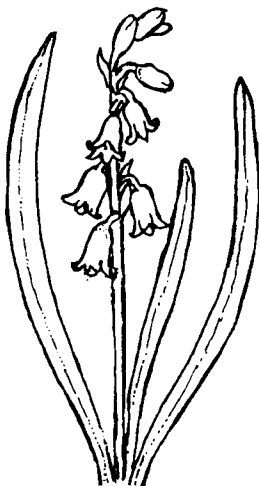


Edited by Gwynn Ellis

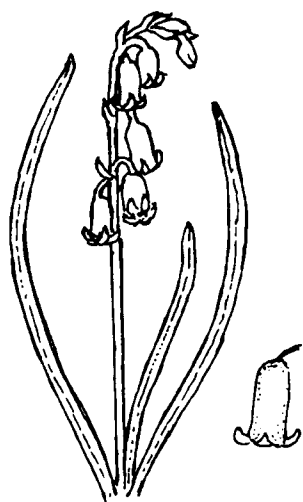
No. 80

41 Marlborough Road, Roath

Cardiff CF2 5BU



*Hyacinthoides x variabilis*



*Hyacinthoides non-scripta*



*Hyacinthoides hispanica*

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## ADMINISTRATION

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## COUNCIL NOMINATIONS

**Nominations** for vacancies on Council, in writing, signed by two members of the Society and accompanied by the written consent of the candidate to serve, if elected, should be sent to the Hon. General Secretary, at the above address to arrive **before February 1st 1999** (see *Year Book 1999* for the list of present Council members May 1998-1999).

Members are reminded that Officers are also elected or re-elected at the AGM, and Committee members are appointed by Council at the meeting following the AGM. The Hon. Gen. Sec. will be pleased to receive nominations for consideration by the Executive Committee.

Gwynn Ellis, Hon. General Secretary

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**CONTRIBUTIONS INTENDED FOR *BSBI NEWS* 81**  
**should reach the Editor before March 1 1999**

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## IMPORTANT NOTICES

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### COVENANTS AND SUBSCRIPTIONS

A leaflet sent out with the September issue of *BSBI News* detailed the benefits to the Society of members covenanting their subscriptions. Unfortunately this met with a very poor response, and as a result Council will be asked at its next meeting to recommend to the AGM a £2 increase in subscriptions to cover an anticipated shortfall in funds.

However, if a sufficient number of members could be persuaded to covenant their subscriptions, this proposed increase would be unnecessary at this time. So can we urge all members who are in a position to covenant to do so, at no cost to themselves. **PLEASE COMPLETE THE COVENANT FORM AND RETURN TO** the Membership Secretary, Mr M. Walpole. Details of current subscriptions are on page 6 of *Year Book 1999* included with this mailing.

Meanwhile we thank most warmly those members who have signed covenants.

MICHAEL BRAITHWAITE (Hon. Treasurer) and GWYNN ELLIS (Hon. General Secretary)

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### *BSBI NEWS* INDEX – ANYONE FOR ‘TYPING’

George Hutchinson has completed the preparatory work for *BSBI News* 61-70, but unfortunately there is no one to do the ‘typing’ for the eight issues, Nos 61-69. To save time the preparatory work has not been hand-written. Instead, enlarged pages of the text (A4 instead of A5 as printed) have been marked up by underlining in various ways in red. The volunteer would be supplied with a copy of one issue in A4 format and on disk (in rich text format) from which the index can be created by referring to hard copy of the corresponding page sheets marked up in red and deleting all unwanted text. It will therefore be essential for the volunteer to have access to a computer.

Any volunteers should contact the editor in the first instance.

EDITOR

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## DIARY

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**N.B.** These dates are supplementary to those in the 1999 Calendar in *BSBI Year Book 1999*.

### 1999

January	31	Deadline for notification of paper for Kent Memorial issue of <i>Watsonia</i> (see p. 59)
February	2	Warburg Memorial Lecture, Oxford (see p. 52)
	6	Druce Lecture, Cambridge (see leaflet with this mailing)
March	18-21	John Ray and his Successors, Conference (see <i>BSBI News</i> 79: 70)
May	1	Deadline for submitting papers for Kent Memorial issue of <i>Watsonia</i> (see p. 59)
	1-2	<i>Identifying Meadow Dandelions</i> , 2 day course, Oxford (see p. 52)
	23	Viewing day for <i>Cypripedium calceolus</i> (see page 51)
July		Identifying aquatic macrophytes course, Anglesey (see p. 53)

EDITOR

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## EDITORIAL & NOTES

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**Congratulations** to Alex Lockton and Sarah Whild who have now been appointed as our joint Co-ordinators and our thanks to all those who expressed an interest in the post.

**Congratulations also** to Mrs Joan Clark on reaching the grand age of 90; it must be all that pure Scottish highland air!

**Thanks** to the 273 members who came to the Annual Exhibition Meeting in London on November 28<sup>th</sup>, and particularly our thanks to the Exhibitors. We would also like to record our thanks to Roy Vickery whose hard work in the preparations before the meeting, and his organisation of the lay out, exhibit spaces and programme on the day ensured the smooth running of the meeting.

The Meetings Secretary and her brother, Ailsa and Rob Burns kept guard at the door taking the signatures and also contributing to the arrangements of the day, and judging by the continuous and cheerful buzz of conservation all those there enjoyed the meeting.

**Thanks also** to Nick Stewart for allowing the splendid drawings of our emblem to appear on the front cover of this issue in memory of his mother Olga Stewart. Many of Olga's drawings have graced our front cover and it is fitting that these three versions of our emblem as the native bluebell, it's Spanish cousin and the hybrid between them should appear here (they also appear on the contents page of *Plant Crib 1998*).

**An apology** to Francis Rose for getting the English names of the Man and Lady orchids the wrong way round (see also p. 19), and, on behalf of Wendy McCarthy, to Dick Roberts for wrongly crediting the discovery of *Eriophorum gracile* at Cors Geirch NNR to Peter Benoit in a Field Meeting Report in *BSBI News* 78.

**Code of Conduct** A new edition of the *Code* has been completed but publication has been slightly delayed while our new co-ordinators explore an alternative means of publication which may significantly reduce the cost to the Society. We hope that it will be published this Spring and mailed to members with the April edition of *BSBI News*.

**And finally**, Eileen Taylor sends this splendid photo of the late Duggie Kent (see also p. 59) together with Mike Mullin (left), who, as members present at the AGM will know, is recovering following treatment for liver cancer. Mike phoned Mary Briggs to thank her and all who signed his get well card for their kind thoughts. He was 'terribly touched' by the card – which arrived on Monday November 30th (when he was feeling down after chemotherapy). Fortunately, his cancer has been diagnosed as 'eminently treatable', and he is very positive about it. He was back to his cheerful self when on the phone to Mary and said that he was 'feeling very good'. He also said that he is 51 this year, has lost 51 lb. and so 'back to the old sylph-like Mike again'. Carry on the recovery Mike, and best wishes from us all.



Mike Mullin (l) & Duggie Kent (r) at Brent River Park, London. Photo E. Taylor © 1993

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## ATLAS 2000

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### PROGRESS REPORT

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The Atlas project is really gathering pace now, with a constant flow of records being submitted to me, sent to Monks Wood, entered onto the database and then returned to Vice-county Recorders for checking. Captions are being written for the maps, the 1999 field meetings have been planned, and we will soon be ready to make a big push for the final year. We are now, however, at a vital stage of the project in terms of data submission, and we really need as much data as possible to be sent in this winter.

#### Records Received

As expected, now that everyone has come in from the cold, wet field season (did anyone actually go out in sunshine this year?), the submission of Atlas 2000 records is beginning to increase again. At the recent Scottish Annual General Meeting, I collected Mastercards and records on disk for 61 hectads, and data on disk for 116 hectads arrived on the same day recently (79 of which came in by e-mail!). Every postal delivery now includes more records and it's really exciting to see the map for Britain gradually filling up.



The map above shows the 1196 hectads for which we have currently received Atlas 2000 records. This represents 42% of the total squares in Britain.

Things are also progressing well in Ireland, with more completed Mastercards having been received. Declan Doogue (Co-ordinator in the Republic) has just surveyed all the squares and is in regular contact with the Vice-county Recorders. Many areas have been very thoroughly covered (many hectads have now reached the 300+ taxa mark). Despite all their sterling efforts, however, the problem in the Republic is a lack of recorders on the ground, and there are large areas still needing considerable work. Declan and I will be working hard in 1999 to get these areas covered and we anticipate a major thrust in the field – please help if you can by supporting the Irish field meetings.

For progress in Northern Ireland please see the article by Fiona MacKee in this edition of *News* (p. 10).

### **Vice-counties 'Finished'**

Amazingly, the Recorders for 21 Vice-counties and 3 Channel Islands have submitted all (or nearly all) their data. In some cases, updates for the Monitoring Scheme are all that remain, but all current data has been submitted in others. These counties are:

<i>Vice-county</i>	<i>Submitted by</i>	<i>No. of squares</i>	<i>Method of Submission</i>
Guernsey	Bridget Ozanne	5	Mastercard
Alderney	Brian Bonnard	3	Disk (using Aditsite)
Sark	Roger Veall	1	Mastercard
E. Cornwall	Rose Murphy	32	Mastercard
N. Devon	Bill Tucker	32	Mastercard
Dorset	Humphrey Bowen	37	Disk (using MapRecs)
Wight	Colin Pope	9	Disk (using Aditsite)
N. Hants	Mike Wildish	16	Mastercard
Middlesex	Rodney Burton	17	Mastercard
Northants.	Gill Gent and Rob Wilson	22	Disk (using Aditsite)
Mons.	Trevor Evans	14	Disk (using BioBase)
Rads.	David Humphreys	13	Disk (using BioBase)
Caerns.	Geoff Battershall	22	Disk (using Aditsite)
Denbs.	Jean Green	20	Disk (using Aditsite and BioRecs)
Cheshire	Graeme Kay	24	Disk (using own system)
SW Yorks.	Geoffrey Wilmore	33	Disk (using own system)
S. Northumb. & Cheviot	George Swan	51	Mastercard
Kirkcudbrights.	Olga Stewart	29	Mastercard
Peebles.	David McCosh	11	Mastercard
Selkirks. & Roxburghs	Rod Corner	25	Excel version of the Mastercard
W. Lothian	Jackie Muscott	4	Mastercard
E. Sutherland	Morven Murray & Ken Butler	27	Disk (using Primula)
Caithness	Ken Butler	25	Disk (using Primula)
Outer Hebrides	Richard Pankhurst	79	Disk (using Recorder)

(NB: No. of squares = the entire squares allocated to the Recorder for the Atlas, not all the squares and part squares in the county).

Many thanks to all of these for getting their results in early. I hope to give additions to this list next time!

### **Monitoring Scheme Squares**

Observant readers will notice that I've now included Monitoring Scheme squares in this map and this has been done for several reasons. Firstly, these squares are generally well recorded in the 1987+ date

class. Secondly, this data is already in the database at Monks Wood. However, these squares do need some attention for the new Atlas. From the results we've had so far, we would expect lists of additional species to come from these squares, particularly of aliens (see **Aliens** below)

### Progress at Monks Wood

Entry of Atlas 2000 data onto the Vascular Plant Database is also rapidly gaining pace. To date, records from 648 new hectads have been entered. The remaining records are in the pipeline between me, delivery to Monks Wood and entry onto the database. Nearly 300,000 new Atlas records have been added and, to our great satisfaction, 87% of these are in the 1987+ date class. Approximately 45% of these records have come in on computer disk and 55% by Mastercard.

### Hectad League Table

Looking at the data as it gets entered onto the database at Monks Wood, we can begin to construct a league table for the most species rich hectads in the country.

Taking the 1987+ data only first, Norfolk leads this table comfortably with 900 taxa recorded for TF/6.2 (north King's Lynn, v.c.28) and 894 for TG/2.0 (Norwich, v.c.27), Middlesex tying for second place with 894 for TQ/1.6 (Hampton Court and Chessington, v.c.21). The table in Scotland is lead by NS/5.6 (Mearnskirk, just south of Glasgow), a square including parts of Lanarks., Renfrews, and Dunbarton (v.cc.77, 76 & 99), with 820 taxa. In Wales, first place is currently taken by ST/2.8 (between Cardiff and Newport) in Mons. (v.c.35) with 810 taxa.

If, however, we look at the total number of taxa recorded in all date classes, the table is led by Middlesex (v.c.21) with 1188 taxa recorded in the TQ/1.6 square (see above), 1122 in TQ/0.6 (Chertsey) and 964 in TQ/0.7 (Staines). Data for these squares has been submitted by Rodney Burton and his Mastercards must have taken considerably longer to compile than normal! In Scotland, first place goes to NS/5.6 again (this time with 933 taxa) but in Wales the prize goes to the Newport square (ST/3.8) with 918 taxa (although I'd like to say 'come on' to Geoff Battershall and Wendy McCarthy in Caerns. (v.c.49), the Conwy square, SH/7.7, is not far behind with 903 taxa!).

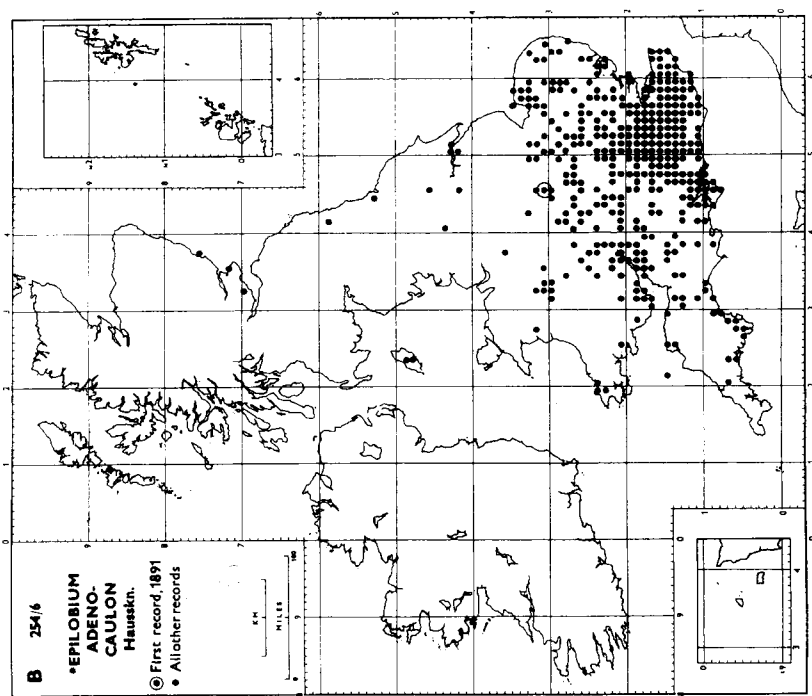
### Aliens

Similarly, it is tempting (although scientifically rather pointless) to look at the data itself. The following was prepared by Chris Preston after data from 504 Atlas hectads had been entered. These records are far too clumped to have any meaning, but they do indicate some changes in the British flora that the new *Atlas* will document. We have looked at alien species as many of these are where changes are most pronounced.

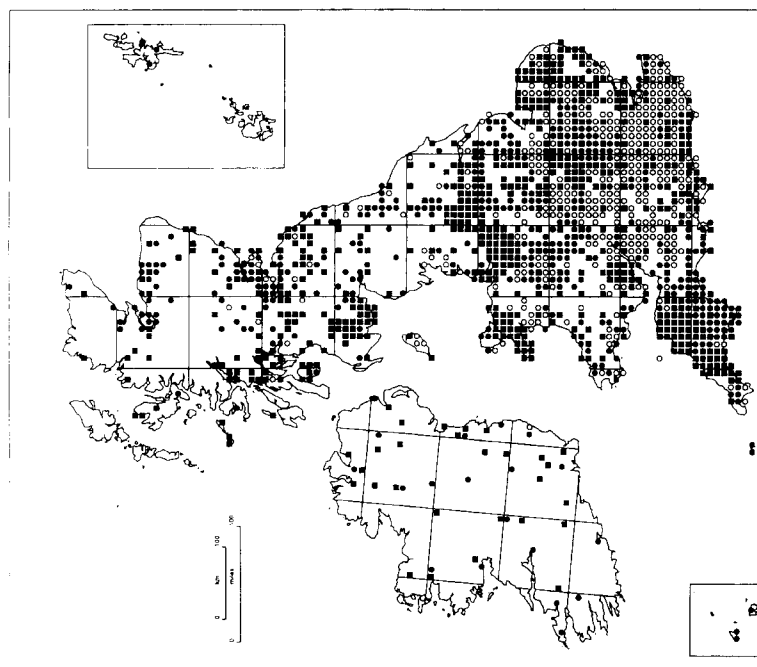
In the league table of most frequently recorded aliens in the 1987+ date class, there is currently a tie for first place between *Acer pseudoplatanus* (Sycamore) and *Matricaria discoidea* (Pineapple Weed) with 418 squares each. Third is *Aegopodium podagraria* (Ground Elder) with 381 squares. Of the top fifty taxa, eight were not mapped in the 1962 *Atlas*, namely *Symphytum* × *uplandicum* (Russian Comfrey), *Lunaria annua* (Honesty), *Malus domestica* (Apple), *Lamium galeobdolon* subsp. *argenteum*, *Picea abies* (Norway Spruce), *Acer platanoides* (Norway Maple), *Ligustrum ovalifolium* (Garden Privet) and *Populus alba* (White Poplar). It is encouraging that so many of these are trees (the number of conifers in this category considerably increases when you look at Scottish squares) and that others were only recently brought to our attention (the *Lamium* was only brought to our attention in Britain in 1986 by Allan Stirling and Alison Rutherford).

Of the taxa that were mapped in 1962, one of the biggest expansions is in *Epilobium ciliatum* (American Willowherb). The maps below show the original Atlas map on the left (*E. adenocaulon* as it was then) and the latest map (showing all available records) on the right (open circles are pre 1970 records, closed circles are 1970-1986 records, closed squares are 1987+ records). This species is currently 7th on the list of British aliens, with 306 1987+ hectad records.

We are continuing to put emphasis on the recording of aliens, an effort justified by these preliminary results!



Original Atlas map

*Epilobium ciliatum* (American Willowherb)

Latest Atlas 2000 map (showing all available records)

(○ are pre 1970 records, ● are 1970-1986 records, ■ are 1987+ records)



### Get Your Records In!

We are about to enter the final year of the Atlas 2000 recording season (why does my stomach turn when I write that?). We are urging Vice-county Recorders to get their results into us as soon as possible because the final deadline for the submission of data is **November 1999**. This apparently early date is to give Monks Wood time to enter the data produce maps for editing and checking. Obviously, this doesn't leave much time to get your 1999 field data to Recorders, so I'd also like to urge **everyone to get any outstanding field records to their Vice-county Recorders this winter**. This will allow them to submit the maximum amount of data by the spring, see which areas need attention next year, and leave them with only the 1999 data to deal with next year. Therefore, please also get your 1999 field data to Vice-county records by **at least 1st September 1999**.

### Under-recorded Squares

Next year is our final field season. Most of our BSBI meetings in 1999 are Atlas 2000 recording meetings (although there are some *Rubus* and non-recording meetings) and these have been arranged to improve the coverage of under-recorded areas.

In many cases by now, however, it is individual hectads (10 km squares) that need attention. These normally do not justify a proper BSBI meeting and so we will **publish a list of under-recorded squares in the next edition of BSBI News**. Please keep your diaries free and try to visit and record in these squares. (The list of squares will, in fact, be ready in January – I'll be happy to provide anyone wanting details in advance with the list.) What more of a direct contribution to the *Atlas* could you hope to make?

### Wild Flower Society Grant

Last year, as in 1996, the Wild Flower Society were kind enough to give us a grant towards recording in mountainous areas. This was used to employ a botanist (Gordon Rothero) for 13 days to survey some remote (and I mean remote) upland areas in Scotland that would otherwise have gone un-recorded. Gordon spent the time in the Applecross area of Wester Ross (v.c. 105) and in the borders between East and West Sutherland (v.c. 107 & 108). He has written a report (in the form of a diary) that will appear in the Wild Flower Society's magazine. This includes lists of the more interesting species, notes on the weather (such as, 'Heavy rain and cloud all day', 'Drizzly rain and low cloud all day', and 'A dry morning followed by a periodically wet afternoon ending in a cloudburst') and the superb statistics, 'Total distance covered 215 km (of which 26 km was on a bike) ...' and, 'Total time recording 110 hours'. We are very grateful indeed to both Gordon and the Wild Flower Society for all their help.

### Authors

David Pearman has now found species-caption authors for over 90% of the families covered by the Atlas. There are a few significant gaps, however, so if you fancy writing very short, concise species accounts for the **Amaranthaceae**, **Brassicaceae** or **Polygonaceae**, please get in touch with David Pearman (The Old Rectory, Frome St. Quintin, Dorchester, Dorset, DT2 0HF).

### Acknowledgements

The *Atlas 2000* is a collaborative project involving the Biological Records Centre of the Institute of Terrestrial Ecology and the Botanical Society of the British Isles. It is funded by the Department of the Environment (in Great Britain) with additional support from the Environment and Heritage Service (Northern Ireland) and the National Parks and Wildlife Service (Republic of Ireland). We are grateful to all these bodies for their support.

Many thanks are also due to the Portsmouth Natural History Society who, when winding themselves up, gave the balance of their funds (£400) towards the Atlas project.

TREVOR DINES, Rhyd y Fwch, Near Bethel, Caernarfon, Gwynedd LL55 3PS Tel. 01248 670789,  
e-mail: [TrevorDines@compuserve.com](mailto:TrevorDines@compuserve.com)

## THE VASCULAR PLANT DATABASE FOR NORTHERN IRELAND (NI) AND NI ATLAS 2000 PROJECT

This project has two purposes, one to create a centrally held database of all the vascular plant records in Northern Ireland (NI), and in doing so meet the requirements and deadlines of the BSBI Atlas 2000 Project.

When the BSBI's new Atlas scheme was getting under way, the task as it related to Northern Ireland's six counties seemed mainly to be one of bringing together all existing records rather than of recording afresh. This is because a number of counties had been subject to fairly intensive recording during the previous fifteen years or so. Thus the three counties covered by Stewart & Corry's *Flora of the North East of Ireland* saw a complete revision of that work published in 1992 (the project began in 1976). A parallel and more intensive recording effort was going on in Co. Fermanagh (a *Flora* is now nearing completion) and in Co. Tyrone (*Flora* in preparation), while Co. Armagh had been subject to long and methodical recording by the late Norah Dawson from the 1960s onwards.

Add to these existing databases the data generated by the Northern Ireland Lake Survey of 1986-89 (funded by Environment and Heritage Service (EHS) DoE NI), by the activities of EHS' own staff and by the staff of the National Trust and one begins to appreciate the large numbers of records 'swilling about' in different databases, some paper-based, and others on various computer programs.

The Secretary of BSBI's Committee for Ireland, Paul Hackney, approached EHS in 1996 with a suggestion that finance might be provided to bring these data into a single consolidated vascular plant database, as well as to provide some finance to assist BSBI members in Northern Ireland to carry out additional new field recording where desirable. (Northern Ireland was not covered by the agreement with the Department of Environment at Bristol relating to field work and dataprocessing in Great Britain.) Subsequently a contract was drawn up between EHS and BSBI whereby, from April 1997 I have been employed by BSBI to collate the existing and new records into a *Vascular Plant Database (VPD) for Northern Ireland*.

The products of the contract are two-fold: firstly to produce the unified database on *Recorder* which will provide the customer, i.e. EHS, with a valuable tool for assessing the conservation needs of individual species and sites and for monitoring decline or advance of species and secondly it will provide BSBI and BRC Monkswood with the necessary data to allow Northern Ireland to be included in the forthcoming *Atlas 2000*.

I am based at **CEDaR** (Centre for Environmental Data and Recording) which is the environmental records centre for Northern Ireland, holding all biological (both terrestrial and marine) and geological records for the whole province. It is located within the Department of Botany of the Ulster Museum in partnership with EHS. I also spend a proportion of my time at EHS headquarters where I am computerising data collected by EHS' own Habitat Survey Team. Data collected from Areas of Special Scientific Interest (ASSIs) are being entered by **CEDaR** staff.

The project in Northern Ireland differs quite considerably from Great Britain where the process involves field recording and then the compilation of Master Cards for each hectad (10 km square). Here the individual field cards produced from each 'site' visit (at preferably a six figure grid reference level) are entered into the *Recorder* database creating a VPD from which hectad summary data can be extracted. This means that even if a hectad is not as well covered as it should be, the information that exists for it is entered into the database regardless. It is then possible to extract numbers of species for every hectad in each vice-county and determine which squares need attention.

In this way the process of producing verification and discrepancy lists will be carried out at **CEDaR**. Submission of the Atlas data for Northern Ireland to Trevor Dines will therefore take place during December 1999, when verification and validation of the database have taken place.

Post 1987 records take priority and are processed first. Progress so far has resulted in Antrim, Fermanagh and Tyrone being computerised up to the end of the 1997 field season. The various datasets that make up the database so far can be seen in Table 1.

There are six Vice-counties in Northern Ireland. Of these six, three Vice-county Recorders use computers to store their data:

- Fermanagh H33 – Ralph Forbes and Robert Northridge – **Recorder**
- Antrim H39 – Stan Beesley – **BioRecs**
- Down H38 – Paul Hackney – **Recorder**

I am responsible for entering onto **Recorder** the datasets for the remaining three Vice-counties:

- Londonderry H40 – Dave Riley
- Tyrone H36 – Ian McNeill
- Armagh H37 – John Faulkner

In addition, I am also entering field cards compiled by another BSBI member in Northern Ireland, John Harron. John is a very active botanist who travels all over the province and submits a tremendous amount of records through the appropriate Vice-county Recorders.

Table 1

Total number of:	Mar-98	Sep-98	Increase
Records held on <b>Recorder</b> at <b>CEDaR</b>	550,362	677,806	127,444
Vascular plant records at <b>CEDaR</b>	362,352	471,107	108,755
'Atlas 2000' records at <b>CEDaR</b>	55,200	104,855	49,655
BSBI Monitoring Scheme records	n/a	33,614	n/a
BioRecs - Stan Beesley records	n/a	65,035	n/a
Fermanagh dataset - Ralph Forbes/Robert Northridge records	n/a	173,280	n/a
Lancaster Coastal Survey records	n/a	31,992	n/a
NI Lake Survey records	n/a	33,849	n/a
Fenbase - Fen Survey records	n/a	11,727	n/a
Total number of VP records that can be accounted for in the above categories		454,352	

A rough estimate of the number of records available in Northern Ireland to be incorporated into the VPD stands at ~900,000. This figure has been reached by combining some of the figures from Table 1 plus the future work that needs to be done (see Table 2).

Table 2

Available datasets	No. of records
Vice-county Recorders	~600,000
EHS	~60,000
BSBI Monitoring Scheme	<b>34,000</b>
Flora of the Northeast	~150,000
Herbarium	~30,000
Lancaster Coastal Survey	<b>32,000</b>
NI Lake Survey	<b>34,000</b>
Fenbase	12,000
Total	952,000

Figures in bold are the datasets already entered into the VPD, although some of the records for each of the other datasets have also been entered, but are not yet complete.

Future work will include entering data for counties Londonderry and Armagh collected by the previous Vice-county Recorders. *The Flora of the North East* must also be entered along with the dataset for County Down and the records available for extraction from the Herbarium held at the Ulster Museum.

In EHS there is a large quantity of quadrat data on the computer programme Vespan. This needs to be converted into *Recorder*. A conversion programme has been written for this and transfer of data should start soon.

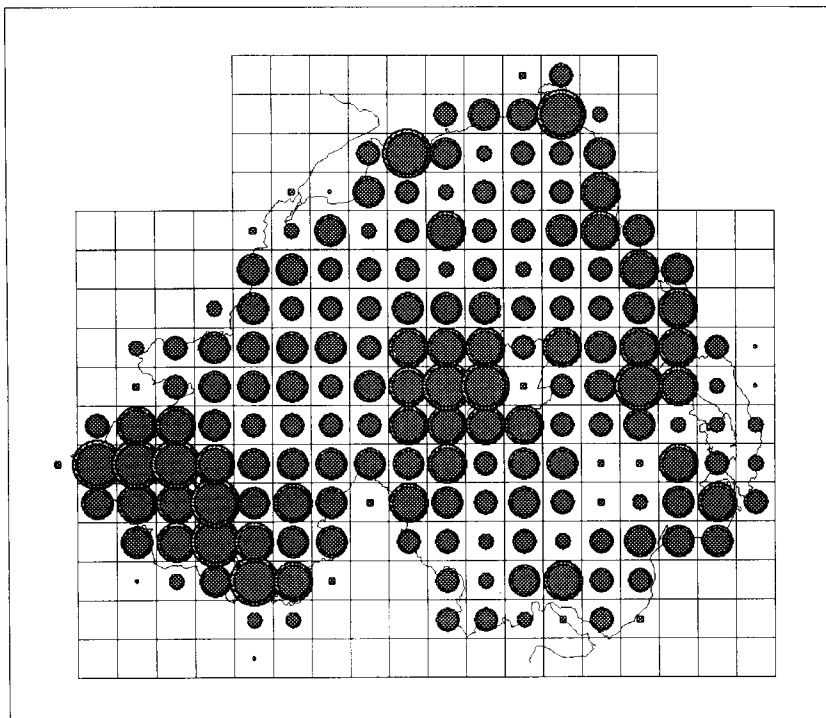


Figure 1

Figure 1 is a map representing the number of species recorded in each hectad within Northern Ireland (this analysis does not take into account the Atlas date classes). There are 183 hectads in Northern Ireland. Of these, over 79% have more than 300 plant species recorded as being present. The hectad containing Belfast has the most species recorded in it at 815. Quite a few of the hectads with less than 300 species actually have very little land within the borders of Northern Ireland and are therefore probably recorded as fully as they can be (especially those in Vice-county H33 as a *Flora* for that county is nearing completion.)

Progress is very good in Northern Ireland and work is continuing at a steady rate. Field cards from the 1998 field season have already started to come in and plans are being made for the next and final field season for the Atlas Project. Hopefully any 'gaps' which have surfaced through this initial analysis will be filled in, and Northern Ireland will be up to date for the Atlas publication.

FIONA McKEE, BSBI, Botany Department, Ulster Museum, Botanic Gardens, Belfast, BT9 5AB.

Tel.: 01232 383118

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## CO-ORDINATORS' CORNER

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It has been a most interesting and enjoyable experience to meet so many members of the Society during the last six months, while we have been 'holding the fort'. The Recorders' conference in Lancaster was something of a highlight, with a number of excellent debates, lectures and – most of all – identification workshops. The sight of the poor referees working late into the night over many beautifully-pressed (and some disgracefully scruffy) specimens, is one to remember. At times the tension was positively thrilling, as Richard Lansdown explained, apologetically, the inscrutability of *Callitriche* (Water-starworts) and threatened (almost) to exclude all records from the Atlas, or as Alan Silverside discovered new populations of arctic Eyebrights in the Welsh Marches. We were later inundated with enthusiastic comments about the conference and requests for another one next year; thank you everyone for your kind remarks but, having stepped in at the last minute, we cannot take any of the credit – the planning and organisation was mostly done by Trevor and Cameron months ago. And we will all have to wait for 2000 for the next one.

### Rare Plant Registers

One thing that has progressed well in the last few months is the idea of County Rare Plant Registers, as they are now officially called. We have drawn up guidelines with suggestions about format and sources of information. An important point is that the 'rules' are now finalised – and they follow those given by Lynne Farrell and Frank Perring in *BSBI News* 71: 10-11 (1996). These rules are no longer subject to negotiation: they have been approved by the Records and Science & Research Committees and commented on by many people, including representatives of the Country Agencies and others with an interest in conservation. Perhaps no set of criteria is perfect, but the Registers will be a much more useful tool for science and conservation if they can be produced to the same standard for every vice-county. There is plenty of scope for initiative and imagination in the production and use of the registers – this is a far more interesting way to spend one's time than arguing about whether three sites or four makes a species rare . . . . Copies of the guidelines are available from us to anyone who has a serious interest in producing a Rare Plant Register, but please talk to your v.c. recorder before embarking on such a project.

