

BSBI NEWS

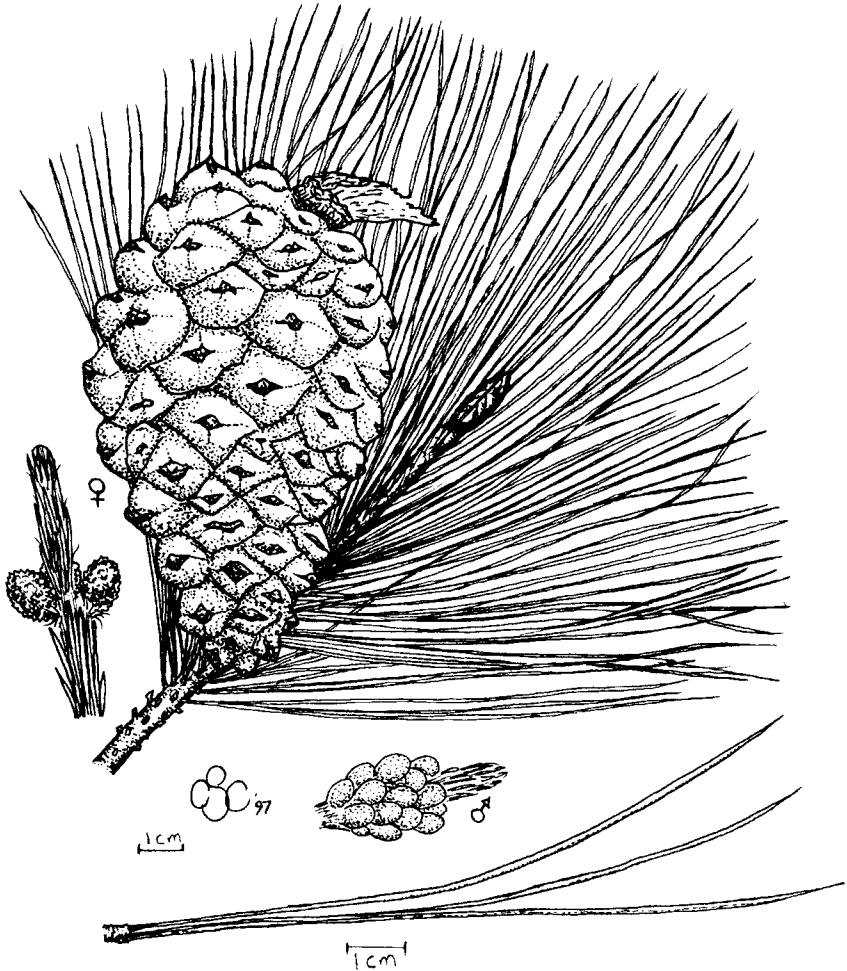
April 1997

Edited by Gwynn Ellis

No. 75

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Cardiff CF2 5BU



Pinus radiata – Monterey Pine – flowers, female cone & foliage. Del. C.S. Crook © 1997

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Contributions intended for
BSBI NEWS 76
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THE PRESIDENTS' AWARD

David Bellamy, the President of the Wild Flower Society, and myself, have decided on our award for this year.

We are very pleased to agree that Richard Mabey's book *Flora Britannica* is not only an outstanding work, but adds substantially to our all-round knowledge of the British Flora.

I look forward to awarding this at the AGM in Dorchester

DAVID PEARMAN, President.

IMPORTANT NOTICES

PRESIDENCY – 3 YEAR TERM

The current position is that an incoming President serves one year as a President-elect, and then a further two years as President. For the second year of that term there is a President-elect learning the ropes or standing in the wings!

I had felt that despite being involved in many of the Society's activities before taking over the Presidency that no sooner was I in office and, hopefully really able to appreciate and contribute at first hand, that it was time to be handing over. I also felt that for the foreseeable future there was going to be more going on in the botanical world if we were to maintain our position (or even remind people we existed). I discussed this with my three most recent predecessors, and with other senior colleagues, and, to my surprise, they all totally concurred. For the BSBI has no office, no full-time staff to provide continuity. We meet a few times a year and then it is up to the voluntary efforts of the Secretary and Treasurer, aided by others, to keep things moving. The advent of our Co-ordinator and the Atlas Organiser has significantly increased the effort needed of all of us.

This extension to a three year term, then, has been discussed and mooted many times, and I brought it to Council last November, where it was passed unanimously. The only amendment was a clause that the incoming President or Council should have the option of limiting the term to two years.

A possible downside of this decision would be that fewer members of the Society would have the honour of being chosen as President, and I accept this. However we all felt that the benefits of having continuity of leadership and guidance easily outweighed this, coupled with the fact that the amount of time necessary to do the job properly, might mitigate against some candidates.

