

BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH BULLETIN

Editors : R. D. Pryce & G. Hutchinson

No. 82, JUL 2008



Photocopy of unpressed specimen of *Plantago lanceolata* in the Teratological Herbarium at NMW,
(x 0.7). Coll. V. & A. Lewis, Oct 2005 from landscaped road-verge, Burry Port (v.c. 44).
(see also p. 12 and colour section)

CONTENTS

Guest Editorial	3
New Co-editor for BSBI Welsh Bulletin being sought	4
Corrigendum	4
Annual General Meeting, 2008	5
Chairman's opening remarks	5
Hon. Secretary's Report	5
Hon. Treasurer's Report	6
Annual Statement of Accounts	6
Introduction of Kevin Walker, Head of Research and Development	7
Election of Officers and Committee for Wales Members	7
AGM and Exhibition Meeting 2008	7
Any other business	7
Calendar of Welsh BSBI Meetings - 2008	8
46th Welsh AGM & 26th Exhibition Meeting, 2008	9
<i>Yucca</i> in the sand dunes at Newborough, Anglesey (v.c. 52) ... and on sand dunes in Glamorgan (v.c. 41) and Carmarthenshire (v.c. 44)	10
Teratological Ribwort Plantain	12
Request - Grasses, Sedges and Rushes.....	12
Welsh Plant Records - 2007	13
PLANTLIFE - WALES NEWSLETTER - 7	1

Most back issues of the BSBI Welsh Bulletin are still available on request (originals or photocopies). Please enquire before sending cheque (made payable to BSBI Wales), @ £2 per issue, which includes p. & p., to - Dr G. Hutchinson, Department of Biodiversity & Systematic Biology, National Museum, Cathays Park, Cardiff CF10 3NP, specifying the issue number, or year (which would have to include the season or month).

Publication date of last BSBI Welsh Bulletin (No. 81) - January 2008.

The editors have had the idea that other members should have the opportunity to voice their opinions as regards botanical and conservation issues in Wales. So this issue, Kath Pryce has kindly written the first of these Guest Editorials. I hope you think it worthwhile: we'd be glad to receive your comments.

GUEST EDITORIAL

As a Vice-county recorder's other half I spend many enjoyable hours out in the county, seeing different habitats, recording and photographing plants and learning more about our local flora. I also spend many less-enjoyable hours at the computer inputting most of this data, which is fine, but I am increasingly asking myself (and Richard) "what's the point of all this recording" if there's an absence of appropriate habitat management?..... and it also seems to me, a lack of appreciation by the majority of residents in the county.

Perhaps I had better highlight the good news first and mention the success stories we have come across recently. Last year Richard received an email from a couple living near Llandovery in Carmarthenshire, who had last been in contact about fourteen years ago when they had sought his advice about management of their newly acquired hay fields. Their recent email invited us to visit the fields in order to see the fruits of his advice – because they now look wonderful! His recommendation all those years ago was that the best course of action would be the pretty-standard "take a late hay cut followed by aftermath grazing with no additional fertilizer" formula. They had managed to persuade a (bemused) neighbouring farmer to do exactly this every year since, with the result that the fields are now very species-rich indeed. In the past the land had included NVC MG5, M24 and M25 communities with abundant *Carum verticillatum* and *Centaurea nigra* and locally frequent *Cirsium dissectum* but, following this period of sympathetic conservation management, have now gained substantial colonies of *Dactylorhiza maculata*, *Platanthera chlorantha* and *Genista tinctoria* together with many other species and, for the first time this year, a couple of plants of *G. anglica*. Showing us their photographic archive, it appears that a few years ago, a single *Gymnadenia conopsea* appeared! We visited last year and again this year and the fields do indeed look wonderful and the owners were most hospitable and appreciative of Richard's advice and recent monitoring.

Another refreshingly successful farm is located near Llanddeusant and is owned and managed by Dr. Ruth Watkins. She has several fields, which, in July, are white with *Carum*, while elsewhere on her holding she has extensive areas of fen meadow with some NVC M10 flushing. This is one of only two inland sites in the county which supports *Epipactis palustris* and one of a handful with *Eriophorum latifolium* and *Galium uliginosum*. Her enthusiasm and energy in managing this conservation oasis is wonderful, but the site is not designated as an SSSI and she wonders what will happen to it when she has to give up.

There are other areas where the owners are managing their land appropriately and with a positive attitude towards wildlife, some of which we know about and have visited and, no doubt, others, of which we are not yet aware! However, the bad news is that so often the management of some really valuable sites is not appropriate for many reasons which might include financial constraints, abandonment awaiting the developer to come along, lack of grazing, change of management, etc. Richard is more often reporting that sites are not being managed appropriately or are even being destroyed, and only a minority of the local population seem to understand or even care what is happening to their countryside.

It is a complex problem but lack of grazing animals is one issue and we recently attended a talk given by Charles Morgan, coordinator of Pont (Pori Natur a Threftadaeth), a member of the UK Grazing Animals Project (www.grazinganimalsproject.org.uk), which gives the potential to match grazing animals to conservation sites as a management tool. It is to be hoped that this flexible scheme will encourage landowners to try it out and hopefully find it sufficiently financially advantageous to continue.

We were also shown the Exmoor ponies recently brought in to Llyn Llech Owain Country Park to graze the rough grass and scrub, which they are tackling very successfully. This is largely as a result of the enthusiasm of countryside ranger Judith Weatherburn. Three ponies are loaned from The Moorland Mousie Trust which aims to conserve this endangered breed, and one filly has been purchased with lottery funding. This is an example of what can be achieved if the will and enthusiasm is there and I found it very refreshing.

Kath Pryce, Trevechin, School Road, Pwll, Llanelli, Carmar, SA15 4AL.

NEW CO-EDITOR FOR BSBI WELSH BULLETIN BEING SOUGHT

Would you be interested in kindly offering to help with the production of the BSBI Welsh Bulletin, starting with the January 2010 issue? This will arise due to the scheduled retirement of George Hutchinson from the National Museum of Wales, Cardiff two months later.

Please contact Richard Pryce of George Hutchinson if you would like to discuss things further.

We look forward to any voluntary help with the Welsh Bulletin.

BSBI WALES COMMITTEE

CORRIGENDUM

In Panel of Vice-county recorders, in the latest issue of BSBI News (Apr 2008, No. 108, p.66), the address for Mrs Delyth Williams, the new Vice-county Recorder for Denbighshire V.C. 50 is incorrect. Her present address is: Bryn Siriol, Craig Fechan, RUTHIN, LL15 2HA and not as shown.

BSBI WALES ANNUAL GENERAL MEETING 2007

The 45th Annual General Meeting of the BSBI in Wales, held at Swansea University on Saturday 14th July 2007.

The Chairman, Andy Jones, welcomed all those present and particularly Kevin Walker, newly appointed Head of Research and Development; Jim McIntosh, BSBI Scottish Officer; and Bob Ellis, BSBI Volunteers Officer.

1. Apologies for absence: Ian Bonner, Shirley Burton, Gwynn Ellis, Trevor Evans, Margot Godfrey, Wendy McCarthy, Nicholas de Sausmarez and Ray Woods. Richard Gornall (BSBI President), although present earlier, had to depart to catch his train but would have been present had the AGM not been delayed.

2. Minutes of 2006 AGM: (published in *BSBI Welsh Bulletin* 80: 4-6. Accepted without amendment.

3. Matters arising: None.

4. Chairman's Opening Remarks: Andy Jones thanked Julian Woodman for all his work in organising the event. He said that the recent AGMs with a theme had produced a lot of interest, the first on aquatic plants in 2005, with last year's on pteridophytes and this year on arable weeds. He also welcomed the changing climate of public opinion in which farmers are now asking for botanical advice in identifying plants on their land.

5. Hon. Secretary's Report:

- a) Richard Pryce reiterated the Chairman's welcome especially to members from outside Wales and in particular to Jim McIntosh, who as Scottish Officer was interested in comparing the running of the Welsh AGM with the Scottish.
- b) He regretted that the BSBI President, Richard Gornall, had been unable to stay for the formal part of the AGM.
- c) He announced with great sadness the recent deaths of David Stevens, CCW's grassland specialist, Tony Lewis, contributor of many Swansea and Carmarthenshire records and of John Rees, botanical observer for many years at the MoD Pendine Ranges.
- d) He had received the resignation of Dr David Humphreys, Vice-county Recorder for Radnorshire (v.c. 43), due to ill health and was asked to send good wishes to David on behalf of BSBI members. David recommends that he be succeeded by Liz Dean, assisted by Sue Spencer.
- e) Richard reviewed the Field Meetings programme for 2007 starting with the successful conifer meeting at Leighton Arboretum, Welshpool. This had been well over-subscribed and so would, it was hoped, be repeated next year. Other field meetings were held at Rhydymwyn, Moelyci, the Plantlife reserves of Cae Blaenddyffryn and Tanybwlic, Glynhir, and Ogof Fynnon Du; meetings at Llyn Crafnant and Marloes were still to come.
- f) He reported that two Committee for Wales meetings had been held during the year, and that among the topics discussed were:
 - i) County Rare Plant Registers: progress on these included the register for Monmouthshire, v.c. 35, which had just arrived from the publishers.
 - ii) The Welsh Rare Plant List which Trevor Dines would speak about later. The Welsh Assembly was very keen to have these data and the List might prove useful in making grant money forthcoming.

- iii) Local Records Centres which are slowly coming on stream and will eventually cover all of Wales. Many vice-county recorders have already signed agreements with their local Centres.
- iv) Site Condition Monitoring of SSSIs and Tir Gofal. BSBI volunteers might be able to help with this; for example Richard Pryce had organised informal monitoring visits to local SSSIs as part of the annual Carmarthenshire Glynhir meeting.
- v) The Committee is still working to obtain maps in an electronic format for recorders to use on their own PCs.
- g) *Welsh Bulletin*. Two issues had been published during the year, numbers 79 and 80, the latter consisting largely of Welsh Plant Records. Richard expressed thanks to George Hutchinson for all his work as editor, which not only included production and editing but all the donkey work including stuffing envelopes, as well as maintaining the index. More articles were needed and in particular exhibitors were asked to let George have abstracts of their exhibits for the bulletin.
- h) Finally, Richard thanked Julian Woodman for his organisation of this meeting and also Gill Barter, Viv Lewis and Sarah Stille for their help. He thanked Ian Bonner, Minutes Secretary and Wendy McCarthy, Field Meetings Secretary and all other members of the Committee for their work during the year as well as all the members for their support.

6. Hon. Treasurer's Report:

Annual Statement of Accounts 18 June 2006 – 30 June 2007

<i>Receipts</i>	£	<i>Payments</i>	£
<i>Welsh Bulletin</i> subs	138.10	<i>Welsh Bulletin</i> #78 printing	126.99
2006 AGM receipts	451.53	<i>Welsh Bulletin</i> #78 postage	71.37
2007 AGM receipts	3919.20	<i>Welsh Bulletin</i> #79 printing	144.49
Donation Summerfield Books	30.00	<i>Welsh Bulletin</i> #79 postage	108.61
Plantlife (<i>Welsh Bulletin</i> #79)	<u>170.00</u>	2006 AGM catering	393.10
		2006 AGM speakers' expenses	100.00
		2007 AGM deposit	<u>660.00</u>
<u>Totals</u>	4708.83		1604.56
Excess of receipts over payments	3104.27		
Carried forward from 18 Jun 2006	<u>644.05</u>		
Balance at 30 June 2007	<u>3748.32</u>		

Statement of Accounts 10 February 2007 – 30 June 2007

<i>Receipts</i>	£	<i>Payments</i>
<i>Welsh Bulletin</i> subs	10.00	Nil
Plantlife Bulletin sub	170.00	
AGM receipts	<u>3129.20</u>	
Total	3309.20	
Excess of receipts over payments	3309.20	
Carried forward from 10 Feb 2007	<u>439.12</u>	
Balance at 30 June 2007	<u>3748.32</u>	

Sarah Stille, Hon. Treasurer, BSBI Committee for Wales

The accounts were tabled and circulated. There were no questions and their acceptance was proposed by Mike Porter and approved unanimously.

7. Introduction of Kevin Walker, Head of Research and Development: Kevin Walker was introduced to the meeting. He began by explaining that although his appointment had begun two weeks ago he was still under contract to CEH until the end of September, when he hopes to move north to Harrogate, and to have an office in Leeds University. His new post carries funding for three years but he hoped it will be possible to continue for much longer. He saw his post as essentially:

- a) Developing the idea of the Plant Unit which would coordinate and manage all data received and produced by the BSBI.
- b) Strengthening the BSBI's relationship with the countryside agencies and with Plantlife.
- c) Providing support for Vice-county Recorders.

He felt he needed time to work out his priorities and would begin by talking to BSBI members and to the agencies.

8. Election of Officers & Committee for Wales Members:

The Chairman, Andy Jones, and Vice Chairman, Delyth Williams, were elected to serve four year terms in 2006 and are not due to retire until 2010.

Nominations for Officers were as follows:

Hon. Secretary: Richard Pryce

Hon. Treasurer: Sarah Stille

Both were re-elected by general consent.

Committee Members are elected for a period of three years. No nominations were received at the meeting. The nominations from the committee were as follows:

New committee member (co-opted during 2006-7): Kate Thorne

Existing committee members due to retire in 2007, all are eligible and stand for re-election: Arthur Chater, Stephen Evans, George Hutchinson, Quentin Kay and Mike Porter. All were re-elected by general consent.

Serving Committee members in mid-term are as follows (with the dates they are due to retire):

Ian Bonner (2008), Trevor Dines (2009), Trevor Evans (2009), Wendy McCarthy (2008), Julian Woodman (2008), Ray Woods (2009) and Goronwy Wynne (2008)

CCW Observer: Paul Day

Plantlife Observer: Trevor Dines is a committee member but also Plantlife Observer.

9. AGM and Exhibition Meeting 2008:

Continuing the idea of themed AGMs it has been suggested that the 2008 AGM will be in Montgomeryshire, perhaps at Gregynog, with the subject of woodland as its theme. Plans are still at an early stage but it will probably be held in mid-August. The Hon. Sec. asked for the Glynhir week to be avoided, i.e. 19-26 July 2008.

10. Any other business:

The Chairman said that he had copies of the Monmouthshire Rare Plant Register available, in the boot of his car.

Tim Rich said that the new Flora of Monmouthshire had been sent to the printer yesterday. It would have 50 colour plates and sell for under £20. 500 copies would be printed and it was hoped it would sell out within the year. There would be a leaflet in the

next BSBI News. Andy Jones congratulated Trevor Evans and Tim Rich on their achievement.

With a reminder from the Chairman of a full programme of talks after the evening meal, the meeting closed.

The AGM was attended by 42 people.

CALENDAR OF MEETINGS 2008

Full details and procedure for booking are available in the BSBI Year Book for 2008 and the BSBI Welsh Bulletin No. 81.

SAT 5th APR - CONIFER WORKSHOP, ALLT DDERW, nr ABERYSTWYTH,
CARDIGANSHIRE (v.c. 46) - A Jones

SAT 3rd MAY - LLANGOLLEN, DENBIGHSHIRE, (v.c. 50) - E. Meilleur

SAT 28th JUN - ARAN MOUNTAINS, LLANUWCHLLYN, MERIONETH (v.c. 48) - S. Stille

SAT 5th JUL - PENYBRYN, CARDIGANSHIRE (v.c. 46) - A. Chater

SAT 12th JUL - RHOS LAWR CWRT, nr LLANDYSUL, CARDIGANSHIRE (v.c. 46) - D. Wheeler

SAT 19th JUL - SAT 26th JUL - GLYNHIR MANSION, LLANDYBIE, CARMARTHENSHIRE
(v.c. 44) - K. & R. Pryce

SAT 2nd AUG - LLYN EIGIAU, DOLGARROG, CAERNARVONSHIRE (v.c. 49) - W. McCarthy

FRI 8th AUG - SUN 10th AUG - WELSH AGM and EXHIBITION MEETING, GREGYNOG,
MONTGOMERYSHIRE (v.c. 47) and associated field meetings

REMINDER - BSBI WALES AGM**46th Welsh AGM & 26th Exhibition Meeting, 2008****Friday 8th - Sunday 10th August 2008**

This is just a quick reminder that the BSBI Wales AGM for 2008 is being held at Gregynog Hall, Montgomeryshire, with a Woodland and Wetlands theme. All levels of experience will be catered for and participants are strongly encouraged to bring their own material for determination and discussion. Please plan ahead and collect any plant material for identification in the workshops.

There will be:

- Friday afternoon workshop on the vegetative characters of trees and shrubs (twigs, buds etc.) with John Poland; short talks / demonstrations and an evening walk around Gregynog Park with illustrated talk on the Ancient Trees of Wales, with Andy Law.
- Saturday excursions to species-rich woodlands and wetland sites in the Efyrynwy Valley.
- Keynote lecture by Dr George Peterken (former Woodland Ecologist for the Nature Conservancy Council and English Nature and author of the New Naturalist "Wye Valley" etc.) on "The Woodland Origin of Meadows".
- Sunday excursion to the Severn Valley floodplain and Montgomery Canal.
- An exhibition of posters and specimens by members.
- A display of books for sale by Summerfield Books.

and more...

We aim, though, for 'Quality over Quantity' at Gregynog and the chance to enjoy the very peaceful and sociable atmosphere of Gregynog Hall.

We have already received several posters and exhibits in but would like to say how much we look forward to contributions of this kind. Any interesting specimens or noteworthy records will be gratefully received (they don't have to be very polished or 'scientific') and all add to the Exhibition atmosphere. If you're coming to Gregynog please bring something with you!

Booking forms were circulated with the last edition of BSBI News, to be made by 30 June, 2008. However, there are a few places left, although ensuite rooms have long been booked up. Applications should be made as soon as possible to Sarah Stille, The Quillet, Berwyn Street, Llandrillo, Corwen LL21 0TH

Tel: 01490 440 418 e-mail: sarah.stille@virgin.net

YUCCA IN THE SAND DUNES AT NEWBOROUGH, ANGLESEY (V.C. 52)

When in October 2007 Liz Howe sent the accompanying picture of Megan Howe beside a *Yucca* (Spanish-dagger) at Newborough (see colour section) it seemed appropriate to put a note in the Bulletin about the species and how it got there. However, I have found out so little that I am persevering with this note in the hope that you, the readers will know more, and respond with more information.

It is suggested that sometime in the mid 1950's five or so *Yucca* plants were found on the shore at Newborough and these were planted in the frontal dunes by the local staff of the Forestry Commission. There are currently two plants at Newborough in SH39.65, a third is now in cultivation in a garden in Conwy; but what happened to the others and how the plants have performed over the 50 - 60 years is unclear. The plant is not listed in Ellis (1983), Roberts (1982) or Preston *et al.* (2002).

I first noted them in 2005, and listed them as *Yucca recurvifolia*, the taxon listed in Stace (1997). However, when Arthur Chater saw Liz Howe's picture he doubted the plants were this taxon, suggested *Y. gloriosa*, and recommended advice was sought from Eric Clement. The picture and some leaves were despatched to Gosport and I am very grateful to Eric for looking at the material, and delving into the literature.

In summary he concluded that although some authors describe *Y. gloriosa* and *Y. recurvifolia* as separate taxa (with intermediates) the general view is that *Y. recurvifolia* is a variety of *Y. gloriosa*, to be cited as *Y. gloriosa* L. var. *recurvifolia* (Salisbury) Engelm., 1873. Overall Eric advises 'sitting on the fence' with *Yucca gloriosa* agg. - at least until more information becomes available.

As a footnote *Yucca gloriosa* is listed in Ellis (1983) from Carmarthenshire (SN30); but listed in Pryce (1999) from three locations in SN30 as *Yucca recurvifolia*.

I. R. BONNER, Cae Trefor, Tyn y Gongl, Anglesey LL74 8SD

**..... AND ON SAND DUNES IN GLAMORGAN (V.C. 41) AND
CARMARTHENSHIRE (V.C. 44)**

The first records of *Yucca* in Wales were reported by Dillwyn (1848) and Woods (1850), both from Crymlyn Burrows, Swansea, Glamorgan, and both presumably referring to the same plant. In a footnote on page 40 of the former reference, Dillwyn reports:

"On the sandy sea shore, opposite the Race-course on Crumlyn-burrows and more than a mile from any sort of house or garden, Mr L. L. Dillwyn, in 1839, found a thriving young plant of *Yucca gloriosa*, and it had all the appearance of having arisen from a seed which the tide had cast there. Notwithstanding the exposed situation, and the looseness of the soil, this native of Carolina was not materially injured by the unusually severe Winter of 1840-1; and Mr Moggridge informs me, that for two or three years it continued to thrive, till it was destroyed by a heap of shingle, which a violent storm and high tide threw over it."

Woods notes on page 1060:

"A more curious instance of incipient naturalization was exhibited a few years ago in the *Yucca gloriosa*, a root of which was cast on the shore of Cromlin burrows [sic]. It established itself there sending out suckers, and for some years seemed quite disposed to be permanent, till a storm buried it under a heap of shingle."

Furthermore, a painting by W. Williams, entitled *Fabian's Bay, Swansea, 1844*, shows in the foreground, what might be *Yucca* plants growing on low dunes above the strandline at a location close to Crymlyn Burrows (see colour section) - or is that being too optimistic?

Wade, *et al* (1994) refer, on page 196, to Woods' report of *Y. gloriosa* at Jersey Marine and also record

"*Yucca recurvifolia* has recently been recorded on sand dunes at Crymlyn Burrows (B.M. Sturdy, 1982)".

More recently, Tony and Viv Lewis recorded *Yucca* plants at Crymlyn Burrows which were visited during a BSBI field meeting on 22nd June 2002 (see colour section).

In Carmarthenshire, up to about a dozen plants have been recorded during the period from the mid 1970s to the present, growing in dry, semi-stable dune ridges close to Cefn Sidan Sands which stretch for some six miles between Pembrey and Tywyn Point. The earliest of these records were from the northern end of this dune system mainly fronting Pembrey Forest and the RAF range but latterly plants have been found within the Pembrey Burrows Local Nature Reserve located towards the southern end. In recent years it would appear that most plants have been lost to the destruction of the dune front by sea erosion, but at least one was accidentally lost during the clearance of Sea Buckthorn by the local Council within the Local Nature Reserve.

