# **BOTANICAL SOCIETY OF THE BRITISH ISLES**

# **WELSH BULLETIN**

Editors: R. D. Pryce & G. Hutchinson

No. 73, WINTER 2003 / 2004



Life-size photocopy of spike and labella of *Dactylorhiza traunsteineri* (Narrow-leaved Marsh-orchid) at **NMW**, Cors Geirch, Llŷn, Caerns. (v.c.49), sampled by W. C. Lacey (1954) and R.H. Roberts (1957) resp. (see p. 14).

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All back issues of the BSBI Welsh Bulletin are still available on request (originals or photocopies). Please send cheque (made payable to BSBI Wales), @ £2 per issue, which includes p & p, to - Dr G. Hutchinson, Department of Biodiversity & Systematic Biology, National Museum & Gallery, Cathays Park, Cardiff CF10 3NP, specifying the issue number, or year (which would have to include the season or month). Large runs - price negotiable. Those who have already ordered copies in advance will have their order honoured at the previous cost of £1 per issue including p & p.

#### **EDITORIAL**

The financial crisis at the National Botanic Garden of Wales at Middleton near Carmarthen cannot have escaped your notice. In recent years, the teaching of taxonomy and plant (and animal) identification in schools and colleges has been wound-down to such an extent that it is becoming increasingly difficult to find people with the skills necessary to identify the common species, let alone those protected and Biodiversity Action Plan species which we are all supposed to be conserving. This has the knock-on effect that it is becoming impossible to adequately implement the legislation or to effectively carry out environmental impact assessments. The NBGW, although still in its infancy, was establishing itself as a major seat of botanical research and education. A recent development was the planting of systematic beds which provide an invaluable teaching tool to learners of all ages and, in particular, was of major importance in addressing the current shortcomings in taxonomic teaching in Wales. The garden has the makings of being a National Institution with potential for rivalling the best comparable research establishments in the world. As such it had the potential for bringing incalculable prestige to Wales.

I agree that in retrospect it cannot be denied that NBGW was established with an unrealistic business plan which assumed that it would be self financing within a short space of time. The Welsh Assembly, however, in its apparent unwillingness to give lasting support, is being extremely short-sighted, not only by denying this excellent facility to future researchers, schools and colleges, but also by denying the promotion of awareness of plants and the natural environment to the ordinary person. Furthermore, this negative attitude is in contradiction to the Assembly's commitment to the promotion of biodiversity and the conservation of the natural environment throughout Wales. The annual cost to Wales would be £½ million, but compare this to the cost of maintaining RBG Kew at £20m per annum or RBG Edinburgh at £6m; a bargain by any standard.

The National Assembly is being handed a gem on a plate. It needs to have the foresight to grasp this opportunity before the chance is lost. There is still time for BSBI members to write to their AMs to lobby the Assembly's support.

Kath and I were sorry to have missed the Welsh AGM, held this year in Abergavenny, but I understand that, as usual, it was an enjoyable occasion and was a great opportunity for people to enjoy the limestone scenery as well as finding their way around the endemic *Sorbus* species. We are all grateful to Trevor Evans for organising the weekend and to Tim Rich and Mike Porter for leading the field meetings.

I hope that you all had an enjoyable field season in 2003 and that your *Local Change* recording tetrads are well on their way to completion. No doubt most of you were baked by the prolonged hot weather but, in my home county of Carmarthenshire, the Annual Recording Meeting held at Glynhir at the end of July, whilst being extremely successful and enjoyable, was notable for the almost continuous rain which fell from Monday lunchtime until Thursday evening! Those of you who attended the Annual Exhibition Meeting in London at the end of November will have seen that the photographs on display proved that it didn't dampen our spirits, but dry weather would certainly have been a bonus – hopefully it will be better in 2004.

As usual this edition of the Bulletin contains a varied and interesting content and includes reports on how the *Local Change* recording is going in a few vice-counties. It would be nice

to be able to publish progress reports from the remaining vice-counties in the next Bulletin. Also, please don't hesitate to put pen to paper if you have any other topic which might be of interest to members or which might stimulate discussion. Please send to either George or me in time for the late spring issue.

Finally, I hope that you all had a pleasant Christmas and New Year and I look forward to seeing you at one or more of next season's field meetings.

Richard Pryce, 29th January 2004

#### Future recording in Caernarfonshire (v.c. 49)

Although not noted in BSBI Year Book 2004 or BSBI News No. 95 (Jan 2004) I have now taken over from Geoff Battershall as county recorder for Caernarfonshire. I am keen to form a recording group for the county and am planning monthly recording meetings, from April to September, to record in tetrads and to update old records. These would perhaps be on Fridays but could be on Sundays if interested people are working, so please let me know what you prefer. This is the second year of the monitoring scheme and although all seven tetrads were visited last year, there will of course be more to find. Geoff produced a list of nationally scarce species present in the county and some of these will need updating.

Perhaps you would like to adopt a tetrad, or even a 10km square? John and Helen Lowell are doing valuable work in SH75, and Bob Lewis has recorded extensively in SH77. My home square SH78 and its neighbour SH88 are regularly visited, and Ted Phenna has agreed to adopt SH67. I would like all records to be post-2000 following publication of the 'Atlas', so there are plenty of squares waiting to be tackled, though most have had at least one tetrad recorded.

If you would like to help recording in Caernarfonshire in any way, I would be delighted to hear from you.

I can send a list of the meetings, provide a copy of the scarce species list, monitoring square details, or Welsh record cards. However, if you feel you can help, please do get in touch.

WENDY McCARTHY, 5 Ty'n-y-coed, Great Orme, Llandudno, Conwy LL30 2QA

### BSBI WALES ANNUAL GENERAL MEETING 2003 Saturday 6th September 2003

The 41<sup>st</sup> Annual General Meeting of the BSBI in Wales took place at Ty'r Morwydd Environmental Study Centre, Abergavenny.

- 1. Apologies for absence: Kath Cottingham, Dr David Humphreys, Dr Peter Jones, Andy Jones, David Pearman, Joe Phillips, Richard Pryce, Julian Woodman and Ray Woods.
- 2. Minutes of 2002 AGM: (published in Welsh Bulletin 71: 5-7). Accepted without amendment.
- 3. Matters Arising: Following the item under AOB in 2002 it was agreed to circulate an attendance list today and append the list of names to the minutes.
- 4. Chairman's opening remarks: Dr Goronwy Wynne welcomed everyone to the meeting and then warmly thanked Trevor Evans for organising the whole weekend, Tim Rich for leading the field excursions and the workshop session on *Sorbus*, Mike Porter and all those others who had helped in any way.