There is a postscript to this. I assumed that this change in Rules, which will have to be approved by the AGM in May 1997, would only apply to my successor or even to hers on the grounds that it might be invidious to benefit oneself from a change in the rules. The rest of Executive however felt differently and my name was put forward. Leaving aside the thought of time for other things, I said I would be delighted and honoured and Council approved this too. But this again has to be approved by the AGM in May.

DAVID PEARMAN, President

PLANT ACTIVITIES FOR YOUNG CHILDREN

Amongst the steady stream of letters for the Honorary General Secretary, which arrive at our 'official' Natural History Museum address, are a significant number from teachers requesting advice about activities with plants to support the National Curriculum science programmes of study. We endeavour to supply each writer with some helpful ideas and addresses for further contact. Requests concerning Key Stages 3, 4 and beyond (pupils aged 11 years and upwards) tend to relate to standard elementary botanical studies, but those for pupils in Key Stages 1 and 2 (children from 5 to 10 years of age) require more creative responses.

It would seem to be useful to attempt to create some general advice sheets (Botanical Education Broadsheets) to include with individual replies we send. I wonder if members who have found particular activities to be successful in stimulating enthusiasm for plants among young people would be willing to let us have details of them? It would be helpful if suggestions could be categorised as being suitable for:

- i) Children 5 to 10 years, or
- ii) Young people 11 years and beyond,

and sent to me at the address below. Given an idea, working teachers are extremely good at developing it for their particular classes so only a brief outline is needed. Some editing of material is likely to be necessary to achieve a coherent broadsheet format but full acknowledgement to all the original authors will be included.

Young people are endlessly curious about things and most botanists get asked 'What are you doing?', at some stage during their field-work. We all respond differently but often find ourselves creating some way in which the enquirer can help us. These instantaneous responses may well provide keys to worthwhile educational activities.

Now that Botany has disappeared as a distinct subject from GCSE and A-level examinations, anything which the Society can do to promote plant studies at school level will be worthwhile. Botanists could become extinct unless positive action is taken to develop a new generation. Sadly our Junior Membership is currently small, so even the smallest contribution for the suggested broadsheets might help to attract more young people. No item will be too small to be part of the greater whole and I shall be most grateful for any support which anybody can offer.

PETER FRY, Hon. Assistant Secretary BSBI, c/o Department of Botany, Natural History Museum, Cromwell Road, London SW7 5BD

DIARY

N.B. These dates are supplementary to those in the 1997 Calendar in *BSBI Year Book 1997*.

1997

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| April 19 | Caring for your herbarium, Liverpool Museum Open Day (see page 56) |
| June 21-July 6th | The Azores Field Meeting CANCELLED (see page 54) |
| July 11-Aug. 3 | Investigation of the vascular flora in N of Sweden – summer camp. (see page 55) |
| Sept. 9-12 | International Association for Landscape Ecology (UK) annual conference (see p. 56) |

1998

- | | |
|-----------------|--|
| Sept. 12-Oct. 3 | BSBI Field excursion in SW Australia (see page 54) |
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See also page 34 for details of meetings to see *Liparis loeselii* at Kenfig (VC 41)

EDITOR

EDITORIAL & HON. GENERAL SECRETARY'S NOTES

I was in a rather gloomy mood while travelling home from a recent Executive Committee meeting in London. Our Hon. Treasurer, Mike Walpole, had unexpectedly announced that he was not going to stand for re-election as Treasurer or Chairman of Pubs and it struck me while sitting in a railway carriage somewhere between Reading and Swindon that we had come to the end of an era within the Society, and, like it or not, things would never be the same again. For the last 25 years Mike and Mary had **been** the BSBI. We all know that Council is the governing body where all major decisions are made but we also know that if there was no direction from above we would end up with a camel or a gnu instead of a horse at every meeting! That direction had come from the Hon. Treasurer and the Hon. Gen. Sec., with a little help from the ephemeral 'President', and the slightly less ephemeral 'Chairmen of Committees'. I then realised with some concern that I was now Hon. Gen. Sec. ('God help us all' was my immediate reaction). To calm myself down I bought a beer and looked in my bag for something to read. I

chanced upon a copy of the very first issue of *BSBI News*, published in January 1972, almost exactly 25 years previously, which I just happened to have with me. As I flicked through the pages I experienced a great feeling of *déjà vu*. There was the Secretary writing about the *Code of Conduct*, I had just finished a new edition and had hoped that it would be distributed with this *News*, but Plantlife threw a spanner in the works by requesting changes, so everything is on hold again! The Publications Committee reported that a *Taraxacum Flora of the British Isles*, written by John Richards had just gone to the printers; our latest handbook *Dandelions of Britain and Ireland* (with John as one of the authors) is to be launched on May 22nd (see booking form with this mailing). And on page 13 was the first Profile of an officer of the Society and 'To commence this feature we start with our new Treasurer, Mr. Michael Walpole.' There we read that: 'Michael has a broad based interest in natural history which extends back to childhood, is a dedicated conservationist, a particularly able photographer, and has specialist interest in bryology and the bibliography of natural history.' We all hope that Mike and Ann enjoy their new found freedom and spoil their grandchildren something rotten!

