





Front Cover Photo and Above (top) : *Luronium natans* (Floating Water Plantain) from around the margin of Ramsey Pipe Dam pond which is set in acid marshy grassland in the Welsh Black grazing area (see page 41). © S.B. Evans

Above (bottom) : *Matthiola sinuata* (Sea Stock) with *Orobanche hederiae* (Ivy Broomrape) as an associate on *Hedera helix* (Ivy). This plant was recorded from Caldey Island, Pembrokeshire (v.c. 45) by Les Smith on 30/08/2008. Image taken on 11/08/2009. (see page 37). © S.B. Evans

Welsh Bulletin

Issue 86
May 2010

Editors :

Richard D. Pryce
Trevethin, School Road, Pwll,
Llanelli, Carmarthenshire, SA15 4AL
PryceEco@aol.com

*Sally Whyman and
Katherine Slade*
Department of Biosybh
National Museum Cardiff
Cathays Park, Cardiff, CF10 3NP
sally.whyman@museumwales.ac.uk
katherine.slade@museumwales.ac.uk

Most back issues are still available on request (originals or photocopies) @ £2 per issue, please contact Sally Whyman or Katherine Slade. Cheques are payable to BSBI Wales. The last issue was no.85 released in January 2010.

Back issues over one year old are currently being uploaded to the website.
www.watsonia.org.uk/html/welsh_bulletin.html

All articles, news, photos, guest editorials and other items for inclusion in the Jan 2011 issue should be sent to an editor by **1st December 2010**.

Please send any plants records to your Vice County Recorder (see page 16 or BSBI Yearbook).

Contents

Guest Editorial <i>D. Parker</i>	4
Annual General Meeting 2009	5
Chairman's opening remarks	5
Hon. Secretary's Report	5
Hon. Treasurer's Report	6
Annual Statement of Accounts	6
Election of Officers	7
Any other business	7
Calendar of Welsh Meetings 2010	8
48th Welsh AGM & 28th Exhibition Meeting 2010	9
Barcode Wales Project <i>N. de Vere</i>	10-13
Welsh Wood Stitchwort (<i>Stellaria nemorum</i> subsp. <i>montana</i>) under Threat <i>R.A. Jones</i>	13-15
Launch of the BSBI Welsh webpages <i>K. Slade</i>	15
Welsh Plant Records 2009	16-54



PLANTLIFE
our plants our planet our future

Plantlife Cymru
Newsletter - No. 11 1-4

Guest Editorial

Cwm Idwal, a 30 year reflection

Dr. D. M. PARKER, Director of Science, Countryside Council for Wales

My first visit to Cwm Idwal was in October 1977 with my PhD supervisor, Hugh McAllister and the then Warden of the Cwm Idwal NNR, Iorrie Ellis Williams. We were there to look into my then embryonic proposal to carry out a restocking of Tufted Saxifrage (*Saxifraga cespitosa*) which was down to four plants on a single small moss cushion on the boulder scree. At the time, I was impressed with the sight of great quantities of other arctic-alpine plants and their survival in the face of grazing pressure from the enormous numbers of sheep. This intense grazing allowed no prospect of these delicate plants increasing their numbers by colonising new, adjacent, habitats. The subsequent elimination of sheep from Cwm Idwal in 1999, by the Countryside Council for Wales, was done at least partly to give this special vegetation a chance to spread.

In spite of the grazing pressure in the late 1970s, I have been reminded that I found a single plant of the Small-white Orchid (*Leucorchis albida*) in the species-rich grassland at the base of the boulder scree in July 1979. I did not photograph it (probably

because it was pouring with rain!) and, by the next day, it had been grazed off by a sheep. I, and nobody else, has seen another plant there since. However, I do wonder whether the removal of sheep grazing will create the conditions to allow this plant again to flower?

I recommend a visit to Cwm Idwal from May to August to see how the largely ungrazed vegetation of the Cwm has responded. To me, the most impressive sights are the profusion of flowering stems of grasses, yellow-orange drifts of Bog Asphodel (*Narthecium ossifragum*) and the recovering heath, with Bell Heather (*Erica cinerea*) and Western Gorse (*Ulex gallii*). Who knows, you may also find the Small-white Orchid!

BSBI Wales Annual General Meeting 2009

The 47th Annual General Meeting of the BSBI in Wales, held at Llanelwedd Jubilee Hall, Builth Wells on Saturday 27th June 2009

1. Welcome. The Chairman, Andy Jones, welcomed everyone, especially the President, Michael Braithwaite and his wife, to the Royal Welsh Showground and to the Jubilee Hall where the AGM and Exhibitions were being held.

2. Apologies for Absence. I.Bonner, P.Day, E.Dean, T.Dines, S.Evans, J.Green, G.Hutchinson, M.Perring, D.Reynolds, K.Slade, S.Whyman and S.Spencer.

3. Minutes. The minutes of the AGM held on 9th August 2008 at Gregynog Hall, Newtown, Monts. were approved as printed in Welsh Bulletin No. 84.

4. Matters Arising. The Chairman took the opportunity to tell members that Jean Green, who has recently retired from the Recordship of Denbighshire, v.c. 50, was to have major surgery the following week. The meeting agreed to send her a card from the AGM with our good wishes. [Members will be pleased to know that Jean has made a good recovery and is able to again get out into the great outdoors to continue her passion for field botany this season - ed.]

5. Chairman's Statement

- a. Andy Jones commented on the high standard of the exhibitions "the best in years", and of the two workshops run by Julian Woodman and John Poland.
- b. Next year's AGM is to be in Anglesey, run by Trevor Dines, probably in June. Outline arrangements for subsequent years are:
 - i. 2011 – Pembrokeshire (Stephen Evans)
 - ii. 2012 – Llangollen (Delyth Williams)
- c. BSBI in Wales:
- d. Liaison with the Countryside Council for Wales (CCW) is in a similar vane to that of the UK and with almost complete coverage of County Rare Plant Registers.
- e. Our membership is more fully participatory, with field meetings better attended.
- f. A Welsh Officer in line with the Scottish Officer would organise the AGM and arrange workshops, as well as supporting Vice-County Recorders and co-ordinating field meetings in Wales. Prospects are dependent on BSBI providing match funding with the 50% available from CCW.
- g. Wales is ahead with all its plans and botanical activity is going well.

6. Hon. Secretary's Report

- a. The Secretary added his welcome to the President and his wife, Michael and Paddy Braithwaite.
- b. He thanked Tim Blackstock for agreeing to give the keynote speech that evening, and members for coming to support the meeting.
- c. He commented on the good programme of field meetings this year with still four more to come, and on the planned future AGMs.
- d. He explained that Trevor Dines had not been able to come because of a clash with a Plantlife meeting.
- e. The Welsh Bulletin was published twice a year and had previously cost in the region of £300 per issue. By outsourcing colour printing, costs had now increased and there was a case for a contribution from central BSBI funds. The Irish and Scottish publications were totally funded by such funds.
- f. Publications by BSBI this year were the *Callitriche* and *Fumaria* Handbooks and John Poland's Vegetative Key to the British Flora. The Secretary commended all these to members.

7. Hon. Treasurer's Report

Annual Statement of Accounts for the period 1st January 2009 - 1st June 2009

<i>Receipts</i>	£	<i>Payments</i>	£
WB subs	£44.00	Welsh Bulletin costs	£296.67
Plantlife	£142.00		
2009 AGM	£2,361.00		
Totals	£2,547.00		£296.67
Receipts less payments	£2,250.33		
c/f from 31 Dec 2008	£605.99		
Bank balance at 1 June 2009	£2,856.32		

Accounts for the year 1 January - 31 December 2008

<i>Receipts</i>		<i>Payments</i>	
Welsh Bulletin subs		Welsh Bulletin costs	£564.20
Plantlife	£174.00	AGM	£7,436.06
AGM*	£164.00	Refunds	£80.00
Totals	£7,711.00		£8,080.26
	£8,049.00		

Receipts less payments for 2008

c/f from 1st January 2008	-£31.26
Bank balance at 31st December 2008	<u>£637.25</u>

The accounts were approved unanimously.

8. Election of Officers

The following had still a year to serve of their current term of office:

Andy Jones (Chairman)

Delyth Williams (Vice Chair – to take up the Chair at the next AGM)

Richard Pryce (Secretary – gave notice of his wish to stand down in 2010)

The following members consented to stand for re-election:

Ian Bonner (Ian had earlier resigned as he felt unable to arrange an AGM in Anglesey but had now agreed to come back onto the Committee)

Trevor Evans

Trevor Dines

Richard Pryce

Ray Woods

Their re-election was approved.

Other members were not due for re-election until 2010, but there was still a vacant place on the committee. Kath Pryce was nominated and elected unanimously.

The new co-editors of the Welsh Bulletin, Katherine Slade and Sally Whyman had been co-opted onto the Committee, and George Hutchinson will resign when he retires from Amgueddfa Cymru - National Museum Wales in March 2010.

Trevor Dines also sits on the Committee as Plantlife representative, and Paul Day represents CCW.

9. Any Other Business

- a. Andy Shaw said he could take samples of *Potentilla rupestris* and grow them on to make them available to members;
- b. Trevor Evans said that although he had been awarded the President's Prize in 2009 for his Flora of Monmouthshire, no acknowledgement had been published by the BSBI, nor by the Wildflower Society. (The President's Prize is awarded alternately by the BSBI and the Wildflower Society and Trevor's award was made by Sir Ghillelan Prance, President of WFS). [Both Andy Jones as Chairman, and Richard Pryce as Secretary, confirmed this to be the case and congratulated Trevor on his award whilst also regretting the apparent lack of its recognition in the publications of two Societies].
- c. Diana Reynolds apologised for her and her husband's absence but said that we must keep trust in Welsh Assembly Government to work towards biodiversity targets. Vice-County Recorders were reminded that small grants were

- available from WAG for books and maps, but that the uptake had been small, and it was important that this money should not be lost.
- d. Delegates were reminded of Tim Blackstock's talk that evening after dinner.
 - e. Michael Braithwaite, on behalf of himself and Paddy, said what a pleasure it was to be here. He emphasised that he was available to listen to members' concerns and take them up with Council. He reminded members that regional activity was what the BSBI was all about – it never set out to be centralised – and he emphasised the importance of the Welsh and Scottish committees and of small get-togethers elsewhere.
 - f. Steve Coker had liaised with CCW over many years and offered to help with digitised mapping for recording purposes.

The Meeting then closed. The AGM was attended by 33 members.

Calendar of Meetings 2010

Full details and procedure for booking are also available in the BSBI Year Book 2010 and the BSBI Welsh Bulletin, No. 85.

Saturday 22nd May Nant Gwynant, Snowdon, Caernarvonshire, v.c.49. Wendy McCarthy.

Saturday 29th May Cefn Cribwr, Glamorgan, v.c.41. Julian Woodman.

Friday/Saturday/Sunday 11th/12th/13th June Welsh AGM and Exhibition Meeting and associated field meetings, Anglesey, v.c.52.

Saturday 19th June Cae Blaen Dyffryn Plantlife reserve, Lampeter, Carmarthenshire, v.c.44. Trevor Dines.

Saturday 26th June Caeau Tan y Bwlch Plantlife reserve, Clynnogfawr,

Caernarvonshire, v.c.49. Trevor Dines.

Saturday 3rd July Cefn Caer Euni, Merionethshire, v.c.48. Sarah Stille.

Saturday 10th July Gwent Levels, near Newport, Glamorgan, v.c.41. Richard Lansdown.

Friday 16th July to Friday 23rd July Glynhir Mansion, Llandybie, Carmarthenshire, v.c.44. Kath and Richard Pryce.

Sunday 25th July Cors Fochno (Borth Bog), Cardiganshire, v.c.46. Mike Bailey (CCW warden).

Saturday 31st July Brymbo Steelworks, Denbighshire, v.c.50. Leader: Delyth Williams.

Saturday 7th August: Llangorse Lake, Breconshire, v.c.42. Ray Woods.

Reminder - BSBI Wales AGM 2010

48th Welsh AGM & 28th Exhibition Meeting Friday 11th – Sunday 13th June 2010

This is a quick reminder that the BSBI Wales AGM for 2010 is being held at Hotel Cymyran, Valley, Anglesey with a “Coastal and Heathlands” theme. It will be centred on a remarkable area of Wales rich in coastal habitats, especially coastal heathland. The AGM extends a warm welcome to all members at all levels of experience.

There will be:

Friday afternoon walk to Cymyran coastal heathland to look for *Juncus capitatus* and other specialities.

Saturday morning excursions to coastal/heathland sites including South Stack and the Inland Sea.

Identification workshop to assist with identification of material collected in the morning and with members’ specimens brought to the AGM.

A series of short illustrated talks on the Anglesey flora on Saturday evening.

Sunday excursions to coastal/heathland sites including Newborough Warren, Aberffraw and Traeth Lligwy (horsetails).

Exhibits Any material (posters, exhibits of herbarium specimen and live specimens) that will be of interest to other members will be very welcome. We’ve not had many offers for exhibits yet so please let the organiser know if you’d like to produce something, or use the space on the booking form.

A booking form is enclosed with this bulletin as a reminder to those that have not yet booked (please use this form rather than the one circulated in January, which contains an error). For any queries please contact Trevor Dines, Uned 14, Llys Castan, Ffordd Y Parc, Parc Menai, Bangor, Gwynedd LL57 4FD. e-mail: trevor.dines@plantlife.org.uk

Barcode Wales Project

DR. NATASHA DE VERE, *Head of Conservation and Research, National Botanic Garden of Wales, Llanarthne, Carmarthenshire SA32 8HG*

Imagine you could identify any plant species in Wales from the tiniest fragment of leaf, seed or pollen grain; this is possible using DNA barcoding. This technique uses a small section of DNA to act as a unique identifier for that species. The first step is to assemble reference barcodes for the species that we want to identify. For example, here is part of the barcode for *Campanula patula*.

**Campanula patula_CTTATTATAC
TCCGGACTATGAAACCAAGGA
TACCGATATTTTGGCAGCCTTT
CGAGTAACTCCTCAACCCGGA
GTTCCCCCGGAAGAAGCAGGG
GCCGCAGTAGCTGCCGAATCG
TCTACTGGTACATGGACAACTG
TGTGG_rbcL**

Once reference barcodes are in place, unknown DNA sequences can be compared to these in order to find out what they are. The real importance of the technique is that it can identify species from tiny fragments, different life stages, or from mixtures of samples. Species can be identified from pollen grains, fragments of seeds or roots, wood samples, stomach contents or environmental samples collected from the air, soil or water. Projects are now underway throughout the world to DNA barcode all living things and ensure that these barcodes are freely available online as a global resource

(www.barcodinglife.org). There are many potential applications of DNA barcoding for plants, for example we can:

- Identify plants that are difficult to I.D. morphologically. Research is currently underway to develop a handheld barcoder for identifying species from tiny fragments.
 - Revolutionise our understanding of pollinator services by allowing us to track the movements of all the pollinators within an ecosystem.
 - Reconstruct past landscapes by identifying plants from seeds within the soil profile.
 - Construct previously unknowable food webs and understand plant/animal interactions through analysing stomach contents or faecal samples to find out all of the plants that an animal has eaten.
 - Help to reduce the effects of hayfever by being able to identify exactly what pollen is in the atmosphere.
 - Assist in forensic investigations by being able to identify plant fragments or pollen found on clothing or at crime scenes.
 - Provide quality control for plant based products such as herbal medicines by identifying the constituent components.
- Improve animal health by analysing the exact composition of the diet of

livestock in pastures.

The National Botanic Garden of Wales (NBGW), along with the Institute of Biological, Environmental and Rural Sciences of Aberystwyth University (IBERS) and Amgueddfa Cymru - National Museum Wales (NMW) are working on a project to DNA barcode all of the native and archaeophyte plants found within Wales. We aim to be one of the first nations to barcode all of their plant species and to use our plant barcodes for ecological applications.

Vital to the establishment of DNA barcodes is having correctly identified source material, every reference barcode must have a voucher specimen so that its I.D can be verified. We are concentrating on using herbarium specimens for the barcoding effort as these are convenient to use and already verified. Most of our herbarium specimens have come from the Welsh

National Herbarium (NMW) with project partner Dr. Tim Rich selecting material and double checking its I.D. Many of the herbarium specimens that we have used have come from current BSBI recorders with certain collectors featuring highly (see table below). We have also used some herbarium specimens from our newly established herbarium at NBGW and have collected fresh material for species that are difficult to barcode, once again assisted by BSBI members. For all fresh specimens a leaf is collected for barcoding and a voucher herbarium specimen made. This process is continuing where we still have gaps.

A tiny fragment of the herbarium specimen is removed and the DNA extracted from this. We then amplify the barcode DNA; for plants there are two barcode regions, the genes *rbcL* and *MatK* (CBOL Plant Working Group, 2009). These are recognised internationally so that everyone

BSBI Recorder	Vice county	Number of specimens collected in barcoding round one (1134 in total)	Number of specimens successfully barcoded with <i>rbcL</i>
Mr AO Chater	46	155	130
Mr TG Evans	35	98	77
Mr RD Pryce	44	28	6
Mr PM Benoit	48	10	6
Mr SB Evans	45	4	4
Mr JP Woodman	41	3	3
Mr M Porter	42	3	3
Dr QON Kay	41	2	1
Ms W McCarthy	49	1	1

Table : Herbarium specimens barcoded with current BSBI Wales recorders as collectors

throughout the world uses a standard approach. The barcodes for plants were officially announced at the Third International Barcode of Life conference held in New Mexico in November 2009. Once the barcodes are amplified we sequence them to find out the exact DNA code for that specimen for the two barcode regions. So far in the project, we have used the labs at Aberystwyth University but I have now set up a molecular lab at NBGW allowing us to carry out DNA barcoding here at the Garden as well.

The completed barcodes are uploaded on to the Barcode of Life Database (www.barcodinglife.org) along with the voucher information and a scan of the herbarium specimen. Once this process is complete, visitors to the website can view the barcode information. For each species, we need to have multiple specimens barcoded, this allows us to spot errors and also to pick up if there is intraspecific variation in the barcode sequences. Intraspecific variation should be fairly minimal as the barcode regions have been specifically chosen so that they are different between species without having too much variation within species.

So how far have we got? There are 1134 Welsh native and archaeophyte species (Stace 1997, Preston, Pearman & Dines 2002). We have collected 3741 samples for analysis (aiming for at least three samples per species). The DNA is extracted from 2543 of these.

We have rbcL barcodes for 928 species and MatK barcodes for around 300 species. We are already using our barcodes to investigate pollinator service in Rhos pasture. Sandra Ronca, a PhD student from Aberystwyth University has collected bees from Rhos pasture communities and used second generation DNA sequencing to generate hundreds of thousands of DNA sequences from the pollen that the bees are carrying. These are compared to our database of Welsh flora barcodes to determine what plant species the pollen came from. We are the first researchers to use this approach to track pollinator movements and have just presented the preliminary results of this work at the barcode of life conference in Mexico (de Vere et al 2009). Work continues to complete the native and archaeophyte species and then, if we can get further funding, we can begin on the non-native flora.

The barcode Wales team are: National Botanic Garden of Wales: Dr Natasha de Vere, Chris Moore, Danielle Satterthwaite, Col Ford. Amgueddfa Cymru - National Museum Wales: Dr Tim Rich. Aberystwyth University: Prof Mike Wilkinson, Sandra Ronca, Dr Joel Allainguillaume. We would like to thank the BSBI for their great contribution to our barcoding effort.

References

- CBOL Plant Working Group, (2009). A DNA barcode for land plants. *Proceedings of the National*

Academy of Sciences (PNAS). **106** (31): 12794 - 12797.

- de Vere et al. (2009). Compiling and exploiting a national barcode for Wales. *Third International Barcode of Life Conference. Abstract volume*: p102. www.dnabarcodes2009.org/files/AbstractVolume.pdf

- Stace, C.A. (1997). *New Flora of the British Isles*. 2nd Edition. Cambridge University Press, Cambridge, UK
- Preston C.D., Pearman D.A. & Dines T.D. (2002). *New Atlas of the British and Irish Flora*. Oxford University Press, Oxford, UK.

Welsh Wood Stitchwort (*Stellaria nemorum* subsp. *montana*) under Threat

R.A. JONES, *c/o Countryside Council for Wales, Welsh Assembly Government Building, Rhodfa Padarn, Aberystwyth, Ceredigion SY23 3UR.*
a.jones@ccw.gov.uk

Stellaria nemorum subsp. *montana* has a very interesting distribution in Britain: seemingly confined to Wales, in Merionethshire, Cardiganshire, Radnorshire, Breconshire, Carmarthenshire and Monmouthshire but with a toehold, as the hybrid with subsp. *nemorum*, in west Gloucestershire. The last Atlas records only 13 native Welsh hectads (Preston et al, 2002) but there are at least 4 more in mid Wales (Woods, 1993; M. Porter: pers. comm.) and perhaps others elsewhere (eg. Pryce, 1999). The situation is somewhat obscured, however, by possible confusion with *S. nemorum* subsp. *nemorum* ... and the hybrid.

At the same time, there is a lack of recent evidence for *S. nemorum* subsp. *montana* in Wales. Five hectad records in the last Atlas are pre-1987 and two of these were last seen between 1930

and 1969. The two additional Radnorshire sites (in SO19 and SO24) also need updating and have in fact both not been recently refound (R.G. Woods: pers. comm.). And this decline may be more widespread. Several quite precise localities for *S. nemorum* subsp. *montana* have been searched for lately without success: at least two small populations in SH71, Merioneth, disappeared between 1968 and 1978 (Benoit, 1978) and the tiny SN69 population in Cwm Clettwr, Cardiganshire, seems to have recently died out. In Breconshire, two sites in SO04, near Crickadarn and Llanddewi'r Cwm, were searched without success in 2005 and all the other v.c. 42 populations (near Llysdinam, SO05; Llangynidr, SO11 and near Llywel, SN94) show a marked drop in numbers (M. Porter & R.G. Woods: pers. comm.).

But there seems to be most evidence for this trend in Monmouthshire, where *S. nemorum* subsp. *montana* was first recognised in Britain (Green, 1954). The new 'Flora of Monmouthshire' reports its disappearance and / or decline at all known sites over the last 30-40 years and likely hybridisation with subsp. *nemorum* at other former sites (Evans, 2007b; see also Evans, 2007a). When Julian Woodman and I searched the last extant locality for *S. nemorum* subsp. *montana* in the 'Flora' (the Angiddy Valley, ST5099 & S05100) in June 2009 we failed to find any plants but, fortunately, we were also given directions to another, newly-discovered site at Whitebrook, SO5306, and this proved to be flourishing (see image on back page).

Stellaria nemorum subsp. *montana* has an uncertain threat status ("Data Deficient") in 'The Vascular Plant Red Data List for Great Britain' (Cheffings & Farrell, 2005) but is judged "Vulnerable" in the Welsh Red Data List (Dines, 2008), on range and decline criteria: "extent of occurrence (and area of occupancy) estimated to be less than 20,000 km sq and ... severely fragmented ... [with] continuing decline in number of locations". The subspecies' range might even be less than 5,000 km sq, however, which would make it 'Endangered' on the same occupancy / occurrence criteria. And this agrees with the current finding: a likely "reduction in population size of $\geq 50\%$ over the last 10 years or three

generations, whichever is longer, where the causes may not have ceased or may not be understood". *S. nemorum* subsp. *montana* is a perennial species with an unknown average life-span but there seems to be little doubt of a decline on this scale ... or even more. If its population as a whole is shown to have had $\geq 70\%$ declines in any 10 year period the subspecies' threat status would be raised to 'Critically Endangered', with considerable cause for concern.