The Chairman described how the Committee had met three times since the AGM in 2002 and was mainly concerned with progressing County Rare Plant Registers for all the vice-counties in Wales and finalising inputs to Professor Clive Stace's Vice-County Census Catalogue, due to be published before the end of 2003. The Chairman indicated that he would be attending Clive Stace's retirement later in September and would be presenting him with a copy of the new list of Welsh plant names, Cyfres Enwau Creaduriaid a Phlanhigion: 2 Planhigion blodeuol, conwydd a rhedyn, recently published by Cymdeithas Edward Llwyd.

Finally the Chairman thanked all the honorary officers for their work over the past year and also CCW for the use of their offices for our committee meetings.

- 5. **Hon. Secretary's Report:** Gwynn Ellis simply added to the Chairman's report that a further two issues of the *Welsh Bulletin* had been published during the year and that contributions for future issues would be very welcome from any of those present.
- 6. Hon. Treasurer's Report: In Peter's absence his Annual Statement of Accounts for 2002 was tabled and is reproduced below. The Accounts were adopted without comment.

#### Annual Statement of Accounts, 1 January 2002 to 31 December 2002

| Receipts                  |         | Payments                |         |
|---------------------------|---------|-------------------------|---------|
|                           | £       |                         | £       |
| From BSBI Treasurer       | 0.00    |                         |         |
| 2002 AGM                  | 3371.35 | 2002 AGM                | 3120.31 |
| Welsh Bull. Subs.         | 79.00   | Welsh Bull. 70 Printing | 114.29  |
|                           |         | Welsh Bull. 70 Postage  | 40.93   |
| Totals                    | 3450.35 |                         | 3275.53 |
| Excess of receipts over   |         |                         |         |
| Payments                  | 174.82  |                         |         |
| Carried forward from 2001 | 661.89  |                         |         |
| Balance, 31/12/02         | £836.71 |                         |         |

7. Election of Officers and Committee Members: In the absence of any new nominations and with the agreement of the existing officers and committee members, the officers and those committee members due to retire in 2003, were re-elected *en bloc*.

The Chairman reminded the meeting that both the Secretary and the Treasurer had already announced their intention to retire at the 2004 AGM at that volunteers were urgently required to take over these important functions.

- 8. **AGM & Exhibition Meeting 2004:** The Chairman announced that this would be held from  $23^{rd} 25^{th}$  July 2004 in Llangollen, based at the Hand Hotel. A programme of visits to some of the rich range of habitats in the area would be arranged.
- 9. Any Other Business: None.

The Chairman closed the meeting by thanking everyone who had attended the weekend and helped to make it such a success.

#### **COMMITTEE FOR WALES 2003-2004**

Following the election of honorary officers and members the composition of the Committee is as follows:

#### Officers:

Chairman and Welsh Rep. on Council
Vice-chairman
Secretary
Treasurer
Field Meeting Secretary

Council
Dr Goronwy Wynne
Julian Woodman
Gwynn Ellis
Dr Peter Jones
Mrs Wendy McCarthy

Minutes Secretary Ian Bonner

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#### **Committee Members:**

Arthur Chater Dr George Hutchinson
Paul Day Dr Quentin Kay
Dr Trevor Dines Joe Phillips
Stephen Evans Richard Pryce
Trevor Evans Mike Porter
David Humphreys

David Humpineys

CCW Observers: Andy Jones and Ray Woods

# 42nd WELSH ANNUAL GENERAL MEETING & 22nd EXHIBITION MEETING

## FRIDAY 23<sup>rd</sup> — SUNDAY 25<sup>th</sup> JULY 2004 at HAND HOTEL, LLANGOLLEN DENBIGHSHIRE

# OUTLINE PROGRAMME further details will be sent to participants later

#### **PROGRAMME**

#### FRIDAY 23rd

Arrive

5.00 - 6.00 p.m.

Evening meal

Short Field Meeting

#### **SATURDAY 24th**

#### Breakfast

10.00

Field Meetings: selection of sites

2.00

Indoor activities, including:

Exhibition AGM

Prof. Clive Stace, Leicester: Guest speaker. Dr Jean Green: 'Botanising in Denbighshire'

Evening meal

Plenty of time for socialising

#### SUNDAY 25th

#### Breakfast

10.00

Field Meeting.

Further details and a booking form are included with the January mailing of BSBI News, but the costs for full board accommodation from Friday evening to Sunday morning will be approximately £75.

### IMPORTANT All bookings must be made by 31st MARCH, 2004.

Full details, map &c., will be sent to participants.

Sarah Stille, The Quillet, Berwyn Street, LLANDRILLO, Corwen LL21 0TH

Tel.: (01490) 440 418 sarah.stille@virgin.net

#### **CALENDAR OF MEETINGS 2004**

Full details and procedure for booking are available in the BSBI Year Book for 2004.

- SAT 17th APR GREAT ORME, CAERNARVONSHIRE (v.c. 49) W. McCarthy
- SAT 19<sup>th</sup> JUN GORS MAEN LLWYD & LLYN BRENIG, DENBIGHSHIRE (v.c. **50**) J.A. Green
- SAT 26<sup>th</sup> JUN TRAWSCOED, LLANUWCHLLYN, BALA, MERIONETH (v.c. 48) P. Benoit
- SAT 3<sup>rd</sup> JUL NICHOLASTON & OXWICH BURROWS, GLAMORGAN (v.c. 41) A.S. Lewis
- SAT 10<sup>th</sup> JUL RHOSGOCH COMMON & LLANBWCHLLYN, RADNOR (v.c. **43**) R.G. Woods
- FRI 23<sup>rd</sup> SUN 25<sup>th</sup> JUL WELSH AGM and EXHIBITION MEETING, LLANGOLLEN and associated field meetings (v.c. 50)
- SAT 31<sup>st</sup> JUL SAT 7<sup>th</sup> Aug GLYNHIR MANSION, LLANDYBIE, CARMARTHENSHIRE (v.c. 44) - R.D. Pryce
- SAT 21st AUG VALE OF GLAMORGAN, GLAMORGAN (v.c. 41) J.P. Woodman
- SAT 11th SEP YNYS-HIR RSPB RESERVE, CARDIGANSHIRE (v.c. 46) A. Chater

#### WHAT RHODODENDRONS DO WE HAVE NATURALISED?

Abstract of exhibit shown at the BSBI Welsh AGM Ty'r Morwydd, Abergavenny Sept. 2003.

