Forest Crowfoot). Muddy runnels in marsh 200m SSE of Glasfryn, Felin-wynt, SN222502, A.O. Chater, 1999, NMW, conf. N.T.H. Holmes.
- 28/13.20. *Ranunculus tripartitus* (Three-lobed Crowfoot) (Crafanc Trillob). Muddy runnels in marsh 200m SSE of Glasfryn, Felin-wynt, SN222502, A.O. Chater, 1999, conf. N.T.H. Holmes. 2<sup>nd</sup> record, and 1<sup>st</sup> since 1941.
- 43/3.4. *Atriplex longipes* (Long-stalked Orache) (Llygwyn Hirgoes). Among *Festuca rubra* at top of salt marsh by Cletwr railway bridge, Tre'r-ddol, SN645942, A.O. Chater, 2000.

- +46/10.8. *Sagina maritima* (Sea Pearlwort) (Corwlyddyn Arfor). By grit and salt bin in A44(T) lay-by, Nantyrarian, SN712810, S.P. Chambers, 2000.
- +46/17.3. *Spergularia marina* (Lesser Sea-spurrey) (Troellys Bach). Developing salt marsh in Tan-y-bwlch fields, Aberystwyth, SN580796, A.O. Chater, 2000. Another new species recently arrived in this 5ha salt marsh.
- 47/8.1. *Rumex acetosella* subsp. *acetosella* var. *tenuifolius* (Sheep's Sorrel) (Suran yr Yd). Dry, sandy slope near SE corner of Penyergyd SSSI, Gwbert, SN168488, A.O. Chater, 2000, NMW, conf. J.R. Akeroyd. 1<sup>st</sup> record of this variety for Cards.
- +47/8.10. *Rumex hydrolapathum* (Water Dock) (Tafol y Dwr). Teifi bank at Aberbachnog, Bangor Teifi, SN375401, A.O. Chater, 2000. A recent arrival here, and perhaps further evidence of a downstream spread of this species.
- 47/8.13c. *Rumex crispus* subsp. *uliginosus* (Curled Dock) (Tafol Crych). Stony mud in Teifi estuary by Rosehill Marsh, SN189453, A.O. Chater, 1999, NMW, conf. J.R. Akeroyd. First recorded here by Augustin Ley in 1885.
- +57/1.1. *Viola odorata* (Sweet Violet) (Fioled Bêr). †W bank of Afon Aeron, 50m N of Lovers' Bridge, Aberaeron, SN457625, S.P. Chambers, 2000.
- \*61/2.5×11b. *Salix* × *pontederiana* (*S. purpurea* × *S. cinerea* subsp. *oleifolia*) (a hybrid willow). Five bushes on Teifi bank 200m S of Llanybydder church, SN518437. T.C.G. Rich & A.O. Chater, 1993, NMW, conf. R.D. Meikle on material re-collected in 2000.
- +62/23.5. *Cochlearia danica* (Danish Scurvygrass) (Llwylys Denmarc). By grit and salt bin in A44(T) lay-by, Nantyrarian, SN712810, S.P. Chambers, 2000.
- +62/42.1b. *Raphanus raphanistrum* subsp. *maritimus* (Sea Radish) (Rhuddygl Glan y Môr). Sandy seaward edge of pasture, Tan-y-bwlch fields, Aberystwyth, SN580799, A.O. Chater, 2000. With *Polygonum oxyspermum*, *Glaucium flavum*, *Malva neglecta*, etc.
- +69/4.3. *Lysimachia vulgaris* (Yellow Loosestrife) (Trewynyn). Between *Phragmites* and *Molinia* communities N of Rosehill Marsh, Teifi estuary, SN187456, S.B. Evans, 1974.
- 69/6.3. *Anagallis minima* (Chaffweed) (Corfrilys). Along 30m of coast footpath 300m N of Coybal farm, New Quay, SN371591, J.P. Woodman & A.O. Chater, 2000. Known from two sites near here by Salter before 1935.
- \*†72/2.5. *Ribes odoratum* (Buffalo Currant). Roadside hedge 150m S of Penllwyn crossroads, Capel Bangor, SN652801, S.P. Chambers, 2000, conf. B. Wurzell.
- +†*Crassula helmsii* (New Zealand Pigmyweed) (Corchwyn Seland Newydd). In small quantity in peaty lagoon dug c.1991, 600m S of Maesllyn, Cors Caron NNR, SN688625, A.O. Chater, P. Culyer & A.D. Hale, 2000.
- †74/5.2. *Saxifraga cymbalaria* (Celandine Saxifrage) (Tormaen Deilaren). Wall of bridge 200m NW of Alltyrodyn, Capel Dewi, SN448443, G. Harrison, 1992-94. First seen here c.1921 by M.L. Lewes, ABS.
- \*75/8.140. *Rubus rossensis* (a bramble). Roadside hedgebank 100m N of Henllan Station, SN357408, D.E. Allen, A.O. Chater & R.D. Pryce, 1999, BM, conf. A. Newton.
- \*75/8.216. *Rubus hibernicus* (a bramble). Roadside cliff 250m W of Llwyndafydd, SN368555, D.E. Allen & A.O. Chater, 1999, BM, conf. A. Newton.
- \*75/8.262. *Rubus angusticuspis* (a bramble). Top of wood by road, Allt y Fedw, Cwm Cou, SN310425, D.E. Allen & A.O. Chater, 1999, BM, conf. A. Newton.
- \*75/8.301. *Rubus scaber* (a bramble). Felled woodland, Coed Newydd, Coedmor, SN196443, D.E. Allen & A.O. Chater, 1999, BM, conf. A. Newton.
- \*75/8.ari. *Rubus ariconiensis* A. Newton & M. Porter (a bramble). Felled woodland, Coed Newydd, Coedmor, SN196443, D.E. Allen & A.O. Chater, 1999, BM, conf. M. Porter.
- +75/21.4×12. *Rosa* × *verticillacantha* (*R. arvensis* × *R. canina*) (a hybrid rose). Roadside hedgebank 100m NW of Felin-fach, Penparc, SN201493. R. Maskew & A.O. Chater, 2000. 2<sup>nd</sup> record.
- \*75/21.12×14. *Rosa* × *dumetorum* (*R. canina* × *R. obtusifolia*) (a hybrid rose). Field hedge 150m S of Felin-ganol, Penparc, SN198486, R. Maskew & A.O. Chater, 2000.
- \*75/21.12×19. *Rosa* × *toddiae* (*R. canina* × *R. micrantha*) (a hybrid rose). Roadside hedgebank 200m NNE of Llwyn-llwyd, Penparc, SN201489, R. Maskew & A.O. Chater, 2000.