### Computerisation

Another task to pick up from Cameron Crook is the guidance for v.c. recorders over computerisation. This has been proceeding along at a tremendous pace. One or two 'missing links' revealed themselves after the last edition of *BSBI News*, including John Durkin in Co. Durham, who has been doing a sterling job at the Hancock Museum on the data for what some of us still consider the best of all County Floras. Meanwhile, Roger Riddington in Shetland and Jon Mallabar in Herefordshire are both worth a particular mention for their progress, and ours thanks are due to their respective v.c. recorders, Walter Scott and Stephanie Thomson, for putting up with the Young Turks.

We had a weekend of inputting data for the South Lancashire Flora Project, which is inching its way towards an exciting new multi-disciplinary Flora. Over 8,000 records were computerised, and we would like to thank everyone who came along to help. But we were not just typing in records. There is no doubt about it – good biological recording takes a lot of time to master, and there are no short cuts, which is why we prefer to offer two- or three-day training courses, rather than an afternoon session. This is a subject that could easily fill the pages of *BSBI News*, but that is better reserved for botany, so we have a separate newsletter largely on this subject for v.c. recorders. So if there are still any missing links or computer buffs out there, please get in touch and add your name to our mailing list.

### Threatened Plants Database

An important initiative after the Atlas 2000, and for at least the next three years, will be the NBN Threatened Plants Database project, jointly run by us with the JNCC, English Nature, CCW, SNH, the Biological Records Centre and Plantlife. The aim is to update our knowledge on Britain's rarest plants

in the wake of the recent(ish) publication of *Scarce Plants* and the forthcoming third edition of the *Red Data Book*. We shall hopefully be reporting more fully – and asking for your help – in the next issue of *BSBI News*.

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## RECORDERS AND RECORDING

### Panel of Referees

The death of Duggie Kent is a great loss to the BSBI, and not least to the Referees' Panel where he filled many posts. He refereed *Solidago* as well as providing advice to members on several taxonomic and general subjects: herbaria, nomenclature, and systematic works and monographs; and he and Dr David Allen together gave assistance with biographical details of British botanists. We are glad to say that Dr Allen has agreed to take over **Herbaria**. For the rest, please see future issues of *BSBI News*.

Dr Allen has also offered to give advice on the medicinal uses of British plants. He is currently working on a comprehensive list of references on this subject, and would be pleased to answer members' queries.

We have some other changes to the list: Ron Payne, who has been refereeing world-wide alien grasses for the last few years, is handing over to his friend Bruno Ryves, the first author of the BSBI publication *Alien Grasses of the British Isles*. We welcome Bruno Ryves, also known to members as the referee for *Amaranthus*, and thank Ron Payne for his help with alien grasses; he is continuing to referee the *Bromus* group for the time being.

We also welcome Trevor Dines, the Atlas 2000 Organiser, who has offered to referee Solanaceae which he studied for his thesis. I suspect he may receive a lot of *Lycium* specimens.

Our congratulations to Michael Foley on achieving his Ph.D on *Orobanchae*, which he is continuing to referee for us.

Finally, there are some changes to referees' addresses, so please make sure you use the addresses in the 1999 Yearbook.

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### Changes in v.c. Recorders

Members will receive the current complete list with their *Year Book 1999*, but it may be of assistance to list the changes since *BSBI News 79*.

#### Appointments

v.c. 14 E. Sussex	Mr A.G. Hoare to be joint recorder. All correspondence to Mr P.A. Harmes
v.c. 21 Middlesex	Mr R.M. Burton
v.c. 22 Berkshire	Prof. M.J. Crawley
v.c. 27 E. Norfolk	Mr R.W. Ellis
v.c. 39 Staffs.	Mr J.E. Hawksford
v.c. 52 Anglesey	Mr I. Bonner to be joint recorder. All correspondence to Mr N.H. Brown
v.c. 110 Outer Hebrides	Dr P. Smith to be joint recorder. All correspondence to Dr R. Pankhurst

**Resignations and Deaths**

- v.c. 21 Middlesex Mr D.H. Kent. We very much regret to announce the death of Duggie Kent who had been our recorder since 1949 – our longest serving by many years.
- v.c. 22 Berkshire Dr S.L. Jury. We thank Stephen who has been recorder for ten years.
- v.c. 27 E. Norfolk Mr A.L. Bull. Mr Bull feels that the impending publication of the new *Flora of Norfolk* is an appropriate moment to step down, after fourteen years in the post. We thank him very much for all his very successful efforts
- v.c. 39 Staffs. Mr B.R.W. Fowler. We thank Brian, who has been the recorder for 12 years.
- v.c. 73 Kirkcudbrights. Mrs O.M. Stewart. We regret to announce the death of Olga Stewart, she had been our recorder since 1972. This recordership is now vacant, as the joint recorder, Mrs L.W. Maryfield does not wish to take sole responsibility.

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## VICE-COUNTY RARE PLANT REGISTERS: THE STANDARD MODEL OR A REVISED ALTERNATIVE – A RESPONSE

In the last issue of *BSBI News*, Mr Andy Jones and the 'new' Co-ordinators pointed out that the Crook (1998) version of the locally rare and locally scarce criteria had problems and that the Perring & Farrell (1997) criteria were 'more workable'. Numerous arguments were put forward as to why this should be the case. However, though some valid points were made, much of this was conjectural, inaccurate and misleading and it is this which has prompted this response by the author of the original article rather than the 'new' Co-ordinators.

It is well known that plant conservation is strewn with problems since accurate assessment of any one species requires multiple criteria to be taken into account (Given 1997). And even then, this is not necessarily the same criteria for all species due to variations in life strategy, population structure and even habitat for example. So of course, any attempt to rationalise these problems and apply them to the local level is not an easy task. Jones and his consultees state that the Crook criteria for local rarity are less workable than the original Perring & Farrell criteria. This may be true, but then, a vice-county recorder's 'best guess' as to which species are rare and scarce is more workable still.

It is accepted that the Crook criteria for local rarity are not ideal. However, these were an attempt to use quantifiable data to give an indication of rarity at the local level. Earlier attempts, devised to address problems with population size based on the new IUCN criteria (World Conservation Union 1994) were deemed by the various BSBI Committees and consultees as being too difficult to implement and confusing for recorders. It was for this reason that the guidelines were simplified (perhaps overly so!). The brief was to produce a clear and concise working document which was not cluttered by background thinking and philosophy. Jones and his consultees make numerous criticisms of the Crook local rarity criteria, which are apparently backed up by the new Co-ordinators: these criticisms are addressed below.

- Jones suggests that the 0.2 and 0.6% criteria proposed in Crook (1998) are purely arbitrary. This is true but is the three or less 1 km sites criterion for local rarity as proposed by Perring & Farrell and used by Chater (1995) any less arbitrary?
- Jones presumes, correctly, that the Crook criteria were scaled down from the national RDB 15 or less 10 km squares (Perring & Farrell 1983) and Nationally Scarce 16-100 10 km squares (Stewart *et al.* 1994) criteria. But these national criteria were also based on arbitrary figures (Perring *pers. comm.*, Pearman *pers. comm.*) but which roughly and coincidentally account for 20% of the British native flora. Furthermore, the guidelines for assessing species for Biodiversity Action Plans (UK Local Advisory Group 1997) endorsed by the Country Conservation Agencies, use occurrence of a particular species within 0.6% or less of tetrads within a vice county, as the cut off point for inclusion. Could this really be a coincidence? Curiously, Jones who works for one of these agencies, fails to mention it!

- Jones suggests that the proposed 0.2 and 0.2-0.6% criteria are imprecise. Surprisingly, during the extensive consultation which took place during development of the guidelines, the local criteria were criticised as being too precise! Jones and his consultees suggest that the 'Wells Site' (a mobile area of 1 km diameter, which is also imprecise) should be used to assess local rarity. This definition of a site can lead to differences in whether a plant is considered rare or not in borderline cases, in just the same way as Jones suggests it would by rounding up or down the 0.2 and 0.2-0.6% threshold with the Crook criteria. The definition of what constitutes a 'site' is yet another ongoing debate which will be difficult to resolve. But few sites over Britain as a whole actually cover an area of 1 km, the vast majority of those which could be assumed to be a 'site' being anything from 0.25 to 100 ha.
- Jones refers to simple comparisons being possible between vice-counties whilst using the Perring & Farrell criteria. But how can a species occurring in three 1 km squares of a vice-county comprising say 2,500 1 km squares be equally as rare as a species occurring in three 1 km squares in a vice-county comprising 1250 1 km squares (as in the case of the adjacent West (60) and South Lancashire (59) vice counties)? Surely this is not a valid comparison, statistically or logically!
- Jones mentions Richard Pryce's model for Local Red Data Books and that this uses the Perring & Farrell criteria. However, he fails to point out that this document also uses the Crook criteria (R.D. Pryce *pers. comm.*).
- And finally, Jones states that, based on Arthur Chater's trial run using the 0.6% criterion and data from species starting A-C in his own vice county, would result in a calculated 1,600 sites for Locally Rare species. He suggests that producing lists of so many species would be very time consuming and result in large documents. But he fails to mention that this was addressed in Crook (1998) where it is suggested that individual recorders should assess *as many species as possible within the time available*. In other words, if there is no time and resources to include the 0.2-0.6% band, then only species falling within the 0.2% or less band would need assessing and would result in a much smaller register which would still be comparable to other registers produced in a similar way. In fact, Arthur Chater's data would not produce 1,600 sites for Locally Rare species since the 0.6% criterion is that for Locally Scarce!

Fundamental to all this is the question 'why do we need rare plant registers at all?' If it is for the fun and enjoyment of knowing what is and isn't uncommon within a vice-county, then there is no need for any such formalisation – the vice-county recorder's best guess would be quite sufficient. However, if they are intended as a reliable working document for use in planning applications and public enquiries, then quite clearly, criteria which differ from county to county according to size carry little weight and credibility. Take the case in Lancashire which so far as the administrative county is concerned, comprises parts of four vice-counties. None of these vice-counties are wholly within the administrative county. Furthermore, the two vice-counties which are mostly within the County (59 & 60) differ in size by almost 50%. This has led the County Council to produce an 'administrative county' version of a local rare plants register (LCC 1995. Jepson, *pers. comm.*) which uses different criteria again, but in this instance some measure of population size and threat to the species concerned are taken into account in a similar way to the IUCN guidelines (World Conservation Union 1994). The question is, how can instances such as this be rationalised for vice-county rare plant registers? Using proportional representation can be easily interpolated to smaller fractions of a vice-county. The three or less 1 km criterion cannot, as it is an absolute measure, not a proportional one!

A compromise to the situation would be, assuming the three or less 1 km squares criterion is the preferred option, to select the average sized vice-county (c.23,000 1 km squares) and scale all other vice-counties to this. Resultant data would then need correcting for the size of population and fragility of the species concerned, if it is to be meaningful. But again, this would lead to fractions of 'sites' and imprecision.

All in all, Jones (1998) was, in my opinion, an unsatisfactory attempt to discredit the Crook (1998) criteria, which fell well short of providing an alternative proposal for local rarity. It now appears that after three years of deliberation and consultation, BSBI have returned to the three or less 1 km sites local rarity criterion (Lockton & Whild 1998) as originally proposed by Perring & Farrell (1996).



Surely this is a dangerous and retrograde step if BSBI are to be seen as a fighting force in plant conservation? If BSBI are not able to formulate and implement rigorous, assertive, plant conservation guidelines which are directly comparable from vice-county to vice-county irrespective of size, and incorporate some measure of population size and fragility, then perhaps this task should be left to conservation organisations like Plantlife, the Wildlife Trusts or Local Authority Ecologists.

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## NOTES AND ARTICLES

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### THE DNA PHYLOGENY OF FLOWERING PLANTS

The DNA based phylogeny of flowering plants highlighted in the press in early December provides a new and exciting approach to plant classification. A major paper co-ordinated by K. Bremer, M. Chase and P. Stevens, including work by about 75 scientists world-wide is about to be published in the *Annals of the Missouri Botanic Garden*. A summary of this paper will be given in the next *BSBI News*.

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### LUDWIGIA PALUSTRIS IN DORSET

Eric Clement (*BSBI News* 77:54), in assessing the 'spread' of *Ludwigia palustris* (Hampshire-purslane), found that the new Surrey record was in fact *L. × muellertii*, the hybrid with the alien *L. natans* Elliott. Jonathan Cox from English Nature Dorset Team, who found the Dorset site near Edmondsham (SU/0.1) in 1996, suggested that I revisit the site and check the identification.

I did this on 1st September 1998 and found the following in the pond which was re-dug in 1995/6:

Ludwigia – 10 plants on bare mud, or on edge of pond; *Juncus effusus*, *J. conglomeratus*, *J. articulatus*, *Ranunculus flammula*, *Alisma lanceolatum* (3), *Potamogeton natans*, Charophyte – *Nitella* sp.

*Alisma lanceolatum* is very rare in the county, with no records anywhere near the site. The charophyte was sent to Nick Stewart who speedily determined it as *Nitella mucronata*, new to the county. He added that he viewed its occurrence in sites elsewhere with some suspicion, as it seemed to be available from garden centres and to grow in company with plants of alien provenance.

It was with some diffidence that I sent the *Ludwigia* to Eric Clement, but he identified it as the native species, *L. palustris*, and now awaits with even more interest confirmation, or otherwise, of the new records from Sussex, Essex and Lancashire.

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## NEW FLORA OF THE BRITISH ISLES, ed. 2 - IMPORTANT ERRATA

I regret that among the errata that have come to my notice are a few important items which would cause confusion or misidentification, and I am therefore grateful to the editor for allowing me to report them here. I offer my apologies for these, and request readers to inform me of any others that come to their notice, however trivial they may seem.

Page 178 – *Petrorhagia*. Stem pubescence and leaf-sheath length/width ratio characters of *P. nanteuillii* and *P. prolifera* should be reversed.

Page 221 – *Viola palustris*. Under ssp. *palustris*, insert 'petioles' before 'glabrous'.

Page 453 – *Cornus* key. In couplet 4 alter the stone characters: 'Stone flattened-ellipsoid, longer than wide, tapered at both ends' (*C. alba*); 'Stone flattened-subglobose, c. as long as wide, rounded at base' (*C. stolonifera*).

Page 608 – *Sibthorpia europaea*. There is text missing between 'procumbent,' and 'orbicular' in line 1 of this sp. It should read: 'rooting at nodes, to 40cm, pubescent; leaves reniform to'.

Page 633 – *Utricularia* key. In couplet 2 the quadrifid arm ratios are the wrong way round (correct in text and figure). Swap this phrase between the two leads of couplet 2.

Page 674 – *Arctium*. Capitulum sizes for all 3 spp. are given as width x length; width exceeds length in all cases.

Page 727 – *Olearia* key. Leaf-lengths in the two leads of couplet 4 (*O. x haastii* and *O. avicenniifolia*) should be reversed.

Page 796 – *Trichophorum cespitosum*. Characters of the leaf-sheaths and -blades (but not of the habit, spikelets and stem-anatomy) for the two subspecies have been reversed. Swap the phrases 'uppermost . . . opening' between ssp. *cespitosum* and *germanicum*.

Page 873 – *Agrostis* key. First lead in couplet 8 (*A. castellana*): 'hairs >0.3mm' should read '0.2-0.3mm'.

Page 951 – Iridaceae key. Reword couplet 11:

11 Style 3-branched, each branch bifid with the 6 ultimate branchlets longer than the 3 primary ones 12

11 Style unbranched with 3-lobed stigma, or style with 3 branches each unbranched or shortly bifid 13

Page 964 – Orchidaceae key. Delete leaf-spotting from both leads of couplet 9 (*Neotinea* and *Orchis*).

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## A NEW INFRAGENERIC ORCHID HYBRID FOR BRITAIN!

We were most intrigued to read Francis Rose's account of the exciting discovery in Kent of an ostensibly bigeneric orchid hybrid between *Aceras anthropophorum* (Man Orchid) and *Orchis purpurea* (Lady Orchid) (*BSBI News* 79: 19-20), and are wholly convinced by the parentage that he infers for the two plants in question.

However, we would like to emphasise that terrestrial orchid systematics has recently benefited from detailed research into evolutionary relationships (phylogenies) using nuclear DNA sequences, with some startling (but incontrovertible) results (Bateman *et al.* 1997, Pridgeon *et al.* 1997). One of the more important outcomes was the taxonomic division of what was previously viewed as *Orchis* into three independently evolved groups. One morphologically heterogeneous group that includes '*Orchis*' *morio* and '*Orchis*' *laxiflora* has been synonymised into *Anacamptis*, and a second smaller group that includes '*Orchis*' *ustulata* is now part of *Neotinea*.

Thus, the reduced, true *Orchis* now consists of the primitive 'anthropomorphic' species such as *O. simia* and *O. purpurea* plus the more 'advanced' *O. mascula* aggregate and its Mediterranean relatives such as *O. patens* and *O. quadripunctata*. The results also clearly show that, despite its greatly reduced spur (a common evolutionary phenomenon within the Orchidaceae), '*Aceras*' *anthropophorum* is a *bona fide* member of the anthropomorphic *Orchis* group and thus best treated as *Orchis anthropophora* – indeed, this interpretation has received further support from as-yet unpublished DNA sequences obtained by us from chloroplast genomes.

This revised understanding of orchid evolution makes better sense of Dr Rose's excellent discovery, as the parental species are now seen not only as congeneric but also as closely related even within the one genus. This comment applies equally to our earlier published discovery of a hybrid between '*Aceras*' *anthropophorum* and *Orchis simia* in Kent (Bateman & Farrington 1987), which now should also be viewed as an infrageneric hybrid arising exclusively within the re-delimited *Orchis*.

Thus, Rose's '*Orchiaceras meilshheimeri*' Rouy (1912) becomes *Orchis* · *macra* Lindl (in Babington 1843) and our '× *Orchiaceras bergonii*' (Nanteuil) Camus (1892) becomes *Orchis* · *bergonii* Nanteuil (1887). And of course, the frequent occurrence of these 'intergeneric' hybrids within mixed populations of *Orchis* in Continental Europe becomes a less worrying fact, at least to those of us who believe that genera should be circumscribed in such a way that they possess strong genetic cohesion.

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## WHATEVER HAPPENED TO THE HEMLOCK?

Hemlock (*Conium maculatum*) is a tall, graceful umbellifer with purple spots on its stalks and intricately cut pinnate leaves. The flowers are white and generally appear in late June or early July. Once the plant has finished flowering the leaves die away leaving the stalks with their umbels of seeds at the top to stand through the winter. They are well-known plants popularly known as 'kex' in the Midlands. The sap contains a narcotic, which is very poisonous to humans, causing laboured breathing, irregular heart

action and loss of sensation terminating with complete paralysis. It was the drug used to execute Socrates in ancient Greece. It can have the same effect on cows and horses and children sometimes fall foul of it when they cut the stems to make whistles, but goats are said to be able to eat it with impunity, as are Larks and Quails, and Thrushes can eat the seeds.

Over the past month or so I have noticed a die-back of the Hemlock on several sites in Nottinghamshire. Where this has occurred it has affected virtually every plant, although quite similar plants such as Cow Parsley (*Anthriscus sylvestris*) and Hogweed (*Heracleum sphondylium*), growing amongst it, have remained unscathed. In May the Cow Parsley starts to flower and by early June the Hemlock's purple blotched stems have grown up through it and, when almost half as tall again as the Cow Parsley, it also begins to flower. This year, just as the flowers were beginning to open they began to wilt and droop over. Very soon the flowers were completely dead and had gone a beige colour and the leaves had turned yellow. By the end of July most of the plants were completely dead. It did not seem to matter where the plants grew, whether on well-drained slopes or ill drained areas. So far as I know no plants at the following sites in the South of Nottinghamshire, Attenborough, Colwick, Holme Pierrepont or Netherfield have managed to set seed and I have also noticed plants affected the same way in the north of the county, at Lound and along the banks of the River Meden near Budby Common, near the centre of the county, as well as along several roadsides.

So far there has been no confident explanation of what has occurred but a virus or fungus is thought to be the cause and has attacked the plants at their growing tips during their main growing period. This is probably, for a short period, the most vulnerable part of the plant and once the infection has invaded, the sap system has been attacked and then blocked off, causing the initial wilting.

The Hemlock is a biennial and so may take a couple of years to start to come back but in the meantime, a complete habitat has gone. There is probably more Hemlock at Netherfield than many other sites and, in the past, it has supported a vast number of insects. I do not know which insects feed on Hemlock but certainly many hoverflies, damselflies and butterflies take advantage of its shelter. In late July and early August this habitat is alive with the young passerines of the season. Loose flocks containing juveniles of at least seven warbler species, some finches, Reed Buntings and tits are regularly seen hunting through the stems and are pretty well protected from predators. This year the cover is meagre and there are not so many insects on the dead Hemlock stems. The young birds have to forage in different places this year and are now seen more often in the hedgerows around the edges of Netherfield.

I have been told that similarly affected plants have been seen in Berkshire and West Sussex and would be interested to hear if this phenomenon is county-wide or nation-wide. If the same disease attacks the Hemlock next summer this plant could well be added to the endangered list.

This article first appeared in *The Nottinghamshire Naturalist*, August 1998 and is printed here by permission.

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## COMMON DAISIES UNDER THREAT

This is a worrying time to be a daisy. *Bellis perennis*, literally 'beautiful perennial', currently faces a major challenge both to its looks and to its ability to perennate.

The reason is that a newly arrived rust fungus belonging to the genus *Puccinia* is fast ravaging introduced varieties, and either the same fungus or a closely related one is doing the same to native populations in the wild.

I first noticed stricken daisies in April 1995. In an east London park, rectangular beds of 'Monstrosa' forms (large double-flowered 'Pom-Poms' traditionally grown as spring annuals) were found to be completely overwhelmed by the orange-yellow blisters which contain this parasite's spore-bearing structures (aecia). All the plants were moribund, their flowering stems bent and distorted and their leaves curled, pale and limp. A truck-load of glyphosate delivered by a hurricane could hardly

have done a better job. Within the month I had noticed outbreaks of *Puccinia* on cultivated daisies also in three municipal gardens in north and central London.

In October 1996, on a Tottenham council estate lawn, I detected a visually similar rust affecting native daisies. Within the next twelve months it had become evident that a *Puccinia* species was spreading throughout the London area on these plants; scarcely an urban lawn or roadside is now seen without it. Over the last two years, observations similar to my own have been documented independently in other parts of southern England and northern Europe (Weber *et al.* 1998) and also in Shropshire (Preece, pers. comm.).

It is unusual but not unheard of for rusted garden plants of foreign origin to end up making serious pathological impact on the British flora. Hollyhock rust, *Puccinia malvacearum*, identified in South America about 150 years ago (Buczacki & Harris, 1985), promptly wreaked havoc in Victorian nurseries and rapidly spread to native Common Mallows (*Malva sylvestris*) upon which it remains abundant to this day. Presumably both host and parasite have, by now, adapted themselves to a sustainable partnership; perhaps, in decades to come, our new wild daisy rust will manage to do the same.

In the meantime, I judge the epidemic to merit red alert. Indigenous daisies in urban habitats, at least, are steadily declining in favour of increased perennial grasses, dandelions, plantains and other species (pers. obs.). Bearing in mind that in a given colony of wild daisies, there will normally occur individuals covering a wide age range, it is understandable that their downfall should appear less dramatic than the simultaneous collapse of even-aged bedding cultivars. But this is not to underestimate the overall losses caused by *Puccinia* in the wild. As it infects an individual host, that plant's flowering capacity may continue for a few weeks or months, but its blistered leaves gradually become yellowed, twisted and untidily ascending before dropping into flaccid decay. Their normal tight rosette posture thus violated, they also become more vulnerable to human trampling, so physical damage adds to infirmity. Moreover, the same plants may be infected over and over again by ambient spores until they finally succumb. This is because, in London's mild climate, both host and parasite can remain reproductively active throughout the year, barring very infrequent occurrences of extreme heat-wave or extreme frost, we apparently have no set dormant season for either organism.

In the nineties, then, orange-coloured rusts are becoming increasingly common on native and alien forms of *Bellis perennis*. But also since the sixties, orange-coloured rusts have become increasingly common, and remain so, on native *Senecio vulgaris* (Groundsel) and alien *S. squalidus* (Oxford Ragwort). I say 'rusts' with caution because mycologists still only partially understand which *Puccinia* species are involved and how host-transferable each one may be.

*Puccinia lagenophorae* is the modern rust on *Senecio*; that much at least is not in dispute. It has apparently quite replaced an 'old' rust, which Darlington (1968) illustrates under the name *Coleosporium senecionis*; how that change-over ever came about is a mystery in itself. *P. lagenophorae* is an alien invader, presumed Australian and first recorded in Great Britain in 1961 (Wilson & Henderson 1966). It was reliably cross-infected to *Bellis* in the 1960s by Irene Wilson. It is described as 'rarely seen' on *Bellis* in Ellis & Ellis (1997).

Tom Preece (pers. comm.) discloses that a rust has sporadically attacked cultivated daisies for about 25 years in this country, and he initially suggested that this may be *P. lagenophorae* as well.

Weber *et al.* (1998) propose the name *Puccinia distincta*, also an Australian invader, for modern daisy rust. However Tom Preece warns that, for the time being, the name is safely applied only to the rust on wild daisies. Verification of the one on cultivated daisies depends upon microscopical examination not of the usual aecial spore stage which is orange, but of another, more diagnostically reliable stage called telia, which is **black**. These are prone to produce inconspicuously small black pustules or lesions low down on the petioles. They do occur on wild daisies, albeit rarely, and have therefore enabled the identification of *P. distincta* to be made. They have not yet been detected on cultivated daisies at all.

Wild daisies also had an 'old' rust, *Puccinia obscura* long known as a rare, modest native which produces its black telia on *Luzula* species (wood-rushes). It is possible that this was accidentally exported to Australia where it mutated and returned here in new guise as *P. distincta*. *P. obscura* is still around, and very difficult to find. And *P. distincta* cannot be cross-infected to *Luzula*!

All of which is complicated enough, so here is another facet to the story. A native smut fungus, *Entyloma calendulae* f. *bellidis* also attacks daisies. I have seen it on wild plants throughout the year, but not on cultivated ones in any month. Its symptoms are small, pale creamy-fawn coloured speckles on the upper-sides of leaves. Held up to the light, though, these speckles appear darker than their surrounding healthy laminar tissue due to masses of minute spore balls (sori) contained within. Tom Preece informs me that there were only ever two or three British records of daisy smut before 1990. Now, in the mid-nineties, we have each found it in quantity in more than ten separate localities within walking distances of our homes in Oswestry and London. How and why has this happened? Even granted that naturalists with keen eyes for such subtleties are themselves a rarity, we consider that this parasite must still have increased very remarkably over recent years. Fortunately, *Entyloma calendulae* is less harmful to its host than *Puccinia distincta*; affected plants do not change their overall growth morphology and probably would not die if this were their only burden in life. Unfortunately, in the dozen or so London sites where I have noticed it, the *Puccinia* is scourging the same plants, so they are losing ground anyway.

Taxonomy and ecology apart, there are poignant aesthetic and cultural issues here, too. 'Bellis' is indeed beautiful. The daisy – the day's eye – one of our commonest, best-loved, yet most often taken-for-granted wildflowers, is also a plant steeped in folk lore, nostalgia, leisure, humour and the evocation of childhood innocence (Mabey 1996). As we may cherish these attributes and associations, so, I hope, may we become aware of some emotional response to the survival crisis the species is now facing in at least part of its native range, because of the onslaught of *Puccinia distincta*. I hope, too, that such emotions may encourage you, as *BSBI News*-readers, to re-examine daisies in your own region, and let us know what you find, so we can build up a clearer picture of what is actually happening to the species nation-wide. How extensively, for example, are *Puccinia* and *Entyloma* attacking rural populations of daisies in grazed meadows, pastures, coastal turf, chalk grassland, upland hills, country parks, cottage gardens, etc.? Do these parasites come up against any climatic, altitudinal or pH barriers beyond which their host may grow safely? What other floristic changes are taking place where daisies are already dying out? I believe that careful monitoring along these lines would be valuable at this time.

I welcome your responses to this paper, either as published comments or articles, or in letters addressed to me. Please enclose a s.a.e. if you wish me to reply. Well dried, pressed leaves of diseased wild and cultivated daisies are welcome, too (on **no** account attempt to post fresh specimens). If interesting I will pass them on to the mycologists currently investigating the matter. Specimens should always be gathered in generous quantity – no conservation qualms here! They should also be accompanied with full collecting data. Above all, do seek out black telia which may be lurking obscurely low down on their host plants, looking like small dusty slits or pimples. Any found on cultivated daisies will be most interesting of all, if not new to science. And thank you for your interest.

In conclusion, I wish to thank Tom Preece for identifying material, for providing a rich historic background to the present subject and for sustaining our enthusiastic correspondence on microfungi generally.

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## FUNGAL INFECTION OF CYPRESS SPURGE

With reference to Peter Horn's note (*BSBI News* 79: 22), I suspect that the symptoms he reports are caused by infection with a rust fungus. I have several times visited a well known population of *Euphorbia cyparissias* in the Breckland, near Tuddenham in West Suffolk, where I have found diseased plants bearing aecidia of a rust that was probably *Uromyces pisi* (Wilson and Henderson, 1966). Diseased plants do tend to be elongated and blind. However, *E. cyparissias* is a host of other rust fungi, including *Uromyces scutellatus* that forms uredia and telia (but not aecidia) on the spurge, infected shoots of which are relatively taller, and bear shorter, broader, leaves. Diseased plants do not flower (Butler, 1958).

It might be useful to monitor temporal changes in disease incidence in the host population to assess the possible effects the pathogen may have on host survival. There have been various studies (see Burdon, 1993) on the effects of disease in wild plant communities and your colony could make an excellent subject for research on host-pathogen interactions and conservation!

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## CYPRESS SPURGE INFECTION

Peter Horn (*BSBI News* 79: 22) mentions deformed shoots of Cypress Spurge (*Euphorbia cyparissias*). The symptoms described seem to match the rust *Uromyces scutellatus*. 'The infected shoots are relatively taller, bear shorter, broader and yellower leaves and do not flower.' First published British record in 1958 from Tuddenham in West Suffolk. (Wilson & Henderson, 1966). Rusts are mostly well-adapted parasites and rarely kill their host, although they may weaken it.

On the subject of rusts, members may have noticed the rust (*Puccinia distincta*) on *Bellis perennis* (Daisy). The leaves become paler, more erect and slightly undulate with concentric black and orange rings of the different types of spore bodies. This rust severely weakens the host. First recorded in Britain in April '97 (Weber *et al.* 1998) [but see also page 20] by summer '98 it was abundant and extremely widespread. It's quite frightening that an alien plant disease could attain such abundance within a single year. What if the host had been a crop plant rather than just the Daisy?

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## LIST OF PLANTS ENDEMIC TO THE BRITISH ISLES

In the British Isles, there are currently about 2200 native species including c. 230 *Taraxacum*, c. 330 *Rubus* and over 260 *Hieracium* microspecies. Of these, about 430 are endemic to the British Isles (c. 20% of the flora). The endemics are composed mostly of critical taxa – *Alchemilla* (1),

*Euphrasia* (9), *Hieracium* (149), *Limonium* (7), *Rubus* (200), *Sorbus* (15) and *Taraxacum* (39) but there are about 10 non-critical species and 30 endemic subspecies.

The list of 470 species and subspecies below has been compiled from the literature to include British and Irish endemics (including Channel Islands) of subspecific rank or above, but excluding hybrids. The list should be regarded as provisional as further work on *Rubus* and *Taraxacum* especially is showing some species occur in Europe, and the endemics within *Ranunculus auricomus* agg. and other *Ulmus* remain to be described.

Nomenclature, taxonomic rank and endemic status follows Stace (1997) with the following exceptions: *Cochlearia* (Dalby 1991), *Hieracium* (Sell & West 1968, Pugsley 1948 pro parte), *Rubus* (Edees & Newton 1988 and updates in Randall 1998 and pers. comm. D. E. Allen), *Taraxacum* (Dudman & Richards 1997, Kirschner & Štěpánek 1998), and other miscellaneous papers from *Watsonia*. Sell & Murrell's (1996) revision of *Dactylorhiza* gives different status to some taxa, and there are likely to be changes to the list of *Hieracium* endemics with publication of their Volume 4.