The origin of these plants remains a mystery. Although their remoteness from habitation would indicate some form of natural establishment, there is the possibility that at least some plants may have been planted, but both Dillwyn and Woods refer to seeds or root being cast up by the tide and the assumption must err towards this hypothesis. However, as to where the seeds/root entered the sea before their marine journeys is contentious. After I had supposed that their origin was from across the Atlantic, Charles Nelson (pers. com.) was quick to point out that neither the relatively small seed nor vegetative material could possibly have survived such a journey and that the origin must be anthropogenic. However, while I cannot offer any data regarding the durability of *Yucca* seed or other propagules when immersed in sea water nor its likely viability after landfall, there is no doubt that plants have got there by some 'natural' means and a marine vector seems most likely. Even if an American source is to be ruled out the plants could still have originated from material entering the sea from local coastal or river-side gardens.

All except one of the Carmarthenshire plants have been referred to as *Y. gloriosa* with its erect leaves but one of the plants found most recently had its outer leaves reflexed so might better be referred to as *Y. gloriosa* var. *recurvifolia* or *Yucca gloriosa* agg. as suggested above by Eric Clement. The Carmarthenshire dunes continue to be monitored and it will be interesting to see whether further new recruitment occurs in the future.

My thanks to George Hutchinson at NMW for drawing my attention to the two early Glamorgan records of Dillwyn and Woods and to the various observers who have sent me *Yucca* records over the years.

References

- Dillwyn, L.W. (1848). *Materials for a Fauna and Flora of Swansea and the Neighbourhood. Swansea* (Unpublished).
 Ellis, R.G. (1983). *Flowering Plants of Wales*, National Museum of Wales, Cardiff.
 Preston, C.D., Pearman, D.A. & Dines, T.D. eds (2002). *The New Atlas of the British and Irish Flora*. Oxford University Press, Oxford.
 Pryce, R.D. (1999). *Carmarthenshire Rare Plant Register*. BSBI.

Roberts, R.H. (1982) *The Flowering Plants and Ferns of Anglesey*. National Museum of Wales, Cardiff.

Stace, C.A. (1997). *New Flora of the British Isles*, 2nd edn. Cambridge University Press.

Wade, A.E, Kay, Q.O.N. & Ellis, R.G. (1994). *Flora of Glamorgan*. The Natural History Museum, H.M.S.O, London.

Woods, J. (1850). Botanical Notes, the result of a visit to Glamorgan and Monmouthshire, in the latter part of July and beginning of August, 1850. *The Phytologist*, 3, 1053-1061.

R. D. PRYCE, Trevethin, School Road, Pwll, Llanelli SA15 4AL

TERATOLOGICAL RIBWORT PLANTAIN

Back in January, Trevor Evans, Vice-county Recorder for Monmouthshire (and author of the excellent, recently published *Flora of Monmouthshire*), emailed me as follows:

Enclosed are two photographs taken by Shirley Rippin of Plantago lanceolata taken in a lay-by on the A465 near Neath. The parent plant, over a foot high, had an offspring growing from the seed head and producing a flower head in anthesis as well as other heads about to flower. How common is it and should we call it Pick-a-back Plantain?

One of the photographs is reproduced in the colour section.

By coincidence, in April 2007, I was contacted by John Hubert, a resident of Pencader, Carmarthenshire, who had spotted a similar plant on a lane-side verge near his smallholding (see colour section). It too was over a foot high! I have seen similar 'sport' plantains in the past but never any quite so pronounced as this, but I'm sure that such plants are not that uncommon. A few years ago Tony Lewis sent a fasciated plantain to Mr Martin Cragg-Barber, editor of *That Plant's Odd*, a newsletter of plant aberrations and news of unusual botanical occurrences, who named it after him! Martin collects and collates records of teratological plants and can be contacted by email at martin@worldmutation.demon.co.uk.

But I'm not sure about the name Pick-a-back Plantain!

Richard Pryce, Trevethin, School Road, Pwll, Llanelli, Carmarthenshire, SA15 4AL

GRASSES, SEDGES AND RUSHES

Grasses, sedges (Cyperaceae) and rushes wanted; the latter two in fruiting stage - any species. In relation to the first, I would like to target *Poa* species with particular emphasis on montane forms within the *P. nemoralis* and *P. glauca* group. Observing collecting protocols, most useful are plants with a bit of root so the plant is of more value to grow on in successive years. Please send any material to the address below; P.& P refunded if required.

MICHAEL WILCOX

32 Shawbridge St, Clitheroe, BB7 1LZ, Lancs., UK

E-mail: Michaelpw22@hotmail.com

WELSH PLANT RECORDS – 2007

Welsh Plant Records are compiled by Gwynn Ellis, 41 Marlborough Road, Roath, Cardiff, CF23 5BU, from reports of BSBI vice-county Recorders to whom records should preferably be sent. Plants are listed for each vice-county in the order of D.H. Kent's *List of Vascular Plants of the British Isles* (1992), and *Supplements 1 & 2* (1996 & 2000), the number in those lists preceding the name, so that names changed since 1996 can be given without giving the former name. Latin names also follow Kent (1992) and *Supplements 1, 2 or 3* or, if not in that list, the *Vice-county Census Catalogue* (2003), the 2nd 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), T.B. Ryves, E.J. Clement & M.C. Foster's *Alien Grasses of the British Isles* (1996) or P. Sell & G. Murrell's *Flora of Great Britain and Ireland* Vol. 4 (2006), Vol. 5 (1996). Authorities for Latin names are not 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), Ryves, Clement & Foster (1996), or Sell & Murrell (1996-2006). English names enclosed by square brackets do not occur in any of these books but have been used elsewhere. Welsh names are those in *Planhigion Blodeuol, Conwydd a Rhedyn*, published by Cymdeithas Edward Llwyd (2003).

The following symbols are used:

* to indicate a new v.c. record

+ to indicate a new or updated hectad record

† indicates archaeophyte; ‡ indicates neophyte; © indicates casual

†‡© before the species number: to indicate that the species is regarded as an archaeophyte, neophyte or casual at least somewhere in the British Isles.

†‡ before the record: to indicate a species which although a native, archaeophyte or neophyte at least somewhere in the British Isles, is not so in the locality recorded

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

□ to indicate an update to a rare or scarce taxon

Ø to indicate that the taxon is now believed to be extinct in the locality cited

In general, only records which update the *Vice-county Census Catalogue* (2003) or the *New Atlas of the British & Irish Flora* (2002) will be listed. Other records are included at the discretion of the vice-county recorder. The minimum grid reference is to a hectad but, if supplied by the recorder, references to a 1km or even a 100m square may be included. A letter in parentheses following a grid reference indicates a tetrad.

The Vice-county Recorders from 1/5/2008 are:

MONMOUTH, v.c. 35; Mr T.G. Evans, La Cuesta, Mounton Road, Chepstow, Monmouthshire NP16 5BS

GLAMORGAN, v.c. 41 (West); Dr Q.O.N. Kay, West Cwm Ivy, Llanmadoc, Gower, Swansea SA3 1DG

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

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

RADNOR, v.c. 43; Miss E.R. Dean, Enmore House, Croft Lane, Kingsland, Leominster, Herefordshire, HR6 9PP & Mrs S.M. Spencer (all correspondence to Miss Dean)

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, Ceredigion SY23 1BJ

MONTGOMERY, v.c. 47; Mrs M. Wainwright, Troy, 1 Green End, Oswestry, Shropshire SY11 1BT and Dr A.K. Thorne (all correspondence to Mrs Wainwright)

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

CAERNARFON, v.c. 49; Mrs W.N. McCarthy, 5 Tyn-y-coed, Great Orme, Llandudno, Conwy LL30 2QA

DENBIGH, v.c. 50; Mrs D. Williams, Bryn Siriol, Graigfechan, Ruthin, Denbighshire, LL15 2HA

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)

- *‡2/1.2. *Selaginella kraussiana* (Krauss's Clubmoss) (Cnw-p-fwsogl Krauss). 10×2m on barish patches in grass below N wall of church, Llangybi, ST373.967, S.D.S.Bosanquet, 2006. 1st record.
- +5/1.1. *Ophioglossum vulgatum* (Adder's-tongue) (Tafod y Neidr). c.300 plants in small field, Leasbrook near Mally Brook, SO518.141, S.J.Tyler & D.Green, 2007.
- [30/1.5.a. *Papaver dubium* ssp. *dubium* (Long-headed Poppy) (Pabi Hirben). One plant on waste ground and dumped soil, N of Severn Tunnel Junction car park, ST461.876, T.G.Evans & C.Titcombe, 2006. Recorded in error for subsp. *lecoqii*].
- 30/1.5.b. *Papaver dubium* ssp. *lecoqii* (Yellow-juiced Poppy) (Pabi Hirben). One plant on waste ground and dumped soil, N of Severn Tunnel Junction car park, ST461.876, T.G.Evans & C.Titcombe, 2006. Reported in error as ssp. *dubium*.
- +‡77/17.2. *Melilotus albus* (White Melilot) (Yr Wydro Wen). Over 50 plants on middle of dual carriageway, SE of Abergavenny, SO306.122, S.J.Tyler, 2007.
- +‡84/4.3. *Oenothera biennis* (Common Evening-primrose) (Melyn yr Hwyr). c.100 very glandular plants on waste ground, Kinson Farm, Whitebrook, SO52.06, S.J.Tyler, 2007, det. T.G.Evans.
- +92/1.1. *Rhamnus cathartica* (Buckthorn) (Rhafnwydden). One bush in hedgerow between pasture and woodland edge, Whitelye Common, SO515.016, S.J.Tyler, 2007. An increasingly rare plant in the v.c.
- +107/21.1. *Foeniculum vulgare* (Fennel) (Ffenigl). Three plants on bank of River Monnow, S of Tregate Bridge, SO478.172, P.Johns & S.J.Tyler, 2007.
- *©110/8.sis. *Solanum sisymbriifolium* (Red Buffalo-bur) (Codwarth-yr-ychen Coch). Plants of unknown origin in greenhouse and garden, Steppes Cottage, Jingle Street, Wonastow, SO476.107, H.V.Colls, 2007. 1st record.
- +119/1.1. *Hippuris vulgaris* (Mare's-tail) (Rhawn y Gaseg). 2-3m² small pond in tiny stream, S of Great House Farm, Llangua, SO392.257; A plant re-appeared after dredging of pond near River Monnow, Sand House, Skenfrith, SO470.204; both S.J.Tyler, 2007. A very local and scarce v.c. plant.
- *‡124/8.1. *Chaenorhinum organifolium* subsp. *organifolium* (Malling Toadflax) (Trwyn-y-llo Caint). Seven plants on vertical surface and 3 on top of remnant of riverside wall near Monnow Bridge, SO504.124, H.V.Colls, 2006. 1st British record of this subspecies. These plants have deep blue flowers some fading with age. Andy Jones informs me that *Chaenorhinum organifolium* (no subspecies mentioned) is turning up as garden weeds in Central Wales. *Plant Finder* now lists a number of plant nurseries supplying the species.
- *135/11.7×jac. *Centaurea* ×*moncktonii* (*C. jacea* × *C. nigra*) (Hybrid Knapweed) (Y Bengaled Groesryw). Two plants near the bottom of a barish grassy bank on the edge of A466 near Wyndcliff, ST523.970, T.G.Evans, 2007. 1st recent record & 1st Welsh record as a spontaneous hybrid. This rayed knapweed has colourless combs of different shapes on its outer phyllaries ranging from those on *C. jacea* to some approaching those of *C. nigra*.
- +‡135/12.1. *Cichorium intybus* (Chicory) (Ysgellog). One plant in field of Bob Osborne, Penterry, ST516.996, S.J.Tyler, 2007.
- +©135/74.1. *Ambrosia artemisiifolia* (Ragweed) (Bratlys). A large plant in back garden near wild bird feeding station, Bayfield, Chepstow, ST518.934, R.Harding, 2007. det. T.G.Evans.
- *139/1.1. *Aponogeton distachyos* (Cape-pondweed) (Alaw De Affrica). Abundant in small pond, above colliery tip, below Twyn yr Hafod, SO151.058, S.D.S.Bosanquet, 2002. 1st record.
- +152/7.1. *Schoenoplectus lacustris* (Common Club-rush) (Llafrwynen). Many patches on S margin of this Tesco attenuation pond, between Magor and Llanwern, ST40407.86457, S.J.Tyler, 2007, conf. T.G.Evans. 1st recent record and a new hectad for this very uncommon v.c. plant.

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

- *‡28/3.3. **Helleborus orientalis** (Lenten-rose) (Crafanc-yr-arth y Grawys). Hedge near Llangynidr, SO165.198, M. & C.Porter, 2007. 1st record, first seen here in 2000.
- +‡36/3.1. **Soleirolia soleirolii** (Mind-your-own-business) (Mam Miloeidd). Pavement, Llanigon, SO214.398, M. & C.Porter, 2007.
- *‡69/4.4. **Lysimachia ciliata** (Fringed Loosestrife) (Trewyn Eddiög). Probable bird-seed introduction into garden near Bwlch, SO142.229, J.Hieatt, 2007, **herb.MP**, det. M.Porter. 1st record.
- +‡73/5.7. **Sedum spurium** (Caucasian-stonecrop) (Briweg y Cawcasws). Wall, Llanigon, SO214.398, M. & C.Porter, 2007.
- +‡73/5.14. **Sedum album** (White Stonecrop) (Briweg Wen). Wall, Ystradfellte, SN929.133; +Wall, Llanigon, SO214.398; both M. & C.Porter, 2007.
- 74/5.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage) (Tormaen Tribys). Limestone outcrop, Darren fawr, N of Cefn Coed, SO021.098, M.Jannink, 2006. Update of pre-1970 record.
- *‡75/7.1. **Kerria japonica** (Kerria) (Ceria). Hedge near Bwlch, SO162.223, M. & C.Porter, 2006. 1st record.
- +75/8.2.71. **Rubus plymensis** (A bramble). Forestry plantation near Talybont Reservoir, SO098.195, M. & C.Porter, 2006.
- +75/8.2.81. **Rubus sciocharis** (A bramble). Forestry plantation near Talybont Reservoir, SO098.195, M. & C.Porter, 2006.
- +75/8.13.315. **Rubus pruinosis** (A bramble). Hedge, Cwmdy, SO179.235, M. & C.Porter, 2007.
- +75/8.13.ari. **Rubus ariconiensis** (A bramble). Along roadside by stone wall, Ystradfellte, SN931.133, M. & C.Porter, 2007.
- *‡75/9.7. **Potentilla recta** (Sulphur Cinquefoil) (Pumnaen Dalsyth). Seeding on gravel paths in garden (not planted), Llangynidr, SO151.198, M.Tillotson, 2006, **herb.MP**, det. M.Porter. 1st record.
- +‡75/19.15. **Alchemilla mollis** (Garden Lady's-mantle) (Mantell-Fair y Gerddi). Roadside, Ystradfellte, SN929.133, M. & C.Porter, 2007.
- 103/1.5. **Geranium sylvaticum** (Wood Crane's-bill) (Pig-yr-aran Coed). Hay meadow, Capel-y-ffin, SO24.31, M. & C.Porter, 2007. All other extant sites are on mountain cliffs.
- +‡116/3.1. **Pulmonaria officinalis** (Lungwort) (Llysiau'r Ysgyfaint). Disused quarry, 2km N of Erwood, SO076.443, M. & C.Porter, 2006.
- +130/6.7.b. **Galium mollugo** ssp. **erectum** (Hedge Bedstraw) (Briwydd y Clawdd). ‡Possibly introduced in grassland, edge of track near Penwyllt, SN856.155, M. & C.Porter, 2007.
- 135/6.9×10. **Cirsium xcelakovskianum** (**C. palustre** × **C. arvense**) (Hybrid Thistle). A few plants with both parents on restored opencast coal site, Brynhenllys, SN760.120, S.P.Chambers, 2007. 2nd record.
- +135/30.1. **Filago vulgaris** (Common Cudweed) (Edafeddog Lwyd). Restored opencast coal site, Brynhenllys, SN764.133, S.P.Chambers, 2007.
- *153/54.1. **Brachypodium pinnatum** (Heath False-brome) (Breichwellt y Calch). Patch about 2sq.m. in disused limestone quarry, Penwyllt, SN857.156, M. & C.Porter, 2007, **herb.MP**. 1st record.

RADNOR, v.c. 43 (comm. Miss E.R. Dean & Mrs S.M. Spencer)

- +51/1.11. **Hypericum linariifolium** (Toadflax-leaved St John's-wort) (Eurinllys Culddail). Dolyhir near Stanner, SO246.583, A.Shaw, 2006. 1st recent record, last recorded in 1945.
- +74/8.1. **Tellima grandiflora** (Fringecups) (Clychau'r Clawdd). Near Ednol Hill, Radnor Forest, SO235.642, R.G.Woods, 2007. 2nd & 1st recent record, last recorded in 1961.
- *‡118/5.4. **Lamium hybridum** (Cut-leaved Dead-nettle) (Marddanhadlen Dorddail). Near Howey, SO06720.58638, B.Laney, 2007. 1st record.

152/16.3. *Carex diandra* (Lesser Tussock-sedge) (Hesgen Rafunog Fach). Rhosgoch Common, SO1948.4813, S.Bosanquet; +Rhosgoch Common, SO200.486, A.Ferguson; both 2007. 1st recent records. Previously reported from Llandrindod Wells (1919) and Rhosgoch Common (1948).

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

- +10/1.1. *Hymenophyllum tunbrigense* (Tunbridge Filmy-fern) (Rhedyndyn Teneuwe Tunbridge). Locally abundant: several large colonies on acid rock outcrops by disused adit, Allt Clyngwyn near Efailwen, SN1240.2601, R.D. & K.A.Pryce, 2007.
- +15/2.5.a. *Asplenium trichomanes* ssp. *trichomanes* (Maidenhair Spleenwort) (Duegredynen Gwallt y Forwyn). Open rocky track through overgrown slate quarry, Gilfach-ddofn near Efailwen, SN1272.2688, R.D. & K.A.Pryce, 2007.
- +17/3.3.a. *Dryopteris affinis* ssp. *affinis* (Scaly Male-fern) (Marchredynen Euraid). Several plants in coniferous plantation ride, by the Physician's well N of the Usk Reservoir, SN8073.2873, R.D.Pryce, 2007.
- +17/3.5. *Dryopteris aemula* (Hay-scented Buckler-fern) (Marchredynen Bêr). Abundant along banks of shaded track to Gilfach Quarry near Efailwen, SN1280.2613, BSBI meeting, 2007.
- +17/3.8×9. *Dryopteris ×deweveri* (*D. carthusiana* × *D. dilatata*) (a hybrid buckler-fern). Lowland raised bog, Gorsgoch, Llanllwch SSSI, SN3613.1857, LBAP Group, 2007, det. R.D.Pryce.
- +‡20/7.2.a. *Pinus nigra* ssp. *nigra* (Austrian Pine) (Pinwydden Awstria). Disturbed, quite dry dune slack, Tywyn Burrows, SN3634.0556, BSBI meeting, det. A.O.Chater; +Graveyard, Ystrad Ffin Churchyard, SN787.471, M. & J.Illiff; both 2007. 1st records as neophytes.
- +©28/5.1. *Nigella damascena* (Love-in-a-mist) (Glas y Niwl). One or two self-sown plants on trackside, Allt Nant-y-ci Community Park, Saron, SN6091.1236, R.D. & K.A.Pryce, 2007.
- *‡29/1.4. *Berberis wilsoniae* (Mrs Wilson's Barberry) (Pren Melyn Wilson). Two self-sown bushes plus several seedlings and small plants in vicinity on limestone-aggregate surfaced yard, derelict Ennis Caravans site, Cross Hands, SN5592.1282, R.D. & K.A.Pryce & G.Hutchinson, 2007. 1st record.
- *‡29/1.7. *Berberis julianae* (Chinese Barberry) (Pren Melyn Tsieina). Waste ground at front of disused caravan-park, Cross Hands, SN559.128, G.Hutchinson, 2007, NMW. 1st Welsh record.
- +31/5.3. *Fumaria bastardi* (Tall Ramping-fumitory) (Mwg-y-ddae'r Grymus). Flower bed weed, Penlan Park, Llandeilo, SN62692.22157, R.D. & K.A.Pryce, 2007.
- +31/5.5.b. *Fumaria muralis* ssp. *boraei* (Common Ramping-fumitory) (Mwg-y-ddae'r Amrywiol). Arable weed, Bethlehem Road, Llandeilo, SN659.238, G.M.Kay, H.J.Killick & R.Greenaway, 2007.
- +31/5.6. *Fumaria purpurea* (Purple Ramping-fumitory) (Mwg-y-ddae'r Glasgoch). Disturbed soil, Machynys, Llanelli, SS512.985, G.Hutchinson, 1993, NMW, det. T.C.G.Rich.
- *31/5.9. *Fumaria parviflora* (Fine-leaved Fumitory) (Mwg-y-ddae'r Mân-flodeuog). Waste ground at opposite end of New Dock Road, Llanelli, SS510.988, G.Hutchinson & I.K.Morgan, 1992, NMW, det. T.C.G.Rich. 1st record.
- +33/1.1×3×4. *Ulmus ×hollandica* (*U. glabra* × *U. minor* / *U. glabra* × *U. minor* × *U. plotii*) (Dutch Elm) (Llwyfen yr Iseldiroedd). ‡In hedge by derelict Bethania Chapel, Whitland, SN1993.1606, R.D.Pryce, 2007.
- *‡35/1.1. *Morus nigra* (Black Mulberry) (Morwydden). Hedgerow at exit of field near house, Glan Rhydw, Pontantwn, SN433.134, G.M.Kay et al., 2007. 1st record outside garden.
- +39/4.5×6. *Quercus ×rosacea* (*Q. petraea* × *Q. robur*) (a hybrid oak). Ravine woodland. Hafod Wenol SSSI, Mynydd Betws, SN6756.0962, BSBI meeting, 2007.
- +40/1.1×2. *Betula ×aurata* (*B. pendula* × *B. pubescens*) (a hybrid birch). Adjacent to track near Usk Reservoir, SN8069.2871, R.D.Pryce, 2007.
- +‡45/2.2. *Claytonia sibirica* (Pink Purslane) (Porpin Pinc). Naturalised in wild part of garden, Maes-yr-Hafod, Trelech, SN3024.3308, R.D. & K.A.Pryce, 2007.