- +†75/30. 1. *Amelanchier lamarckii* (Juneberry) (Hefinwydden). Roadside hedge 200m N of Penllwyn crossroads, Capel Bangor, SN652805, S.P. Chambers, 2000.
- +77/19.13. *Trifolium micranthum* (Slender Trefoil) (Meillionen Felen Eiddil). In remarkable abundance on clayey margin of reservoir in former clay pit, 2km SSE of Nant-y-maen, SN771565, R.G. Woods, 2000.
- +77/19.25. *Trifolium subterraneum* (Subterranean Clover) (Meillionen Wen Ymgudd). Gully by sea cliffs, 1.3km WSW of Morfa-mawr, Llanon, SN492649, T.A. Lovering, 2000.
- \*†80/1.1. *Gunnera tinctoria* (Giant-rhubarb) (Rheonillys Mawr). Naturalised by pond in pasture, Felin Geri, Cwm Cou, SN300421, A.O. Chater & L. Gander, 2000.
- \*84/1.2×8. *Epilobium parviflorum* × *E. ciliatum* (a hybrid willowherb). By stream 300m W of Maesymeillion, Penparc, SN195483, S.P. Chambers, 1999, **herb. S.P.C.**, conf. T.D. Pennington. Arable field S of Afon Clarach, IGER, Penrhyn-coch, SN623836, S.P. Chambers, 2000. 1<sup>st</sup> & 2<sup>nd</sup> records.
- \*84/1.3×7. *Epilobium* × *mutabile* (*E. montanum* × *E. roseum*) (a hybrid willowherb). Pavement, Great Darkgate Street, Aberystwyth, SN563817, S.P. Chambers, 1999, **herb. S.P.C.**, conf. T.D. Pennington.
- +185/1.3. *Cornus alba* (White Dogwood). Suckering along hedge 100m N of Rhydowen crossroads, SN443453, A.O. Chater, 2000, **NMW**. First noticed here in 1992, when it was erroneously recorded as *C. sericea*. Probably the only record for Cards, as the colony at Llanfarian, SN590774, known by A.O.C. from 1959 to 1988 and recorded as *C. alba*, but now gone, was almost certainly *C. sericea*.
- 91/2.12. *Euphorbia portlandica* (Portland Spurge) (Llaethlys Portland). Steep, shaley ridges on cliff slope above sea, NE of Traeth Penbryn, SN296528, M.D. Sutton & A.O. Chater, 2000.
- +†103/1.1. *Geranium endressii* (French Crane's-bill) (Troedrudd Ffrengig). Big patch on heathy verge of A44(T), Nantyrarian, SN712810, S.P. Chambers, 2000.
- 103/2.1. *Erodium maritimum* (Sea Stork's-bill) (Pig y Crêyr Arfor). Spreading as a pavement weed in Borth village, SN607898, S.P. Chambers & C.M. Foster Brown, 2000.
- \*†110/8.3. *Solanum physalifolium* (Green Nightshade). Casual, one plant on waste ground in boatbuilding yard, Ynys-las, SN616932, W. McCarthy & BSBI Field Meeting, 2000.
- \*†118/1.2. *Stachys byzantina* (Lambsear) (Clust yr Oen). Abundantly naturalised in pasture S of Wallog garden, SN590856, A.O. Chater, 2000.
- +118/5.4. *Lamium hybridum* (Cut-leaved Dead-nettle) (Marddanhadlen Rwygddail). In vast abundance and in places co-dominant with *L. amplexicaule* in IGER arable fields W of A4159, Gogerddan, SN625835, S.P. Chambers, 2000. The first record for the northern half of the county.
- +121/1.1. *Plantago coronopus* (Buck's-horn Plantain) (Llwynhidydd Corn Carw). By grit and salt bin in A44(T) lay-by, Nantyrarian, SN712810, S.P. Chambers, 2000.
- \*†131/2.4. *Viburnum rhytidophyllum* (Wrinkled Viburnum) (Gwifwrnwydden Grychog). Suckering in mixed estate woodland, Old Cilgwyn, Adpar, SN315414, A.O. Chater, 1998.
- \*135/25.9. *Taraxacum dunense* (a dandelion). Sandy pasture, Glan-gors, Ynylas, SN608920, A.O. Chater, 1996, **NMW**, det. A.J. Richards.
- +†135/42.1. *Erigeron glaucus* (Seaside Daisy). Sandy sea shingle 100m SW of Borth Station, SN608900, A.O. Chater, 2000. 2<sup>nd</sup> record.
- +†138/4.2. *Elodea nuttallii* (Nuttall's Waterweed) (Alaw Nuttall). Abundant in Nanteos Lake, SN615784, A.O. Chater, 2000. Has apparently replaced *E. canadensis* here in the last five years.
- +†138/6.1. *Lagarosiphon major* (Curly Waterweed) (Pib-flodyn Crych). Abundant in pond in copse 400m S of Darren-fawr, Pontsian, SN417488, A.O. Chater & D. Glyn Jones, 2000.
- +143/1.1. *Ruppia maritima* (Beaked Tasselweed) (Tusw Dyffrllys). Filling brackish ditch along N side of B4353 at Glanwern, Borth, SN610889, C.M. Foster Brown & T. Lovering, 2000.
- +†148/2.4. *Lemna minuta* (Least Duckweed) (Corlinad). Abundant in pools and ditches in Black Covert, Trawsgoed, SN668726, A.O. Chater & J.P. Woodman, 2000.
- +151/1.8. *Juncus ambiguus* (Frog Rush) (Brwynen y Broga). Developing salt marsh hollows in pasture behind sea beach, 1km SSW of mouth of Afon Wyre, Llanrhystud, SN523687,