<i>Alchemilla minima</i> (but see Walters 1998)	<i>Euphrasia rivularis</i>	<i>Hieracium callistophyllum</i>
<i>Anthyllis vulneraria</i> ssp. <i>corbierei</i>	<i>Euphrasia rotundifolia</i>	<i>Hieracium cambricogothicum</i>
<i>Arenaria ciliata</i> ssp. <i>hibernica</i>	<i>Euphrasia vigursii</i>	<i>Hieracium cambricum</i>
<i>Arenaria norvegica</i> ssp. <i>anglica</i>	<i>Fumaria capreolata</i> ssp. <i>babingtonii</i>	<i>Hieracium camptopetalum</i>
<i>Athyrium flexile</i> (but see Jermy & McHaffie 1998)	<i>Fumaria occidentalis</i>	<i>Hieracium candelabrae</i>
<i>Bromus interruptus</i>	<i>Fumaria purpurea</i>	<i>Hieracium cantianum</i>
<i>Calamagrostis scotica</i>	<i>Gentianella amarella</i> ssp. <i>hibernica</i>	<i>Hieracium carneddorum</i>
<i>Centaureum latifolium</i>	<i>Gentianella amarella</i> ssp. <i>septentrionalis</i>	<i>Hieracium centripetale</i>
<i>Cerastium fontanum</i> ssp. <i>scoticum</i>	<i>Gentianella anglica</i>	<i>Hieracium chrysolorum</i>
<i>Cerastium nigrescens</i>	<i>Geranium robertianum</i> ssp. <i>celticum</i>	<i>Hieracium cillense</i>
<i>Cochlearia atlantica</i>	<i>Helianthemum oelandicum</i> ssp. <i>levigatum</i>	<i>Hieracium clovense</i>
<i>Cochlearia micacea</i>	<i>Herniaria ciliolata</i> ssp. <i>ciliolata</i>	<i>Hieracium completum</i>
<i>Cochlearia officinalis</i> ssp. <i>scotica</i>	<i>Herniaria ciliolata</i> ssp. <i>subciliolata</i>	<i>Hieracium cravonense</i>
<i>Coincya monensis</i> ssp. <i>monensis</i>	<i>Hieracium acamptum</i>	<i>Hieracium crebridentiforme</i>
<i>Coincya wrightii</i>	<i>Hieracium aggregatum</i>	<i>Hieracium cremnanthes</i>
<i>Cotoneaster cambricus</i>	<i>Hieracium ampliatus</i>	<i>Hieracium cumbriense</i>
<i>Dactylorhiza incarnata</i> ssp. <i>coccinea</i> ?	<i>Hieracium anfractiforme</i>	<i>Hieracium cuneifrons</i>
<i>Dactylorhiza incarnata</i> ssp. <i>gemmana</i> ?	<i>Hieracium anguinum</i>	<i>Hieracium cuspidens</i>
<i>Dactylorhiza incarnata</i> ssp. <i>pulchella</i> ?	<i>Hieracium angustisquamum</i>	<i>Hieracium cyathis</i>
<i>Dactylorhiza majalis</i> ssp. <i>cambrensis</i>	<i>Hieracium asteridiophyllum</i>	<i>Hieracium cymbifolium</i>
<i>Dactylorhiza majalis</i> ssp. <i>occidentalis</i>	<i>Hieracium attenuatifolium</i>	<i>Hieracium dasythrix</i>
<i>Epipactis youngiana</i>	<i>Hieracium auratiflorum</i>	<i>Hieracium dewarii</i>
<i>Euphrasia anglica</i> ?	<i>Hieracium australius</i>	<i>Hieracium difficile</i>
<i>Euphrasia cambrica</i>	<i>Hieracium backhousei</i>	<i>Hieracium dilectum</i>
<i>Euphrasia campbelliae</i>	<i>Hieracium bakerianum</i>	<i>Hieracium dipteroides</i>
<i>Euphrasia heslop-harrisonii</i>	<i>Hieracium breadalbanense</i>	<i>Hieracium drummondii</i>
<i>Euphrasia marshallii</i>	<i>Hieracium breve</i>	<i>Hieracium eboracense</i>
<i>Euphrasia pseudokernerii</i>	<i>Hieracium briganium</i>	<i>Hieracium eucallum</i>
	<i>Hieracium britanniciforme</i>	<i>Hieracium eustales</i>
	<i>Hieracium calcaricola</i>	<i>Hieracium eustomon</i>
	<i>Hieracium calvum</i>	<i>Hieracium flocculosum</i>
		<i>Hieracium fulvocaesium</i>
		<i>Hieracium glanduliceps</i>
		<i>Hieracium glandulidens</i>
		<i>Hieracium graniticola</i>
		<i>Hieracium gratum</i>
		<i>Hieracium grovesii</i>
		<i>Hieracium hanburyi</i>



<i>Hieracium hartii</i>	<i>Hieracium pugsleyi</i>	<i>Limonium dodartiforme</i>
<i>Hieracium hebstiforme</i>	<i>Hieracium pulchrius</i>	<i>Limonium loganicum</i>
<i>Hieracium hybridense</i>	<i>Hieracium radyrense</i>	<i>Limonium paradoxum</i>
<i>Hieracium hethlandiae</i>	<i>Hieracium rectulum</i>	<i>Limonium parvum</i>
<i>Hieracium hibernicum</i>	<i>Hieracium riddelsdellii</i>	<i>Limonium procerum</i>
<i>Hieracium holophyllum</i>	<i>Hieracium rivale</i>	(3 subspecies)
<i>Hieracium hyparcticoides</i>	<i>Hieracium sanguineum</i>	<i>Limonium recurvum</i>
<i>Hieracium hypochoeroides</i>	<i>Hieracium saxorum</i>	(4 subspecies)
<i>Hieracium insulare</i>	<i>Hieracium scarpicum</i>	<i>Limonium transwallianum</i>
<i>Hieracium isabellae</i>	<i>Hieracium scullyi</i>	<i>Linum perenne</i> ssp. <i>anglicum</i>
<i>Hieracium kennethii</i>	<i>Hieracium senescens</i>	<i>Luzula multiflora</i> ssp. <i>hibernica</i>
<i>Hieracium laetificum</i>	<i>Hieracium shoobredii</i>	<i>Pilosella flagellaris</i> ssp.
<i>Hieracium langwellense</i>	<i>Hieracium silvaticoides</i>	<i>bicapitata</i>
<i>Hieracium leptodon</i>	<i>Hieracium simians</i>	<i>Primula scotica</i>
<i>Hieracium leyanum</i>	<i>Hieracium snowdoniense</i>	<i>Pteridium pinetorum</i>
<i>Hieracium leyi</i>	<i>Hieracium sohum</i>	<i>Pteridium aquilinum</i> ssp.
<i>Hieracium linguans</i>	<i>Hieracium sparsifrons</i>	<i>fulvum</i>
<i>Hieracium macrocarpum</i>	<i>Hieracium spenceanum</i>	<i>Rubus acclivitatum</i>
<i>Hieracium maculoides</i>	<i>Hieracium stenolepiforme</i>	<i>Rubus accrescens</i>
<i>Hieracium magniceps</i>	<i>Hieracium stenophyes</i>	<i>Rubus acutifrons</i>
<i>Hieracium marginatum</i>	<i>Hieracium stewartii</i>	<i>Rubus adamsii</i>
<i>Hieracium maritimum</i>	<i>Hieracium subamplifolium</i>	<i>Rubus adenanthoides</i>
<i>Hieracium marshallii</i>	<i>Hieracium subcrocatum</i>	<i>Rubus aequalidens</i> ?
<i>Hieracium melanochlori-</i> <i>cephalum</i>	<i>Hieracium subglobosum</i>	<i>Rubus aghadargensis</i>
<i>Hieracium memorabile</i>	<i>Hieracium subgracilentipes</i>	<i>Rubus ahemifolius</i>
<i>Hieracium milesii</i>	<i>Hieracium subhirsutum</i>	<i>Rubus albionis</i>
<i>Hieracium mucronellum</i>	<i>Hieracium subminutidens</i>	<i>Rubus altiarcuratus</i>
<i>Hieracium mundum</i>	<i>Hieracium subprasinfolium</i>	<i>Rubus anglofuscus</i>
<i>Hieracium neocoracium</i>	<i>Hieracium substrigosum</i>	<i>Rubus angloserpens</i>
<i>Hieracium nidense</i>	<i>Hieracium subtemie</i>	<i>Rubus angusticuspis</i>
<i>Hieracium northroense</i>	<i>Hieracium subtruncatum</i>	<i>Rubus aquarum</i>
<i>Hieracium optimum</i>	<i>Hieracium subumbellatiforme</i>	<i>Rubus ariconiensis</i>
<i>Hieracium orithales</i>	<i>Hieracium tavense</i>	<i>Rubus aristisepalus</i>
<i>Hieracium ornatilorum</i>	<i>Hieracium uiginskysense</i>	<i>Rubus arnipotens</i>
<i>Hieracium oxyodus</i>	<i>Hieracium uistense</i>	<i>Rubus averyanus</i>
<i>Hieracium pachyphylloides</i>	<i>Hieracium uisticola</i>	<i>Rubus babingtonianus</i>
<i>Hieracium paucifidens</i>	<i>Hieracium vagense</i>	<i>Rubus babingtonii</i>
<i>Hieracium pensum</i>	<i>Hieracium variifolium</i>	<i>Rubus bagnallianus</i>
<i>Hieracium persicium</i>	<i>Hieracium venicontium</i>	<i>Rubus bakerianus</i>
<i>Hieracium persiculae</i>	<i>Hieracium vinicaule</i>	<i>Rubus bartonii</i>
<i>Hieracium petrocharis</i>	<i>Hieracium westii</i>	<i>Rubus bercheriensis</i>
<i>Hieracium piligerum</i>	<i>Hieracium zetlandicum</i>	<i>Rubus biloensis</i>
<i>Hieracium placherophylloides</i>	<i>Limonium binervosum</i> ssp.	<i>Rubus bloxamianus</i>
<i>Hieracium pollinarioides</i>	<i>anglicum</i>	<i>Rubus boudiccaae</i>
<i>Hieracium pollinarium</i>	<i>Limonium binervosum</i> ssp.	<i>Rubus breconensis</i>
<i>Hieracium praethulense</i>	<i>cantianum</i>	<i>Rubus brevistaminosus</i>
<i>Hieracium probum</i>	<i>Limonium binervosum</i> ssp.	<i>Rubus briggisianus</i>
<i>Hieracium pseudanglicoides</i>	<i>mutatum</i>	<i>Rubus briggsii</i>
<i>Hieracium pseudanglicum</i>	<i>Limonium binervosum</i> ssp.	<i>Rubus bucknallii</i>
<i>Hieracium pseudopetiolatum</i>	<i>saxonicum</i>	<i>Rubus caesarius</i>
<i>Hieracium pseudosarcophyllum</i>	<i>Limonium britannicum</i>	<i>Rubus calvatus</i>
<i>Hieracium pseudostenstroemi</i>	(4 subspecies)	<i>Rubus cambrensis</i>

<i>Rubus carnkiefensis</i>	<i>Rubus herefordensis</i>	<i>Rubus ordovicum</i>
<i>Rubus castrensis</i>	<i>Rubus hesperus</i>	<i>Rubus painteri</i>
<i>Rubus celticus</i>	<i>Rubus heterobelus</i>	<i>Rubus pallidisetus</i>
<i>Rubus chrysoxylon</i>	<i>Rubus hibernicus</i>	<i>Rubus pampinosus</i>
<i>Rubus cinerosiformis</i>	<i>Rubus hindii</i>	<i>Rubus pascuorum</i>
<i>Rubus cinerosus</i>	<i>Rubus hirsutissimus</i>	<i>Rubus peninsulae</i>
<i>Rubus confertiflorus</i>	<i>Rubus hylocharis</i>	<i>Rubus percrispus</i>
<i>Rubus conjungens</i>	<i>Rubus hyposericeus</i>	<i>Rubus perdigitatus</i>
<i>Rubus conspersus</i>	<i>Rubus iceniensis?</i>	<i>Rubus permundus</i>
<i>Rubus cordatifolius</i>	<i>Rubus incurvatiformis</i>	<i>Rubus pervalidus</i>
<i>Rubus cornubiensis</i>	<i>Rubus infestior</i>	<i>Rubus pictorum</i>
<i>Rubus cotteswoldensis</i>	<i>Rubus infestisepalus</i>	<i>Rubus pliogenicus</i>
<i>Rubus couchii</i>	<i>Rubus informifolius</i>	<i>Rubus poliodes</i>
<i>Rubus crespignyanus</i>	<i>Rubus intensior</i>	<i>Rubus polyoplus</i>
<i>Rubus criniger</i>	<i>Rubus iodnephes</i>	<i>Rubus porphyrocaulis</i>
<i>Rubus cromerensis</i>	<i>Rubus iricus</i>	<i>Rubus powellii</i>
<i>Rubus crudelis</i>	<i>Rubus iscamus</i>	<i>Rubus pseudoplinthostylus</i>
<i>Rubus cumbrensis</i>	<i>Rubus lacustris</i>	<i>Rubus pullifolius</i>
<i>Rubus curvidens</i>	<i>Rubus lamburnensis</i>	<i>Rubus purchasianus</i>
<i>Rubus curvispinosus</i>	<i>Rubus lanaticaulis</i>	<i>Rubus putneiensis</i>
<i>Rubus daltrii</i>	<i>Rubus largificus</i>	<i>Rubus pydarensis</i>
<i>Rubus dasycoccus</i>	<i>Rubus lasiodermis</i>	<i>Rubus ramosus</i>
<i>Rubus daveyi</i>	<i>Rubus latifolius</i>	<i>Rubus regillus</i>
<i>Rubus davisi</i>	<i>Rubus laxatifrons</i>	<i>Rubus riddelsdellii</i>
<i>Rubus decussatus</i>	<i>Rubus lentiginosus</i>	<i>Rubus robiae</i>
<i>Rubus devoniensis</i>	<i>Rubus lettii</i>	<i>Rubus rossensis</i>
<i>Rubus distractiformis</i>	<i>Rubus leucandriiformis</i>	<i>Rubus rotundifolius</i>
<i>Rubus diversiarmatus</i>	<i>Rubus lintonii</i>	<i>Rubus rubriflorus</i>
<i>Rubus diversus</i>	<i>Rubus londonensis</i>	<i>Rubus rubristylus</i>
<i>Rubus dohuniensis</i>	<i>Rubus longifrons</i>	<i>Rubus sagittarius</i>
<i>Rubus dunensis</i>	<i>Rubus longus</i>	<i>Rubus salteri</i>
<i>Rubus durescens</i>	<i>Rubus ludensis</i>	<i>Rubus scoticus</i>
<i>Rubus durotrigum</i>	<i>Rubus malvernicus</i>	<i>Rubus sectiramus</i>
<i>Rubus eboracensis</i>	<i>Rubus marshallii</i>	<i>Rubus segontii</i>
<i>Rubus ebudensis</i>	<i>Rubus melanocladus</i>	<i>Rubus semiglaber</i>
<i>Rubus echinatoides</i>	<i>Rubus mercicus</i>	<i>Rubus silurum</i>
<i>Rubus effrenatus</i>	<i>Rubus merlini</i>	<i>Rubus sneydii</i>
<i>Rubus errabundus</i>	<i>Rubus metallorum</i>	<i>Rubus spadix</i>
<i>Rubus erythrops</i>	<i>Rubus mollissimus</i>	<i>Rubus stanneus</i>
<i>Rubus euanthimus</i>	<i>Rubus monensis</i>	<i>Rubus subintegribasis</i>
<i>Rubus fissus</i>	<i>Rubus morganwgensis</i>	<i>Rubus surrejanus</i>
<i>Rubus furnarius</i>	<i>Rubus moylei</i>	<i>Rubus tardus</i>
<i>Rubus fuscicortex</i>	<i>Rubus mucronatiformis</i>	<i>Rubus tavenensis</i>
<i>Rubus gallofuscus</i>	<i>Rubus mucronatoides</i>	<i>Rubus tenuiarmatus</i>
<i>Rubus gariannensis</i>	<i>Rubus naldretti</i>	<i>Rubus turneri (dubious taxon)</i>
<i>Rubus glanduliger</i>	<i>Rubus newbouldianus</i>	<i>Rubus trelleckensis</i>
<i>Rubus glareosus</i>	<i>Rubus newbouldii</i>	<i>Rubus tresidderi</i>
<i>Rubus griffithianus</i>	<i>Rubus newbridgensis</i>	<i>Rubus triangularis</i>
<i>Rubus halsteadensis</i>	<i>Rubus norvicensis</i>	<i>Rubus troiensis</i>
<i>Rubus hantonensis</i>	<i>Rubus obesifolius</i>	<i>Rubus turritus</i>
<i>Rubus hastiformis</i>	<i>Rubus obscuriflorus</i>	<i>Rubus vagensis</i>
<i>Rubus hebridensis</i>	<i>Rubus orbis</i>	<i>Rubus varvicensis</i>

<i>Rubus vigursii</i>	<i>Sorbus porrigentiformis</i>	<i>Taraxacum inopinatum</i>
<i>Rubus villicauliformis</i>	<i>Sorbus pseudofennica</i>	<i>Taraxacum lancastriense</i>
<i>Rubus villosior</i>	<i>Sorbus subcuneata</i>	<i>Taraxacum luteum</i>
<i>Rubus waddellii</i>	<i>Sorbus vexans</i>	<i>Taraxacum margettsii</i>
<i>Rubus warrenii</i>	<i>Sorbus wilmottiana</i>	<i>Taraxacum nigridentatum</i>
<i>Rubus watsonii</i>	<i>Sisyrinchium bermudiana</i> ?	<i>Taraxacum oellgaardii</i>
<i>Rubus wedgwoodiae</i>	<i>Taraxacum acutum</i>	<i>Taraxacum olgae</i>
<i>Rubus wirralensis</i>	<i>Taraxacum amarellum</i>	<i>Taraxacum orcadense</i>
<i>Rubus wolley-dodii</i>	<i>Taraxacum berthae</i>	<i>Taraxacum palustrisquameum</i>
<i>Rumex acetosa</i> ssp. <i>hibernica</i>	<i>Taraxacum breconense</i>	<i>Taraxacum porteri</i>
<i>Sagina boydii</i> ?	<i>Taraxacum caledonicum</i>	<i>Taraxacum pseudonordstedtii</i>
<i>Scleranthus perennis</i> ssp. <i>prostratus</i>	<i>Taraxacum cambricum</i>	<i>Taraxacum richardsianum</i>
<i>Senecio cambrensis</i>	<i>Taraxacum celticum</i>	<i>Taraxacum sahlinianum</i>
<i>Saxifraga rosacea</i> ssp. <i>hartii</i>	<i>Taraxacum chervellense</i>	<i>Taraxacum scoticum</i>
<i>Sorbus anglica</i>	<i>Taraxacum clovense</i>	<i>Taraxacum serpenticola</i>
<i>Sorbus arranensis</i>	<i>Taraxacum cophocentrum</i>	<i>Taraxacum stenacrum</i>
<i>Sorbus bristolensis</i>	<i>Taraxacum cornubiense</i>	<i>Taraxacum subbracteatum</i>
<i>Sorbus devoniensis</i>	<i>Taraxacum degelii</i>	<i>Taraxacum subnaevosum</i>
<i>Sorbus eminens</i>	<i>Taraxacum fulvicarpum</i>	<i>Taraxacum tanylepis</i>
<i>Sorbus hibernica</i>	<i>Taraxacum geirhildae</i>	<i>Taraxacum webbii</i>
<i>Sorbus lancastriensis</i>	<i>Taraxacum haworthianum</i>	<i>Tephrosieris integrifolia</i> ssp. <i>maritima</i>
<i>Sorbus leptophylla</i>	<i>Taraxacum hesperium</i>	<i>Ulmus plotii</i>
<i>Sorbus leyana</i>	<i>Taraxacum hexhamense</i>	
<i>Sorbus minima</i>	<i>Taraxacum hirsutissimum</i>	
	<i>Taraxacum inane</i>	

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## **TOLYPELLA PROLIFERA DISCOVERED IN N. SOMERSET (V.C. 6)**

*Tolypella prolifera* (Ziz. ex A. Braun) Leonh. (Great Tassel Stonewort) is one of our largest and most distinctive stoneworts. It is also one of our rarest. In the British and Irish Red Data Book (Stewart & Church 1992) its status in Britain is given as 'Vulnerable', with records from just four localities from 1970 onwards, in West Sussex, Gloucestershire and Cambridgeshire. One recent record from N. Somerset (v.c.6) has since come to light (Nick Stewart, pers. comm.) – 'in a small ditch amongst Frogbit' on Butt Moor, near Glastonbury (ST/52.36) – found by John Keylock in 1986, but apparently not seen since. Not surprisingly, *T. prolifera* is listed as a priority species in the UK Biodiversity Action Plan. In view of its great rarity, members might be interested to read the following report of its discovery at a second locality in N. Somerset.

On 7th June 1998, on the second day of Liz McDonnell's and K.P.'s BSBI field meeting to the Somerset Levels and Moors, much time was spent examining the ditch flora of parts of Southlake Moor SSSI, near Burrowbridge (ST/36.30). By mid-afternoon we had nearly completed our circuit of the site. Just one more ditch to go, and one that – apart from bank-side clumps of *Alisma officinalis* (Marsh-mallow) – looked not much different from the rest: a patchy canopy of emergents like *Alisma plantago-aquatica* (Water-plantain), *Carex riparia* (Greater Pond-sedge) and *Sparganium erectum* (Branched Bur-reed), a floating carpet of *Hydrocharis morsus-ranae* (Frogbit), *Callitriche platycarpa* (Various-leaved Water-starwort) and *Lemna* spp. (duckweeds), and a few duckweed-free areas allowing us a view of the submerged aquatics – *Potamogeton crispus* (Curled Pondweed), *P. trichoides* (Hairlike Pondweed), *Elodea nuttallii* (Nuttall's Waterweed) and the odd stonewort.

One stonewort in particular looked odder than the rest. Many in the party would have been happy to leave it well alone – recording it as just another *Chara* (sic). S.J.L., despite having a deep loathing for such 'difficult' plants, inexplicably hoicked it out for closer inspection. It certainly looked unusual, but it was near the end of the day, we were all getting a bit weary and, to be honest, S.J.L. would happily have flung it back into the ditch from whence it came. But another member of the party, Peter Rooney, peered over S.J.L.'s shoulder, and said he thought the plant might be interesting. 'It looks a bit like a *Tolypella* of some kind,' he told us.

It seemed improbable that this tangle of shoots could possibly be interesting, but K.P. volunteered to have a go at getting it identified. Early the following week she decided that the plant bore an uncanny resemblance to *T. prolifera*. She had already despatched a specimen to Nick Stewart, who promptly told us that, yes indeed, the plant was *T. prolifera*. Great whoops of delight! He suggested we should quickly arrange a visit from R.V.L. – working with Nick on a charophyte project for Plantlife – to check the population in the field, and to gather some detailed ecological data.

We could hardly contain our excitement. On 26th June, in pouring rain, K.P., S.J.L. and Lyn White (English Nature) joined R.V.L. on a site visit. The first hour was spent searching the ditch where S.J.L. said he had gathered the mystery stonewort. There was no sign of it there. The rain and poor light made it difficult to see the ditch bottom, but R.V.L. waded carefully along its length, sweeping his arms slowly through the water, and telling the rest of us with great confidence that if *T. prolifera* was there he would be able to feel it. Having drawn a blank there, K.P. suggested looking in another section of the same ditch, in an area that S.J.L. insisted was not where he had seen it. Great embarrassment for S.J.L. when, no sooner had R.V.L. descended into the ditch than he was feeling his first *T. prolifera*! Just one plant to begin with . . . then another . . . then another . . . then – we were all starting to spot it now – **dozens** of them, each one like a sunken bird's nest, great tangles of shoots, some as big as footballs.

In all, we found 59 plants of *T. prolifera* in this ditch. Later in the day, K.P. and R.V.L. located a further 14 in a second ditch. Both ditches had been lightly cleaned out during the previous winter, being quite deep (about 50 cm), but still with a considerable depth (usually >50 cm) of silt. Amongst the commoner associates of *T. prolifera* at the site were *Alisma plantago-aquatica*, *Callitriche platycarpa*, *Carex riparia*, *Chara vulgaris* var. *vulgaris*, *Equisetum fluviatile* (Water Horsetail), *Hydrocharis morsus-ranae*, *Juncus effusus* (Soft-rush), *Lemna minor* (Common Duckweed), *L. trisulca* (Ivy-leaved Duckweed) and *Potamogeton crispus*.

The most striking thing about the ditches in which we found *T. prolifera* was how **ordinary** they looked. There are hundreds of ditches like this across the Somerset Levels, and we see no reason why *T. prolifera* shouldn't now be turned up elsewhere in the area. However, you're very unlikely to find a rare stonewort unless you look for it – which means, for many of us field botanists, abandoning that lazy habit of lumping all stoneworts under the heading '*Chara* sp.' and beginning to give them the attention they deserve.

About a dozen stoneworts are listed in the UK Biodiversity Plan, so the conservation case for taking an interest in them is a compelling one – as said in the Foreword to the Red Data Book (Stewart & Church 1992), '... from a position of obscurity, lower plants are now firmly on the conservation agenda'. We hope this story of our discovery of *T. prolifera* at Southlake Moor might encourage others to become involved in stoneworts. They're well worth the trouble!

#### Reference

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### **SPERGULARIA MARINA ON INLAND ROADSIDES (2)**

Simon Leach (*BSBI News* 79: 51-52) comments that there has been very little mention of *Spergularia marina* (Lesser Sea-spurrey) on inland roadsides, unlike *Cochlearia danica* (Danish Scurvygrass) and *Puccinellia distans* (Reflexed Saltmarsh-grass), and that we need to start looking for it in earnest if it is to be adequately mapped in Atlas 2000. I had had very similar thoughts but did not get my list together in time for *News* 79! It may be that I have been missing *S. marina* on verges 'till recently, but I do not think so: indeed I believe it has spread substantially in the last few years. Certainly it is not as easy to spot at speed as *Cochlearia danica* is when in flower, but, once one has one's eye in, the 'carpets' of it (so aptly named by Simon) have a distinctive 'jizz'.

One reason why I think I have not missed *S. marina* in the past is because I have been interested in its occurrence inland since the early 1960s, when, as a Nature Conservancy Assistant Regional Officer, I was reviewing the SSSIs of Cheshire (v.c. 58). We decided to notify the Sandbach Flashes, a series of subsidence pools caused by brine-pumping which supported several maritime plant species as well as attracting ducks and waders (among which I recall a Wilson's Phalarope). (The dot in *Atlas of the British Flora* for *S. marina* in 33/7.5 is one of only five truly inland ones.) So one beautiful summer day I visited all the tenant farmers of the British Soda Company to explain what the implications would be. (Do not believe what is often said about the NC's having created SSSIs without reference to anyone before the passing of the Wildlife and Countryside Act.) One old-fashioned cobbled farmyard was ablaze with the flowers of Lesser Sea-spurrey! When I commented on this extraordinary sight, the farmer replied, 'The British Soda Company keep giving me salt to put down, but it don't do no good at all.'

Dr D.E. Coombe (1994, pp.53-54) recorded *S. marina* in single localities in only two 10 km squares in Cambridgeshire (v.c. 29), 52/4 6 and 53/4 0, the latter between the A47 and the tidal River Nene, in contrast to *C. danica* in 11 and *P. distans* in 30 out of the 40 possible squares. He also mentions finding it on 27.07.92 on the A10 in West Norfolk (v.c. 28) on the Southery bypass (52/6 9). In the last two years it has apparently spread on major roads around Cambridge in 52/4.5 and 4.6, in one case at least (52/416 610) quite possibly from Coombe's locality beside the A45 (now the A14). In another site, by Newmarket Road, it is certainly a new arrival because the area has been scrutinised each year because of its population of *Cynodon dactylon* (Bermuda-grass) (Coombe, 1994, pp. 46-47).

I wonder whether it has been favoured by the exceptionally wet Junes of 1997 and 1998.

Like Simon, I have noticed *S. marina* further from home too, particularly on slip-roads and central reservations (the latter best observed in traffic jams, as he says). It seems to grow best on poorly drained ground (unlike *C. danica*, which favours free drainage) with little other vegetation (in this like *C. danica*). Around the margin of a roundabout near Cambridge (52/421.567) which Michael Way and I surveyed on 23 February 1998, the distributions of the two species were more or less mutually exclusive, with *S. marina* chiefly in the S.E. quarter and *C. danica* almost confined to the N.W. quarter, though it was not clear how much this was the result of differing drainage; *P. distans* was more evenly distributed, but, interestingly, less common in the 'heartlands' of the other two species.

My list of inland localities for *Spergularia marina* in 1997 and 1998 follows.

V.c. 20, Herts: 51/0.9 (slip-roads of M25 at Junction 18, A404, Chorleywood), 21.05.98, 28.08.98.

V.c. 20, Herts: 52/0.0 (central reservation and SE verge of M25 NE of Junction 20; also on A41 roundabout), 21.05.98.

V.c. 20, Herts: 52/1.0 (central reservation of M25 for 1.6 km W of M1), 24.08.98.

V.c. 20, Herts: 52/2.3 (E side of central reservation of A1(M) between Junctions 9 and 10, between Letchworth and Baldock), 24.08.98.

V.c. 21, Middlesex: 51/1.8 (abundant along W side of A406, Hanger Lane, Ealing), 02.10.98.

V.c. 24, Bucks: 51/0.8 (central reservation of M25 just N of M40), 28.08.98.

V.c. 29, Cambs: 52/420.569 (NE verge of slip-road from M11 to A603), 03.10.97.

V.c. 29, Cambs: 52/421.567 (roundabout on A603 E of M11), 03.10.97, 23.02.98.

V.c. 29, Cambs: 52/488.591 (S side of A1303, Newmarket Road, Cambridge), 04.09.98.

V.c. 29, Cambs: 52/416.610 (E verge of slip-road from A14 to M11), 03.10.97.

V.c. 29, Cambs: 52/420.613 (S edge of A14 just E of A1307 flyover, still present where recorded by D.E. Coombe on 16.07.92 and 15.05.94), 03.10.97.

V.c. 55, Leics: 43/5.0 (central reservation of M1 near Leicester Forest East Service Centre), 08.04.98.

V.c. 64, Mid-west Yorks: 34/791.660 (NE side of B6480 on steep hill between A65 and turning to Feizor), 26.08.97.

V.c. 83, Midlothian: 36/73.6 (junction on A720, probably with A68 near Dalkeith), 16.08.97.

V.c. 88, Mid Perths: 37/08.23 -08.24 (W side of A9 N of Junction 11 of M90), 23.08.97.

In the localities in v.cc. 64 and 88 *S. marina* was growing with *P. distans* and close to sites for *Hordeum jubatum* (Foxtail Barley) at 34/782.668-784.665 (mainly E side of A65) and 37/081.228-081.230 and 084.246 (W side of A9). The latter is another species increasingly found on salted road verges.

## Reference

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## IS THIS A RECORD HEIGHT FOR A *VERBASCUM*?

This photograph of an unidentified *Verbascum* was taken, at its maximum height, on 26 July 1998 in the garden of Susan and Geoffrey Strachan, Charlbury, west Oxfordshire. It had persisted as a rosette for four years and was now flowering among a collection of medicinal plants raised by Susan, who is a practising member of the National Institute of Medical Herbalists. The garden being on a slope, Susan's husband decided that the safest way to determine the height of the plant was to fix a measuring tape to the top of a long, narrow board and raise it first to the tip of the leading stem and take a measurement at halfway. When this measurement was added to that of the lower part of the plant the total height was found to be 13 ft (c. 4 m)! By early October the leading stem and the longer lateral branches had

collapsed and curled round on themselves. Shorter stems that had developed after this photograph was taken were still erect and in fresh flower. It is assumed that having produced a superb 4-year rosette, the plant only needed the wet summer of 1998 to send it rocketing skywards.