Clearly there is need for more detailed surveys and research into the causes of this perceived decline, the subspecies' ecology and possible measures to redress the balance. The best time for a survey is when the plant is in flower, from late May to June, with seeds available for checking subspecies status in July. Trevor Evans' illustration of subsp. *montana* and its hybrid with subsp. *nemorum* is invaluable (Evans, 2007b) but, for later observations – or for possibly non-flowering populations – surveyors should take note of Mike Porter's observation that the vegetative plant looks very much like Upland Enchanter's-nightshade, *Circaea* x *intermedia* (with which it often grows). The new Vegetative Key reliably distinguishes *S. nemorum*, however, on the absence of marginal teeth (Poland, 2009). Finally, the typical streamside habitat is perhaps best searched from the watercourse, so wellingtons are essential. Any measurements of distribution and abundance (ideally

sketch maps and numbers of plants, using a 'broken log scale': 1-3; 4-10; 11-30; 31-100; 101-300; 301-1,000 etc.) and notes on possible threats / management would be very gratefully received. For more detailed locality information, please contact the relevant Vice-County Recorder or Andy Jones.

References

- Benoit, P.M. (1979). *Rare Plant Survey of Gwynedd (Part 1)*. Unpublished Science Report for the Nature Conservancy Council. Bangor.
- Evans, T.G. (2007a). *Monmouthshire County Rare Plant Register*. BSBI.
- Evans, T.G. (2007b). *Flora of Monmouthshire*. The Chepstow Society.
- Green, P.S. (1954). *Stellaria nemorum* L. subspecies *glochidosperma* Murbeck in Britain. *Watsonia* 3; pp. 122-127
- Poland, J. & Clement, E.J. (2009). *The Vegetative Key to the British Flora*. Poland. Southampton.
- Preston, C.D., Pearman, D.P. & Dines, T.D. (2002). *New Atlas of the British and Irish Flora*. Oxford University Press.
- Pryce, R.D. (1999). *Carmarthenshire Rare Plant Register*. BSBI.
- Woods, R.G. (1993). *Flora of Radnorshire*. National Museum of Wales / Bentham - Moxon Trust.

Launch of the BSBI Welsh webpages

K. SLADE, *Dept of Biodiversity & Systematic Biology, Amgueddfa Cymru-National Museum Wales, Cardiff CF10 3NP*

The Welsh presence on the BSBI website is expanding. We now have a dedicated webpage on botanical events occurring around Wales. It includes details of the Welsh Bulletin as well as forthcoming field meetings. We saw this as an opportunity to advertise to potential new members, so tasters of the last two issues of the Welsh Bulletin have been included.

The friendly and dynamic nature of the BSBI is very important to convey. To this end, there is a link to photos taken on past and present field trips, collected on to a Google Picasa Photo website. It is hoped there will be lots of reasons for people to keep revisiting the website and keep better connected with the Welsh section of the society.

Visit www.bsbi.org.uk/wales.html

Editors Note : Please send photos and articles for the website and the Welsh Bulletin to any editor: either digital or paper format is acceptable.

Welsh Plant Records 2009

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 Sell & Murrell's *Flora of Great Britain and Ireland* (1996-2009). 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 (1996-2009). 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

Æ 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 1/1/2010 are:

MONMOUTH, v.c. 35; Mr. T.G. Evans, La Cuesta, Moun-ton 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, Aberhoywy 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; Dr. A K Thorne, Churton House, Church Pulverbatch, Shropshire, SY5 8BZ
- 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; Ms. E. Meilleur, One Glan Aber, Hill Street, Llangollen, Denbighshire, LL20 8EU.
- ANGLESEY, v.c. 52; Mr. N.H. Brown, Treborth Botanic Garden, University of Wales, Bangor, Gwynedd LL57 2RQ and Mr I.R. Bonner (*all correspondence to Mr Brown*)
- MONMOUTH, v.c.35 (comm. T.G. Evans)

- +4/1.9. **Equisetum telmateia** (Great Horsetail)(Marchrawnen Fawr). Gadr Farm, SO467063, S. J. Tyler, 2009.
- +28/13.12. **Ranunculus lingua** (Greater Spearwort)(Llafnlys Mawr). Roadside pond, Ty-Mawr (Dingestow-Tregare), SO437099, D. Green; +9 plants, NW edge of Pen-y-fan Pond, SO19460058, C. Titcombe & T. G. Evans; both 2009.
- 28/13.21. **Ranunculus baudotii** (Brackish Water-crowfoot)(Crafanc-y-frân y Morfa). Filled 2 shallow scrapes, 30×1 m, near sea wall, W of Caldicot Pill and 2nd Severn Crossing, ST4887, T. G. Evans, 2009. Less common in such sites this millennium.
- +28/13.23. **Ranunculus aquatilis** (Common Water-crowfoot)(Crafanc-y-frân y Dwr). Pond in field across road from Virtuous Well, Trellech, SO497052, S. J. Tyler, 2009.
- 28/13.25.b. **Ranunculus penicillatus** ssp **pseudofluitans** (Stream Water-crowfoot) (Crafanc-y-frân y Nant). Afon Honddu, between Pandy caravan site and Altrnyys, SO336229, S. J. Tyler, 2009. New tetrad record.
- 28/13.27. **Ranunculus circinatus** (Fan-leaved Water-crowfoot)(Crafanc-y-frân Wyntyllog). A few plants, Parish Reen, Whitson, ST37618550, J. P. Woodman, 2009. Update to this millennium.
- 28/17.3. **Thalictrum flavum** (Common Meadow-rue)(Arianllys). 1 plant on bank of R. Wye, just N of confluence with the Trothy, Overmonnow, SO515117, H. V. Colls, 2009. New tetrad record.
- +‡35/2.1. **Ficus carica** (Fig)(Ffigysbren). 1 large tree, dam wall, New Quay Gout, ST277806, T. G. Evans, 2009. All 'wild' v.c.35 Figs are on walls over water.

- 47/1.6. **Persicaria bistorta** (Common Bistort)(Llyisiau'r Leidr). 1 patch, E verge of B4293, S of Devauden, ST482987, T. G. Evans, 2009. New tetrad record (Z).
- 53/3.1. **Althaea officinalis** (Marsh-mallow)(Hocysen y Morfa). 3 sites near sea wall (37 plants in total), Peterstone Wharf, ST26807982, Also at ST26107944 to ST25977934; 100s plants along 400m of the upper left bank of, Goldcliff Pill, ST3682. 1st record here this millennium; both T. G. Evans, 2009.
- +61/1.3.a. **Populus nigra** ssp. **betulifolia** (Black-poplar)(Poplysen Ddu). Near bridge over Honddu, Cwmyoy, SO29552335, S. J. Tyler & T. G. Evans, 2009.
- †62/13.1. **Armoracia rusticana** (Horse-radish)(Rhuddygl Poeth). 30-50 plants in grassy verge of road, from Calcot Pill to 2nd Severn crossing causeway, ST490874, T. G. Evans, 2009. Unusually large assembly for v.c.
- +62/14.6. **Cardamine impatiens** (Narrow-leaved Bitter-cress)(Berwr Chwerw Culddail). 17 plants on FC trackside, Chepstow Park Wood, ST48289813, T. G. Evans, 2009.
- +†62/30.5. **Lepidium ruderales** (Narrow-leaved Pepperwort)(Pupurlys Culddail). On keep left traffic island, junction of Raglan bypass and old road to Mitchell Troy, SO422082, H. V. Colls, 2009.
- ‡062/30.6. **Lepidium latifolium** (Dittander)(Pupurlys Llydanddail). 9×80m crescent of plants on brackish meadow, Peterstone Wharf, ST264796, T. G. Evans, 2009.
- +‡63/1.2. **Reseda alba** (White Mignonette)(Melengu Wen). 2 plants in small area of disturbed ground, St Mellons, ST24488173, J. P. Woodman, 2009.
- +65/13.4. **Vaccinium vitis-idaea** (Cowberry)(Llusen Goch). Highest point of Mynydd Twyn-glas in 2 places, ST260979&ST273980, D. Green, 2009.
- +66/1.3.b. **Pyrola rotundifolia** ssp. **maritima** (Round-leaved Wintergreen)(Glesyn-y-gaeaf Deilgrwn). 1m² patch with 16-20 flowering spikes in young birch/willow open woodland, E of Mir (Alpha) Steel, Newport, ST3375884573, S. J. Tyler, T. G. Evans, R. James & S. Lynch, 2009.
- +67/1.1.b. **Monotropa hypopitys** ssp. **hypophega** (Yellow Bird's-nest)(Cytwf). A remarkable appearance of this saprophyte in new sites whereas in the past only one v.c. site at Blackcliff was known. +c.100 spikes on a narrow strip of land between 2 settling pools, ST339848; +c.100 spikes in open young Birch/Willow woodland, ST337851; +c.30-40 spikes in open young Birch/Willow woodland, ST337845; +100-200 spikes in open young Birch/Willow woodland, ST337845; All on site E of Mir Steel, Newport, T. G. Evans, R. James, S. Lynch & S. Tyler, 2009; +63 spikes under beech, Blackcliff, ST533985, T. G. Evans. Only 25 spikes in June; +c.100 spikes on, N edge of Newport Wetlands among a mixture of woody plants, ST332836, H. V. Colls; all 2009.
- 69/6.1. **Anagallis tenella** (Bog Pimpernel)(Gwlyddyn-Mair y Gors), c.10 plants near pond, Pecket Stone N of Trellech, SO5007, S. J. Tyler, 2009. New tetrad record.
- +73/1.3. **Crassula helmsii** (New Zealand Pigmyweed)(Corchwyn Seland Newydd). Garden pond, adjacent to New Grove Meadows, SO501073, D. Green & S. J. Tyler, 2009.
- 74/5.15. **Saxifraga granulata** (Meadow Saxifrage)(Tormaen y Gweunydd). Scattered along the banks of Afon Honddu from near Llanthony to near Pandy, SO28982739-SO33452278, S. J. Tyler, 2009. Shown to T.G.E. by S.J.T in May 2009 after her observations while doing her annual count and ringing of Dippers in the valley. Worthy of entry due to the numbers that exceed those along the R. Usk the other

stronghold for this scarce plant; *Lathraea squamaria* also observed in 2 places.

- +74/9.2. **Chrysosplenium alternifolium** (Alternate-leaved Golden-saxifrage)(Eglyn Bob yn Eilddail). 50 clumps by Afon Honddu, Penarth Brook Lower, Glyn Farm, SO476043; +By Afon Honddu, Neuadd Bridge, Cwmyoy, SO29552335; +In open woodland, Upper Maerdy Farm, SO370246; +By Afon Honddu, S. of Bugle Bridge, SO293268; +By Afon Honddu, between Maesyberan & Bugle Bridge, SO294266; +By rail bridge, Llanvihangel Crucorney, SO322210; all S. J. Tyler & T. G. Evans, 2009.
- +75/9.5. **Potentilla argentea** (Hoary Cinquefoil)(Pumnaalen Ariannaid). 23 patches on open bank at edge of long grass field, Rogiet, ST46108824, B. Laney, 2009.
- ‡75/11.2. **Fragaria moschata** (Hautbois Strawberry)(Llwyn Mefus Mawr). Along 20-30m on minor road bank, Ticken Hill, Mounton, ST509932, T. G. Evans, 2009. First good flowering of this male sterile colony this millennium.
- ‡77/6.1. **Onobrychis viciifolia** (Sainfoin)(Y Godog). 5 plants over 30 m of N. bank of A40, Mitchell Troy, SO496108, P. Johns, 2008-2009. New hectad record. 1st record since 1971. The presence of *Sanguisorba minor* ssp. *muricata* on the same verge suggests use of seed from elsewhere.
- +‡79/2.2. **Myriophyllum aquaticum** (Parrot's-feather)(Pluen Parot). Moorland pond, Cwm Lickey, ST267984, D. Green, 2009.
- 79/2.3. **Myriophyllum spicatum** (Spiked Water-milfoil)(Myrdd-ddail Ysbigog). Scattered in pond, Cwm Celyn, SO206085, T. G. Evans & C. Titcombe, 2009.
- *91/2.4. **Euphorbia hyberna** (Irish Spurge)(Llaethlys Iwerddon). ‡6 large plants top of bank and edged by woodland, N side of B4233 opposite Rosedale, Tal y coed, SO423148, D. Price, 2008. Present in 2009 with 1 plant of *Dipsacus pilosus*, 3 clumps of *Arctium lappa* & 1 plant of *Picris hieracioides*, T. G. Evans & C. Titcombe.
- 91/2.7. **Euphorbia serrulata** (Upright Spurge)(Llaethlys Syth). 3 plants, ST53209838; +5-6 patches, ST53209838, both on FC trackside, Blackcliff, T. G. Evans, 2009. Chepstow Park Wood completely devoid of the plant in 2009.
- +‡103/1.1. **Geranium endressii** (French Crane's-bill)(Pig-yr-aran Ffrainc). 1 plant, Loysey Woods, SO501066, H. V. Colls, 2009.
- 103/1.10. **Geranium columbinum** (Long-stalked Crane's-bill)(Pig-yr-aran Hirgoes). In disturbed soil in wide border of cornfield, SE of Rogiet Brake, ST45788848; +2 plants on open bank on edge of long field, S of Burness Castle Quarry, ST46108824; both B. Laney, 2009. 1st records this millennium.
- +107/17.1. **Crithmum maritimum** (Rock Samphire)(Corn-carw'r Môr). Among anti-erosion rocks on shore, E of Lighthouse Inn, ST297813, T. G. Evans, 2009.
- +107/19.3. **Oenanthe pimpinelloides** (Corky-fruited Water-dropwort)(Cegiden Mynwy). 2 plants on grassland verge, St Mellons, ST25248157, N. Hudson & F. Robin, 2009, det. J. P. Woodman; 25 plants, middle of Vauxhall Field in bend of R. Monnow, Monmouth, SO50611345, P. Johns, both 2009. 2nd records.
- 107/26.3. **Bupleurum tenuissimum** (Slender Hare's-ear)(Paladr Trwyddo Eiddilddail). 11 plants, where Goldcliff Pill opens out into a wide expanse of saltmarsh, ST363825, T. G. Evans, 2009. This is the only site between St Pierre Pill and Newport where I've been able to see this plant this year because of over-grazing by cattle and in one stretch sheep; isn't the land between the sea wall and the Severn a SSSI?
- +108/3.4. **Centaureum pulchellum** (Lesser Centaury)(Y Ganrhi Goch Fach). 200+ plants

- at turn around area of forestry track, Buckholt Wood, SO500163, D. Green, 2009.
- 113/1.1. **Menyanthes trifoliata** (Bogbean)(Ffeuen y Gors). 30-50 plants in Gaer Pond, Gaer Estate, Newport, ST296865, R. James, 2009. Update to this millennium.
- +116/15.9. **Myosotis ramosissima** (Early Forget-me-not)(Sgorpionllys Cynnar). Several patches on barish entrance off A465, Llangua Church, SO39032568; +3-5 patches in old ash ballast of old shunting yards, Rogiet, ST46038745; both T. G. Evans, 2009.
- 118/18.2. **Clinopodium ascendens** (Common Calamint)(Brenhinllys). 2 plants on wall near entrance to Grosmont Castle, SO405245, D. T. Price, 2009. Update from 1955.
- 121/1.1. **Plantago coronopus** (Buck's-horn Plantain)(Llyriad Corn Carw). Several plants on salted verge of A467, Rogerstone, ST278872, M. Tereva & P. Smith, 2008. 1st inland record not associated with tidal part of river in the v.c.
- +125/2.8. **Orobanche hederaceae** (Ivy Broomrape)(Gorfanhadlen Eiddew). 275 spikes among the massed ivy, St Woolos Cemetery, ST29308732, R. James, 2009.
- +130/6.3. **Galium uliginosum** (Fen Bedstraw)(Briwydd y Fign). A few plants in rush pasture, Lower Ground, Penrhos, SO41091265, N. Hudson, 2009. New tetrad.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle)(Bachgen Llwm). 1 bush at side of Coombe road, The Cwm, ST458935, T. G. Evans, 2009.
- 135/25.01.19. **Taraxacum proximum** (Umber-fruited Dandelion). Open spoil on Coity Tip, Big Pit, SO23680883, T. C. G. Rich, 2009, det. A. J. Richards. 2nd v.c. record.
- *135/25.01.24. **Taraxacum scoticum** (Scottish Dandelion). Stoney ground, Big Pit, SO23900813, T. C. G. Rich, 2009, det. A. J. Richards.
- +135/40.4. **Solidago gigantea** (Early Goldenrod)(Eurwialen Gynnar). Big patch on bank of Monnow near Somerfield supermarket car park, Monmouth, SO505127, H. V. Colls, 2009.
- *‡135/43.4. **Erigeron karvinskianus** (Mexican Fleabane)(Amrhydlwyd y Cerrig). In profusion on a garden wall but has strayed on to verges in Wern Road, Sebastopol, ST291952, R. Hewitt, 2009.
- +135/49.1. **Artemisia maritima** (Sea Wormwood)(Wermod y Môr). 1 m² at foot of sea wall, E side of New Quay Gout, ST27868064, T. G. Evans, 2009.
- +‡135/71.2. **Petasites japonicus** (Giant Butterbur)(Yr Alan Mwyaf). c.12 plants at edge of Penarth Brook, Lynna/Woolpitch Woods, SO478044, S. J. Tyler, 2009.
- +‡135/74.1. **Ambrosia artemisiifolia** (Ragweed)(Bratlys). ©In grounds of, Ty Mawr convent, SO505078, S. J. Tyler, 2009.
- 138/1.1. **Hydrocharis morsus-ranae** (Frogbit)(Ffugalaw Bach). Filling the surface of Per Coed Reen, Duffryn, ST293844, R. James, 2009. Update to this millennium.
- +‡148/2.4. **Lemna minuta** (Least Duckweed)(Linad Bach). Densely covering sea-wall reed, Peterstone Wharf, ST265797, T. G. Evans, 2009.
- +151/1.25×26. **Juncus ×diffusus (J. effusus × J.)** (Diffuse Rush). 4 clumps (both parents in abundance) damp pasture, Whitson, ST39078317; +10 clumps in damp pasture (both parents in abundance), Whitson, ST40168308; both J. P. Woodman, 2009.
- 152/11.2. **Cyperus eragrostis** (Pale Galingale)(Ysnoden-Fair Welw). 6 plants in Council depot, Cliff Wood, ST505942, H. V. Colls. New tetrad (C); 5 plants on damp neutral grassland next to railway, opposite White Cross Farm, Duffryn, ST300843, K. Roberts, last recorded in this tetrad in Newport Docks in 1973; both 2009. 1st recent records.
- 152/16.28. **Carex rostrata** (Bottle Sedge)(Hesgen Ylfinfain). Wet Meadow Wood pond,

near Trellech, SO499062, D. Green & S. J. Tyler, 2009. Not even a new tetrad entry due to a savagely declining species.

- 152/16.43. **Carex extensa** (Long-bracted Sedge)(Hesgen-yr-heli Bractau Hir). 300+ plants (an amazing expansion from my 2-3 patches in 2004) among rocks above anti-erosion stone blocks, W of Lighthouse Inn, ST297813, T. G. Evans, 2009.
- 153/16.4. **Puccinellia rupestris** (Stiff Saltmarsh-grass)(Gwellt-y-morfa Syth). 4 & 20 plants at edge of lying water on sea-wall track, Peterstone Wharf, ST264796, T. G. Evans, 2009. An update from 1985.
- +153/26.1. **Helictotrichon pubescens** (Downy Oat-grass)(Ceirchwellt Blewog). 1-2 plants in orchard hay meadow, Ty-mawr Convent, SO505078, S. J. Tyler, 2006.
- +‡153/46.2. **Polypogon viridis** (Water Bent)(Barfwellt y Dwr). Disturbed ground, St. Mellons, ST24488173, J. P. Woodman, +20-30 plants around beds in front garden of Harefield, Peterstone, ST267801, T. G. Evans; both 2009. 1st records as a neophyte.
- 153/47.3. **Alopecurus bulbosus** (Bulbous Foxtail)(Cynffonwellt Oddfog). 2-3 m² in each of 3 sites on brackish upper saltings, Peterstone Wharf, ST26507963, T. G. Evans, 2009. Also at ST26107944 & ST25977934 making 2 new tetrads.
- ‡153/52.5. **Anisantha madritensis** (Compact Brome)(Pawrwellt Cryno). c.10 plants on top of low wall topped by low railings, E of Great Tower, Chepstow Castle, ST53329413, T. G. Evans, 2009.
- +‡153/70.pum. **Setaria pumila** (Yellow Bristle-grass)(Cibogwellt Melyn). ©1 plant in paving, The Laurels, Drybridge Street, Monmouth, SO504125, H. V. Colls, 2009.
- 158/13.1. **Convallaria majalis** (Lily-of-the-valley)(Lili'r Dyffrynnoedd). 1 m² on steep slope under trees, Llan-melin, ST459926, T. G. Evans, 2009. Update to this millennium.
- 158/14.1. **Polygonatum multiflorum** (Solomon's-seal)(Llyisiau-Solomon). In lane between Black Brook & Old church, Penallt, SO523100, S. J. Tyler, 2009.
- +158/35.1. **Ruscus aculeatus** (Butcher's-broom)(Celynnen Fair). Large plant in stream-copse between two fields, nr. Leasbrook, Monmouth, SO516142, S. J. Tyler, 2009.
- 162/3.4. **Epipactis helleborine** (Broad-leaved Helleborine)(Y Galdrist Lydanddail). Poor's Wood edge, E of Penrhos, SO423122, D. Green, 2009. New tetrad.
- 162/14.1. **Anacamptis pyramidalis** (Pyramidal Orchid)(Tegeirian Bera). 102 plants on A40 road bank near underpass, Lower Tal-y-fan, SO451089, S. J. Tyler, 2006-09; 1 plant in field by Forensic Science Laboratory, Usk Road, Chepstow, ST521940, M. Jones, 2008 (leaves only 2009).New tetrad. The site also had 13 *Ophrys apifera* in 2008 and in 2009, 32 *Epipactis helleborine*.
- 162/18.4. **Dactylorhiza praetermissa** (Southern Marsh-orchid)(Tegeirian-y-gors Deheuol). 50+ near a B4246 roadside layby, SE of Blaenavon Cemetery, SO256077, R. Hewitt, 2009. A few more on opposite side of road at SO256078. New tetrad.