- +46/1.1.c. *Arenaria serpyllifolia* ssp. *leptoclados* (Slender Sandwort) (Tywodlys Dail Teim). Sparsely vegetated colliery spoil, disused Glynhebog Colliery tip, Pontyberem, SN5162.1225, R.D. & K.A.Pryce, 2007.
- +46/8.1. *Myosoton aquaticum* (Water Chickweed) (Llinesg y Dŵr). One plant only on shingle river shoal, River Tywi, Dryslwyn Uchaf, SN5626.2016, A.O.Chater et al., conf. A.O.Chater & J.P.Poland; Shingle river shoal, Llwynmendy Uchaf, Bethlehem, SN67435.25191, R.Greenaway & BSBI group, NMW, det. G.M.Kay; both 2007.
- ▣46/11.2. *Scleranthus annuus* (Annual Knawel) (Dinodd Unflwydd). About 35 plants on recently disturbed shaly trackway and bank, Telpyn Farm, E of Amroth, SN1870.0755, A.O.Chater et al., 2007.
- ▣46/16.1. *Spergula arvensis* (Corn Spurrey) (Troellig yr Ŷd). Very few plants on recently disturbed shaly trackway and bank, Telpyn Farm, E of Amroth, SN1870.0755, A.O.Chater et al., 2007.
- +†46/20.9. *Silene latifolia* (White Champion) (Gludlys Gwyn). One or two mown plants on unimproved neutral grassland, Rhydwylym Chapel graveyard, SN1142.2486, R.D. & K.A.Pryce, 2007.
- +46/20.9×1. *Silene* ×*hampeana* (*S. latifolia* × *S. dioica*) [Pink Champion]. One plant on roadside, Blaencwm, Pencader, SN4306.3696; +One plant on track edge by the Usk Reservoir, SN8186.2910; both R.D.Pryce, 2007, only one parent (*S. dioica*) present.
- +46/20.10. *Silene dioica* albino flowered form (Red Champion) (Blodyn Neidr). One plant on acid roadside bank by road-junction and gateway, Blaencwm, Pencader, SN4309.3690, R.D.Pryce, 2007.
- +46/25.7. *Dianthus armeria* (Deptford Pink) (Penigan y Porfeydd). c.50 plants (21 flowering) in 5×7m area of mown grassland, W side of Old Castle Pond, Llanelli, SN4992.0034, A. & E.Stevens. 2nd record [UK BAP Priority Species].
- +‡47/1.3. *Persicaria wallichii* (Himalayan Knotweed) (Y Ganwraidd Himalaiaidd). Large stand in scrub woodland at edge of disused quarry. between Gilfach-ddofn and Gilfach Quarry near Efailwen, SN1278.2687, R.D. & K.A.Pryce, 2007.
- +47/1.9. *Persicaria amphibia* (Amphibious Bistort) (Canwraidd y Dŵr). Parc Howard, Llanelli, SN50A, J.A.Green & M.Godfrey, 2007.
- +47/8.13×19. *Rumex* ×*pratensis* (*R. crispus* × *R. obtusifolius*) (Meadow Dock). Roadside layby, S of Halfway, SN6477.3048, R.D. & K.A.Pryce, 2007.
- *47/8.14×19. *Rumex* ×*abortivus* (*R. conglomeratus* × *R. obtusifolius*) (a hybrid dock). By cycle track (northern verge). Penclacwydd Wildfowl & Wetlands Centre, E of Llanelli, SS5337.9804, M.O.Stead & BSBI meeting, 2006, NMW, det. G.Kitchener. 1st record.
- +47/8.15.san. *Rumex sanguineus* var. *sanguineus* (Blood-veined Dock) (Tafolen y Coed). By path through mature broad-leaved woodland, Gellywen, SN2702.2339, R.D. & K.A.Pryce; +Close-cut sports field. Felinfoel Junior School, Llanelli, SN5210.0191, R.D.Pryce; both 2007.
- +47/8.15.vir. *Rumex sanguineus* var. *viridis* (Wood Dock) (Tafolen y Coed). Woodland ride near the Usk Reservoir, SN8097.2786, R.D.Pryce, 2007.
- +47/8.15×19. *Rumex* ×*dufftii* (*R. sanguineus* × *R. obtusifolius*) (a hybrid dock). In meadow by footpath between A477 and footbridge, Llanddowror, SN2532.1350, BSBI meeting, 2006, NMW, det. G.Kitchener.
- +‡51/1.4. *Hypericum hircinum* (Stinking Tutsan) (Dail-y-Beiblau Drewllyd). Heavily grazed cliff-top flush, between Amroth and Telpyn Point, SN1869.0731, A.O.Chater et al., 2007.
- +51/1.16. *Hypericum elodes* (Marsh St John's-wort) (Eurinllys y Gors). In heavily grazed flush on cliff-top, between Amroth and Telpyn Point, SN1870.0735, A.O.Chater et al.; +Banks of rill in wet rushy area, Hafod Wenol SSSI, Mynydd Betws, SN6788.0940, BSBI meeting; both 2007.
- *‡51/1.Hid. *Hypericum* 'Hidcote' (a tutsan). Established on roadside bank near Amroth, SN1820.0769, A.O.Chater et al., 2007, det. G.Hutchinson. 1st record.
- +56/5.4. *Stellaria neglecta* (Greater Chickweed) (Gwlyddyn-y-dom Mawr). Very few plants on vegetated shingle shoal by River Tywi, Dryslwyn Uchaf, SN5614.2003, A.O.Chater et al., 2007, conf. A.O.Chater & J.P.Poland.

- +‡61/1.4. **Populus trichocarpa** (Western Balsam-poplar) (Poplysen Falmaidd y Gorllewin). Roadside opposite Whitland fire-station, Whitland, SN198.167, A.O.Chater, G.Hutchinson & I.K.Morgan, 1995, NMW.
- +‡61/2.9. **Salix viminialis** (Osier) (Helygen Wiall). Scrubby river bank, Whitland, SN1997.1620, R.D.Pryce, 2007.
- +61/2.10×11. **Salix ×reichardtii** (**S. caprea** × **S. cinerea**) (a hybrid willow). Willow-dominated scrub, Huntsman Chemical Works, Bynea, Llanelli, SS5564.9861, Llanelli Naturalists meeting, 2007, det. G.Hutchinson. 1st recent record.
- +61/2.10×12. **Salix ×capreola** (**S. caprea** × **S. aurita**) (a hybrid willow). River bank, Llanwrda, SN7145.3075, M.O.Stead & BSBI group, 2007, NMW, det. J.P.Poland.
- +62/10.2. **Matthiola sinuata** (Sea Stock) (Murwyll Arfor). One mature plant in flower on mobile dunes just above strandline, Pendine, SN24009.07849, N.King & C.Thomas, 2007, NMW. 2nd v.c. record.
- +62/12.1. **Rorippa nasturtium-aquaticum** (Water-cress) (Berwr-y-dŵr). Well established in series of artificial ponds, Maes-yr-Hafod, Trelech, SN3027.3309, R.D. & K.A.Pryce, 2007.
- +‡62/31.1. **Coronopus squamatus** (Swine-cress) (Olbrain). Two plants on shale-surfaced track to farmyard, Telpyn Farm E of Amroth, SN18675.07555, A.O.Chater et al., 2007.
- *‡62/34.2.a. **Brassica napus** ssp. **oleifera** (Oil-seed Rape) (Rêp Had Olew). Several plants in corner of construction site, Whitland, SN2036.1670, R.D.Pryce, 2007. 1st record of subspecies.
- +69/6.1. **Anagallis tenella** (Bog Pimpernel) (Gwlyddyn-Mair y Gors). Heavily grazed cliff-top flush between Amroth and Telpyn Point, SN1869.0731, BSBI meeting, 2007.
- +74/5.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage) (Tormaen Tribys). Two plants in flower in angle between wall and pavement, Whitland, SN1999.1638, R.D.Pryce, 2007.
- *‡74/7.1. **Tolmiea menziesii** (Pick-a-back-plant) (Crydllys). Originally introduced but well established on shady riverside bank, Maes-yr-Hafod, Trelech, SN3030.3311, R.D. & K.A.Pryce, 2007. 1st record.
- *‡75/7.1. **Kerria japonica** (Kerria) (Cerria). Self-sown in mortared stone wall, Llandovery Castle, SN7674.3422, R.D.Pryce, 2007, NMW. 1st published record.
- +75/9.14×15. **Potentilla ×mixta** (**P. erecta** × **P. reptans** & **P. anglica** × **P. reptans**) (Hybrid Cinquefoil) (Pumnalén Groesryw). Road verge, Cwmafael near Llandyfaelog, SN4199.1295, G.M.Kay et al., 2007.
- +‡75/11.2. **Fragaria moschata** (Hautbois Strawberry) (Llwyn Mefus Mawr). Roadside, E of Siloh, SN7442.3714, R.G Woods, 2007.
- +‡75/11.3. **Fragaria ananassa** (Garden Strawberry) (Llwyn Mefus y Gerddi). Escape on roadside near entrance to sewage pumping station, Whitland, SN2005.1601, R.D.Pryce, 2007.
- *‡75/19.2. **Alchemilla conjuncta** (Silver Lady's-mantle) (Mantell-Fair Ariannaid). Garden escape at seaward end of valley, Morfa Bychan near Pendine, SN22.07, J.Rees, 1996, NMW, det. G.Hutchinson; +Spreading on Carboniferous Limestone wall top (originally introduced as garden plant), Crwbin, SN473.131, G.Hutchinson, 2007, NMW. 1st & 2nd records.
- +75/19.10.b. **Alchemilla filicaulis** ssp. **vestita** (Hairy Lady's-mantle) (Mantell-Fair Flewog). Limestone grassland, Cwm Clydach, Mynydd Du, SN7420.1901, A.O.Chater et al., 2004, det. A.O.Chater; One plant only in limestone grassland below Clogau Mawr, Mynydd Du, SN7125.1922, R.D. & K.A.Pryce, 2007, NMW, det. M.E. Bradshaw.
- +75/20.2. **Aphanes australis** (Slender Parsley-piert) (Troed-y-dryw Main). Gravelly trackside near Usk Reservoir, SN8186.2910, R.D.Pryce, 2007.
- *‡75/26.2. **Pyrus pyraeaster** (Wild Pear) (Coeden Ellyg Gwyllt). One tree near old cottage, bank of Nanrhydw, Pontantwn, SN434.139, J.A.Green, 2007, NMW, det. A.O.Chater & G.M.Kay. 1st record.
- *‡75/28.Jos. **Sorbus 'Joseph Rock'**, Tree planted in waste ground with seedlings becoming established in vicinity, Bynea, SS551.987, G.Hutchinson, 2006, NMW. 1st record.
- +‡75/32.10. **Cotoneaster salicifolius** (Willow-leaved Cotoneaster) (Cotoneaster Dail Helyg). Waste ground in disused coal depot adjoining railway line, Ferryside, SN366.104, G.Hutchinson &

- J.Gibson, 1993, **NMW**, det. J.Fryer; +Waste ground, Bynea, SS552.987, G.Hutchinson, 2006, **NMW**.
- *‡75/32.11. **Cotoneaster dammeri** (Bearberry Cotoneaster) (Bearberry Cotoneaster). Naturalized & spreading in garden of Dylan Thomas' Boathouse, Laugharne, SN3064.1103, R.D.Pryce, 2001; +One prostrate plant, probably self-sown on trackside from plants well established c.100m away, West Tip, Cross Hands, SN5613.1311, R.D. & K.A. Pryce, 2007; both **NMW**, det. J.Fryer. 1st & 2nd records.
- +‡75/32.11×18.Sko. **Cotoneaster ×suecicus 'Skogholm'** (Swedish Cotoneaster) (Cotoneaster Sweden). Several plants on open gravelly ground self sown from nearby shrub plantings, derelict Ennis Caravans site, Cross Hands, SN5596.1286, R.D. & K.A.Pryce & G.Hutchinson, 2007.
- +‡75/32.21. **Cotoneaster horizontalis** (Wall Cotoneaster) (Cotoneaster Asgwrn). Self-sown in remnant of field hedge within housing development. Whitland, SN1983.1591, R.D.Pryce, 2007; +Several self-sown plants in derelict slate quarry, Gilfach Quarry near Efailwen, SN1277.2701, R.D. & K.A.Pryce, 2007, det. G.Hutchinson.
- +‡75/32.23.var. **Cotoneaster atropurpureus 'Variegatus'** (Purple-flowered Cotoneaster) (Cotoneaster Blodau Porffor). Established on bank at entrance to farm drive, Gilfach-ddofn near Efailwen, SN13375.27028, BSBI meeting, 2007, det. G.Hutchinson.
- +‡75/32.34. **Cotoneaster bullatus** (Hollyberry Cotoneaster) (Cotoneaster Deilgrych). Waste ground, Bynea, SS552.986, Llanelli Naturalists meeting; +Self-sown bush on waste ground, Queen Elizabeth High School, Johnstown, Carmarthen, SN4009.1900, R.D.Pryce; both 2006, **NMW**, det. G.Hutchinson; +Self-sown on disturbed, vacant corner of rank grass with peripheral tall herb and encroaching scrub. Whitland, SN2125.1716, R.D.Pryce, 2007.
- +‡75/32.35. **Cotoneaster rehderi** (Bullate Cotoneaster) (Cotoneaster Deilgrych Rehder). E entrance to dam between the two reservoirs, Cwmoernant Reservoir, Tanerdy, Carmarthen, SN41.21, G.Hutchinson, 2003, **NMW**.
- +‡75/32.37. **Cotoneaster dielsianus** (Diels' Cotoneaster) (Cotoneaster Diels). Self sown in waste ground, Cross Hands, SN559.128, G.Hutchinson & R.D.Pryce, 2007, **NMW**. 2nd record.
- *77/14.13. **Vicia lutea** (Yellow-vetch) (Ffachysen Felen). ‡Six robust plants in compacted development plateau, presumably introduced with seed mix, Parc Hendre development site, Capel Hendre, SN5999.1099, B.Stewart, 2007, **NMW**. 1st record.
- +77/15.12. **Lathyrus nissolia** (Grass Vetchling) (Ytbysen Feinddail). ‡Five plants in dry, rank neutral grassland, A40 road junction W of Bancyfelin, SN3180.1743, R.D.Pryce, 2007.
- +‡77/17.1. **Melilotus altissimus** (Tall Melilot) (Yr Wydro Dal). Frequent in stone chippings, A40 near Bancyfelin, SN3042.1714, R.D.Pryce, 2007.
- +‡77/17.2. **Melilotus albus** (White Melilot) (Yr Wydro Wen). Occasional in stone chippings, A40 E of St Clears, SN2995.1701, R.D.Pryce, 2007.
- +77/19.1. **Trifolium ornithopodioides** (Bird's-foot Clover) (Corfeillionen Wen). At least 2-3 plants on grassy path west of harbour, Burry Port, SN4429.0034, BSBI meeting, 2007.
- +77/19.13. **Trifolium micranthum** (Slender Trefoil) (Meillionen Hopsaidd Eiddil). Heavily sheep-grazed limestone grassland. Banc Wern Wgan, Mynydd Du, SN6831.1842, R.D. & K.A.Pryce, 2007.
- +77/19.15. **Trifolium medium** (Zigzag Clover) (Meillionen Igam-ogam). Unimproved hay meadow. Hafod Wenol SSSI, Mynydd Betws, SN6763.0962, BSBI meeting, 2007.
- *‡77/22.1×2. **Laburnum ×watereri (L. anagyroides × L. alpinum)** (a hybrid laburnum). Hedge, Llech-Sion, NE of Cwmduad, SN394.325, A.O.Chater, 1997, **NMW**. 1st record as a neophyte and pre-dating records already published; +One tree in old hedgerow dominated by *Alnus*, S of Maes-yr-Yrfa School, Cefneithin, SN5597.1353, R.D. & K.A.Pryce, 2007.
- +77/25.2. **Genista tinctoria** (Dyer's Greenweed) (Melynog y Waun). Five or six plants in dry hay meadow, Blaen Tir near Llandovery, SN7989.3641, R.D. & K.A.Pryce, 2007.
- *‡78/2.1. **Elaeagnus umbellata** (Spreading Oleaster) (Oleaster). Bronwydd Arms, SN41.23, A.S.Lewis, 2002, **NMW**, det. G.Hutchinson. 1st record.

- +‡79/2.2. **Myriophyllum aquaticum** (Parrot's-feather) (Pluen Parot). Established in pond created about 10 years ago, Scythlyn, Pencader, SN4363.3681, R.D.Pryce; +Choking small garden pond in lawn south of house, Blaen Tir near Llandovery, SN79966.36416, R.D. & K.A.Pryce; both 2007.
- +79/2.3. **Myriophyllum spicatum** (Spiked Water-milfoil) (Myrdd-ddail Ysbigog). ‡Locally abundant in garden pond, introduced but well established, Maes-yr-Hafod, Trelech, SN30260.33057, R.D. & K.A.Pryce, 2007.
- +81/1.1. **Lythrum salicaria** (Purple-loosestrife) (Llysiau'r-milwr Coch). Introduced but established in small garden pond in lawn south of house, Blaen Tir, Llandovery, SN79966.36416, R.D. & K.A.Pryce, 2007.
- *84/1.1×9. **Epilobium** ×**waterfallii** (**E. hirsutum** × **E. palustre**) (a hybrid willowherb). Rank grassland, with both parents, West Tip, Cross Hands, SN5618.1348, R.D. & K.A. Pryce, 2007, NMW, det. G.Kitchener. 1st confirmed record.
- +84/1.2×3. **Epilobium** ×**limosum** (**E. parviflorum** × **E. montanum**) (a hybrid willowherb). Ynysdawela Country Park, Brynamman, SN70.13, Llanelli Naturalists meeting, 1997; +Rank grassy ride through coniferous forest, Pembrey Forest, SN3761.0343, BSBI meeting, 2006; both NMW, det. G.Kitchener.
- +84/1.2×6. **Epilobium** ×**dacicum** (**E. parviflorum** × **E. obscurum**) (a hybrid willowherb). Rank grassy ride through coniferous forest, Pembrey Forest, SN3761.0343, BSBI meeting, 2006, NMW, det. G.Kitchener.
- +84/1.3×6. **Epilobium** ×**aggregatum** (**E. montanum** × **E. obscurum**) (a hybrid willowherb). Lane bank off bend in driveway up to Forge Farm, Forge Quarry, Cwmdwyfran, SN408.257, G.Hutchinson, 1997; +Rank neutral grassland, Green Castle Woodland Trust Reserve, SN3917.1642, Llanelli Naturalists meeting, 2006; both NMW, det. G.Kitchener.
- +84/1.3×8. **Epilobium** ×**interjectum** (**E. montanum** × **E. ciliatum**) (a hybrid willowherb). N side of trackway off bend in driveway up to Forge Farm, Forge Quarry, Cwmdwyfran, SN408.257, G.Hutchinson, 1997, NMW, det. G.Kitchener.
- *84/1.4×6. **Epilobium** ×**lanceolatum** (**E. lanceolatum** × **E. obscurum**) (a hybrid willowherb). Lane bank off bend in driveway up to Forge Farm, Forge Quarry, Cwmdwyfran, SN408.257, G.Hutchinson, 1997, NMW, det. G.Kitchener. 1st record.
- +‡89/1.1×per. **Ilex** ×**altaclerensis** (**I. aquifolium** × **I. perado**) (Highclere Holly) (Celynnen Highclere). Tree at junction of minor road and driveway to farm, 0.3km SW of Cwm Rhuddan near Llandovery, SN758.325, G.Hutchinson, 1995, NMW, det. A.O.Chater.
- *+‡91/2.5. **Euphorbia dulcis** (Sweet Spurge) (Llaethlys Pêr), Dylan Thomas' Boathouse garden, Laugharne, SN306.110, J.Rees, 1992, NMW, det. T.Walker. 1st record.
- *‡91/2.7. **Euphorbia serrulata** (Upright Spurge) (Llaethlys Syth). ©Garden weed, abundantly self-sowing, Garregwen Farm, Penrhiwgoch, SN561.185, G.Hutchinson, R.D. & K.A. Pryce, 2005, NMW, det. T.Walker; +©One plant in vegetated river shingle, Llanwrda, SN7163.3075, M.Stead & BSBI group, 2007. 1st & 2nd records.
- +‡91/2.10. **Euphorbia exigua** (Dwarf Spurge) (Corlaethlys). One large plant in disturbed shrub planting bed in car-park, Pontyberem, SN504.111, A.Stevens, 2007, NMW.
- +‡91/2.16b. **Euphorbia amygdaloides** ssp. **robbiae** (Wood Spurge) (Llaethlys y Coed). Escaping from garden onto roadside bank, Bancffosfelen, SN489.119, I.K.Morgan, 2007.
- +‡93/2.1. **Parthenocissus quinquefolia** (Virginia-creeper) (Dringwr Fflamgoch), Naturalised in hedge around large garden, Whitland, SN1998.1671, R.D.Pryce, 2007.
- +‡103/1.1. **Geranium endressii** (French Crane's-bill) (Pig-yr-aran Ffrainc). Established garden throw-out in rank grass and bramble dominated corner in stream meander, Trevaughan, Whitland, SN1982.1602; +Escape on narrow roadside verge, Brynsaron C.P. School near Llandysul, SN37925.36580; both R.D.Pryce, 2007.
- +103/1.4. **Geranium rotundifolium** (Round-leaved Crane's-bill) (Pig-yr-aran Grynddail). ‡One plant on shale-surfaced track to farmyard, Telpyn Farm E of Amroth, SN18675.07555, A.O.Chater et al., 2007.