Among the many interesting medicinal plants in this garden are *Althaea officinalis* (Marsh-mallow), *Achillea millefolium* (Yarrow), *Agrimonia eupatoria* (Agrimony), *Artemisia absinthium* (Wormwood), *Tanacetum balsamita* (Costmary or Alecost), *Echinacea angustifolia* (Purple Coneflower), *Galega officinalis* (Goat's-rue), *Hypericum perforatum* (Perforate St John's-wort), *Inula helenium* (Elecampane), *Marrubium vulgare* (White Horehound), *Melissa officinalis* (Balm), *Monarda didyma* (Oswego-tea or Bergamot), *Nepeta cataria* (Cat-mint or Catnip), *Phytolacca americana* (American Pokeweed), a North American plant being grown experimentally, *Ruta graveolens* (Rue), *Salvia elegans* (Tangerine Sage), *Stachys officinalis* (Betony), *Tanacetum vulgare* (Tansy), *Trillium luteum* (Yellow Trillium) and *Valeriana officinalis* (Common Valerian). Also *Verbascum thapsus* (Great Mullein), the flowers of which, I am told, are macerated in organic olive oil, the mixture placed in a clear glass jar and left for six weeks out-of-doors, in sunlight. One of the several uses of verbascum oil is as ear-drops for earache.



*Verbascum* sp., garden, Charlbury, photo J. Dunn © July 1998

### *CARDAMINE PRATENSIS* IN LAWNS (1)

In response to Maura Scannell's note on *Cardamine pratensis* (Cuckooflower) in lawns in *BSBI News* 79, I think it is something to do with the way the lawn is mown, perhaps even what type of lawnmower.

There was a garden in Finstown (Orkney) where some years ago, the lawn and the borders near the lawn carried masses of the double form. This doesn't set seed so the plants were growing from the cut scraps and I now propagate it regularly this way; a pair of leaves and half inch of stem will produce a flowering plant in a year. The young woman who owned the garden died tragically of cancer in the spine and I never asked how she cut the lawn – she thought it grew from seed. I had a brief look at the garden this spring and could see no sign of the plant. The present owners employ a contractor to cut the grass and when I spoke to them in October they did not know the plant but felt sure it was no longer in the lawn although possibly still in the border.

I have tried casually scattering cut bits in various places without success and always have to propagate it in a seed tray. The original lawn was surrounded by trees but not overshadowed by them so I suspect it was always damp, clearly she had not used a grass box to collect the cuttings. Some of our verges are almost solid with the single form of the plant in spring, they probably get cut with the Council gang mower once or twice a year and the cuttings left. In Orkney they would not shrivel up quickly. But why more plants occur along some roads and not others, apparently similar, seems odd.



*Cardamine pratensis* in an Orkney verge, photo E.R. Bullard © May 1997



## CARDAMINE PRATENSIS IN LAWNS (2)

I was interested to read in *BSBI News* 79 the occurrence of *Cardamine pratensis* (Cuckooflower) occurring on lawns in Dublin. I'm surprised that it is thought to be such a rare plant of this habitat in Ireland, as it is a frequent species of Somerset lawns and churchyards, generally preferring N facing, shady or damp lawns of long standing. While recording for the Somerset *Flora* this was often the only place one could find it in a tetrad. The only *Flora* in my collection that refers to lawns is the *Atlas Flora of Somerset* 1997 P.R. Green *et al.*

I have also seen it on lawns in Devon, Dorset, Morayshire, Inverness-shire and at St Ives in Cornwall where it is the dominant plant after the grasses. This lawn is cut regularly, having no effect on the *Cardamine*.

J.W. White has an interesting note on *C. pratensis* rooting from the leaves to form new plants.

### Reference

White, J.W. (1912). *The Bristol Flora*: John Wright and Sons Ltd, Bristol

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## CARDAMINE PRATENSIS IN AN URBAN LAWN IN LONDON (3)

Yes, *Cardamine pratensis* (Cuckooflower) does occur in lawns elsewhere in Britain (*BSBI News* 79, letter from Maura Scannell of Dublin).

I have recorded it in the lawn of a suburban back garden in Wembley, London from 1985 to 1989, and it has probably been present in each subsequent year. Whilst present at that site, it is not a common constituent of lawns. It would appear that positive factors in favour of its presence include the age of the lawn, low soil fertility, soil dampness and a relatively low cutting regime of about 1-3 cuts per year. These factors also appear to influence the numbers of plants seen each year.

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## CARDAMINE PRATENSIS IN URBAN LAWNS (4)

I have observed *Cardamine pratensis* in Harrogate in similar conditions to those described by Maura Scannell in Dublin (*BSBI News*, 72, Sept. 1998)

ICI Fibres used to have its headquarters in Harrogate. It was a large site employing about 2,000 people surrounded on three sides by urban residential property. The site contained a football pitch which was kept in excellent mown condition and not heavily used. When ICI left the site the pitch was left unmown except in the autumn when the neighbouring farmer took a hay crop off it. When ICI left, my employers took over part of the site and within a couple of years the stand of cuckooflower in the centre of the old pitch was spectacular (sufficient for me to trespass to investigate). It continued to thrive but apparently in decreasing numbers for about ten years until the builders moved on to the site this year.

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## CARDAMINE PRATENSIS IN LAWNS (5)

In *BSBI News* 79, Maura Scannell reports observations of *Cardamine pratensis* (Cuckooflower) in Dublin lawns. In my area the plant is commonly found in lawns, even on a recent (1960s) housing estate, although it does not get a chance to flower with the usual suburban lawn-mowing regimes, and

therefore tends to go unnoticed. My tendency to let the grass grow for more extended periods allows it to show in my own lawn, and it also flowers beyond my property in grassy roadside verges, whenever the impecuniousness of the local council enforces less frequent mowing. There is a large and thriving colony in the parish churchyard, where sections of the grass are allowed to grow longer. None of these places are especially damp, although the clay substrate probably holds sufficient moisture for the plant's survival. It appears to seed and spread freely, plants often appearing in different places from the year before.

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## BOTANY (NATURAL HISTORY) IN LITERATURE – 19

George Eliot's 1871-2 novel *Middlemarch* (Penguin Classics, 1994) is the study of life in a provincial town in England. In Chapter 17 the Rev. Camden Farebrother, who lives in an old stone parsonage replete with red damask-covered furniture, is keen to share his passion for natural history with his visitor, the doctor, Lydgate. The rector's mother, her sister, and his own sister, all of whom he shares the house with, remonstrate that the visitor must not be hurried to the rector's den where there 'was nothing but pickled vermin and drawers full of blue-bottles and moths, with no carpet on the floor . . .' without at least a second cup of tea. 'A game at cribbage would be far better' in their view. Nevertheless, Farebrother succeeds in his endeavour (pp. 172-3).

" . . . See," continued the Vicar, opening several small drawers, "I fancy I have made an exhaustive study of the entomology of this district.<sup>1</sup> I am going on both with the fauna and flora; but I have at least done my insects well. We are singularly rich in orthoptera:<sup>2</sup> I don't know whether – Ah! you have got hold of that glass jar – you are looking into that instead of my drawers. You don't really care about these things?"

"Not by the side of this lovely anencephalous<sup>3</sup> monster. I have never had time to give myself much to natural history. I was early bitten with an interest in structure, and it is what lies most directly in my profession. I have no hobby besides. I have the sea to swim in there."

"Ah! you are a happy fellow," said Mr Farebrother, turning on his heel and beginning to fill his pipe. "You don't know what it is to want spiritual tobacco – bad emendations of old texts, or small items about a variety of *Aphis brassicae*,<sup>4</sup> with the well known signature of Philomicon,<sup>5</sup> for the *Twaddler's Magazine*,<sup>6</sup> or a learned treatise in the entomology of the Pentateuch,<sup>7</sup> including all the insects not mentioned, but probably met with by the Israelites in their passage through the desert; with a monograph on the Ant, as treated by Solomon,<sup>8</sup> showing the harmony of the Book of Proverbs with the results of modern research. You don't mind my fumigating you?"

Lydgate was more surprised at the openness of this talk than at its implied meaning – that the Vicar felt himself not altogether in the right vocation. The neat fitting-up of drawers and shelves, and the bookcase filled with expensive illustrated books on Natural History, made him think again of the winnings at cards and their destination. . . .

" . . . You see, I have paid twelve or thirteen years more than you for my knowledge of difficulties. But" – Mr Farebrother broke off for a moment, and then added, "you are eyeing that glass vase again. Do you want to make an exchange? You shall not have it without a fair barter."

"I have some sea-mice<sup>9</sup> – fine specimens – in spirits. And I will throw in Robert Brown's new thing – *Microscopic Observations on the Pollen of Plants*<sup>10</sup> – if you don't happen to have it already."

## Notes

1. *this district*: Middlemarch. Its precise location is never described in the novel, although the lives of the country gentry are woven into the plot. George Eliot (Mary Ann Evans) was born in Warwickshire, so it is highly probable that it is set there, although *The Mill on the Floss* is set in Lincolnshire.
2. *orthoptera*: the insect order including grasshoppers, crickets, and locusts, sometimes called the Saltatoria.
3. *anencephalous*: lacking a brain.
4. *Aphis brassicae*: now called *Brevicoryne brassicae*. The cabbage aphid or cabbage plant louse. It is 2 mm long, grey-green in colour, and covered with a powdered wax. It attacks, particularly in late summer, the crucifers of the genus *Brassica*, especially cabbages, Brussels sprouts, broccoli, cauliflower, and swedes. Symptoms of attack are discoloured and distorted leaves, a possible check in growth, and the killing of young and weak plants. *Brevicoryne brassicae* is an important vector of cauliflower and turnip mosaic viruses.
5. *Philomicon*: lover of small things.
6. *Twaddler's Magazine*: Probably a fictitious title, as not traced, but possibly inspired by *Tweddell's Middlesbrough miscellany of literature and advertisements* **1-12** (1871-93: British Museum; Leeds Public Library **1-11**) or *Tweddell's Yorkshire miscellany and Englishman's magazine* **1** (1846 British Museum; Leeds Public Library).
7. *Pentateuch*: the first five books of the Old Testament.
8. *Ant, as treated by Solomon*: Proverbs vi. 6-8; xxx. 24. The order Hymenoptera, superfamily Formicoidae, family Formicoidae. The juxtaposition of the aphid with the ant is no doubt based on the fact that some ants milk aphids.
9. *sea-mice*: elliptical worms of the genus *Aphrodite* of the class Polychaeta, which are covered with numerous silky iridescent bristles.
10. *Microscopic Observations on the Pollen of Plants*: an essay by Robert Brown (R Br. (1773-1858)) published in 1828.

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## BOTANY IN LITERATURE – 20

Having very much enjoyed the 'Botany in Literature' notes in *BSBI News* I was prompted to browse through Jocelyn Brooke's *The Orchid Trilogy*, which I hadn't read for years. Book 1 *The Military Orchid* could almost be quoted in full, so I have found a short extract from Book 3 *The Goose Cathe-dral* (all three books published in one volume by King Penguin in 1981).

'I walked . . . over the Hills – those chalky knolls behind Folkestone, once so rich in orchids, where I had wandered on so many summer afternoons with Ninnie. There were still orchids but not so many as formerly, for educational 'reform' had progressed considerably since those days, and now every summer brought its hordes of botanizing schoolchildren to despoil these hills of the Bee Orchid, the Dwarf and the Late Spider.

But I wasn't, particularly, in search of rarities, unaccustomed, of late years, to botanizing, I could feel a thrill of delight in encountering even the commonest, the most ordinary of plants; and today, in memory, that summer at Folkestone is enshrined for me in a flower which in former days I would have passed over as an uninteresting weed: the common purple vetch, *Vicia sativa* . . . in the rough patches at the edges of the fields, the vetch was just coming into flower, its winged petals gleaming suddenly among the ox-eye daisies like small, crimson flames.'

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## BOTANY IN LITERATURE – 21

Richard Jefferies (1848-1887) shows himself to be thoroughly familiar with the wildlife, both plant and animal, of his native Wiltshire in the neighbourhood of Swindon. He gives a fascinating and evocative picture of the countryside as it was in the mid-nineteenth century. The following quotations are all from *Bevis*.

"'Pooh," said Bevis, "Here's something for you to drink." He had found a great teasel plant, whose leaves formed cups round the stem. In four of these cups there was a little darkish water which had been there since the last shower. Mark eagerly sipped from the one which had the most, though it was full of drowned gnats; it moistened his lips, but he spluttered most of it out again. It was not only unpleasant to the taste, but warm.

The field sloped gently to the right, and their usual run was on the slope beside a nut-tree hedge towards a group of elms. All the way and back the sward was short and soft, almost like that of the Downs, which they could see, and dotted with bird's-foot lotus, over whose yellow flowers they raced.'

(Bevis and Mark, playing at being savages, wanted to tip their arrows with poison)

"'Let's get the poison," said Mark, as they were going home. So they searched for the poison plants. The woody nightshade they knew very well, having been warned long ago against the berries. It was now only in flower, and it would be some time before there were any berries. . . . There were stems of arum in the ditches, tipped with green berries. These they thought would do, but shrank from touching. The green looked unpleasant and slimy. . . . Mark . . . gathered a quantity of the dark green milfoil from the grass beside the hedge and paths, and crammed his pockets with it. Some of the lads had told him that it was a deadly poison. It is the reverse – thus reputation varies – for it was used to cure medieval sword-cuts. They passed the water-parsnip, unaware of its pernicious qualities, looking for noisome hemlock.'

'Next he came to a place where scarcely anything grew, everything having been strangled by those Thugs of the wood, the wild hops, except a few scattered ash poles, up which they wound, indenting the bark in spirals. The ground was covered with them, for, having slain their supports, they were forced to creep, so that he walked on hops; and from under a bower of them, where they were smothering a bramble bush, a nightingale "kurred" at him angrily.

Not far from him there was a bunch of beautiful meadow geraniums; some of their blue cups had already dropped, leaving the elongated seed-vessel or crane's bill, something like the pointed caps worn by medieval ladies. The leaves are much divided; perhaps the wind-anemone leaves (but these had withered long since) are more finely divided, and if you will hold one so that its shadow may be cast by the sun on a piece of white paper, you cannot choose but admire it.'

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## VASCULA

Following the continued debate over vascula and the sad fact that they are very hard to get hold of these days, I have some practical suggestions for cheap and cheerful alternatives:

- **Sainsbury's Instore Bakery Home Freezer Pack plastic bags.** These are quite large bags and cost nothing except of course the price of four dozen small buns, which you can eat in the field. They have self-sealing tops, a carry handle and built for the freezer, are quite robust, will last many, many field trips and amuse your botanical companions into the bargain.
- **Map Tubes.** The sort used to carry large plans, as used by architects and designers. These come in various sizes with different coloured tops (which could be used for colour coding). The larger ones have carry straps so you can pop them over your shoulder, are air and water tight and ideal for tall plants, particularly grasses and sedges, etc. Carrying one of these in the field adds a real air of importance for those who like that sort of thing (especially if you can get hold of a colour co-ordinated hard-hat!).
- **Tupperware boxes.** Come in all sorts of shapes and sizes from small square boxes small enough to fit in the pocket, to large, oblong monstrosities to fit whole trees in. Again these are air and water tight and the rigidity affords ample protection to all your delicate vouchers or herbarium samples. Available in all colours to brighten up the dullest of days in the field.

So my advice is get yourself straight down to Sainsbury's (or Tesco's or Asda . . . before the next season looms. You know it makes sense.

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## CONSERVATION NEWS & VIEWS

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### HABITAT TRANSLOCATIONS

Those of you with long memories will recall that in 1987 the Nature Conservancy Council began botanical monitoring of eight grassland translocations (Leach *et al.* 1990). One of these cases was at Brocks Farm, near Newton Abbot, Devon (v.c.3), where an area of species-rich mesotrophic grassland was transplanted in 1988 to make way for a ball clay waste tip. In this case the adjoining field, notified as an SSSI, provided a valuable 'control' area, allowing us to distinguish between botanical changes at the transplant site due to transplantation and those due to other factors common to both transplanted and non-transplanted swards (e.g. climate, management).

We now have a 10-year run of post-transplant data from Brocks Farm which, according to a recent review of habitat translocations in Britain (Bullock 1998), makes it ' . . . the case history with the longest period of monitoring data available'. Throughout this time the owners, English China Clays International (ECCI), have played a key role in the care and management (cutting and grazing) of both the transplanted grasslands and the SSSI. In 1995, however, the owners felt compelled to apply for planning permission to extend the ball clay waste tip across the SSSI, indicating that they would attempt to mitigate the loss of the SSSI by transplanting it to a new location. English Nature objected to the proposal, and the local planning authority refused to give it planning permission. Following ECCI's appeal against this decision, a public inquiry was held in July/December 1997. This has proved to be a landmark case, and BSBI members may be interested to learn of its outcome – the following is from an article in *English Nature Magazine* No. 39 (September 1998).

'English Nature warmly welcomed the refusal of Environment Secretary John Prescott to allow a Devon Site of Special Scientific Interest (SSSI) to be dug up and moved . . .

A public inquiry upheld English Nature's opposition to an application by a china clay

extractor to dig up and relocate a Devon grassland SSSI to make way for a ball clay waste tip. English China Clays International (ECCI), owners of Brocks Farm SSSI . . . claimed at the inquiry that they could prevent the loss of the site by moving it to a new location. English Nature argued that previous attempts to transplant grasslands – both at Brocks Farm and elsewhere in England – had all failed.

The Inspector's report accepted English Nature's case and acknowledged that Brocks Farm was part of a nationally important network of wildlife sites. Rob Wolton, English Nature Manager in Devon, said: "We are delighted by this decision, and the backing it gives to English Nature's position on habitat transplantation: that if you move an SSSI you inevitably lose much of its special interest."

English Nature Grassland Specialist, Richard Jefferson, added: "Developers have increasingly proposed habitat transplantation as a viable alternative to conservation *in situ*. Examination of the evidence suggests otherwise. You can't move a grassland without changing its environment – and if you change that, the community of plants and animals it supports will be bound to change, too. The first prerequisite for protecting an SSSI is to leave it where it is."

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- SIMON J. LEACH, English Nature, Roughmoor, Bishop's Hull, Taunton, Somerset, TA1 5AA
- CHARLES PULTENEY, English Nature, The Old Mill House, 37 North Street, Okehampton, Devon, EX20 1AR

## *FUMARIA REUTERI*

Back in the mid 1980s while I was engaged upon rare plant surveys for the Nature Conservancy Council, I visited the UK's premier site for *Fumaria reuteri* (*F. martinii*; Martin's Ramping-fumitory) on the Isle of Wight. This was an allotment where the plant was as vigorous a weed as I have ever seen! Most of the allotment holders did weed it out of their plots (usually by the wheelbarrow-load), while a few appreciated it as a useful but relatively benign 'mulch' for their 'veggies'.

At the time, the site was under threat from development and a number of botanists on the island had tried unsuccessfully to grow it in their gardens. I took three small seedlings which were transplanted into my own veggie plot at home (Thatcham, near Newbury, Berkshire). Being a wild plant fanatic, you can probably imagine what my attempts at veggie growing were like (all weeds and a few slug-eaten veggies)! Anyhow, this was a lovely bit of composted garden (only about four foot square). The plants did survive and set seed. Moreover, the species became rampant in parts of my garden. The veggie plot was done away with, but some of the soil was moved around in the garden, and wherever the soil was moved, so the fumitory appeared (the seeds are rather heavy and I have concluded that the plant can only move about if the soil is transported or the seeds otherwise physically moved with my help).

This year there was a fantastic show of flowers (it really is a most attractive plant). During the last year, because of the weird weather conditions, it germinated in the autumn and overwintered, producing its first flowers on 14 February.

*Fumaria reuteri* is now a protected species listed on Schedule 8 of the Wildlife and Countryside Act.

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## VASCULAR PLANT LISTS ON WEB SITE

The Joint Nature Conservation Committee (JNCC) web site now includes a list of all species which receive special protection under the Wildlife and Countryside Act 1981 (Schedule 5 for animals and Schedule 8 for plants and fungi). As most BSBI members will already know, four more vascular plants were added to Schedule 8 in 1998: *Dianthus armeria* (Deptford Pink), *Hyacinthoides non-scripta* (Bluebell) (sale only), *Leersia oryzoides* (Cut-grass) and *Tephrosia integrifolia* subsp. *maritima* (Field Fleawort).

Also on the site are lists of species status for a number of groups, including vascular plants. All Red List species (*Extinct*, *Critically Endangered*, *Endangered*, *Vulnerable*), according to the Red Data Book (in press), and species in the categories *Lower Risk (near threatened)* and *Nationally Scarce* are listed. Similar information is also listed for charophytes. It is intended to update the status lists at regular intervals, using the revised IUCN criteria (IUCN 1994), so all suggestions for improvements to the lists will be welcome and should be submitted to me at JNCC, Monkstone House, City Road, Peterborough, PE1 1JY, or e-mail Hodgetts\_N@jncc.gov.uk.

The address of the JNCC web site is <http://www.jncc.gov.uk/advisors/species/pstatus/index.htm>

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## PUTTING THE SAVAGE BACK INTO WILD FLOWERS

Sue Everett makes mention of the landscaping profession in *Flora Locale Bites Back* (*BSBI News* 78: 53). Now how on earth did I neglect to mention my all time favourite profession. Landscapers, or if you prefer, daisy spacers, are the most peculiarly named bunch. What on earth do they know about the landscape? They're great for fiddly drawings, visuals, drawing up specifications and the like but what do they actually know about plants and communities? These people should not be let anywhere near sites of value to wildlife, even if it is future wildlife. They are extremely dangerous and should be approached with extreme caution.

I have had few run-ins with landscapers this year. Happens all the time really. If I could photosynthesise and had the time to make myself really popular it **would** happen all the time. One is a minor gem. On Pepys Estate in Deptford there is an old redgrass football pitch abandoned for several years, that has spontaneously erupted with life. This is nothing unusual, take a look around you, it happens all the time. Now I did a brief survey of this a couple of years ago and handed it on to the local estate managers. This year I get sent a beautifully drawn set of plans for the area. Guess what? The whole area is to be bulldozed and a wildlife park (with the usual weird and wonderful list of species) created on it!?! Much as I hate to discombobulate landscapers, they are after all people too, they don't half ask for it. So I sat down and wrote a letter which resulted in my meeting on site to discuss it. I await, still (I must follow this up) with unabated breath, the result.

Christopher J. Perraton comments on a letter in *BSBI News* 79: 60, makes a valid and I would say related point. It relates not only to rare species but also to the less rare and even to the common. Clinal variation, geographical range, natural distribution are all in the process of being rendered meaningless. Then there are Species Recovery Plans, these potentially play directly into the hands of politicians. For the price of a band-aid they can prevent an extinction for a while and boast they have achieved it. But how will these politicians respond when the next item of the British flora becomes extinct. They are going to turn round and say 'it's not extinct, it's resting, in a fridge, at Wakehurst Place'.

I am grateful for the points Christopher Lowe raised in 'Sowing The Right Seeds' (*BSBI News* 78: 52-53). He is right, not all brownfield sites are of a high calibre the same is even more true for greenfield sites. The latter have been devastated by, in particular, industrial agriculture but also by the truly appalling impact of the suburban mentality on the countryside. It is not a black and white issue. In terms of quality the words brownfield and greenfield are utterly meaningless. Each site, each locality, needs to be assessed on its merits. This is not happening as was highlighted at the general election when all the

political parties were scrambling over each other to say they would develop more brownfield sites than greenfield sites than every other party. This is the usual perception over reality syndrome. People prefer perception.

As for getting the young to plant trees, I have to differ. It is important to involve children in the wild environment, I would suggest by doing something meaningful with them. Am I alone in being shocked at the number of children that grow to man and womanhood without ever experiencing the visceral delight of felling a tree? Heaven knows there are more than enough that need felling. Then there is bramble and scrub bashing, mucking out ponds, turf stripping and on and on. These activities involve children in a real and meaningful way, they get to do something useful and gain a real hands on experience with real wildlife.

Those of you out there who have a concern for the wild flora in the countryside will have to fight your own battle I am now returning to urban areas and to reiterate. Whosoever wrote the section in the *Flora Locale* guidelines, does not know, understand, respect or value urban wildlife habitats. The guidelines are extremely dangerous and lethal in the wrong hands and I would suggest that any hands likely to be using these guidelines are the wrong hands. They are of not the slightest use to me and it is difficult to imagine anyone else experienced in the wildlife of their area having any need for them.

I have witnessed the continual and continuing assault on nature in London for nearly fifteen years. With the coming of the millennium it has accelerated again, particularly in and around Greenwich. Wildlife habitats are being devastated along the length of the Greenwich waterfront (for details see London Wildlife Trust *Millennium Domesday* 1998). The Woolwich Arsenal, a site of Metropolitan Importance for nature conservation, the highest designation there is in a London context, is being built on. In place of the habitats that were there they are going to create a 'green corridor' and do an absolutely horrendous amount of tree planting. Oh, and they are creating a park with an eco theme to it. According to the London Borough of Greenwich this will actually increase the biodiversity of the area. They have two biodiversity indicators; the amount of open space and the number of trees and tree stands in the borough. The Woolwich Arsenal may have been open but it was not designated as open space, therefore it is not. The existing trees on the site are being cleared but they will be replaced by thousands of new plantings. So the development will create a park (open space) and plant thousands of trees thus massively inflating the borough's diversity. Surreal you may think, you should live in London.

On the millennium site itself 'the project was conceived as a flagship national demonstration of sustainable design heralding the way forward for such development in the 21st century'. So they went in, devastated the wildlife habitats in the area, and then as a sop to show how green they are, they are about to create a smaller, fluffier, cuddlier wildlife bit. What is actually being done is the usual control freak approach to nature. These creators or gods (can we just call them Frankensteins) have come up with a weird and wonderful list of plants they want to establish in the small bit of habitat on the site. All the usual pretty things that are found in ancient woodlands, grasslands and wetlands. Bluebell (*Hyacinthoides non-scripta*), ramsons (*Allium ursinum*), wood melick (*Melica uniflora*), cowslip (*Primula veris*), meadow crane's-bill (*Geranium pratense*), greater knapweed (*Centaurea scabiosa*), yellow rattle (*Rhinanthus minor*), ragged-robin (*Lychnis flos-cuculi*), sneezewort (*Achillea ptarmica*), flowering-rush (*Butomus umbellatus*), marsh-marigold (*Caltha palustris*) and I could go on, and on, they do.

It revels in the usual paternalistic approach to wildlife. The usual inability to understand or grasp that wildlife is just that, wild, and that it will colonise new-found land. It is in the mainstream of pseudo-concern about wildlife without making any attempt to understand it or its dynamics. It revels in the instant blancmange approach to landscapes and nature. The take a packet of plants, add soil and water, mix ingredients and hey presto there it is another meaningless landscape.

Strangely they are not taking the same approach with birds. They have produced a list of species thought likely to utilise the site. This list could be made much longer and could indulge in appropriating more attractive species. This would of course require the clipping of wings and some cages but the effect would be most comely on the eye and not out of kilter with the philosophy that prevails on the rest of the site. They wouldn't then have to rely on the remote chance of a pair of bullfinches breeding here, they could guarantee a whole bully of them and why not a charm of goldfinches too. It would be



most visually stimulating. And if we allow the air of bucolism that infests the approach to plants they could have marsh harriers and short-eared owls haunting this generous allocation of land. They could even have the whole British list of ducks and geese flopping about in the ponds.

For some reason invertebrates are scarcely considered, a tragic oversight. Think of what they could have, think of the effect of ten thousand emperor dragonflies on the wing. They'd have to be tied by a silk thread to make sure they stayed put and they'd have to be fed and protected from predators but the cost would be more than compensated for by the cheer it would bring to little children's hearts.

Will things be better if the *Flora Locale* scheme is adopted? I don't believe so. The activists at work on this site would have destroyed the existing wildlife habitats anyway. They would still only allocate a small portion of land for their habitat Frankenstein. All that would change is that they would use stuff of local provenance (how local is local?) and they would use NVC habitat codes to decide what to plant. This would still result in habitats that don't even occur in what is (was) the Thames floodplain. It would still be completely unrelated to the existing ecology of the area. It would still revel in the fundamental anti-nature attitude of the society we live within.

People experienced in an area's wildlife don't need these guidelines. Who will use them? Landscapers, the inexperienced and the gull. This is bad enough, worse is that sooner or later on some development site these are going to be used to justify destruction of habitat. It won't be too long before I'm up against one of those recidivist ecologists attempting to defend a site from some sort of development. I can just imagine the sort of guff they are going to come up with.

'What we are doing is not destroying habitat but creating habitat. What is present on the site can only inadequately be shoe-horned into an NVC code, it is not a proper wildlife site. It is just a weird and wonderful mixture of species that have come together to exploit this land. What we will deliver may be somewhat smaller but it will be quality wildlife habitat. A clutch of pukka NVC habitat codes will fill this space. In short we will do away with what can only be described as a sad historical accident, a mish-mash of species that have never sorted themselves out into adequate communities and provide a state of the art, meaningful, wildlife installation.'

To me this highlights the lack of a coherent philosophy of what nature conservation is. It demonstrates the failure of the conservation movement to draw a sharp and distinct line between itself, that damned profession (landscaping) and gardeners. This failure has resulted in it being infiltrated by the preceding, or those who should be working in one of those 'namby-bambi' animal welfare organisations and those who would actually find fulfilment in the cosmetics industry. This dilution has had a damaging impact on the front line of conservation and diverts resources from it.

Why is it that people can, by and large, consider birds, mammals, invertebrates, fungi, lichens, mosses and the like as wild but not flowering plants? Why is it that our savage and barbarous flowers are continually being enslaved? Beats the hell out of me, grasses herbs, shrubs and trees are as wild as tigers. This naturally leads to the 'Flora for Fauna' project but for now that will have to wait.

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## AN ENDANGERED JOURNALIST?

The following splendid list of 'Most endangered species in Britain' appeared in *The Daily Telegraph* at the beginning of the summer, as part of an article dealing with endangered plant species in Europe.

English sandwort	Dwarf Welsh eyebright	Sea lavender
Intermediate broom	Eyebright	Shore dock*
Scottish small reed	Snowdon eyebright	L'Oiseille des rochers
Scurvy grass	Cornish eyebright	Killarney fern*
Lundy cabbage*	Western ramping fumitory	Killarney bristle fern
Western pink dune carnation	Little robin napronic	Bristle fern
Jersey pink carnation		

It may well have been seen and commented on by many members. Nevertheless, I feel that it should not be discarded without a review of some sort.

Firstly (and it is difficult to know where to start), what and where is the Western pink dune carnation? This is in any case a curiously cobbled together name; Western pink sounds like one species and dune carnation another, and how is it related to the Jersey pink carnation.

Secondly, why does Little robin have to be 'napronic' and what on earth does that word mean? Going down the list why is L'Oiseille des rochers included and what plant does it refer to?

Lastly, if the compiler of this list was so expert a botanist as to be able to name the (obviously) microspecies of *Trichomanes speciosum*, why could he not tackle Scurvy grass, Sea lavender and Eyebright? Obviously some effort was made with this last genus, but the researcher was then overwhelmed by the remaining seventeen species

One is left wondering who was responsible for such a document. Was it an official of some conservation body with little or no knowledge of botany, or perhaps some youthful science reporter sent out to cover the subject and in mounting panic and desperation just made up some names?

The rarest and most endangered plants in Great Britain must be on Schedule 8 of the Wildlife and Countryside Act, 1981, revised 1998 and in the above list only those names followed by \* are listed there; three out of nineteen is not a good score but indicates that the compiler was copying something, but what? Such gross and sloppy inaccuracy does the cause of conservation and botany no good whatsoever.

DAVID DUPREE, Little Fircliffe, Whitworth Road, Darley Dale, nr Matlock, Derbys. DE4 2HJ

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## AN AIRSTRIP AT DERRYGIMLAGH IN THE ROUNDSTONE BOG?

Roundstone bog is some forty square kms of lowland blanket bog, a mosaic of heathery knolls, quaking bog and about one hundred little lakes between Roundstone, Ballyconneely, Clifden and Ballynahinch. The bogs ecological importance and World Heritage Status has been recognised for decades, and its outstanding natural beauty has spellbound thousands of visitors.

Eight years ago a plan to put an airport in the north-west corner of the bog at Ardagh was refused planning permission on environmental and amenity grounds.

Now the Clifden Airport company wants to swap the Ardagh site, with a bogland one at Derrygimlagh at the western edge of Roundstone Bog which is owned by the National Parks and Wildlife Service. These developers have persuaded Minister Éamon Ó Cuív and Minister Síle de Valera to re-open the debate on locating such an intrusive development into this fragile area. Clearly it will be disastrous if this wilderness area is damaged and it's wildlife disturbed for the sake of a minority interest group.