Apart from the easily recognised *Rhododendron luteum*, with yellow flowers, it is generally assumed that all our naturalised plants are *R. ponticum*, and they are called this in virtually all local Floras. CTM, *Flora of the British Isles* (1987), though says: "Some, at least, of the naturalised populations contain plants with the larger calyx and very glandular pedicels of *R. maximum* L. and/or the hairy ovary of *R. catawbiense* Michx, reflecting the use of these eastern USA species in hybridization programmes with *R. ponticum* by early breeders in Britain." Stace, *New Flora* (1997), says: "Our plants are closest to ssp. **ponticum**, from SE Europe and SW Asia, but some claim that most of them are in fact **R. ponticum** x **R. maximum** L. *R. maximum* has pubescent ovaries and leaf lowersides and orange spots on the corolla." He also says in his description of *R. ponticum*: "ovary glabrous but glandular." (I suspect this "glandular" is an error.)

A recent paper, R. I. Milne & R. J. Abbott, Origin and evolution of invasive naturalised material of *Rhododendron ponticum* L. in the British Isles, *Molecular Ecology* 9: 541-556 (2000), claims that chloroplast and nuclear ribosomal DNA evidence shows evidence of introgression from *R. catawbiense* in a significant number of naturalised populations, as well as from *R. maximum* and another unidentified species. Several other authors have suggested similar hybrid origin for some of the naturalised plants, and the literature on cultivated Rhododendrons is of course very extensive.

The account of the genus in the European Garden Flora (1997) by J. Cullen gives the most relevant characters of the three species mentioned above as:

R. ponticum: Corolla lilac-pink to purple, usually with greenish yellow spots. Ovary glabrous. Calyx 1-2 mm.

**R.** catawbiense: Corolla usually lilac-purple with faint spots. Ovary hairy with reddish hairs. Calyx up to 1 mm.

R. maximum: Corolla white to pinkish purple, with yellowish green spots. Ovary hairy and with shortly stalked glands. Calyx 3-5 mm.

Almost all plants in naturalised *Rhododendron* populations in VC 46, Cardiganshire, have pink-purple corollas with orange-yellow spots. Although many or most have glabrous ovaries, all populations have at least some plants with hairy ovaries; the hairs are almost always white, and can sometimes be dense. Glands were seen on the ovaries in very few cases. Most populations have the calyx not more than 2 mm, but occasional plants occur with long calyx-lobes up to 5mm or more. There is no obvious correlation between the calyx-length and the hairiness or glandulosity of the ovary.

There is clearly a problem here, and we should probably not be content to record all naturalised Rhododendrons as the pestiferous R. ponticum. It seems unlikely that R. ponticum is just much more variable than the accounts suggest, but if hybrids are present their parentage is not easily deduced. Collecting specimens to show the variation, and recording the characters mentioned here, may help in naming them if and when someone comes up with an authoritative account covering both the variation within the species and of the hybrids.

The following exhibited specimens showed some of the variation encountered in VC 46 (all have A.O.C. collecting numbers and are deposited in NMW):

3/76. Probably fairly pure R. ponticum: Calyx-lobes up to 1 mm, ovaries almost glabrous.

03/189. Probably R. maximum: Leaves narrow, calyx-lobes 4-6(-7) mm, ovaries with fairly dense brown hairs but apparently eglandular.

03/110. Perhaps R. ponticum with introgression from R. maximum: Calyx-lobes 3-5 mm, ovaries almost glabrous.

03/96. Perhaps another version of R. ponticum with introgression from R. maximum: Calyxlobes 5 mm, ovaries moderately white-hairy.

03/188. Perhaps yet another version of *R. ponticum* with introgression from *R. maximum*, maybe also from *R. catawbiense*: Calyx-lobes 1 mm, ovaries with dense brown glands and reddish-brown hairs.

03/107. Like R. catawhiense but leaves too narrow, so perhaps R. ponticum x catawhiense: Calyx-lobes 1 mm, ovaries with fairly dense red-based white hairs.

ARTHUR CHATER Windover, Penyrangor Aberystwyth Ceredigion SY23 1BJ

#### **BAMBOO NEW TO WALES**

Abstract of exhibit shown at the BSBI Welsh AGM Ty'r Morwydd, Abergavenny Sept. 2003.

Semiarundinaria fastuosa (Narihira Bamboo), a first for Wales, was displayed together with a brief key, description, other records for the British Isles, references, history and uses, synonyms, history of the site and species status there. The full record reads:

Semiarundinaria fastuosa (Lat.-Marl. ex Mitford) Makino ex Nakai (Narihira Bamboo). W. side of silted-up millpond, W. of stream, Coed-y-felin Wood, Lisvane, Cardiff, ST181828, G. Hutchinson,

10 Aug 2002, conf. Dr C. Stapleton (at K, 2003), NMW.

The key features for identification are that the culm (main stem) is flattened or grooved on one side, at least at upper internodes (over whole length of internode) indicating *Phyllostachys* or *Semiarundinaria*, but nodes of the middle region of the culm have mostly 3-5 branches (not: 2 unequal branches, and often a very small third) and the culm is flattened or grooved, only along the upper internodes (not: nearly all the internodes).

Culm-sheaths are very shortly pubescent near their base on new culms, and the adjoining node has a line of dense short hairs around it, which are soon lost. The new sheaths, if removed before naturally parting from the culm, have a brilliant, shining, metallic-purplish colour on the inner surface that gives them a shell-like effect. This is a useful character in smaller specimens. The mature culms seen were c.4 metres in height, in small erect clumps.

As to the species status at the site; one initially thought that the plants were garden throw-outs due to the modern housing in the area. However, more work showed that on a 1959 OS map (2½in) the wooded area had a 'blue' pond marked at the spot, which has silted up over the years and become dominated by a *Fallopia sachalinensis*. In fact, it was the old mill pond to what I have since found marked on the 1875 OS map (revised 1898-90) as 'Llanishen Mill (Corn)'. The stream still survives alongside and the area is now a Cardiff City Council Community Nature Reserve.

Fargesia nitida (Chinese Fountain-bamboo) was also displayed - an additional record for Wales. One is attracted initially by its delicate purple culms. A similar set of information was displayed as for the previous species. The full record reads:

Fargesia nitida (Mitford ex Stapf) Keng f. (Chinese Fountain-bamboo). S. side of silted-up millpond, W. of stream, Coed-y-felin Wood, Lisvane, Cardiff, ST181827, G. Hutchinson, 10 Aug 2002, conf. Dr C. Stapleton (at K, 2003), NMW.