GLAMORGAN, v.c.41 (comm. J.P.Woodman)

- +28/3.1. **Helleborus foetidus** (Stinking Hellebore)(Crafanc-yr-arth Ddrewllyd). ‡Car park near wood, Alps depot, Wenvoe, ST127740, P. Denning, 2008.
- +28/13.11. **Ranunculus sceleratus** (Celery-leaved Buttercup)(Crafanc yr Eryr). Unsprayed made up ground, Tesco's, Merthyr Tydfil, SO050060, J. N. Davies, 2009.
- +28/13.12. **Ranunculus lingua** (Greater Spearwort)(Llafnlys Mawr). ‡In created pond,

- Parc Taf Bargoed, ST102990, J. N. Davies & P. Virgin, 2009.
- +31/4.1. **Ceratocarpus claviculata** (Climbing Corydalis)(Mwg-y-ddaeear Dringol). c.50 plants in housing development mitigation area in birch/alder wood, Mackworth Grange, Caerphilly, ST15558867, R. D. Pryce, 2007.
- +34/2.1. **Humulus lupulus** (Hop)(Hopys). Scrub, Glynmill, Merthyr Tidfil, SO058046, J. N. Davies, 2009.
- +†36/1.2. **Urtica urens** (Small Nettle)(Danhadlen Fach). Rough ground by new road, Bargoed, ST151999, P. A. Smith & M. Teneva, 2009.
- +43/3.8. **Atriplex laciniata** (Frosted Orache)(Llygwyn Ariannaid). 1 to 10 plants on drift line, East Aberthaw, ST04086607, J. P. Woodman, 2008.
- +†046/20.9.a. **Silene latifolia** (White Campion)(Gludlys Gwyn). Rough ground by new road, Bargoed, ST151999, P. A. Smith & M. Teneva, 2009.
- +46/24.1. **Petrorhagia nanteulli** (Childing Pink)(Penigan Epilgar). ‡Brownfield, Barry Docks, ST125673, S. Pilkington, 2008. Long established at Cardiff Docks so record in VCCC should be altered to neophyte.
- +‡47/1.3. **Persicaria wallichii** (Himalayan Knotweed)(Y Ganwraidd Himalaiaidd). Significant infestation on railway embankment 15m×10m (appears to have originated from nearby garden), New Tredegar, SO13960335, M. Pickard, 2009.
- +†062/28.1. **Thlaspi arvense** (Field Penny-cress)(Codywasg y Maes). ©Newly layed soil on development, Merthyr Tydfil, SO050055, J. N. Davies, 2009.
- +62/30.3. **Lepidium heterophyllum** (Smith's Pepperwort)(Pupurlys Amryddail). Rubble near central reservation, Merthyr Tydfil, SO04604, J. N. Davies, 2009.
- +†062/31.1. **Coronopus squamatus** (Swine-cress)(Olbrain). Unsprayed made up ground, Tesco's, Merthyr Tydfil, SO050060, J. N. Davies, 2009.
- +66/1.3.b. **Pyrola rotundifolia** ssp. **maritima** (Round-leaved Wintergreen)(Glesyn-y-gaeaf Deilgrwn). ‡3 patches, totalling 200 flowering spikes on restored open cast, Llanilid, SS99698210, P. Roberts, 2009.
- +‡73/1.3. **Crassula helmsii** (New Zealand Pigmyweed)(Corchwyn Seland Newydd). +In artificial fish pond on station platform, Barry, ST03546646, M. Pickard; +Exit trickle from new pond, Merthyr Tydfil, SO0700077, J. N. Davies; both 2009.
- +‡77/2.1. **Galega officinalis** (Goat's-rue)(Nuw'r Geifr). Rough ground by new road, Bargoed, ST151999, P. A. Smith & M. Teneva, NMW, det. A. O. Chater; +Growing on railway ballast next to railfreight terminal, ST23887974, M. Pickard; +Rough ground by new road, Bargoed, SO149002, P. A. Smith; all 2009.
- +77/14.14. **Vicia bithynica** (Bithynian Vetch)(Ffacbysen Ruddlas). Several patches scattered in grounds of disused garden centre, Llangan, SS969779, P. Sturgess, 2009, conf. J. P. Woodman. 1st record since 1936.
- +77/16.3. **Ononis spinosa** (Spiny Restharrow)(Tagaradr Pigog). Grassland, Llanbethery, ST03617019, M. Pickard, 2009.
- +†077/17.1. **Melilotus altissimus** (Tall Melilot)(Yr Wydro Dal). Rough ground by new road, Bargoed, ST151999, P. A. Smith & M. Teneva, 2009, NMW.
- +‡77/18.2.a. **Medicago sativa** ssp. **falcata** (Sickle Medick)(Maglys Corniog). Barry Docks, ST127667, S. J. Tyler, 2008.
- +77/19.23. **Trifolium arvense** (Hare's-foot Clover)(Meillionen Gedennog). Barry Docks, ST128668, S. J. Tyler, 2008.
- +77/19.24. **Trifolium squamosum** (Sea Clover)(Meillionen y Morfa). Barry Docks,

ST127667, S. J. Tyler, 2008.

- *107/13.1. **Pimpinella major** (Greater Burnet-saxifrage)(Gwreiddiriog Mawr). ‡Several plants in 2 reseeded fields (10 yrs ago), Lisvane, ST194845, P. Sturgess, 2009. 1st recent record & 1st record as a neophyte.
- *107/19.3. **Oenanthe pimpinelloides** (Corky-fruited Water-dropwort)(Cegiden Mynwy). ‡Brownfield, Barry Docks, ST11236680, S. Pilkington, 2008, conf. M. Southam.
- +107/30.1. **Sison amomum** (Stone Parsley)(Perllys y Cerrig). Car park, Sarn, Bridgend, SS908825, O. Leysion, 2008.
- +116/1.2. **Lithospermum officinale** (Common Gromwell)(Maenhad). Single plant growing at base of railway cutting, Castle-upon-Alun, SS90997526, M. Pickard, 2009.
- ‡116/2.ros. **Echium rosulatum** (Lax Viper's-bugloss)(Gwiberlys Llac). Scattered in Barry Docks, ST128667, S. J. Tyler, 2007. 1st record since 1985.
- +116/15.9. **Myosotis ramosissima** (Early Forget-me-not)(Sgorpionllys Cynnar). Field, Wenvoe, ST137735, J. P. Curtis, 2009.
- +124/23.1. **Parentucellia viscosa** (Yellow Bartsia)(Gorudd Melyn). ‡Several hundred plants on restored open cast, Llanilid, SS992819, P. Roberts, 2007. 1st post 1970 record for this hectad; +At least 100 plants along base of tip over 100-200 m at base of fly ash tip, East Aberthaw, ST03276669, M. Pickard, 2009.
- +134/3.1. **Knautia arvensis** (Field Scabious)(Clafrllys y Maes). Growing on banks beside railway, Llandow, SS93587384, M. Pickard, 2009.
- *135/25.1.3. **Taraxacum argutum** (Sharp-toothed Dandelion). Bank, W of National Waterfront Museum Swansea, SS642923, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.7.72. **Taraxacum nitidum** (Shining Dandelion). A470 verge, Pantmawr, ST148814, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- +135/25.7.83. **Taraxacum unguilobum** (Claw-lobed Dandelion). Grassland, Collections Centre Nantgarw, ST114860, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.8.88. **Taraxacum hamatulum** (Slender Hook-lobed Dandelion). Grass east of underpass, National History Museum, St Fagans, ST1177, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.103. **Taraxacum acroglossum** (Broad-bracted Dandelion). Lawn SE corner, National Museum of Wales, Cathays, ST183770; +Wynndham Terrace Allotments, Llanishen, Cardiff, ST180815; +Heol Uchaf stream, Rhiwbina, ST158822; all T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.104. **Taraxacum acutifidum** (Pointed-lobed Dandelion). Grassland, SE of Gabalfa Interchange, ST169789, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.113. **Taraxacum angustisquameum** (Multilobed Dandelion). West lawn, National Museum of Wales, Cathays, ST183770; +Bank opposite tax office, Llanishen, Cardiff, ST172815; both T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.116. **Taraxacum caloschistum** (Brilliant-stalked Dandelion). Gravel behind Morrisons, Llanishen, Cardiff, ST172816, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.119. **Taraxacum chrysophaenum** (Orange-toothed Dandelion). West lawn, National Museum of Wales, Cathays, ST183770, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.120. **Taraxacum cophocentrum** (Rounded-lobed Dandelion). N side,

- Collections Centre Nantgarw, ST115860, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.127. **Taraxacum densilobum** (Close-lobed Dandelion). A470 verge, Pantmawr, ST148814, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.130. **Taraxacum dilatatum** (Grassland Dandelion). Scrub SE of railway bridge, Maindy, Cardiff, ST173781, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- +135/25.9.131. **Taraxacum ekmanii** (Ekman's Dandelion). A470 verge, Pantmawr, ST148814, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.132. **Taraxacum exacutum** (Imbricate-bracted Dandelion). Courtyard, National Waterfront Museum Swansea, SS641922, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.137. **Taraxacum fasciatum** (Dense-bracted Dandelion). Verge, Heol Llanishen Fach (E end, N side), Rhiwbina, Cardiff, ST163819, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.144. **Taraxacum interveniens** (City Dandelion). Waste ground behind Morrisons, Llanishen, Cardiff, ST172816, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.146. **Taraxacum lacrifolium** (Jagged-leaved Dandelion). Gardens House edge of car park, National History Museum, St Fagans, ST1177, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.147. **Taraxacum lingulatum** (Long-bracted Dandelion). Grass E of underpass, National History Museum, St Fagans, ST1177, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.152. **Taraxacum latissimum** (Broad-leaved Dandelion). N side, Collections Centre Nantgarw, ST115860, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.168. **Taraxacum multicolorans** (Many-coloured Dandelion). Car park, Lidl, Cathays, Cardiff, ST181775, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.177. **Taraxacum pachymerum** (Dirty-leaved Dandelion). Lawn and flowerbed, Rhiwbina, Cardiff, ST161821, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.179. **Taraxacum pallidipes** (Grey-bracted Dandelion). Verge S of Nine Giants, Rhiwbina, Cardiff, ST166818, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.184. **Taraxacum piceatum** (Leaden-bracted Dandelion). Wyndham Terrace Allotments, Llanishen, Cardiff, ST180815, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.185. **Taraxacum planum** (Diverse-leaved Dandelion). Wyndham Terrace Allotments (main drive at bend), Llanishen, Cardiff, ST180813, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.190. **Taraxacum pulchrifolium** (Beautiful-leaved Dandelion). N side, Collections Centre, Nantgarw, ST115860; +Grassland, SW of Gabalfa Interchange, Mynachdy, Cardiff, ST189789; +A470 verge, Pantmawr, ST148814; all T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- +‡135/25.9.194. **Taraxacum rhamphodes** (Robust Dandelion). Frequent on wall/bank opposite Andrews Road, Llandaff North, ST149788, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.195. **Taraxacum sagittipotens** (Smooth Dandelion). Verge by law courts,

- Cathays, Cardiff, ST181768, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- +135/25.9.197. **Taraxacum sellandii** (Selland's Dandelion). Grassland SW of Gabalfa Interchange, Mynachdy, Cardiff, ST169789, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- +135/25.9.201. **Taraxacum stenacrum** (Linear-lobed Dandelion). Front lawn, Collections Centre Nantgarw, ST115860; +Slope below castle, National History Museum, St Fagans, ST1177; both T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.207. **Taraxacum sublaeticolor** (Small-headed Dandelion). Slope below castle, National History Museum, St Fagans, ST1177, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.208. **Taraxacum sublongisquameum** (Roadside Dandelion). Car park, Lidl, Cathays, Cardiff, ST181775, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.209. **Taraxacum lepidum** (Pruinose-bracted Dandelion). Wyndham Terrace Allotments, Llanishen, Cardiff, ST180815; +Bulb area by ponds, National History Museum, St Fagans, ST1177; both T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.215. **Taraxacum tumetilobum** (Swollen-lobed Dandelion). Llanishen, ST180813, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.216. **Taraxacum undulatiflorum** (Dull-leaved Dandelion). Llandaff North, ST149789, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.216. **Taraxacum undulatiflorum** (Dull-leaved Dandelion). Grass by wood, Rhiwbina, ST159823, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.219. **Taraxacum vastisectum** (Crowded-lobed Dandelion). By railings, Llanishen, ST172812, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- +135/25.9.220. **Taraxacum xanthostigma** (Ochre-styled Dandelion). Grassland, Llanishen, ST171812, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.9.coa. **Taraxacum coartatum** (Irregular-bracted Dandelion). Grassland, SW of Gabalfa Interchange, Mynachdy, Cardiff, ST169789, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *135/25.9.edm. **Taraxacum edmondsonianum** (Edmondson's Dandelion). Rank grass by A470, Cathays Park, Cardiff, ST177772, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.09.hep. **Taraxacum hepaticum** (Regular-lobed Dandelion). Verge by law courts, Cathays, Cardiff, ST181768, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- *‡135/25.09.sun. **Taraxacum sundbergii** (Sundberg's Dandelion). Verge, W end of Church Road, Whitchurch, Cardiff, ST148797, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards.
- +‡135/62.13. **Senecio squalidus** (Oxford Ragwort)(Creulys Rhydychen). Rail ballast, etc., Merthyr Tydfil Railway Station, SO050060, J. N. Davies, 2009.
- +‡138/6.1. **Lagarosiphon major** (Curly Waterweed)(Ffugalaw Crych). Old reservoir, Dowlais Top, SO070084, J. N. Davies, 2009.
- +143/1.1. **Ruppia maritima** (Beaked Tasselweed)(Tusw Arfor). Brackish pond, East Aberthaw, ST03796603, M. Pickard, 2009. 1st hectad record post-1970.
- +148/2.3. **Lemna trisulca** (Ivy-leaved Duckweed)(Llinad Dail Eiddew). Pond, Dowlais Engine House, SO070077, J. N. Davies, 2009.
- +‡148/2.4. **Lemna minuta** (Least Duckweed)(Llinad Bach). Ditch, Merthyr Tydfil, SO051048, J. N. Davies, 2009.

- +153/12.7.b. **Festuca rubra** ssp. **junceae** (Red Fescue)(Peiswellt Coch). Cwm Ysgwydd-gwyn, SO13300065, P. A. Smith & M. Teneva, 2007, det. A. Copping.
- +‡153/15.2. **Cynosurus echinatus** (Rough Dog's-tail)(Rhonwellt-y-ci Pigog). ©Barry Docks, ST127667, S. J. Tyler, 2008; +©Ballast at end of rail platform, Barry, ST13286889, M. Pickard, 2009.
- +153/40.1. **Calamagrostis epigejos** (Wood Small-reed)(Corsen Fach y Coed). Clump growing at edge of woodland, Castle upon Alun, SS90677595, M. Pickard, 2009.
- +153/40.2. **Calamagrostis canescens** (Purple Small-reed)(Corsen Fach Flewog). Damp area by side of railway line, near Nelson Bog, ST1138195895, M. Pickard, 2009, conf. J. P. Woodman. Also a small colony at ST1148095832.
- +‡153/46.2. **Polygona viridis** (Water Bent)(Barfwellt y Dwr). +Extensive colony well established below sea cliff near Penarth Pier, ST18987148, J. P. Woodman, 1st record as a neophyte; +©Disused garden centre, Llangan, SS969779, P. Sturgess, conf. J. P. Woodman; +©Unsprayed made up ground, Tesco's, Merthyr Tydfil, SO050060, J. N. Davies, det. G. Hutchinson; +©Abundant below wall, roadside, outside Pentyrch Deli, ST09928209, J. P. Woodman; +©Stony lane near ambulance station, SS99957441, J. P. Woodman; all 2009.
- +153/47.1. **Alopecurus pratensis** (Meadow Foxtail)(Cynffonwellt y Maes). Hay meadow, Cyfartha Park, Merthyr Tydfil, SO043073, J. N. Davies, 2009.
- +153/49.2. **Phleum bertolonii** (Smaller Cat's-tail)(Rhonwellt Penfain). Bare rock and coal spoil, Upper Abercanaid, SO050044, J. N. Davies, 2009, det. J. P. Woodman.
- +‡153/54.1. **Brachypodium pinnatum** (Heath False-brome)(Breichwellt y Calch). Disused rail station platform, Nelson, ST11069613, M. Pickard, 2009.
- +‡153/68.1. **Echinochloa crus-galli** (Cockspur)(Cibogwellt Rhydd). ©20+ plants in cracks of station platform, Heath, Cardiff, ST18038040, M. Pickard, 2009.
- +‡153/70.pum. **Setaria pumila** (Yellow Bristle-grass)(Cibogwellt Melyn). ©3 plants on ballast of railway viaduct, Bargoed, SO14990028; +©Over 50 plants in cracks and in ballast at end of station platform, Heath, Cardiff, ST18078030; both M. Pickard, 2009.
- +158/14.1. **Polygonatum multiflorum** (Solomon's-seal)(Llysiiau-Solomon). 1 plant growing in woodland, Llanblethian, Cowbridge, SS99637319, M. Pickard, 2009.
- +158/33.5.a. **Narcissus pseudonarcissus** ssp. **pseudonarcissus** (Daffodil)(Cenhinen-Bedr Wyllt). Pasture and scrub, Ty'n y Coed farm, Llanbradach, ST154925, P. Sturgess, 2009.
- *‡158/CAM.qua. **Camassia quamash** (Common Camash). Hay meadow, Llanblethian, Cowbridge, SS982737, A. Brigham, 2008, det. R. & L. Nottage. 1st Welsh record. Seen again in 2009 in same spot.
- +162/13.1. **Platanthera chlorantha** (Greater Butterfly-orchid)(Tegeirian Llydanwyrdd). Grassland, Howardian LNR, Cardiff, ST206791, 'Raj', Community Park Ranger, 2008.

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

- *17/3.1×2. **Dryopteris ×mantoniae** (**D. oreades** × **D. filix-mas**) (a hybrid male-fern). Stone wall, Mynydd Epynt, 8 km SW of Builth Wells, SN976461, A. Orange & R. G. Woods, 2008, G. Hutchinson.
- 17/3.8×9. **Dryopteris ×deweveri** (**D. carthusiana** × **D. dilatata**) (a hybrid buckler-fern).

Wet pasture, edge of Mynydd Epynt, SN858350., R. G. Woods, 2009. 1st record for more than 30years.

- +28/13.11. **Ranunculus sceleratus** (Celery-leaved Buttercup)(Crafanc yr Eryr). Hundreds of plants in 'dry' bed of canal, following a break in the bank, Llangynidr, SO168195, M. & C. Porter, 2008.
- +46/5.1.b. **Stellaria nemorum** ssp. **montana** (Wood Stitchwort)(Serenllys-y-coed Cymreig). River bank, 0.5km NE of Llysdinam, SO011587, R. G. Woods, 2009. 1st record of segregate for this hectad.
- +46/9.1. **Moenchia erecta** (Upright Chickweed)(Clust-y-llygoden Seth). Rough grassland, Comin-y-garth, SN984553, R. G. Woods, 2008.
- *‡47/5.1×2. **Fallopia ×bohemica (F. japonica × F. sachalinensis)** (a hybrid knotweed). Woodland, near Brynwyn Hall, SO0055, R. G. Woods, 2009.
- *‡84/4.1×3. **Oenothera ×fallax (O. glazioviana × O. biennis)** (Intermediate Evening-primrose)(Melyn-yr-hwyr Canolig). 5 plants on newly constructed road bank, Bronllys, SO142347, M. & C. Porter, 2008.
- *103/1.4. **Geranium rotundifolium** (Round-leaved Crane's-bill)(Pig-yr-aran Grynddail). ©About 12 plants on newly constructed road bank, Bronllys, SO142347, M. & C. Porter, 2008.
- ‡116/9.1. **Borago officinalis** (Borage)(Tafod yr Ych). Road bank, Bronllys, SO146352, S. P. Chambers, 2008. Update of pre-1987 record for hectad.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle)(Bachgen Llwm). Churchyard, Hay-on-Wye, SO225421, M. A. V. Gill, 2008.
- *©135/GUI.abv. **Guizotia abyssinica** (Niger)(Guizotia). 3 plants in crevices in old stone wall near bird-feeding station, Llangynidr, SO167196, M. & C. Porter, 2009.
- *152/2.2.a×b. **Trichophorum cespitosum** nothosp. **foersteri (T. cespitosum** ssp. **cespitosum × T. cespitosum** ssp. **germanicum)** (Hybrid Deergrass). Damp flush, Nant Irfon, SN846530, R. G. Woods, 2009, A.O. Chater.
- +‡158/31.1.b. **Leucojum aestivum** ssp. **pulchellum** (Summer Snowflake)(Eiríaidd yr Haf). Road verge, Llanafan x Garth, SN984498, R. G. Woods, 2007. 2nd record.
- *162/23.3. **Ophrys apifera** (Bee Orchid)(Tegeirian y Wenynen). ©Road verge, Ffrwdgrech Estate, Brecon, SO029279, S. Coates, 2009. 1st authenticated record but only casual; 2 plants photographed.

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

- +28/13.12. **Ranunculus lingua** (Greater Spearwort)(Llafnlys Mawr). St Michael's Pool, 2km SE of Llanbister Road Station, SO187698, E. Dean & S. Spencer, 2008.
- +‡73/1.3. **Crassula helmsii** (New Zealand Pigmyweed)(Corchwyn Seland Newydd). St Michael's Pool, 2 km SE of Llanbister Road Station, SO187698, E. Dean & S. Spencer, 2008.
- +151/1.13×14. **Juncus ×surrejanus (J. articulatus × J. acutiflorus)** (a hybrid rush). Tylcau Hill, c.5 km ESE of Llanbadarn Fynydd, SO140764, E. Dean, 2009.
- *‡153/70.pum. **Setaria pumila** (Yellow Bristle-grass)(Cibogwellt Melyn). ©Knighton, SO286724, E. Dean & S. Spencer, 2008, det. R. W. Ellis.