The Irish Peatland Conservation Council feel the new site should be opposed for the following reasons :

- The Derrygimlagh site is an integral part of the whole bog complex, only separated from the Roundstone Bog by a narrow lake, Loch Fada. Because it is on a level with and close to the heart of Roundstone Bog, any development there would intrude on the silent beauty of this unique tract of wilderness, and compromise its status as a wildlife habitat.
- Even a small strip could be the thin edge of the wedge. A terminal building and refuelling facility would no doubt soon prove necessary, and once the ban on building had been breached, there is no knowing what might be allowed in the future: a flying club? a holiday village? and industrial facility?
- If a small strip is thought to be necessary and viable, it should be sited in a less sensitive area. Job creation is important, but developments that damage Conamara's most attractive features to the visitor, it's spaciousness and tranquillity, are not the way to go about it.

You can help prevent the Ministers from deciding in favour of this development by writing to them at the address below, or visiting one of their advisory clinics and expressing your concern over this issue.

Please write as soon as possible, copying your letter to an Taoiseach, Mr Bertie Ahern Government Buildings, Dublin 2.

PETER FOSS, Chairman IPCC, Capel Street, Dublin 1, Ireland. Fax: +353-1-8722397 Tel: +353-1-8722384. E-mail: [ipcc@indigo.ie](mailto:ipcc@indigo.ie) Web site: <http://indigo.ie/~ipcc>

## ALIENS

### ALIEN RECORDS

Arrangement is alphabetical; no authority is given if the taxon is mentioned in Stace's *New Flora of the British Isles*, Clement & Foster's *Alien Plants of the British Isles* or Ryves, Clement & Foster's *Alien Grasses of the British Isles*, but is given if the taxon is new to either of the latter two works.

I would be delighted to receive any alien records for inclusion in future issues. In general all taxa not included in Kent's *List of Vascular Plants of the British Isles* (1992) are eligible for inclusion but other more widespread aliens listed in that work may be included at the discretion of the v.c. recorder and the editor. Please ensure that all records include the details as set out below, especially a map reference, even if only to a hectad (10 km square). NCR following the record indicates a New Record for that vice-county.

My thanks to Ray Eades, John Palmer and Geoffrey Wilmore for supplying the records.

Members are reminded that first records of all taxa included in Kent's *List* are eligible for publication in Plant Records in *Watsonia*.

*Amaranthus albus* (White Amaranth). Three plants amongst hundreds of *A. retroflexus*, perhaps becoming established Albert Dock Hull, TA/090.275, S.E. Yorks (v.c. 61), R.A. Eades, 1998.

*Amaranthus retroflexus* (Common Amaranth). Increasing dramatically in Hull docks and spreading, TA/0.2-1.2, S.E. Yorks. (v.c. 61), R.A. Eades, 1998.

*Aquilegia canadensis* L. Stone walls and pavements, Hextable, TQ/51.50, W.Kent (v.c.16), J.R. Palmer, 15/6/98. (An English name is difficult to devise, e.g. a number of *Aquilegias* occur in Canada). Not in Clement & Foster.

*Clematis tangutica* (Orange-peel Clematis). Tall ruderal grassland, Cantley Park, Doncaster, SE/61.02, S.W. Yorks. (v.c. 63), G.T.D. Wilmore, 07/09/1998. Probable 1st v.c. record.

*Cotoneaster nitens* (Glossy Cotoneaster). Darenth Wood, TQ/56.71 & 57.71, W.Kent (v.c.16), J.R. Palmer, 1985-98. Bird-sown specimens can frequently be found there because of the presence of a large bush in a garden about 180 m from one of the entrances to the wood. The devised English name of 'Few-flowered Cotoneaster', (in some publications), seems inept and may refer to a particular locality.

*Echinochloa colona* (Shama Millet). Albert Dock, Hull, TA/09.27, S.E. Yorks. (v.c. 61), B.K. Byrne, 12/10/1997, det. GTDW. Probable 1st v.c. record.

*Euphorbia oblongata* (Balkan Spurge). Edge of woods, nr Guisborough, NZ/595.148, I.C. Lawrence, 1998, det. Kew. Probable 1st v.c. record.

*Fibigia clypeata* (L.) Medicus. Probable bird-seed alien, suburban garden, W Ardsley, Morley, SE/27.24, S.W. Yorks. (v.c. 63), J. Martin, 24/07/1998, det. T.C.G. Rich & E.J. Clement. Probable 1st British record.

*Impatiens parviflora* (Small Balsam). Four plants in flower and fruit, builders tip and recycling facility Melton, SE/965.246, S.E. Yorks. (v.c. 61), R.A. Eades, August 1998. Rubble from demolished buildings and redevelopment sites is crushed here, and graded for further distribution. Great potential for seed dispersal.

*Iva xanthiifolia* (Marsh-elder). St Andrew's Dock, Hull, TA/06.26, S.E. Yorks. (v.c. 61), G.T.D. Wilmore, B.A. Tregale & J. Martin, 11/10/1998, conf. E.J. Clement. Probable 1st v.c. record.

- Lappula squarrosa* (Bur Forget-me-not). One plant in flower with *Bassia scoparia* and *Amaranthus retroflexus*, King George Dock, Hull, TA/141.291, S.E. Yorks. (v.c. 61), R.A. Eades, 10/1997, det. P.J. Cook.
- Lychnis flos-jovis* (Flower-of-jove). Slag area, South Gare, Redcar, NZ/557.271, N.E. Yorks. (v.c. 62), I.C. Lawrence, 1998. Probable 1st v.c. record.
- Oxalis rubra* A. St-Hil., and *O. articulata* subsp. *rubra* (St-Hil.) Lourt. On the wooded banks of the river N of Crayford, TQ/51.74, W Kent (v.c. 16.), J.R. Palmer, 6/6/98. These two taxa, though not distinguished in all publications, appear distinct in the field. (Both taxa also there with white flowers). In Clement & Foster but only as synonyms.
- Salvia reflexa* (Mintweed). St Andrew's Dock, Hull, TA/06.26, S.E. Yorks. (v.c. 61), G.T.D. Wilmore, J. Martin, B.A. Tregale, 11/10/1998, conf. E.J. Clement. 2nd v.c. record since 1970.
- Scorzonera hispanica* (Scorzonera). Weed in allotment garden, E. Morton, Keighley, SE/10.42, Mid-W. Yorks. (v.c. 64), B.A. Tregale, 06/09/1998, det. R.M. Burton. 1st v.c. record.
- Solanum chenopodioides* (Tall Nightshade). Waste ground and roadsides about 800 m from the centre of Dartford, TQ/53.73, W Kent (v.c. 16), J.R. Palmer, 1996-1998. Most plants in Kent seem in fact wider than tall, flowering and fruiting freely for most of the year and surviving at least several degrees of frost undamaged. Although perennial, observations suggest that individual plants do not survive more than about five years.
- Solanum rostratum* (Buffalo-bur). One very spiny plant in flower growing amongst *Amaranthus retroflexus* & *Bassia scoparia*, William Wright Dock, Hull, TA/083.273, S.E. Yorks. (v.c. 61), R.A. Eades, 18/8/1998, det. P.J. Cook. Last recorded in 1902.
- Verbascum phlomoides* (Orange Mullein). Tipped soil, Potteric Carr NR, Doncaster, SE/59.00, S.W. Yorks. (v.c. 63), D.M. Bramley, 17/09/1998, conf. GTDW. Probable 1st v.c. record.

GWYNN ELLIS

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## MISCONCEPTIONS ABOUT *AMSINCKIA LYCOPSOIDES* Lehm.

### Frequency of Occurrence in Britain

Many sources tell us that the yellow-flowered boraginaceous *Amsinckia lycopsoides* (Scarce Fiddle-neck), a native of western North America (**not** eastern, as stated in *Flora Europaea* 3: 110) is naturalised on the Farne Islands (Cheviot (v.c. 68)) which, doubtless, is true. But Stace's *New Flora*, ed. 2: 549 adds that it is also 'becoming increasingly frequent over much of England, especially East, on sandy soils.'

I admit that this was my belief perhaps fired by good information given to me by Prof. Per Lassen (pers. comm. 3 Jan. 1994) that 'almost coinciding in time with the appearance of my article [On the genus *Amsinckia* in the Nordic countries. *Svensk Bot. Tidskr.* 82: 141-150 (1988)] *A. lycopsoides* has made a comeback in Sweden, evidently because of new sources of commercial grass seed. Nowadays *A. micrantha* and *A. lycopsoides* are about equally common, sometimes occurring together with *Crepis setosa* (Bristly Hawk's-beard). The three rarely seem to persist more than one year in any place with us.' This same seed presumably came into Britain, and probably gave rise to the two records for 1988 possessed by BRC (Monks Wood): from Withern (v.c. 54) and Welbeck Estate (v.c. 56). Since this time, no further records have arrived at BRC, and none (yet) for the BSBI Atlas 2000 project, according to Dr Trevor Dines (pers. comm. 11 Dec. 1997).

Earlier records possessed by BRC tell of it in 1984 on the Old River Lymn SSSI (v.c. 54) and in 1961 at Bordon station (v.c. 12). Earlier than this, vouchers exist at E for 1936 records at Cupar (v.c. 85), and for 1909 and 1906 at Leith (v.c. 83).

Since 1988 I can trace no confirmed records for Britain S of Cheviot. In disbelief Mrs E.M. Hyde volunteered to check my suspicion that no other post-1980 records for *A. lycopsoides* in Eastern England existed. She received very helpful replies and positive confirmation from v.cc. 18 & 19 (Dr K.J. Adams), v.c. 25 (M.N. Sanford), v.c. 26 (late F.W. Simpson records), v.c. 27 (A.L. Bull), v.c. 28

(Mrs K.A. Beckett), v.cc. 53 & 54 (Mrs. I. Weston) and v.c. 61 (Miss F.E. Crackles). Several of these vice-counties, stretching from S Essex up to NE Yorks., have earlier records for *A. lycopsoides* but in some cases confusion with other *Amsinckia* spp. may have occurred. In contrast, *A. micrantha* occurs widely, and often abundantly, in several of these vice-counties.

Various BSBI members, including John Dicker and Alan Underhill, told me of two much-visited sites for '*A. lycopsoides*', but no convincing evidence of correct identification has yet reached me (although the original record(s) may well have been correct). For completeness I list them here:

Near Dunwich, Suffolk, at MR/474.700. 1992-1995.

Stiffkey, Norfolk, at MR/975.436. 1992-?

At Dunwich there is plentiful *A. micrantha*, but I am assured that some plants were markedly 'different'.

In conclusion, I suggest that *A. lycopsoides* has greatly decreased as a casual and currently occurs very rarely (if at all). Sadly, I cannot now tell the late D.H. Kent (see *BSBI News*, 79: 66).

### The Correct Author Citation

Some recent publications, e.g., R. Govaerts, *World Checklist of Seed Plants*, 1(1): 217 (1995) amend the spelling of the epithet to *A. lycopsioides*, but there is no justification for this practice. Govaerts, however, does use the correct author citation (simply, Lehm.) whereas D.H. Kent, *List of Vascular Plants*: 188 (1992) and many others follow the erring *Flora Europaea* version of (Lehm.) Lehm. To avoid possible further errors Dr R.K. Brummitt very kindly carefully checked the citation for me, making use of a microfiche of the **original** publication very recently purchased (very timely!) by the librarian at the RBG, Kew. Briefly the reasoning is as detailed below.

The genus *Amsinckia* was first validly published by J.G.C. Lehmann, while acting as the director of the Hamburg Botanical Garden, on pages 3 & 7 of the printed seed-list, *Del. Sem. Hort. Hamb.* (1831) wherein he simply states that *Amsinckia lycopsoides* is most distinctive from other borages in having four distinct cotyledons [two that are very deeply lobed is presumably more accurate]. There is no further description of the genus or the species although he does cite a generic name known to him only in manuscript, *Benthamia* Lindley, indicating that it would be illegitimate because of the earlier orchida-ceous genus, *Benthamia* A. Richard (1828). However, according to the latest *Botanical Code* [ICBN, 1994] this mini description is quite sufficient to circumscribe the genus, and since the genus was monotypic (at that date) no species description is required. There is **no** reference, even indirect, to *Lithospermum lycopsoides* Lehm. in *Pugill.* 2: 28 (1830), which, indeed, later proved to be equal to another *Amsinckia* species, as pointed out by Bentham & Hooker in *Genera Plantarum* 2: 852 (1873), it was not until 1935 that I.M. Johnston coined a new name for this plant (the specific name being preoccupied under *Amsinckia*), as *A. scouleri* I.M. Johnst., *nom. nov.* Per Lassen is, thus, incorrect (in the paper quoted above) where he amends the author citation to Lehm. ex Fisch. & Mey.

Selecting a type specimen is problematical. Lehmann's herbarium is preserved in **MEL** (Australia), but rumour has it that some of the *Amsinckia* material there appears to have had its labels interchanged! Selecting a sheet in **K** (England), as implicitly suggested by I.M. Johnston in *J. Arn. Arboretum* 16(2): 192-202 (1935) also seems a valid argument. All important, to conserve current usage, the neotype should possess a corolla tube that has a bearded throat, as Fischer & Meyer made so clear in *Ind. Sem. Hort. Petrop.* 2: 1&2 (1836). I am unaware that a positive selection has yet been made.

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### AN UNUSUAL HYBRID ?

In August 1998 I noticed *Geranium endressii* var. *thurstonianum* Turill as a pavement weed at Hextable, W. Kent. (It is really a form of *G. endressii* × *G. versicolor*). It is not a garden plant (the flowers are completely miserable) but it may arise naturally in gardens (as well as in the wild) where both parents are present of course.

The petals were very narrow, pale in colour, only 3 mm wide and parallel-sided and rather short. The anthers looked like tiny petals (petaloid) but there did appear to be some seed. I did not notice the parents or more normal forms of the hybrid being there, but there were a number of walled gardens nearby, **Hb JRP**.

#### Reference

Stace, C.A. (1975). *Hybridization and the Flora of the British Isles*.

JOHN R. PALMER, 19 Water Mill Way, S. Darenth, Dartford, Kent DA4 9BB.

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## ANOTHER HANDSOME, THOUGH NOT SO VIGOROUS, HYBRID

I have recently come to the conclusion that there must be some ingredient, either in the air or the soil of my garden, which encourages promiscuity among the plants which grow there! Admittedly, I am no 'gardener' in the accepted sense of that word, so it is a semi-wild garden in any case where nettles, corncockles, fox & cubs, red campion and many other native 'weeds' are welcome and horticultural species somewhat scarce.

I have lived here for the last 48 years, and during that time several clumps of pot marjoram (*Origanum onites*) have lived and thrived in a flowerbed in the back garden. It is a shrubby plant and obviously hardy as it sends up fresh flower stalks every summer. These are up to about 600 mm high, slender, erect and very wiry, with rather compact heads of small, pinkish-mauve flowers. However, shortly after I had sent in a previous note to *BSBI News* last summer (77: 34, December 1997) – *A Handsome and vigorous Hybrid Ragwort*, I noticed a strange plant which had appeared unannounced during the summer months and which defied all my efforts at identification. It was clearly a Labiate with square stems and two-lipped pinkish-mauve flowers scattered distantly from each other about the main stem and small branches, but it was completely herbaceous, not at all woody, and the stems were about 1-1.5 m long and very weak indeed, so that the plant lay straggling on the ground over the bare earth. I had no idea what it could be so I consulted Dr Michael Keith-Lucas and Mr. Ronald Rutherford in the Botany Department of the University of Reading. After some discussion they decided that it must be a hybrid between my pot marjoram and the only native species of marjoram, *O. vulgare*. Where this native species is to be found in the neighbourhood I do not know, but presumably within flying distance of whatever pollinating insect did the job. I wonder what other surprises might appear in the summer of 1998? I shall keep a watchful eye for any mysterious newcomers!

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## THE *SCILLA* AT WARLEY PLACE

Flowering in April in Ellen Willmott's long derelict garden at Warley Place near Brentwood, Essex, is a little blue squill of doubtful identity. The purpose of this note is to report its determination by Dr Franz Speta, the leading authority on the genus.

The leaves are 15-30 cm long and up to 1.5 cm broad, shallow V-shaped in cross-section, acute, glossy, bright green. The scape is up to 30 cm tall and 0.5 cm in diameter, round or half-round, carrying 4-10 flowers in a loose conical raceme. The slender pedicels, up to 2 cm long arise from beneath a shield-shaped, whitish green bract 0.2 × 0.2 cm. The perianth segments are 0.6 cm long and 0.3 cm broad, dark blue. The stamens are 0.4 cm long, with dark blue anthers. The fruits have one ovule in each locule.

This *Scilla* is to be seen in several Brentwood gardens and it or some closely similar bulb used to grow all over the woodland beds at the Royal Botanic Gardens, Kew, though in 1998 its numbers had

been greatly reduced. The garden at Warley Place is now a nature reserve under the care of the Essex Wildlife Trust and in their guide to the reserve it is named as *Scilla italica* (now renamed *Hyacinthoides italica* (L.) Rothm.). A friend who grows it claims that it is *S. messeniaca*.

In 1997 I sent several bulbs to Hofrat Dozent Dr Franz Speta, at the Department of Botany, Biology Centre, Linz, Austria, author of a monograph on *Scilla* (F. Speta, 1979). Did I loot the bulbs from Warley Place? Certainly not! My stock originally came from the roadside about 200 m west of my house where they flourish amid brambles along with *Narcissus* hybrids and other garden throw-outs. Careful comparison confirms their identity with the Warley Place plants.

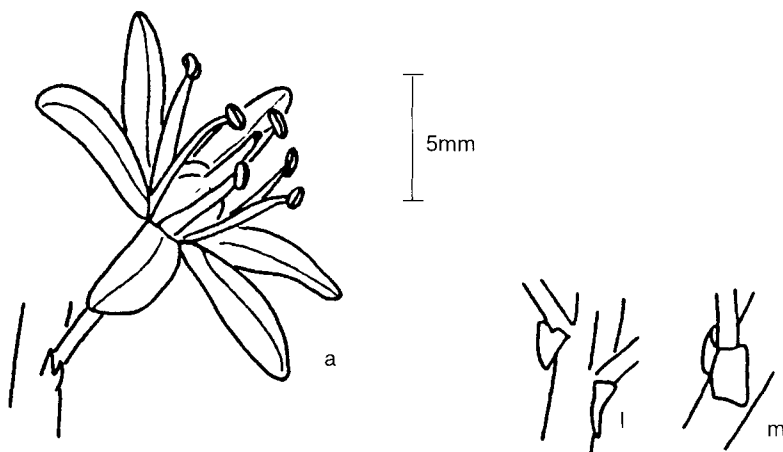
Dr Speta determined them as *Scilla bithynica* Boiss., the crucial feature being the size of the bracts, 2-3 mm, as against less than 1 mm in *S. messeniaca* Boiss. The bracts are spurred in *Scilla bithynica* but not in *S. messeniaca* (fig. 1, below). Dr Speta divides *S. bithynica* into four subspecies, all of which come from the Black Sea coasts of Turkey and Bulgaria. He thinks the Warley bulbs belong to subsp. *bithynica*, but because he was away when they were in flower there is some doubt about that point. *S. messeniaca* is confined, as a native, to a small area near Kalamata in the Peloponnese.

Where did Ellen Willmott get the bulbs? There is no mention of *Scilla* or *Chionodoxa* in the standard biography (A. le Lièvre, 1980). Miss Willmott's notebooks might still be accessible.

Perhaps the naturalist who named them as *Scilla italica* was not very wide of the mark. Stace (1997) remarks that '[the genus] *Hyacinthoides* is doubtfully distinct from *Scilla*, *H. italica* fits ± equally well into either genus.'

## References

- Speta, F. (1979). Die frühjahrsblühenden *Scilla*-Arten des östlichen Mittelmeerraumes. [The spring-flowering *Scilla* species of the Eastern Mediterranean region]. *Naturkundliches Jahrbuch der Stadt Linz*, 25: 19-98.
- le Lièvre, A. (1980). *Miss Willmott of Warley Place Her Life and her Gardens*, London.
- Stace, C.A. (1997). *New Flora of the British Isles*, 2nd ed., (page 932. legend). Cambridge.



a *Scilla messemaca* Flower showing bract less than 1 mm long,

l, m *Scilla bithynica* bracts 2-3 mm long.

From Speta (1979), Figs. 4 & 6.

## DECREASING ALIENS

The late Duggie Kent (*BSBI News* 79: 66) asks about decreasing alien species. The classic example must be *Elodea canadensis* (Canadian Waterweed) 'First introduced in . . . 1842 in Britain, spread rapidly and attained great abundance so as to block many waterways, then diminished; now widespread but seldom abundant' (Clapham, *et al.* 1985). Now being displaced by *Elodea nuttallii* (Nuttall's Waterweed).

Perhaps *Crassula helmsii* (New Zealand Pigmyweed) will follow the example of Canadian Waterweed (please!).

Why are so many of our most aggressive invaders tied to water and wetlands?

### Reference:

Clapham, Tutin & Moore (1985). *Flora of the British Isles*. 3rd Edition. Cambridge University Press.

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## **GEUM MACROPHYLLUM, A NATIVE OF AMERICA, MAKES ITSELF AT HOME IN MY GARDEN**

Early this summer I was surprised to find two specimens of an unknown plant occupying a previously bare patch of flowerbed towards the bottom of my garden. It is herbaceous, with large dark green leaves, smooth above, roughly hairy beneath, and of a tufted habit, but when I first noticed it there were flower buds on branched stalks but no open flowers. I took some leaves and flower stalks to the Botany Department of the University of Reading in Whiteknights Park where Mr Ronald Rutherford kindly identified it for me as an American species of *Geum*, named *Geum macrophyllum* (Large-leaved Avens), a very appropriate name as the leaves are huge and, although similar in shape to those of *G. urbanum* (Wood Avens), very much larger. This week (the last week of October) it has begun to flower at last and the flowers are small and yellow, very much like those of *G. urbanum* and only about 1 cm in diameter when fully open.

Ronnie tells me that this plant is sometimes grown in gardens as an ornamental, but where my two plants came from or how they got here so neatly planted about 30 cm apart I have no idea, but I have become quite fond of them!

I asked Marcus Nock (Superintendent of Grounds at the University) whether he ever used it on the campus because my house is only about 200 m down the hill from the nearest entrance to Whiteknights Park, but he said no, it had never been used there – or at any rate not to his knowledge – so I can only suppose that one of my neighbours may be growing it. So far its origin remains a mystery but a rather intriguing one – I shall continue to pursue my enquiries!

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## **RHAGADIOLUS EDULIS IN MALLORCA . . . AND BRITAIN?**

*Rhagadiolus stellatus* (Star Hawkbit) has been known from Mallorca since at least the plant list by Knoche (1921-1923) and its occurrence on the island is well documented (Beckett, 1993). The related *R. edulis* does not appear to have been previously recorded from Mallorca, although its presence on the island is verifiable by several herbarium specimens. This came to light as a result of finding a plant of *R. edulis* in NE Mallorca in a roadside field between Pollença and Puerto Pollença, where it was growing with other annual plants, notably *Lolium temulentum* (Darnel) and *Nigella damascena*



(Love-in-a-mist). It has evidently been present on the island for many years but always recorded as *R. stellatus*. Specimens of both *R. stellatus* and *R. edulis* from Mallorca are at **K** and **BM**.

A similar thing has apparently happened to British records, for Clement & Foster (1994) list only *R. stellatus*, with a note that this includes *R. edulis*. It would appear that the excellent article which appeared in *Taxon* (Meikle, 1979), which sets forth a strong argument for the recognition of *R. edulis* at specific level and explains the historical mistakes in identification that lead to its subsumption in *R. stellatus*, has been overlooked by many workers. It does seem surprising that with the current interest in emphasising critical taxa, one so distinct in many characters and ecological requirements (Feinbrun-Dothan, 1978) should have been overlooked for so long. Descriptions and illustrations along with keys separating these two taxa can be found in: Meikle, 1979, 1985; Feinbrun-Dothan, 1976, 1978; Viney, 1994.

There is no evidence of hybrids between the two species. Both are widespread in the Mediterranean region and likely to appear in Britain as casuals. A specimen at **K** (1914, G.C. Brown) from Britain is *R. stellatus* sens. str. Material from Britain at **BM**, **CGE**, **NMW**, **OXF**, **RNG**, & **SLBI** needs to be re-examined critically. Meikle (1979) provides the following key:

- 1a. Inner phyllaries glabrous dorsally, normally 5-6, fruits straight or slightly recurved, 1-1.5 cm long; basal leaves lyrate-pinnatisect, with a large terminal lobe and small, remote, lateral lobes; petiole well-developed, often elongate *R. edulis* Gaertner
- 1b. Inner phyllaries hispidulous or scabridulous dorsally, at least towards apex, normally 8; fruits distinctly incurved, 1.5-2 cm long; basal leaves oblanceolate or narrowly obovate, subentire, dentate or pinnatifid, with close lateral lobes diminishing downwards to a short, indistinct petiole *R. stellatus* (L) Gaertner

#### References:

- Beckett, E. (1993). *Illustrated Flora of Mallorca*. plate 71  
 Clement, E.J. & Foster, M.C. (1994). *Alien plants of the British Isles*. p. 307.  
 Feinbrun-Dothan, N. (1978). *Flora Palaestina* 4: 412 & plate 697 (1976).  
 Meikle, R.D. (1979). *Rhagadiolus*: A misunderstood genus. *Taxon* 28: 133-141.  
 Meikle, R.D. (1985). *Flora of Cyprus* 2: 995-996.  
 Viney, D.E. (1994). *An illustrated Flora of North Cyprus*. p. 400-401.

JULIAN M.H. SHAW, 4 Albert Street, Stapleford, Nottingham, NG9 8DB

## ALIEN AND CULTIVATED *SOLANUM* – A NOMENCLATRURAL UPDATE

During the preparation of the Solanaceae account for the forthcoming *European Garden Flora* vol. 6 (expected 1999), some of the names in common usage were found to be incorrect, usually because earlier synonyms have come to light. To make the situation easier to deal with, the following list provides updated nomenclature for the *Solanum* names used in two recent useful publications: Clement, E.J. & Foster, M.C., (1994) *Alien plants of the British Isles* and Griffiths, M., (1994) *Index of Garden Plants*, RHS & Macmillan which was derived from the New *RHS Dictionary of Gardening* (4 vols, 1992). The names used in these two works that require comment are listed below in alphabetical order along with page number and appropriate notes. Names in italics are synonyms; names currently accepted are in **bold** at their first occurrence.

*S. hurbankii* Bitter [Index p.1091]

Originally claimed to be a hybrid (*S. scabrum* × *S. villosum*), which is very unlikely. This plant was probably introduced from South Africa and appears to represent a selection from *S. retroflexum* Dunal, which name is currently accepted by Edmonds and Chweya (1997). In the *European Garden Flora* this taxon appears under ***S. sinaicum*** Boissier, which it seems very likely is conspecific with *S. retroflexum*

Dunal. Another synonym may be *S. grossidentatum* Richard from East Africa; research is in progress to determine their relationships. Illustration: Feinbrun-Dothan, *Flora Palaestina* 3: pl. 274 (1977) and probably the plant figured as *S. nigrum* in Miller & Morris, *Plants of Dhofar*, 273 (1988). For a discussion see Heiser, *Nightshades - the paradoxical plants* (1969) and Edmonds & Chweya, *Black nightshades* (1997).

*S. fontanesianum* Dunal [Aliens p. 233]

There is an earlier name **S. fructo-tecto** Cavanilles. Other synonyms are: *S. sinuatum* Willdenow; *S. tectum* Persoon; *Nycterium fontanesianum* (Dunal) Sweet. Although there have been no records in Britain since 1930, this species is currently available as seed. It may be separated from the similar *S. rostratum* as follows:

1a. largest anther <6 mm; corolla <2 cm across; stem prickles broad-based, flattened, recurved

*S. fructo-tecto*

1b. largest anther >9 mm; corolla >2 cm across; stem prickles usually acicular

*S. rostratum*

These species and their allies have recently been reviewed by Whalen, M.D. (1979) Taxonomy of *Solanum* section *Androceras*. *Genes Herbarum* 11(6): 359-426.

*S. jasminoides* Paxton [Index p. 1092]

The well known Potato vine has its familiar name upstaged by **S. laxum** Sprengel, of which *S. boerhaviaefolium* Sendtner is also a synonym.

**S. juvenale** Thellung [Aliens p. 233, under *S. linnaeanum* Hepper & P.M. Jaeger.]

This is the priority name for a South American *Solanum* also described as *S. meloncillo* Parodi. It has been recorded from the Montpellier region in France as an alien between 1870 and 1904, but is no longer present at the locality. Its affinities appear to lie with *S. elaeagnifolium* and it is not a name that can be applied to *S. linnaeanum*. For a discussion see Symon, D.E. (1971) A note on 'Solanum juvenale' Thell. and 'Solanum meloncillo' Parodi. *Darwiniana* 16: 411-413.

*S. melanoceraum* Allioni [Index p. 1092]

A synonym of **S. scabrum** Miller, the garden Huckleberry. See Edmonds, J.M. & Chweya, J.A., *Black nightshades* IPGRI (1997). Curiously *S. scabrum* Lamarck [Index p. 1093] is also listed in the Index as a synonym of *S. muricatum* Aiton, which may well be correct, whereas no mention is made of *S. scabrum* Miller. Least this should cause confusion with **S. scabrum** Miller, it seems worth noting that the epithet 'scabrum' has been used for at least seven different *Solanum* taxa, but now rightly applies to the Huckleberry.

*S. muticum* N.E. Brown [Index p. 1092]

Based on a collection from Paraguay, this name is a synonym of **Lycianthes rantonnei** (Carriere) Bitter. Most publications use the 'corrected' form of the name *S. rantonnetii*, however the original orthography was *S. rantonnei* Carriere, *Revue Horticole* 32: 135, t.32 (March 1859). The genus *Lycianthes* is now recognised as distinct from *Solanum* and its affinities are thought to be with *Capsicum*. For details and further synonyms see Barboza, G.E. & Hunziker, A.T., Estudios sobre Solanaceae 33. El genero *Lycianthes* en la Argentina, *Darwiniana* 31(1-4): 17-34 (1992).

*S. pseudolycoioides* Rusby [Index p. 1092, as 'pseudolycooides']

This species is now transferred to *Lycianthes*, where it becomes a synonym of **Lycianthes lycioides** (L.) Hassler. For details and extensive synonymy see Barboza & Hunziker cited above.

*S. pyracanthon* Jacquin [Aliens p. 234; Index p. 1092, both as 'pyracanthum']

**S. pyracanthos** Lamarck (1794) is the earliest valid form of the name for this Madagascan species, which name has numerous orthographic permutations, including *pyracanthum* Dunal, *pyracantha* Smith. For a recent account see D'Arcy, W.G. & Rakotozafy, A. (1994) *Flore de Madagascar et des Comores*, Famille 176. – Solanaceae p. 117-121.

*S. uporo* Dunal [Index p. 1093]

This name applies to the large fruited selected cultivars of **S. viride** Sprengel (1807), not of Brown (1810). There are many other synonyms including *S. anthropophagum* Seemann; *S. puberulum* Seemann; *S. ornans* Witasek; *S. polynesianum* St John which apply to these apparently anthropogenic

plants. The situation across Polynesia is quite complex and basically *S. viride* can be divided into large fruited (thought to be of human introduction and selection) and small fruited plants (probably the wild ancestral type) under one species. See Symon, D. Hawaiian species of *Solanum*, *Solanaceae newsletter* 3(3): 18-25 (1993).

JULIAN M.H. SHAW, 4 Albert Street, Stapleford, Nottingham, NG9 8DB

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## NEW CONIFER IN THE BRITISH ISLES?

I wish to report a new conifer which has recently arrived in Britain.

*Pseudopinus telephoneynensis* (Ring.) Ring. is a tree to 35 m tall with a plastic crown. The cylindric trunk has a very thin bark but emits a metallic note when struck. The needles are notable for having a wrong number on each short shoot and for often failing to connect. No cones have yet been produced, but they are likely to be orange.