- A.O. Chater, 2000. One of several sites where new salt marshes with this and other species are developing along the Cards. coast.
- 151/1.11. *Juncus subnodulosus* (Blunt-flowered Rush) (Brwynen Flodbwyl): Colony 15m in diameter in marshy pasture 700m SSE of Aberleri, Aberleri Fields NNR, Ynyslas, SN613914, A.O. Chater, J.P. Lyons & A.C. Williamson, 2000. Previously known just outside the NNR on Morfa Borth to the south.
- +151/2.1. *Luzula forsteri* (Southern Wood-rush) (Coedfrwynen Gulddail). Roadside hedgebank by Y Ferwig chapel, SN185496, A.O. Chater, 2000, NMW. 2<sup>nd</sup> record, and the 1<sup>st</sup> since 1803 when J.E. Smith recorded it at Hafod at the other end of the county.
- †152/11.2. *Cyperus eragrostis* (Pale Galingale) (Ysnoden Fair Welw). Pathside near Biochemistry Dept., UCW campus, Aberystwyth, SN595818, S.P. Chambers, 2000. 2<sup>nd</sup> record.
- \* 152/16.69. *Carex bigelowii* (Stiff Sedge) (Hesgen Ddu). NNE facing slope 400m SSW of Craig y March, Pumlumon, SN803877, S.P. Chambers, 2000, NMW. Two small patches, flowering well; the southernmost site in Britain.
- +†153/12.7d. *Festuca rubra* subsp. *commutata* (Chewing's Fescue) (Peisgwelwlt Culddail). Margin of strawberry field, Penlan-las, Rhydyfelin, SN607772, S.P. Chambers, 2000. 2<sup>nd</sup> record.
- 153/18.2. *Poa annua* var. *reptans* Hausskn. (Annual Meadow-grass) (Gweunwellt Unflwydd). †Dominant on the greens, Aberystwyth golf course, SN593827, A.O. Chater, 1998, conf. T.A. Cope. Borth golf course by contrast has the greens mostly sown with a dwarf form of *Agrostis capillaris*.
- 153/18.6. *Poa angustifolia* (Narrow-leaved Meadow-grass) (Gweunwellt Culddail). Site of old railway station, Ynys-las, SN618931, A.O. Chater, 2000, NMW. Still present at Capel Bangor station, SN647798, where recorded by the ITE/NCC Railway Survey in 1979, but apparently long gone from Glandyfi station.
- \*153/33.1×2. *Holcus × hybridus* (*H. lanatus* × *H. mollis*) (a hybrid soft-grass). Pasture 200m SSE of Rheidol Falls, SN710786, A.O. Chater, 2000, NMW. The rhizomatous form of *H. lanatus*, var. *soboliferus*, grows nearby.
- +153/39.1×4. *Agrostis × murbeckii* (*A. capillaris* × *A. stolonifera*) (a hybrid bent). Rank grass at edge of reseeded slope, UCW Art Dept. grounds, Buarth Mawr, Aberystwyth, SN587815, A.O. Chater, 2000.
- \*†153/39.3. *Agrostis castellana* (Highland Bent). Grassy slope reconstructed and reseeded in 1993, NE of Glanrafon Bridge, Llanbadarn Fawr, SN610805, A.O. Chater, 2000, NMW. The true plant, with strongly pubescent lemmas in the terminal spikelets.
- +153/50.2. *Bromus commutatus* (Meadow Brome) (Pawrwellt Mwyaf y Maes). Weed at edge of barley field, Llwynysgaw, Felin-wynt, SN219515, A.O. Chater, 2000, NMW, det. L. Spalton, as var. *pubens*.
- +† 153/52.1. *Anisantha diandra* (Great Brome) (Pawrwellt Mawr). Large colony on waste ground by road 2.5km E of Synod Inn, SN431542, A.O. Chater, 2000, NMW. 2<sup>nd</sup> record.
- +153/57.1. *Leymus arenarius* (Lyme-grass) (Amdowelwlt). Colony 7×2m with 42 shoots among *Ammophila* on sand at top of beach, 150m N of stream, Traeth Penbryn, SN293525, T. Lovering, 2000. Presumably a recent arrival here.
- \*†153/67.1×3. *Spartina × townsendii* (*S. maritima* × *S. alterniflora*) (Townsend's Cord-grass) (Cordwellt Townsend). Upper saltmarsh, Dyfi estuary, 600m E of mouth of Afon Leri, SN623936, P.M. Benoit & BSBI Field Meeting, 2000, NMW. Mentioned as occurring in the Dyfi estuary in several publications by E.H. Chater, but without definite localities.
- \*†159/SCH.coc. *Schizostylis coccinea* (Kaffir Lily). Naturalised in scrubby waste ground 200m WNW of Aber-porth church, SN254512, A.O. Chater, 2000, NMW, LTR. About 60 plants scattered over two areas c.10×8m & 8×4m, not planted; surprisingly not recorded as naturalised before in Britain.
- 162/13.1. *Platanthera chlorantha* (Greater Butterfly-orchid) (Tegeirian Llydanwyrdd). Unimproved pasture, Caeau Transmelyn, S of Pontrhydfendigaid, SN7265, S. Smith, 2000.
- +162/18.3c. *Dactylorhiza incarnata* subsp. *pulchella* (Early Marsh-orchid) (Tegeirian Rhuddgoch). Six plants in swampy mire at SW end of Llyn Eiddwen, SN607672, A.O. Chater, S.P. Chambers & BSBI Field Meeting, 2000.