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

- +‡19/1.1. **Azolla filiculoides** (Water Fern)(Rhodyn y Dwr). Locally frequent in drainage pill, grazing marsh N of MoD Pendine Ranges, SN26570839, R. D. & K. A. Pryce and S. & A. Coker, 2009.
- +23/1.1. **Taxus baccata** (Yew)(Ywen). Single self-sown seedling in stone wall by Keepers Cottage, Ferryside, SN3655509455, R. D. & K. A. Pryce, 2009.
- +28/13.19. **Ranunculus omiophyllus** (Round-leaved Crowfoot)(Crafanc-y-frân y Rhostir). In pill, Salthouse, Laugharne, SN29950935, BSBI Meeting, 2009, det. A. O. Chater & R. D. Pryce.
- +28/13.22. **Ranunculus trichophyllus** (Thread-leaved Water-crowfoot)(Crafanc-y-frân Feinddail). In pond in grazing marsh, Salthouse, Laugharne, SN29760928, BSBI Meeting, 2009, det. A. O. Chater.
- +28/13.25.a. **Ranunculus penicillatus** ssp. **penicillatus** (Stream Water-crowfoot) (Crafanc-y-frân y Nant). In River Talog, Pencader, SN44553660, R. D. & K. A. Pryce, 2009.
- +28/16.1. **Aquilegia vulgaris** (Columbine)(Troed y Golomen). Garden throw-out on wooded river bank, Newcastle Emlyn, SN31414048, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +‡29/1.9. **Berberis darwinii** (Darwin's Barberry). Self-sown in top of stone boundary wall, Tycroes School, SN6054910516, R. D. Pryce, 2009.
- +‡36/3.1. **Soleirolia soleirolii** (Mind-your-own-business)(Mam Miloedd). River shingle at southern end of small ox-bow pond, Llwyn Jack, Llandovery, SN75313302, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce and S. & A. Coker; +Escape from gardens below stone retaining wall in gravelly ground on roadside, Ystradowen, SN74791247, R. D. & K. A. Pryce; both 2009.
- +‡43/1.13. **Chenopodium ficifolium** (Fig-leaved Goosefoot)(Troed-yr-wydd Dail Ffigys). On disturbed dune, Pendine Ranges, SN28210787, R. D. & K. A. Pryce and S. & A. Coker, 2009.
- +‡45/2.2. **Claytonia sibirica** (Pink Purslane)(Porpin Pinc). River shoal, River Talog, Pencader, SN44553660, R. D. & K. A. Pryce, 2009.
- +45/3.1.a. **Montia fontana** ssp. **fontana** (Blinks)(Porpin y Ffynnon). Twyn yr Esgair, SN80102381, J. Clarke, M. Chappel & F. Newbery, 2009. 1st hectad record for ssp.
- +46/2.1. **Moehringia trinervia** (Three-nerved Sandwort)(Tywodlys Teirnerf). Roadside hedgerow, near Dolycoed, Brynamman, SN70231414, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +46/7.12. **Cerastium semidecandrum** (Little Mouse-ear)(Clust-y-llygoden Fach). Mossed-over concrete hard standing, in disused limestone quarry, Crwbin Quarry, SN47491333, R. D. & K. A. Pryce, 2009.
- +46/10.1. **Sagina nodosa** (Knotted Pearlwort)(Corwlyddyn Clymog). Sparsely vegetated gravelly ground in former railway goods yard, Pensarn, Carmarthen, SN41171949, M. Godfrey & M. Stead, 2009.
- +46/17.4. **Spergularia rubra** (Sand Spurrey)(Troellig Arfor Coch). On shingle surfaced track by Afon Tywi, Llwyn Jack, Llandovery, SN75413322, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce, S. & A. Coker, 2009.
- +‡46/18.1. **Lychnis coronaria** (Rose Campion)(Lluglys Gwridog). ©Two rosettes self

sown on top of stone boundary wall, Llanelli, SN51010020, Llanelli Naturalists meeting, 2009, det. R. D. Pryce.

- *©47/1.cap. **Persicaria capitata** (Pink-headed Knotweed). Thriving plant amongst various weeds at base of wall, Junction of Elizabeth Street and Arthur Street, Llanelli, SN5083300034, I.K. Morgan, 2009.
- +‡47/4.6. **Polygonum rurivagum** (Cornfield Knotgrass)(Canclwm y Tir Âr). Weedy field-headland and gateway, Moat Farm, Llandry, SN43310512, BSBI Meeting, 2009, NMW, det. A. O. Chater & G. M. Kay.
- +47/8.14×19. **Rumex ×abortivus (R. conglomeratus × R. obtusifolius)** (a hybrid dock). Weedy neutral grassland, Ffrwd Fen SSSI, Pembrey, SN41870218, BSBI Meeting; +River bank E from new footbridge, Pensarn, Carmarthen, SN41161978 (also at SN41411982), M. Godfrey & M. Stead; both 2009, det. M. Stead.
- +47/8.15.san. **Rumex sanguineus** var. **sanguineus** (Blood-veined Dock)(Tafolen y Coed). Bare ground below Lawson's Cypress trees on sewerage works boundary, Pencader, SN44513655, R. D. & K. A. Pryce, 2009. 1st hectad record for var.
- *48/1.1×2. **Limonium ×neumanii (L. vulgare × L. humile)** (a hybrid sea-lavender). Near W end of drainage ditch N of railway line about 150m ESE of SE corner of Ashpits Lagoon, between Burry Port and Pwll, flooded by higher tides, SN464008, G. Hutchinson, 1991, NMW, det. L.A. Boorman (2009). 1st record.
- *48/1.13. **Limonium transwallianum** (Giltar Sea-lavender)(Lafant-y-môr Trwyn Giltar) On vegetated shingle near beach by Wind Energy Centre [since demolished], Burry Port, SN462003. Collected by J. Clarke and tentatively determined as this species by H. J. Killick, 1994, NMW, conf. L. A. Boorman, 2009. 1st record.
- +‡49/1.off. **Paeonia officinalis** (Garden Peony)(Rhosyn-y-mynydd y Gerddi). One small plant established in river shingle at southern end of small ox-bow pond, Llwyn Jack, Llandovery, SN75313302, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce and S. & A. Coker, 2009. 1st record as a neophyte
- +‡51/1.4. **Hypericum hircinum** (Stinking Tutsan)(Dail-y-Beiblau Drewllyd). ©Several plants self sown in sparsely vegetated scree slope in NE corner of disused limestone quarry, Crwbin Quarry, SN47831348, R. D. & K. A. Pryce, 2009.
- *©62/10.lon. **Matthiola longipetala** (Night-scented Stock) (Murwyll yr Hwyr). Escape from nearby garden, Brynhir, Pingoed, SN436033, R. D. Pryce, 1994; +Self-sown street weed, back lane of Swansea Road, Llanelli, SN513007, I.K. Morgan, 2009. 1st & 2nd records.
- +‡62/11.4. **Barbarea verna** (American Winter-cress)(Berwr-y-gaeaf cynnar). On old railway track adjacent to river, Pencader, SN44503612, R. D. & K. A. Pryce, 2009.
- +62/12.3. **Rorippa islandica** (Northern Yellow-cress)(Berwr Melyn Gogleddol). Few plants in gravelly ground of farmyard, Latchygors, Llanfallteg, SN16442002; +On forestry track, Fron Uchaf, 4 km ESE of Llandovery, SN80473255; both R. D. & K. A. Pryce, 2009.
- +62/12.4. **Rorippa palustris** (Marsh Yellow-cress)(Berwr Melyn y Gors). On forestry track, Fron Uchaf, 4 km ESE of Llandovery, SN80463252, R. D. & K. A. Pryce, 2009.
- +‡62/31.2. **Coronopus didymus** (Lesser Swine-cress)(Olbrain Bach). Pavement-weed by filling station, Newcastle Emlyn, SN30774040, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +‡62/33.2. **Diploxys muralis** (Annual Wall-rocket)(Roced-y-muriau'r Tywod). On

- railway track ballast, Carmarthen Station, SN41311969, R. D. & K. A. Pryce, 2009.
- +‡62/38.1. **Hirschfeldia incana** (Hoary Mustard)(Mwstard Llwyd). Occasional in imported fill, Newcastle Emlyn, SN31024037, R. D. & K. A. Pryce, 2009.
- *62/41.1. **Crambe maritima** (Sea-kale)(Ysgedd Arfor). One plant in full flower 1×0.75m on sandy ground at top of beach near houses, Ferryside, SN3652810344, A. Stevens, 2009, conf. R. D. Pryce.
- +69/1.1×3. **Primula ×polyantha (P. vulgaris × P. veris)** (False Oxlip)(Briallen Groesryw). Several plants on imported fill material, Newcastle Emlyn, SN31034040, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +69/6.2. **Anagallis arvensis** (Scarlet Pimpernel)(Llysiâu'r cryman). Bare ground in car park area to Ty Gwyn Community woodland, Ystradowen, SN74961269, R. D. & K. A. Pryce, 2009. 1st localized hectad record.
- +‡73/5.10. **Sedum rupestre** (Reflexed Stonecrop)(Briweg Felen). Disturbed ground in forecourt of metal fabricator's premises, Newcastle Emlyn, SN31184034, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +74/5.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage)(Tormaen Tribys). Locally abundant pavement weed, St Clears, SN2825416430; +Outside Harvest Trust charity shop in angle between pavement and shop wall, Newcastle Emlyn, SN30724049; both R. D. & K. A. Pryce, 2009.
- +75/8.14.321. **Rubus caesius** (Dewberry)(Llwyn Mwyar Mair). On base-rich soil in bramble tangle, Dryslwyn Castle picnic site, SN55262035, R. D. & K. A. Pryce, 2009.
- *©75/9.8. **Potentilla intermedia** (Russian Cinquefoil)(Pumnalén Rwsia). One plant on W side of access road to former railway goods yard, Pensarn, Carmarthen, SN4126919480, M. Godfrey & M. Stead, 2009, NMW, det. A. O. Chater & G. M. Kay.
- +‡75/19.15. **Alchemilla mollis** (Garden Lady's-mantle)(Mantell-Fair y Gerddi). Maesyrcugiau Church, SN473413, I.K. Morgan. 1st record for v.c.44 part of hectad; +Self-sown around fly-tipped rubbish in car park, Ystradowen, Car park area to Ty Gwyn Community woodland, SN74961269, R. D. & K. A. Pryce; both 2009.
- +‡75/22.3. **Prunus cerasifera** (Cherry Plum)(Coeden Goeg-geirios). Marros Mill, SN20690753, I.K. Morgan, 2009.
- +77/14.6. **Vicia hirsuta** (Hairy Tare)(Ffacbysen Flewog). Weed in disturbed ground by house under construction, Ystradowen, SN74961249, R. D. & K. A. Pryce, 2009.
- *77/19.5. **Trifolium glomeratum** (Clustered Clover)(Meillionen Glystyrog). Several individual plants, covering patch c.1×0.3m, on low Old Red Sandstone knoll, Salthouse, Laugharne, SN30030963, I.K. Morgan, 2009, NMW.1st record since Motley c.1844.
- +79/2.3. **Myriophyllum spicatum** (Spiked Water-milfoil)(Myrdd-ddail Ysbigog). In small pond-dipping pond to W of main pond by car park, Mynydd Mawr Woodland Park, Tumble, SN537125, I.K. Morgan, 2009.
- +79/2.4. **Myriophyllum alterniflorum** (Alternate Water-milfoil)(Myrdd-dail Blodau Bob yn Ail). In two (of three) small moorland pools near mountain-top car-park, Foel Fawr, Mynydd Du, SN73221864, R. D. & K. A. Pryce, 2009.
- +81/1.1. **Lythrum salicaria** (Purple-loosestrife)(Llysiâu'r-milwr Coch). River bank, Ystradowen, SN74791247, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.

- *©81/1.jun. **Lythrum junceum** (False Grass-poly)(Ffug-wyarlllys). One plant (with *Misopates orontium*) in vegetable plot newly ploughed in corner of field of permanent pasture, Waunygwiail Fach, Four Roads, SN44690868, A. Stevens, 2009, NMW, conf. F. Rumsey. 1st record.
- +84/1.6×8. **Epilobium ×vicinum (E. obscurum × E. ciliatum)** Shingle bank at southern end of small ox-bow pond, Llwyn Jack, Llandovery, SN75213285, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce and S. & A. Coker, 2009, det. A. O. Chater.
- +84/1.7. **Epilobium roseum** (Pale Willowherb)(Helyglys Gwelw). Bare ground in car park area to Ty Gwyn Community woodland, Ystradowen, SN74961269, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +‡84/1.8. **Epilobium ciliatum** (American Willowherb)(Helyglys America). Edge of forest track, Fron Uchaf, 4 km ESE of Llandovery, SN80393283, R. D. & K. A. Pryce, 2009.
- +84/1.8×9. **Epilobium ×fossicola (E. ciliatum × E. palustre)** Dung heap, Salthouse, Laugharne, SN30010965, BSBI Meeting, 2009, det. A. O. Chater. Also at SN3029 0969.
- +‡84/4.4. **Oenothera cambrica** (Small-flowered Evening Primrose)(Melyn-yr-hwyr Mân-flodeuog). On imported fill material, Newcastle Emlyn, SN31034040, R. D. & K. A. Pryce, 2009.
- +†091/2.11. **Euphorbia peplus** (Petty Spurge)(Llaethlys Bach). Car park area to Ty Gwyn Community Woodland, Ystradowen, SN74971262, R. D. & K. A. Pryce, 2009. 1st localized hectad record.
- +‡91/2.17. **Euphorbia characias** (Mediterranean Spurge)(Llaethlys Môr y Canoldir). ©Seedling at base of wall/pavement – self sown from plant in garden above, corner of Stebonheath Tce, Llanelli, SN515004, I.K. Morgan, 2009.
- +92/1.1. **Rhamnus cathartica** (Buckthorn)(Rhafnwydden). By trackway in mixed scrub in disused limestone quarry, Crwbin Quarry, SN47391329, R. D. & K. A. Pryce, 2009.
- +103/1.16. **Geranium molle** (Dove's-foot Crane's-bill)(Pig-yr-Aran). Twyn yr Esgair, SN82B, J. Clarke, M. Chappel & F. Newbery, 2009. 1st record for v.c.44 part of hectad.
- +103/1.9. **Geranium sanguineum** (Bloody Crane's-bill)(Pig-yr-aran Ruddgoch). Garden throw out on riverbank, Ystradowen, SN74931256, R. D. & K. A. Pryce, 2009.
- +103/2.3. **Erodium cicutarium** (Common Stork's-bill)(Pig-y-crëyr). Bare ground in former railway goods yard, Pensarn, Carmarthen, SN4119019518, M. Godfrey & M. Stead, 2009.
- +‡105/1.4. **Impatiens glandulifera** (Indian Balsam)(Jac y Neidiwr). Llangadog, SN70542852, J. Clarke, M. Chappel & F. Newbery, 2009.
- *107/19.7. **Oenanthe aquatica** (Fine-leaved Water-dropwort)(Cegiden-y-dwr Fanddail). Six plants, five of which were flowering, in tall-fen/reed-swamp, Ffrwd Fen SSSI, Pembrey, SN41940247, BSBI Meeting, 2009, conf. A. O. Chater & G. M. Kay. 1st confirmed record of this species discovered by Sam Bosanquet on 11/6/09. David Stephens tentatively recorded the species from the N of Ffrwd Fen in 1988 but this was never confirmed.
- +‡110/1.1. **Nicandra physalodes** (Apple-of-Peru)(Afal Periw). ©Allotment weed, Bryntirion Allotments, Llanelli, SN513008, I.K. Morgan, 2009.
- +‡111/3.4. **Calystegia silvatica** (Large Bindweed)(Taglys Mawr). At edge of planted

- woodland on right bank of Afon Tywi, Llwyn Jack, Llandovery, SN75333293, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce and S. & A. Coker, **NMW**, det. A. O. Chater. 1st hectad record for variety; +Scrambling over brambles in roadside thicket, Fron Uchaf, 4 km ESE of Llandovery, SN80203242, R. D. & K. A. Pryce; both 2009.
- +116/2.1. **Echium vulgare** (Viper's-bugloss)(Gwiberlys). In cliff grassland, Wharley Point, SN32471003, R. D. & K. A. Pryce, 2009.
- +‡116/4.1×2. **Symphytum ×uplandicum** (**S. officinale** × **S. asperum**) (Russian Comfrey)(Cyfardwf Rwsia). Several clumps on disturbed ground, Ty Gwyn, Ystradowen, SN75041282, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +‡116/8.1. **Pentaglottis sempervirens** (Green Alkanet)(Llysiau'r-gwird Gwyrdd). Pendine, SN234084, I.K. Morgan; +Edge of mature willow scrub on road frontage, Cross Hands, SN56611314, R. D. Pryce; both 2009.
- +‡116/15.07. **Myosotis sylvatica** (Wood Forget-me-not)(Sgorpionllys y Coed). ©Outside Harvest Trust charity shop in angle between pavement and shop, Newcastle Emlyn, SN30724049, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +118/1.5×6. **Stachys ×ambigua** (**S. sylvatica** × **S. palustris**) (Hybrid Woundwort) (Briwlys Croesryw). SW of Talsarn, SN774252, M. Godfrey, M. Stead & M. Smith, 2009.
- +‡118/4.1.c. **Lamiastrum galeobdolon** ssp. **argentatum** (Yellow Archangel) (Marddanhadlen Felen). Naturalised in scrubby stream bank on S side of road, Newcastle Emlyn, SN31534047, R. D. & K. A. Pryce, 2009.
- +‡118/6.1. **Galeopsis segetum** (Downy Hemp-nettle)(Y Benboeth Gulddail). ©One self-sown plant in disturbed ground.NW of theatre, National Botanic Garden of Wales, Llanarthne, SN52071828, J. P. Poland, 2009, **NMW**. 1st recent record but only casual.
- +‡124/4.2. **Mimulus guttatus** (Monkeyflower)(Blodyn Mwnci). Tall fen/swamp in overgrown pond to S of farmhouse, Moat Farm Llandry, SN43310516, Llanelli Naturalists meeting, 2009, det. R. D. Pryce.
- +‡124/17.ell×spe. **Hebe ×franciscana** (**H. elliptica** × **H. speciosa**) (Hedge Veronica) (Pedwar-ban-byd y Berth). ©Several self-sown plants in stone boundary wall of playground and primary school, Ffairfach, SN62912149, R. D. & K. A. Pryce, 2009.
- +124/20.19. **Euphrasia scottica** (Scottish Eyebright)(Effros Eiddil y Fawnog). Occasional in upland acid grassland, Trawsnant, SN80364901, R. D. & K. A. Pryce, 2009.
- +124/21.2. **Odontites vernus** (Red Bartsia)(Gorudd). On imported fill material, Newcastle Emlyn, SN31034040, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +‡129/1.9. **Campanula portenschlagiana** (Adria Bellflower)(Clychlys Adria). Well naturalized in stone boundary wall, Ferryside, SN36510986, R. D. & K. A. Pryce, 2009.
- +‡129/1.10. **Campanula poscharskyana** (Trailing Bellflower)(Clychlys Ymlusgol). Occasional in stone curtilage walls in village, Cwmdu, SN63503019, Llanelli Naturalists & WTSWW Meeting, 2009, det. R. D. Pryce.
- *©129/7.sip. **Lobelia siphilitica** (Great Lobelia). Near Commissioner's Bridge Roundabout, Kidwelly, SN411057, I. K. Morgan & R. N. Stringer, 2001. **NMW**, det. G. Hutchinson (2009). 1st record.

- +130/6.2. **Galium odoratum** (Woodruff)(Briwydd Bêr). In rank grass on coastal cliff top, Dolwen Point, Pendine, SN23270784, BSBI Meeting, 2009, det. A. O. Chater, G. M. Kay & R. D. Pryce. 1st recent hectad record.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle)(Bachgen Llwm). Pendine, SN234084, I.K. Morgan, 2009.
- +131/6.7. **Lonicera periclymenum** (Honeysuckle)(Gwyddfid). Twyn yr Esgair, SN82B, J. Clarke, M. Chappel & F. Newbery, 2009. 1st record for v.c.44 part of hectad.
- +132/1.1. **Adoxa moschatellina** (Moschatel)(Mwsgly). Scrubby river bank, Newcastle Emlyn, SN31074042, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +†133/1.2. **Valerianella carinata** (Keeled-fruited Cornsalad)(Gwylaeth-yr-oen Ffrwythau Rhychog). Strange form with globular heads on waste ground behind houses, Garden Lane, Llandovery, SN7672534458, M. & J. Iloff, **NMW**, conf. J. P. Poland; +Roadside masonry weed in angle between wall and road and on grass bank, Ferryside, SN36520995; +In masonry on disused railway bridge, Pencader, SN44603630; the last two R. D. & K. A. Pryce; all 2009.
- +134/1.1. **Dipsacus fullonum** (Wild Teasel)(Cribau'r-pannwr Gwyllt). On vegetated imported fill material, Newcastle Emlyn, SN31034040, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +135/17.2. **Picris hieracioides** (Hawkweed Oxtongue)(Tafod y Llew). Disturbed ground, Machynys, Llanelli, SS50829835, R. D. Pryce, 2009. 1st record for v.c.44 part of hectad.
- *‡135/25.9.140. **Taraxacum horridifrons** (Prickly-leaved Dandelion). Grassland in the grounds of the National Woollen Museum, Drefach Felindre, near Newcastle Emlyn, SN354391, T. C. G. Rich, 2009, **NMW**, det. A. J. Richards. 1st record.
- +135/26.4.agr. **Crepis capillaris** var. **agrestis** (Smooth Hawk's-beard)(Gwalchlys Llyfn) On grassy river bank, right bank of Afon Tywi, Llwyn Jack, Llandovery, SN75403335, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce and S. & A. Coker, 2009, det. A. O. Chater. 1st hectad record of var.
- +135/26.4.cap. **Crepis capillaris** var. **capillaris** (Smooth Hawk's-beard)(Gwalchlys Llyfn). On gravel pile, Llwyn Jack, Llandovery, SN75323333, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce and S. & A. Coker, 2009, det. A. O. Chater. 1st hectad record of var.
- +‡135/43.4. **Erigeron karvinskianus** (Mexican Fleabane)(Amrhydlyd y Cerrig). Llangadog, SN7028, J. Clarke, M. Chappel & F. Newbery, 2009.
- +†135/50.1. **Artemisia vulgaris** (Mugwort)(Y Feidiog Lwyd). Weed in disturbed ground in industrial estate on site of old station, Newcastle Emlyn, SN31404042, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- *©135/55.aus. **Anthemis austriaca** (Austrian Chamomile). Bund by new pond sown with 'native' wild flower seed, Berwig, Llwynhendy, SS54309878, R. D. & K. A. Pryce, 2009. 1st record in wild surroundings.
- +†135/59.1. **Matricaria recutita** (Scented Mayweed)(Amranwen Bêr). Near farmyard, Tirpaun, SN76752792, M. Godfrey, M. Stead & M. Smith, 2009.
- +135/62.10×11. **Senecio** ×**ostenfeldii** (**S. jacobaea** × **S. aquaticus**) (a hybrid ragwort). Allt-y-Wern SSSI, SN52V, F. Newbury, H. Cols & P. Tolfree, 2009.
- *©135/81.fer. **Bidens ferulifolia** (Fern-leaved Beggarticks). Pavement weed, one plant by pole at S end of Pont Tyweli, SN4148040293, A.O. Chater, 2009, **NMW**.