The tree grows to maturity in an astonishingly short time on prominent hilltops. It is thought to be a relict of the Iron Age, and produces a noise varying from an insidious drone to a perpetual chatter. A fine specimen can be seen near Cranborne Chase in Dorset at 31/885.163.

HUMPHRY M. BOWEN, West Down, West Street, Winterborne Kingston, Blandford, Dorset  
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## NOTICES (BSBI)

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### LADY'S-SLIPPER ORCHID

There will be a viewing day for *Cypripedium calceolus* at the orchid site on the Ingleton Glens Waterfall Walk on Sunday, 23 May 1999. The entrance to the walk is via the car park (fee about £4.00 per car). Grid ref.: SD/693.733.

MARGARET LINDOP, E.N. Cypripedium Committee

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## NOTICES (NON BSBI)

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### FIRST PATRON OF THE BRITISH PTERIDOLOGICAL SOCIETY

The British Pteridological Society is delighted to announce that His Royal Highness The Prince of Wales has agreed to become the Society's first Patron.

The Society, founded in the Lake District in 1891, is the oldest fern society in the world, currently with about 750 members in approximately 50 countries. It organises symposia, informal discussions, field meetings, garden visits, plant exchanges, a spore exchange scheme and fern book sales; and it provides financial support for research projects. It is concerned with conservation of wild species in association with the BSBI, Wild Life Trusts, and conservation of fern cultivars in tandem with the National Council for the Conservation of Plants and Gardens. The Society membership includes gardeners and botanists, both amateur and professional. The Society's three journals are issued annually. They are the Fern Gazette which publishes matters chiefly of specialist interest on

international pteridology, the Pteridologist, topics of more general appeal, and the Bulletin, which contains Society business and meeting reports.

His Royal Highness has demonstrated a great love for ferns in his wonderful garden at Highgrove where ferns are cultivated with great success in some remarkable settings. Most notable are the stumpery, or Temple Grove, and Wall of Gifts. Both are fine examples of innovative garden design, using ferns as the main plantings. Both cultivated and wild ferns feature strongly in other areas of the Highgrove garden.

The Society is thrilled to have such a high profile Patron who is sure to increase public awareness of the Society, thus helping to promote fern study, cultivation and conservation. We hope that, for his part, The Prince of Wales will benefit from the services and advice provided by the Society. For further information please contact:

MARTIN RICKARD, President BPS, Pear Tree Cottage, Kyre, Tenbury Wells, Worcs. WR15 8RN.

Tel. 01885 410282; Fax 01885 410398

JENNIFER IDE, Hon. Secretary, 42 Crown Woods Way, Eltham, London SE9 2NN. Tel. 0181 8503218.

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## SCOTLAND'S NATIONAL BOTANIC GARDEN WINS SCOTTISH MARKETING AWARD

Congratulations to The Royal Botanic Garden Edinburgh on their tremendous achievement in winning the coveted Scottish Marketing Award for the Public Sector Category at a recent prestigious awards ceremony.

Entrants had to demonstrate their skills and expertise in understanding their markets, identifying their customer needs and using creativity in implementing competitive marketing strategies.

The Garden's achievements included improved targeted and designed adverts, leaflets and posters, increased media coverage of a more focused events programme, a better knowledge of their customers and increased turnover from commercial activities such as *The Botanics Shop*, catering and hire of facilities for events and functions. All were accomplished on a very small budget.

For further information, a programme of events and supportive images contact: Angela Kilday Tel: 0131 248 2900 or Clara Govier Tel: 0131 248 2942 Fax: 0131 248 2901. E-mail: [press@rbge.org.uk](mailto:press@rbge.org.uk)

## EDITOR

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## OXFORDSHIRE EVENTS

'**Flora Britannica**' is the title of the Warburg Memorial Lecture to be given by Richard Mabey on February 2nd at 8.00 p.m. in the University Museum of Natural History, South Parks Rd, Oxford. Entrance £2. Details from: C.R. Lambrick at the address or phone below:

**Identifying Meadow Dandelions** – a two day course instructed by John Richards, organised by the Rare Plants Group of the Ashmolean Natural History Society of Oxfordshire, 1-2 May at Oxford, non-residential charge £10, places limited.

Contact C.R. Lambrick at the address or phone below for application form:

CAMILLA LAMBRICK, Picketts Heath, The Ridgeway, Boars Hill, Oxford OX1 5EZ. Phone and Fax: 01865 735161.

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## FLORA LOCALE TRAINING DAYS

Flora locale will be repeating its successful series of training days in 1999. These will cover: Enhancing the botanical diversity of grasslands; Establishment of wildflowers and trees in new woodland plantations; Growing and harvesting wildflower crops and Best practice production and supply for native trees and shrubs. Full details will be provided to BSBI members early next year. A discount to BSBI and Plantlife members will apply.

SUE EVERETT, The Nature Conservation Bureau Ltd, 36 Kingfisher Court, Hambridge Road,  
Newbury, RG14 5SJ. Tel: 01635 550380 Fax: 00 44 1635 550230

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## IDENTIFICATION OF AQUATIC MACROPHYTES

Richard Lansdown will be leading a course in the identification of difficult and critical aquatic macrophytes, based on Anglesey in July 1999. The course will cover British Callitriche, Potamogeton, Batrachian Ranunculus and Charophytes. It will also include a visit to Llyn Idwal in Snowdonia to look at upland lake species.

For details, please contact:

TIM PANKHURST, 44 The Avenue, Leighton Bromswold, Huntingdon, Cambs, PE18 0SH.  
Tel/fax: 01480 890702; e-mail [tpankhurst@cwcom.net](mailto:tpankhurst@cwcom.net)

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## REQUESTS

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### BUCKS. RECORDS WANTED FOR ATLAS 2000

Roy Maycock, Botanical Recorder for v.c. 24 would welcome any records for the county. He is willing to supply lists for each hectad showing the species known to be present pre-1987, and which have not been recorded since. If you are able to help please contact him at 17 Osborne Street, Bletchley, Milton Keynes MK2 2LU or phone 01908 378900.

MARGARET LINDOP, Field Meetings Secretary.

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## FLORAUREA

Many common native plants have forms in which the traditional green colouring of leaves stems, etc., is either partially replaced or disguised beneath yellows or purples and reds. The cases of yellows is, I believe, more interesting because it encompasses a wider range of possibilities. One explanation that has been offered is that stable yellow forms cannot produce chlorophyll b. However, this condition could either produce pale green or yellow forms and I have yet to come across examples where such aureates have been tested for their chlorophyll b content.

It seems a valid question to wonder what is the range of pigments that are involved in such forms and whether they can ever give the plant some advantage over the traditional green-leaved forms. Obviously there is a problem with scorching in sunlight for some forms but in others the ability to turn

virtually green in the shade suggests that the yellow coloration may be an adaptation to brighter light, a metabolic control??

I am in the process of collecting, and growing, as many yellow-leaved forms of common native plants as I can legitimately acquire. I would like to make contact with others who have an interest in this subject and also make material available to people who might be able to test for the range and quantity of pigments.

MARTIN CRAGG-BARBER, 1 Station Cottages, Hullavington, Chippenham, Wiltshire SN14 6ET.

E-mail: [martin@worldmutation.demon.co.uk](mailto:martin@worldmutation.demon.co.uk)

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### ***WATSONIA* REQUESTED**

I am currently trying to complete a set of *Watsonia* and *Proceedings of BSBI*. I wonder if anyone can help me fill the following gaps:

*Watsonia*: Vol. 2 part 5; Vol. 5 part 1; Vol. 6 part 4; Vol. 7 parts 2, 3 and 4.

*Watsonia* indexes for volumes: 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 21

*Proceedings of the BSBI*. Volume 6 (index/contents pages only), Vol. 7 part 2.

I will pay a reasonable price for any of these and can offer swaps of several back issues.

ALAN LEWIS, The Flat, Burley Wood, Burley Lane, Ashe, Basingstoke, RG25 4JG e-mail:

[alan.lewis@swkeurope.com](mailto:alan.lewis@swkeurope.com)

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### **GLABROUS FORMS OF *SILENE DIOICA* (RED CAMPION)**

I am anxious to obtain seeds of glabrous forms of *Silene dioica* to recreate genetic crosses carried out by William Bateson here in the Botanic Garden of the University of Cambridge. William Bateson received a glabrous form from H. de Vries in the Netherlands about 1898 and demonstrated Mendelian segregation for the glabrous character.

Seeds from glabrous pistillate plants would be much appreciated. We will use these plants for a Bateson display to be mounted in the Botanic Garden in 2001 to commemorate the hundredth anniversary of the English translation of Mendel's paper.

Please send seeds to:

PROF. JOHN PARKER, University Botanic Garden, Cory Lodge, Bateman Street Cambridge CB2 1JF

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### **SEEKING BOTANICAL ARTISTS**

The International Centre for Underutilised Crops at the University of Southampton has recently started a project on the documentation of certain tropical fruit species. In order to illustrate these documents we wish to commission a botanical artist. Would anyone interested please contact me at the address below.

MARK D. ATKINSON, Institute of Irrigation and Development Studies, Southampton SO17 1BJ

E-mail: [mda@soton.ac.uk](mailto:mda@soton.ac.uk)

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## OFFERS

### WEST DOWN SEED LIST, 1998

This wet year it has been hard to collect seed. However small amounts of the following are available free, on receipt of small LABELLED packets and an s a e. To all those who kindly sent me their seeds last year, many thanks. I also have some old seed from earlier lists.

<i>Adonis aestivalis</i>	<i>Euphorbia platyphyllos</i>	<i>Nectaroscordum siculum</i>
<i>Agrostemma githago</i>	<i>Farsetia clypeolata</i>	<i>Nepeta cataria</i>
<i>Ajuga chamaepitys</i>	<i>Francoa ramosa</i>	<i>Nepeta subsessilis</i>
<i>Allium cernuum</i>	<i>Galtonia candicans</i>	<i>Nicandra physaloides</i>
<i>Allium nigrum</i>	<i>Gaudinia fragilis</i>	<i>Nigella damascena</i>
<i>Alstromeria aurea</i>	<i>Geranium pratense</i>	<i>Nigella sativa</i>
<i>Amaranthus caudatus</i>	<i>Geranium versicolor</i>	<i>Oenanthe pimpinelloides</i>
<i>Amorpha canescens</i>	<i>Gilia capitata</i>	<i>Oenothera missouriensis</i>
<i>Anchusa arvensis</i>	<i>Gladiolus communis</i>	<i>Oenothera stricta</i>
<i>Anagallis arvensis</i> (blue)	<i>Helichrysum bracteatum</i>	<i>Onopordon acanthium</i>
<i>Avena strigosa</i>	<i>Hypericum olympicum</i>	<i>Paeonia lutea</i> (heavy!)
<i>Briza maxima</i>	<i>Impatiens balfourii</i>	<i>Papaver hybridum</i>
<i>Briza minor</i>	<i>Impatiens cristata</i>	<i>Potentilla recta</i>
<i>Bupleurum rotundifolium</i>	<i>Inula helenium</i>	<i>Primula veris</i>
<i>Camassia leichtlinii</i>	<i>Jasione laevis</i>	<i>Ranunculus sardous</i>
<i>Campanula persicifolia</i>	<i>Kickxia elatine</i>	<i>Salvia glutinosa</i>
<i>Carex depauperata</i>	<i>Kickxia spuria</i>	<i>Salvia pratensis</i>
<i>Centaurea cyams</i>	<i>Knautia drimeia</i>	<i>Salvia sclarea</i>
<i>Chenopodium giganteum</i>	<i>Knautia macedonica</i>	<i>Salvia viridis</i>
<i>Chenopodium murale</i>	<i>Lagurus ovatus</i>	<i>Scutellaria bicalensis</i>
<i>Chenopodium vulvaria</i>	<i>Lathyrus sativus</i>	<i>Silene armeria</i>
<i>Chrysanthemum segetum</i>	<i>Lathyrus vernus</i>	<i>Silene coeli-rosa</i>
<i>Clinopodium ascendens</i>	<i>Lavatera trimestris</i>	<i>Silene noctiflora</i>
<i>Dianthus armeria</i>	<i>Leonurus cardiaca</i>	<i>Silene pendula</i>
<i>Dianthus barbatus</i>	<i>Libertia formosa</i>	<i>Silybum marianum</i>
<i>Dianthus deltoides</i>	<i>Linaria amethystea</i>	<i>Smyrnum olusatrum</i>
<i>Dierama pulcherrima</i>	<i>Linaria dalmatica</i>	<i>Sparaxis tricolor</i>
<i>Digitalis grandiflora</i>	<i>Linaria purpurea</i>	<i>Stachys germanica</i>
<i>Digitalis lutea</i>	<i>Linum bienne</i>	<i>Teesdalia nudicaulis</i>
<i>Digitalis purpurea</i>	<i>Lychnis chalcidonica</i>	<i>Telekia spectosa</i>
<i>Dorycnium hirsutum</i>	<i>Lychnis coronaria</i>	<i>Tragopogon porrifolius</i>
<i>Echium vulgare</i>	<i>Lychnis viscaria</i>	<i>Verbascum nigrum</i>
<i>Eryngium giganteum</i>	<i>Malva alcea</i>	<i>Verbena officinalis</i>
<i>Euphorbia corallioidea</i>	<i>Marrubium vulgare</i>	<i>Viola tricolor</i>
<i>Euphorbia exigua</i>	<i>Misopates orontium</i>	<i>Xeranthemum cylindricum</i>

HUMPHRY M. BOWEN, West Down, West Street, Winterborne Kingston, Blandford, Dorset  
DT11 9AT

## MORE SEEDS FROM WARE

Here is another selection of seeds, mostly of British aliens, harvested from my garden this year. Once again, an s a e. and some small labelled packets would be appreciated.

<i>Ambrosia artemisiifolia</i>	<i>Datura ferox</i>	<i>Malvastrum coromandelianum</i>
<i>Arabis glabra</i>	<i>Datura quercifolia</i>	<i>Nonea lutea</i>
<i>Artemisia annua</i>	<i>Datura tatula</i>	<i>Pavonia urens</i>
<i>Bidens bipinnata</i>	<i>Dipsacus fullorum</i>	<i>Physospermum cornubiense</i>
<i>Bidens frondosa</i> f. <i>anomala</i>	<i>Echallium elaterium</i>	<i>Psoralea bituminosa</i>
<i>Bidens pilosa</i>	<i>Ehrharta erecta</i>	<i>Setaria verticillata</i>
<i>Bromus trinii</i> (herterianus)	<i>Erodium botrys</i>	<i>Sigesbeckia serrata</i>
<i>Carthamus tinctorius</i>	<i>Erodium cygnorum</i>	<i>Solanum chenopodioides</i>
<i>Chenopodium ambrosioides</i>	<i>Eragrostis curvula</i>	<i>Solanum nigrum</i> ssp. <i>schultesii</i>
<i>Chenopodium strictum</i>	<i>Ferula tingitana</i>	<i>Solanum scabrum</i>
<i>Chenopodium urticum</i>	<i>Iva xanthiifolia</i>	<i>Solanum villosum</i>
<i>Conyza bilbaoana</i>	<i>Lepidium africanum</i>	<i>Thapsia villosa</i>
<i>Datura ceratocaula</i>	<i>Lepidium pinnatifidum</i>	<i>Xanthium strumarium</i>

GORDON HANSON, 1 Coltsfoot Road, Ware, Herts SG12 7NW

## SUPPLY OF HERBARIUM MOUNTING PAPER

At the last BSBI Scottish Annual Meeting, one of the vice-county recorders asked whether a source was known from which mounting paper could be obtained. During the ensuing discussion it was suggested that there might well be other members wishing a supply of paper and if that were the case, could the BSBI make a bulk purchase.

We have ascertained from Douglas McKean that the Royal Botanic Garden, Edinburgh could make some paper available at £5 per 50 sheets. However the sheets are all stamped 'HERB. HORT. EDINB.' in the top right hand corner. It would of course, be possible to stick a label over the area or use the reverse side.

Any member wishing to take advantage of this offer should contact the undernoted within one month of the publication of this edition of *BSBI News*.

PETER MACPHERSON, 15 Lubnaig Road, Glasgow G43 2RY

## BOOK NOTES

### BOOK NOTES

It is a little time since the last *Book Notes* appeared. I have not listed those for which reviews have already appeared in *Watsonia*, but I have seen a number of more ephemeral publications, including some that have received loans or grants from the BSBI, that have not been sent for review. We urge all authors and publishers to let us know of their works.

Those which will not be reviewed in *Watsonia* are marked with an asterisk. The comments in square brackets are mine.



*The Ferns of Britain and Ireland* 2nd ed. C.N. Page. Pp 540. Cambridge University Press. 1997. Price (hbk) £ 90.00 (ISBN 0-521-58380-2), (pbk) £40.00 (ISBN 0-521-58658-5).

*The Natural History of Pollination.* M. Proctor, P. Yeo and A. Lack. Pp 479. HarperCollins. 1996. Price (hbk) £35.00 (ISBN 000-219905 X), (pbk) £16.99 (ISBN 000-219906-8).

*Dorset's disappearing Heathland Flora.* A.J. Byfield and D.A. Pearman. Pp 37 (text) + 47 (annexes). Plantlife, London and Royal Society for the Protection of Birds, Sandy. 1996. Price £10.00 (ISBN 9-780903-138987)

*Plant Crib* 1998. T.C.G. Rich and A.C. Jermy. Pp vii + 392. BSBI 1998. Price £15.00 (ISBN 0-901158-28-3).

*Flora of Oxfordshire.* J. Killick, R. Perry and S. Woodell. Pp. xii + 386. Pisces Publications. 1998. Price £45.00 (ISBN 1-874357-07-2).

*Urban Flora of Belfast.* S. Beasley and J. Wilde. Pp. viii + 196. Institute of Irish Studies, The Queen's University of Belfast. 1997. Price £8.50 (ISBN 0-85389-695-X).

*The Atlas Flora of Somerset.* P.R. Green, I.P. Green and G.A. Crouch. Pp. xxiv + 292. The authors. 1997. Price £25.00 (ISBN 0-9531324-0-4).

*Scottish Wild Plants - their history, ecology and conservation.* P. Lusby and J. Wright. 1996. Pp. viii + 116. Stationery Office, Edinburgh. Price (hbk) £19.95 (ISBN 1-872291-17-1), (pbk) £12.95 (ISBN 0-11-495802-5).

*Wildflower Safari.* The Life of Mary Richards. W. Condry. Pp.237. Gomer Press, Llandysul, Ceredigion. 1998. Price £17.99 (ISBN 1-85902-558-7).

\**Marjorie Blamey's Wild Flowers by Colour.* Pp 208. Dorling Kindersley Ltd. 1997. Price £19.99 (ISBN 0-7513-0493-X).

[Thumb-nail colour paintings of most of the flowers of northern and western Europe, as far south as the Pyrennees, Alps, Carpathians and Russia. The flowers are arranged by colour, using English names (with English-Latin, Latin-English indexes). I am a great fan of hers and this book is miles better for a beginner than most of the others on the market with their random and misleadingly few selections of species. Of course, with only space for part of each plant, it is bound to be oversimplified, but the good points far outweigh this and it is beautifully produced.]

\**A Botanical Tour around the Mediterranean* C. North. Pp xiv + 502. New Millennium, 292 Kennington Road, London SE11 4LD. 1997. Price £17.50 (ISBN 1-85845-075-6).

[Very much a personal view, and as such not comprehensive in coverage, but enormous fun. So far as I know without any rival, other than the relevant chapters in Oleg Polunin's books and some parts of Bacon's 'Mountain Flower Holidays in Europe'. 22 chapters cover Spain to Israel, with notes too on S. Portugal and Tunisia. Like Polunin there are listlets for each locality, with excellent line drawings, and some description of many of the flowers listed. He covers the literature for each area. I am very impressed indeed; it is an excellent winter planner and companion for the summer.]

\**A Natural History of Sutton Park Part I: The Vascular Plants* 2nd ed H. Fowkes and P. Coxhead. Pp. 34. Sutton Coldfield NHS. 1997.

[Re-organised in Kent list format, but seemingly few new records since 1991.]

\**Catalogue of Vascular Plant Type Specimens, National Museum and Gallery, Cardiff.* J.L. Carey *et al.* Pp. 26. National Museums and Galleries of Wales.

[An A-Z list of 381 type specimens, representing 148 taxa. 101 of these are *Rubus*, mainly from E.S. Edees herbarium.]

\**Evolution and Speciation of Island Plants* T.F. Stuessy and M. Ono. Pp. 358. Cambridge University Press. 1998. Price £50.00 (ISBN 0-521-49653-5).

[Concerned entirely with Japan and W. Pacific islands.]

\**A Dictionary of Ecology.* 2nd ed. M. Allaby (ed.) (Oxford paperback reference). Oxford University Press. 1998. Price £7.99 (ISBN 0-19-28007807).

[A much revised edition, after only four years, including new notes on molecular ecology, ecological relationships and conservation and the management of habitats.]

\**A Dictionary of Plant Sciences* 2nd ed. M. Allaby (ed.) (Oxford paperback reference). Oxford University Press. 1998. Price £7.99. (ISBN 0-19-280077-9).

[A revised edition of what was then known as 'The Concise Dictionary of Botany'. (Presumably time for us to change our name to the P.S.S.B.I.)]

\**Catalogue of rare and endangered vascular plants in the Liverpool Museum's British and Irish Herbarium*. K. Corrie (compiler), J. Edmondson (ed.) Pp. 91. National Museums and Galleries on Merseyside. Price £6 00 + £1 50 p.&p. from National Museums and Galleries on Merseyside.

[Each species is listed with details of vice-counties, collector, date, accession number and 10 km reference. The latest IUCN Threat Categories are used. Other fields, not published, but in the database are listed, and these of course, include locality. This is an excellent production giving access to much information not in general circulation. I learnt of new records for Dorset; the Herbarium and the publication covers the whole of Great Britain. I look forward to similar publications from other major herbaria; Liverpool deserve much credit for being first.]

DAVID PEARMAN, The Old Rectory, Frome St Quintin, Dorchester, Dorset, DT2 0HF

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## REVIEWS OF RECENT BSBI PUBLICATIONS (3)

The following reviews of BSBI publications are additional to those listed on pp. 66-67 of *BSBI News* 77 and p. 70 of *BSBI News* 78. I shall be glad to receive details of any others known to members.

### 1. *Pondweeds of Great Britain and Ireland* by C.D. Preston (1995)

*Archives of Natural History*, **25** (3): 456 (1998) by Alec Coles.

### 2. *Dandelions of Great Britain and Ireland* by A.A. Dudman & A.J. Richards (1997)

*Berichte der Bayerischen Botanischen Gesellschaft*, **68**: 201 (1997) by W. Lippert (in German).

*Botanical Journal of Scotland*, **50** (1): 120 (1998) and *BSS News*, No. 70 (1998) by D.R. McKean.

*British Wildlife*, **9**(4): 268 (1998) by Peter Marren.

*Edinburgh Journal of Botany*, **55** (2): 321-322 (1998) by R. Atkinson.

*Glasgow Naturalist*, **23** (3): 73 (1998) by Allan Stirling.

*Kew Bulletin*, **53** (2): 502-503 (1998) and, slightly modified, *Turaxacum Newsletter*, No. 20: 47 (May 1998) by Jan Kirschner.

*The Naturalist*, **123** (1024): 18 (1998) by 'PPA' (Mrs P.P. Abbott)

*Taxon*, **47** (1): 262-263 (1998) (brief notice).

### 3. *Plant Crib 1998* by T.C.G. Rich & A.C. Jermy (1998)

*British Wildlife*, **9** (6): 406 (1998) by Peter Marren

*CAB Abstracts* (CAB International): 88770 (1998) (note giving statistics and describing contents; Internet: <http://www.cabi.org/>).

*London Naturalist*, No. 77: 154 (1998) by David Bevan.

PHILIP OSWALD, Editor of BSBI Handbooks, 33 Panton Street, Cambridge CB2 1HL

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## THE LUCK OF THE IRISH

It is increasingly usual nowadays for the publication of a county Flora to be celebrated with a party. But the one which took place on the last day of November has surely set an unbeatable record by attracting a speech from a prime minister! The nearest to that any comparable book has come must be the foreword contributed by Ramsay MacDonald to an account of the birds of his home county of Moray. Fortunately for the Dublin Naturalists' Field Club, Mr. Bertie Ahern has Glasnevin in his constituency and his favourite walk is through the National Botanic Gardens. It was there in fact that the new *Flora*

of *County Dublin* was originally planned to be launched, but a strike compelled a change of venue to Irish botany's former home, the National Museum, in the heart of the city. The gathering there, drawn from Irish natural history as a whole, including a strong contingent from the North, together with representatives from the Flora's various sponsoring bodies, filled the Museum's splendid rotunda to near-capacity.

Not content with landing An Taoiseach, the Club secured a speech from Dublin's Deputy Mayor as well (appropriately, a librarian by profession). After some introductory words by the President of the Club, Con Breen, followed by a rousing speech by Declan Doogue – respectively the BSBI Recorders for Westmeath and Co. Kildare – the politicians congratulated the Flora team on having brought their work to an impressive conclusion and were each then presented with specially-bound copies of the book.

So ended a small piece of botanical history.

DAVID ALLEN, Lesney Cottage, Middle Road, Winchester, SO22 5EJ

### PLANT CRIB 1998: CORRIGENDA

Thanks to all who have submitted corrigenda for *Plant Crib 1998*. In addition to SAEs to me, copies are also available by e-mail from me at Timothy.Rich@nmgw.ac.uk

For the Republic of Ireland, Michael Roberts has kindly offered to handle the corrigenda – please send an SAE to M. Roberts, Drumconora, Barefield, Ennis, Co. Clare, Ireland

TIM RICH, Dept of Biodiversity and Systematic Biology, National Museum and Gallery of Wales, Cathays Park, Cardiff CF1 3NP

## OBITUARY NOTES

A sad report for these notes is the death of D.H. Kent Honorary member of BSBI. Duggie who was a friend to many members, was also known and respected by very many more through his familiar name on BSBI publications. Recently, particularly as the editor of *BSBI Abstracts* published annually, and author of *List of Vascular Plants of the British Isles 1992* (the 'Kent List')

Duggie joined the BSBI in 1944 and took on the first of a long succession of editorial tasks for the Society through nearly fifty years, when he became responsible for the list of members and the *Year Book* in 1953. This soon developed into the *Proceedings of the Botanical Society of the British Isles*. Serving also as Vice-President, Council member and on the Development & Rules and Publications Committees — this last currently and for many years, he was also v.c. Recorder for Middlesex, author of *The Historical Flora of Middlesex* 1975, and other titles. Referee for various plant genera and other groups, and an invaluable adviser on nomenclature, Duggie was always ready to advise and proof-read for writers of Floras, handbooks and botanical papers.

There will be a full Obituary in *Watsonia*, and a D.H. Kent memorial issue of *Watsonia* in February 2000 is in preparation. This will include the Obituary, a Bibliography and papers relevant to his interests. If any member wishes to submit a paper please send the provisional title to Chris Preston (Dr C.D. Preston, ITE, Monks Wood, Abbots Ripton, Huntingdon PE17 2LS) **as soon as possible and certainly before the end of January**, and the completed paper to the receiving editor of *Watsonia* Martin Sanford (c/o The Museum, High Street, Ipswich, Suffolk IP1 3QH) **by May 1<sup>st</sup> 1999**. (The papers will be refereed in the usual way for *Watsonia* papers, so we cannot guarantee acceptance!)

The BSBI, the Dept. of Botany NHM, and the Herbarium RBG Kew were all represented at the funeral. Duggie's family requested that any memorial donations should be sent to:

**British Heart Foundation**, 14 Fitzharding Street, London W1H 4DH

or

**Cancer Research Campaign**, Cambridge House, 10 Cambridge Terrace, London NW1 4JL

His granddaughter is Mrs Shelly Bridge, 53 Harries Way, Holmes Green, High Wycombe, Bucks HP15 6UE, and we send our sincere sympathy to her and the family.

Duggie's welcome smile will be sadly missed.

Also I report with sadness the death of Eva Zacke, an overseas member from Stockholm. During the nine years of her membership Eva was, with great courage, fighting a terminal illness, but despite this she came from Sweden regularly to attend BSBI meetings. Almost every year she was at the AGM, and she was also a familiar figure at Exhibition Meetings where she used her calligraphic skills to prepare notices, signs and decorated posters, and often wrote the labels for the exhibits too. While in London Eva helped out with BSBI correspondence at the Dept. of Botany, NHM, and later designed the cover and typography for the *Fear Book*.

Eva was a talented artist with a great enthusiasm for encouraging the young to take up botany, and she prepared the BSBI's first booklet designed to show the interest and joy of noticing wild flowers, for children, beginners and young families. Her own daughter and twin sons had learnt identification skills, so that her son Ragnar was, during a temporary spell of unemployment, able to survive on hamburgers by taking up McDonald's offer of free hamburgers in return for the flowers of *Tussilago farfara*, Hæsthor, for their early spring salads in Stockholm (as reported in *BSBI News* 77: 5).

We sadly miss her visits from Sweden and we extend sincere sympathy to Eva's family.

MARY BRIGGS, Hon. Obituary Editor

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## REPORTS OF OVERSEAS CONFERENCES OR TRIPS

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### VISIT TO CONSERVATOIRE NATIONALE BOTANIQUE AT BAILLEUL, 16-19 JULY 1998

Twenty five BSBI members arrived at the Conservatoire by car or Eurostar on a balmy, sunny evening. Two of our 'members' were from Germany, Heinrich Weber and Gunter Mattzke-Hayek, whilst Frantz Hopkins came up from southern France and Ruud van der Meijden joined us from Holland. In addition to over 40 French participants we were delighted to greet old 'friends of the BSBI' such as Prof. Lambinon from Belgium.

We were welcomed in the Salle Charles-Flahault by Prof. Jean-Marie Jéhu who in 1970, with his wife Jeanne, created a phytosociological centre here in former farm buildings only 1 km from the Belgian frontier. He outlined the history of the development of the site to the present impressive co-ordinated facilities for plant studies, which have raised it to the rank of one of only eight Conservatoires Nationales Botaniques which cover the whole of France – and one which is a model for others still at a much earlier stage. These facilities include a newly opened building which now houses the library of SIGMA (Station Internationale de Géobotanique Méditerranéenne et Alpine) collected by the father of phytosociology, Josias Braun-Blanquet from 1915 and formerly situated in Montpellier. This library also houses the collection of books of equal size, collected by Prof. Jéhu. It is shortly to receive from Paris the library of the Botanical Society of France so that, when all three are housed in one building, it will be the most important botanical library in France and one of the richest sources of information on vegetation and floristics in N. Europe. The building also houses a European Herbarium with 75,000 collections. Both library and herbarium are open to visitors who can stay in accommodation

recently built in an adjacent building. The main scientific work of the Centre relates to the protection of the flora of N.E. France. This includes the production of vegetation maps of the Departments of Nord and Pas de Calais, and a new vascular plant Atlas on a 1×1 km square basis for the same area by 2004. At the same time ecological research is being carried out on species and habitats already known to be threatened. This introduction was followed by a vivid demonstration of DIGITALE, the floristic and phytosociological information system developed at the Centre.

Prof. Jéhu then led us on a tour of the two kinds of garden established near the buildings. The first covering nearly 1.6 ha is devoted to threatened plants – over 170 species are in cultivation available for research – and for helping restore lost populations in the wild. The inclusion of 10 watertight tanks means that this work can include amphibious and aquatic plants. The growing garden is backed by a seed bank and by laboratories for dealing with difficult subjects such as *Lycopodiella inundatum* which is being raised *in vitro* so that it can be returned to a site in Picardy. The second garden is devoted to medicinal plants. It has been open for six years but looks incredibly mature with over 700 labelled species packed into less than 0.4 ha of high quality brick-walled beds and paths. This garden is of great educational importance and is used by students doing a two-year course in phytotherapy directed by Prof. Jeanne Jéhu and Dr André Caudon. A new lecture room to seat over 100 is being built alongside to meet increasing demand for places on these courses.

As the sun set on this magical garden we were taken even closer to the Belgian border – to a venue for an evening meal which would have appealed to many BSBI members – a Flemish farm with another kind of garden with only one species – a hop garden! Hops grown to make the beer which we drank in large quantities to wash down a wonderful plate of home baked meats and vegetables.