In replying, Chris Stapleton pointed out that F. nitida is not now considered a synonym of F. spathacea - the Chinese are insisting that the two names represent distinct species.

GEORGE HUTCHINSON Dept of BioSyB National Museum & Gallery Cardiff CF10 3NP

The following also exhibited at the BSBI Welsh AGM Ty'r Morwydd, Abergavenny Sept. 2003: DINES, T. - Plantlife Wales - Scandix pecten-veneris; Campanula patula - a call for records; The Status of Cephalantha longifolia in Wales.

EVANS, T.G. - Competition (see Report of Recording Progress in v.c. 35 (Mons.) 2003).



Figure 1 (above).

Participants at the BSBI
Welsh AGM Field Meeting
at Cwm Clydach NNR on
6th September 2003
receiving expert advice on
Sorbus from Tim Rich.

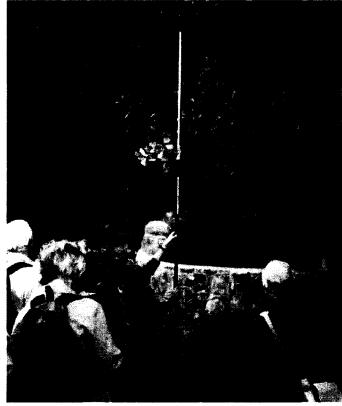


Figure 2 (right).
Tim collecting a specimen for demonstration.

Photos: Wendy McCarthy

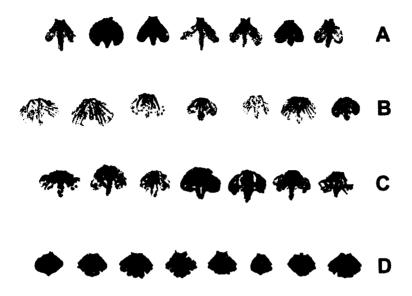


Fig.1. Labella of marsh-orchids, Dactylorhiza, all ×1.

- A, D. traunsteineri from Dolgellau: a labellum from each of the seven plants.
- B, D. traunsteineri from Scraw Bog, Co. Westmeath (after Heslop-Harrison, 1953).
- C, D. traunsteineri from Pentraeth, Anglesey (after Roberts & Gilbert, 1963).
- D, D. purpurella from Dolgellau, growing with A.

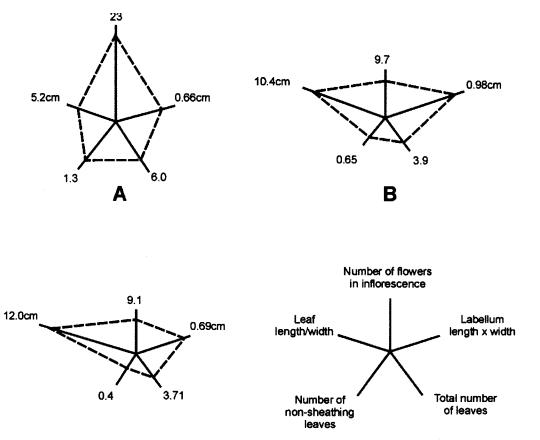


Fig.2. Polygraphs illustrating the distinction between marsh-orchids, Dactylorhiza.

**KEY** 

- A, D. purpurella and B, D. traunsteineri, both from Cors Erddreiniog, Anglesey (after Roberts 1966, q.v. for further details).
- C, D. traunsteineri from Dolgellau.

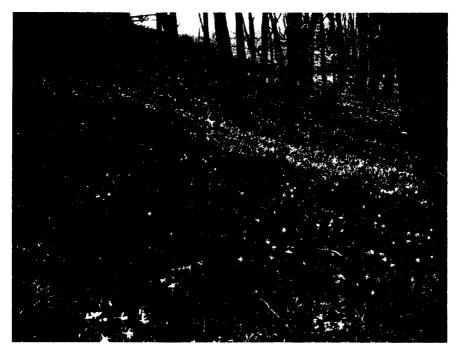
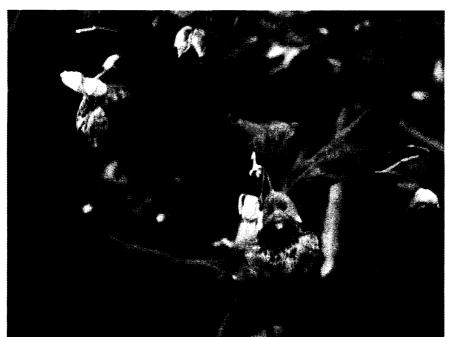


Figure 1. Narcissus pseudonarcissus woodland.

See: Report of recording progress in v.c.35 (Mons.) 2003.

Photos: Trevor Evans



RICH, T.C.G. - A wide range of fresh Sorbus specimens relating to 'Know your Sorbus' workshop.

A 'Bromus commutatus and Bromus secalinus' exbt Summerfield Books

Talks:

RICH, T.C.G. - Genetics of British Sorbus - latest work.

DINES, T.D. - 'Back from the Brink' species.

EVANS, T.G. - Rare Plant Register species Mons. (v.c.35).

#### Report of recording progress in v.c. 35 (Mons.) 2003

I'm thankful for a slight increase in reports of plants from a small but increasing number of observers. However, after the success of my 1996 effort to see if A. E. Wade's assessment of *Bupleurum tenuissimum* (Slender Hare's-ear) as "very rare", with only 2 sites along the River Severn quoted in his 1970 Flora, was accurate, and finding it in 18 tetrads in numbers totalling hundreds of thousands, in total, which showed that in one year it could be anything but rare, a major search for a small number of species might achieve more accurate results than recording all the species, including so many very common ones, on sites.

The New Atlas of the British and Irish Flora led me to my first species for special effort this year. It appeared from that that v.c. 35, in a Welsh context, was the key area for Narcissus pseudonarcissus ssp. pseudonarcissus (Wild Daffodil). In my search in March and April I was aided by Stephanie Tyler, especially, but also by Richard Poole and Tim Griffiths, Rangers at Llandegfedd Reservoir, Shirley Rippin and Colin Titcombe. This resulted in the logging of 49 significant sites with 17 of them having over 1000 bulbs, 7 of which had many thousands. 27 known or new sites were visited in the year, 11 more had been seen in this millennium and most of the rest had had visits in the late 1990s. All these have a place in my County Rare Plant Register (CRPR), in spite of not being rare. The photo (see suppl. S4, fig. 1) shows just one site "Curley Oak, Wentwood" ST4064 9448, with daffodils stretching away into the distance among beech trees, near the top of a ridge.