- +103/1.9. **Geranium sanguineum** (Bloody Crane's-bill) (Pig-yr-aran Ruddgoch). ©Casual on hedgebank on NE side of A4069 road above Sawdde Gorge, 1.3km NW of Pont-ar-llechau, SN719.254, A.O.Chater, G.Hutchinson & R.D.Pryce, 1997, NMW.
- +‡110/6.1. **Physalis alkekengi** (Japanese-lantern) (Llusern Bapur). ©One small plant in roadside gutter, Elgin Rd, Pwll, SN47791.01068, R.D. & K.A.Pryce, 2007.
- +110/8.1. **Solanum nigrum** (Black Nightshade) (Codwarth Du). ‡One plant in large urban flower-bed, E side of Castle, Hill, Carmarthen, SN41404.19936, R.D. & K.A.Pryce, 2007.
- +‡111/3.4.a. **Calystegia silvatica** ssp. **silvatica** (Large Bindweed) (Taglys Mawr). Roadside hedgerow, Bethlehem Road, Llandeilo, SN647.231, G.M.Kay, H.J.Killick & R.Greenaway, 2007.
- *‡111/3.4.dis. **Calystegia silvatica** ssp. **disjuncta** (Large Bindweed) (Taglys Mawr). Roadside hedgebank, NW of Pont-ar-llechau, SN719.254, A.O.Chater & R.D.Pryce, 1997, NMW. 1st record pre-dating previously reported records.
- +113/1.1. **Menyanthes trifoliata** (Bogbean) (Ffeuen y Gors). ‡Established in series of artificial ponds, Maes-yr-Hafod, Trelech, SN3027.3309, R.D. & K.A.Pryce, 2007.
- +116/4.1. **Symphytum officinale** (Common Comfrey) (Cyfardwf). ‡Parc Hendre development site, Capel Hendre, SN5989.1110, BSBI meeting, 2007, conf. A.O.Chater & J.P.Poland.
- +‡116/10.1. **Trachystemon orientalis** (Abraham-Isaac-Jacob) (Abraham, Isaac a Jacob), Established garden throw-out on lanebank on approach road to quarry, Pwllchymarch Quarry, Carmel, SN5919.1643, R.D. & K.A.Pryce, 2007. 2nd record.
- +116/15.1×4. **Myosotis** ×**suzae** (**M. scorpioides** × **M. laxa**) (a hybrid forget-me-not). Rare in vegetated ox-bow marsh, River Tywi, Dryslwyn Uchaf, SN5665.2021, A.O.Chater et al., 2007, conf. A.O.Chater & J.P.Poland.
- +116/15.9. **Myosotis ramosissima** (Early Forget-me-not) (Sgorpionllys Cynnar). Locally frequent in grassland managed as wildflower meadow, Huntsman Chemical Works, Bynea, Llanelli, SS5544.9880, Llanelli Naturalists meeting, 2007, det. G.Hutchinson.
- +‡118/1.8. **Stachys arvensis** (Field Woundwort) (Briwllys y Tir Âr). Very few plants in recently disturbed shaly trackway and bank. Telpyn Farm, east of Amroth, SN1870.0755, A.O.Chater et al., 2007.
- +‡118/4.1.c. **Lamiastrum galeobdolon** ssp. **argentatum** (Yellow Archangel) (Marddanhadlen Felen). ‡Patch c.2x1m naturalised on hedgebank at edge of town, Llandovery, SN7699.3424, WTSWW meeting, 2007.
- +118/10.4. **Scutellaria minor** (Lesser Skullcap) (Cycyllog Bach). Heavily grazed cliff-top flush, between Amroth and Telpyn Point, SN1870.0736, A.O.Chater et al., 2007.
- 121/1.5. **Plantago lanceolata** (Ribwort Plantain) (Llyriad yr Ais). Roadside verge near Blaencwm, Pencader, SN4309.3684, J.Hubert, 2007, NMW, det. R.D.Pryce. Teratological specimen (see article elsewhere in this Bulletin).
- +123/4.1. **Ligustrum vulgare** (Wild Privet) (Yswyddden). ‡Two plants established in gravelly open ground by car park of derelict Bethania Chapel, Whitland, SN1993.1606, R.D.Pryce, 2007.
- +‡124/1. **Verbasum blattaria** (Moth Mullein) (Pannog y Gwyfyn). Two plants in sparsely vegetated tip material, disused Glynhebog Colliery near Pontyberem, SN51669.12169, R.D.Pryce, 2007.
- +‡124/4.2. **Mimulus guttatus** (Monkeyflower) (Blodyn Mwnci). Occasional at banks of pond created about 10 years ago, Scythlyn, Pencader, SN4363.3681, R.D.Pryce, 2007.
- +‡124/7.1. **Antirrhinum majus** (Snapdragon) (Trwyn y Llo). ©Sparse vegetation on slag substrate, North Dock, Llanelli, SS4995.9973, R.D. & K.A.Pryce, 2007.
- +‡124/9.1. **Misopates orontium** (Weasel's-snout) (Y Trwyn-y-llo Lleiaf). Five plants on bare ground in supermarket car park, Pontyberem, SN5047.1113, E.Stevens, 2007, det. A.Stevens.
- *‡124/17.1. **Hebe salicifolia** (Koromiko) (Pedwar-ban-byd Helygddail). Self-sown in dock wall, Burry Port Harbour, SN4453.0048, A.O.Chater & BSBI meeting, 2007. 1st record.
- +124/20.5.b. **Euphrasia arctica** ssp. **borealis** [Arctic Eyebright] (Effros yr Arctig). Wet meadow above upper saltmarsh, Tywyn Burrows, SN380.048, BSBI group, 2006, NMW, det. A.J.Silverside.

- +124/20.7×9. *Euphrasia nemorosa* × *E. confusa* (a hybrid eyebright). Old mineral line by disused Pentremawr Colliery near Railway Terrace, Pontyberem, SN498.109, M. & J.Iliff, 2002, **NMW**, det. A.J.Silverside.
- *‡124/SUT.cor. *Sutera cordata* (Bacopa). Naturalised on grave in churchyard, Bethel Chapel, N of Glyn-dreiniog, Glanamman, SN6815.1445, I.K.Morgan, 2007, **NMW**, det. E.J.Clement. 1st record.
- +‡129/1.10. *Campanula poscharskyana* (Trailing Bellflower) (Clychllys Ymlusgol). Boundary wall, Ystrad Ffin Churchyard, SN787.471, M. & J.Iliff, 2007.
- +129/3.1. *Wahlenbergia hederacea* (Ivy-leaved Bellflower) (Clychllys Dail Eiddew). Locally frequent in species-rich marsh, N of Glan-rhyd, Llanfallteg West, SN1444.1894, S. & A.Coker, 2007.
- +‡129/7.2. *Lobelia erinus* (Garden Lobelia) (Bidoglys yr Ardd). +©A few self sown plants in pavement cracks outside house curtilages, Trevaughan, Whitland, SN1969.1603, R.D.Pryce; ©One self-sown plant in angle between curtilage wall and forecourt, Carmarthen Road, Cross Hands, SN55985.13088, R.D. & K.A.Pryce; both 2007.
- +130/3.1. *Sherardia arvensis* (Field Madder) (Mandon Las yr ŷd). A few plants in grazed, goose-trampled grassland, Blaencwm, Pencader, SN4340.3675, R.D.Pryce, 2007.
- +‡131/3.orb×mic. *Symphoricarpos* × *chenaultii* (*S. microphyllus* × *S. orbiculatus*) (Hybrid Coralberry) (Llusen Gwrel Groesryw). Halfway down quarry slope, Forge Quarry, Pentre Morgan, Cynwyl Elfed, SN407.257, G.Hutchinson, 1997, **NMW**.
- +‡133/1.2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffirwythau Rhychog). ‡Introduced as salad-leaf crop about five years ago, now abundant weed around farmhouse and yard. Maes-yr-Hafod, Trelech, SN3022.3306, R.D. & K.A.Pryce, 2007.
- +‡135/1.3. *Echinops bannaticus* (Blue Globe-thistle) (Ysgallen Bengron Las). Woodland edge on coastal dune, Pembrey Country Park, SN407.011, I.K.Morgan; +Large clump at edge of cultivated area in informal car park, S of Graig Fawr, Troserch Road, Llangennech, SN546.043, I.K.Morgan; both 2005, **NMW**, det. G.Hutchinson.
- +135/11.deb.nem. *Centaurea debeauxii* ssp. *nemoralis* (Chalk Knapweed). One plant on vegetated spoil by rubble pile. disused Glynhebog Colliery tip, Pontyberem, SN5165.1223, R.D. & K.A.Pryce, 2007.
- +‡135/17.1. *Picris echioides* (Bristly Oxtongue) (Tafod-y-llew Gwrychog). Occasional plants in sparsely vegetated compacted ground, Parc Hendre development site, Capel Hendre, SN5999.1100, R.D.Pryce, 2007.
- +135/17.2.a. *Picris hieracioides* ssp. *hieracioides* (Hawkweed Oxtongue) (Tafod y Llew). One plant in rank grassland with tall herb element. North Dock, Llanelli, SS4972.9979, R.D.Pryce, 2007.
- +‡135/22.1. *Lactuca serriola* (Prickly Lettuce) (Letusen Bigog). ‡Two plants at edge of A40 dual-carriageway, between Bancyfelin and St Clears, SN30120.17061, R.D.Pryce, 2007.
- +135/25.7.55. *Taraxacum bracteatum* (Dark-green Dandelion). Woodland border near Rhydwyilm Chapel, SN1161.2497, R.D. & K.A. Pryce, 2007, **NMW**, det. A.J.Richards.
- +135/25.7.64. *Taraxacum gelertii* (Gelert's Dandelion). Roadside verge, Allt Nant-y-ci Community Park, Saron, SN6096.1248, R.D. & K.A. Pryce, 2007, **NMW**, det. A.J.Richards.
- +135/25.8.87. *Taraxacum hamatifforme* (Asymmetrical Hook-lobed Dandelion). Disturbed ground, E of road to Pentre Nicklaus village, Machynys, Llanelli, SS5074.9833, R.D.Pryce, 2006, **NMW**, det. A.J.Richards.
- +135/25.8.90. *Taraxacum hamiferum* (Dark Hook-lobed Dandelion). Flower bed weed, Peniel School, Carmarthen, SN4366.2416, R.D. & K.A. Pryce, 2007, **NMW**, det. A.J.Richards.
- *‡135/25.8.93. *Taraxacum lancidens* (Spear-toothed Dandelion). Garden, Woodlands, School Road, Pwll, SN4769.0118, R.D.Pryce, 2006, **NMW**, det. A.J.Richards. 1st record.
- +135/25.8.98. *Taraxacum pseudohamatum* (False Hook-lobed Dandelion). Disturbed ground, E of road to Pentre Nicklaus village, Machynys, Llanelli, SS5074.9833, R.D.Pryce, 2006, **NMW**, det. A.J.Richards.
- *‡135/25.9.113. *Taraxacum angustisquameum* (Multilobed Dandelion). Flower bed weed, Peniel School near Carmarthen, SN4366.2416, R.D. & K.A. Pryce, 2007, **NMW**, det. A.J.Richards. 1st record.



Left:

Yucca gloriosa agg. (Spanish-daggers) growing at Newborough Warren, Anglesey with Megan Howe.

Photo: Liz Howe, October 2007.

Below left:

Yucca gloriosa agg. (Spanish-daggers) being examined by BSBI members led by Tony Lewis at Crymlyn Burrows, Swansea on 22nd June 2002.

Photo: Kath Pryce.

Right:

Yucca gloriosa agg. (Spanish-daggers), current year's flower spike >2m tall, growing on Tywyn Burrows, Carmarthenshire, one of at least two plants recorded by members of the Llanelli Naturalists on 25th September 1999.

Below:

Detail from *Fabian's Bay, Swansea, 1844*. by W. Williams, showing what might be *Yucca* plants growing on low dunes above the strandline – or is that being too optimistic?

See:

Yucca in the sand dunes at Newborough, Anglesey v.c.52 and on sand dunes in Glamorgan v.c.41 and Carmarthenshire v.c.44



Right:

***Ranunculus tripartitus* (Three-lobed Crowfoot).** This species is Endangered in Great Britain, but Least Concern in Wales, largely due to the reintroduction of appropriate management at many of its sites (picture: Trevor Dines).



See:

Plantlife - Wales Newsletter - 7



PLANTLIFE

Left

***Hammarbya paludosa* (Bog Orchid).** This species is Least Concern in Great Britain but Endangered in Wales, mainly due to the loss of upland sites in Caernarfonshire and Merionethshire. It has been added to the list of priorities for conservation in Wales as a result (picture: Bob Gibbons).

Right:

Monster *Plantago lanceolata* ("Pick-a-back Plantain") from near Pencader, Carmarthenshire, v.c.44, discovered by local resident, John Hubert, April 2007.

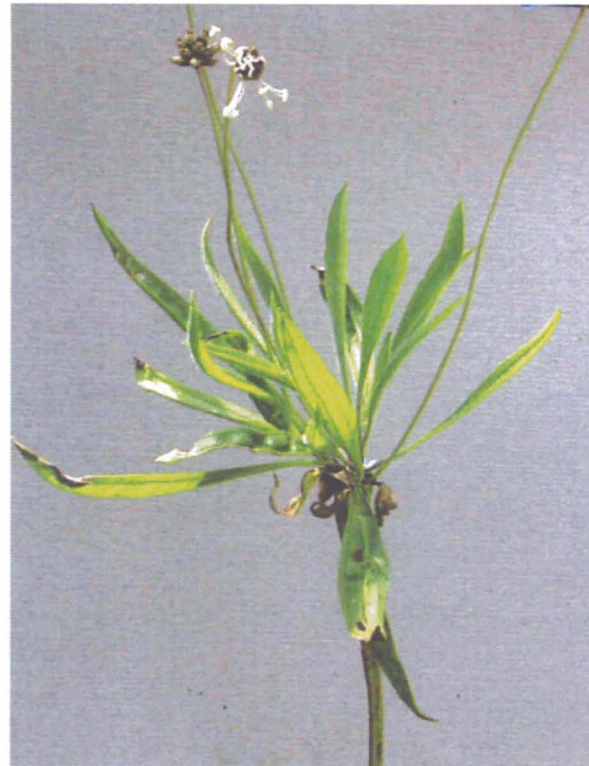
Photo: John Hubert.



Below:

Monster *Plantago lanceolata* ("Pick-a-back Plantain") from near Neath, Glamorgan, v.c.41, 2007.

Photo: Shirley Rippin, comm.. Trevor Evans.



See:

Teratological Ribwort Plantain

- +135/25.9.123. ***Taraxacum croceiflorum*** (Orange-flowered Dandelion). Garden, Woodlands, School Road, Pwll, SN4769.0118, R.D.Pryce, 2006, NMW, det. A.J.Richards.
- +135/25.9.146. ***Taraxacum lacerifolium*** (Jagged-leaved Dandelion). Damp, rank grassland, Queen Elizabeth High School campus, Johnstown, Carmarthen, SN4025.1908, R.D.Pryce, 2006, NMW, det. A.J.Richards.
- +135/25.9.149. ***Taraxacum laeticolor*** (Pale-stalked Dandelion). Garden, Trevethin, School Road, Pwll, SN47705.01221, R.D.Pryce, 2007, NMW, det. A.J.Richards.
- +‡135/25.9.184. ***Taraxacum piceatum*** (Leaden-bracted Dandelion). Damp, rank grassland, Queen Elizabeth High School campus, Johnstown, Carmarthen, SN4025.1908, R.D.Pryce, 2006, NMW, det. A.J.Richards.
- +135/25.9.197. ***Taraxacum sellandii*** (Selland's Dandelion). Flower bed weed, Peniel School near Carmarthen, SN4366.2416, R.D. & K.A. Pryce; +Frequent in mown neutral grassland N of path, Penlan Park, Llandeilo, SN62679.22182, R.D. & K.A. Pryce & C.A.Cottingham; both 2007, NMW, det. A.J.Richards.
- +135/25.9.207. ***Taraxacum sublaeticolor*** (Small-headed Dandelion). Woodland border near Rhydwyilm Chapel, SN1161.2497, R.D. & K.A. Pryce, 2007, NMW, det. A.J.Richards.
- +‡135/27.6. ***Pilosella aurantiaca*** (Fox-and-cubs) (Clust-y-llygoden Euraid). Locally frequent in various parts of the quarry mainly on gravelly substrate, Gilfach Quarry near Efailwen, SN1276.2699, R.D. & K.A.Pryce, 2007.
- +135/27.eur. ***Pilosella officinarum* ssp. *euronota*** (Mouse-ear-hawkweed) (Clust-y-llygoden). Cliff grassland, between Amroth and Telpyn Point, SN1852.0723, A.O.Chater et al., 2007, det. A.O.Chater.
- +‡135/28.7.arg. ***Hieracium argillaceum*** Jord. (Southern Hawkweed). Roadside bank at border with wood near Rhandirmwyn, SN7760.4350, J.Sawtschuk, 2006, NMW, det. D.J.McCosh.
- *135/28.7.con. ***Hieracium consociatum*** Jord. ex Boreau (Sociable Hawkweed). On the cliff E of the spillway and the parking area, Llyn Brianne, SN7937.4844, J.Sawtschuk, 2006, NMW, det. D.J.McCosh. 1st record.
- +135/30.4. ***Filago minima*** (Small Cudweed) (Edafeddog Fach). River shoal, Llanwrda, SN7181.3081, BSBI meeting, 2007.
- +‡135/58.lac×max. ***Leucanthemum* × *superbum*** (*L. lacustre* × *L. maximum*) (Shasta Daisy) (Y Llygad-llo Mwyaf). Established garden throw-out on rubble pile, Whitland, SN1931.1676, R.D.Pryce, 2007.
- +‡135/73.1. ***Calendula officinalis*** (Pot Marigold) (Melyn Mair). ©Single plant self-sown on bare ground outside Station Garage, Whitland, SN2001.1634, R.D.Pryce, 2007.
- +‡138/4.2. ***Elodea nuttallii*** (Nuttall's Waterweed) (Ffugalaw Nuttall). Pond, by River Tywi E of Llandeilo, SN644.238, G.M.Kay, H.J.Killick & R.Greenaway, 2007.
- +142/1.19. ***Potamogeton crispus*** (Curled Pondweed) (Dyfrllys Crych). ‡Established in series of artificial ponds, introduced about five years ago, Maes-yr-Hafod, Trelech, SN3027.3309, R.D. & K.A.Pryce, 2007.
- +‡148/2.4. ***Lemna minuta*** (Least Duckweed) (Llinad Bach). In small areas of standing water, N of Traveller's Rest, Carmarthen, SN3887.1976, R.D.Pryce, 2007.
- +‡151/1.2. ***Juncus tenuis*** (Slender Rush) (Brwynen Fain). Access track to Gilfach Quarry near Efailwen, SN1275.2688, R.D. & K.A.Pryce, 2007.
- +151/1.6. ***Juncus foliosus*** (Leafy Rush) (Brwynen Ddeiliog). About 6 plants in muddy area poached by cattle, with *J. bufonius*, on shingle river shoal, River Tywi, Dryslwyn Uchaf, SN5626.2013, A.O.Chater et al., 2007, conf. A.O.Chater & J.P.Poland.
- *151/1.26×27. ***Juncus* × *kern-reichgeltii*** (*J. effusus* × *J. conglomeratus*) (a hybrid rush). Frequent in unimproved acid grassland, Hafod Wenol SSSI, Mynydd Betws, SN6768.0956, BSBI meeting, 2007, conf. A.O.Chater & J.P.Poland, 1st published record.
- +152/7.2. ***Schoenoplectus tabernaemontani*** (Grey Club-rush) (Llafrwynen Arfor). ‡Planted but now established in compacted shaley area by pond, Scythlyn, Pencader, SN4363.3681, R.D.Pryce, 2007.

- +152/11.1. **Cyperus longus** (Galingale) (Ysnoden Fair). ‡Substantial stand on roadside near Llangathen, SN5980.2304, B.Longridge, 2007.
- +152/16.9.a. **Carex divulsa** ssp. **divulsa** (Grey Sedge) (Hesgen Lwyd). Abundant on grassy roadside bank, Catherine Street, Pwll, Llanelli, SN47838.01032, R.D. & K.A.Pryce, 2007, conf. A.O.Chater.
- *152/16.23.sub. **Carex hirta** var. **sublaevis** (Hairy Sedge) (Hesgen Flewog). Ox-bow, Manoravon farm, Llandeilo, SN645.238, G.M.Kay & BSBI group, 2007, NMW, det. A.O.Chater. 1st record for var.
- +152/16.27. **Carex pseudocyperus** (Cyperus Sedge) (Hesgen Gynffonnog). Established on pond bank, Scythlyn, Pencader, SN4363.3681, R.D.Pryce, 2007.
- +152/16.42. **Carex punctata** (Dotted Sedge) (Hesgen Fannog). Eleven plants on low, clay cliff just above shingle beach, between Amroth and Telpyn Point, SN1819.0733, A.O.Chater et al., 2007, det. A.O.Chater & J.P.Poland.
- +152/16.44×46. **Carex** ×**fulva** (**C. hostiana** × **C. viridula**) (a hybrid sedge). Two plants in ruts in wet part of unimproved acid grassland, Blaen Tir, Llandovery, SN7987.3635, R.D. & K.A.Pryce, 2007.
- +152/16.47. **Carex pallescens** (Pale Sedge) (Hesgen Welw). Four plants in rank, grassy slope disturbed by recent scrub clearance, Gilfach-ddofn near Efailwen, SN1288.2658, R.D. & K.A.Pryce; +Unimproved neutral hay-meadow grassland, Hafod Wenol SSSI, Mynydd Betws, SN6768.0956, BSBI meeting; both 2007, conf. A.O.Chater.
- +152/16.51. **Carex caryophylla** (Spring-sedge) (Hesgen Gynnar). Short-grazed neutral grassland, between Amroth and Telpyn Point, SN1832.0736, A.O.Chater et al.; +On dry bank, Hafod Wenol SSSI, Mynydd Betws, SN6778.0946, BSBI meeting; both 2007, det. A.O.Chater & J.P.Poland.
- +153/12.7.c. **Festuca rubra** ssp. **litoralis** (Red Fescue) (Peiswellt Coch). On sparsely vegetated slag, North Dock, Llanelli, SS4995.9973, R.D. & K.A.Pryce, 2007.
- +153/18.4. **Poa humilis** (Spreading Meadow-grass) (Gweunwellt Ymledol). Sparsely vegetated disturbed ground, Whitland, SN1917.1678, R.D.Pryce; +Hay meadow, Hafod Wenol SSSI, Mynydd Betws, SN6767.0948, BSBI meeting; both 2007.
- +153/27.1.a. **Arrhenatherum elatius** ssp. **elatius** (False Oat-grass) (Ceirchwellt Tal). Disturbed dune slack, Tywyn Burrows, SN3634.0556, BSBI meeting, 2007, det. A.O.Chater.
- +©153/28.5. **Avena sativa** (Oat) (Ceirchen). Shale-surfaced track to farmyard, Telpyn Farm E of Amroth, SN18675.07555, A.O.Chater et al.; +Roadside gutters, A40 E of St Clears, SN2995.1701, R.D.Pryce; both 2007.
- +‡153/38.1. pic. **Phalaris arundinacea** var. **picta** (Gardener's Garters) (Pefrwellt). Planted but now established on bank of pond, Scythlyn, Pencader, SN4361.3684, R.D.Pryce, 2007.
- +153/39.1. **Agrostis capillaris** (Common Bent) (Maeswellt Cyffredin). Rank grassland on roadside, North Dock, Llanelli, SS4997.9977, R.D.& K.A.Pryce, 2007.
- *153/39.1×4. **Agrostis** ×**murbeckii** (**A. capillaris** × **A. stolonifera**) (a hybrid bent). Sunny places on poached ground by gate at N side of enclosure, Caeau Blaenau Mawr SSSI, Capel Hendre, SN594.122, A.O.Chater, 2006, NMW. 1st record.
- +153/50.4.d. **Bromus hordeaceus** ssp. **longipedicellatus** (Common Soft-brome) (Pawrwellt Cyffredin). Waste ground, Llanelli, SN50(a), J.A.Green & M.Godfrey, 2007. 2nd record.
- +‡153/50.4×5. **Bromus** ×**pseudothominei** (**B. hordeaceus** × **B. lepidus**) (Lesser Soft-brome) (Pawrwellt Min y Ffordd). Unimproved grassland by hedgeline, Crugan Fach near Llandyfaelog, SN4234.1305, G.M.Kay et al., 2007, det. G.M.Kay. 2nd record.
- +153/55.1. **Elymus caninus** (Bearded Couch) (Marchwellt y Coed). A few metres in from B4312 road in SW end of copse, Green Castle, SN395.165, G.Hutchinson; +Broad-leaved woodland, Tregyb Wood, Llandeilo, SN6392.2191, M. & J. Iiff, both 2006, NMW, det. G.Hutchinson.
- *153/56.2×3.a. **Elytrigia** ×**acuta** ssp. **obtusiuscula** (**E. atherica** × **E. juncea**) (a hybrid couch). Dune slope (pollen empty, somewhat shrunken), W of Ginst Point, Laugharne, SN322.077, A.O.Chater & S.D.S.Bosanquet, 2006, NMW. 1st record.