Next day was dedicated to papers given alternately by British and Franco-Belgian speakers on topics of mutual interest. 'Our side' put in Jane Croft on the Atlas 2000 Project, Sarah Whild on the BSBI Computer Network, Franklyn Perring on the BSBI Database, Tim Rich on the BSBI Monitoring Scheme, John Parker on *Ex situ* conservation, Stephen Jury on a proposed new project, Euro+Med PlantBase, Rob Cooke of English Nature on the Species Recovery Programme and Reg Land of the Norfolk Wildlife Trust on Conservation of *Liparis loeselii*. The 'home' team included Benoit Toussaint on the Atlas of NW France, Vincent Boulet on the Threatened Vascular Plants of N France, Sylvie Magnanon on *In situ* conservation of the flora of Brittany, Frederic Hendoux on conservation of *Liparis loeselii*, Romaric Pierrel on *Ex situ* conservation, Fabienne Benest on the Role of National Botanical Conservatoires in France and Prof. Jéhu on Habitats and Taxonomy. The Centre is now responsible for co-ordinating conservation of *Liparis* throughout its range in France.

Most of the speakers provided summaries in English and French, which was enormously helpful in maintaining the entente cordiale. This 'cordiality' was most evident during the splendid buffet lunch served, in company with all the staff, in a large plastic polytunnel – gratuit.

A large stock of BSBI Publications were taken for sale and, during the day, 11 copies of the new *Plant Crib 1998* were sold to foreign buyers. It was encouraging to overhear one Frenchman telling another that it was the most valuable 'Flora' published for many years.

On Saturday morning the enthusiastic French summoned us to assemble at 8.00 a.m. in the attractive Town Square in front of a wonderfully ornate Hotel de Ville, so typical of this part of France, for an all-day excursion to the coast.

First stop was the white cliffs of Cap Blanc-Nez, the nearest point to England, where the chalk grassland is maintained because shell holes created by the British bombardment during World War II make ploughing impossible! Here, close to the radio-mast, we were immediately aware of non-British taxa only 21 miles from our shores. One of the most prominent grasses in the short turf was *Koeleria pyramidata* with larger spikelets than *K. macrantha* (6-8 mm) and very regular ciliate hairs along the leaf margin like those on *Bromopsis erecta*. Less prominent was a form of *Festuca ovina* we usually associate with acid soils, subsp. *hirtula*. Amongst the grasses autumn flowering gentians were evident which sparked off arguments about the identity of *Gentianella uliginosa* very much assisted by taking a copy of *Plant Crib 1998* to the plants: the BSBI contingent led by Tim Rich were only satisfied to record *G. amarella* and *G. germanica* but left us wondering why the latter was not found on the Kent/Sussex Downs; and the French became aware of *G. anglica*. In longer grassland about here our

hosts drew attention to two further non-British taxa: *Centaurea decipiens*, not unlike *C. nemorosa* but with little or no pappus on the achenes, and *Pastinaca sativa* subsp. *urens*, a central European taxon taller than our native subsp. *sylvestris* but with fewer rays (5-7 rather than 9-20) and only recorded in Britain from Suffolk without locality (Clement & Foster 1994), which has been spreading rapidly northwards in France and would surely be equally at home on the Kent chalk.

We then moved 11 km south-west to Cap Griz-Nez exchanging chalk for Jurassic limestone and finding a much more 'maritime' sward and scrub with *Cochlearia officinalis*, and a very succulent form of *Ligustrum vulgare* with *Limonium binervosum* on the cliff edge. A stream crossed *en route* yielded *Apium graveolens*, *Juncus ambiguus* and *Samolus valerandi* whilst *Carex distans* was reported by the French to grow at the base of a waterfall below the cliff-edge – a waterfall which, in the on-shore gale, had water rising, not falling, and being blown back to spray over imprudent botanists approaching too close to the edge.

We reached Ambleteuse mid-way between Cap Griz-Nez and Boulogne in time for lunch where we found shelter from the wind but warmth from the sun amongst the grey walls of the imposing Fort Mahon and *Sagina maritima* and *Trifolium scabrum* on the rocks at their foot. Then, for an hour, we explored the saltmarsh and dunes at the mouth of the R. Slack to the south. The most interesting find was made by Arthur Copping – the true *Vulpia membranacea* (L.) Dumort. with glabrous ovaries and small anthers, absent from Britain but naturalised in Belgium and native in France, Corsica, Spain and Portugal. Another grass, surprisingly abundant, was *Lagurus ovatus*, only recorded as an introduction in Kent. On the way back, the value of the *Plant Crib 1998* was again demonstrated as, with the aid of its excellent illustrations, there could be no doubt that we were looking at a dense, naturalised stand of *Fallopia* × *bohémica* (*F. japonica* × *F. sachalinensis*).

The last half of the afternoon was spent inland in a 63 ha reserve, the Pré communal d'Ambleteuse, on old, decalcified dunes dominated by gorse since the rabbits were killed by myxomatosis, where over 400 plant species have been recorded. *Corynephorus canescens* was abundant on dry, open, acid ground and, in the closed sward *Genista anglica* was frequent. In damper, bare patches the sharp-sighted found *Radiola linoides* and *Anagallis minima*, whilst there were large patches of *A. tenella* in one of the few marshy hollows. Two taxonomic problems remain unresolved. Firstly the French pointed out *Carex trinervis*, a sedge strangely absent from Britain (unless it really did occur in Norfolk). Material brought back has been confirmed as *C. trinervis* by Clive Jermy, but according to Arthur Copping, only some of the female glumes are three-nerved – a character not mentioned in descriptions. Secondly, there was a considerable population of an eyebright which had the small flowers and flexuous branching of *Euphrasia confusa* but, though this occurs in sandy heathland in Kent, it has not been recognised in France and has only been reported from the Faeroes outside the British Isles.

The day finished with another convivial gathering at the 'Ferme de Haghedoorn' where the delights of Flemish tart and guinea-fowl on candied apple were enjoyed.

On Sunday we went due north from Bailleul to the coast east of Dunkirk and only 2 kms from Belgium. Here we spent the first part of the morning at the Dunes du Perroquet. A feature of the fore dunes, dominated by *Ammophila arenaria*, was the large amount of *Diplotaxis tenuifolia* whilst in the secondary dunes another alien, *Achusa officinalis*, was well established. Curiously the former behaves similarly in Kent but the latter is unknown there. A Kentish and national rarity found here was *Orobanchaceae caryophyllacea* growing, as in England, on *Galium verum*. However the most interesting plant to British visitors was surely *Tragopogon dubius*, another taxon like *Pastinaca sativa* subsp. *urens*, also here, which has been moving north through France and has reached the coast – next stop England? Its markedly inflated peduncles were very distinct. These dunes and the slacks in particular had the feel of South Wales – Kenfig or Whiteford – with enormous colonies of *Epipactis palustris*, but the other small orchid we found was not *Liparis loeselii* but *Herminium monorchis*! Always on dry calcareous soils in Britain, Summerhayes (1951) reported that in Europe it often grows in much damper places – but did he know that it was doing this only 65 km from the Kent chalk?

The last stop of our fascinating encounter with the French flora was at the acid fossil dunes of Ghyvelde, a short drive inland. Our first surprise here was the large stand of *Muscari comosum*, another example of a southern European species well established just across the Channel. However, the biggest

surprise was not to see but to be told that, if we had been here in March we could have seen the recently discovered *Gagea bohemica* – another stepping-stone towards our own isolated population in Radnorshire. How many more sties are there in Europe (and Britain?) still undiscovered because it flowers before botanists have come out of hibernation?

On the journey back to Bailleul, the British and French alike reflected on the value of the meeting. Throughout there has been animated discussion of taxonomic and nomenclatural problems and many agreements were reached on how these might be resolved by exchange of materials or further visits. John Parker will look at French *Koeleria* and Tim Rich will follow up the *Gentianella* problem, whilst *Carex trinervis* and *Euphrasia confusa* need further examination. Colleagues from Bailleul have asked for a visit to the Environmental Information Centre (BRC) at Monks Wood and to Norfolk to study the conservation of the fen orchid, whilst another has become aware of the value of *BSBI Abstracts* in his research on *Juniperus communis*. In the longer term we agreed that the benefits of such a meeting were so great that others should be arranged. The French expressed a desire to visit SW Britain to look at the relationship of the flora of Devon and Cornwall with Brittany, where another Conservatoire Nationale Botanique is situated at Brest and we hope that such a meeting can be arranged in the next two or three years.

As the Annual Report of the Centre records, 'Globalement, le meeting a été une très riche et très amicale occasion d'échanges entre botanistes et conservateurs anglais, français, belges, néerlandais et allemands' – to which the only response is 'oui, oui'.

## References

- Clement, E.C. & Forster, M.C. (1994). *Alien Plants of the British Isles*. BSBI, London.  
 Summerhayes, V.S. (1952). *Wild Orchids of Britain*. New Naturalist.

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## AN EVENING WALK IN SWEDEN

In 1997 I joined the teams recording in the most north-easterly 'landskap' (county) of Sweden.

This project, in Norbotten where many square kilometres have never had a visit from a botanist, is masterminded by Lennart Stenberg, author of the beautiful flora of Sweden, *Den Nordiska Floran*.

BSBI member James Partridge was also one of the team at the 1997 camp in Pajala and he wrote an article in the April 1998 edition of *BSBI News* about the lure of plant hunting north of the Arctic Circle in the middle of the night. So, for the second year, I was drawn to this land of the midnight sun and was made welcome by both new and friends of old in Overtornea.

One evening, after a long hard day recording in a 5 km square that was mostly mire, Lennart invited me for an evening walk. I was pretty tired and setting out again to more mires, at that moment didn't seem too appealing. However I felt that this was an opportunity not to be missed.

Our walk started through an old pine forest where feet sank deep into the mossy floor and stumbled over dead trees and in damp holes, but soon we found *Pyrola media* (Intermediate Wintergreen) in Swedish 'Klockpyrola' and then *Pyrola rotundifolia* (Round-leaved Wintergreen) and soon my favourite *Moneses uniflora* (One-flowered Wintergreen), with its beautiful white wax-like flower. Approaching the mire we found *Carex magellanica* (Bog Sedge), which looks very like *C. limosa*. Lennart identified *Empetrum nigrum* subsp. *hermaphroditum* (Mountain Crowberry). In the mire we spotted *Drosera rotundifolia* (Round-leaved Sundew), *Pinguicula vulgaris* (Common Butterwort), *Ledum palustre* (Labrador-tea), *Vaccinium oxycoccos* (Cranberry), *Parnassia palustris* (Grass-of-Parnassus) and *Triglochin palustre* (Marsh Arrowgrass).

Two ferns grew in quantity, *Gymnocarpium dryopteris* (Oak fern) and *Phegopteris connectilis* (Beech fern) but I never cease to admire their fragile beauty. If you get your eye in, *Listera cordata* (Lesser Twayblade) pops up all over the place and that evening was no exception. Another delicate

little flower *Linnaea borealis* (Twinflower) was everywhere, in Swedish it is called 'Windflower' as it gently sways in the breeze.

Already we had seen exciting plants, but what was to come was even more exciting. *Goodyera repens* (Creeping Lady's-tresses) and *Platanthera bifolia* subsp. *latiflora* (a butterfly-orchid) were next to be found and Oh! the scent of those orchids. Then in a hollow we stumbled upon *Cypripedium bulbosa* (a Lady's-slipper), their flowers were mostly over, but to our joy several were bearing seed. And in the next hollow there were more and, as we walked, more and more and more, I could hardly believe my eyes. A botanical feast.

Then I could hear Lennart calling me to see what he had found. At first I could see nothing then the leaves and dead heads of . . . *Calypso bulbosa* (Calypso) in Swedish called 'Norna'. I was lucky enough to see this unique little orchid earlier and once you have seen it you can never forget, even the leaves are recognisable although almost impossible to spot.

That was an evening walk that I will always remember. There will be a camp next year for the Norbotten Flora Project, and any BSBI member would be most welcome. It is worth the trip and a lot of fun. After two years at the camp I am waiting even more impatiently for the next summer camp!

If you would like more information please do not hesitate to contact me.

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## REPORTS OF FIELD MEETINGS — 1998

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Reports of Field Meetings are edited by, and should be sent to: Dr Alan Showler, 12 Wedgwood Drive, Hughenden Valley, High Wycombe, Bucks, HP14 4PA. Tel.: 01494 562082.

DRUCE LECTURE & FIELD MEETINGS, NORTHAMPTONSHIRE (v.c.32) 23<sup>rd</sup> & 24<sup>th</sup> MAY

George Claridge Druce was born in Northamptonshire on May 23rd 1850, and so it is appropriate that on May 23rd and 24th 1998 the BSBI should hold its annual Druce meeting in the county town. About thirty people met at Nene College Park Campus where, after an introduction by Dr Franklyn Perring, members of the Northamptonshire Flora Group treated them to a series of short talks about local botanists and naturalists.

Anna Wilson started with the life of John Clare, Northamptonshire's naturalist poet and the first local person to record the county's natural history. Rob Wilson followed with a talk about the Reverend Miles Joseph Berkeley, a local parson and for many years the country's leading expert on fungi. He was responsible for determining that a fungus caused the potato blight, which led to a disastrous series of famines in Ireland in the 1840s. Brian Adams spoke of his hero, the Northampton amateur H.N. Dixon, whose book was for many years the definitive work on British Mosses. Gill Gent focused on a number of local botanists and naturalists, including the Hon Charles Rothschild and Sir George Chester. Like Dixon, Berkeley and Clare they made many direct and indirect contributions to Druce's original *Flora of Northamptonshire*.

After an excellent lunch the talks were completed by Ioan Thomas who spoke of Lord Lilford the Northamptonshire ornithologist whose enthusiasm for natural history made him a worthy subject to include in this series of talks.

Everyone then transported themselves to the Central Museum and Art Gallery where Brian Webster introduced the exhibition Bugs, Beasts and Buttercups. So closely was this related to the talks it was hard to believe that it was a late inclusion in the programme, due to the illness of one of the speakers. A short walk from the museum took everyone to the building that once housed Philadelphus Jeyes chemists shop where Druce worked as a young man and All Saints Church where Druce saw John Clare, then an old man, sitting in the portico.

Back at Nene College it was a short walk to Bradlaugh Fields Scrub Field nature reserve, an area of limestone grassland and ancient hedgerows within Northampton where Chris Gerrard of the



Northamptonshire Wildlife Trust guided us round. We were shown *Falcaria vulgaris* (Longleaf) at one of only two sites in the county, as well as many plants more usually associated with limestone grassland. The following morning we met again at the Yardley Chase Ministry of Defence area, where we spent the morning and part of the afternoon being guided around the ancient woodland and adjoining pastures by Tony Richardson, conservator for Yardley Chase. The day spent in this rarely accessible area proved very rewarding.

In one of the meadows we saw *Pedicularis sylvatica* (Lousewort) which was recorded in Yardley Chase in Druce's 1930 *Flora* and was thought to be extinct in the county until it was rediscovered here in 1997.

*Viola canina* (Heath Dog-violet) was found growing close by. Until this discovery there had been only one other recent county record. Later in the day it was discovered in another meadow in the Chase. The presence of heathland plants in a county where heathland is extremely limited should have alerted everybody to the possibility of other discoveries, and sure enough another one was made although it was the cause of much discussion and debate at the time. A small colony of orchids were just beginning to flower, most of which were obviously *Dactylorhiza fuchsii* (Common Spotted-orchid). A few plants looked decidedly different however but although some members thought that they were *Dactylorhiza maculata* subsp. *ericetorum* (Heath Spotted-orchid) others were equally convinced that all the plants were Common Spotted-orchids. A site visit just over two weeks later by Gill Gent, Tony Richardson and Rob Wilson convinced all three that the Heath Spotted-orchid was here, again at the second current site in Northamptonshire. Dr A.L. Denholm has since confirmed this identification.

From Yardley Chase, we all made our way to Holly Lodge, Boughton, near Northampton the home of Mr and Mrs Anthony Jeyes. It was Mr Jeyes grandfather Philadelphus Jeyes who employed the young George Claridge Druce to work in his chemist's shop. It was to Holly Lodge, his newly built home, that Druce would walk in the mornings to have his breakfast before riding back to Northampton in the Jeyes carriage and starting his day's work. Tea at Holly Lodge was a wonderful end to the weekend, appreciated by everyone who attended the meeting.

Our thanks are due to Brian Webster of the Central Museum and Art Gallery, Northampton, Captain R. Searchfield for permission to visit the Yardley Chase MOD area, Laurence Shelton, warden of the Yardley Chase MOD area for making us so welcome and his wife for a delicious cake enjoyed by all of us, Chris Gerrard of the Northamptonshire Wildlife Trust and finally Mr and Mrs Anthony Jeyes for a wonderful end to our weekend.

ROB WILSON

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## ISLE OF WIGHT (v.c.10). 27<sup>th</sup> & 28<sup>th</sup> MAY

A very successful weekend meeting was attended by eighteen BSBI members together with some members of the Botany Section of the Isle of Wight Natural History & Archaeological Society. With such a good attendance and fair weather, it proved possible to split into small groups so that good coverage of poorly worked areas was possible, together with updating records for the Atlas.

In addition to contributing records to Atlas 2000, some interesting finds were made. The chalk downland ridge west of Freshwater (SZ/3.8) is well known for its botanical richness, although some records required updating. Specimens of *Orobancha artemisiae-campestris* (Oxtongue Broomrape) were confirmed and, good populations of *Euphorbia portlandica* (Portland Spurge) and *Pilosella peleteriana* subsp. *peleteriana* (Shaggy Mouse-ear-hawkweed) were seen on the West High Down cliffs. The latter population proved to be large and extensive, probably the largest British population growing on chalk.

A second group on the western headland explored the heathland and slumped clay cliffs of Headon Warren to the north but within the same hectad. *Deschampsia flexuosa* (Wavy Hair-grass) and *Fumaria capreolata* (White Ramping-fumitory) were both new hectad records. A species rich

calcareous flush was located on the cliffs with *Juncus subnodulosus* (Blunt-flowered Rush), *Epipactis palustris* (Marsh Helleborine) and *Gymnadenia conopsea* subsp. *densiflora* (Fragrant Orchid). An exciting find here was a plant of *Salix repens* (Creeping Willow), until recently believed to have become lost from the Island. Floristically-rich areas on the slumps were once widespread here but have become very scarce and subsequent exploration revealed only one other example.

Heathland is another scarce Island habitat, but a group exploring clay heath remnants around Cranmore (SZ/4.7) found 'new' sites for *Achillea ptarmica* (Sneezewort), *Carex pulicaris* (Flea Sedge), *Linaria repens* (Pale Toadflax), *Potentilla anglica* (Trailing Tormentil) and *Rhamnus cathartica* (Purging Buckthorn), all uncommon Island plants.

At the southernmost tip of the Island, *Astragalus glycyphyllos* (Wild Liquorice) was refound at St Catherine's (SZ/4.7). Despite regular searches, this has not been seen in recent years and was feared to have become extinct on the Island, so the single large plant was a good find. Other interesting finds at St Catherine's Point included *Marrubium vulgare* (White Horehound), *Torilis nodosa* (Knotted Hedge-parsley) and *Trifolium scabrum* (Rough Clover). Several coastal sites in SZ/4.7 yielded *Trifolium ornithopodioides* (Bird's-foot Clover), a species which is clearly spreading.

An arable field on chalk near the middle of the Island, at Bowcombe (SZ/4.8) proved productive. *Papaver hybridum* (Rough Poppy) and *Valerianella dentata* (Narrow-fruited Cornsalad), both in 'new' sites, were growing with *Stachys arvensis* (Field Woundwort), *Legousia hybrida* (Venus's-looking-glass) and both *Kickxia* spp. (Fluellens). A previously unrecorded site for *Myosurus minimus* (Mouse-tail) in a clay field at Shalfleet (SZ/4.8) was also of interest.

The greensand exposures across the middle of the Island produced further interesting finds. A wide sandy road verge at Arreton (SZ/5.8) was searched (successfully) for *Orobancha purpurea* (Yarrow Broomrape) but growing with it was *Trifolium glomeratum* (Clustered Clover) at a new Island site. However, the most exciting find of the weekend was made on the Sunday afternoon in a sandy field at Alverstone (SZ/5.8) which had been turf-stripped several years previously and left fallow. This produced a good selection of arable weeds of which the highlights were *Silene gallica* var. *quinquevulnera* (Small-flowered Catchfly) and *Apera spica-ventii* (Loose Silkybent). This proved to be the first modern record of the latter species. Sadly, the field was subsequently searched by several local botanists but the elusive weeds did not show themselves again!

Altogether, a very worthwhile weekend with excellent coverage of sites.

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COLIN POPE

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## CENTRAL SOUTHERN SUSSEX (v.cc.13 & 14) 3<sup>rd</sup>-5<sup>th</sup> JULY

### Brighton, 3rd. July

This joint weekend, held with members of the Sussex Botanical Recording Society, got off to a fine and sunny start when we met in a car park on the cliff top at Roedean, home of the famous school, near Brighton. We began on foot walking east on the north side of the A259 looking at the verge and the boundary wall of the school. *Cerastium diffusum* (Sea Mouse-ear) was plentiful on the verge along with *Sisymbrium orientale* (Eastern Rocket). The school walls had a fine show of *Matthiola incana* (Hoary Stock) although it was past its best. Above the walls there was *Anisantha diandra* (Great Brome), *Carduus tenuiflorus* (Seaside Thistle) and several plants of *Scandix pecten-veneris* (Shepherd's-needle). At this point we crossed over to the cliff top where *Medicago sativa* subsp. *varia* (Hybrid Lucerne) appeared in patches with a number of spikes of *Orobancha minor* subsp. *maritima* (Carrot Broomrape) found as a parasite on *Daucus carota* and large quantities of *Torilis nodosa* (Knotted Hedge-parsley). Adjacent set-aside fields showed good numbers of *Campanula rapunculoides* (Creeping Bellflower), a plant that occurs regularly around the Brighton area.

At this stage we decanted into five cars and began a circular tour of some other locations around Brighton.

The next port of call was in Woodingdean. Here on the edge of a horses field we saw *Centaurea calcitrapa* (Red Star-thistle) and *Rumex pulcher* (Fiddle Dock). On an adjacent road verge *Prunella* ×

*intermedia* (*P. vulgaris* × *P. laciniata*) (Hybrid Selfheal) was found growing with both parents, along with *Petroselinum segetum* (Corn Parsley).

Hollingbury has been the best location in East Sussex for *Orobancha elatior* (Knapweed Broomrape) for a good number of years, and this year was no exception. Although the site has scattered populations within its boundaries there are usually many spikes in each. We saw a colony of some twenty plants in various stages of growth, some a good 30 cm tall. This site also yielded *Lathyrus tuberosus* (Tuberous Pea), a long established patch of *Geranium* × *magnificum* (*G. ibericum* × *G. platypetalum*) (Purple Crane's-bill), *Campanula rapunculoides*, and the uncommon *Tragopogon pratensis* subsp. *pratensis* (Goat's-beard).

Our circular trip ended on another section of Brighton sea front, where there are some walls that form the substantial support between the two roads, Madeira Drive and Marine Parade. Although these walls are exposed to the full force of the on-shore weather several species survive here. The unusual *Cyrtomium falcatum* (House Holly-fern) survives here and is spreading, together with *Asplenium trichomanes* subsp. *quadrivalens* (Maidenhair Spleenwort). We also found the remnants of *Anthriscus caucalis* (Bur Chervil). There are two or three trees of *Ficus carica* (Fig), one of which has been known here for fifteen or so years. The others are much younger and can only be regarded as seedlings of the original.

At this stage we returned to our original meeting place to depart for food and accommodation, eagerly anticipating the next day's excursion.

PAUL HARMES

#### Southcote, 4<sup>th</sup> July

A chorus of Marsh Frogs greeted us as we arrived at our meeting point. After introductions the 25 participants made up of members from both societies were lead away along a narrow string of fields between the banks of the River Ouse and one of the drainage ditches. The first field had been heavily cattle grazed, nevertheless many grasses were found, identified and demonstrated by our leader Paul Harmes. Three *Puccinellias*, *P. distans* (Reflexed Saltmarsh-grass), *P. fasciculata* (Borrer's Saltmarsh-grass), and *P. ripensis* (Stiff Saltmarsh-grass) were soon sorted out. One diligent member discovered a clump of bulbs of *Alopecurus bulbosus* (Bulbous Foxtail) on a clod of earth thrown up by a cow's hoof; the foliage had been grazed very short.

Very soon our attention was drawn to the brook, here again the marginate vegetation was rather chewed and good plants were hard to find. However, fine stands of *Typha angustifolia* (Lesser Bulrush) were seen and much admired. A variety of grapple appeared from the rucksacks and a number of us joined in the aquatic lucky dip, the first plant to be fished being *Ceratophyllum submersum* (Soft Hornwort) with its leaves forked three times. The ditches were not at their best with large patches of algae coating the surface. Pondweeds were noticeably absent with only *Potamogeton pectinatus* (Fennel Pondweed) being extracted from the tangled mass of *Enteromorpha*.

After lunch further aquatic sites were visited but not before having a close look at *Rosa* × *andegavensis* the hybrid between *R. canina* and *R. stylosa*. The rose was previously known from this road verge site and its identity confirmed by Rev. A L. Primavesi. Two water-crowfoots, *Ranunculus baudotii* (Brackish Water-crowfoot) as one would expect from the brackish waters and *R. circinatus* (Fan-leaved Water-crowfoot) were found. The flowers of *Hydrocharis morus-ranae* (Frog-bit) were just beginning to make a show along with the *Nymphoides peltata* (Fringed Water-lily). A number of *Samolus valerandi* (Brookweed) were seen in widely scattered patches but our searches for *Carex divisa* (Divided Sedge) were all in vain. Returning to the cars some of the party decided to stay on and go to see *Utricularia australis* (Bladderwort) which last year put on a riotous show. In retrospect this was a wise decision for not only did they see the Bladderwort, albeit not in flower, but also *Butomus umbellatus* (Flowering-rush) and the elusive *Carex divisa*.

A super day that was greatly enjoyed by all and just what we have come to expect with the expert guidance and enthusiasm of Paul Harmes, our leader on the day.

ARTHUR G. HOARE

## CISSBURY RING, 5<sup>th</sup> JULY

The purpose of the third day of the field meeting was to record the flora of Cissbury Ring, an ancient Hill Fort on the chalk of the South Downs near Worthing at the request of the National Trust who own the site. We were met by Charles Cain of the Trust who was our guide for the day and greatly increased our enjoyment by sharing his knowledge of the area. We started our recording on the steep chalky banks at the NW corner of the ring where a number of chalk species such as *Filipendula vulgaris* (Dropwort), *Anthyllis vulneraria* (Kidney Vetch) and *Asperula cynanchica* (Squinancywort) were in evidence together with a good range of grasses including *Trisetum flavescens* (Yellow Oat-grass) and *Briza media* (Quaking-grass). A number of eyebrights were collected by Paul Harmes and were taken to the BSBI recorder's meeting in Lancaster where they were identified by Alan Silverside. It was good to have confirmation of *Euphrasia nemorosa* and the hybrid *E. nemorosa* × *E. pseudokernerii* was a pleasing, but not unexpected find given that both parents are present. However the identification of a number of specimens of *Euphrasia confusa* was a quite unexpected bonus as there has only been one previously confirmed record from v.c.13 and this was many years ago and many miles away in the NW of the county.

Proceeding toward the southern end of the Ring a rough scrubby area yielded *Atropa belladonna* (Deadly Nightshade) with both flowers and fruit present. Nearby we were shown a patch of chalk heath containing *Potentilla erecta* (Tormentil), a tiny colony of *Calluna vulgaris* (Heather) and, on a bare patch, some *Aphanes australis* (Slender Parsley-piert). The last two were new Atlas 2000 records for TQ/1.0, a square which is dominated by chalk, urban and maritime habitats. As we returned north past large depressions marking the sites of ancient flint mines, two small specimens of *Coeloglossum viride* (Frog Orchid) were found – a pleasing sight as it has declined here in recent years due to intense rabbit grazing. Toward the end of the meeting, as we descended through a dampish wooded area at the northern tip of the ring, a number of large plants of *Valeriana officinalis* (Common Valerian) were seen, bringing the total number of species recorded from the National Trust property to 173.

ALAN KNAPP

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## FINTRY, STIRLINGSHIRE (v.c.86) 7<sup>th</sup>-9<sup>th</sup> JULY

The main purpose of this meet was to re-survey some of the crags in two local SSSIs and also look at one of the fragments of Flanders Moss which lies south of the River Forth. Since ten members turned up for at least the first day, we were able to split into three groups and cover a good deal of ground.

**Day 1** – The team who went to the main Corrie of Balglass on the north face of the Campsie Fells found an excellent upland mountain flora, with obvious basic influences from the basalt. The north-west facing cliffs were wet, with some interesting flushes. The more inaccessible cliffs (away from the sheep!) had good willow scrub development, with *Salix myrsinifolia* (Dark-leaved Willow) and *S. aurita* (Eared Willow) and probable hybrids between them. Notable plants in this habitat included *Galium boreale* (Northern Bedstraw), *Sedum villosum* (Hairy Stonecrop), *Rubus saxatilis* (Stone Bramble), *Asplenium viride* (Green Spleenwort) and *Epilobium alsinifolium* (Chickweed Willowherb). Above the crags *Rubus chamaemorus* (Cloudberry) and *Listera cordata* (Lesser Twayblade) were found in wet sphagnum cushions under heather. Loch Walton was also visited, where among other wetland plants *Apium nodiflorum* (Fool's-water-cress) and *Apium inundatum* (Lesser Marshwort) were found.

A second group climbed up to the 'little' Corrie of Balglass, which proved less rich than the big one. The scree below the cliffs at the east end had abundant ferns *Cryptogramma crispa* (Parsley Fern), *Dryopteris affinis* (Scaly Male-fern), *Phegopteris connectilis* (Beech Fern), and *Blechnum spicant* (Hard Fern). However the cliffs themselves, although showing spectacular columns of basalt, were species poor, with *Erica cinerea* (Bell Heather), *Hieracium* species (hawkweeds) and *Sedum roseum* (Roseroot). A wet flush was found to have a good population of *Sedum villosum*. At the foot of an outcrop of sedimentary rocks, underlying the basalt, were bright patches of *Saxifraga aizoides* (Yellow

Saxifrage). A damp flush below the coniferous plantation produced a number of sedges, including *Carex laevigata* (Smooth-stalked Sedge) and *Carex hostiana* (Tawny Sedge).

The third group, who remained on lower ground, managed to record over 200 species in one tetrad containing unimproved grassland, verges and small woods, and over 100 in the adjacent tetrad.

**Day 2** – We all became low level botanists due to a bad weather forecast.

One group went west to examine a part of Flanders Moss lying in Stirlingshire on the South side of the River Forth at Middle Kerse. This SSSI (known as Shergarton Moss) proved to be in good condition, though species poor. *Andromeda polifolia* (Bog Rosemary) was not found although prolific in the main part of Flanders Moss, but *Rhynchospora alba* (White Beak-sedge) and (possibly) *Vaccinium microcarpum* (Small Cranberry) were. A small wood around the edge of the moss was dense with *Dryopteris dilatata* (Broad Buckler-fern) and *D. carthusiana* (Narrow Buckler-fern), and the hybrid between them (*D. × deweveri*).

They then moved to a 'nature reserve' near the village of Kippen. Part of the reserve was an old rubbish tip, and this yielded lots of alien species such as *Polemonium caeruleum* (Jacob's-ladder), *Campanula latifolia* (Giant Bellflower) and *Ranunculus lingua* (Greater Spearwort) in a pond. Wet meadows nearby were very productive, and *Platanthera bifolia* (Lesser Butterfly-orchid) and *P. chlorantha* (Greater Butterfly-orchid) were found growing next to each other, along with *Listera ovata* (Common Twayblade), *Dactylorhiza fuchsii* (Common Spotted-orchid) *D. maculata* (Heath Spotted-orchid), and *D. purpurella* (Northern Marsh-orchid) as well as the hybrid between the latter two (*D. × formosa*).