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

- †\*107/1.ran. *Hydrocotyle ranunculoides* (Floating Pennywort). Off-line reserve pool constructed by British Waterways, Wern Clay-pits, Arddlin, SJ252141, C.D. Preston, 2000. Pool drained and plants removed.
- \*135/6.3. *Cirsium dissectum* (Meadow Thistle) (Ysgallen Gorswaun). Wet meadows, Dolfor, SO08, C.A. Small, 2000.
- \*137/4.2. *Alisma lanceolatum* (Narrow-leaved Water-plantain) (Dwr-lyriad Culddail). †+Wet fields below Montgomery Canal, Vyrnwy, British Waterways Reserve, SJ253198, S. Whild & R.V. Lansdown, 1997. +Montgomery Canal, SJ225069, R.V. Lansdown, 1998. 1<sup>st</sup> records; possibly introduced into the Vyrnwy Reserve from the Montgomery Canal.

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

- 5/1.2. *Ophioglossum azoricum* (Small Adder's-tongue) (Tafod y Neidr Bach). N of lighthouse, Bardsey Island SH1120; Just NW of Plas Withy, Bardsey Island, SH1121; both I.R. Bonner, 2000, det. F. Rumsey.
- 11/1.1×2. *Polypodium × mantoniae* (*P. vulgare* × *P. interjectum*) (a hybrid polypody). Edge of woodland, Parc Dudley, Waunfawr, SH5268, R. Milets, 2000, det. N. Brown.
- 11/1.3. *Polypodium cambricum* (Southern Polypody) (Llawredynen Gymreig). Calcareous rock outcrop, E side of Mynydd Enlli, Bardsey Island, SH124233, I.R. Bonner, 2000, **herb. I.R.B.**, det. R.H. Roberts.
- +†20A/CRY.jap. *Cryptomeria japonica* (Japanese Red-cedar) (Cedrwydden Goch Japan). Self sown seedlings in several places, Great Orme, Llandudno, SH78, W. McCarthy, 2000.
- \*28/13.20. *Ranunculus tripartitus* (Three-lobed Crowfoot) (Crafanc Trillob). 1 plant on bare peat in trampled heath, c.5m S of track at edge of small pool, Mynydd Cilan, Porth Ceriad SSSI, SH292245, R.A. Jones, 2000.
- †44/1.1. *Amaranthus retroflexus* (Common Amaranth) (Chwyn Moch). Paving cracks in car-park, Llanfairfechan, SH6775, W. McCarthy, 2000.
- †46/24.3. *Petrorhagia saxifraga* (Tunicflower) (Penigan Tormaen). Several plants on grass verge, Ty'n-y-coed, Great Orme, Llandudno, SH773827, W. McCarthy, 1999.
- 47/8.13×19. *Rumex × pratensis* (*R. crispus* × *R. obtusifolius*) (Meadow Dock) (Tafol y Maes). Sewage works, West shore, Llandudno, SH7781, W. McCarthy & M. Stead, 2000.
- 47/8.15. *Rumex sanguineus* (Wood Dock) (Tafol y Coed). Scrub and rocky outcrop, near Porth Dinlaen, SH2640, M. Atkinson, 1997.
- \*61/2.4×9. *Salix × mollissima* (*S. triandra* × *S. viminalis*) (Sharp-stipuled Willow). Sand dunes, West shore, Llandudno, SH7781, W. McCarthy, 2000, det. R.D. Meikle.
- 61/2.9×10. *Salix × sericans* (*S. viminalis* × *S. caprea*) (Broad-leaved Osier). Plas Withy, Bardsey Island, SH1121, I.R. Bonner & J.M. Brummitt, 2000, det. R.D. Meikle.
- 61/2.10×11. *Salix × reichardtii* (*S. caprea* × *S. cinerea*) (a hybrid willow). Plas Withy, Bardsey Island, SH1121, I.R. Bonner & J.M. Brummitt, 2000, det. R.D. Meikle.
- 61/2.11×12. *Salix × multinervis* (*S. cinerea* × *S. aurita*) (a hybrid willow). Cristin Withy, Bardsey Island, SH1121, I.R. Bonner & J.M. Brummitt, 2000, det. R.D. Meikle.
- †62/11.4. *Barbarea verna* (American Winter-cress) (Berwr Tir). Carreg Bach, Bardsey Island, SH1122, I.R. Bonner & J.M. Brummitt, 2000.
- 62/12.1×2. *Rorippa × sterilis* (*R. nasturtium-aquaticum* × *R. microphylla*) (Hybrid Water-cress) (Berwr Dwr Croesryw). Ditch, W of Carreg Fawr, Bardsey Island, SH1121, I.R. Bonner & J.M. Brummitt, 2000.
- 65/12.8. *Erica vagans* (Cornish Heath) (Grug Cernyw). †One plant (garden escape) on roadside, Great Orme, Llandudno, SH7682, W. McCarthy & M. Stead, 2000.
- 69/4.2. *Lysimachia nummularia* (Creeping-Jenny) (Siani Luszg). †Edge of woodland, Parc Dudley, Waunfawr, SH5258, R. Milets, 2000.