- +‡153/59.1. **Hordeum distichon** (Two-rowed Barley) (Haidd Dwyresog). ©S side of lane through planted deciduous trees, Penclacwydd Wildfowl & Wetlands Centre, E of Llanelli, SS536.981, G.Hutchinson & BSBI group, 2006, NMW.
- +153/59.4. **Hordeum secalinum** (Meadow Barley) (Haidd y Maes). Rare on hedgebank adjacent to access track, Crythan Farm, Talley, SN6641.3209, R.D. & K.A.Pryce, 2007.
- +‡153/60.1. **Triticum aestivum** (Bread Wheat) (Gwenith). ©Several plants in stone chippings, St Clears, SN2839.1641, R.D.Pryce, 2007.
- +‡153/62.1. **Cortaderia selloana** (Pampas-grass) (Peithwellt). Mature self-sown plant in centre of limestone gravel surfaced area, derelict Ennis Caravans site, Cross Hands, SN5591.1286, R.D.Pryce, 2007.
- *‡153/PHY.nig. **Phyllostachys nigra** (a bamboo). Naturalised by road-bridge over stream on v.c.44 side of boundary, Amroth, SN17309.07268, A.O.Chater et al., 2007, det. G.Hutchinson. 1st record.
- +154/1.2. **Sparganium emersum** (Unbranched Bur-reed) (Cleddlys Di-gainc). Occasional, upstream of bridge, River Taf, Whitland, SN2002.1618; +Pond, Scythlyn, Pencader, SN4361.3684; both R.D.Pryce, 2007.
- +158/20.2×3. **Hyacinthoides ×massartiana** (**H. hispanica** × **H. non-scripta**) (Hybrid Bluebell) (Clychau'r-gog Croesryw). ‡By footpath, Llandovery, SN7685.3424, WTSWWales meeting, 2007, det. R.D.Pryce.
- +‡158/24.5. **Allium subhirsutum** (Hairy Garlic) (Garleg Blewog). Loose clump of c.10 plants in park, edge of Sandy Water Park, Llanelli, SN493.005, B.Stewart, 2007, NMW, det. G.Hutchinson. 2nd record.
- +‡159/13.1. **Crocsmia paniculata** (Aunt-Eliza) (Modryb Leusa). Two clumps established from garden throw out on roadside bank near Penrhiw, Gelli Aur, SN589.191, I.K.Morgan, 2007.
- *‡159/SCH.coc. **Schizostylis coccinea** (Kaffir Lily). ©Edge of wall/hedge, Parc Gitto, Llwynhendy, SS537.996, I.K.Morgan, 2007. 1st record.
- +‡160/3.1. **Cordyline australis** (Cabbage-palm) (Palmwydden Fresych). ©Growing on wall in urban back-lane with *Campanula portenschlagiana* and *Eschscholzia californica*, Stradey, Llanelli, SN5014.0079, I.K.Morgan & R.D.Pryce, 2003. Predates record published in 2006. Also seedling in several places in same hectad in 2007; +©Seedling in angle between brick curtilage wall and pavement, Queen Victoria Road, Llanelli, SS50332.99953, R.D. & K.A.Pryce, 2007.
- +162/13.1. **Platanthera chlorantha** (Greater Butterfly-orchid) (Tegeirian Llydanwyrdd). Occasional plants spread through several hay meadows, Hafod Wenol SSSI, Mynydd Betws, SN676.094, BSBI meeting, 2007.
- +162/13.2. **Platanthera bifolia** (Lesser Butterfly-orchid) (Tegeirian Llydanwyrdd Bach). Two plants only in hay meadow, Hafod Wenol SSSI, Mynydd Betws, SN6770.0964, BSBI meeting, 2007.
- +162/18.1. **Dactylorhiza fuchsii** (Common Spotted-orchid) (Tegeirian Brych). Frequent in unimproved hay meadow, Hafod Wenol SSSI, Mynydd Betws, SN6767.0948, BSBI meeting, 2007.
- +162/18.1×2. **Dactylorhiza ×transiens** (**D. fuchsii** × **D. maculata**) (a hybrid marsh-orchid). A few plants in unimproved hay meadows, Hafod Wenol SSSI, Mynydd Betws, SN6763.0962, BSBI meeting, 2007.
- +162/18.1×4. **Dactylorhiza ×grandis** (**D. fuchsii** × **D. praetermissa**) (a hybrid marsh-orchid). Unimproved hay meadow, Hafod Wenol SSSI, Mynydd Betws, SN6773.0964, BSBI meeting, 2007.
- +162/18.2.a. **Dactylorhiza maculata** ssp. **ericetorum** (Heath Spotted-orchid) (Tegeirian Brych y Rhos). One plant by side of drainage ditch, Gorsgoch, Llanllwch SSSI, SN3635.1862, LBAP Group, det. R.D.Pryce; +Occasional plants with at least one white flowered in unimproved hay meadow, Hafod Wenol, Mynydd Betws, SN6763.0962, BSBI meeting; +MG5 grassland adjacent to mire, Cruglas, Bethlehem SSSI, SN6833.2397, BSBI meeting; all 2007.
- +162/18.3. **Dactylorhiza incarnata** (Early Marsh-orchid) (Tegeirian-y-gors Cynnar). Rare in unimproved hay meadow, Hafod Wenol SSSI, Mynydd Betws, SN6778.0953, BSBI meeting, 2007.

- +162/18.4. **Dactylorhiza praetermissa** (Southern Marsh-orchid) (Tegeirian-y-gors Deheuol). On bank of stream running into reservoir near Usk Reservoir, SN8178.2755, R.D.Pryce, 2007.

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

- +‡19/1.1. **Azolla filiculoides** (Water Fern) (Rhedynen y Dŵr). Frequent in pool above stream discharge onto beach, Manorbier, SS061.976, S.B. & A.E.Evans, 2007.
- *28/3.1. **Helleborus foetidus** (Stinking Hellebore) (Crafanc-yr-arth Ddrewllyd). ©Frequent, in full flower, on roadside bank, Uzmaston Road, Haverfordwest, SM956.155, S.B. & A.E.Evans, 2007. 1st record. A location where garden waste is dumped.
- +43/3.6. **Atriplex littoralis** (Grass-leaved Orache) (Llygwyn Arfor). Strandline, outlet of Bosherston Lakes, SR977.943, S.B. & A.E.Evans & A.Hughes, 2007.
- +‡46/20.11. **Silene gallica** (Small-flowered Catchfly) (Gludlys Amryliw). Between 50-100 plants in the damp margin of the corner of an arable field, Camrose, SM938.200, J.Hudson, 2007.
- +‡47/4.6. **Polygonum rurivagum** (Cornfield Knotgrass) (Canclwm y Tir Âr). A large upright specimen in arable field margin, Runwayskiln, Trehill Farm, Marloes, SM773.078, A.O.Chater, 2007.
- +56/5.3. **Stellaria pallida** (Lesser Chickweed) (Gwlyddyn-y-dom Bach). Several patches in sand dunes alongside the sandy path near Wavecrest, Freshwater East, SS018.981, S.B. & A.E.Evans, 2007.
- +57/1.1. **Viola odorata** (Sweet Violet) (Fioled Bêr). ©A clump on the east side of the short eastern entrance path in churchyard, St Marys Churchyard, Fishguard, SM958.370, S.B. & A.E.Evans, 2007.
- +57/1.1.dum. **Viola odorata** var. **dumetorum** (Sweet Violet) (Fioled Bêr). White-flowered in ash woodland, New Park Farm, West Williamston, SN034.061, S.B. & A.E.Evans & E.Thomas, 2007; +White- & blue-flowered in ash woodland, Park farm Wood, Manorbier, SN064.982; +White- & blue-flowered in scrub, footpath N of Manorbier Castle, SS064.978; both S.B.Evans & S.Coker, 2007.
- +57/1.12.b. **Viola tricolor** ssp. **curtisii** (Wild Pansy) (Trilliw). Small patch in dunes, Poppit Dunes, SN153.485, H.Williams, 2002.
- +‡62/11.4. **Barbarea verna** (American Winter-cress) (Berwr-y-gaeaf Cynnar). A small but dense stand in disturbed ground, Ship Aground PH car park, Dinas Cross, SN012.389, S.B. & A.E.Evans, 2007.
- +62/39.1. **Cakile maritima** (Sea Rocket) (Hegydd Arfor). Foreshore, Abercastle, SM852.336, S.B. & A.E.Evans & M.B.Evans, 2007.
- +75/13.1×2. **Geum ×intermedium** (**G. rivale** × **G. urbanum**) (Hybrid Avens) (Mapgoll Groesryw). Abundant with both parents by a stream in wet woodland, S of Ffynnone waterfall, SN237.380, S.B. & A.E.Evans & H.Williams, 2007.
- +‡75/28.7. **Sorbus intermedia** (Swedish Whitebeam). One trimmed shrub naturalised in hedge, lane to Waterwynch, Tenby, SN129.023, T.Rich, 2007.
- +77/25.4. **Genista anglica** (Petty Whin) (Cracheithinen). Single plant in unimproved grassland, Somerton Farm, SM930.004, D. & H.Harries, 2007, conf. S.B.Evans.
- +107/40.1. **Pastinaca sativa** (Wild Parsnip) (Panasen Wyllt). Roadside, A40 east of Llanddewi Velfrey, SN149.167, S.B. & A.E.Evans, 2007.
- +108/3.4. **Centaureum pulchellum** (Lesser Centaury) (Y Ganrhi Goch Fach). Growing with *Radiola linoides* in disturbed ground, Trehill Farm, Marloes, SM763.085, M.Sutton, 2007.
- +‡110/1.1. **Nicandra physalodes** (Apple-of-Peru) (Afal Periw). ©A single flowering/fruitlet plant growing on a large steep bank of topsoil, behind Royal Oak PH, Newport, SN056.391, S.B.Evans, 2007.
- +‡116/8.1. **Pentaglottis sempervirens** (Green Alkanet) (Llysiau'r-gwrid Gwyrdd). Roadside, Castle corner, Manorbier, SS065.978, S.B.Evans, 2007.

- *†117/1.bon. **Verbena bonariensis** (Argentinian Vervain) (Ferfain yr Ariannin). ©Single flowering plant on roadside verge, Fishguard Bypass, SM948.374, S.B.Evans, 2007. 1st record. Possibly accidentally introduced during shrub planting on wide roadside verge north-east of lowest roundabout.
- *†129/7.2. **Lobelia erinus** (Garden Lobelia) (Bidoglys yr Ardd). ©Small plants growing in mortar of wall, Royal Oak PH, Fishguard, SM957.370, S.B. & A.E.Evans, 2007. There had been hanging baskets in 2006. 1st record.
- +†133/1.2. **Valerianella carinata** (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffrwythau Rhychog). Wall base/pavement junction on the E side of the short access road, Lota Park, Fishguard, SM955.368, S.B.Evans, 2007.
- +†135/22.1. **Lactuca serriola** (Prickly Lettuce) (Letusen Bigog). ©Growing between paving stones below the dam, Llys-y-fran Reservoir, SN037.242, H.Williams, 2002.
- +135/43. **Erigeron acer** (Blue Fleabane) (Amrhydlwyd Glas). One plant in flower in crazy paving area below the dam, Llys-y-fran Reservoir, SN037.242, S.B.Evans, 2007.
- +†135/55.3. **Anthemis cotula** (Stinking Chamomile) (Camri'r Cŵn). Seaward corner of a broad bean field, Monk Hill Farm, St Ishmaels, SM837.066, S.B.Evans & K.J.S.Devonald, 2007.
- +†135/59.1. **Matricaria recutita** (Scented Mayweed) (Amranwen Bêr). A fine stand on the fieldside of a roadside gateway to a barley crop, NW of Atlantic View, Manorbier, SS055.980, S.B. & A.E.Evans, 2007.
- *135/62.12.vir. **Senecio crucifolius** var. **viridulosus** (Hoary Ragwort) (Creulys Lwyd). Frequent with var. *erucifolius* on waste ground behind Kwik Save, Pembroke Dock, SM969.039, S.Bosanquet, 2007, NMW, conf. A.O.Chater. 1st record for variety.
- *†135/80.2. **Galinoga quadriradiata** (Shaggy-soldier) (Galinsoga Blewog). Roadside gutter, on the A478 roadside, New Hedges, SN128.028, T.Rich, 2007. 1st record.
- +152/16.43. **Carex extensa** (Long-bracted Sedge) (Hesgen Hir). Two stands on sea-cliff ledges, The Wash, Castlemartin, SR918.943, S.B.Evans, 2007.
- *†153/53.1. **Ceratochloa carinata** (California Brome) (Pawrwellt California). Scattered in scruffy grassland by ASDA car park, Pembroke Dock, SM969.038, S.Bosanquet, 2007. 1st record.
- +†153/68.1. **Echinochloa crus-galli** (Cockspur) (Cibogwellt Rhydd). ©Road edge, Stone Hall, Goodwick Hill, SM943.382, S.B. & A.E.Evans, 2007.
- +†153/70.pum. **Setaria pumila** (Yellow Bristle-grass) (Cibogwellt Melyn). ©A single plant in the old CCW office car park, Hamilton Street, Fishguard, SM958.370, S.B. & A.E.Evans & V.Lewis, 2007.
- *©158/24.por. **Allium porrum** (Leek) (Cenhinen). Roadside bank, Porthgain, SM816.324, S.B.Evans, 2007. 1st record.
- +158/35.1. **Ruscus aculeatus** (Butcher's-broom) (Celynnen Fair). ©Large clump in chapelyard, Caerfarchell Chapel, SM794.270, S.B. & A.E.Evans, 2004. Still present in 2007.
- +†159/9.2.b. **Gladiolus communis** ssp. **byzantinus** (Eastern Gladiolus) (Blodyn-y-cleddyf Dwyreiniol). ©10 plants, but only one in flower, in disturbed ground in old MOD infill in corner of large field, far E of Croft Cottage Lane, Manorbier, SS073.976, S.B.Evans, 2007.
- *†160/3.1. **Cordyline australis** (Cabbage-palm) (Palmwydden Fresych). Single plant of several years growth in S-facing sandy estuarine blackthorn scrub, Newport Estuary, SN056.399, S.B. & A.E.Evans, 2007. 1st record. Away from any gardens and no obvious reason why it should have been planted.
-

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

- +17/1.1×2. **Polystichum ×bicknellii** (*P. setiferum* × *P. aculeatum*) (a hybrid shield-fern). Hollow below crag in woodland, Allt Boeth, Rheidol gorge below Devil's Bridge, SN739.773, S.P.Chambers & C.M.Forster Brown, 2007.
- +17/3.8×9. **Dryopteris ×deweveri** (*D. carthusiana* × *D. dilatata*) (a hybrid buckler-fern). Poor fen, 400m NW of Llyn Fanod, SN600.648, S.D.S.Bosanquet & A.O.Chater, 2007.
- +‡19/1.1. **Azolla filiculoides** (Water Fern) (Rhedynen y Dŵr). Abundant in farm ponds, Blaencarro, Llanddeiniol, SN5745.7233, A.O.Chater et al., 2007. Derived from throw-outs from nearby garden.
- +©28/5.1. **Nigella damascena** (Love-in-a-mist) (Glas y Niwl). ‡Pathside bank disturbed in c.2005, Cefn-Ilan, Llanbadarn Fawr, SN5998.8146, S.P.Chambers, 2007. 1st record as neophyte.
- *‡28/9.bla. **Anemone blanda** (Balkan Anemone) (Blodyn-y-gwynt y Balcanau). Well naturalised on shaded streambank, Llanrhystud, SN5413.6980, A.O.Chater, 2007, NMW. 1st record.
- +29/1.1. **Berberis vulgaris** (Barberry) (Pren Melyn). Roadside hedge, 100m SW of Llanarth church, SN4220.5768, S.D.S.Bosanquet & A.O.Chater, 2006.
- +‡29/1.2. **Berberis thunbergii** (Thunberg's Barberry) (Pren Melyn Thunberg). Self-sown bush in scrub on pasture slope, N bank of Cwm Rheidol Reservoir, SN698.793, A.O.Chater, 2007. 1st record as neophyte.
- +46/9.1. **Moenchia erecta** (Upright Chickweed) (Clust-y-llygoden Seth). Short turf on sandy ground, Penyrrgyd, Gwbert, SN1639.4860, A.O.Chater, 2007.
- +‡46/20.9a. **Silene latifolia** ssp. *alba* (White Campion) (Gludlys Gwyn). Disturbed ground, Glyn Padarn nursing home, Llanbadarn Fawr, SN598.808, S.P.Chambers, 1995.
- *‡46/20.11.qui. **Silene gallica** var. *quinquevulnera* (Small-flowered Catchfly) (Gludlys Amryliw). Abundant weed in recently cultivated derelict garden, Penrhiw, Cardigan, SN178.448, R.Lawton, 1977, NMW, det. T.A.W.Davis. 1st record of the variety.
- +‡47/1.2. **Persicaria campanulata** (Lesser Knotweed) (Y Ganwraidd Fach). Colony on roadside verge, by entrance to Faenog Isaf, Mydroilyn, SN468.560, A.O.Chater & R.Maskew, 2007.
- *59/1.1. **Frankenia laevis** (Sea-heath) (Grugeilun Llyfn). ‡Mat 50×25cm in shingle waste ground, presumably self-sown from flowerbed 7m away where it grows, S end of Borth, SN6075.8890, A.O.Chater & J.P.Poland, 2007. 1st record.
- +‡62/1.5. **Sisymbrium altissimum** (Tall Rocket) (Roced Dal). Reseeded road verge, Waun crossroads, Aberystwyth, SN5997.8215, S.P.Chambers, 2007, NMW, conf. T.C.G.Rich. 2nd post-1930 record & 1st as neophyte.
- +62/22.3. **Erophila glabrescens** (Glabrous Whitlowgrass) (Llysiau'r-bystwn Llyfn). Gravel drive, Plas Gogerddan, SN6289.8370, A.O.Chater, 2007.
- +‡62/30.1. **Lepidium sativum** (Garden Cress) (Pupurlys yr Ardd). Pathside, Cwm Padarn, Llanbadarn Fawr, SN600.814, S.P.Chambers, 2007. 2nd post-1950 record and 1st as a neophyte.
- *‡74/3.1×cil. **Bergenia ×schmidtii** (*B. crassifolia* × *B. ciliata*). One clump established on grassy slope by scrub, SSW of Lifeboat Station, New Quay, SN3899.5979, A.O.Chater & J.P.Poland, 2007. 1st record.
- +75/8.13.315. **Rubus pruinosis** (A bramble). Mixed estate woodland, Penglais Woods, Aberystwyth, SN5920.8219, D.E.Allen & A.O.Chater, 2002, BM, det. D.E.Allen. 2nd record.
- +75/21.4×12. **Rosa ×irregularis** (*R. arvensis* × *R. canina*) (a hybrid rose). Edge of *Salix* wood by wet heath, Rhos Cwmsaeson, Oakford, SN460.586, R.Maskew & A.O.Chater, 2007, det. R.Maskew. *R. arvensis* is the female parent.
- +75/21.12×13. **Rosa ×dumalis** (*R. canina* × *R. caesia*) (a hybrid rose). +Roadside hedge, 1.5km E of Oakford, SN467.578; +Roadside hedge, 600m E of Llanerchaeron, SN485.601; +Roadside hedge, 200m SSW of Cilau Aeron church, SN500.578; all R.Maskew & A.O.Chater, 2007, det. R.Maskew.
- +75/21.12×14. **Rosa ×dumetorum** (*R. canina* × *R. obtusifolia*) (a hybrid rose). Roadside hedge, 1km ESE of Llanerchaeron, SN488.598, R. Maskew & A.O.Chater, 2007, det. R. Maskew.