The second study was of Vicia sylvatica (Wood Vetch). Within four miles of Chepstow it had been lost for at least five years from its only three sites. A search began, and in at least one of the above woods, St Pierre Great Woods, in a different part of it, along a trackside, two extensive patches were noted on 4th July. Equally rewarding 500m apart and with an interval of two hours a White Admiral butterfly, first I've seen for many years. Prompting this investigation was the accidental discovery of a white-flowered form of the vetch on the margin of Priory Grove, N. of Monmouth, an unrecorded site. It was necessary to look up records of Elsa Wood, Pat Johns and Brian Gregory and try and refind other sites. There was no sign of the plant in either Elsa's or Pat's sites whereas Brian's were more fruitful, though the eastern edge of Garth Wood, where he had seen extensive patches had nothing. His Graig Wood site had a patch 24m x 5m which seemed to be just one plant. Six days later I found a 7m x 2m patch in Troy Orles Wood and the same day a spreading plant where there had been a land slip above the A4136 on the west side of Garth Wood. Colin Titcombe completed the picture on the same day by finding six patches along a Forestry Commission track in Wentwood east of Five Paths, with a final tally of Lost 10, Gained 10. Even with the refound sites, with only one plant per site the future for this attractive plant is not secure. There are some records for the Newport area but their location is not precise. Help someone?

In trying to find access to Morfa Gronw Reen north of the railway line in the Duffryn area of Newport on 27<sup>th</sup> Sept. to see *Nitella flexilis* (a stonewort), I incidently came across 9 patches

of Impatiens capensis (Orange Balsam) in full flower (see suppl. S4, fig. 2) in Pontycwcw Branch Reen. The minor road was blocked with dumped builders' rubbish. Pont Estyll Lane was tried next and along that were 7 patches of the Orange Balsam, a new site. North over the railway line the road was blocked but I was able to walk eastwards along Percoed Reen where there were 7 patches of the Balsam. I still could not find a way to the Nitella site. Late September, early October, especially this year, is the best time to see the plant, when the orange-flecked yellow flowers contrast with the tired green of everything else in the reens or ditches. Some will argue that the plants can be recognised by their leaves earlier in the year, but when you are dealing with 1400km (840 miles.) (NCC Survey of the Flora of Reens of the Gwent Levels 1982-83) of reens in a network, with no obvious access from one section of the net to the next and no certainty as to the ownership of any one section for access permission and single track roads with few places for parking even for one car, any help in detection has to be grasped with eagerness. The above survey and my index cards were used for old records and visits to the area on other days revealed the plant on Pontycwcw Reen and a reen from it to Old Dairy Farm. It was also in ditches on the side of the road south of Coedkernew and south of the railway east of Duffryn High School and on the eastern edge of Tredegar Park Lake. A search around Marshfield, mentioned in Wade, revealed nothing and George Hutchinson could find nothing in NMW to substantiate the record. There were losses but here the gains slightly exceeded them. The first mention of the taxon was in Hamilton's 1909 Flora, though he named it I. noli-me-tangere, present in Tredegar Park. Unlike its cousin I. glandulifera that has become an invasive menace to native plants, it has remained in the area of Duffryn for a hundred years, without any lateral movement. It seems to produce very few well-seeded capsules.

#### LOCAL CHANGE SURVEY

I haven't been able to work up any enthusiasm for the Local Change Survey, because I think enough data has been gathered in the Monitoring Scheme and the Atlas 2000 gathering to work out change well enough, also the Local Change squares for v.c. 35 are largely improved meadow-land. Nevertheless, apart from SO32A tackled largely by Shirley Rippin who will be sending in her records when she has recovered from her late summer walk from Land's End to John o' Groats, I've done about 10 hours in each of three tetrads and about seven in another. Comparing 1986-7 monitoring with this year's recording, negatives have been boosted because apart from one tetrad no visits have been made since June. For 39A there have been 89 taxa not recorded and 49 pluses; in 32W 65 minuses and 34 extras; in 39W 126 minuses and 2 pluses; 39J has had two visits but as one was in March and mainly for daffodils, records are poor.

#### INTERESTING RECORDS

The most interesting record of the year and a 1st for the v.c. was from Jan (Janice) S. Winder, who in June discovered Sisyrinchium bermudiana (Blue-eyed Grass) in a damp part of a meadow of Gwent Wildlife Trust's newly acquired Springdale Farm, near Usk. The plant has a branched stem, which separates it from S. montanum (American Blue-eyed Grass), commonly sold at Garden Centres. I counted over 60 plants that, though I've never seen a Western Ireland site, looked a part of the landscape. The Trust should investigate the origin. A record for Gymnocarpium dryopteris (Oak Fern), always welcome, above the B4246 on the western side of the Blorenge was sent in by Chris F. Brown, working on the World Heritage site at Blaenavon for ADAS. In September, I received a well grown plant of Ambrosia artemisiifolia (Ragweed), via Colin Titcombe, from Mrs Pat Johns of Monmouth. She feeds birds in her garden and this plant grew there.

### BSBI WALES AGM at TY'R MORWYDD, ABERGAVENNY, 5-7th Sept 2003

Friday's evening meal was followed by a short trip to Neil McDonald's Nursery. The narrow path down from Llanfoist car park had both *Calystegia sepium* (Hedge Bindweed) and

C. silvatica (Large Bindweed) and the bracts of the former were shallowly boat shaped but left a gap between them so that the sepals could be seen easily whereas the bigger saccate bracts of the latter hid the sepals completely. On arrival at the nursery the massed Galinsoga parviflora (Gallant-soldier) filled a large bed of a failed runner bean crop, eaten by rabbits. The troughs in Abergavenny town centre were supplied with plants by the nursery and late in the season were also full of Gallant-soldier. A large patch of Medicago arabica (Spotted Medick) had to be walked through to pass alongside the allotment where several plants of Thlaspi arvense (Field Penny-cress) were displaying their fruits that led to their naming. Echinochloa crus-galli (Cockspur), an alien grass more associated with rubbish tips or wild bird feeding stations, formed a large patch among the empty bean sticks. Viola arvensis (Field Pansy), Chenopodium album (Fat-hen) and C. polyspermum (Many-seeded Goosefoot) were among other weeds present. While talking to Neil, bats were emerging from an empty window of an old building that had been left derelict to provide alternative accommodation when his home was being re-roofed.