The following note was spotted in *County Life* for March 1996:

'Roadside snowdrops

Huge clumps of snowdrops, far from habitation, adorn roadsides in S Britain. Some clumps are as large as 3m (10ft) in diameter. But for what purpose, and by whom, were these flowers planted? Their location is close to roads with tracks stabilised about 1790–1810, and I would suggest they were planted by gypsies, whose only garden plot was the roadside, for commercial reasons. About 1850, flowers in winter were somewhat rare, so bunches of snowdrops, violets or pussy willow catkins may have been sold at local markets.

Jack Coleman, Middlesex'

I am grateful to Mary Briggs for the following two notices.

Vascula

In the past year there has been a brisk exchange of a modest number of *Vascula* donated and requested by those few members who still find these of use – even in this 'plastic era'. We have still on offer Margaret Proctor's trusty *Vasculum* which she tells us: 'travelled *many* miles with me in the Pennines and on Central Scottish mountains.'

Attending Committees

Travel to Committee meetings is not always easy. At a recent Meetings Committee meeting both the Secretaries, coming to London from Leeds and from Burton-upon-Trent, were delayed by several hours. First, overhead electricity lines were down in the high winds that day; next, Underground stations were closed and some twelve trains cancelled as a lady had threatened a Judge at the Law Courts with a (plastic) pistol. Finally the return journey to Leeds was delayed by a fire on the line at Peterborough . . .

EDITOR

RECORDERS AND RECORDING

AMENDMENT No. 1 to *BSBI YEAR BOOK 1997*

Panel of Referees

We are very pleased to welcome some additions to our panel of referees.

Dr Francis Rose, who needs no introduction for BSBI members, has kindly offered to identify specimens of *Filago* and *Gymnadenia*. For *Filago* it is sufficient to send pressed specimens plus a

stamped addressed envelope, but he has the following more detailed requirements for *Gymnadenia*: one pickled floret; habitat notes; locality; if possible a good close-up photograph (which will be returned) showing the colour and form of the florets; and finally information on the scent, which is of course rather subjective, but useful in distinguishing subspecies if you can decide whether it is a rich carnation scent, or is pleasant but slightly rancid. Dr Rose would welcome specimens from all parts of the country because he is making a special study of the distribution of *Gymnadenia*. His address is: 36 St Mary's Rd, Liss, Hants GU33 7AH.

We also have some welcome help with aquatic plants. Mr Richard Lansdown has made a special study of *Callitriche*, and says he will be delighted to receive specimens for identification; he needs living material for accurate identification, which should be packed in a plastic bag with a very small amount of water. He would like to be telephoned first to make sure that he will be at home to receive them. Please also be sure to send details of locality plus a grid reference. Mr Lansdown's address is: Gwentworth, Coombe, Wotton-under-Edge, Gloucestershire GL12 7ND. Telephone 01453 521887.

And we have a new referee for *Utricularia*. Mr John Day says he has examined many thousands of specimens of this genus, including several hundreds under the microscope. He needs to see the whole plant with bladders, and flowers if present. He does not want fresh material, but would prefer material pickled in alcohol; he is also ready to attempt the identification of pressed plants. Mr Day's address is: 26 Brickhouse Lane, Stoke Prior, Bromsgrove, Worcestershire B60 4LX.

MARY CLARE SHEAHAN, 61 Westmoreland Road, Barnes, London SW13 9RZ

VC Recorders

Amendment No 1 to *BSBI Year Book 1997*: changes since December 1996

VC 13 W. Sussex – Dr A.G. Knapp to be joint recorder with Mrs Mary Briggs. All correspondence to Mrs Briggs.

VC H40 Co. Londonderry – Mr D.H. Riley, 161 Duncrun Road, Gortmore, Limavady, Co. Londonderry BT49 0JJ

DAVID PEARMAN, The Old Rectory, Frome St Quintin, DORCHESTER, Dorset DT2 0HF.
Tel. & Fax 01935-83702

ATLAS 2000

PROGRESS REPORT

The New Season Begins!