- +75/21.12×15. *Rosa* ×*scabriuscula* (*R. canina* × *R. tomentosa*) (a hybrid rose). Roadside hedge, 1km ESE of Llanerchaeron, SN488.598, R.Maskew & A.O.Chater, 2007, det. R.Maskew. *R. tomentosa* is the female parent.
- *75/21.13.a. *Rosa caesia* ssp. *caesia* (Hairy Dog-rose) (Rhodyn Rhuddlas). About ten bushes in roadside hedges, 1.5km E of Oakford, SN4673.5781, R.Maskew & A.O.Chater, 2007, NMW, det. R.Maskew. 1st record.
- +77/19.20. *Trifolium striatum* (Knotted Clover) (Meillionen Rychog). Waste ground on shingle beach, S end of Borth, SN6907.890, A.O.Chater, 2007.
- +84/1.3×8. *Epilobium* ×*interjectum* (*E. montanum* × *E. ciliatum*) (a hybrid willowherb). Road verge and rocky banks, 600m E of Llanerchaeron, SN485.601, A.O.Chater & R.Maskew, 2007.
- *91/2.16a.pur. *Euphorbia amygdaloides* ssp. *amygdaloides* var. *purpurea* (Wood Spurge) (Llaethlys y Coed). ‡Abundantly self-sown and naturalised in pasture from nearby garden, Ynys Edwin, Eglwys Fach, SN6773.9628, A.O.Chater, 2007, NMW. 1st record of var.
- +‡91/2.17. *Euphorbia characias* (Mediterranean Spurge) (Llaethlys Môr y Canoldir). Well naturalised in gorse scrub on quarry floor, 350m SE of Pont Llannon, Llannon, SN5180.6666, 2006; +Large clump with c.12 inflorescences on mature *Ammophila* dune, Penyrergyd, Gwbert, SN1625.4880, 2007; both A.O.Chater.
- +‡102/1.8. *Oxalis articulata* (Pink-sorrel) (Suran Ruddgoch). Vegetated shingle of sea beach, 200m S of Aberaeron harbour mouth, SN4539.6283, A.O.Chater & J.P.Poland, 2007.
- +103/1.9. *Geranium sanguineum* (Bloody Crane's-bill) (Pig-yr-aran Ruddgoch), ‡Grassy streambank, by level crossing, Llanbadarn Fawr, SN5990.8052, A.O.Chater, 2007, NMW.
- +‡110/9.1. *Datura stramonium* (Thorn-apple) (Afal Dreiniog). Ditch spoil excavated in August 2006, Llainwen, Synod Inn, SN3926.5510, R.J.Williams, 2007.
- *‡116/4.6. *Symphytum orientale* (White Comfrey) (Cyfardwf Wen). Road verge, N side of Ffordd Sulien, Llanbadarn Fawr, SN5988.8091, S.P.Chambers, 2007, NMW, conf. C.O'Reilly. 1st record.
- *‡116/12.2. *Amsinckia micrantha* (Common Fiddleneck) (Amsincia). Reseeded road verge, Waun crossroads, Aberystwyth, SN5997.8216, S.P.Chambers, 2007, NMW. 1st record.
- *‡116/CER.min. *Cerinth minor* (Lesser Honeywort). Road verge and rocky banks, Frondolau, Aber-arth, SN4793.6389, R.D.Pryce & K.A.Pryce, 2007, NMW. 1st Welsh record.
- *‡117/1.bon. *Verbena bonariensis* (Argentinian Vervain) (Ferfain yr Ariannin). Naturalised along base of wall by old cottages, just NW of Pont Llannon, Llannon, SN5139.6677, A.O.Chater, 2006. 1st record & 1st Welsh record as neophyte.
- +118/20.1. *Origanum vulgare* (Wild Marjoram) (Penrhudd). Roadside hedgebank, 200m SSW of Ciliau Aeron church, SN500.578, A.O.Chater & R.Maskew, 2007.
- +‡123/1.sus×vir. *Forsythia* ×*intermedia* (*F. suspensa* × *F. viridissima*) (Forsythia) (Clychau Aur). Several thickets naturalised by suckering in estate woodland, Penglais Woods, Aberystwyth, SN5949.8225, A.O.Chater, 2005; +Thicket naturalised by suckering in overgrown quarry, Llyn Frongoch, SN7205.7510, A.O.Chater, 2007; both NMW.
- +124/25.1. *Pedicularis palustris* (Marsh Lousewort) (Melog y Waun). Flushes in marshy pasture, Rhos Blaencarrog, Llanddeiniol, SN576.724, A.O.Chater et al., 2007.
- *‡129/1.5. *Campanula medium* (Canterbury-bells) (Clychlys Caer-gaint). Old mortared wall, Behind Public Library, Aberystwyth, SN5926.8180, A.O.Chater, 2007. 1st record & 1st Welsh record as a neophyte.
- +‡131/1.4. *Sambucus ebulus* (Dwarf Elder) (Ysgawen Fair). ‡Small colony in monkey enclosure, Borth Animalarium, SN6130.8950, J.P.Woodman & A.O.Chater, 2007. An unusual habitat, where it was not planted and perhaps was bird-sown.
- *135/25.05.41. *Taraxacum naevosiforme* (Wetland Dandelion). Road verge, SW of Maesnant. Pumlumon, SN7732.8785, S.P.Chambers, 2007, NMW, det. A.J.Richards. 1st record.
- +‡135/43.4. *Erigeron karvinskianus* (Mexican Fleabane) (Amrhydlwyd y Cerrig). On old wall by Lifeboat Station, New Quay, SN389.599, A.O.Chater & J.P.Poland, 2007.
- +‡135/44.1. *Conyza canadensis* (Canadian Fleabane) (Amrhydlwyd Canada). Waste ground, Llannon, SN516.670, C.M.Forster Brown, 2004.

- *‡135/55.4. **Anthemis tinctoria** (Yellow Chamomile) (Camri Melyn). Well naturalised in rough grass, Felin-y-mor Road, Aberystwyth, SN5807.8060, A.O.Chater, 2006, NMW. 1st record.
- +137/3.1. **Luronium natans** (Floating Water-plantain) (Llyriad-y-dŵr Arnofiol). In river, Afon Teifi 500m SW of Pont Stephen, Lampeter, SN5770.4737, N.T.H.Holmes, 2005. The furthest down the Teifi it has been recorded.
- +141/1.1. **Triglochin palustre** (Marsh Arrowgrass) (Saethbennig y Gors). Flush in marshy pasture, Rhos Blaencarrog, Llanddeiniol, SN575.723, A.O.Chater et al., 2007.
- *142/1.1×6. **Potamogeton ×sparganiifolius (P. natans × P. gramineus)** (Ribbon-leaved Pondweed) (Dyfrllys Rhubanog). Abundant on silty shoals among *Myriophyllum alterniflorum*, in Afon Teifi just above Pont Einon, Cors Caron, SN671.614, R.V.Lansdown, 2005, NMW, CGE, det. C.D.Preston. 1st record. The *P. gramineus* parent is not known in the river or in the v.c.
- +151/1.26×27. **Juncus ×kern-reichgeltii (J. effusus × J. conglomeratus)** (a hybrid rush). Flush in coastal heath, MoD site, Aber-porth, SN248.524, A.O.Chater, 2007.
- *152/2.2.a×b. **Trichophorum cespitosum** nothosp. **foersteri (T. cespitosum ssp. cespitosum × T. cespitosum ssp. germanicum)** (Hybrid Deergrass). Hollows in raised bog, Gors Goch, 800m NW of Llyn Fanod, SN597.649, A.O.Chater & S.D.S Bosanquet, 2007. 1st record.
- +152/3.5. **Eleocharis quinqueflora** (Few-flowered Spike-rush) (Ysbigfrwynen Goch). Flush in marshy pasture, Rhos Blaencarrog, Llanddeiniol, SN5750.7238, A.O.Chater et al., 2007.
- +153/16.2. **Puccinellia distans** (Reflexed Saltmarsh-grass) (Gwellt-y-morfa Atblygedig). Muddy hollows in track on shingle, Tan-y-bwlch Beach, Aberystwyth, SN5801.8015, A.O.Chater, 2007. Spreading rapidly in this area.
- +‡153/17.3. **Briza maxima** (Greater Quaking-grass) (Crydwellt Mawr). Road verge and rocky banks, SE part of Aber-porth village, SN262.511, A.O.Chater, 2007.
- *‡153/67.4. **Spartina pectinata** (Prairie Cord-grass) (Cordwellt y Paith). Clump c.1m diameter with pioneer culms beyond on grassy bank of brackish ditch, N side of B4353 road 100m from beach, S end of Borth, SN6090.8896, A.O.Chater & J.P.Poland, 2007, NMW. 1st record. Not growing nearby, and apparently not being grown for biomass in the vicinity.
- +‡153/PAN.mil. **Panicum miliaceum** (Common Millet) (Miled). Pavement weed, by Aberystwyth Station, SN5852.8151, A.O.Chater, 2007. 1st record as neophyte.
- +162/13.1. **Platanthera chlorantha** (Greater Butterfly-orchid) (Tegeirian Llydanwyrdd). Steep W-facing pasture, Allt-goch, Llangeitho, SN6267.6080, P.G.Barnes, 2007.

MONTGOMERY, v.c. 47 (comm. Mrs M. Wainwright & Dr A.K. Thorne)

- 50/1.1. **Elatine hexandra** (Six-stamened Waterwort) (Gwybybyr Chwebrigerog). Growing in lake bottom, over wellington depth, Gwigia Wildlife Site, SO053.979, T. Stretton, 2007, conf. A.K.Thorne. Photo of fruiting specimen taken. 3rd site.
- +69/2.1. **Hottonia palustris** (Water-violet) (Pluddail y Dŵr). Locally abundant in small pool in river floodplain, Neath Bridge, SJ277.163, A.K. and J.Thorne, 2007. 2nd record and new site.
- +75/8.6.163. **Rubus vestitus** (A bramble). Edge of unimproved grassland, Dolforwyn Castle, SO151.949, A.K.Thorne, 2007, det. A.Newton. A striking pink-flowering bramble. Apparently only the 2nd record.
- +135/6.3. **Cirsium dissectum** (Meadow Thistle) (Ysgallen y Ddôl). Locally abundant in field (NVC M24). Bryncoch Farm, SJ013.081, D.Reed, 2007. 2nd site.
- +‡135/28.7.arg. **Hieracium argillaceum** (Southern Hawkweed). +On laneside bank near Llanidloes, SN9450.8555; + Many plants on scree, Severn Wells near Dolfor, SO071.852; + Rock-face in woodland with *Hieracium cinderella*, Dolforwyn Wood, SO15606.95831; all A.K.Thorne, 2007, det. D.J.McCosh.
- *135/28.7.con. **Hieracium consociatum** (Sociable Hawkweed). A few plants on old bridge, Abermule Dingle, SO1675.9350, A.K.Thorne, 2007, det. D.J.McCosh. 1st record.

- +135/28.7.dae. **Hieracium daedalolepioides** (Petite-leaved Hawkweed). +Several plants on old quarry face, Belan Bank, SJ3185.1575; 4-5 plants in woodland outside quarry area, Craig Breidden, SJ28848.13686; both A.K.Thorne, 2007, det. D.J.McCosh. 2nd & 3rd recent records.
- *‡135/28.8.115. **Hieracium scotostictum** (Dappled Hawkweed). S-facing dry scrubby bank, Melinbyrhedyn, Machynlleth, SN8150.9855, T.Brown, 2007, det. D.J.McCosh. 1st record.
- +135/28.08.135. **Hieracium cinderella** (Long-bracted Hawkweed). A few plants on rock-face in woodland, Dolforwyn Wood, SO15606.95831, A.K.Thorne, 2007, det. D.J.McCosh. 1st recent record and new site.
- 135/28.10.165. **Hieracium lasiophyllum** (Stiff-haired Hawkweed). Linear stand in crevice near base of rock face, Pistyll Rhaiadr, SJ073.292, A.K.Thorne, 2006, NMW, det. D.J.McCosh. 3rd site, last recorded here in 1891; Working quarry, Craig Breidden, SJ289.140, S.Cope, 2005. 1st recent record for this site. Recorded again in same area by A.K.Thorne, 2007, det. D.J.McCosh.
- +152/16.46.a. **Carex viridula** ssp. **brachyrrhyncha** (Long-stalked Yellow-sedge) (Hesgen Felen). Upland runnel, Bryncoch Farm, SJ013.081, D.Reed, 2007, conf. A.Jones. 4th site but 1st confirmed record.
- 153/58.1. **Hordelymus europaeus** (Wood Barley) (Heiddwellt y Coed). Eight plants on steep woodland bank close to lane, Dolforwyn Wood, SO158.956, A.K.Thorne, 2007. Re-find of 1991 record thought to have been lost through roadworks.

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

- +11/1.2. **Polypodium interjectum** (Intermediate Polypody) (Llawredynen Ganolig). Mortared wall at Trawsfynydd, SH7.3, 2002; +Mortared wall between Llanuwchllyn and Dolhendre, SH8.3, 2007; both P.M.Benoit.
- +17/3.5. **Dryopteris aemula** (Hay-scented Buckler-fern) (Marchredynen Bêr). One fine clump on a sunny roadside bank near Tallyllyn, SH7.1, P.M.Benoit, 2007. An unlikely occurrence: probably a stray from a so-far undiscovered colony in a more normal habitat.
- +28/9.1. **Anemone nemorosa** (Wood Anemone) (Blodyn y Gwynt). Woodland at Dolgoch Falls, SH6.0, P.M.Benoit, 2007.
- +45/3.1.c. **Montia fontana** ssp. **amporitana** (Blinks) (Porpin y Ffynnon). In pasture near Llwyn, Llanegryn, SH6.0, P.M.Benoit, 2007.
- +45/3.1.d. **Montia fontana** ssp. **chondrosperma** (Blinks) (Porpin y Ffynnon). Grassy place near the high school in Tywyn, SH5.0, P.M.Benoit, 2007.
- +‡62/1.7.lei. **Sisymbrium officinale** var. **leiocarpum** (Hedge Mustard) (Roced y Berth). ©Dumped imported soil on building site, Cors-y-gedol, Barmouth, SH6.1, P.M.Benoit, 2007.
- *62/22.3. **Erophila glabrescens** (Glabrous Whitlowgrass) (Llysiau'r-bystwn Llyfn). ‡Weed of flower beds, Barmouth, SH6.1, P.M.Benoit, 2007. 1st record.
- +62/34.5. **Brassica nigra** (Black Mustard) (Mwstard Du). ©Several plants as roadside weeds, Tywyn, SH5.0, P.M.Benoit, 2007.
- +75/21.18. **Rosa rubiginosa** (Sweet-briar) (Drysien Bêr). ‡One bush near Borthwen, Llwyngwrl, SH5.0, P.M.Benoit, 1951. Included in Benoit & Richards' *Contribution to a Flora of Merioneth*, ed. 2 (1963) and in Ellis's *Fl. Pl. Wales* (1983), but missed in the Atlases of both 1962 and 2002. The bush, or a descendent, still there 1990: an updating still needing improvement; +‡In quantity and flourishing in a newly planted hedge near Coleg Meirion, Dolgellau, SH7.1, P.M.Benoit, 2007. 1st recent record.
- +‡75/27.2. **Malus domestica** (Apple) (Coeden Afalau). One bush at side of lane to the sea, Bennar, Llanddwywe, SH5.2, P.M.Benoit & D.J.Brown, 2007.
- +84/1.7. **Epilobium roseum** (Pale Willowherb) (Helyglys Gwelw). ©One plant as roadside weed near the high school, Tywyn, SH5.0, P.M.Benoit, 2007. A decreasing species now almost gone from the v.c.
- +‡105/1.4. **Impatiens glandulifera** (Indian Balsam) (Jac y Neidiwr). Roadside near Bont Newydd, Ffestiniog, SH7.4, P.M.Benoit; +Cynwyd, SJ0.4, S.E.Stille; both 2007.

- +†109/1.1. *Vinca minor* (Lesser Periwinkle) (Perfagl Fach). In quantity near houses on a roadside near Mallwyd, SH8.1, P.M.Benoit, 2007. 1st recent record.
- *†110/7.1. *Lycopersicon esculentum* (Tomato) (Tomato). ©One plant at base of wall, Barmouth railway station, SH6.1, P.M.Benoit, 2007. 1st record.
- +†118/6.3. *Galeopsis speciosa* (Large-flowered Hemp-nettle) (Y Benboeth Amryliw). ‡Very fine and in great quantity with *G. tetrahit* and *G. bifida* in a crop field between Llandrillo and Cynwyd, SJ0.3, S.E.Stille, 2007.
- +†124/13.3. *Linaria purpurea* (Purple Toadflax) (Llin-y-llyffant Porffor). On waste ground in Tywyn, SH5.0, P.M.Benoit, 2007.
- +124/20.6×9. *Euphrasia tetraquetra* × *E. confusa* (a hybrid eyebright). In stable dune grassland, Morfa Harlech, SH5.3, S.E.Stille, 2007, det. A.J.Silverside.
- *124/20.7×9. *Euphrasia nemorosa* × *E. confusa* (a hybrid eyebright). In long grass by road junction, Trystion valley above Cynwyd, SJ0.4, S.E.Stille, 2007, det. A.J.Silverside. 1st record.
- +128/2.6. *Utricularia minor* (Lesser Bladderwort) (Chwysigenddail Bach). Boggy pool above Eisingrug, SH6.3, J.M.Langton, 2007.
- *†129/1.4. *Campanula persicifolia* (Peach-leaved Bellflower) (Clychllys Meinddail). One plant well established on track verge at entrance to forestry near Llanuwchllyn, SH8.2, D.O.Elias, 2006-07. 1st record.
- *†129/1.10. *Campanula poscharskyana* (Trailing Bellflower) (Clychllys Ymlusgol). Frequent by tracks and on walls, Barmouth, SH6.1, P.M.Benoit, 2007. 1st record.
- +130/6.3. *Galium uliginosum* (Fen Bedstraw) (Briwydd y Fign), Boggy meadow, Nant y Pandy, Glyndyfrdwy, SJ1.4, S.E.Stille, 2007.
- *†131/6.6. *Lonicera japonica* (Japanese Honeysuckle) (Gwyddfid Japan). Conifer plantation, Morfa Harlech, SH5.3, P.M.Benoit, 2006. 1st record; +Escaped from garden on to rocks in quantity, Cellfechan-road, Barmouth, SH6.1, P.M.Benoit, 2007. 2nd record but known here for some years previously.
- +†133/1.2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffrwythau Rhychog). Roadside wall near Hafodarfôr, Llwyngwrl, SH5.1, P.M.Benoit, 1971, 1978; +Around Llandrillo church, SJ0.3, A.P. & R.A.Dawes, 1997; +Roadside weed, Tywyn, SH5.0, P.M.Benoit, 2007. A greatly increasing species in v.c. 48.
- +135/5.4. *Carduus nutans* (Musk Thistle) (Ysgallen Bendrom). ‡Three plants in disturbed ground where bales had stood, Eithin Fynydd, Llanuwchllyn, SH8.2, D.O.Elias; +†Roadside, N side of Corwen, SJ0.4, S.E.Stille; both 2007.
- +†135/22.1. *Lactuca serriola* (Prickly Lettuce) (Letusen Bigog). +†Several plants near the Wayside Café, Llanaber, SH5.1, P.M.Benoit; +†Pandy Capel, SJ0.5, S.E.Stille; both 2007.
- *†135/44.2. *Conyza sumatrensis* (Guernsey Fleabane) (Amrhydlwyd Guernsey). In quantity with *C. canadensis* on a disused platform at Barmouth railway station, SH6.1, P.M.Benoit, 2007. The conspicuously hairy plant and invariably 5-lobed corollas of the disc florets were confirmed. 1st record.
- +†135/59.1. *Matricaria recutita* (Scented Mayweed) (Amranwen Bêr). ©Several plants on dumped imported soil, building site, Cors-y-gedol, Barmouth, SH6.1, P.M.Benoit, 2007.
- +152/16.1. *Carex paniculata* (Greater Tussock-sedge) (Hesgen Rafunog Fawr). Four plants on wet wooded slope, Dolgoch ravine, SH6.0, P.M.Benoit, 2007. 1st recent record: a rediscovery of the locality and updating for the hectad from K.M.Stevens, 1969.
- +152/16.31. *Carex pendula* (Pendulous Sedge) (Hesgen Bendrom). ‡One fine plant (probably planted) in fertile woodland, Pensarn, SH5.2, P.M.Benoit, 2007.
- +152/16.32. *Carex sylvatica* (Wood-sedge) (Hesgen y Coed). Several plants in fertile woodland near Pensarn, SH5.2, P.M.Benoit, 2007.
- +153/12.3. *Festuca gigantea* (Giant Fescue) (Peiswellt Mawr). Sparingly in shady place near stream, Llanegryn, SH5.0, P.M.Benoit, 2007.
- *†153/18.7. *Poa chaixii* (Broad-leaved Meadow-grass) (Gweunwellt Llydanddail). A number of plants (probably originally planted) on roadside bank near house at Mallwyd, SH8.1, P.M.Benoit, 2007. 1st record.

- *‡153/44.1. **Apera spica-venti** (Loose Silky-bent) (Sidanwellt). ©Two plants in dirt at base of fence separating the railway track from the footway, Barmouth Viaduct, SH6.1, P.M.Benoit, 2007. 1st record.
- +‡153/52.1. **Anisantha diandra** (Great Brome) (Pawrwellt Mawr). Several plants with abundant *Anisantha sterilis* in yard of old primary school, Barmouth, SH6.1, P.M.Benoit, 2007.
- *‡158/24.7. **Allium triquetrum** (Three-cornered Garlic) (Garlleg Trionglog). By railway at Cumberland Place, Barmouth, SH6.1, P.M.Benoit, 2008. 1st record.