- +151/1.25. **Juncus inflexus** (Hard Rush)(Brwynen Galed). Near Talsarn, SN7627, M. Godfrey, M. Stead & M. Smith, 2009.
- +152/3.4. **Eleocharis multicaulis** (Many-stalked Spike-rush)(Ysbigfrwynen Gadeiriog). Twyn yr Esgair, SN82b, J. Clarke, M. Chappel & F. Newbery, 2009. 1st record for v.c.44 part of hectad.
- +‡152/11.2. **Cyperus eragrostis** (Pale Galingale)(Ysnoden-Fair Welw). © One large plant about 0.5 m across, at E end of tall herb area, with last year's flowering stems retained on clump, verge of track to sports fields E of Denham Avenue, Llanelli, SN49620115, R. D. Pryce, 2009.
- +152/16.23. **Carex hirta** (Hairy Sedge)(Hesgen Flewog). Fron Uchaf, 4 km ESE of Llandovery, SN80473255, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- +152/16.28. **Carex rostrata** (Bottle Sedge)(Hesgen Ylfinfain). Small population in rush dominated flush, Cwmyronnen, Mynydd Betws, SN68331049, R. D. & K. A. Pryce, 2009.
- +152/16.31. **Carex pendula** (Pendulous Sedge)(Hesgen Bendrom). ‡Self-sown on imported fill material, Newcastle Emlyn, SN31034040. 1st record for v.c.44 part of hectad; +‡Garden throw out on riverbank, Ystradowen, SN74971262; both R. D. & K. A. Pryce, 2009.
- +152/16.44×46. **Carex ×fulva** (**C. hostiana** × **C. viridula**) (a hybrid sedge). Occasional in *Molinia* dominated, flushed, north-facing valley side, Trawsnant, SN80364902, R. D. & K. A. Pryce, 2009.
- *152/16.65×67. **Carex ×elytroides** (**C. acuta** × **C. nigra**) (a hybrid sedge). Linear stand c.20 m × 2 m in tall-fen, Ffrwd Fen SSSI, Pembrey, SN41870253, S. D. S. Bosanquet, 2009, NMW. Confirmed later independently by A. O. Chater, M. Porter & M. Foley. 1st recent record. Previously recorded by Motley pre-1850 but no locality given (reported by Riddelsdell, 1907).
- +152/16.8.b. **Carex muricata** ssp. **lamprocarpa** (Small-fruited Prickly-sedge)(Hesgen Ysbigog). Gravelly area by entrance to former railway goods yard, Pensarn, Carmarthen, SN4127319531, M. Godfrey & M. Stead, NMW; +Grassy area by small limestone crag, NE of Gilman Point, Pendine, SN22840759, BSBI Meeting; both 2009, det. A. O. Chater.
- +152/16.9.a. **Carex divulsa** ssp. **divulsa** (Grey Sedge)(Hesgen Lwyd). Locally dominant over at least 30 m on roadside bank, Pwll, Tyle Catherine, SN4784001036, R. D. & K. A. Pryce, 2009, conf. A. O. Chater.
- *153/16.4. **Puccinellia rupestris** (Stiff Saltmarsh-grass)(Gwellt-y-morfa Syth). ‡One large and four or five small trampled plants in non-tidal top saltmarsh/tarmac road interface, below Sir John's Hill, Laugharne, SN30191050, R. N. Carter, 2009.
- *153/23.2. **Parapholis incurva** (Curved Hard-grass)(Caledwellt Cam). *Festuca rubra* dominated top saltmarsh, Ginst Point, SN32340809 (also at SN32550811), BSBI Meeting, 2009, NMW, det. A. O. Chater, J. P. Poland & G. M. Kay; conf. M. Crawley, D. A. Pearman & F. Rumsey. 1st record.
- +153/24.1. **Glyceria maxima** (Reed Sweet-grass)(Melyswellt y Gamlas). Lake margin, Latchygors, Llanfallteg, SN16512011, R. D. & K. A. Pryce, 2009. Possibly originally planted at this site.
- +153/27.1.b. **Arrhenatherum elatius** var. **bulbosum** (Onion Couch). Bryntirion SSSI,

- Llanedi, SN58840835, BSBI Meeting, 2009, det. A. O. Chater. 1st hectad record for variety.
- +©153/28.5. **Avena sativa** (Oat)(Ceirchen). Dung heap, Salthouse, Laugharne, SN30010965, BSBI Meeting, det. R. D. Pryce; +On shingle bank by small ox-bow pond, Llwyn Jack, Llandovery, SN75333306, R. D. Pryce; both 2009.
- +153/31.2. **Koeleria macrantha** (Crested Hair-grass)(Cribwellt). Calcareous grassland, NE of Gilman Point, Pendine, SN2284307592, BSBI Meeting, 2009, NMW, det. A. O. Chater & G. M. Kay. Two discrete populations: about 10 clumps on E part of Carboniferous Limestone knoll over area c.3×2m and 6 clumps on W part of knoll covering area c.2×2 m. Also scattered over ranker grassland 15m to W. Presumably rediscovery of record reported in 1905 by T.W. Barker from 'Pendine Cliffs'.
- +153/39.8. **Agrostis vinealis** (Brown Bent)(Maeswellt-y-cwn y Mynydd). Fron Uchaf, 4km ESE of Llandovery, SN80153271, R. D. & K. A. Pryce, 2009. 1st record for v.c.44 part of hectad.
- *‡153/46.2. **Polypogon viridis** (Water Bent)(Barfwellt y Dwr). ©Several large plants in angle between boundary wall and back lane, Backlane of Richard Street, Llanelli, SN50710013, R. D. Pryce, 2009, NMW, det. A. O. Chater, J. P. Poland & G. M. Kay.
- +†153/50.7. **Bromus secalinus** (Rye Brome)(Pawrwellt Bach). About sixteen plants at southern end of small ox-bow pond on shingle bank, Llwyn Jack, Llandovery, SN75313302, A. O. Chater, G. M. Kay, R. D. & K. A. Pryce and S. & A. Coker, 2009.
- +©153/59.1. **Hordeum distichon** (Two-rowed Barley)(Haidd Dwyresog). 1 plant on spoil mound of recently excavated conservation pond, N of Witchett Pill, MoD Pendine Ranges, SN28010793, R. D. & K. A. Pryce and S. & A. Coker, 2009.
- +©153/60.1. **Triticum aestivum** (Bread Wheat)(Gwenith). A few plants on dung heap, Salthouse, Laugharne, SN30010965, BSBI Meeting, 2009, det. R. D. Pryce.
- +‡153/68.1. **Echinochloa crus-galli** (Cockspur)(Cibogwellt Rhydd). ©Bare ground in angle between stone wall and gravel car-park, Kidwelly Quay, SN3979606400, A. Stevens, 2009, conf. R. D. Pryce.
- +‡153/71.san. **Digitaria sanguinalis** (Hairy Finger-grass)(Byswellt Blewog). ©1 plant growing in gravel towards eastern end of platform 2, Llanelli Railway Station, SS5070399427, NMW. 3rd v.c. record, 1st since 1992 and new hectad record; ©1 plant in angle between pavement and retaining wall N of Aldi store, Prospect Place, Llanelli, SN50870067, NMW, ex bird seed, 4th v.c. record; both R. D. Pryce, 2009.
- +©153/PAN.mil. **Panicum miliaceum** (Common Millet)(Miled). 1 plant (ex bird seed) in angle between pavement and retaining wall N of Aldi store, Prospect Place, Llanelli, SN50870067, R. D. Pryce, 2009.
- +158/20.2×3. **Hyacinthoides ×massartiana (H. hispanica × H. non-scripta)** (Hybrid Bluebell)(Clychau'r-gog Croesryw). ‡Laneside bank, St Clears, SN282156, I.K. Morgan; +‡Near junction of tracks in mature woodland, Ferryside, SN36510951, R. D. & K. A. Pryce; both 2009.
- +158/24.16. **Allium vineale** (Wild Onion)(Nionyn Gwyllt). 6 plants on shady bank of River Amman, Ynysdawela community park, Brynamman, SN701135, J. N. Davies, 2009, NMW.
- +‡158/24.7. **Allium triquetrum** (Three-cornered Garlic)(Garlleg Trionglog). Back lane of Swansea Rd, Llanelli, SN514006, I.K. Morgan, 2009.
- +‡158/33.5.b. **Narcissus pseudonarcissus** ssp. **obvallaris** (Tenby Daffodil)(Cenhinen-

- Bedr Penfro). Wooded streamside, Newcastle Emlyn, SN31534049, R. D. & K. A. Pryce. 1st record for v.c.44 part of hectad; +1 clump, Horeb Chapel, SN49830564, I.K. Morgan; both 2009.
- +‡158/33.5.c. **Narcissus pseudonarcissus** ssp. **major** (Spanish Daffodil)(Cenhinen-Bedr Sbaen). In abandoned garden, Marros Mill, SN20690753, I.K. Morgan, 2009.
- *‡159/5.2. **Iris sibirica** (Siberian Iris)(Gellesgen Feinddail). Garden throw-out in parkland, N side of Sandy Water Park Lake, SN495004, I.K. Morgan, 2009.
- +‡159/SCH.coc. **Schizostylis coccinea** (Kaffir Lily). ©On waste ground (persisting from old garden or garden throw-out). Llanelli, SN51000059, Llanelli Naturalists meeting, 2009, det. I. K. Morgan.
- +‡160/3.1. **Cordyline australis** (Cabbage-palm)(Palmwydden Fresych). ©Self-sown pavement weed, Park Terrace, Burry Port, SN445009, I.K. Morgan, 2009.
- *162/16.1. **Gymnadenia conopsea** ssp. **borealis** (Fragrant Orchid)(Tegeirian Pêr). About a dozen plants in seed in unimproved acid hay meadow, Bryntirion SSSI, Llanedi, SN58860846, BSBI Meeting, 2009, det. A. O. Chater, G. M. Kay & R. D. Pryce. 1st v.c. record for ssp.
- +162/18.3.a. **Dactylorhiza incarnata** (Early Marsh-orchid)(Tegeirian-y-gors Cynnar). Rare in Hay meadow, Llety-wen, Cwmdu, SN63023025, Llanelli Naturalists & WTSWW Meeting, 2009, det. R. D. Pryce.

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

- +4/1.4×5. **Equisetum ×litorale** (**E. fluviatile** × **E. arvense**) (Shore Horsetail) (Marchrawnen y Glennydd). Wet edge of willow scrub bordering the open ground of the scrap metal yard, disused Johnston Scrapyard, SM93401107; +Soligenous flush, Waun Fawr Common, Puncteston, SN015302; both S. B. Evans, 2009.
- +9/1.1. **Pilularia globulifera** (Pillwort)(Pelenllys Gronynnog). Spread along 25 paces of the flooded northern extremity of Ian's shallow ditch which was set in grazed wet heath and had been created in about 2003, Ramsey, SM6997823580; +Extending over a tape measured 110×135 inches of a hollow – probably an ex deer wallow, Middle of Ian's ditch, Ramsey, SM6996023533; both S. B. Evans, 2009.
- +17/1.2. **Polystichum aculeatum** (Hard Shield-fern)(Gwrychredynen Galed). Deciduous woodland, Afon Morgenuau, Cilgerran, SN2152942916, H. Williams, 2009.
- +28/13.18. **Ranunculus hederaceus** (Ivy-leaved Crowfoot)(Crafanc-y-frân Dail Eiddew). Growing on the grazed margins of a pond with a fine zonation of emergent plants, Crickmail Pond, Range East, Castlemartin, SR95069408, S. B. Evans, 2009. Also found in 4 other ponds on Castlemartin Tank Range.
- +‡30/1.5.a. **Papaver dubium** ssp. **dubium** (Long-headed Poppy)(Pabi Hirben). Heaps of sandy topsoil from the large Lydstep Holiday Park dumped in the top NE corner of the sandy arable/fallow field over a number of years and supporting classic disturbed ground plants, SE of entrance to Lydstep Caravan Park, SS0950498825, S. B. & A. E. Evans, 2009.
- +‡30/1.5.b. **Papaver dubium** ssp. **lecoqii** (Yellow-juiced Poppy)(Pabi Hirben). Flowering plant with yellow sap on the lower slopes of a steel netted limestone bank, NE end of Castle Square, Tenby, SN1366800546, S. B. & A. E. Evans, 2009. It was also behind Castle Court on Castle Hill at SN1368400513.

- +31/5.1.b. **Fumaria capreolata** (White Ramping-fumitory)(Mwg-y-ddaeear Gwyn). Disturbed ground, Linney Road Pond, Range West, Castlemartin, SR90999670, S. B. Evans, 2009.
- +31/5.3. **Fumaria bastardii** (Tall Ramping-fumitory)(Mwg-y-ddaeear Grymus). Margins of a swede and potato field, West Hook Farm, Marloes, SM76710882, S. B. & A. E. Evans & C. Shellswell, 2009.
- 46/7.10. **Cerastium diffusum** (Sea Mouse-ear)(Clust-y-llygoden Arfor). Cattle grazed grassland on steep sides of motte, sides of Wiston Castle Motte, Wiston, SN02261816, S. B. & A. E. Evans, 2009.
- +46/10.8. **Sagina maritima** (Sea Pearlwort)(Corwlyddyn Arfor). In gaps between the paving bricks around the coloured tile mosaic that celebrates the failed French invasion of Fishguard, The Parrog, Goodwick, SM94853780, S. B. & A. E. Evans, 2009.
- *©46/15.1. **Polycarpon tetraphyllum** (Four-leaved Allseed)(Gorhadog). In sandy crevices between brick paving and along kerb edges, Slipway Car Park, Asda Petrol Station, Pembroke Dock, SM967037, J. Hudson, 2009.
- +‡46/18.1. **Lychnis coronaria** (Rose Champion)(Lluglys Gwridog). ©1 plant in tall grassy turf over shingle, NE end of Pickleride, Dale, SM8116407052, S. B. & A. E. Evans, 2009.
- +‡46/20.11. **Silene gallica** (Small-flowered Catchfly)(Gludlys Amryliw). 43 plants counted in a lightly sown organic wheat crop grown as a nursery for arable weeds by the National Trust, Trefrane, Roch, SM8587820566, C. Shellswell, T. Dines, S. B. Evans, H. Buckingham & D. Lamacraft, 2009. Also a single plant in a nearby field at SM8638820615; +SE corner of swede field, West Hook Farm, Marloes, SM767087, F. Gomersall, 2009. On 16/9/2009 S. B. & A. E. Evans & C. Shellswell recorded large populations in this field and in fields to the E on the same farm.
- +‡46/22.1. **Saponaria officinalis** (Soapwort)(Sebonllys). Tall herbs on margin of S side of old farmhouse ruins, Skomer, SM7264309532, S. B. Evans, 2009.
- *‡47/6.1. **Muehlenbeckia complexa** (Wireplant)(Llwyn Gwifrau). Naturalised from seed into the grave surrounds on the SW side of the corner of the Chapel of Rest, Tenby Cemetery, SN1305901143, S. B. & A. E. Evans, 2009. 1st Welsh record.
- +47/8.13.b. **Rumex crispus** ssp. **littoreus** (Curled Dock)(Tafolen Grech). A single plant low down on the right hand side, N of the cave entrance in a near vertical limestone crevice, Nanna's Cave, Caldey, SS1458796992, S. B. & A. E. Evans, 2009.
- 51/1.16. **Hypericum elodes** (Marsh St John's-wort)(Eurinllys y Gors). Flooded ditch in wet heath, N end of Ian's ditch, Ramsey, SM6997823580, S. B. Evans, 2009.
- 62/10.2. **Matthiola sinuata** (Sea Stock)(Murwyll Arfor). 18 plants in 11×8 paces of yellow dune, Freshwater East Dunes, SS01709783, W. & D. Edwards, 2009. Found here by John Lightfoot in 1773 and reported by Milne in 1805 to be in considerable quantity; +a single first year rosette on the eroding front of Penally/Tenby Dunes, South Beach, Tenby front of dense *Hippophae rhamnoides*, SS12629946, S. B. & A. E. Evans, 2004; flourishing on the dune front, Priory Bay Dunes, Caldey, SS13919690, L. Smith, 2008. New to tetrad C, 69 plants were counted in 2009 by SBE including 2 flowering/fruited.
- +‡62/11.4. **Barbarea verna** (American Winter-cress)(Berwr-y-gaeaf cynnar). Dog dropping enriched vegetation on the edges of the inner breakwater path, Goodwick,

- SM9512438050, S. B. & A. E. Evans, 2009. The central path had been resurfaced/ regraded in the last 12 months.
- +‡62/20.1. **Lobularia maritima** (Sweet Alison)(Alyswm Pêr). Bare ground of the deserted garage forecourt and car showroom, derelict garage of Silcox Motors, Pembroke Dock, SM97790350, S. B. Evans, 2009.
- +‡62/28.1. **Thlaspi arvense** (Field Penny-cress)(Codywasg y Maes). With *Misopates* in the NW corner of the organic wheat crop, Trefrane, Roch, SM8589420893, S. B. & A. E. Evans, 2009. Growing where the outer strip of the field had been cultivated but not sown.
- +62/31.2. **Coronopus didymus** (Lesser Swine-cress)(Olbrain Bach). Weed in vegetable garden, Brynawelon House, Eglwysrwrw, SN14503500, S. B. & A. E. Evans, 2009.
- +62/42.1.a. **Raphanus raphanistrum** ssp. **raphanistrum** (Wild Radish)(Rhuddygl Gwylt). Organic wheat crop, Trefrane, Roch, SM85872056, S. B. Evans, C. Shellswell & T. Dines, 2009.
- +69/4.3. **Lysimachia vulgaris** (Yellow Loosestrife)(Trewyn). Stand 8×11 paces just N of old haul road through floor of old sand quarry which is now a dune slack complex, Broomhill Burrows, SM88990016, S. B. & A. E. Evans, 2009.
- +74/5.19. **Saxifraga tridactylites** (Rue-leaved Saxifrage)(Tormaen Tribys). With *Erophila verna* on the small paving area on the N side of the entrance to the main car park, Narbeth, SN1084814792, S. B. & A. E. Evans, 2009.
- *‡074/8.1. **Tellima grandiflora** (Fringe-cups)(Clychau'r Clawdd). Naturalised in mixed woodland, Ffynone Wood, Newchapel, SN2371538087, H. Williams, 2009.
- +75/13.1×2. **Geum** × **intermedium** (**G. rivale** × **G. urbanum**) (Hybrid Avens)(Mapgoll Groesryw). Patch on the left bank of the stream above the road bridge where an old hedge-bank meets the stream, Pont yr Ochrau, Manorowen, Goodwick, SM93943698, S. B. Evans, 2009. Also on the right bank at SM93923697 and SM93933698.
- +75/21.16. **Rosa sherardii** (Sherard's Downy-rose)(Rhosyn Sherard). Hedge-bank on NW side of the road, NE of Clarbeston Road, SN02072120, S. B. & A. E. Evans, 2009.
- ‡75/32.26. **Cotoneaster divaricatus** (Spreading Cotoneaster)(Cotoneaster Ymledol). A single bush spreading over the concrete hard standing by a garage. 1st VC record, Bryn Road, St Davids, SM75522523, M. Wilcox, 2009.
- *©77/14.fab. **Vicia faba** (Broad Bean)(Ffeuen y Gerddi). A single plant with weak stems was growing out of the outside of the Keep wall above head height! (carried by a bird?), Wiston Castle Keep, Wiston, SN02251817, S. B. & A. E. Evans, 2009. 1st record.
- +79/2.4. **Myriophyllum alterniflorum** (Alternate Water-milfoil)(Myrdd-dail Blodau Bob yn Ail). Flooded ditch in wet heath, N end of Ian's ditch, Ramsey, SM6997823580, S. B. Evans, 2009.
- +81/1.3. **Lythrum portula** (Water-purslane)(Troed y Gywen). Pond in floor of disused sand dune quarry, Square Pond, old sand quarry, Brownslade Burrows, SR89829840; +In a wet clay hollow by the gateway at the NW end of the grazed wet heathland growing with *Ranunculus tripartitus*, Keeston Moor, Keeston, SM8944418802; both S. B. Evans, 2009.
- +‡84/1.8. **Epilobium ciliatum** (American Willowherb)(Helyglys America). Graded/ disturbed ground S of the road with numerous short ruderal species, Brynawelon

- House, Eglwysrwrw, SN14453501, S. B. & A. E. Evans, 2009.
- +84/6.1. **Circaea lutetiana** (Enchanter's-nightshade)(Llysiau Steffan). Marsh at end of village, Marloes Marsh, Marloes, SM797081, F. Gomersall, 2009.
- +‡85/3.1. **Griselinia littoralis** (New Zealand Broadleaf)(Griselinia). Saplings growing on the outer wall top either side of the entrance drive to Treforfan, Fishguard, SM95873733, S. B., A. E., W., C. & O. Evans, 2009. 1st record as a neophyte. The parent tree was just on the SW side of the entrance just inside the garden.
- †91/2.11. **Euphorbia peplus** (Petty Spurge)(Llaethlys Bach). Abundant on bare soil on the edge of the paths, Castlemartin Churchyard, SR910988, S. B. & A. E. Evans, 2009.
- *‡91/2.5. **Euphorbia dulcis** (Sweet Spurge)(Llaethlys Pêr). Wall, Nun Street, St David's, SM753254, P. Abbot, 2009. 1st record.
- †91/2.9. **Euphorbia lathyris** (Caper Spurge)(Llaethlys Caprys). Single plant growing between top slate slabs of railed low wall fronting Marine Villa, St Dogmaels, SN1635046687, S. B., A. E., W. & C. Evans, 2009.
- +‡102/1.3. **Oxalis corniculata** var. **atropurpurea** (Procumbent Yellow-sorrel)(Suran Orweddol). Bare ground, W side of Farmers Arms, Goat Street, St David's, SM7519825294, M. Wilcox, 2009.
- +‡105/1.4. **Impatiens glandulifera** (Indian Balsam)(Jac y Neidiwr). Pond margins, Monk Haven Ponds, St. Ishmaels, SM82870662, S. B. & A. E. Evans; On the seaward side of the road just S of the entrance to Crabhall Barn, S of Crabhall Farm, Dale, SM80930702, S. B. Evans; both 2009.
- +107/28.4. **Apium inundatum** (Lesser Marshwort)(Dyfrforonen Fach). Flooded ditch in wet heath, N end of Ian's ditch, Ramsey, SM6997823580, S. B. Evans, 2009.
- +107/43.3. **Torilis nodosa** (Knotted Hedge-parsley)(Troed-y-cyw Clymog). Inside the gatepost stop at the entrance to the main farmyard, Porthydd Farmyard, Llanrhian, SM8035531010, J. Hudson, 2009.
- +108/3.4. **Centaureum pulchellum** (Lesser Centaury)(Y Ganrhi Goch Fach). Scattered populations on the open ground of the deserted large scrap metal yard, Disused Johnston Scrapyrd, SM932110, S. B. Evans, 2009.
- +111/3.2.b. **Calystegia sepium** ssp. **roseata** [Pink Hedge Bindweed]. Sand dune, most southerly tip of Newport Dunes, SN0522640052, S. B. Evans, 2009. The plant had hairs on the petioles and pedicels so keyed out as ssp. *roseata*.
- +‡116/4.1×2. **Symphytum ×uplandicum** (**S. officinale** × **S. asperum**) (Russian Comfrey)(Cyfardwf Rwsia). Abundant clumps all along the verge near the corner, Trerhos Common, Hayscastle, SM92362686. Long established at this spot – at least 30 years – and originating from old spoil dumping; +Patches on northern edge of old road S of the smaller road drainage pool, SW of Carew roundabout, SN04560311; both S. B. Evans, 2009.
- +‡116/8.1. **Pentaglottis sempervirens** (Green Alkanet)(Llysiau'r-gwrid Gwyrdd). Porthydd Farmyard, Llanrhian, SM8039431037, S. B. & A. E. Evans, 2009.
- +‡116/16.1. **Omphalodes verna** (Blue-eyed-Mary)(Mari Lygatlas). On the grassy bank alongside the lane but inside the chapel yard, Longstone Chapel, Ludchurch, SN143100, S. B. & A. E. Evans, 2009. **?1st recent record.**
- +†117/1.1. **Verbena officinalis** (Vervain)(Y Ferfain). Forestry track through conifer plantation, Wauncleddau, SN165315, M. Sutton, 2009.
- +120/1.5. **Callitriche obtusangula** (Blunt-fruited Water-starwort)(Brigwlydd Ffrwythau