The new season is upon us and recording for the Atlas 2000 has begun in earnest. After what seems like a long and dismal (not to say dry and then stormy) winter, it's time to stretch your legs, dust off the hand-lens, arm yourselves with recording cards, and throw yourselves into the deep joys of recording.

Not convinced? Never been recording before? Don't think you could do it? Then read the latest in the 'Green Booklet' series: '*Fieldwork for Atlas 2000. 4. A Beginners Guide to Recording*', (included with this *BSBI News*). This booklet has been written to help dispel the myths that surround "recording" and to encourage a few more members out into the field. Please give it a read – this may be the very season to get going! More copies are available from me on request (state how many you would like and enclose a stamped addressed envelope).

Taxa Covered by Atlas 2000

The list of taxa that are covered by the Atlas 2000 project has now been finalised. This covers all those taxa, hybrids and subspecies that get a full entry in Stace (1991), and runs to a formidable 3942 entries. Of these, 2460 species, sub-species and hybrids are regarded as native, while the remaining 1481 are aliens. The list has been produced as one of the 'Fieldwork for Atlas 2000' series (Number 3), and is available from me on request (please send a strong A5 stamped addressed envelope (49p) and state the number of copies required). The next edition of Stace, due out later this year, includes some 193 extra taxa (mostly aliens and hybrids) and these are therefore covered by the project. They are listed separately on pages 57-60 of the booklet.

Congratulations To Dorset!

The Mastercard, which allows Vice-county Recorders to submit records for a hectad (10 km square) to the Biological Records Centre (Monks Wood) has now been produced. Each one, at 43 pages, is quite formidable, but has been designed to be filled in easily and quickly. Mastercards have been circulated to all Vice-county Recorders submitting records in this way, and some are completing their cards already. Congratulations must go to Dr H. Bowen (VC 9 – Dorset) who was the first recorder to compile and return a Mastercard. This was for the hectad SY/4.9 (Bridport) and the card has now been passed on to Monks Wood. One down, 2940 to go!

Species To Look Out For

Now is perhaps a good opportunity to highlight a few spring flowering species that would benefit from closer study. The monocots are becoming more important as features of our flora each year. Although it will be too late for Snowdrops by the time this appears, it's worth mentioning them because 5 taxa additional to our own native species are covered by the Atlas (*Galanthus caucasicus*, *G. elwesii*, *G. plicatus* and two hybrids – *G. nivalis* × *G. elwesii* and *G. nivalis* × *G. plicatus*). Daffodils, in their apparently inexhaustible variety, need similar attention and the first volume of Peter Sell and Gina Murrell's new flora is recommended for the treatment of this group. It's also worth getting to grips with the alien bluebell (*Hyacinthoides hispanica*) and its hybrid with our native species (*Hyacinthoides non-scripta*). The hybrid is particularly widespread (on the Isle of Wight meeting, practically no population of bluebells was found without some influence from *H. hispanica*) and it can be difficult to separate the three. Look for differences in leaf width, flower arrangement, recurring of petals and stamen fusion (see Stace (1991) pp. 1116 - 1117). Once you're familiar with the Spanish invader, it's characteristics become obvious!

Spring is also a good time to do the two ivy subspecies (*Hedera helix* subsp. *helix* and *H. helix* subsp. *hibernica*). The new growth of young leaves will be covered in the different types of hairs (trichomes) that help separate them (see Stace (1991) pp. 578-580 and *Watsonia* 18: 7-15 (1991)). Again, practice brings both competence and confidence in identification.

The two big subspecies of *Ranunculus ficaria* (subsp. *chrysocephalus* and subsp. *ficariiformis*) are covered by the next edition of Stace (due out later this year) and are therefore included in the Atlas – see *Watsonia* 20: 41-50 (1994) for an account. I saw *Ranunculus ficaria* subsp. *ficariiformis* last year and it is certainly a butch cousin of our native subspecies (subsp. *ficaria* and subsp. *bulbifera*, which are also readily distinguished).

Arum italicum subsp. *italicum* is commonly encountered as a garden throw-out, and may be increasing. All populations (and those of native *A. maculatum*) should be checked carefully (see Stace (1991), pp. 920-921). The subspecies of *Leucojum aestivum* are also worth becoming familiar with (see *Fieldwork for Atlas 2000 1, Notes On Identification Works And Difficult And Under-recorded Taxa*, C.D. Preston, 1996), as are the multitude of alien *Allium* species.

If you are a beginner to recording, please don't be put off by all these subspecies! Many are listed on the Atlas 2000 Recording Cards, which means they are simple to identify, especially with a copy of Stace (1991).