An AGM competition to identify 40 items giving both English and scientific names for each was set up by Trevor Evans to give those, who might have spare time, a challenge. The items included herbarium specimens, growing plants, photographs, cones, dried plants and a skull. Most of them could be found in v.c. 35 (Mons.) though two were from other vcs in South Wales and Cuscuta europaea (Greater Dodder) was collected from banks of the River Avon near Bristol. The 42 participants of the weekend did not have much spare time but a number filled in their sheets to the best of their ability.

Specimens were ranged from easy to difficult so that everyone was challenged. A small box of Bon-bons was won by Wendy McCarthy, who when I remarked it was surprising she recognised the midge-gall caused by Rhopalomyia tanaceticola on Tansy on No.7 photograph, as I had seen it for the first time the previous year and when I submitted the record to John Robbins, who is collecting gall records nationally, said he had never seen it. admitted she had just bought the latest gall book from Summerfield Books and found it there. Some surprises: how few recognised the skull belonged to a badger, which has such powerful neck muscles that a prominent bony ridge on the top of the skull is necessary to provide attachment for the muscles and to give the jaw extra strength and prevent dislocation when biting, the socket that houses the hinge of the jaw so encloses it that after death, and all the fleshy parts have gone, the jaw still cannot be separated from the skull without breaking bone. Non-recognition of Pyrus pyraster (Wild Pear) even though it had a small roundish fruit on the herbarium sheet; the large vicious spines made some suggest Crataegus sp.; the cones caused more problems than I expected. The over use of recording cards caused quite a few to have difficulty with the Latin endings, I know the feeling. A pressing of Sisyrinchium bermudiana (Blue-eyed-grass), a 60+ colony of which was found in the v.c. this year, and of S. montanum (American Blue-eyed-grass) were put in to give food for thought.

#### T. G. EVANS

#### Report for v.c. 47 (Monts.)

'Local Change', for us in Montgomeryshire, meant re-visiting well-trodden ground for the third time in two decades. We knew that apart from a couple of good 1km-squares, the designated tetrads are fairly unproductive. Neither have there been any obvious alterations in land-use, no new housing estates or roads, no moss draining or ploughing, no freshly-planted conifers. All that, happened long ago, when grants were king. We had botanized A, J and W as well as all the other tetrads for *The Flora of Montgomeryshire*, published in 1995, then again for 'Atlas 2000' because the commoner plants had been recorded for the Flora prior to

1970, the start date for the Atlas project. If, by the end of next year, the lists for Local Change tetrads are longer than those recorded during the 1988 Monitoring Scheme, it will be because we have been able to concentrate our time on these squares only. This is as a result of our completion of the Flora and no longer need to consider every other tetrad in the v.c., as was the case in 1988.

However, there is a silver lining. Whereas in the days of Survey One when critical species were neglected for the greater good, there is now more time for *Hieracium*, *Rosa* and *Rubus*. In the case of *Rubus* especially, Dr David Allen has combed the BM archives for old Monts. records, so now at least we know what we might find, among a positive minefield of possibilities!

In general, throughout the v.c. we have followed the trend for recording more aliens, including, of course, conifers, which were not given much attention in the past. These are a notable feature in the landscape nowadays with almost 25% of the Welsh uplands said to be under mature conifers. As the numbers of first and second records for native plants decline, those for introduced species increase, partly as a result of increased travel and more use of machinery, partly as gardening has become so popular and garden plants have escaped to the wild. But there are still native treasures to be found, like the field of *Colchicum autumnale* (Meadow Saffron) which only came to light this year and the huge old trees which we are currently mapping and measuring for the future. Burgeoning wind-power applications have generated surveys of land previously difficult or impossible to access and have revealed new sites for some of the rarer plants of our remaining high moorland.

One of the most important wildlife sites in the v.c. will change irrevocably in the near future. Since the Montgomery Canal closed to through-traffic in 1944 and the canal became a remainder waterway, it has become a linear nature reserve, of international significance, with Luronium natans (Floating Water-plantain) in every 1km length of the Welsh section. There is now a beautiful, vegetation-fringed waterway, with other rare aquatics, including Potamogeton compressus (Grass-wrack Pondweed) and P. praelongatus (Long-stalked Pondweed), a notable assemblage of invertebrates and nesting swans along most of its length. All have thrived on the minimal maintenance of its remaindered status. The section south of Llanymynech, which marks the border between Shropshire and Wales, is currently being prepared for re-opening to boat traffic, but this time for pleasure, rather than for working boats. One only has to compare the Welsh section, especially for example at Arddlin, with the situation north of the border where the change has already taken place, to see a stark vision of the future. Unless a compromise can be reached, including purpose-built boats and a reduced speed limit, we too could have a canal full of dark water and few plants.

#### M. WAINWRIGHT

#### Report for v.c. 48 (Merioneth)

#### Dactylorhiza traunsteineri in hill country at Dolgellau

On the 5th July 2003 while visiting a colony of *Dactylorhiza purpurella* in hill country at Dolgellau I noticed a group of seven marsh-orchid plants which, because of their markedly deltoid and deeply 3-lobed labella, brought to mind *D. traunsteineri* as one finds it in Anglesey.

In view of the small number of individuals and their interesting nature I did not collect a stem but instead took a labellum from each plant and made notes and measurements in situ.

As marsh-orchid labella are so variable, an unusual shape in these plants might on its own be reasonably dismissed as a mere local anomaly. But I have never seen variation in this direction in D. purpurella (the only other tetraploid marsh-orchid here). Roberts (1961) does not mention such variation in his study of D. purpurella, and Heslop-Harrison (1953) says that D. purpurella even in the broad sense does not transgress the variation range of D. traunsteineri for labellum shape.

Closer examination of the Dolgellau plants shows that they possess numerous other less obvious characters that are attributed to *D. traunsteineri*. The chance of these all occurring in the same individuals somehow without these being *D. traunsteineri* must be slight indeed. Both the general appearance of the plants and an analysis of their characters have left no doubt in my mind that they are indeed what we know as *D. traunsteineri*.