- 75/9.14×15. *Potentilla* × *mixta* (*P. erecta* × *P. reptans* & *P. anglica* × *P. reptans*) (Hybrid Cinquefoil). Cloddia, W of Carreg Bach, Bardsey Island, SH1122, I.R. Bonner & J.M. Brummitt, 2000.
- 75/20.1. *Aphanes arvensis* (Parsley-piert) (Troed y Dryw). Grassland, Parc Dudley, Waunfawr, SH5258, R. Milets, 2000.
- 75/21.12×13b. *Rosa* × *dumalis* (*R. canina* × *R. caesia* subsp. *vosagiaca*) (a hybrid rose). Bank, N end of Plas Withy, Bardsey Island, SH1121, I.R. Bonner & J.M. Brummitt, 2000, det. A.L. Primavesi.
- \*77/19.3. *Trifolium occidentale* (Western Clover) (Meillionen y Gorllewin). Short turf, near Ty Pellaf, Bardsey Island, SH122212; Short turf on S facing bank, Porth Solfach, Bardsey Island, SH115213; both I.R. Bonner & J.M. Brummitt, 2000, **herb. I.R.B.**, conf. I.R.B. & C.D. Preston. 2<sup>nd</sup> record.
- †\*91/2.17b. *Euphorbia characias* subsp. *wulfenii* (Mediterranean Spurge). Wall, Great Orme, Llandudno, SH7782 G.H. Battershall, 2000.
- +†107/41.2. *Heracleum mantegazzianum* (Giant Hogweed) (Efwr Enfawr). Three plants on side of A55, near Penmaenmawr, SH7176 W. McCarthy, 2000.
- †114/1.1. *Polemonium caeruleum* (Jacob's-ladder) (Ysgol Jacob). Garden escape on roadside, Great Orme, Llandudno, SH7683 W. McCarthy, 2000.
- †\*115/1.1. *Phacelia tanacetifolia* (Phacelia). Base of tree, High Street car-park, Bangor, SH5771 A. Mundell, 2000.
- †\*124/8.1. *Chaenorhinum origanifolium* (Malling Toadflax). Base of wall, Great Orme, Llandudno, SH7782, W. McCarthy, 2000.
- 124/16.1b. *Veronica serpyllifolia* subsp. *humifusa* (Thyme-leaved Speedwell) (Rhwyddlwyn Gruwddail). Base of rock, E face of Carnedd Llewelyn, SH6864, G.H. Battershall, 2000. 1<sup>st</sup> recent record.
- +†127/1.1. *Acanthus mollis* (Bear's-breech) (Drainllys). Garden escape on riverbank, Llanfairfechan, SH6974, W. McCarthy, 2000.
- +135/25.15. *Taraxacum lacistophyllum* (a dandelion). Bank, below School Building, Bardsey Island, SH1121; Bank, SE side of Mynydd Enlli, SH1221; both I.R. Bonner & J.M. Brummitt, 2000, det. M. Porter.
- +135/25.16. *Taraxacum oxoniense* (a dandelion). Short turf, by coast E of lighthouse, Bardsey Island, SH1120; Field bank, S of Ty Pellaf, Bardsey Island, SH1221; both I.R. Bonner & J.M. Brummitt, 2000, det. M. Porter.
- +135/25.72. *Taraxacum nordstedtii* (a dandelion). Rock ledge above Ogof Caseg, Bardsey Island, SH1221, I.R. Bonner & J.M. Brummitt, 2000, det. M. Porter.
- +135/25.87. *Taraxacum hamatiforme* (a dandelion). Field bank, S of Ty Pellaf, Bardsey Island, SH1121, I.R. Bonner & J.M. Brummitt, 2000, det. M. Porter.
- +135/25.131. *Taraxacum ekmannii* (a dandelion). Garden, Carreg Fawr, Bardsey Island, SH1121, I.R. Bonner & J.M. Brummitt, 2000, det. M. Porter. 1<sup>st</sup> recent record.
- 135/62.1×10. *Senecio* × *albescens* (*S. cineraria* × *S. jacobaea*) (a hybrid ragwort). †Side of railway line, Deganwy, SH7878, W. McCarthy & M. Stead, 2000.
- †\*135/62.3. *Senecio inaequidens* (Narrow-leaved Ragwort). Hundreds of plants on waste ground, Industrial Estate, Llandudno Junction, SH798780, W. McCarthy, 2000.
- 143/1.1. *Ruppia maritima* (Beaked Tasselweed) (Tusw Dyfrllys). Brackish ditch, Caerhun, near Conwy, SH7770, W. McCarthy & M. Stead, 2000.
- 151/1.8. *Juncus ambiguus* (Frog Rush) (Brwynen y Broga). In seepage, just above HWM, W coast, Bardsey Island, SH1122, I.R. Bonner & J.M. Brummitt, 2000.
- 153/12.1. *Festuca pratensis* (Meadow Fescue) (Peisgwellt y Waun). Bardsey Island, SH12 I.R. Bonner & J.M. Brummitt, 2000. 1<sup>st</sup> recent record.
- 153/12.6. *Festuca arenaria* (Rush-leaved Fescue) (Peisgwellt Brwynddail). Sand dunes, West shore, Llandudno, SH7781, W. McCarthy, 2000, det. T.A. Cope.
- 153/24.2×4. *Glyceria* × *pedicellata* (*G. fluitans* × *G. notata*) (Hybrid Sweet-grass) (Perwellt Croesryw). Marshy grassland, Parc Dudley, Waunfawr, SH5258, R. Milets, 2000.
- 153/26.1. *Helictotrichon pubescens* (Downy Oat-grass) (Ceirchwelt Blewog). Rocky cliff slope, Trwyn Falfarach, near Rhiw, W Llyn SH2125, M. Atkinson, 1997.



- 153/51.3. *Bromopsis erecta* (Upright Brome) (Pawrwellt Unionsyth). Several places on limestone grassland, Great Orme, Llandudno, SH78, W. McCarthy, 2000, 1<sup>st</sup> recent record.
- †153/70.1. *Setaria viridis* (Green Bristle-grass) (Cibogwellt Gwyrddlas). Paving cracks in car-park, Llanfairfechan, SH6775, W. McCarthy, 2000.
- 162/23.3. *Ophrys apifera* (Bee Orchid) (Tegeirian y Gwenyn). Sand dunes, West shore, Llandudno, SH7780, W. McCarthy & M. Stead, 2000.