- Blaendwn). In the stream that bisects the Churchyard, St Ishmaels, SM830067, S. B. & A. E. Evans, 2009.
- +120/1.6. **Callitriche brutia** (Pedunculate Water-starwort)(Brigwlydd Coesog). Small leaved specimen found in flushed wet heath by the large boulder at the spring source, Mynydd Llanllawer, SN0145936691, S. B. Evans, 2009. Keyed out using new BSBI Handbook. Recurved styles on fruits diagnostic.
- +121/2.1. **Littorella uniflora** (Shoreweed)(Beistonnell Ferllyn). Numerous stands in the flushed open areas of this grazed heath, Southern heath, Ramsey, SM6999423380, S. B. Evans, 2009.
- +†124/12.1. **Kickxia elatine** (Sharp-leaved Fluellen)(Llysiau-Llywelyn). In the mix of sea-cliff and disturbed ground plants such as *Petroselinum crispum* & *Brassica oleracea*, S side of First Point, North Beach, Tenby, SN1345701286, S. B. Evans, 2009.
- +‡124/13.3. **Linaria purpurea** (Purple Toadflax)(Llin-y-llyffant Porffor). By/on a yellow brick pillar to front wall railings, Windy Hall houses, Fishguard, SM9524037473, S. B., A. E., W., C. & O. Evans, 2009.
- +124/16.11. **Veronica anagallis-aquatica** (Blue Water-speedwell)(Graeanllys y Dwr). In small lake/large pond on the floor of the old sand quarry, Broomhill Burrows, SM8907200118, S. B. & A. E. Evans, 2009. Also in a hollow on the dune slack/old quarry floor at SM8897700115 with *Carex elata*.
- +©129/7.2. **Lobelia erinus** (Garden Lobelia)(Bidoglys yr Ardd). Field, Penygraig, Templeton, SN112118, C. Flynn, 2009. Previous owners of the property had at one time been involved with a hanging basket business with poly tunnels. In 2008 the field was left uncut until September and the cuttings raked off. It had been mown short by the previous owner. A pond had been dug not too far from the Lobelia.
- +130/3.1. **Sherardia arvensis** (Field Madder)(Mandon Las yr Yd). In herbicide sprayed strip at the base of the church just E of the porch, Lampeter Velfrey Churchyard, SN1552114432, S. B. & A. E. Evans, 2009.
- +‡131/5.1. **Leycesteria formosa** (Himalayan Honeysuckle)(Bachgen Llwm). Seeded into the low wall around the chapel, Longstone Chapel, Ludchurch, SN143100; Seeded and grown into a small plant on the restored Medieval Cross, Lampeter Velfrey Churchyard, SN15521442; both S. B. & A. E. Evans, 2009. Much older bushes present along the W side of the approach to the Rectory outwith the CY. These could have been the seed source carried by birds? This plant is becoming a regular coloniser in the towns and villages of Pembrokeshire.
- ‡133/3.1. **Centranthus ruber** (Red Valerian)(Triaglog Goch). Walls, ruins of John the Baptist's Church, Slebech House, SN03201392, S. B. Evans, 2009.
- *135/6.9×1. **Cirsium ×celakovskianum** (**C. arvense** × **C. palustre**) (a hybrid thistle). With both parents about 30 m E of the old Jordanston Mountain building, Redberth, SN09000355, M. Sutton, 2009. 1st record.
- *‡135/44.2. **Conyza sumatrensis** (Guernsey Fleabane)(Amrhydylwyd Guernsey). Widespread by the deserted garage forecourt windows by the old petrol pumps and on the apron nearest the highway, derelict Garage of Silcox Motors, Pembroke Dock, SM97790350, S. B. Evans, 2009.
- +‡135/58.lac×max. **Leucanthemum ×superbum** (**L. lacustre** × **L. maximum**) (Shasta Daisy)(Y Llygad-llo Mwyaf). Sand dune, slipway at S end of Freshwater East Beach,

SS01609756, S. B. & A. E. Evans, 2009.

- +†135/59.1. **Matricaria recutita** (Scented Mayweed)(Amranwen Bêr). Chicken run next to the house, Twmpath, Camrose, SM915218, J. Hudson; +Vegetable garden, Brynewelon House, Eglwysrwr, SN14503500, S. B. & A. E. Evans; both 2009.
- +137/2.1. **Baldellia ranunculoides** (Lesser Water-plantain)(Llyriad-y-dwr Bach). Large pond set in acid marshy grassland and in the Welsh Black grazing area, Pipe dam pond, Ramsey, SM6992923621, S. B. Evans, 2009.
- +137/3.1. **Luronium natans** (Floating Water-plantain)(Llyriad-y-dwr Arnofiwl). Around about 60 paces of margin of large pond set in acid marshy grassland in the Welsh Black grazing area, Pipe dam pond, Ramsey, SM6992923621, S. B. Evans, 2009.
- +‡138/4.2. **Elodea nuttallii** (Nuttall's Waterweed)(Ffugalaw Nuttall). Muddy upper reaches of Wallis Moor pond below the bridge, Ambleston, SN01082585, S. B. Evans, 2009.
- +142/1.2. **Potamogeton polygonifolius** (Bog Pondweed)(Dyfrllys y Gors). Large pond set in acid marshy grassland and in the Welsh Black grazing area, Pipe dam pond, Ramsey, SM6992923621, S. B. Evans, 2009.
- +142/1.3. **Potamogeton coloratus** (Fen Pondweed)(Dyfrllys y Gors Galchog). Large stand in this small lake/large pond on the floor of the old sand quarry, spread over a 80 paces length but much narrower in width, Broomhill Burrows, SM8907200118, S. B. & A. E. Evans, 2009.
- +‡147/1.1. **Acorus calamus** (Sweet-flag)(Gellesgen Bêr). 13×8m stand in cattle grazed fen, behind the Gwadn shingle bar, Solva, SM8031523853, R. D. & K. A. Pryce and R. & M.Harry, 2009.
- +‡147/5.2b. **Arum italicum** ssp. **italicum** (Italian Lords-and-Ladies)(Pidyn-y-gog Eidalaid). Garden escape established at the saltmarsh side of the bridge at the base of the wall, Haroldstone Bridge, Haverfordwest, SM9590614839, S. B. Evans, 2009. Other species included *Fuchsia magellanica*, *Rosa rugosa*, *Vinca major* and *Muscari armeniacum*.
- 148/2.2. **Lemna minor** (Common Duckweed)(Llinad y Dwr). Large pond set in acid marshy grassland and in the Welsh Black grazing area, Pipe dam pond, Ramsey, SM6992923621, S. B. Evans, 2009.
- +‡148/2.4. **Lemna minuta** (Least Duckweed)(Llinad Bach). Abundant in a ditch in the reedbed with *Lemna minor* alongside the boardwalk, Goodwick Moor, SM9464437582; +Shallow pool created on the quarry floor about 7-8 years ago in main Bryn Banc Quarry, Lampeter Velfrey, SN14141446; both S. B. & A. E. Evans, 2009.
- +151/1.13. **Juncus articulatus** (Jointed Rush)(Brwynen Gymalog). Ditch in wet heath, middle of Ian's ditch, Ramsey, SM6996023533, S. B. Evans, 2009.
- +151/1.27. **Juncus conglomeratus** (Compact Rush)(Brwynen Bellennaid). Ditch in wet heath, Ian's ditch, Ramsey, SM6996923562, S. B. Evans, 2009.
- +151/1.7. **Juncus bufonius** s.l. (Toad Rush)(Brwynen y Llyffant Du). Ditch in wet heath, Ian's ditch, Ramsey, SM6996923562, S. B. Evans, 2009.
- +152/3.1. **Eleocharis palustris** (Common Spike-rush)(Ysbigfrwynen). Flooded ditch in wet heath, N end of Ian's ditch, Ramsey, SM6997823580, S. B. Evans, 2009.
- +152/3.4. **Eleocharis multicaulis** (Many-stalked Spike-rush)(Ysbigfrwynen Gadeiriog). Ditch, Ian's ditch, Ramsey, SM6994423493, S. B. Evans, 2009.

- +152/8.2. **Isolepis cernua** (Slender Club-rush)(Clwbfrwynen Fain). Open areas in grazed heath, Southern heath, Ramsey, SM6998223334, S. B. Evans, 2009.
- +152/9.1. **Eleogiton fluitans** (Floating Club-rush)(Clwbfrwynen Arnofiol). Scattered in small but fine patch of swamp, ancient pond, Waun Bayvil, SN10304150, S. B. & A. E. Evans, 2009. With *Typha latifolia*, much *Potamogeton polygonifolius* & *Potentilla palustris*, scattered patches of *Lythrum portula* & frequent *Menyanthes*.
- 152/16.23. **Carex hirta** (Hairy Sedge)(Hesgen Flewog). Grazed fen behind a small shingle bar, Gwadn, Solva, SM8031523853, S. B. & A. E. Evans, 2009. Also at SM8032223909 in the same grazed fen a little further inland along the valley.
- +152/16.47. **Carex pallescens** (Pale Sedge)(Hesgen Welw). 4 plants in a very wet area in secondary woodland, Tyroed Isaf, Nevern, SN08723771, S. B. Evans, 2009.
- +152/16.8.b. **Carex muricata** ssp. **lamprocarpa** (Small-fruited Prickly Sedge)(Hesgen Ysbigog), Unimproved grassland, Tenby Cemetery, Tenby, SN130011, S. B. & A. E. Evans, 2009.
- +153/17.1. **Briza media** (Quaking-grass)(Crydwellt). Scattered in tufts at a low density over about 12×12 paces in a *Juncus acutiflorus*/*Carex hostiana* sward in an area of wet sedge-rich heath with low *Molinia* hummocks, Trefeiddan Moor, St David's, SM7326725302, S. B. Evans, 2009. There have been old records from the moor.
- +‡153/17.3. **Briza maxima** (Greater Quaking-grass)(Crydwellt Mawr). Bare ground, entrance to Gwynfan, Llwyncelyn, Cilgerran, SN20374241, S. B. & A. E. Evans, 2009.
- +153/21.1. **Catapodium rigidum** (Fern-grass)(Gwenithwellt Caled). Abundant on the track through conifer plantation with *Verbena*, Wauncleddau, SN165315, M. Sutton, 2009.
- +153/24.2. **Glyceria fluitans** (Floating Sweet-grass)(Melyswellt Arnofiol). Pond in floor of disused sand dune quarry, Island Pond, Broomhill Burrows, SR88869998, S. B. & A. E. Evans, 2009.
- +‡153/39.2. **Agrostis gigantea** (Black Bent)(Maeswellt Mawr). Clover lay field, Trefrane, Roch, SM8638820615, S. B. Evans, 2009. With a single plant of *Silene gallica* 10 feet N of the field bank in the south-eastern corner of a clover lay.
- +‡153/47.6. **Alopecurus myosuroides** (Black-grass)(Cynffonwellt Du). ©Field edge, Knapps Farm, Martletwy, SN05740978, M. Sutton, 2009.
- *‡153/52.1. **Anisantha diandra** (Great Brome)(Pawrwellt Mawr). Grassy edge to the scrub NW of the old limekilns on the E side of Porthclais Harbour, St David's, SM74112418, M. Wilcox; +Bare sandy edge of a planted *Escallonia* hedge around the seating W of the coloured tile mosaic to celebrate the failed French Invasion of Fishguard, The Parrog, Goodwick, SM9484937813, S. B. & A. E. Evans; both 2009. 2nd records.
- +153/55.1. **Elymus caninus** (Bearded Couch)(Marchwellt y Coed). On streamside path by churchyard wall, W of Nevern Church, Nevern, SN0830740040, S. B., A. E., C. D. & A. J. Evans, 2009.
- ©153/59.1. **Hordeum distichon** (Two-rowed Barley)(Haidd Dwyresog). Field edges of organic oat crop, Castell Farm, Dinas, SM97973742, S. B. & A. E. Evans, 2009.
- +©153/60.1. **Triticum aestivum** (Bread Wheat)(Gwenith). By the newly created side entrance to Rostrevor on the edge of the pavement with *Fumaria boraei*, Fishguard, SM9550937438, S. B. & A. E. Evans, 2009.

- +154/1.2. **Sparganium emersum** (Unbranched Bur-reed)(Cleddlys Di-gainc). Disused potato irrigation reservoir, Trefrane, Roch, SM86042069, S. B. & A. E. Evans, 2009.
- +‡160/3.1. **Cordyline australis** (Cabbage-palm)(Palmwydden Fresych). Abundant tiny seedlings growing in the paving crevices around the feet of the two 12-15 feet high *C. australis* at the front of the Grove Hotel, St David's, SM7562525275, J. Tregale, 2009. They had fruited in 2008. Two grown on by SBE.
- +162/18.2×4. **Dactylorhiza ×hallii** (**D. maculata** × **D. praetermissa**). (a hybrid orchid). 3 spikes on damp grass verge to a minor road, SW. of Broadway, Llawhaden, SN0672318787, S. B. & A. E. Evans, 2009.
- +162/18.3. **Dactylorhiza incarnata** (Early Marsh-orchid)(Tegeirian-y-gors Cynnar). Flushed sedge-rich slope in lower part of Botany Bank, Somerton Farm, Hundleton, SM9299500260, S. B. Evans, 2009. *D. incarnata* was also seen at SM9299700254 on the same slope.

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

- +4/1.7. **Equisetum sylvaticum** (Wood Horsetail)(Marchrawn y Coed). Colony c.10×10m on flushed streamside, Hirgoed Ddu, SN80918303, S. P. Chambers, 2009.
- +©28/5.1. **Nigella damascena** (Love-in-a-mist)(Glas y Niwl). Pavement weed, Church Road, Llanrhystud, SN538696, A. O. Chater, 2009.
- +‡30/1.2. **Papaver atlanticum** (Atlas Poppy)(Pabi'r Atlas). Pavement weed, Church Road, Llanrhystud, SN538696, A. O. Chater, 2009.
- *‡03/1.3.2. **Pseudofumaria alba** (Pale Corydalis)(Mwg-y-ddaear Gwelw). Walltop, Hafod walled garden, SN75747300, R. G. Woods & E. M. Fleming-Williams, 2009.
- +36/2.1. **Parietaria judaica** (Pellitory-of-the-wall)(Paladr y Wal). On walls and pavements, NE of road bridge, Llanrhystud, SN539697, A. O. Chater, 2009.
- +46/5.3. **Stellaria pallida** (Lesser Chickweed)(Gwlyddyn-y-dom Bach). Semi-open turf on coastal slope, SW of Pen-y-graig, Llanddeiniol, SN54637204, S. P. Chambers, 2009.
- +‡46/19.1. **Agrostemma githago** (Corncockle) (Bulwg yr Yd). One plant on disturbed ground, Plas Crug cemetery, Aberystwyth, SN59258125, A. O. Chater, 2009.
- +‡47/1.7. **Persicaria amplexicaulis** (Red Bistort)(Y Ganwraidd Goch). One plant on hedgebank between sheep-grazed pastures, Gwelfro, Pennant, SN513638, F. Newbery, 2009.
- +‡53/2.3. **Lavatera ×clementii** (**L. olbia** × **L. thuringiaca**). (Garden Tree-mallow) (Hocyswydden yr Ardd). One plant on sand dunes, E of road, Ynys-las dunes, SN611939, A. O. Chater; +One plant on sand dunes, Penyrrygyd, Gwbart, SN161486, A. O. Chater & F. Newbery; both 2009.
- +57/1.4×7. **Viola riviniana** × **V. lactea** (a hybrid dog-violet). With parents in area of wet heath where scrub was cleared, Rhos Cwmsaeson, Oakford, SN461586, A. O. Chater & R. A. Jones; +Coastal heath, by coast path, Penpeles, SN21815227, S. P. Chambers; both 2009.
- +57/1.7. **Viola lactea** (Pale Dog-violet)(Fioled Welw). Disturbed coastal heath, by coast path, Penpeles, SN21805226, S. P. Chambers, 2009.
- +‡61/2.6. **Salix daphnoides** (European Violet-willow)(Helygen Borffor). Self-sown bush on roadside cliff, 800m W of Bwlch Nantyrarian, SN71168101, A. O. Chater & J. P.

- Poland, 2009. 1st record as a neophyte.
- +©62/29.umb. **Iberis umbellata** (Garden Candytuft)(Beryn yr Ardd). Pavement at wall base, Park Avenue, Aberystwyth, SN58458142, A. O. Chater, 2009.
- +62/42.1.b. **Raphanus raphanistrum** ssp. **maritimus** (Sea Radish)(Rhuddygl Arfor). One plant on shingle spit, Penyrerygd, Gwbert, SN159484, A. O. Chater & F. Newbery, 2009.
- +69/1.1×3. **Primula** × **polyantha** (**P. vulgaris** × **P. veris**). (False Oxlip)(Briallen Groesryw). One clump with parents in open scrub, E of Afon Dulas, Wenallt, Betws Ifan, SN31524677, A. O. Chater, S. P. Chambers & WWBIC field meeting, 2009.
- +‡73/1.3. **Crassula helmsii** (New Zealand Pigmyweed)(Corchwyn Seland Newydd). Abundant all round pond, Aberystwyth golf course, SN590829, A. O. Chater, 2009.
- *75/8.155. **Rubus letitii** (a bramble). Colony in both hedges of road, Penffos, Rhydlewis, SN347481, D. E. Allen & A. O. Chater, 2001, **BM**, det. D. E. Allen, conf. A. Newton. 1st Welsh record.
- +‡75/11.2. **Fragaria moschata** (Hautbois Strawberry)(Llwyn Mefus Mawr). Roadside verge and bank, just N of Eglwys Fach church, SN68589557, A. O. Chater, 2009.
- +‡75/12.1. **Duchesnea indica** (Yellow-flowered Strawberry)(Llwyn Mefus Melyn). Naturalised on rough ground by copse, behind Llanbadarn Fawr church hall, SN597810, S. P. Chambers, 2009. An escape from J.H. Salter's garden directly above.
- +75/21.16×17. **Rosa** × **perthensis** (**R. sherardii** × **R. mollis**) (a hybrid rose). Suckering along roadside in gap in hedge, 500m S of Rhyd-fudr, Trefenter, SN59376656, R. Maskew & A. O. Chater, 2009, **NMW**.
- *‡75/32.hsi. **Cotoneaster hsingshangensis** (Hsing-Shan Cotoneaster)(Cotoneaster Hsing-Shan). Large fruiting bush in scrub, Pantyrhedydd Common, Blaen Cribor, SN40444837, A. O. Chater, 2009, **NMW**, det. J. Fryer.
- +84/3×8. **Epilobium** × **interjectum** (**E. montanum** × **E. ciliatum**). (a hybrid willowherb). Flush in sloping pasture, Hafod, Nantcwnlle, SN57455795, A. O. Chater, 2009.
- +107/2.1. **Sanicula europaea** (Sanicle)(Clust yr Arth). Mixed woodland, by Afon Cletwr N of Alltyrodyn, SN44454488, B. & G. Harrison & A. O. Chater, 2009.
- +107/4.3. **Eryngium maritimum** (Sea-holly)(Celynnen y Môr). One plant in crevice of rock cliff above sandy beach, N side of Traeth y Mwnt, SN193519, C. Chatters, 2009. A most unusual habitat for this normally sand or shingle species.
- +‡116/4.4. **Symphytum grandiflorum** (Creeping Comfrey)(Cyfardwf Lusg). Colony 3.5×0.5m on streamside, Cwmyrolchfa bridge, Bronnant, SN64076880, S. P. Chambers, 2009.
- +‡116/15.8. **Myosotis arvensis** (Field Forget-me-not)(Sgorpionllys y Maes). Abandoned vegetable plot, Tynygwndwn, Llanfair Clydogau, SN63344963, A. O. Chater, 2009.
- +118/23.1. **Mentha arvensis** (Corn Mint)(Mintys yr Ár). Patch c.1×2m in poached pasture, E of Coed Cymerau, Glandyfi, SN70199643, S. P. Chambers, 2009.
- +135/3.2.a. **Arctium minus** ssp. **pubens** [Wayside Burdock](Cyngaf Min y Ffordd). Margin of pasture, Maeselwad, Ponrhydfendigaid, SN706639, S. P. Chambers, 2009.
- +‡135/79.1. **Helianthus annuus** (Sunflower)(Blodyn yr Haul). One plant on sand dunes, Penyrerygd, Gwbert, SN161486, A. O. Chater & F. Newbery, 2009.
- *152/16.34. **Carex strigosa** (Thin-spiked Wood-sedge)(Hesgen-y-coed Benfain). c.1000 plants on boulder clay in damp *Salix cinerea*/*Fraxinus* woodland, 300m WSW of Llain, Llanfairorllwyn, SN366411, A.O.Chater & WWBIC field meeting, 2009, **NMW**.

- +152/16.46.a-b. **Carex viridula** ssp. **brachyrrhyncha/oedocarpa** intermediate (Yellow-sedge)(Hesgen Felen). In several places in base-rich heathy *Molinia* flush, W of Cam Penrhiwlydog, 8km ESE of Llanddewi Brefi, SN73355259, S. P. Chambers, 2009.
- +153/59.4. **Hordeum secalinum** (Meadow Barley)(Haidd y Maes). Trackside, by Pumlumon lead mine 1.6km N of Eisteddfa Gurig, SN794856, R. A. Jones, 2009. Presumably brought up with hay for feeding stock.
- +‡153/62.ric. **Cortaderia richardii** (Pampas-grass)(Peithwellt). Tussock with two inflorescences on river bank, 600m E of Pont Dolau, SN62498104, A. O. Chater, 2009.
- +‡153/70.1. **Setaria viridis** (Green Bristle-grass)(Cibogwellt Gwyrdilas). ©Disturbed edge of playing field, Lower Regent St, Aberaeron, SN45826310, A. O. Chater, 2009, **NMW**.
- *‡160/4.2. **Phormium cookianum** (Lesser New Zealand Flax)(Llin-Seland-Newydd Bach). One young plant near seaward edge of sand dunes, Ynys-las dunes, SN60459377, S. P. Chambers, 2009. Presumably self-sown, on an undisturbed part of the dunes.
- *162/18.1×2. **Dactylorhiza ×transiens (D. fuchsii × D. maculata)**. (a hybrid spotted-orchid). One plant in rough pasture, above Plas Cwmcynfelin, SN603832, S. P. Chambers, 1994. Thought likely to be this hybrid by R. H. Roberts from photos in 1997, later considered by SPC to be at least as distinct as a v.c.43 plant confirmed by R.H.R.
- +162/20.2. **Orchis mascula** (Early-purple Orchid)(Tegeirian Coch y Gwanwyn). Mixed woodland, by Afon Cletwr N of Alltyrodyn, SN444448, B. & G. Harrison & A. O. Chater, 2009.
- +162/20.2. **Orchis mascula** (Early-purple Orchid)(Tegeirian Coch y Gwanwyn). One plant on roadside verge, Rhydyfelin, SN59537901, E. Foot, 2009. The most northerly record in the v.c.