CAERNARFON, v.c. 49 (comm. Mrs W. McCarthy)

- +4/1.7. **Equisetum sylvaticum** (Wood Horsetail) (Marchrawn y Coed). Stream-bank at side of forestry track, Cwm Penamner, Dolwyddelan, SH73.48, W.McCarthy, 2007.
- +46/20.9×1. **Silene xhampeana** (*S. latifolia* × *S. dioica*). [Pink Campion], Grass bank, Glan y Mor Elias, Llanfairfechan, SH66.74, E.Phenna, 2007.
- *‡47/7.pal×rha. **Rheum xhybridum** (*R. palmatum* × *R. rhaponticum*) (Rhubarb) (Rhiwbob). Persisting on soil dumped by coast path, Criccieth, SH48.37, W.McCarthy & M.Stead, 2007. 1st record.
- +51/1.3. **Hypericum androsaemum** (Tutsan) (Dail y Beiblau). In stonework of bridge over Afon Glaslyn, Beddgelert, SH60.49, W.McCarthy, 2007.
- +61/2.11×12. **Salix xmultinervis** (*S. cinerea* × *S. aurita*) (a hybrid willow). By streambank, Nant y Caddugan, Penmachno, SH80.51, W.McCarthy, 2007.
- +61/2.12. **Salix aurita** (Eared Willow) (Helygen Glustiog). Drying-out bed of former reservoir near Pink Farm, Great Orme, SH77.83, W.McCarthy, 2007.
- +‡62/20.1. **Lobularia maritima** (Sweet Alison) (Alyswm Pêr). Field gateway, Porth Neigwl, Abersoch, SH25.28, W.McCarthy & M.Stead, 2007.
- +62/34.5. **Brassica nigra** (Black Mustard) (Mwstard Du). Disturbed soil at new local nature reserve, Lon Cob Bach, Pwllheli, SH37.34, W.McCarthy, 2007.
- *66/1.3.b. **Pyrola rotundifolia** ssp. **maritima** (Round-leaved Wintergreen) (Glesyn-y-gaeaf Deilgrwn). Disused quarry floor, Trefriw, SH78.61, I.Fraser, 2007. 1st record.
- *‡71/HYD.mac. **Hydrangea macrophylla** (Hydrangea) (Trilliw ar Ddeg). Sandy bank at top of beach, Porth Dinlaen, SH27.41; Slate quarry waste tip, Llanllechid, SH63.69; both W.McCarthy, 2007. 1st & 2nd records.
- +74/8.1. **Tellima grandiflora** (Fringecups) (Clychau'r Clawdd). Roadside, Aber Road, Llanfairfechan, SH67.74, E.Phenna, 2007.
- 75/9.2. **Potentilla palustris** (Marsh Cinquefoil) (Pumnaalen y Gors). Marsh near Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +‡75/17.3.b. **Sanguisorba minor** ssp. **muricata** (Fodder Burnet) (Bwrned Ebran). Waste ground by railway station, Roman Bridge, SH71.51, W.McCarthy, 2007.
- +77/14.8. **Vicia tetrasperma** (Smooth Tare) (Ffacybysen Lefn). Grass bank in churchyard, Llannor, SH35.37, W.McCarthy & M.Stead, 2007.
- +77/26.1×2. **Ulex europaeus** × **U. gallii** (a hybrid gorse). +Hedgerow in field, Llangian, SH28.29; +Coast path below Hirdre Fawr farm, Tudweiliog, SH24.39; both W.McCarthy, 2007.
- +111/3.2.b. **Calystegia sepium** ssp. **roseata** (Hedge Bindweed) (Taglys y Perthi). Field hedge near car-park, Abererch, SH40.36, Caerns. recording group, 2007.
- +116/4.1. **Symphytum officinale** (Common Comfrey) (Cyfardwf). ‡Roadside hedgebank, Llangian, SH28.29, W.McCarthy & M.Stead, 2007.
- +118/10.2. **Scutellaria galericulata** (Skullcap) (Cycyllog). Marsh near Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +‡118/13.1. **Nepeta cataria** (Cat-mint) (Mintys y Gath). Many plants on disturbed soil mound, Llandygai industrial estate, SH59.71, W.McCarthy, 2007. 1st record for at least 40 years.
- +118/23.1×3. **Mentha xgracilis** (*M. arvensis* × *M. spicata*) (Bushy Mint) (Mintys Culddail). Side of track by stream, Cwm Penamner, Dolwyddelan, SH73.58, W.McCarthy, 2007.

- +124/1.2. *Verbascum virgatum* (Twiggy Mullein) (Pannog Fain). Three plants on waste ground on site of former Conwy hospital, Conwy, SH77.78, W.McCarthy & M.Stead, 2007.
- +‡124/1.5. *Verbascum phlomoides* (Orange Mullein) (Pannog Oren). Grass bank near Happy Valley, Great Orme, SH78.83, W.McCarthy, 2007.
- +124/23.1. *Parentucellia viscosa* (Yellow Bartsia) (Gorudd Melyn). ‡Track edge in Coed Creigiau, Trefriw, SH77.63, I. & L.Fraser, 2007. 2nd record and 1st for 30 years.
- 125/2.10. *Orobancha minor* (Common Broomrape) (Gorfanhadlen). Weedy waste ground near railway station, Llandudno, SH78.81, W.McCarthy, 2007.
- *‡131/3.orb×mic. *Symphoricarpos* × *chenaultii* (*S. microphyllus* × *S. orbiculatus*) (Hybrid Coralberry) (Llusen Gwrel Groesryw). Slate quarry waste tip, Llanllechid, SH63.69, W.McCarthy, 2007. 1st record.
- +‡131/5.1. *Leycesteria formosa* (Himalayan Honeysuckle) (Bachgen Llwm). Waste ground by bank of Afon Seiont, Caernarfon, SH49.62, W.McCarthy & M.Stead, 2007.
- +‡131/6.6. *Lonicera japonica* (Japanese Honeysuckle) (Gwyddfid Japan). In hedgebank away from houses, Criccieth, SH48.37, W.McCarthy, 2007. 2nd record.
- +‡133/1.2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffrwythau Rhychog). Pavement edge at wall-base, Beddgelert, SH61.49, W.McCarthy, 2007.
- +135/9.1. *Serratula tinctoria* (Saw-wort) (Dant y Pysgodyn). Edge of Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +135/40.1. *Solidago virgaurea* (Goldenrod) (Eurwialen). Path edge near Afon Glaslyn, Beddgelert, SH61.49, W.McCarthy, 2007.
- +135/62.10×11. *Senecio* × *ostenfeldii* (*S. jacobaea* × *S. aquaticus*) (a hybrid ragwort). Grassland at wood edge with both parents present, Llanddeiniolen, SH53.66, W.McCarthy & L.Ball; +Bank of Afon Glaslyn, Beddgelert, SH60.48, W.McCarthy & S.Stille; both 2007.
- +135/62.12. *Senecio erucifolius* (Hoary Ragwort) (Creulys Lwyd). Roadside bank, Pant Glas, SH47.46, W.McCarthy, 2007.
- *‡148/2.4. *Lemna minuta* (Least Duckweed) (Llinad Bach). Among stones in stream near Llanddeiniolen, SH54.66, W.McCarthy & L.Ball, 2007. 1st record.
- +‡151/1.2. *Juncus tenuis* (Slender Rush) (Brwynen Fain). Edge of track beside Afon Glaslyn, Beddgelert, SH62.49, W.McCarthy, 2007.
- +151/1.25×26. *Juncus* × *diffusus* (*J. effusus* × *J. inflexus*) (Diffuse Rush). Disused quarry floor, Trefriw, SH78.62, W.McCarthy, 2007, conf. P.Benoit. 2nd record and 1st for 40 years.
- +152/16.16. *Carex ovalis* (Oval Sedge) (Hesgen Hirgron). Small field by Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +152/16.18. *Carex dioica* (Dioecious Sedge) (Hesgen Ysgar). Wet flush near Afon Llynedno, Beddgelert, SH63.49, W.McCarthy & M.Stead, 2007.
- +152/16.23. *Carex hirta* (Hairy Sedge) (Hesgen Flewog). Small field by Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +152/16.26. *Carex riparia* (Greater Pond-sedge) (Hesgen-y-dŵr Fawr). Wet woodland, Coed Tymawr, Llanddeiniolen, SH55.66, G.Hutchinson, 1990, conf. A.O.Chater, 2008.
- +152/16.28. *Carex rostrata* (Bottle Sedge) (Hesgen Ylfinfain). Edge of Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +152/16.29. *Carex vesicaria* (Bladder-sedge) (Hesgen Chwysigennaidd). Edge of pond near church, Nefyn, SH31.40, D.Evans, 2007.
- +152/16.46.b. *Carex viridula* ssp. *oedocarpa* (Common Yellow-sedge) (Hesgen Felen). Spring by well near Pink Farm, Great Orme, SH77.83, W.McCarthy, 2007.
- +152/3.4. *Eleocharis multicaulis* (Many-stalked Spike-rush) (Ysbigfrwynen Gadeiriog). Marsh near Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +152/3.5. *Eleocharis quinqueflora* (Few-flowered Spike-rush) (Ysbigfrwynen Goch). Spring above Llyn Dinas, Beddgelert, SH62.49, W.McCarthy, 2007.
- +‡153/17.3. *Briza maxima* (Greater Quaking-grass) (Crydwellt Mawr). +On Dinas hill, Criccieth, SH49.37; +Many plants along wall-base below Twt hill, Caernarfon, SH48.62; both W.McCarthy & M.Stead, 2007. 1st non-casual records.

- *†158/28.1. **Tristagma uniflorum** (Spring Starflower) (Sêr-flodyn y Gwanwyn), Base of wall, Marine Drive, Great Orme, SH76.82, J.Benson, 2007. 1st record.
 +†159/13.3. **Crocospia pottsii** (Pott's Montbretia) (Crib-y-ceiliog Potts). Bank of Afon Glaslyn near Beddgelert, SH62.49, W.McCarthy, 2007.

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

- +1/1.1. **Huperzia selago** (Fir Clubmoss) (Cnwp-fwsogl Mawr). Rocky streamside, Llanarmon Dyffryn Clwyd, Pentre, SJ118.358, P.L.Thomas, 2007.
 +1/3.1. **Lycopodium clavatum** (Stag's-horn Clubmoss) (Cnwp-fwsogl Corn Carw). Grassy summit, Glyndyfrdwy, SJ149.451, J.L.Roberts, 2007.
 +14/3.1. **Oreopteris limbosperma** (Lemon-scented Fern) (Rhedynen Bêr y Mynydd). Wet rocks, Betws y Coed, SH79.55, J.A.Green, 2007.
 +15/2.1. **Asplenium adiantum-nigrum** (Black Spleenwort) (Duegredynen Goesddu). Stone bridge, Bradley, SJ333.535, J.A.Green, 2007.
 +†20/2.1. **Pseudotsuga menziesii** (Douglas Fir) (Ffynidwydden Douglas). ©Planted in woods, Betws y Coed, SH79.55, J.A.Green, 2007.
 +†21/2.1. **Chamaecyparis lawsoniana** (Lawson's Cypress) (Cypreswydden Lawson). Woods, Betws y Coed, SH79.55; +Cemetery, Holt, SJ407.542; both J.A.Green, 2007.
 +28/16.1. **Aquilegia vulgaris** (Columbine) (Troed y Golomen). Roadside wood, Glyndyfrdwy, SJ145.433, BSBI group, 2007.
 +34/2.1. **Humulus lupulus** (Hop) (Hopys). Hedge, Holt, SJ406.543, J.A.Green, 2007.
 +†36/1.2. **Urtica urens** (Small Nettle) (Danhadlen Fach). Sheep rest below cliff, Llangollen, SJ219.447, J.L.Roberts; +†Field edge, Holt, SJ407.542, J.A.Green; both 2007.
 +†36/3.1. **Soleirolia soleirolii** (Mind-your-own-business) (Mam Miloedd). Flower-bed, Rhos on Sea, SH83.82, J.A.Green, 2007.
 +†39/4.2. **Quercus cerris** (Turkey Oak) (Derwen Twrci). Established in woods, Betws y Coed, SH799.554, J.A.Green, 2007.
 *†43/1.13. **Chenopodium ficifolium** (Fig-leaved Goosefoot) (Troed-yr-ŵydd Dail Ffigys). Field edge, Sutton Green, SJ415.488, M.Stead, 2007, conf. G.Kay. 1st record.
 +43/4.1.a. **Beta vulgaris** ssp. **maritima** (Sea Beet) (Betysen Arfor). Sea wall, Rhos on Sea, SH83.82, J.A.Green, 2007.
 +46/7.10. **Cerastium diffusum** (Sea Mouse-ear) (Clust-y-llygoden Arfor). Grassed sand dune, Kinnel Bay, SH987.806, J.A.Green, 2007.
 +46/7.11. **Cerastium pumilum** (Dwarf Mouse-ear) (Clust-y-llygoden Bitw). Grassed sand dune, Kinnel Bay, SH987.806, J.A.Green, 2007.
 +46/7.12. **Cerastium semidecandrum** (Little Mouse-ear) (Clust-y-llygoden Fach). Grassed sand dune, Kinnel Bay, SH987.806, J.A.Green, 2007.
 +46/9.1. **Moenchia erecta** (Upright Chickweed) (Clust-y-llygoden Seth). Steep bare pasture, Glyndyfrdwy, SJ148.437, G.Kay, 2007.
 +47/8.13×19. **Rumex** ×**pratensis** (**R. crispus** × **R. obtusifolius**) (Meadow Dock). Grassland, Abergele, SH955.778, J.A.Green, 2007.
 +†51/1.4. **Hypericum hircinum** (Stinking Tutsan) (Dail-y-Beiblau Drewllyd). Castle woods, Denbigh, SJ052.658, J.A.Green, 2007. 2nd record.
 +52/1.2. **Tilia cordata** (Small-leaved Lime) (Pisgwydden Dail Bach). Bank of River Conwy, Betws y Coed, SH786.565, J.A.Green; +Streamside, Ruabon, SJ323.410, K.Thorne; both 2007.
 +56/5.3. **Stellaria pallida** (Lesser Chickweed) (Gwlyddyn-y-dom Bach). Grassy sand dune, Kinnel Bay, SH987.806, J.A.Green, 2007.
 +57/1.11. **Viola lutea** (Mountain Pansy) (Trilliw y Mynydd). Short grass, Horseshoe Pass, Llangollen, SJ183.479, J.A.Green, 2007.
 +60/1.1. **Bryonia dioica** (White Bryony) (Bloneg y Ddaear). Field hedge, Sutton Green, SJ407.487, J.A.Green, 2007.

- +61/2.11×12. *Salix* ×*multinervis* (*S. cinerea* × *S. aurita*) (a hybrid willow). Streamside, Pentrellyn Cwmmer, SH987.519, J.A.Green, 2007.
- +‡62/1.6. *Sisymbrium orientale* (Eastern Rocket) (Roced y Dwyrain). Sea wall, Rhos on Sea, SH83.82, J.A.Green, 2007.
- +62/12.5. *Rorippa sylvestris* (Creeping Yellow-cress) (Berwr Melyn Ymlusgol). Muddy gateway, Sutton Green, SJ409.477, BSBI group, 2007.
- +62/12.6 *Rorippa amphibia* (Great Yellow-cress) (Berwr Melyn Mawr). Field pond, Sutton Green, SJ409.477, BSBI group, 2007. 1st record since 1979.
- +‡62/17.1. *Lunaria annua* (Honesty) (Swllt Dyn Tlawd). Cemetery, Holt, SJ407.542, J.A.Green, 2007.
- +62/27.1. *Teesdalia nudicaulis* (Shepherd's Cress) (Berwr y Bugail). Grassy rock bank, Plas Maenan, Llanrwst, SH786.685, W.McCarthy, 2007.
- +‡62/31.2. *Coronopus didymus* (Lesser Swine-cress) (Olbrain Bach). Stony path, Overton, SJ366.408, J.L.Roberts, 2007.
- +62/34.5. *Brassica nigra* (Black Mustard) (Mwstard Du). ‡Bank of River Dee, Sutton Green, SJ416.485, M.Stead, 2007.
- +†62/42.1.a. *Raphanus raphanistrum* ssp. *raphanistrum* (Wild Radish) (Rhuddygl Gwyllt). Arable set-aside, Ruabon, SJ296.431, J.L.Roberts, 2007.
- +62/42.1.b. *Raphanus raphanistrum* ssp. *maritimus* (Sea Radish) (Rhuddygl Arfor). Sea shingle, Kinnel Bay, SH991809, J.A.Green, 2007.
- +75/21.17. *Rosa mollis* (Soft Downy-rose) (Rhosyn Blewog). Edge of forest track, Pentrellyn Cwmmer, SH987.520, J.A.Green, 2007, conf. G.Kay.
- +75/28.24. *Sorbus torminalis* (Wild Service-tree) (Cerdদিনen Wyllt). Deciduous wood, Penley, SJ416.415, K.Thorne, 2007.
- *‡75/35.4. *Crataegus crus-galli* (Cockspurthorn) (Draenen Wen Sbardunog). Roadside planting, Denbigh, SJ066.664, J.A.Green, 2007. 1st record.
- +84/1.5. *Epilobium tetragonum* (Square-stalked Willowherb) (Helyglys Pedronglog). Wet heath, Rhyd Galed, SJ010.575; +Road verge, Denbigh, SJ059.675; both J.A.Green, 2007.
- +110/8.1. *Solanum nigrum* (Black Nightshade) (Codwarth Du). ‡Road edge, Sutton Green, SJ406.482, J.A.Green, 2007.
- +116/15.10. *Myosotis discolor* (Changing Forget-me-not) (Sgorpionllys y Amryliw). Roadside, Glyndyfrdwy, SJ14.43, J.A.Green, 2007.
- +118/18.5. *Clinopodium acinos* (Basil Thyme) (Brenhinllys y Maes). Rocky path, Eglwysleg, Llangollen, SJ223.468, J.L.Roberts, 2007, NMW, conf. J.A.Green. 1st recent record.
- +118/23.4. *Mentha suaveolens* (Round-leaved Mint) (Mintys Deilgrwn). ‡Roadside, Coedpoeth, SJ302.512, J.L.Roberts, 2007. 1st recent record.
- *‡118/23.6. *Mentha requienii* (Corsican Mint) (Mintys Corsica). ©Garden paving, Denbigh, SJ069.659, J.A.Green, 2007, conf. E.J.Clements. 1st record.
- +120/1.7. *Callitriche hamulata* (Intermediate Water-starwort) (Brigwlydd Canolig). Small lake, Llechrydau, SJ222.341, J.A.Green, 2007.
- +‡122/1.2. *Buddleja davidii* (Butterfly-bush) (Y Gynffon Las). Rocks, Betws y Coed, SH799.557, J.A.Green, 2007.
- +124/16.9. *Veronica scutellata* (Marsh Speedwell) (Rhwyddlwyn Culddail y Gors). Wet wood, Llanrhaeadr, SJ084.642, J.A.Green, 2007.
- +130/6.3. *Galium uliginosum* (Fen Bedstraw) (Briwydd y Fign). Base-rich flush, Worlds End, Llangollen, SJ232.490, H.Nash, 2007, conf. J.A.Green.
- +‡131/5.1. *Leycesteria formosa* (Himalayan Honeysuckle) (Bachgen Llwm). Castle woods, Denbigh, SJ053.660, J.A.Green, 2007.
- +†133/1.2. *Valerianella carinata* (Keeled-fruited Cornsalad) (Gwylaeth-yr-oen Ffrwythau Rhychog). Top of wall, Glyndyfrdwy, SJ152.430, G.Kay, 2007.
- +135/5.3. *Carduus crispus* (Wetted Thistle) (Ysgallen Grech). Bank of River Dee, Sutton Green, SJ416.488, G.Kay, 2007.

- +135/22.2. **Lactuca virosa** (Great Lettuce) (Letusen Chwerw). ‡Sewage works, Marchwiel, SJ389.479, J.L.Roberts, 2007, conf. J.A.Green.
- +135/26.3. **Crepis biennis** (Rough Hawk's-beard) (Gwalchlys Garw). Industrial estate, Wrexham, SJ386.495, J.L.Roberts, 2007.
- +‡135/27.6. **Pilosella aurantiaca** (Fox-and-cubs) (Clust-y-llygoden Euraid). Mown grass, Rhos on Sea, SH83.82, J.A.Green, 2007.
- +135/37.1. **Pulicaria dysenterica** (Common Fleabane) (Cedowydd), Wet field, Bradley, SJ333.535, J.A.Green, 2007.
- +‡135/40.3. **Solidago canadensis** (Canadian Goldenrod) (Eurwialen Canada). Waste ground, Denbigh, SJ047.662, J.A.Green, 2007.
- +135/71.4. **Petasites fragrans** (Winter Heliotrope) (Alan Pêr). Woodland edge, Betws y Coed, SH799.558, J.A.Green, 2007.
- +135/81.2. **Bidens tripartita** (Trifid Bur-marigold) (Graban Teiran). Field pond, Sutton Green, SJ417.485, G.Kay, 2007.
- +152/16.8.b. **Carex muricata** ssp. **lamprocarpa** (Small-fruited Prickly-sedge) (Hesgen Ysbigog). Grassy bank, Worlds End, Llangollen, SJ228.480, J.L.Roberts, 2007.
- +152/16.47. **Carex pallescens** (Pale Sedge) (Hesgen Welw). Wood edge, Worlds End, Llangollen, SJ220.480, J.L.Roberts, 2007, conf. J.A.Green.
- +153/11.1. **Milium effusum** (Wood Millet) (Miledwellt y Coed). Wood, Penley, SJ41.40, K.Thorne, 2007.
- +153/12.2. **Festuca arundinacea** (Tall Fescue) (Peiswellt Tal). Path side, Rhyd Galed, SJ010.575, J.A.Green, 2007.
- +153/21.1. **Catapodium rigidum** (Fern-grass) (Gwenithwellt Caled). Quarry track, Horseshoe Pass, SJ184.469, J.L.Roberts, 2007.
- +153/21.2. **Catapodium marinum** (Sea Fern-grass) (Gwenithwellt y Morfa). Road edge near sea, Rhos on Sea, SH83.82, J.A.Green, 2007.
- +‡153/39.2. **Agrostis gigantea** (Black Bent) (Maeswellt Mawr). Under castle walls, Denbigh, SJ051.658, J.A.Green, 2007.
- +153/61.1. **Danthonia decumbens** (Heath-grass) (Glaswellt y Rhos). Wet heath, Rhyd Galed, SJ010.575, J.A.Green, 2007.
- +158/17.1. **Paris quadrifolia** (Herb-Paris) (Cwlwm Cariad). Valley floor in wood, Penley, SJ417.414, K.Thorne, 2007.
- +158/20.2×3. **Hyacinthoides ×massartiana** (**H. hispanica** × **H. non-scripta**) (Hybrid Bluebell) (Clychau'r-gog Croesryw). Cemetery, Holt, SJ407.542, J.A.Green, 2007.
- *‡158/23.2. **Muscari armeniacum** (Garden Grape-hyacinth) (Clychau Dulas yr Ardd). Grassy sand dune, Kinnel Bay, SH987.807, J.A.Green, 2001. 1st record.
-