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

- +5/1.1. *Ophioglossum vulgatum* (Adder's-tongue) (Tafod y Neidr). Grass under bracken, Minera, SJ265517, J.A. Green, 2000.
- 17/1.1×2. *Polystichum* × *bicknellii* (*P. setiferum* × *P. aculeatum*) (a hybrid shield-fern). Woodland, Plas Power Country Park, SJ292499, BSBI group, 2000, 2<sup>nd</sup> record.
- †\*29/1.4. *Berberis wilsoniae* (Mrs Wilson's Barberry). Pathside, Rhyd y Foel, SH914772, WFS group, 2000.
- +43/7.2. *Suaeda maritima* (Annual Sea-blite) (Helys Unflwydd). Saltmarsh, Glan Conwy, SH802718, J.A. Green, 2000.
- +46/10.1. *Sagina nodosa* (Knotted Pearlwort) (Corwlyddyn Clymog). Shingle beach, Pensarn, SH940785, M. Godfrey, 2000.
- +46/20.11. *Silene gallica* (Small-flowered Catchfly) (Gludlys Amryliw). Railway bank, Abergele, SH947788, M. Stead, 2000, 2<sup>nd</sup> record.
- +46/25.5. *Dianthus deltoides* (Maiden Pink) (Penigan Gwryfaidd). Grassland on lead mine spoil tips, New Brighton, SJ273509, P. Thomas, 2000, det. J.A. Green, 2<sup>nd</sup> recent record.
- +61/2.1. *Salix pentandra* (Bay Willow) (Helygen Beraroglaidd). By canal, Trefor, SJ272424, J.A. Green, 2000.
- +68/28.1. *Thlaspi arvense* (Field Penny-cress) (Codywasg). Weedy field, Llandulas, SH918783, J.A. Green, 2000.
- †\*69/3.1. *Cyclamen hederifolium* (Cyclamen) (Bara'r Hwch). Grassy roadside, Trefnant, SJ056711, W. Furse, 2000.
- +†73/1.3 *Crassula helmsii* (New Zealand Pigmyweed) (Corchwyn Seland Newydd). Man-made pond, Marford, SJ357564, J.A. Green, 2000.
- +75/21.19. *Rosa micrantha* (Small-flowered Sweet-briar) (Rhoslwyn Pêr). Limestone grassland, Graigfechan, SJ148549, G. Kaye, 2000, det. A.L. Primavesi, 1<sup>st</sup> record this century.
- \*75/21.19×20. *Rosa* × *bishopii* (*R. micrantha* × *R. agrestis*). Limestone grassland, Graigfechan, SJ148549, G. Kaye, 2000, det. A.L. Primavesi.
- +75/21.20. *Rosa agrestis* (Small-leaved Sweet-briar) (Miaren Gulddail). Limestone grassland, Graigfechan, SJ148549, G. Kaye, 2000, det. A.L. Primavesi, 2<sup>nd</sup> record.
- +†77/14.fab. *Vicia faba* (Broad Bean) (Ffaen). Shingle beach, Pensarn, SH940786, BSBI group, 2000.
- †\*79/2.2. *Myriophyllum aquaticum* (Parrot's-feathers). Man-made pond, Marford, SJ357564, J.A. Green, 2000.
- +94/1.1. *Linum bienne* (Pale Flax) (Llin Culddail). Rough track, Glan Conwy, SH801712, J.A. Green, 2000.
- †\*107/4.1. *Eryngium giganteum* (Tall Eryngo). 30 plants on waste soil by new cycle track, Llandulas, SH918783, W. McCarthy & M. Stead, 2000, NMW.
- +†118/13.rac×nep. *Nepeta* × *faassenii* (*N. racemosa* × *N. nepetella*) (Garden Cat-mint). Pathside, Rhyd y Foel, SH914772, WFS group, 2000, 2<sup>nd</sup> record.
- +135/22.2. *Lactuca virosa* (Great Lettuce) (Gwylaeth Chwerwaidd). Waste ground, Pensarn, SH942786, J.A. Green, 2000, 1<sup>st</sup> recent record.
- +135/62.1×10. *Senecio* × *albescens* (*S. cineraria* × *S. jacobaea*) (a hybrid ragwort). Spontaneous on shingle beach, Pensarn, SH939786, C. Thomas, 2000, NMW.
- +†135/73.1. *Calendula officinalis* (Pot Marigold) (Melyn Mair). Seeded field, Llandulas, SH920783, J.A. Green, 2000, 2<sup>nd</sup> record.

- +152/16.9b. *Carex divulsa* subsp. *leersii* [Many-leaved Sedge] (Hesgen Felen-werdd y Calch). Calcareous road verge, Graigfechan, SJ147543, BSBI group, 2000, det. A.O. Chater.
- +152/16.43. *Carex extensa* (Long-bracted Sedge) (Hesgen Hirian). By sea wall, Glan Conwy, SH801712, J.A. Green, 2000. 1<sup>st</sup> recent record.
- 152/16.65. *Carex acuta* (Slender Tufted-sedge) (Hesgen Eiddil Dywysennog). Wet ditch, Pulford, SJ402580 J.A. Green & W. McCarthy, 2000, det. A.O. Chater.
- +†153/3.1. *Sasa palmata* (Broad-leaved Bamboo) (Bambw). Old well and stream, Wigfair, SJ029711, J. Phillips, 2000, det. J.A. Green. 2<sup>nd</sup> record.
- +†153/28.5. *Avena sativa* (Oat) (Ceirch). Weedy field, Llandulas, SH918783, J.A. Green, 2000.
- +153/67.2. *Spartina anglica* (Common Cord-grass) (Cordwellt). Saltmarsh, Glan Conwy, SH802718, J.A. Green, 2000.
- 158/24.13. *Allium ampeloprasum* var. *babingtonii* (Babington's Leek) (Cenhinen Aran). Beside newly made cycle track, Llandulas, SH918783, J. Green, 2000.