MONTGOMERY, v.c.47 (comm. Dr A.K. Thorne)

- *C. **Chara virgata** (Delicate Stonewort). Occasional in lake, Llyn Ebyr, SN9788, C.C.W., 2007, det. N. F. Stewart.
- *N. **Nitella flexilis** agg. (Smooth Stonewort). Frequent in lake, Llyn Ebyr, SN9788, C.C.W., 2007, det. N. F. Stewart.
- *N. **Nitella gracilis** (Slender Stonewort). Rare in lake, Llyn Ebyr, SN9788, C.C.W., 2007, det. N. F. Stewart.
- *N. **Nitella translucens** (Translucent Stonewort). Abundant in lake, Llyn Ebyr, SN9788, C.C.W., 2007; frequent but localised at E end of lake, Llyn Ebyr, SN97908805, A. K. Thorne, 2009; both det. N. F. Stewart.
- +3/1.1. **Isoetes lacustris** (Quillwort)(Gwair Merllyn). Rare in lake, Llyn Ebyr, SN9788, C.C.W., 2007.
- +31/5.3. **Fumaria bastardii** (Tall Ramping-fumitory)(Mwg-y-ddaear Grymus). Development site, Coed y Dinas, SJ222056, S. P. Chambers, 2005; +Roadside bank, Meifod, SJ151138, A. Hazlehurst & S. Swindells, 2009, det. P. M. Benoit.
- +‡36/1.2. **Urtica urens** (Small Nettle)(Danhadlen Fach). Development site, Coed y Dinas, SJ222056, S. P. Chambers, 2005.

- +43/1.6. **Chenopodium rubrum** (Red Goosefoot)(Troed-yr-wydd Coch). 1 plant in oxbow in floodplain, Meifod oxbow Wildlife Site, SJ1714, Monts. Flora Group, det. A. K. Thorne; +Roadside gutter, Llanfechain, SJ19072030, A. Hazlehurst & S. Swindells. With *Poa annua*, *Taraxacum officinale* agg. & *Matricaria discoidea*; both 2009.
- +46/7.12. **Cerastium semidecandrum** (Little Mouse-ear)(Clust-y-llygoden Fach). Dry grassy slope, near Llanfechain, SJ19482209, A. Hazlehurst & S. Swindells, 2009. With *Myosotis discolor*, *Erophila verna*, *Cerastium glomeratum*, *Agrostis capillaris* & *Poa annua*; Small stands with *Moenchia erecta* on rocky grassland, Llys Hill, SJ177220, A. K. & W. I. J. Thorne, 2009.
- +46/20.9×1. **Silene ×hampeana (S. latifolia × S. dioica)**. [Pink Champion]. Edge of woodland, near Llanfyllin, SJ12K, Monts. Flora Group, 2009.
- +47/1.16. **Persicaria minor** (Small Water-pepper)(Y Dinboeth Fach). Oxbow, Meifod oxbow Wildlife Site, SJ1714, Monts. Flora Group, 2009, det. A. K. Thorne. UK Vulnerable taxon.
- +57/1.2. **Viola hirta** (Hairy Violet)(Fioled Flewog). Craig Breidden SSSI, SJ288139, A. Hotchkiss, R. A. Jones, R. G. Woods & S. D. S. Bosanquet, 2009.
- *61/1.2×3. **Salix ×rubra (S. purpurea × S. viminalis)** (a hybrid willow). Several shrubs in forest clearing (mire) along small water course, W of Trannon Moor, SN91459380, A. K. Thorne, 2009, det. R. D. Meikle & J. Webb. Possibly planted although looking very natural.
- +61/2.16. **Salix repens** (Creeping Willow)(Corhelygen). Small valley mire, Tan Llwyn Bog Wildlife Site, SN925800, T. & J. Stretton, 2009, det. A. K. Thorne. 2nd record.
- +†62/28.1. **Thlaspi arvense** (Field Penny-cress)(Codywasg y Maes). Locally frequent on soil mounds & verge, Coed-y-dinas, Welshpool, SJ222056, S. P. Chambers, 2005.
- +75/13.1×2. **Geum ×intermedium (G. rivale × G. urbanum)** (Hybrid Avens)(Mapgoll Groesryw). Very small stand near river margin, Pont Llogel, SJ03581517, A. K. & W. I. J. Thorne, 2009. 3rd record.
- +75/21.19. **Rosa micrantha** (Small-flowered Sweet-briar)(Drysiën Bêr Fân-flodeuog). 1 bush on S crags, Craig Breidden SSSI, SJ291138, A. O. Chater, 2009, det. R. Maskew. 3rd record. Specimen collected for verification in Sept 2009 by AKT.
- *77/19.5. **Trifolium glomeratum** (Clustered Clover)(Meillionen Glystyrog). †0.5×0.5m patch on main trackside bank, Breidden Hill SSSI, SJ28841373, A. O. Chater, 2009, det. A. O. Chater, J. P. Poland & C. D. Preston.
- +77/19.23. **Trifolium arvense** (Hare's-foot Clover)(Meillionen Gedennog). On side of railway line, Dyfi Junction, A. K. Thorne, 2009.
- +84/1.5. **Epilobium tetragonum** (Square-stalked Willowherb)(Helyglys Pedronglog). By stream, Cwm Melangell, SJ028263, A. P. Daly, 2009.
- *‡91/2.5. **Euphorbia dulcis** (Sweet Spurge)(Llaethlys Pêr). 1 plant with a few stems in riverside woodland, Coed Copi'r Graig SSSI, SJ03721507, W. I. J. Thorne, 2009, det. T. Walker.
- +106/1.2.b. **Hedera helix ssp hibernica** (Atlantic Ivy)(Iorwg yr Iwerydd). Meifod area, SJ15131384, A. Hazlehurst & S. Swindells, 2009, det. A. K. Thorne.
- +†107/10.1. **Smyrniium olusatrum** (Alexanders)(Dulys). Pool, Llyn Coed y Dinas Wildlife Site, SJ223052, T. Stretton, 2004. 3rd record.
- +107/19.7. **Oenanthe aquatica** (Fine-leaved Water-dropwort)(Cegiden-y-dwr Fanddail).

- Meifod oxbow Wildlife Site, SJ1714, Monts. Flora Group, 2009, det. A. K. Thorne.
- +121/1.1. **Plantago coronopus** (Buck's-horn Plantain)(Llyriad Corn Carw). Several plants on old track in quarry, Breidden Hill SSSI, SJ288140, BSBI meeting, 2009. 2nd county Wells site.
- *121/1.4. **Plantago media** (Hoary Plantain)(Llyriad Llwyd). ‡Old lead mine spoil, Y Fan Leadmines, SN94258761, I. Griffith & A. Hotchkiss, 2009. 1st recent record. Thought to be planted when area was landscaped.
- +†124/16.24.b. **Veronica hederifolia** ssp **lucorum** (Ivy-leaved Speedwell)(Rhwyddlwyn Dail Eiddew). S of Newtown, SO1288, 1997; SO1488, 1998; both S. Kingsbury.
- *124/21.2.b. **Odontites vernus** ssp **serotinus** (Red Bartsia)(Gorudd). Several plants in mix of scrub and limestone grassland, Llanymynech Hill SSSI, SJ2621, A. K. Thorne, 2009. 1st recent record of ssp.
- +152/3.6. **Eleocharis acicularis** (Needle Spike-rush)(Ysbigfrwynen Fain). 2 small clumps in Meifod oxbow Wildlife Site, SJ17381457, R. Meade, 2009, det. A. K. Thorne. 2nd record.
- +152/16.9. **Carex divulsa** (Grey Sedge)(Hesgen Lwyd). Several plants along laneside, Gaer Fawr, Guildsfield, SJ221125, C. A. Small & A. K. Thorne, 2009.
- +152/16.59. **Carex magellanica** (Tall Bog-sedge)(Hesgen Eurwerdd Lefn). 272 inflorescences & numerous additional non flowering shoots in mire, Llyn y Pennau, SJ003245, C. J. Cadbury & M. Green, 2003. UK Scarce; with *Carex curta*, *C. rostrata*, *Deschampsia flexuosa*, *Eriophorum angustifolium*, *E. vaginatum* & *Vaccinium oxycoccos*.
- +153/18.6. **Poa angustifolia** (Narrow-leaved Meadow-grass)(Gweunwellt Culddail). In small quantity in long limestone grassland, Llanymynech Hill SSSI, SJ26812191, A. K. Thorne, 2009. Known from this site for a few years but no written records.
- +153/21.1. **Catapodium rigidum** (Fern-grass)(Gwenithwellt Caled). A few plants off main track in 'sub-quarry', Breidden Hill SSSI, SJ28801375, A. K. & W. I. J. Thorne, 2009.
- +†153/59.2. **Hordeum murinum** (Wall Barley)(Haidd y Mur). Field, near Llansantffraid, SJ21752040, A. K. Thorne, 2008.
- +158/7.1. **Colchicum autumnale** (Meadow Saffron)(Saffrwm y Ddôl). 5 flowers in unimproved grassland, close to Fron Heulog, SJ192176, R. Swindells, 2009. UK Near Threatened.
- +158/24.16. **Allium vineale** (Wild Onion)(Nionyn Gwyllt). Three large clumps in hedgebank near dwelling, Llanfechain, SJ19102091, S. Swindells & A. Hazlehurst, 2009. With *Alliaria petraea*, *Arum maculatum*, *Ranunculus acris* & *Urtica dioica*.

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

- +5/2.1. **Botrychium lunaria** (Moonwort)(Lloer-redynen). 4 fronds near the disused railway track in Cwm Prysor, SH73, S. Swindells, 2009.
- +10/1.2. **Hymenophyllum wilsonii** (Wilson's Filmy-fern)(Rhodynach Teneuwe Wilson). At the head of Cwm Pen-y-gelli, J. T. Hughes; and one patch high up above the gorge, Afon Pumryd, A.N. Graham, J. T. Hughes & S. E. Stille; both Llanymawddwy, SH91, 2009.
- 15/2.5.b×5.a. **Asplenium trichomanes** nothosp. ×**lusaticum** (**A. trichomanes** ssp.

- quadrivalens** × ssp. **trichomanes**) (a hybrid spleenwort). Roadside wall with ssp. *trichomanes* and probably ssp. *quadrivalens* at Llanfachreth, SH72, P. M. Benoit, 2009. Robust and with intermediate characters and sterile spores. Confirms earlier record for the hectad.
- +17/3.8. **Dryopteris carthusiana** (Narrow Buckler-fern)(Marchredynen Gul). With *D. dilatata* in marshy ground near the Dysynni Broadwater, Towyn, SH50, A. O. Chater, 2009.
- +17/3.8×9. **Dryopteris** × **deweveri** (**D. carthusiana** × **D. dilatata**). (a hybrid Buckler-fern). With both parents in marshy ground near the Dysynni Broadwater, Towyn, SH50, A. O. Chater, 2009.
- +‡37/1.1. **Juglans regia** (Walnut)(Coeden Cnau Ffrengig). Two additional records for v.c.48 in response to the request in the June 2009 Welsh Plant Records – a somewhat sorry specimen just E of Boncyn and a healthy young tree planted near Ty'n Ceunant, both in the Dyfi valley, SH81, J. T. Hughes, 2009.
- *62/22.1. **Erophila majuscula** (Hairy Whitlowgrass)(Llysiau'r-bystwn Blewog). On dry track by old quarry near Gwyddelwern, SJ04, S. P. Chambers, 1996. **#?1st published record**. With *Aphanes australis*, *Cerastium glomeratum* and *Veronica arvensis*.
- +‡73/1.3. **Crassula helmsii** (New Zealand Pigmyweed)(Corchwyn Seland Newydd). In quantity as a flowering terrestrial plant in turf in draw-down zone, Llyn Cynwch Reservoir, SH72, J. M. Maynard, 2009. Recorded when the water-level was low.
- 73/5.12. **Sedum acre** (Biting Stonecrop)(Briweg Boeth). See the *New Atlas*. The plants in hectads SH70 & SH71 are introductions on mortared walls and clearly not native here. P. M. Benoit.
- 118/23.4. **Mentha suaveolens** (Round-leaved Mint)(Mintys Deilgrwn). ‡The Harlech plant in SH53 was a single patch on roadside waste ground, and was surely an escape or throw-out not a native as in the *New Atlas*. Needs re-finding. P.M. Benoit.
- +‡124/12.1. **Kickxia elatine** (Sharp-leaved Fluellen)(Llysiau-Llywelyn). ©An unexpected weed, at Cwm Rhwyddfor, near Tallylyn, SH71, S. E. Stille, 2009.
- +128/2.1.agg. **Utricularia vulgaris** agg. (Greater Bladderwort)(Chwysigenddail Mawr). Ditch near the Dysynni Broadwater, Tywyn, SH50; barren; a fragment shown to BSBI field meeting party on the 15 August, J. H. Bratton, 2009.
- +‡131/1.4. **Sambucus ebulus** (Dwarf Elder)(Ysgawen Fair). Near Rûg; Corwen, SJ04, S. E. Stille, 2009.
- +‡135/50.3. **Artemisia absinthium** ((Wormwood)(Y Wermod Lwyd). Ty Uchaf, Llandrillo, SJ03, S. E. Stille, 2009. Hectad updating from pre-1970.
- +143/1.1. **Ruppia maritima** (Beaked Tasselweed)(Tusw Arfor). Ditch near the Dysynni Broadwater, Tywyn, SH50, J. H. Bratton, 2009. An updating for the hectad from the 19th century.
- +152/16.28. **Carex rostrata** (Bottle Sedge)(Hesgen Ylfinfain). Borrow pits, Afon Dysynni N of Cil-cemmau, SH60, J. H. Bratton, 2009.
- *‡159/13.1. **Crocsmia paniculata** (Aunt-Eliza)(Modryb Leusa). Railway embankment near *C. ×crocsmiflora* at Tywyn, SH50, P. M. Benoit, 2009.

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

+4/1.4×5. **Equisetum** × **litorale** (**E. fluviatile** × **E. arvense**) (Shore Horsetail)

- (Marchrawnen y Glennydd). Riverbank, Rhyd y Gwystl, SH4038, Caerns. recording group, 2009.
- +5/1.1. **Ophioglossum vulgatum** (Adder's-tongue)(Tafod y Neidr). Under bracken on hillside, Moel Wnion, Bethesda, SH6470, I. & L. Fraser, 2009.
- +8/11.1×2. **Polypodium ×mantoniae** (**P. vulgare** × **P. interjectum**) (a hybrid polypody). Roadside wall, Penmachno, SH8052, M. Stead, 2007, det. R. Cooke; +Tree base by river bank, Beddgelert, SH5848, M. Wilcox, 2009, conf. K. Trewren.
- +‡20/2.1. **Pseudotsuga menziesii** (Douglas Fir)(Ffynidwydden Douglas). ©Planted woodland, Aberglaslyn, SH5946, W. McCarthy, 2009.
- +‡20A/CRY.jap. **Cryptomeria japonica** (Japanese Red-cedar)(Cochwydden Japan). Planted woodland, Aberglaslyn, SH5946, W. McCarthy & M. Stead, 2009.
- *‡20A/TAX.dis. **Taxodium distichum** (Swamp Cypress). Marshy field below slate waste tip, Llanllechid, SH6368, J. H. Bratton, 2009, det. W. McCarthy. Status unknown.
- +‡24/1.1. **Laurus nobilis** (Bay)(Llawrwydden). Small self-sown tree at edge of track, Great Orme, SH7682, W. McCarthy, 2009.
- +28/6.1. **Aconitum napellus** (Monk's-hood)(Cwewll y Mynach). Presumably introduced on bank of Afon Conwy, Betws y Coed, SH7956, J. & H. Lowell, 2009.
- +28/13.17.b. **Ranunculus ficaria** ssp. **bulbilifer** (Lesser Celandine)(Llygad Ebrill). Edge of track, Abererch, SH4036, I. Edgar; +Roadside bank, Waenfawr, SH5159, W. McCarthy; + Edge of footpath, Maenan, SH7865, W. McCarthy; all 2009.
- +40/3.1. **Carpinus betulus** (Hornbeam)(Oestrwydden). Presumably planted on riverbank, Dolydd, SH4757, W. McCarthy, 2009.
- †43/1.12. **Chenopodium murale** (Nettle-leaved Goosefoot)(Troed-yr-wydd Dail Danadl). Disturbed ground at cliff base, Great Orme, Llandudno, SH7682, W. McCarthy & J. Bratton, 2009. Update of record in J.E. Griffiths' *Flora of Carnarvon & Anglesey* 1894.
- +†043/1.8. **Chenopodium polyspermum** (Many-seeded Goosefoot)(Troed-yr-wydd Amlhadog). Disturbed ground by new hospital, Porthmadog, SH5540, W. McCarthy & M. Stead; +Maize field, Llangwstenin, SH8179, W. McCarthy; both 2009.
- +©044/1.1. **Amaranthus retroflexus** (Common Amaranth)(Blodyn Amor). Sugar beet field, Garth farm, Llangwstenin, SH8178, W. McCarthy, 2009.
- +46/17.3. **Spergularia marina** (Lesser Sea-spurrey)(Troellig Arfor Bach). Brackish grassland by the sea, Porth Colmon, SH1934, W. McCarthy, 2009.
- +46/17.4. **Spergularia rubra** (Sand Spurrey)(Troellig Arfor Coch). Bare gravelly ground, Betws Garmon, SH5357, W. McCarthy, 2009.
- +47/4.2.a. **Polygonum oxyspermum** ssp. **raii** (Ray's Knotgrass)(Canclwm Ray). Sandy inlet at top of beach, Porth Colmon, SH1934, M. Stead, 2009.
- +47/8.13×19. **Rumex ×pratensis** (**R. crispus** × **R. obtusifolius**) (a hybrid dock). Track side near riverbank, Betws Garmon, SH5357, M. Stead, 2009.
- *47/8.15×19. **Rumex ×dufftii** (**R. sanguineus** × **R. obtusifolius**) (a hybrid dock). Field edge, Morfa Nefyn, SH2939, M. Stead, 2009, det. J. Akeroyd.
- +61/2.1. **Salix pentandra** (Bay Willow)(Helygen Bêr). Marshy ground by river, Llanaelhaearn, SH3843, Caerns. recording group; +Stream side by road, Llanaelhaearn, SH4043, W. McCarthy & M. Stead; both 2009, status unknown. 1st recent records.
- +†062/7.1. **Erysimum cheiranthoides** (Treacle-mustard)(Triagl Arfog). Arable field,

- Llandwrog, SH4455, W. McCarthy, 2009.
- +62/41.1. **Crambe maritima** (Sea-kale)(Ysgedd Arfor). Shingle at foot of slope, top of beach, Gyrn Goch, SH3948, I. Edgar, 2009. **NB** This is native in v.c.49 not a neophyte as in VCCC.
- +62/42.1.b. **Raphanus raphanistrum** ssp. **maritimus** (Sea Radish)(Rhuddygl Arfor). Among stones on the beach, Gyrn Goch, SH3948, I. Edgar, 2009. **NB** This is native in v.c.49 not a neophyte as in VCCC.
- *©062/42.sat. **Raphanus sativus** (Garden Radish)(Rhuddygl y Gerddi). On probably dumped soil near cycle track bridge, Llanfairfechan, SH6975, E. Phenna, 2009.
- +‡71/HYD.mac. **Hydrangea macrophylla** (Hydrangea)(Trilliw ar Ddeg). 1 plant in flower, bank of Afon Conwy, Betws y Coed, SH7956, J. & H. Lowell, 2009.
- +‡72/2.3. **Ribes nigrum** (Black Currant)(Llwyn Cwrens Duon). Laneside bank, Cefnamlwg, SH2230, W. McCarthy, 2009.
- +73/5.5. **Sedum telephium** (Orpine)(Canewin). Roadside bank, Llwyndyrys, SH3840, Caerns. recording group, 2009.
- +‡74/3.1. **Bergenia crassifolia** (Elephant-ears)(Clustiau Eliffant). Railway land near café, Llanfairfechan, SH6875, E. Phenna, 2009.
- +‡74/5.8×9. **Saxifraga ×urbium** (**S. umbrosa** × **S. spathularis**) (Londonpride)(Balchder Llundain). Roadside near ford, Maesgeirchen, SH5870, E. Phenna, 2009.
- +75/13.1×2. **Geum ×intermedium** (**G. rivale** × **G. urbanum**) (Hybrid Avens)(Mapgoll Groesryw). Damp track edge, Llanystumdwy, SH4639; +Wet woodland, Rhos Isaf, SH4856; both W. McCarthy & M. Stead, 2009.
- +‡75/19.15. **Alchemilla mollis** (Garden Lady's-mantle)(Mantell-Fair y Gerddi). Dumped soil, Llangwstenin, SH8179, W. McCarthy, 2009.
- +75/20.2. **Aphanes australis** (Slender Parsley-piert)(Troed-y-dryw Main). Rocky outcrops, Abererch, SH4036; +Track along hillside, Llanllyfni, SH4541; both W. McCarthy, 2009.
- *‡75/30.1. **Amelanchier lamarekii** (Juneberry)(Criafolen Mehefin). Bank of Afon Conwy, Llanrwst, SH7962, W. McCarthy & J. Bratton, 2009, conf. N. H. Brown.
- +‡75/32.10. **Cotoneaster salicifolius** (Willow-leaved Cotoneaster)(Cotoneaster Dail Helyg). Limestone grassland, Great Orme, SH7782, W. McCarthy, 2009.
- +‡75/32.35. **Cotoneaster rehderi** (Bullate Cotoneaster)(Cotoneaster Deilgrych Rehder). Presumably planted in woodland, Llwyndyrys, SH3640, Caerns. recording group, 2009.
- *‡77/2.1. **Galega officinalis** (Goat's-rue)(Nuw'r Geifr). Roadside bank, Afonwen, SH4337, J. H. Bratton, 2009, det. W. McCarthy.
- +77/15.12. **Lathyrus nissolia** (Grass Vetchling)(Ytbsyen Feinddail). ‡Probably introduced to grass bank by roadside, Felinheli, SH5065, D. Evans, 2009.
- +77/19.20. **Trifolium striatum** (Knotted Clover)(Meillionen Rychog). Grass bank, Porthmadog, SH5540, M. Stead, 2009.
- +‡84/1.12. **Epilobium brunnescens** (New Zealand Willowherb)(Helyglys Seland Newydd). Paths & lawn edges, Abererch, SH4036, I. Edgar, 2009.
- +‡84/5.1. **Fuchsia magellanica** (Fuchsia)(Ffiwsia). Self sown in stonework of river bridge, Aberglaslyn, SH5946, W. McCarthy & M. Stead, 2009.
- +91/2.13. **Euphorbia paralias** (Sea Spurge)(Llaethlys y Môr). Sandy grassland above the sea, Porth Colmon, SH1934, W. McCarthy, 2009.