Fig. 1 (see suppl. S2) compares labella of the Dolgellau plants with labella of *D. traunsteineri* from Pentraeth in Anglesey (Roberts & Gilbert, 1963) and from Scraw Bog in Co. Westmeath (Heslop-Harrison, 1953). The resemblance between these populations in labellum shape will be obvious. The length of the midlobe in the Dolgellau plants, measured from the base of an adjacent sinus, 2.0-4.0mm, mean 3.0mm, is even greater than the means of 2.6mm calculated from the Roberts & Gilbert's photograph and of 2.32, 2.37, 2.55, and 2.18 for four populations of *D. traunsteineri* (three in Ireland and one in Berkshire) given by Heslop-Harrison. Fig. 1 (see suppl. S2) also shows labella of *D. purpurella* from the Dolgellau site which contrast markedly in virtually lacking a differentiated midlobe.

Heslop-Harrison remarks on a tendency for the lateral lobes of the labellum to be reflexed in D. traunsteineri somewhat in the manner of D. incarnata. This is true also of the Dolgellau plants. The central labellum of the row shown here (Fig. 1A - see suppl. S2) had lateral lobes so reflexed when fresh that their backs nearly touched.

<u>Inflorescences</u>. Heslop-Harrison says that in all of the colonies of *D. traunsteineri* in his study a proportion of the plants was remarkable in possessing unusually lax few-flowered inflorescences. But there was great variation. At Scraw Bog the number of flowers per inflorescence ranged from 8 to 29. Roberts and Gilbert give 2-14 for Pentraeth and Roberts (1966) means of 7.5 for Pentraeth and 9.7 for Cors Erddreiniog (also in Anglesey). The Dolgellau colony agrees well, with 6-19 flowers per inflorescence, mean 9.1. The lax inflorescences of few large flowers and deep-purple tinting of bracts and spike axis together give both the Dolgellau and Anglesey plants a superficial resemblance to *Orchis mascula*.

Flower colour of the Dolgellau plants is similar to that of *D. purpurella* but slightly paler because the markings are consistently weak and ill-defined, whereas in *D. purpurella* the labella are richly marked with intense purple bars and blotches. This agrees with Heslop-Harrison who says that the colour range of *D. traunsteineri* is somewhat similar to that of *D. praetermissa*, tending on the whole to rather darker shades, but never reaching the intensity characteristic always of *D. purpurella*. There is no similarity, he says, to the pattern of short intense broken bars characteristic of the small rhomboidal labellum of *D. purpurella*.

Number of leaves per plant. Heslop-Harrison gives means of 3.98, 4.32, 4.42, and 3.83 for the four colonies of *D. traunsteineri* he studied, and Roberts (1966) cites 2-5, mean 3.7, for Pentraeth and 3-5, mean 3.9, for Cors Erddreiniog. Figures for Dolgellau are 3-5, mean 3.71.

Narrow leaves. Heslop-Harrison gives mean width of leaves in his four colonies as 1.32, 1.16, 1.18, and 1.28cm; Roberts, means of 1.0cm for both Pentraeth and Cors Erddreiniog. Dolgellau is even narrower with 0.7-1.2cm, mean 0.93cm. By contrast *D. purpurella* at the

Dolgellau site gave 1.1-1.7cm, mean 1.39cm.

<u>Leaf marking</u> is similar to that in *D. purpurella* - few scattered, small dots or virtually none.

The slight leaf markings, deep flower colour, few non-sheathing leaves transitional to bracts, flower spur as stout as in *D. purpurella*, and uniform characters of the plants together rule out the possibility that they are the result of hybridisation with *D. fuchsii* or *D. maculata* which the large 3-lobed labella might suggest.

Fig. 2 (see suppl. S3) compares polygraphs constructed by Roberts (1966) for *D. traunsteineri* and *D. purpurella*, both at Cors Erddreiniog, with an exactly comparable polygraph for the Dolgellau colony – as further evidence of the close similarity of the Dolgellau colony to *D. traunsteineri* in its characters.

Breeding. Roberts (1966) writes on the ability of *D. traunsteineri* to co-exist with *D. purpurella* without losing its separate identity through hybridisation. The Dolgellau plants were certainly keeping distinct although growing close to *D. purpurella*. There seemed to be no evidence of hybridisation whereas one might have expected such a small group, just seven plants, to have been quickly hybridised out of existence.

Habitat. This is of special interest. The Anglesey and Llŷn colonies of *D. traunsteineri* are in more or less level highly calcareous wetlands overlying Carboniferous limestone and/or calcareous drift at low altitude (c.30-60m a.s.l.) in a region of only moderate rainfall (mean c.1100mm per annum). Here the orchids grow in an open habitat of hypnoid mosses and bare wet muddy soil among tussocks of *Schoemus nigricans*. pH of ground water at the Cors Geirch site in Llŷn is "about 7.0, four determinations giving a range of 6.5-7.5" (Lacey, 1955), and in the four colonies studied by Heslop-Harrison, 7.0-7.5.

The habitat of the Dolgellau colony is very different. This is a marshy slope dominated by dense *Juncus acutiflorus* in hill country at about 300m a.s.l. in a locality receiving just about twice the annual rainfall of Anglesey and Llŷn at c.2200mm annual mean, which implies also lower summer temperature and sunshine records. The geology is Ordovician basic igneous, which here gives, as it commonly does, a mosaic of calcareous and acidic habitats rather than the solidly calcareous conditions of the Carboniferous limestone. *Schoenus nigricans* is absent: it is not a species of the uplands of Wales (Ellis, 1983). Yet soil tests (with a B.D.H. testing kit) gave a pH range 6.0-7.8, agreeing well with Lacey and Heslop-Harrison, and the following list of associated species is evidence of a calcareous habitat:

Alchemilla glabra
Anthoxanthum odoratum
Briza media
Carex flacca
C. hostiana
C. panicea
C. pulicaris
Centaurea nigra
Crepis paludosa
Cyanosurus cristatus
Danthonia decumbens

Festuca ovina

Listera ovata
Molinia caerulea
Nardus stricta
Pedicularis palustris
Pimpinella saxifraga
Plantago lanceolata
Potentilla erecta
Primula vulgaris
Prunella vulgaris
Succisa pratensis
Trifolium pratense
Calliergonella cuspidata

Filipendula ulmaria Gymnadenia conopsea Holcus lanatus Hypericum maculatum Juncus acutiflorus Linum catharticum Ctenidium molluscum Hylocomium splendens Hypnum jutlandicum Pseudoscleropodium purum Rhytidiadelphus squarrosus Thuidium tamariscinum

Flowering time. Probably the upland nature of the site accounts for late-flowering of the Dolgellau *D. traunsteineri*. Heslop-Harrison makes a passing remark about "the flowering-seasons (late May and early June)" of the species. Roberts (1966) with characteristic thoroughness says, "In Anglesey it has been found to commence flowering as early as 5 May, reaching a peak around the end of May and continuing until the third week of June. Rarely are any flowers to be seen after 20 June." In 2003 the Dolgellau plants were at maximum flowering on the 5th July.