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

- +29/1.1. *Berberis vulgaris* (Barberry) (Eurdrain). Small plant on rock face, adjacent to the 'Leete', Pontnewydd, Pantymwyn, SJ188650, M. Brummage, 1998. 2<sup>nd</sup> recent record.
- +46/7.12. *Cerastium semidecandrum* (Little Mouse-ear) (Clust Llygoden Bach). Mound, at limestone quarry edge, Halkyn Common, SJ203703, S.P. Chambers, 2000.
- +61/2.2×3. *Salix × rubens* (*S. alba* × *S. fragilis*) (Hybrid Crack-willow). Medium sized tree in lowland hedge, E of shooting school, Sealand, SJ343680 G. Wynne, 1999, **herb. G.W.**, det. R.D. Meikle.
- 61/2.4×9. *Salix × mollissima* nothovar. *undulata* (*S. triandra* × *S. viminalis*) (Sharp-stipuled Willow). Coastal dunes, Talacre Warren, SJ124851, M. Wilcox, 2000.
- +†84/1.12. *Epilobium brunescens* (New Zealand Willowherb) (Helyglys Gorweddol). A few plants in wet rock face, Pen-yr-Henblas quarry, Pentre Halkyn, SJ190730, S.P. Chambers, 2000. 3<sup>rd</sup>, and 2<sup>nd</sup> recent record.
- +†107/41.2. *Heracleum mantegazzianum* (Giant Hogweed) (Efwr Enfawr). Only one plant in grassy road verge, old A55, Carmel near Holywell, SJ164771, G. Wynne & R. Plummer, 2000. conf. R.K. Brummitt.
- +108/5.2. *Gentianella campestris* (Field Gentian) (Crwynllys y Maes). Over 70 plants in rough grassland/scrub on limestone, Cilcain, SJ188665, M. Burrage, 2000. 2<sup>nd</sup> recent record.
- †\*118/13.rac×nep. *Nepeta × faassenii* (*N. racemosa* × *N. nepetella*) (Garden Cat-mint). In long grass in coastal dunes, E of Prestatyn Golf Course, SJ088841, J.A. Green, 2000.
- +118/23.1×3. *Mentha × gracilis* (*M. arvensis* × *M. spicata*) (Bushy Mint) (Mintys Culddail). Waste ground on old landfill site, between Coed Talon & Llanfynydd, SJ273583, J. Hughes & J. Phillips, 1997, NMW, conf. G. Hutchinson. 3<sup>rd</sup> recent record.
- \*124/23.1. *Parentucellia viscosa* (Yellow Bartsia) (Gorudd Melyn). †About 40 plants in short, open, wet turf, N corner of Llawndy Farm, Talacre, SJ125846, C.N. Carter, 1996.
- +135/6.8. *Cirsium acaule* (Dwarf Thistle) (Ysgallen Ddigoes). Twenty plants in limestone grassland, SE of Waen-brodilas, 2km N of Rhes-y-cae, SJ187727, S.P. Chambers, 2000.
- +†135/14.1b. *Lapsana communis* subsp. *intermedia* (Large Nipplewort) (Cartheig y Calch). Roadside hedge bank, Llicswm, SJ173715, G. Wynne; +Road verge by bridge over rivulet, on A541 0.8km W of Rhydymwyn, SJ203677, P. Morris; both 2000. 2<sup>nd</sup> records.
- +135/30.4. *Filago minima* (Small Cudweed) (Edafeddog Lleiaf). Over 100 plants at edge of disused sand pit, Ddol, near Afonwen, SJ138715, M. Brummage, 1998. 2<sup>nd</sup> recent record.
- \*153/50.4lon. *Bromus hordeaceus* var. *longipedicellatus* (Soft-brome) (Pawrwellt Masw). Sandy grassland in coastal dunes, Talacre Warren, SJ124851, M. Wilcox & W. McCarthy, 2000, conf. L.M. Spalton.
- +162/3.1. *Epipactis palustris* (Marsh Helleborine) (Caldrist y Gors). Sloping field with stream, between Cefn-y-bedd and Plas Maen, SJ306562, S. Taylor, 1999. 1<sup>st</sup> recent record.

+162/13.1. *Platanthera chlorantha* (Greater Butterfly-orchid) (Tegeirian Llydanwyrdd). Tall grass and scrub on limestone, Pantymwyn, SJ195651, M. Brummage, 2000. 1<sup>st</sup> recent record.

ANGLESEY, v.c. 52 (comm. N.H. Brown & I.R. Bonner)