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

- +27/1.1. **Ceratophyllum demersum** (Rigid Hornwort) (Cyrnddail Caled). ‡Introduced in field pond, NE of Gwern Hall, Bwlchgwyn, SJ248.543, J.Phillips, 2007. 2nd recent record and new site.
- *‡40/1.erm. **Betula ermanii** Chamisso, (Erman's Birch). Nature Reserve on old industrial site, Rhydymwyn, SJ205.668, J.Phillips, 2006, NMW, det. G.Hutchinson. 1st Welsh record.
- +43/3.6. **Atriplex littoralis** (Grass-leaved Orache) (Llygwyn Arfor). Abundant in hedge bottom, N side of A5118, E of Buckley, SJ297.628, S.Chambers, 2003. 1st inland record.
- *©43/COR.lep. **Corispermum leptopterum** (Bugseed) (Llygwyn Had Garw). Scattered plants in light sandy soil on industrial site, Paper Mill, Deeside, SJ307.719, L.Charter, 2007, det. G.Kay, conf. E.J.Clement. 1st record.
- +46/20.9×1. **Silene ×hampeana** (**S. latifolia** × **S. dioica**). [Pink Campion]. Flushed heavy clay soil in abandoned quarry, Cymau, E of Ffrith, SJ300.553, S.P.Chambers, 2003.
- 49/1.off. **Paeonia officinalis** (Garden Peony) (Rhosyn-y-mynydd y Gerddi). Dense birch woodland, no doubt an established garden through-out but some distance from houses, Caerestyn, E of Caergwrle, SJ316.575, G.Wynne, 1999. 2nd published record but predates that published in Welsh Plant Records 2006.
- +53/1.1. **Malva moschata** (Musk-mallow) (Hocysen Fwsg). Dune grassland, Y Ffrith, Prestatyn, SJ04.82, J.Phillips, 2000.
- +‡61/1.3×del. **Populus ×canadensis** (**P. nigra** × **P. deltoides**) (Hybrid Black-poplar) (Poplysen Ddu Groesryw). Dune grassland & remnant dunes, Y Ffrith, Prestatyn, SJ045.829, J.Phillips & BSBI group, 2002.
- +‡61/2.02×03. **Salix ×rubens** (**S. alba** × **S. fragilis**) (Hybrid Crack-willow) (Helygen Frau Groesryw). Old hedge, Rhuddlan, SJ0.7, G.Wynne, 2003, NMW, det. G.Hutchinson.
- +‡62/7.1. **Erysimum cheiranthoides** (Treacle-mustard) (Triagl Arfog). Many plants in weedy field, Tyn-y-ffordd, Bodfari, SJ087.701, J.A.Green, 2007. 1st recent record.
- ‡62/20.1. **Lobularia maritima** (Sweet Alison) (Alyswm Pêr). Dune grassland, Y Ffrith, Prestatyn, SJ045.828, J.Phillips & BSBI group, 2002. 1st recent record for hectad.
- +62/30.6. **Lepidium latifolium** (Dittander) (Pupurlys Llydanddail). Riverward face of floodbank, both sides of Hawarden Bridge on S bank of River Dee, SJ312.694, T.R.Harwood, 2002. 2nd recent record.
- +‡75/32.34. **Cotoneaster bullatus** (Hollyberry Cotoneaster) (Cotoneaster Deilgrych). Scrub in new amenity woodland, Prestatyn, SJ059.825, G.Wynne, 2007, 3rd record.
- +‡94/1.2. **Linum usitatissimum** (Flax) (Lin). ©Rough grass / scrub in new amenity woodland, Prestatyn, SJ058.825, G. Wynne, 2007. 2nd recent record.
- +‡103/1.1. **Geranium endressii** (French Crane's-bill) (Pig-yr-aran Ffrainc). Dune grassland, Y Ffrith, Prestatyn, SJ04.82, J.Phillips, 2000.
- +‡118/16.1. **Melissa officinalis** (Balm) (Balm). Rough grass / scrub in new amenity woodland, Prestatyn, SJ058.825, J.Phillips, 2007. 2nd recent record.
- *120/1.6. **Callitriche brutia** (Pedunculate Water-starwort) (Brigwyldd Coesog). Mesotrophic pond, Maes-y-grug between Alltami and Northophall, SJ262.665, S.Whild, 1994. 1st record (in VCCC).
- +‡123/4.2. **Ligustrum ovalifolium** (Garden Privet) (Yswyddden yr Ardd). Dune grassland, Y Ffrith, Prestatyn, SJ045.828, J.Phillips & BSBI group, 2002.
- +‡124/8.2. **Chaenorhinum minus** (Small Toadflax) (Trwyn-y-llo Bach). Railway tracks, Prestatyn, SJ064.830, J.A.Green, 2007.
- +124/20.7×9. **Euphrasia nemorosa** × **E. confusa** (a hybrid eyebright). Rough grass / scrub in new amenity woodland, Sealand Rifle Range, SJ301.729, G.Wynne, 1999, NMW, det. G.Hutchinson.
- +‡135/41.3×4. **Aster ×versicolor** (**A. laevis** × **A. novi-belgii**). (Late Michaelmas-daisy) (Blodyn-Mihangel Diweddar). Rough grass / scrub in new amenity woodland, Prestatyn, SJ059.825, G.Wynne, 2007, NMW, det. G.Hutchinson, 2nd record.

+137/4.2. **Alisma lanceolatum** (Narrow-leaved Water-plantain) (Llyriad-y-dr Culddail). Mesotrophic pond, Maes-y-grug between Alltarni and Northophall, SJ262.665, S.Whild, 1994. 1st post-1930 record.

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

+4/1.3. **Equisetum variegatum** (Variegated Horsetail) (Marchrawnfen Fraith). Coastal sand, Lligwy, SH497.871, M. Foley & M.Porter, 2007.

+15/2.3.a. **Asplenium obovatum** ssp. **lanceolatum** (Lanceolate Spleenwort) (Duegredynen Hirgul). Coastal rocks, Trearddur, SH269.794, J.Harold, 2007, det. N.Brown.

*†29/1.9. **Berberis darwinii** (Darwin's Barberry) (Pren Melyn Darwin). Well established around rocky outcrop, Trearddur, SH265.796, I.Bonner & C.Aron, 2007. 1st record.

*†51/1.3×4. **Hypericum** × **inodorum** (**H. androsaemum** × **H. hircinum**) (Tall Tutsan) (Dail-y-Beiblau Tal). Naturalised by former habitation, Holyhead, SH224.823, O.Mountford, 2006. 1st record.

*†71/HYD.mac. **Hydrangea macrophylla** (Hydrangea) (Trilliwr ar Ddeg). Naturalised by former habitation, Holyhead, SH224.823, O.Mountford, 2006. 1st record.

*†74/2.1. **Rodgersia podophylla** (Rodgersia) (Rodgersia). Several sizeable clumps, well established in woodland, Pwll-fanogl, Llanfair-Pwllgwyngyll, SH52.71, N.Brown, 2007. 1st record.

*†75/3.1×2. **Spiraea** × **rosalba** (**S. salicifolia** × **S. alba**) (Intermediate Bridewort) (Erwain Gwridog). Naturalised by former habitation, Holyhead, SH224.823, O.Mountford, 2006. 1st record.

*†99/1.2. **Acer cappadocicum** (Cappadocian Maple) (Masarnen Capadocia). Woodland, Plas Newydd, SH524.704, P.Denne, 2007. 1st record.

+†110/4.1. **Hyoscyamus niger** (Henbane) (Llewyg yr Iâr). Disturbed ground, Penial Dowyn, SH293.832, J.Rees, 2007. New hectad and 1st record in the v.c. since 1979.

*†116/6.3. **Anchusa azurea** (Garden Anchusa) (Llysiau'r-gwrid Glas). Roadside hedgerow, 20yds. from old school, Llangoed, SH619.799, E.Phenna, 2006. 1st record.

*†153/3.1. **Sasa palmata** (Broad-leaved Bamboo) (Bambŵ Llydanddail). Woodland, well established, Pwll-fanogl, Llanfair-Pwllgwyngyll, SH52.71, N.Brown, 2007. 1st record.

*†153/PHY.bam. **Phyllostachys bambusoides** (a bamboo). Woodland, well established, Pwll-fanogl, Llanfair-Pwllgwyngyll, SH52.71, N.Brown, 2007. 1st Welsh record.

*†153/PHY.vir. **Phyllostachys viridiglaucescens** (a bamboo). Woodland, well established, Pwll-fanogl, Llanfair-Pwllgwyngyll, SH52.71, N.Brown, 2007. 1st v.c. & 2nd Welsh record.

THE PLANTLIFE WALES NEWSLETTER - 7

The Vascular Plant Red Data List for Wales

Following publication of the *The Vascular Plant Red Data List for Great Britain* (Cheffings & Farrell, 2005), which looked at the level of threat facing the whole of our flora for the first time, it became clear that there were significant differences between Wales and Great Britain. Some species, such as *Pseudorchis albida* (Small White-orchid) had declined more in Wales than Great Britain, while others, such as *Ranunculus tripartitus* (Three-lobed Crowfoot), were doing better. At the same time, the need arose for a comprehensive analysis of the flora in Wales to be undertaken so that priorities for conservation could be determined. The Welsh Assembly Government had already published a list of such priorities (the Section 74 list), but species selection for this was not underpinned by a scientifically rigorous methodology. Also, there had been no comprehensive examination of our plants in Wales since the excellent *Flowering Plants of Wales* by Gwynn Ellis in 1983. A botanical “stock-taking” exercise was well overdue. Plantlife Wales and the BSBI therefore decided to produce a Red Data List for Wales. This would take the form of the GB Red Data List and apply the same, rigorous IUCN criteria for threat to our flora.

Work started with an analysis of the data from the Vascular Plant Database, which had been compiled for the *New Atlas of the British and Irish Flora* (Preston *et al.*, 2002). We are deeply indebted to Chris Cheffings at JNCC for undertaking this task, which analysed the decline in number of hectads and “area of occupation” within Wales (IUCN threat criterion A).

The other IUCN criteria (B, C and D) examine the current number of sites, populations or individuals of a species in the area being considered. Criteria B and C also require evidence of any ongoing decline. For these criteria, the BSBI Wales Committee and Vice-county Recorders were bombarded with requests from me for detailed, up-to-date site data for a whole range of species, mostly those that had been recorded in 15 or fewer hectads in Wales since 1987. Records were also sought from BSBI County Rare Plant Registers for Anglesey (Bonner, 2006), Carmarthenshire (Pryce, 1999), Ceredigion (Chater, 1997) and Monmouthshire (Evans, 2007), along with the Registers in preparation for Flintshire, Caernarfonshire and Glamorgan. Without these County Rare Plant Registers, this work would have been impossible, as the level of detail they contain made assessment of a species’ current status extremely easy. Additional records were also sought from records published in the *BSBI Welsh Bulletin* since 2000 (numbers 68 to 80), and staff of other conservation organisations such as the Countryside Council for Wales and the National Parks, and Tim Rich from the National Museum of Wales very kindly provided his own assessments of *Hieracium* microspecies in Wales.

A major task was to judge whether any population is currently declining. Records up to 2007 were used to assess this and Vice-county Recorders were asked for their judgements based on their most recent observations. This is extremely difficult to do given the paucity of monitoring data for many taxa and there is much room for improvement here. The collection of population size or extent, or at least some observation of trends from year to year, are extremely valuable and should be mandatory for all of the rarest species in Wales. Some taxa will be allocated a lower category of threat in Wales than appropriate because monitoring data is not available.

At the end of this exercise, however, a spreadsheet had been compiled of current site-data for all species found in 15 or fewer sites in Wales, and this formed the basis of the analysis. The following criteria were applied, following the strict IUCN guidelines:

Threat Category	Criterion	Thresholds (AOO = area of occupancy)
EX Extinct		Extinct in Great Britain (but was present in Wales)
RE Regionally extinct		Extinct in Wales but still present elsewhere in Great Britain
EW Extinct in the wild		Extinct in Great Britain (but was present in Wales) still present in cultivation
CR Critically Endangered	A	AOO trend or Hectad trend > 80% decline
	B	1 location + continuing decline
	C	<250 individuals + continuing decline
	D	< 50 individuals
EN Endangered	A	AOO trend or Hectad trend > 50% decline
	B	5 locations + continuing decline
	C	< 2500 individuals + continuing decline
	D	< 250 individuals
VU Vulnerable	A	AOO trend or Hectad trend > 30% decline
	B	10 locations + continuing decline
	C	< 10000 individuals + continuing decline
	D1	< 1000 individuals
	D2	< 5 locations
NT Near Threatened	A	AOO trend or Hectad trend > 20% decline
	B	30 locations + continuing decline
	D	< 10000 individuals
LC Least concern		No threat to taxon
DD Data deficient		Threat suspected but there is insufficient data for analysis
WL Waiting list		Inadequate data, taxonomic uncertainties or uncertainties over native or archaeophyte status means that no assessment can be made.

How does Wales compare with Great Britain?

Obviously a major aim of the study was to compare the flora of Wales with Great Britain as a whole. Not surprisingly, there are a huge number of differences. Only 34 taxa have the same threat category in both Wales and Great Britain (7 Critically Endangered, 5 Endangered and 22 Vulnerable), while just 6 are Near Threatened on both lists. Of course, most taxa are not threatened, and 1074 are categorised as being Least Concern in both areas. The following shows the number and proportion of taxa in each category in Great Britain and Wales:

	Great Britain		Wales	
	No. of taxa	% of total	No. of taxa	% of total
Extinct (EX+EW+RE)	18	1.0	38	2.6
Critically Endangered (CR)	32	1.9	50	3.4
Endangered (EN)	82	4.7	64	4.4
Vulnerable (VU)	213	12.3	142	9.7
Near Threatened (NT)	95	5.5	28	1.9
Data Deficient (DD)	39	2.3	18	1.2
Least Concern (LC)	1248	72.3	1127	76.8
Total	1727		1467	

Two figures are particularly striking here, the higher proportion of extinct taxa in Wales and the higher proportion of Critically Endangered taxa. The former can be explained by Wales being a smaller area than Great Britain. There will always be a higher rate of extinction at the local, site level long before extinctions become apparent from larger areas; extinctions are

frequent locally, less frequent from Vice-counties and are relatively rare nationally. Welsh Vice-counties have on average lost 50 taxa (using records available from seven Welsh County Rare Plant Registers), so the figure of 38 extinctions for Wales fits neatly between this County average for Wales and the GB total of eighteen.

More difficult to explain is the higher proportion of Critically Endangered taxa. This may result partly from the large number of species that reach the edge of their southern range in Wales. Such populations are often small and more vulnerable to extinction. We also have a high number of Critically Endangered *Hieracium* microspecies in Wales, which are relatively well studied and for which population details are often available.

The higher proportions of Extinct and Critically Endangered taxa in Wales are balanced by relatively fewer Vulnerable and Near Threatened taxa. This may be because for this study detailed site-records were sought for taxa in 15 or fewer sites in Wales, which tend to be either Endangered or Critically Endangered. I strongly suspect that more taxa will qualify as Near Threatened and Vulnerable when more detailed records are collected for species found in 16-30 sites.

Which species are doing worse in Wales?

162 taxa are "doing worse" in Wales than they are in Great Britain (in other words they have a higher level of threat in Wales, or are threatened in Wales but are Least Concern in Great Britain). Many of these are due to Wales having very small populations of species that are common in England. Some species that are surprisingly highly threatened in Wales because of this include *Oenanthe pimpinelloides* (1 plant in Wales), *Atropa belladonna* (c. 10 plants in Wales) and *Geranium sylvaticum* (less than 30 plants).

Comparisons have to be made with some caution if taxa are qualifying under different criteria in each area. *Cephalanthera longifolia*, for example, is Vulnerable in GB under criterion A (decline in area), but is *Endangered* in Wales due to the small number of plants (c. 210). Similarly, *Pseudorchis albida* is VU in GB because of the decline in its area (criterion A), but is Critically Endangered in Wales because there are very few sites and the decline at these is ongoing (criteria C and D).

Of most interest are those taxa that are more threatened in Wales due to a higher level of decline in hectads or area (criterion A). Examples include *Gnaphalium sylvaticum* (EN in GB but CR in Wales), *Chamaemelum nobile* (VU in GB but EN in Wales), *Gentianella campestris* (VU in GB but EN in Wales), *Melittis melissophyllum* (VU in GB but EN in Wales) and *Anagallis minima* (NT in GB but VU in Wales). These are precisely the sort of species we'd hoped to identify so that priorities for conservation can be determined in Wales. A full list of these species is given in the report.

Which species are doing better in Wales?

A small suite of species have a lower category of threat in Wales than they do in Great Britain. These are often typically "western" species, such as *Viola lactea* (VU in GB, LC in Wales) and *Silene gallica* (EN in GB, VU in Wales), that have suffered more of a decline in southern England than they have in Wales. Care is again needed with these comparisons however, as some taxa qualify under different criteria in each area. *Dianthus armeria*, for example, is Endangered in GB due to a decline of 50-80% (criterion A), while in Wales it qualifies as Vulnerable under criterion D, with five or fewer sites.

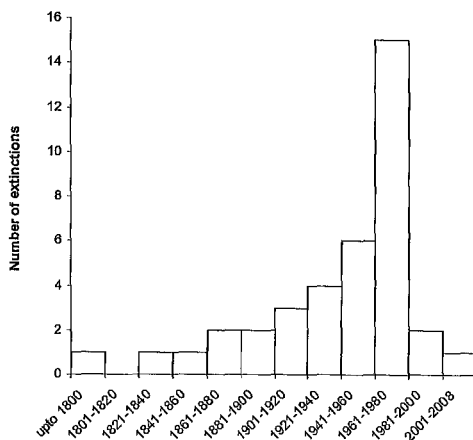
Some species are fairing better in Wales because their habitat management needs are well understood and populations are recovering through the reintroduction of appropriate

management. *Ranunculus tripartitus* (Three-lobed Crowfoot) is a case in point. This is Endangered in GB but Least Concern in Wales, mainly because grazing is being reintroduced to its heathland sites in Pembrokeshire and on Gower, and seasonal pools and ruts are being excavated at other sites in Pembrokeshire and Caernarfonshire. This species is effectively recovering in Wales, and since it's nice to highlight a "good-news" story for a change it features on the cover of the report.

Extinctions

As already mentioned, there is a higher proportion of extinction in Wales than in Great Britain. As with Great Britain as a whole, arable species are the largest single group that have been lost from Wales, with 8 (21%) of the 38 extinctions being plants of cultivated fields. Although Wales is not now an arable country, this is no surprise as it was much more so in the past. Five extinct species grew in base-rich habitats and it is interesting to note that most of these are typical of low-nutrient grasslands. Six other species on the list grew on coastal shingle or dunes, and these habitats are indeed under considerable pressure for "improvement" and development. One surprise was the relative lack of arctic-alpine species on the list. Since those that remain in this country have already survived a long history of warm interglacial periods, perhaps this is to be expected, and the main threats are from overgrazing and atmospheric nitrogen deposition.

Between 1800 and 1980 there was a remarkable increase in the rate of species extinction in Wales, culminating in a peak in the period 1961-1980 when 15 species were recorded for the last time (see graph below). Although this needs to be treated with a certain amount of caution (the precise dates at which some species were lost is unknown, and this may be a cumulative effect of national Atlas recording periods rather than actual dates of losses), the trend is clear even when these uncertainties are removed. The period 1961-1980 coincides with the greatest period of agricultural intensification in Britain and it is again no surprise that most of the arable and ruderal species that have become extinct in Wales were lost during this time. The relative lack of extinctions since 1980 may reflect a greater awareness of the need for, and effort towards, species conservation.



Interestingly, one of the most recent losses was *Mertensia maritima* (Oysterplant), which appears to have been a victim of a combination of factors including storm damage, vehicle use on the shingle beach and our ameliorating climate. The germination of this European Boreo-arctic Montane species is dependent on winter temperature and duration and seedlings

only appeared in quantity at its last Welsh location following hard winters. Is this perhaps the first casualty of climate change in Wales?

How will the findings be used?

One important point needs to be made about how this list should be used. Wales is a political, not biogeographic, area and this list should not be used in isolation without the Vascular Plant Red Data List for Great Britain. Any taxon that is threatened in Great Britain should also be regarded as a priority for conservation in Wales, regardless of its threat status in Wales. If, for example, a taxon is less threatened in Wales than it is in Great Britain (it has a lower threat category or is even Least Concern in Wales), the Welsh population must still be regarded as a vitally important component of the GB population and deserves full protection in Wales. This is because it represents a part of the whole GB population that has more chance of surviving and recovering than the GB population as a whole. Should the GB population outside Wales continue to decline, the Welsh population will become increasingly important. Should the Welsh population begin to decline, the species will be regarded as even more threatened in the GB as a whole.

Conversely, taxa that are more threatened in Wales than they are in Great Britain should naturally be considered as priorities for conservation within Wales. The results of this study have already been used to inform the selection of conservation priorities in Wales, with species such as *Hammarbya paludosa* (Bog Orchid) being added to the new Section 42 list. Threatened species identified in the report should also be considered for incorporation into Local Biodiversity Action Plans.

Finally, we would hope that all taxa regarded as Critically Endangered, Endangered, Vulnerable or Near Threatened in Wales are included in County Rare Plant Registers, as these provide the best mechanism for encouraging the collection of records and assessments of decline.

Electronic copies of the report are available from <http://www.plantlife.org.uk/portal/plantlife-news.htm>.

References

- Cheffings, C.M. & Farrell, L. (Eds), Dines, T.D., Jones, R.A., Leech, S.J., McKean, D.R., Pearman, D.A., Preston, C.D., Rumsey, F.J., Taylor, I. (2005). *The Vascular Plant Red Data List for Great Britain*. Species Status 7: 1-116. Joint Nature Conservation Committee, Peterborough.
- Dines, T. D. (2008). *A Vascular Plant Red Data List for Wales*. Plantlife International, Salisbury.
- Ellis, R. G. (1983). *Flowering Plants of Wales*. National Museum of Wales, Cardiff.

TREVOR DINES, Plantlife Wales Officer, c/o Countryside Council for Wales, Maes y Ffynnon, Ffordd Penrhos, Bangor, Gwynedd LL57 2LQ