- +94/1.1. **Linum bienne** (Pale Flax)(Llin Culddail). Path through sandy grassland, West Shore, Llandudno, SH7781, W. McCarthy, 2009.
- +94/1.4. **Linum catharticum** (Fairy Flax)(Llin y Tylwyth Teg). Hill pasture, Moel Dyrnogyd, Dolwyddelan, SH6948, W. McCarthy, 2009.
- +102/1.10. **Geranium columbinum** (Long-stalked Crane's-bill)(Pig-yr-aran Hirgoes). Sandy path edge, Dinas Dinlle, SH4558, W. McCarthy, 2009.
- +107/22.1. **Silaum silaus** (Pepper-saxifrage)(Ffenigl yr Hwch). Damp meadow at edge *Salix* carr, Dolgarrog, SH7767, W. McCarthy, 2009. 1st record for at least 30 years and only extant site.
- +107/40.1. **Pastinaca sativa** (Wild Parsnip)(Panasen Wylt). ‡Sand dunes and amongst gravel at roadside, Pwllheli, SH3835, I. Edgar, 2009.
- +†110/4.1. **Hyoscyamus niger** (Henbane)(Llewyg yr Iâr). Sandy grassland at top of beach, Llanfairfechan, SH6674, I. & L. Fraser, 2009.
- +©110/8.1. **Solanum nigrum** (Black Nightshade)(Codwarth Du). Disturbed ground by new hospital, Porthmadog, SH5540, W. McCarthy, 2009.
- +‡118/3.1. **Leonurus cardiaca** (Motherwort)(Mamlys). Roadside bank under hedge, Felinheli, SH5368, W. McCarthy, 2009.
- +‡118/4.1.c. **Lamium galeobdolon** ssp. **argentatum** (Yellow Archangel) (Marddanhadlen Felen). Roadside bank, Llwyndyrys, SH3840, Caerns. recording group, 2009.
- +118/20.1. **Origanum vulgare** (Wild Marjoram)(Penrhudd). Garden escape on roadside bank, Rhyd y Gwystl, SH4039, Caerns. recording group, 2009.
- +118/23.1×3. **Mentha ×gracilis** (**M. arvensis** × **M. spicata**) (Bushy Mint)(Mintys Culddail). Presumed garden throwout on dumped soil near common, Llangwstenin, SH8179, W. McCarthy, 2009. A variegated form named "Ginger mint" in herb books.
- +‡118/23.2×3. **Mentha ×piperita** (**M. aquatica** × **M. spicata**) (Peppermint)(Mintys Poeth). Presumed garden escape in stream bed below Ffynnon Gogarth, Great Orme, Llandudno, SH7682, W. McCarthy, 2009.
- *121/1.3.b. **Plantago major** ssp. **intermedia** (Greater Plantain)(Llydan y Ffordd). Disturbed damp sandy grassland on golf course, West Shore, Llandudno, SH7780, J. H. Bratton, 2009. Confirmed by counting number of seeds per capsule.
- +†124/8.2. **Chaenorhinum minus** (Small Toadflax)(Trwyn-y-llo Bach). Slate quarry waste tip, Betws Garmon, SH5357, W. McCarthy, 2009.
- +124/20.1.a. **Euphrasia rostkoviana** ssp. **rostkoviana** (Eyebright)(Effros). Grassland, Rhyd Ddu, SH5652, G. Battershall, 2009.
- +128/2.6. **Utricularia minor** (Lesser Bladderwort)(Chwysigenddail Bach). Rich fen, Bryncir, SH4443, C. Forster-Brown, 2005.
- +130/6.3. **Galium uliginosum** (Fen Bedstraw)(Briwydd y Fign). Marshy ground by river, Llanaelhaearn, SH3843, Caerns. recording group, 2009.
- +131/2.1. **Viburnum opulus** (Guelder-rose)(Gwifwrnwydden y Gors). Woodland, Llwyndyrys, SH3640, Caerns. recording group, 2009.
- +131/2.2. **Viburnum lantana** (Wayfaring-tree)(Gwifwrnwydden). ‡2 bushes presumably planted in farm hedge, Pontllyfni, SH4451, W. McCarthy, 2009.
- ‡131/6.2. **Lonicera nitida** (Wilson's Honeysuckle)(Gwyddfild Wilson). Established under trees at camp-site, Betws Garmon, SH5357, W. McCarthy, 2009.
- +133/2.3. **Valeriana dioica** (Marsh Valerian)(Triaglog y Gors). Along streamside near

- Afon Dulyn, Tal y Bont, SH7468, W. McCarthy, 2009.
- +135/28.5. **Hieracium vagum** (Glabrous-headed Hawkweed). Stonework of railway bridge, Afonwen, SH4437, W. McCarthy, 2009.
- +‡135/43.4. **Erigeron karvinskianus** (Mexican Fleabane)(Amrhydlwyd y Cerrig). High roadside wall, Bangor, SH5862, E. Phenna, 2009.
- +‡135/45.2. **Olearia macrodonta** (New Zealand Holly)(Llwyn-llygad-y-dydd Celynnog). Foot of wall near old university site, Pen y Bryn, Bangor, SH5862, E. Phenna, 2009.
- †135/55.3. **Anthemis cotula** (Stinking Chamomile)(Camri'r Cwn). Disturbed ground by new car-park, Great Orme, Llandudno, SH7683, W. McCarthy, 2009.
- +‡147/5.2b. **Arum italicum** ssp. **italicum** (Italian Lords-and-Ladies)(Pidyn-y-gog Eidalaid). Lane & field, several established patches, Rhyd y Gwystl, SH4039, Caerns. recording group, 2009.
- *‡148/1.pun. **Landoltia punctata** (A duckweed). Pond in botanic garden, Treborth, Bangor, SH5571, J. H. Bratton, 2009, conf. R. Lansdown. Source unknown. 1st Welsh & British record.
- +151/1.20. **Juncus maritimus** (Sea Rush)(Brwynen Arfor). Sandy grassland above the sea, Porth Colmon, SH1934, W. McCarthy, 2009.
- +151/1.4. **Juncus gerardii** (Saltmarsh Rush)(Brwynen Gerard). Sandy grassland above the sea, Uwchmynydd, SH1426, W. McCarthy, 2009.
- +151/2.3. **Luzula sylvatica** (Great Wood-rush)(Coedfrwynen Fawr). Cliffs above the sea, Uwchmynydd, SH1426; +Hill pasture, Moel Dyrnogyd, Dolwyddelan, SH6948; both W. McCarthy, 2009.
- +152/10.2. **Blysmus rufus** (Saltmarsh Flat-sedge)(Corsfrwynen y Morfa). Top of saltmarsh for c.20m, Dinas Dinlle, SH4558, W. McCarthy, 2009. 1st record for over 60 years, previously presumed extinct, contrary to entry in VCCC.
- +152/16.1. **Carex paniculata** (Greater Tussock-sedge)(Hesgen Rafunog Fawr). Marshy ground by Afon Gorddinam, Dolwyddelan, SH6949, W. McCarthy, 2009.
- +152/16.9.a. **Carex divulsa** ssp. **divulsa** (Grey Sedge)(Hesgen Lwyd). Woodland, Abererch, SH4036, I. Edgar, 2009.
- 152/16.39×40. **Carex** × **deserta** (**C. binervis** × **C. laevigata**) (a hybrid sedge). Steep grassy roadside bank, Tremadog, SH5642, R. Gritten & D. Roberts, 2009, conf. A. O. Chater. 2nd record at this site since A.O.C.'s original discovery in ?1961.
- +152/16.44×46. **Carex** × **fulva** (**C. hostiana** × **C. viridula**) (a hybrid sedge). Seepage on hillside, Uwchmynydd, SH1426, W. McCarthy, 2009.
- +152/16.47. **Carex pallescens** (Pale Sedge)(Hesgen Welw). Track edge through woodland, Llwyndyrus, SH3640, Caerns. recording group, 2009.
- +152/16.51. **Carex caryophyllea** (Spring-sedge)(Hesgen Gynnar). Hill pasture, Moel Dyrnogyd, Dolwyddelan, SH6948, W. McCarthy, 2009.
- +153/12.3. **Festuca gigantea** (Giant Fescue)(Peiswellt Mawr). Bank of track, Waenfawr, SH55, W. McCarthy, 2009.
- +153/18.6. **Poa angustifolia** (Narrow-leaved Meadow-grass)(Gweunwellt Culddail). Path edge, Great Orme, Llandudno, SH7882, J. P. Woodman, 2009.
- +©153/28.5. **Avena sativa** (Oat)(Ceirchen). Bird sown near promenade, Llanfairfechan, SH6775, E. Phenna, 2009.
- +153/39.8. **Agrostis vinealis** (Brown Bent)(Maeswellt-y-cwn y Mynydd). Dry acidic hillside, Uwchmynydd, SH1426, W. McCarthy, 2009.

- +‡153/46.2. **Polypogon viridis** (Water Bent)(Barfwellt y Dwr). Waste ground by roadside, Llandudno, SH7782, W. McCarthy, 2009. #?2nd record.
- +153/50.3. **Bromus racemosus** (Smooth Brome)(Pawrwellt Llyfn). National Trust managed hay meadows, Penmachno, SH8052, W. McCarthy, 2009. 1st recent record.
- +©153/59.1. **Hordeum distichon** (Two-rowed Barley)(Haidd Dwyresog). Laneside bank, Llwyndyrys, SH3741, Caerns. recording group, 2009.
- +©153/60.1. **Triticum aestivum** (Bread Wheat)(Gwenith). Laneside bank, Llwyndyrys, SH3741, Caerns. recording group, 2009.
- +155/1.1. **Typha latifolia** (Bulrush)(Cynffon y Gath). Bank of Afon Gwyrfaï, Betws Garmon, SH5357, W. McCarthy, 2009.
- *‡159/1.1. **Libertia formosa** (Chilean-iris)(Gellesgen Chile). Several small clumps, 1 in flower along laneside, Llys y Gwynt, Llanfairfechan, SH6773, E. Phenna, 2009.
- *‡160/3.1. **Cordyline australis** (Cabbage-palm)(Palmwydden Fresych). Presumably planted near bank of Afon Dwyfor, Afonwen, SH4737, J. & H. Lowell; +Self-sown in crack in pavement near houses, Pwllheli, SH3735, I. Edgar; both 2009. 1st records.
- +162/2.2. **Cephalanthera longifolia** (Narrow-leaved Helleborine)(Y Galdrist Gulddail). Edge of track in wood, Llwyndyrys, SH3640, S. Browne, 2009.

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

- *47/8.15×19. **Rumex ×dufftii** (**R. sanguineus** × **R. obtusifolius**) (a hybrid dock). Waste ground, Newborough, SH411671, M. Stead, 2009, **hb IRB**, conf. J. R. Akeroyd.
- *48/1.15. **Limonium recurvum** (a sea-lavender)(Lafant-y-môr Portland). Sandy saltmarsh, Rhosneigr, SH3174, I. Rees, 2009, **hb IR**, det. M. Ingouille (from pictures). 1st confirmed Welsh record. See *BSBI News* 113.
- *‡62/11.3. **Barbarea intermedia** (Medium-flowered Winter-cress)(Berwr-y-Gaeaf Canolig). Disturbed ground in field adjacent to Cors Erddreiniog NNR, SH475809, I. Bonner, 2000; +2 plants in a disused limestone quarry at Mariandyrys, SH604809, I. Bonner & D. Evans, 2005. 2nd record; 10-12 plants at edge of sleeper bridge over ditch at fen edge, Cors Erddreiniog NNR, SH474810, I. Bonner, 2009. 3rd record. Presumably introduced with pony feed and close to site of 1st record.
- +66/1.3b. **Pyrola rotundifolia** ssp. **maritima** (Round-leaved Wintergreen)(Glesyn-y-gaeaf Deilgrwn). Wet depression in disused limestone quarry, Llanddona, SH5881, R. Birch, 2009, det. I. Bonner. 1st record from the E side of Anglesey, usually associated with dune slacks along the W coast.
- *‡73/5.4. **Sedum spectabile** (Butterfly Stonecrop)(Briweg Iâr Fach yr Haf). 2-3 clumps, presumably from garden waste, with *Leucanthemum* ×*superbum* in sand dune edge, Rhosneigr, SH326721, I. Bonner, 2009.
- +77/15.3. **Lathyrus linifolius** (Bitter-vetch)(Ytbysen y Coed). Road verge, Elim, SH369824, I. Bonner, C. Aron & D. Evans, 2009.
- +‡77/15.9. **Lathyrus latifolius** (Broad-leaved Everlasting-pea)(Ytbysen Fythol Lydanddail). Bull Bay, SH4294, M. Stead, 2004; +Sandy hollow in dunes, Tywyn Trewan, Rhosneigr, SH321744, I. Bonner, 2008.
- 103/1.10. **Geranium columbinum** (Long-stalked Crane's-bill)(Pig-yr-aran Hirgoes). Locally frequent in base-rich rock outcrop, Bodwrog, SH404772, Anglesey Flora Group, 2009, det. I. Bonner. Re-confirmation of pre-1970 record.

- +108/3.3. **Centaureum littorale** (Seaside Centaury)(Y Ganrhi Goch Arfor). 23 small plants in salt spray zone on top of limestone cliff, Porth Forllwyd, Moelfre, SH507871, J. & I. Rees, 2009, det. I. Bonner. 1st confirmed record from the E side of Anglesey. It is a feature of coastal cliffs and dune slacks along the W coast.
- *‡124/17.1. **Hebe salicifolia** (Koromiko)(Pedwar-ban-byd Helygddail). Well established in limestone scrub, Castell Mawr, Benllech, SH533815, N. Brown, 2010.
- +125/2.8. **Orobanche hederæ** (Ivy Broomrape)(Gorfanhadlen Eiddew). 24 seed heads below ivy covered oak tree, Coed Parc, SH584744, J. Bratton, 2009, det. W. McCarthy.
- *‡135/41.5. **Aster lanceolatus** (Narrow-leaved Michaelmas-daisy)(Blodyn-Mihangel Ceuiddail). Waste ground, Parys Mountain, SH4390, I. Bonner, 2009, **hb IRB**, conf. A. O. Chater.
- *142/1.3×6. **Potamogeton ×billupsii (P. gramineus × P. coloratus)** (a hybrid pondweed). Shallow pools, Cors Bodeilio NNR, SH502772, R. V. Lansdown, 2002, det. Zdenek Kaolan. In cultivation since 2002, only confirmed 2009. Herb. specimens prep. incl. for **BM**.
- +‡153/17.3. **Briza maxima** (Greater Quaking-grass)(Crydwelld Mawr). ©Supermarket car park edge, Llangefni, SH459756, I. Bonner, 2009.
- +‡153/68.1. **Echinochloa crus-galli** (Cockspur)(Cibogwellt Rhydd). Apparently sown in part of a field of barley, Llanfihangel yn Nhowyn, SH321772, I. Bonner & N. Brown, 2009, **hb IRB**.

PLANTLIFE CYMRU NEWSLETTER No.11

Trevor Dines, *Plantlife Cymru Conservation Manager,*
Uned 14, Llys Castan, Ffordd Y Parc, Parc Menai, Bangor,
Gwynedd LL57 4FD
trevor.dines@plantlife.org.uk (tel: 01248 670691)



PLANTLIFE
our plants our planet our future

Invasive aliens in Wales

As readers of British Wildlife magazine will be aware, there has recently been some lively discussion, stimulated by the BSBI, on the scale of the impact of invasive alien plants in Britain. At the heart of the debate is the apparent rarity of many invasive aliens in the wider landscape compared to the impact they are thought to be having on our biodiversity and the scale of the response in terms of cost of control. The debate has in fact been most useful in helping to identify areas of agreement, namely that only a very small proportion of aliens are invasive, that these species are relatively infrequent in the wild in terms of sites (but many are still expanding and consolidating their ranges), that some botanically rich sites are very threatened by the impact of invasive aliens, that invasive native species currently pose a bigger problem in the grand scale of the landscape, and that the key to controlling both invasive aliens and natives on any one site is correct habitat management.

In order to actually get some hard evidence to back up the various arguments, Plantlife and the BSBI Wales Committee have been working together to assess the impact invasive aliens are having on sites in Wales.

This work took the form of a questionnaire that basically asked for hard evidence of a decline in native species because of the impact of an alien invasive, and an assessment of sites where priority native species occur with alien invasives. This latter is important as it allows us to identify sites where species of conservation concern occur and therefore prioritise sites for action if appropriate.

Currently, of the 13 vice-counties in Wales, full data has been submitted for just five counties (Caernarfonshire, Carmarthenshire, Cardiganshire, Montgomeryshire and Pembrokeshire), with some additional data for Anglesey, Flintshire, Glamorganshire, Merionethshire and Monmouthshire. While the results can therefore only be taken as preliminary, they reveal some very interesting results and it is hoped that publication of these will stimulate more records and observations to be submitted.

How were sites identified?

If we aimed to identify all sites where aliens occur, we'd never finish the job. We therefore had to limit the list of sites to those fulfilling two criteria. Firstly were those where there was direct evidence that a threatened species had declined because of an

alien invasive species. Threatened species were any listed as Critically Endangered (CR), Endangered (EN), Vulnerable (VU) or Near Threatened (NT) in either the GB Red Data List (Cheffings & Farrell, 2005) or the Wales Red Data List (Dines, 2008). In these cases, we wanted cases where the population of the threatened species had declined in size or extent, or even been eliminated from the site. In other words, this would provide evidence of the direct impact of the alien on the threatened native species.

Secondly, we asked for details of sites where any invasive alien occurred on the same site as a Section 42 priority species (the new list of 75 species of conservation importance in Wales). For terrestrial species this meant within 10 metres of the Section 42 species, while

for (the more mobile) aquatic species this meant within 50 metres within the same water body. In this case, we were looking for the coincidence of priority species and alien invasives, and looking for sites where control work has either already been undertaken (and the threat from the alien has been reduced) or where work might need to be undertaken in the future.

Which alien species are invasive in Wales?

In the responses, Recorders identified sites where thirty different alien species could be regarded as invasive at sites in Wales (see table 1 below). These include some interesting species, including four that are native elsewhere in Britain.

As can be seen from table 1, aquatic

Species	Common Name	Number of sites where invasive alien present
<i>Artemisia campestris</i> subsp. <i>maritima</i>	Sea Wormwood	1
<i>Cephalanthera longifolia</i>	Sword-leaved Helleborine	3
<i>Cicendia filiformis</i>	Yellow Centaury	1
<i>Clinopodium acinos</i>	Basil Thyme	1
<i>Dianthus armeria</i>	Deptford Pink	1
<i>Gentianella campestris</i>	Field Gentian	2
<i>Gentianella uliginosa</i>	Dune Gentian	2
<i>Juniperus communis</i>	Juniper	2
<i>Liparis loeselii</i>	Fen Orchid	2
<i>Luronium natans</i>	Floating Water-plantain	4
<i>Oenanthe fistulosa</i>	Tubular Water-dropwort	1
<i>Pilularia globulifera</i>	Pilwort	3
<i>Potamogeton compressus</i>	Grass-wrack Pondweed	2
<i>Ranunculus tripartitus</i>	Three-lobed Water-crowfoot	2
<i>Salsola kali</i>	Prickly Saltwort	2

Table 1

Species	Common Name	Number of SSSIs affected
<i>Rhododendron ponticum</i>	Rhododendron	45
Conifer species	Conifers	44
<i>Fallopia japonica</i>	Japanese Knotweed	25
<i>Impatiens glandulifera</i>	Indian Balsam	22
<i>Acer pseudoplatanus</i>	Sycamore	16
<i>Prunus laurocerasus</i>	Cherry Laurel	13
Cotoneaster species	Cotoneasters	8
<i>Crassula helmsii</i>	New Zealand Pigmyweed	6
<i>Quercus ilex</i>	Evergreen Oak	5
<i>Heracleum mantegazzianum</i>	Giant Hogweed	3

Table 2

species such as *Luronium natans* (Floating Water-plantain) and *Pilularia globulifera* (Pilwort) seem especially likely to occur with invasive aliens, along with other aquatics like *Potamogeton compressus* (Grass-wrack Pondweed) and *Ranunculus tripartitus* (Three-lobed Water-crowfoot). This is not surprising given the ease with which aquatic invasives can spread and the number of invasive aquatic species. The *L. natans* (Floating Water-plantain) sites, for example, all occur with *Elodea canadensis* (Canadian Waterweed) and sometimes *E. nuttallii* (Nuttall's Waterweed) as well. Heathland species also feature, mainly through the infestation of heathland pools with *Crassula helmsii* (New Zealand Pigmyweed). Dune species are also notable, especially the Critically Endangered *Liparis loeselii* (Fen Orchid), and *Hippophae rhamnoides* (Sea Buckthorn) is the major invasive species in this habitat.

Of the twenty-two sites, the invasive alien species and the priority native species were regarded as co-existing at 7 sites (32%). At 15 sites (68%) control of the alien invasive was either needed (10 sites) or was already underway and was alleviating the impact on the priority species (5 sites). Again, it would be best to reserve judgement for when all the data are in, but it appears that more work is needed at sites where invasive species are occurring with priority Section 42 species. This exercise has certainly proved helpful in identifying such sites and prioritising them for action.

Invasive aliens on SSSIs in Wales

As part of a separate exercise, we have been given access to the CCW SSSI Actions Database. This lists issues that potentially affect the favourable condition of SSSIs and gives the actions that are needed to resolve them. In the case of invasive non-native species, sites are listed when the

presence of such a species is judged to be significant enough to threaten a notified SSSI feature and render it in unfavourable condition – the presence of an invasive species on a SSSI is, in itself, not enough to warrant inclusion in the database.

An analysis of the database shows that invasive non-native plants threaten the favourable status of 123 terrestrial and freshwater SSSIs in Wales (12% of all 1019 SSSIs). Thirty alien species are regarded as invasive enough to warrant action, and the top ten are listed in table 2 on page 3.

The fact that different species appear here compared to our list indicates that more work is needed to properly quantify the impact invasive aliens are having on our flora. It might be argued that invasive aliens are rare on sites where threatened species grow and on Welsh SSSIs, but the important point is that they are having a detrimental impact on some of our most significant sites and are greatly compounding existing problems posed by the threat from invasive native species such as *Pteridium aquilinum* (Bracken), *Ulex* species (Gorse) and *Hedera helix* (Ivy).

But these relatively few cases of direct and measurable impact on populations of threatened plants mask two very important points. First, early intervention is the most effective and resource efficient way of dealing with non-native invasive species once they are present at a site and so conservationists and Statutory

Agencies do not wait for a threatened species to be damaged by non-native invasive plants before initiating management. If a large patch of *R. ponticum* is visibly spreading and encroaching on a population of *Cephalanthera longifolia* (Narrow-leaved Helleborine), as it is at two sites in north-west Wales, pre-emptive action is taken *before* the Helleborine declines.

Secondly, a focus on the impact of non-native invasive plants on threatened plant species masks the much more important impact on the phytosociology of habitats and communities. The same list of plants may be recorded from a wetland before and after it has been invaded by a non-native invasive plant such as *Impatiens glandulifera* (Indian Balsam). But this stark assessment of a habitat belies the extraordinary change in community structure, proportion of different species and the character of the habitat that may take place. Such changes may, for example, diminish a habitat's heterogeneity, reduce light and heat reaching the herb layer/sub-surface waters, alter rates of nutrient cycling, or (in freshwater systems) cause large fluctuations in oxygen availability. The ramifications of these impacts will be felt right across the plant kingdom as well as beyond it.

If anyone would like to contribute their records and observations to this work, please contact Trevor Dines for a copy of the appropriate forms to complete.



Above : *Crambe maritima* (Sea-kale). On sandy ground at top of beach near houses, Ferryside, A. Stevens, 2009. 1st record for v.c.44. (see page 30). © R. D. & K. A. Pryce

Below : *Parapholis incurva* (Curved Hard-grass). *Festuca rubra* dominated top saltmarsh, Ginst Point, 2009. 1st record for v.c.44. (see page 34). © R. D. & K. A. Pryce



Above : *Stellaria nemorum* ssp. *montana* (Welsh Wood Stichwort) showing the abrupt reduction in bract size (see page 13-15). © R.A. Jones

Below : *Potentilla intermedia* (Russian Cinquefoil). On west side of access road to former railway goods yard, Pensarn, Carmarthen, M. Godfrey & M. Stead, 2009. 1st record for v.c.44. (see page 31). © R. D. & K. A. Pryce