- \*4/1.1×3. *Equisetum* × *trachyodon* (*E. hyemale* × *E. variegatum*) (Mackay's Horsetail). Several hundred stems on the road verge near Llyn Penrhyn, SH313765, N. Brown, det. C.N. Page & A. Paul, 2000.
- \*4/1.5×9. *Equisetum* × *robertsii* (*E. arvense* × *E. telmateia*) (a hybrid horsetail). Extensive colony with both parents at Traeth Lligwy, SH4987, T.D. Dines & I.R. Bonner, 2000. Close to the colony of *E.* × *font-queri* discovered by R.H. Roberts in 1989. A fuller description of this hybrid will appear in *Watsonia*.
- 28/13.17b. *Ranunculus ficaria* subsp. *bulbifer* (Lesser Celandine) (Llygad Ebrill). Locally abundant in woodland, Ty Fry, Pentraeth, SH5176, I.R. Bonner & N. Brown, 2000. 2<sup>nd</sup> post 1987 record, probably under recorded.
- +†45/2.2. *Claytonia sibirica* (Pink Purslane) (Gwlyddyn Rhudd). Roadverge, near Penysarn, SH4691, G. Battershall, 2000.
- \*†47/1.2. *Persicaria campanulata* (Lesser Knotweed) (Clymllys Lleiaf). Thoroughly established in wet woodland near Ty Fry, Pentraeth, SH5176, I.R. Bonner & N. Brown, 2000.
- +47/1.9. *Persicaria amphibia* (Amphibious Bistort) (Canwraidd Goch). Kingsbridge camp-site, Beaumaris, SH608789, R.M. Walls, 2000.
- +†51/1.4. *Hypericum hircinum* (Stinking Tutsan) (Eurinllys Drewllyd). 2-3 bushes, apparently established, Newborough Forest, SH3964, I.R. Bonner, 2000.
- +53/1.7. *Malva neglecta* (Dwarf Mallow) (Hocys Bychan). Single plant on manure heap, Tynyngongl, SH5082, I.R. Bonner, 2000.
- \*†62/11.3. *Barbarea intermedia* (Medium-flowered Winter-cress) (Berwr Cyfryngol). Disturbed ground in improved pasture near Cors Erddreiniog, SH4780, I.R. Bonner, 2000.
- +62/12.1×2. *Rorippa* × *sterilis* (*R. nasturtium-aquaticum* × *R. microphylla*) (Hybrid Water-cress) (Berwr Dwr Croesryw). Ditch draining Waen Eurad, Llanbedrgoch, SH506803, I.R. Bonner, 2000.
- +62/34.1. *Brassica oleracea* (Wild Cabbage) (Bresych Gwylt). On rocks, Point Lynas, SH4793, G. Battershall, 2000.
- \*†62/38.1. *Hirschfeldia incana* (Hoary Mustard) (Cedw Penllwyd). Single plant, dunes, Traeth Lligwy, SH4987, I.R. Bonner & T.D. Dines, 2000. 1<sup>st</sup> record.
- +62/41.1. *Crambe maritima* (Sea-kale) (Ysgedd). Single well-grown plant on shingle, Trwyn Penmon, SH639814, J. Rees, 2000.
- +†65/8.3. *Gaultheria mucronata* (Prickly Heath) (Gwaunlwyn Pigog). Well established, Holyhead Mountain, SH210825, T.D. Dines & R. Walls, 2000.
- +69/6.3. *Anagallis minima* (Chaffweed) (Corfrilys). Near Balog, Llanelian, SH478926, S. Shepherd, 2000.
- +73/5.5. *Sedum telephium* (Orpine) (Berwr Taliesin). Several plants in hedgerow, City Dulas, SH4787, G. Battershall, 2000.
- +75/9.13×14. *Potentilla* × *suberecta* (*P. erecta* × *P. anglica*). Newborough Forest, SH3964, I.R. Bonner, 2000.
- +†77/17.1. *Melilotus altissimus* (Tall Melilot) (Meillionen y Ceirw). By track to former watermill, Aberffraw, SH356691, J. Rees, 2000.
- +77/19.13. *Trifolium micranthum* (Slender Trefoil) (Meillionen Felen Eiddil). Lawn, Plas Newydd, SH521695, J. Rees, 2000.
- 77/25.4. *Genista anglica* (Petty Whin) (Cracheithin). In a small area of rough grassland on the cliff-top between Lligwy and Moelfre, SH502872, I.R. Bonner & T.D. Dines, 2000. Re-confirmation of a pre-1970 record.

- \*103/1.4. *Geranium rotundifolium* (Round-leaved Crane's-bill) (Pig yr Aran Crynddail). As a garden weed in thin soil over limestone, not knowingly introduced, Tyn-y-gongl, SH509828, I.R. Bonner, 2000.
- 118/23.5 *Mentha pulegium* (Pennyroyal) (Brymllys). Rushy pasture near Traeth Lligwy, SH4987, W. McCarthy and M. Stead, det. R.M. Harley, 2000. 2<sup>nd</sup> record and not seen since J.E. Griffith's 1895 record from Llanfairpwll.
- +124/12.1. *Kickxia elatine* (Sharp-leaved Fluellen) (Llysiau Llywelyn). Single plant in gateway, south of school, Rhyd-y-Bont, SH268774, W. McCarthy, 2000. Market garden, Gwydryn-Hir, SH493676, J. Rees, 2000.
- \*124/16.11×12. *Veronica* × *lackschewitzii* (*V. anagallis-aquatica* × *V. catenata*). Margins of Afon Cefni, Malltraeth Marsh, SH4572, I.R. Bonner, 2000.
- +130/6.7. *Galium mollugo* (Hedge-bedstraw) (Briwydden y Clawdd). Limestone grassland, Marian-glas Common, SH5084, J. Rees, 2000. Recently cleared limestone grassland, Y-bonc, near Marian-glas, SH501835, E. & M. Howe, 2000. A specimen from SH5084 was determined as subsp. *erectum* by A.O. Chater.
- +135/16.2. *Leontodon hispidus* (Rough Hawkbit) (Peradyl Garw). Limestone grassland, near Penmon Priory, SH630807, R.M. Walls, 2000.
- \*†147/15.2b. *Arum italicum* subsp. *italicum* (Italian Lords-and-Ladies) (Pidyn y Gog Eidalaid). Clump on road verge near Brynteg, SH4983, I.R. Bonner, 2000.
- +151/1.14. *Juncus acutiflorus* (Sharp-flowered Rush) (Brwynen Flodfain). Kingsbridge camp-site, Beaumaris, SH608789, R.M. Walls, 2000.
- +151/2.2. *Luzula pilosa* (Hairy Wood-rush) (Coedffwynen Flewog). Occasional, under heather, North Stack, SH2183, I.R. Bonner, 2000.
- +151/2.6a. *Luzula multiflora* subsp. *multiflora* (Heath Wood-rush) (Coedffwynen Luosben). Heathland, South Stack, SH2082, T.D. Dines & R. Walls, 2000.
- +153/18.4. *Poa humilis* (Spreading Meadow-grass) (Gweunwellt Helaeth). Damp sand, Traeth Lligwy, SH4987, I.R. Bonner & T.D. Dines, 2000.
- \*†153/62.1. *Cortaderia selloana* (Pampas-grass) (Paithwellt). West end of shingle bank, Cemlyn, SH3393, G. Battershall, 1994.
- +162/18.1×5. *Dactylorhiza* × *venusta* (*D. fuchsii* × *D. purpurella*) (a hybrid orchid). By path, with both parents, Point Lynas, SH4893, G. Battershall, 2000.
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