This note is dedicated to the late Dick (R.H.) Roberts: *Dactylorhiza traunsteineri* is the species probably more than any other that one associates with his botanical life. Sadly, Dick did not live to know of the Dolgellau colony.

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#### Report for v.c. 49 (Caerns.)

Recording for the Atlas finished in 1999 and I felt that the vice county had been pretty well surveyed, with no real gaps. The main problem following on from that was decisions about doubtful records and whether certain species were alien or not.

Recording has continued, although at a less frantic pace, most records having been from Wendy McCarthy. Young Sam Thomas made some interesting discoveries, namely thousands of plants of *Crassula tillaea* in a campsite at Morfa Bychan, Porthmadog, an inland record for *Equisetum variegatum* and a new site for *Drosera intermedia*, near Capel Curig.

I have been concentrating on the Vice County Rare Plant Register. In VC 49 there are 74 Nationally Scarce Plants, 18 Red Data Plants and approximately 44 Locally Rare Native Plants (with 3 or less sites). I have been visiting as many of the known sites as possible to check on numbers and 6-figure references and I have now compiled a fairly comprehensive database with over 600 post-1950 records, which I believe is soon to be published by the CCW.

Some of the more interesting new sites have been for *Hammarbya paludosa*, *Lycopodiella imundata*, *Ranunculus tripartitus*, *Euphrasia rostkoviana* subsp. *montana* and *Persicaria mitis* (*P. laxiflora*).

Recording for Local Change has started and all 7 tetrads have already been pretty well surveyed.

Next year Wendy McCarthy will be taking over from me as Recorder for v.c. 49 and I wish her well.

G. H. BATTERSHALL

#### Report for 2003 v.c. 50 (Denbs.)

Denbighshire v.c. 50, (misspelt Denbyshire in 'New Atlas' CD)

**BSBI** meeting on May 3rd in Llangollen was led by Emily Milleur. Lanes and grassland near Castell Dinas Bran were explored, and there were records of *Moenchia erecta*, *Filago minima* and *Erophila majuscula*.

Local Change recording has covered the six tetrads in the V.C. One of these in the Migneunt (SH74W) was visited once by JAG, Wendy McCarthy and S. Stille on the hottest day of the year, 30°C. We achieved only 46 species in 4 hours of recording... and intend to try again in 2004! The other five tetrads each had 3-4 visits.

Monthly recording meetings have become a social event with friends from Cheshire sometimes outnumbering Welsh members! We exchange news and specimens, and also record butterflies for the Butterfly atlas. Usually 10-12 people come.

#### New records of interest

Ambrosia artemisiifolia (Ragweed). In imported soil at the Flash, Gresford, JAG.

Sparganium erectum subsp. oocarpium. J. Clarke. Subspecies have not been looked at before this year, so distribution is unknown.

Lavatera thuringiaca (Garden Tree-mallow). JAG. previous records of L. arborea should be checked. Distribution unknown.

Polygonum rurivagum (Cornfield Knotgrass) JAG. Found during arable weed survey of Tir Gofal farm in Abergele.

Medicago sativa subsp. varia. Established colony on Kinmel Bay dunes - overlooked. At the same site Festuca arenaria was confirmed..

Epilobium montanum x E. ciliatum. J. Clarke.

J. A GREEN (Nov., 2003).

# Plant Records for Watsonia & the Welsh Bulletin and the Vice-County Census catalogue

#### Plant Records in Watsonia: reprinted from BSBI News 95

The criteria for submission of records for *Watsonia* have been completely revised following publication of the Vice-county Census Catalogue (VCCC), so that Plant Records becomes the formal way of updating the Census Catalogue, and a source of information on new records of rare and scarce species.

At present barely half of Vice-county Recorders (VCRs) regularly publish new records (of species, subspecies and hybrids) in *Watsonia*. It is really important that in future VCRs submit records, not only to keep the VCCC updated, but also to make *Watsonia* records more meaningful. Submission of such records will therefore be requested together with their annual report. We would like VCRs to use the following criteria for what records to submit as VCCC updates for their vice-county:

- First record of all taxa (species, subspecies and hybrids) included in the VCCC, designated as native, archaeophyte, neophyte or casual.
- · First record since 1970 of the taxa above.
- Records demonstrating the rediscovery of all taxa published as extinct in the VCCC or subsequently.
- Newly reported definite extinctions. (Not simply 'not seen for ten years'.)
- Deletions from the VCCC (e.g. through the discovery of errors, the redetermination of specimens, etc.). [NB only those errors affecting VCCC entry].

**Please note** the quite radical changes to the pre-VCCC criteria, including the inclusion of all casuals listed in the VCCC, some of which would previously have been published in *BSBI News*.

In addition, we would like VCRs to submit:

New 10km square records for Rare and Scarce plants, defined, for the moment, as those species in the *New Atlas* mapped in Britain in 100 10km squares or less.

We must collect records of these to make certain we know the real distribution and to help keep the TPDB up to date.

All critical taxa should, of course, be determined or confirmed by an acknowledged expert. This is currently a problem for *Hieracium*.

The history of botany has been littered with erroneous or dubious records and recorders are asked to make every effort to ensure accuracy of completed individual record cards (IRCs). In case of doubt on determinations refer to the appropriate BSBI referee or to BRC. At least 6 figure grid references should be provided and notes on actual location of plants to guide future monitoring should be written on the back of IRCs.

#### Welsh Plant Records in BSBI Welsh Bulletin

In addition to the above, Welsh Plant Records will continue to include new Hectad (10km²) records, but these must now update the *New Atlas of the British & Irish Flora* only. Other interesting records may be included at the discretion of the Vice-county Recorder.

It is essential for the vice-county recorder to indicate the status of the taxon in their submission (native, archaeophyte, neophyte or casual). Records may still be submitted on pink cards, but it would be so much more helpful if they could be sent as a computer file, preferably an Excel spreadsheet. I will gladly supply a template on request.

GWYNN ELLIS, Editor Plant Notes & Welsh Plant Records