All this was not enough for the indefatigable foursome – as rain set in they next clambered down into the steep-sided gorge of the Boquhan Burn (NS/66.94). Here *Tolmiea menziesii* (Pick-a-back-plant) was very well established along the edge of the river. The gorge sides, however, proved rich in species, and they found *Festuca altissima* (Wood Fescue), *F. gigantea* (Giant Fescue), *Bromopsis ramosa* (Hairy-brome), *Milium effusum* (Wood Millet) and *Elymus caninus* (Bearded Couch) along with *Campanula latifolia* (Giant Bellflower) and a wide range of ferns, including *Phegopteris connectilis* (Beech Fern) and *Gymnocarpium dryopteris* (Oak Fern).

The second group explored some side roads north of the A811 and the estate of Garden. A pond and marsh in the estate had *Carex × involuta*, the hybrid between *C. rostrata* (Bottle Sedge) and *C. vesicaria* (Bladder-sedge), though neither parent was present. A large colony of *Dactylorhiza fuchsii* grew along the road to Backside of Garden, and one specimen of *Epipactis helleborine* (Broad-leaved Helleborine). Many agricultural weeds were found on the verges and along the old railway line, including *Fallopia convolvulus* (Black-bindweed), *Chenopodium album* (Fat-hen) and *Matricaria recutita* (Scented Mayweed).

The third group stayed around Culcreuch. After wading through head-high vegetation round the pond below the Castle, morning coffee turned into a bar lunch. Suitably fortified, we emerged from the dungeons to find the sun coming out and so proceeded to the Mill dam. The usual fringe grasses and sedges grew especially at the far end of the dam – *Phalaris arundinacea* (Canary Reed-grass), *Phragmites australis* (Common Reed), *Glyceria fluitans* (Floating Sweet-grass), *Typha latifolia* (Bulrush) and *Carex rostrata* (Bottle Sedge). The water-crowfoot out from the edge was probably *Ranunculus peltatus*.

**Day 3** – Six of us made for Double Craigs, the SSSI above Culcreuch Castle, while the low level pair headed east towards Stirling. The crags proved rewarding. *Potentilla neumanniana* (Spring Cinquefoil) was fairly frequent, although flowering was over. *Anthyllis vulneraria* subsp. *lapponica* (Kidney Vetch), *Rosa pimpinellifolia* (Burnet Rose), *Minuartia verna* (Spring Sandwort), *Geranium lucidum* (Shining Crane's-bill), *Helianthemum nummularium* (Common Rock-rose), and fruiting *Orchis mascula* (Early-purple Orchid) were all present. The base rich conditions on south-facing slopes were also reflected in the grasses – *Helictotrichon pubescens* (Downy Oat-grass) and *Trisetum flavescens* (Yellow Oat-grass). *Vulpia bromoides* (Squirreltail Fescue) was found lower down by the track back to the castle.

The other two drove over the hill road from Carron Reservoir towards North Third Reservoir, stopping to investigate the Bannock Burn and neighbouring streams. A roadside flush contained about

a hundred plants of *Sedum villosum* (Hairy Stonecrop), *Veronica scutellata* (Marsh Speedwell), and numerous sedges. They then proceeded to Sauchie Craig Wood SSSI. The old lime kilns supported the growth of *Listera ovata* (Common Twayblade), *Agrimonia procera* (Fragrant Agrimony) and the ferns *Asplenium trichomanes* (Maidenhair Spleenwort) and *Cystopteris fragilis* (Brittle Bladder-fern). The roadside verge leading to the quarry entrance contained the alien *Acaena ovalifolia* (Two-spined Acaena) and *Cardamine impatiens* (Narrow-leaved Bitter-cress).

This was a very useful meeting as it both confirmed pre 1987 records, and found new sites of interest. The agility of the 'Crag team' was much appreciated, as was the painstaking recording of the low level group

## EDNA STEWART

### GALASHIELS (v.cc.79 & 80) 14<sup>th</sup> & 15<sup>th</sup> JULY

A total of 17 attended the meeting. It augured well for the first day as the sun shone and an otter was seen swimming in the Tweed as members gathered in the car park at Galafoot.

The party split into 4 groups. Those visiting the banks of the Tweed at Yair (v.c.79) re-found *Carex aquatilis* (Water Sedge) in spite of the high water levels. *Scutellaria galericulata* (Skullcap) was new and in good quantity and *Rumex longifolius* (Northern Dock) was of interest as being away from road sides. *Senecio* × *ostenfeldii* (Marsh × Common Ragwort) and *Poa chaixii* (Broad-leaved Meadow-grass) were seen and a flushed bank had a good collection of sedges including *Carex laevigata* (Smooth-stalked Sedge) and *C. pallescens* (Pale Sedge). Essenside Loch (v.c.80) provided a good haul of updated records. *Blysmus compressus* (Flat-sedge), *Potamogeton filiformis* (Slender-leaved Pondweed) and *P. lucens* (Shining Pondweed) were all re-found, *P. pusillus* (Lesser Pondweed) was new but *Ranunculus circinatus* (Fan-leaved Water-crowfoot) appeared to have gone. The Haining Loch at Selkirk (v.c.79) was its usual muddy brown colour from algal bloom but had *Nuphar lutea* (Yellow Water-lily) and to the south west, *Rhamnus catharticus* (Buckthorn) planted as a hedge probably over 50 years ago and still surviving. Avenel Hill and the gorge-like glen of the Allan Water (v.c.80) proved an attractive venue. *Melica nutans* (Mountain Melick), a rare species in the Borders was re-found on shaded ledges with *Rosa pimpinellifolia* (Burnet Rose) in a more open site nearby. Of great interest was the discovery in local abundance of *Bromopsis benekenii* (Lesser Hairy-brome) recognised by David Wood on the steep, shaded banks. This was a new vice-county record and as yet the only one from Southern Scotland. The Douglas Burn (v.c.79) in Yarrow and last visited by the BSBI in 1972 provided a good venue for the hill party. Conspicuous patches of a coppery coloured *Mimulus* (a monkeyflower), probably *M. guttatus* = (*M. luteus* + *M. cupreus*), grew by the burn. Updated records for *Dryopteris oreades* (Mountain Male-fern) and *Rosa pimpinellifolia* were made from a large area of open stable scree at 430 m. *Galium sternerii* (Limestone Bedstraw) was common in the basic pasture and *Myosotis stolonifera* (Pale Forget-me-not) and *Sedum villosum* (Bog Stonecrop) local in flushes and old drains. The *Sedum* is especially vulnerable to competition from more vigorous species due to lack of grazing and was absent from flushes within the fenced forest area where it was seen by the author in 1982. The rank growth of *Deschampsia cespitosa* (Tufted Hair-grass), *Juncus acutiflorus* (Sharp-flowered Rush) and *Holcus mollis* (Creeping Soft-grass) had swamped these former open flushes. However a surprise find and a new vice-county record was *Epilobium alsinifolium* (Chickweed Willowherb) found as scattered plants at the extreme edge of the burn over some 100 m where the competition was less.

On the second day the party again split into groups. Hutlerburn Loch and its mire (v.c.79) lived up to its reputation. *Carex limosa* (Bog-sedge), *C. lasiocarpa* (Slender Sedge), *Eriophorum latifolium* (Broad-leaved Cottongrass) and *Vaccinium oxycoccos* (Cranberry) were all re-found and *Utricularia vulgaris* s.l. (Greater Bladderwort) was new. On the walk over to the loch, *Botrychium lunaria* (Moonwort) was seen in several places. Synton Mossend (v.c.80) was also visited and *Vicia tetrasperma* (Smooth Tare) seen in waste ground by the A7. This was a third vice-county record. The policies of Bowbill (v.c.79) were scoured to try and refine *Trientalis europaea* (Chickweed

Wintergreen), *Myrica gale* (Bog Myrtle) and *Festuca heterophylla* (Various-leaved Fescue). The party was unsuccessful but saw good colonies of *Pyrola minor* (Lesser Wintergreen) in woodland and the rare *Viola canina* (Heath Dog-violet) on the rocky banks of Yarrow, a typical Border habitat. The introduced *Alchemilla tyththantha* (a Lady's-mantle) was locally abundant along track sides. Its status at Bowhill has remained more or less unchanged over the past 40 years. Most unexpectedly, *Impatiens noli-tangere* (Touch-me-not Balsam) previously reported in 1880, was refound. A flush near the Ettrick above Ettrickbridge End (v.c.79) produced a third vice-county record for *Carex × fulva* (Tawny Sedge × Long-stalked Yellow-sedge) and *Sedum rupestre* (Reflexed Stonecrop) was seen through binoculars on the inaccessible south facing cliff at the entrance to impressive Kirkhope Linns. Further recording was done at the Loch o' the Lowes (v.c.79) and an attempt to refind *Corallorrhiza trifida* (Coralroot Orchid) last seen there in 1975 was unsuccessful.

I would like to thank the farmers and landowners for readily giving access to the sites and to all those who attended for making the meeting a success

R.W.M. CORNER

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## LAUNCESTON, CORNWALL, (v.c.2) 17<sup>th</sup> - 19<sup>th</sup> JULY

Launceston is placed in the extreme east of Cornwall in SX/3 8 where three recording areas meet, Cornwall v.c.2, Cornwall v.c.4, and Devon v.c.4. It proved to be a useful centre from which to cover such a hectad. Fifteen people attended the meeting and a few of us were able to gather on the Friday evening to discuss the need to refind such common species as *Carex flacca* (Glaucous Sedge), *Circaea lutetiana* (Enchanter's Nightshade) and *Ranunculus hederaceus* (Ivy-leaved Crowfoot). Three of us had arrived early and had time to search the nearby Polson Bridge area specifically for *Scirpus sylvaticus* (Wood Club-rush). It was not refound at this site, habitats having changed so much, but it was eventually located in a really wet wooded area by the River Tamar near the old Nether Bridge. It was here that the group met on the Saturday to find *Hypericum maculatum* (Imperforate St John's-wort) growing nearby on a wide roadside verge. It was one of the plants that needing re-finding, being the 'missing' parent of the hybrid *Hypericum × desetangii* that had already been recorded. Several localities were visited during the day. The varied habitats along the steam-railway valley west of Launceston gave new records for *Isolepis cernua* (Slender Club-rush), *Misopates orontium* (Weasel's-snout) and *Ranunculus sardous* (Hairy Buttercup). *Juncus tenuis* (Slender Rush) and *Vulpia myuros* (Rat's-tail Fescue) were seen on waste ground in Launceston and *Poa nemoralis* (Wood Meadow-grass) proved very abundant, growing even in a shaded area at the base of the walls that enclose the grounds of Launceston Castle. The Nationally Scarce *Melittis melissophyllum* (Bastard Balm) was found in Landlake Wood south of Launceston and a new record was made for *Carex muricata* subsp. *lamprocarpa* (Small-fruited Prickly-sedge). On Sunday the woods, arable fields and shaded hedgebanks between Crossgate and Drupton Bridge proved to be of great interest. Being close to the Devon border, the grasses *Bromopsis ramosa* (Hairy-brome) and *Elymus caninus* (Bearded Couch) were found to be very common, particularly in the hedgebanks. *Ceterach officinarum* (Rustyback) was plentiful on the mortared walls of Drupton Bridge but only one plant of *Polystichum aculeatum* (Hard Shield-fern) was seen, this fern being very rare in Cornwall. The most interesting find, however, was that of *Bromus secalinus* (Rye Brome) long thought to have gone from the county. Here, in arable fields near Crossgate, there were dozens of plants, their tall stems standing well above the cereal crops with which they were growing. A revisit was made to the Beale's Meadows near Langdon, a reserve owned by the Cornwall Wildlife Trust. This reserve comprises a number of herb-rich hay meadows with various rushes, *Lychmis flos-cuculi* (Ragged-Robin) and numbers of *Dactylorhiza praetermissa* (Southern Marsh-orchid). *Agrostis canina* subsp. *canina* (Velvet Bent) and *Epipactis helleborine* (Broad-leaved Helleborine) were added to the species-lists for these meadows. At Werrington, north of Launceston, plants recorded included *Leontodon hispidus* (Rough Hawk's-bit) uncommon in Cornwall and *Mercurialis annua* (Annual Mercury). *Poa humilis* (Spreading Meadow-grass) was seen in a number of places both on wall tops and in a quarry. *Potentilla anghica* (Trailing Tormentil) and

*P. × mixta* (Hybrid Cinquefoil) were recorded and *Lagarosiphon major* (Curly Waterweed) and *Potamogeton crispus* (Curled Pondweed) were found at Kensey Mill in a pool that may have once been part of the Kensey River. We were blessed with wonderful weather, (those who were at the Cornwall BSBI meeting in 1997 much appreciated this), the species total for the hectad was greatly increased and numbers of old records were refound. The Cornish cream tea at Kensey Mill marked the end of a very successful meeting

ROSE MURPHY

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CHORLEY, LANCASTER v.c.59) 24<sup>th</sup>-26<sup>th</sup> JULY

Eleven members attended the field meeting during the course of the weekend. The meeting commenced at Mere Sands Wood visitor centre (SD/446.158) on the Friday evening thanks to the generosity of Lancashire Wildlife Trust reserve manager Dominic Rigby. Brambles seen at Mere Sands included *Rubus calvatus*, *R. errabundus*, *R. robiae*, *R. criniger*, *R. subtercanens* and *R. hylocharis*. Some members also travelled to Banks to see *R. latifolius* a species which reaches a southern distribution limit in the Southport area

The party regathered on the Saturday morning at Yarrow Valley Park (SD/570.152). Species of note included *R. questieri*, *R. robiae*, 'Wheldon's Bramble', *R. criniger*, *R. wirralensis*, *R. distractiformis*, *R. eboracensis* and 'The Lancashire Bramble'. After stopping briefly to see an undescribed plant at Copull Moor we made our way to Robin Hood, Parbold (SD/525.116) to see *R. lanaticaulis*, *R. leyamus*, and *R. painteri*. Lunch was taken at Worthington Lakes Country Park from where we travelled onwards to Scot Lane (SD/623.091) to see *R. incurvatiformis* and then to the A58 (SD/677.092) on the outskirts of Bolton to see the 'Manchester Bramble'.

Returning towards Horwich along the hillside roads to the south of Winter Hill a series of stops was made to see *R. echinotoides*, *R. cumbrensis*, pink flowered *R. vestitus*, the Lever Park *corylifolii*, the Bolton form of *R. accrescens* and *R. intensor*. After a brief stop at Lever Park to see the Rivington *mucronati* the proceedings of the day's meeting were brought to a conclusion at Duxbury Woods, Chorley where species seen included *R. canadensis*, *R. nessensis* and *R. bertramii*.

On the Sunday morning the party met at Worden Park, Leyland (SD/542.210). Brambles seen included *R. cissburiensis*, *R. moylei* and *R. subtercanens* whilst ornamental *Rubus* species included *R. odoratus* and *R. tricolor*.

Moving on for a tour of the lower part of the Ribble Valley catchment area a brief stop was made at Pippin St.(SD/591.240 for *R. amiscanthos* and *R. newbouldii*. At Hoghton the 'Leyland *hystrix*' and *R. incurvatus* were seen. At Feniscowles an escaped allotment bramble was identified as the 'Bedford Giant'.

After lunch at Winton Park we moved on to Alum Scar Wood (SD/63.28) where *R. adenanthoides*, *R. angloserpens* and the 'Ribble Valley bramble' occur in abundance. Onward then into v.c.60 via Ribchester to Longridge Fell (SD/619.384) for *R. warrenii* and a most informative talk about Lord de Tabley from Alan Newton.

The main meeting concluded after a tour of the hillside lanes on the flanks of the Bowland Fells where species seen included *R. lindebergii*, *R. cumbrensis*, the 'Inglewhite *mucronati*' and *R. infestus*. There was also some discussion about the status of a locally abundant bramble that closely resembles *R. griffithianus*.

A few members of the party continued onwards to Beacon Fell to see *R. rubritinctus* and *R. sciocharia*, and to Garstang for *R. rhombifolius*.

This was a most successful field meeting on which we were able to observe and discuss numerous taxonomic issues. Many thanks to all who attended and to Dominic Rigby of the Lancashire Wildlife Trust.

DAVE EARL

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TARBRAK, LANARKSHIRE (v.c. 77). 25<sup>th</sup> JULY

The meeting was held jointly with the Glasgow Natural History Society.

The party of five met at Tarbrax and then proceeded to a lay-by on the A70 in order to take advantage of a public right-of-way which would lead to the border with Midlothian (v.c. 83). The leader explained that the area to be surveyed had not previously been recorded for Atlas 2000 and therefore all records would be of value. However, he was particularly interested in trying to find *Vaccinium microcarpum* (Small Cranberry) which is known to be present just over the border in Midlothian. It was ascertained that only one record card would be filled in, the members of the party agreeing to call out all the plants that they had not previously seen or heard others mention during the meeting. As they moved off to cross the fence, one or two plant names were called out, but the leader called the party back and pointed out (to their surprise) that they had all been standing on *Spergularia maritima* (Lesser Sea-spurrey) in a site as far as one can get from the sea in that part of Central Scotland.

The heather moorland had a rather uniform flora and in total only 96 different taxa were recorded. As would be expected, a relatively high proportion of the total comprised grasses (16), sedges (nine) and rushes (six). The more interesting bog plants seen included *Narthecium ossifragum* (Bog Asphodel), *Menyanthes trifoliata* (Bogbean), *Pinguicula vulgaris* (Common Butterwort), *Pedicularis palustris* (Marsh Lousewort), *Sedum villosum* (Hairy Stonecrop) and *Drosera rotundifolia* (Round-leaved Sundew).

Close to the Midlothian border we noted many plants of cranberry but only two flowers and seven fruits. A few specimens were taken, some of which seemed to match the description of Small Cranberry. They were sent to the Royal Botanic Garden, Edinburgh for examination by Douglas McKean who is also Recorder for the adjacent vice-county. He confirmed that both *V. oxycoccus* and *V. microcarpum* were present in the collection but did point out that there was now some dubiety as to whether the latter should be regarded as a true species.

However, the leader's main objective of finding Small Cranberry in v.c. 77 was achieved!

## P. MACPHERSON

DARTMOOR, NORTH AND SOUTH DEVON, (v.c. 4 & 3) 7<sup>th</sup>-9<sup>th</sup> AUGUST

The aim of the meeting was to search for two Dartmoor rarities, *Hammarbya paludosa* (Bog Orchid) and *Euphrasia vigursii* (an eyebright endemic to Devon and Cornwall) and to explore the area for additional records for Atlas 2000. Seven BSBI members attended from outside the area and were joined by eleven from the Botany section of the Devonshire Association. We were fortunate to have advice and help from two ecologists from the Dartmoor National Park.

On Friday evening the facilities of the High Moorland Centre, Princetown were made available to us; slides of the relevant species were shown and routes planned for the following two days. On each day two groups went out to search for *Hammarbya* and *Euphrasia vigursii* respectively.

The weather was hot and sunny throughout after a cold and wet June and July. This may account for the lack of success in finding *Hammarbya* in either of its known sites or in any of the additional 5 bogs on north-east Dartmoor that were diligently searched. However other interesting bog plants were found including *Drosera intermedia* (Intermediate Sundew), *Pinguicula lusitanica* (Pale Butterwort), *Wahlenbergia hederacea* (Ivy-leaved Bellflower), *Rhynchospora alba* (White-beaked Sedge) and *Menyanthes trifoliata* (Bogbean).

Areas on the eastern side of the moor, including Buckland common and Blackslade down and mire, were searched for *Euphrasia vigursii*. Four *Euphrasia* species were seen – *E. anglica*, *E. confusa*, *E. micrantha* and *E. nemoralis*, but not *E. vigursii*. However all the usual Dartmoor bog plants were found as well as *Teesdalia nudicaulis* (Shepherd's-cress) in flower.

On the second day *Euphrasia vigursii* was found abundantly on High Down on the west side of the moor. As expected it was growing in *Agrostis curtisii* (Bristle Bent) – *Ulex gallii* (Western Gorse)

heath but another associated plant was *Thymus praecox* (Thyme). An evening expedition to see *Lycopodiella inundata* (Marsh Clubmoss) was made to a site near old clay ponds at Cadover Bridge.

It was felt that western Dartmoor may be the eastern limit for *E. vigursii* as it was not found in several suitable sites to the east of the moor. 1998 was obviously a bad year for *Hammarbya* on Dartmoor.

ALISON WATT and ROBERT HODGSON

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#### BARRA AND OTHER ISLANDS, OUTER HEBRIDES (v.c.110) 30<sup>th</sup> JULY – 1<sup>st</sup> AUGUST

Our three days of recording netted 925 records for the Atlas, i.e. 10 km square records in addition to the 660 post-1987 records that we already had. On the assumption that about 2300 records (which is the sum total of all previous records plus 10%) is the maximum possible, this means that the coverage has improved from 30% to 70%. These records are spread over 7 different 10 km squares, but only 5 of these have substantial amounts of land in them. These statistics have been worked out with the aid of the RECORDER database. Recorders were provided with a printout of the known records for each 10 km square and for each island, in the manner described in *BSBI News* 77: 20-21(1997). This enabled us to know immediately in the field whether a species found was already recorded for the Atlas, or a refind from before 1987, or completely new to the area. We could also use the database on a portable computer to look up any old record. The Barra meeting was very well attended, with altogether 18 members and guests. The Pankhursts landed on the Saturday beforehand. In the undergrowth by the house there were several resident corncrakes, often heard but never seen, and *Hypericum elodes* (Marsh St John's-wort) in the bog over the road.

Several other folk joined the Pankhursts in informal excursions before the main meeting started. The most memorable of these was to the uninhabited machair island of Fuday, NE of Barra. Six of us boarded the boat in such torrential rain that we briefly doubted our sanity, but mercifully the sun came out shortly after and shone hotly for the rest of the day. Fuday is remarkable for the huge quantities both of *Anacamptis pyramidalis* (Pyramidal Orchid) and *Orobancha alba* (Thyme Broomrape) (dark reddish-brown in spite of its name), both so scarce elsewhere in Scotland. Another big treat was to meet with a pair of golden eagles at their eyrie in the east of the island.

Apart from the above downpour we were generally fortunate with the weather, which was mostly dry and cloudy, but with sunny spells on most days. We were also lucky to have a sufficient number of expert field botanists so that we could, on occasion, divide up into as many as five separate groups. This meant that we were able to cover the ground pretty evenly, except perhaps for the hills in central Barra.

On the morning of the first full day we were welcomed by Dr Robarts at Bruernish, who very kindly showed us round the *Spiranthes romanoffiana* (Irish Lady's-tresses) colony. The first spikes were just coming into flower. After lunch we spread out into groups, and the best find was a large colony of *Ajuga pyramidalis* (Pyramidal Bugle) in a new site. There had been previous reports of an unidentified *Ribes* and this time a fruiting plant of *R. rubrum* (Red Currant) was found in a wild habitat near Earsary. Bird-sown perhaps, but well established and a new vice-county record.

On Friday morning 10 of us set out from Castlebay in a fishing boat to visit Mingulay and Berneray (Barra Head). Mingulay is the most visited of the islands south of Barra, but we had no post-1987 records. Two parties landed there in the sunshine and made 165 Atlas records, of which more than 20 were new for the island. Another party landed on Berneray (Barra Head) further south. There had been no records from this island since 1941, and it intersects two 10 km squares, so every plant seen was an Atlas record. The engine of the boat broke down and was soon fixed by the ever-resourceful boatmen, so we were obliged to stay on the islands for longer than intended. However, no complaints were heard. Meanwhile, back on the 'mainland', another group went to Vatersay, the next island south of Barra, and now accessible by causeway. *Galium uliginosum* (Fen Bedstraw), which is rare over here, was refound (last seen 1941).

On Saturday, another boatload set out for the islands, although this time in a different boat. Our targets were Muldoanich (steep and rocky) and Pabbay (part machair, part moorland) and both uninhabited. Neither had been recorded since 1941. Muldoanich has no machair and was expected to be a little dull, but in the event the team reported that it was so interesting they had not had enough time to see everything. What seems to be *Euphrasia marshallii* (an eyebright), reported from here by Prof. Heslop-Harrison, was refound. Pabbay has little more than 2 square kilometres but yielded over 200 species, with over 100 records quite new to the island. This presumably reflects the lack of any detailed earlier recording. Meanwhile, further efforts back on Vatersay turned up *Calystegia soldanella* (Sea Bindweed), the first record there for 20 years.

The lists of species for Barra will give a false impression for the frequency of weeds of cultivation. It is now quite rare to find a 'tatty patch' or a cultivated garden and the accompanying weeds may be quite a treat, as on one occasion at Borge where there were, *Lamium amplexicaule* (Henbit Dead-nettle) *L. confertum* (Northern Dead-nettle), *L. hybridum* (Cut-leaved Dead-nettle) and *L. purpureum* (Red Dead-nettle) with *Chrysanthemum segetum* (Corn Marigold) and *Avena strigosa* (Bristle Oat). On arrival I asked one recorder to look out for *Capsella bursa-pastoris* (Shepherd's-purse) and it was three days before he found it. It is a scarce plant on Barra.

This was a very satisfactory recording meeting. We were fortunate with the weather and with the boating, and my thanks are due to everyone who took part.

## RICHARD PANKHURST

### PENYGROES, CAERNARFONSHIRE (v.c.49) 16<sup>th</sup> AUGUST

Nine members and friends attended the meeting which was favoured by dry and mainly sunny weather. The party split into two groups, one visited coastal areas and the other explored waste ground around Penygroes, a country lane and an old slate quarry.

The first group drove towards the coast and parked at Pontllyfni. We walked beside the Afon Llyfni towards the shore and alongside the track were some naturalised aliens, including *Syringa vulgaris* (Lilac), *Hypericum* × *inodorum* (Tall Tutsan) and *Kniphofia* × *praecox* (Greater Red-hot-poker). Further along the stream *Stachys* × *ambigua* (Hybrid Woundwort) was spotted together with one of its parents, *Stachys palustris* (Marsh Woundwort). On reaching the shore typical sand and shingle plants were immediately seen, including *Honckenya peploides* (Sea Sandwort), *Glaucium flavum* (Yellow Horned-poppay), *Beta vulgaris* subsp. *maritima* (Sea Beet), *Euphorbia paralias* (Sea Spurge) and surprisingly *Crithmum maritimum* (Rock Samphire). The only *Atriplex* that we could positively identify at that time of the year was *A. laciniata* (Frosted Orache).

Having explored the area we then drove 2 km southwards to Aberdesach and had lunch in the beach car park overlooking a rocky sandy bay. Just outside the car park was a patch of *Veronica agrestis* (Green Field-speedwell). The habitat was similar to before but we saw, in addition, *Calystegia soldanella* (Sea Bindweed), *Trifolium arvense* (Hare's-foot Clover), *Daucus carota* (Wild Carrot) and *Eryngium maritimum* (Sea Holly). By the stream was *Mimulus guttatus* (Monkeyflower) and *Persicaria amphibia* (Amphibious Bistort). One sharp-eyed member of the party spotted *Rumex* × *pratensis* (*R. crispus* × *R. obtusifolius*) (Meadow Dock), both parents also being present.

We then drove northwards just past Caernarfon Airport to record in the saltmarsh in Foryd Bay. Most of the typical saltmarsh plants were seen, including *Glaux maritima* (Sea Milkwort), *Aster tripolium* (Sea Aster), *Cochlearia anglica* (English Scurvygrass), *Suaeda maritima* (Annual Sea-blite), *Spartina anglica* (Common Cord-grass), *Spergularia media* (Greater Sea-spurrey), *Juncus maritimus* (Sea Rush) and *J. gerardii* (Saltmarsh Rush). We also managed to identify *Puccinellia distans* (Reflexed Saltmarsh-grass) and *P. maritima* (Common Saltmarsh-grass). As we walked southwards, further from the sea, marshland plants began to appear such as *Bolboschoenus maritimus* (Sea Club-rush) *Alisma plantago-aquatica* (Water-plantain), *Lycopus europaeus* (Gipsywort), *Schoenoplectus tabernaemontani* (Grey Club-rush), *Ranunculus baudouii* (Brackish Water-crowfoot), and *Scutellaria galericulata* (Skullcap). Finally, by the bridge over a stream in which *Zannichellia palustris* (Horned

Pondweed) occurred, we found *Vicia tetrasperma* (Smooth Tare), a plant I had not noticed previously in North Wales.

The other group started with a new v.c. record in Penygroes car park, namely *Potentilla argentea* (Hoary Cinquefoil) probably brought in with soil from elsewhere. The waste ground nearby yielded *Geranium pusillum* (Small-flowered Crane's-bill), *Ornithopus perpusillus* (Bird's-foot) and *Linaria repens* (Pale Toadflax). Following a lane with wet meadows and a marsh alongside, interesting plants such as *Hypericum elodes* (Marsh St John's-wort), *Pedicularis palustris* (Marsh Lousewort), *Ranunculus omiophyllus* (Round-leaved Crowfoot) and *Scutellaria minor* (Lesser Skullcap) were seen.

On arriving at an old slate quarry, *Filago minima* (Small Cudweed) and *F. vulgaris* (Common Cudweed) were noticed growing on its floor, and nearby was *Ceratocarpus claviculata* (Climbing Corydalis)

In all 1 v.c record and 35 new hectad records were made.

G. BATTERSHALL

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## STOP PRESS

### STUNG

The following extract from a letter to *The Times* in 1958 may amuse some members. I discovered it while going through my late father's papers in 1960 and rediscovered it during my retirement sorting!

'Sir,—My company is building a small works for the manufacture of electrical appliances in a road adjacent to the station yard in a town near by. Until recently the 'site' was covered with weeds of all descriptions.

The County Planning Committee, quite wisely, lays down as one of its requirements that a certain amount of planting of flowers in front of works shall be done, and our architect prepared our first plan accordingly with a bed marked "Shrubs." For some reason which I cannot understand, the plan was returned with a request for a planting scheme, although of course no planning committee is able to ensure that subjects shall continue to live after being planted. Feeling that this was just a little too much, I submitted a plan showing the following: 1. *Crataegus oxyacantha* (charming shrub with white flowers and red berries); 2. *Calystegia sepium* (climbing perennial—large white flowers); 3. *Taraxacum officinale* (1ft. 6in. high perennial with many yellow flowers); 4. *Urtica dioica* (leaves of dark green—3ft. high, pale yellow flowers in spreading spikes); 5. *Ligustrum vulgare* (handsome shrub, white flowers, heavily scented); 6. *Rumex obtusifolia* (large perennial, 3 ft. high, red flowers and fruit); 7. *Sambucus nigra* (shrub, white flowers in corymbs); 8. *Circaea lutetiana* (perennial, 1ft. 6in. high, pink, in elegant racemes).

We offered to amend the list in any way that the Planning Committee wished, but no changes were required. I believe that such plans go before no fewer than three separate committees of elected representatives. In due course the plans were returned stamped with the approval of the County Council.

I find myself in some difficulty now, since I find that I no longer wish to plant stinging nettle, bindweed, docks, and dandelions. Must I now appeal to the Ministry of Housing for permission to make a change? Let me make it clear that in my company's and the public's interest we intend to make our factory look attractive.

The County has many serious planning problems; is it not time that more attention were given to the greater questions than the grandmotherly supervision of petty little matters of this sort?

I wonder what species finally did get planted?

EDWARD PLATT, 7 Bay Close, Swanage, Dorset BH19 1RE

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Our Hon. Treasurer is **Michael Braithwaite** and all queries of a financial nature **apart from SUBSCRIPTIONS** should be sent to him at: 19 Buccleuch Street, Hawick, Roxburghshire, TD9 0HL; Tel. 01450-372267. Fax 01450-373591, **and not to his home address** (given in the *Year Book*) which is for his vice-county recorder duties only.

**Mike Walpole** is our Hon. Membership Secretary and all queries regarding **SUBSCRIPTIONS** and **MEMBERSHIP** should continue to be sent to him at: 68 Outwoods Road, Loughborough, Leics. LE11 3LY; Tel. 01509-215598, E-mail: mike.walpole@diapipex.com

## EDITOR

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Bearing in mind that, according to Mary Briggs' classification: I am an owl, the best times to catch me in my office are between 10 a.m. and 12 noon and 2 p.m. to 5.30 p.m. on weekdays but be warned, I do not spend all my time in the office. If you fail to find me I do apologise, but just leave a message and I will get back to you as soon as I can. I do have another (home) phone number which, in an emergency, can be obtained from Directory Enquiries, but **please**, only use it as a last resort.

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## EDITOR

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