Monitoring Scheme Squares

Many people have asked whether or not the Monitoring Scheme Squares require extra coverage for Atlas 2000. Obviously this will depend on the amount of work needed in the rest of the Vice-county and recorders should concentrate on squares with few records first before turning to the Monitoring Scheme Squares. However, it would be very beneficial to re-check the Monitoring Scheme records and, possibly, add some additional species. Recorders may have concentrated on the 3 tetrads they were asked to survey, and not recorded in the remainder of the square. A look at this area may well turn up more species.

Field Meetings

I, for one, am eagerly anticipating the start of the field meeting season. Getting out into the field, recording card in hand, is a great tonic after the depressingly dark winter days. There is extra pleasure in joining a field meeting – travelling to new areas, seeing new plants, and meeting fellow botanists. Bookings for this year's round of field meetings have been coming in since December. However, there have been few bookings for the following meetings, and I hope you will be persuaded to join one or more of them:

Ripon & Thirsk (Yorkshire) – Thursday 12th and Friday 13th June. This meeting should be rewarding as we have specially arranged access to an MOD nature reserve. *Carex muricata* subsp. *muricata* is known from the area – a new site is always possible! A member of the Pteridological Society will also be joining us to help with ferns.

Cerrigydrudion (Merioneth) – Saturday 21st and Sunday 22nd June. Arthur Chater and Jean Green (recorders for Vice-counties 46 and 50 respectively) have offered to concentrate on sedges at this meeting, allowing members to brush up (or begin learning!) their *Carex* identification skills. An upland, and potentially very rewarding, meeting.

Framlingham (W. Suffolk) – Wednesday 16th and Thursday 17th July. A meeting to search out rare cornfield weeds not seen last year. The meeting was well organised and attended last year, and lots was seen despite the cold spring. More will undoubtedly be seen this year.

Kintore (S. Aberdeen) – Friday 8th to Sunday 10th August. This promises to be a good meeting due to the variety of habitats that will be covered (lochs and rivers as well as coastal marshes and sand dunes). Last year's meeting in S. Aberdeen was very rewarding (see account in the last edition of *BSBI News*). A member of the Pteridological Society will also be joining us to help with ferns.

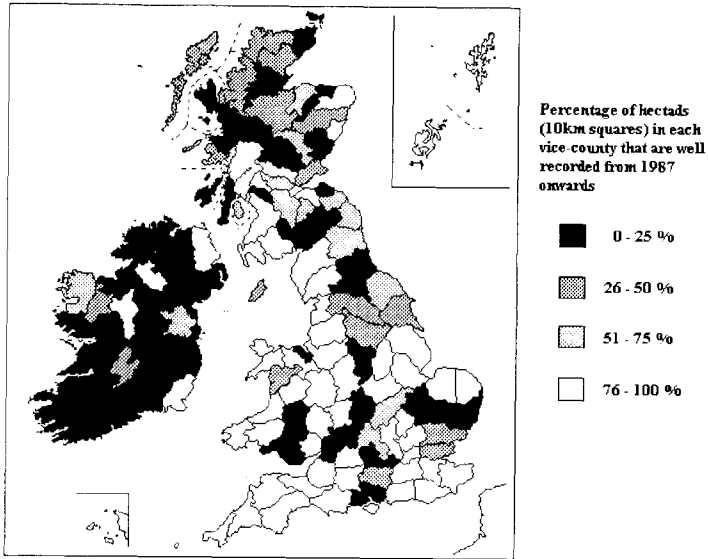
If you are thinking of coming on these or any other meeting, and I thoroughly recommend them to everyone, please book soon!

Aliens

As so many alien species are being mapped for the first time (about 1200), we are concentrating efforts on getting good records for them. If anyone is interested in extracting alien records from literature or herbaria sources, please get in touch with me. A list of the species in question is available on request, and some atlas funds may be available to cover expenses.

Alien Plant Status

In the Ballater field meeting account (*BSBI News* 74), I reported the finding of several aliens and this caused some speculation over their status. On a river bank, we found several *Primula florindae* (Tibetan Cowslip) and described them lackadaisically as being 'naturalised'. They were, in fact, recorded with an E (for *established*) to indicate they were increasing from seed (small, immature, plants were also present). More of a problem were a few species growing in a 'wild-flower field'. The field had been sown with a variety of species 5 years before, and then left untouched. Most had subsequently died out, but a few had made an appearance after part of the field was re-cultivated. These could either be recorded with a C (for *casual*) or with an E (for *established*). The difference would depend on whether they appeared every year (i.e., E) or only occasionally (i.e., C), and this could only be determined by continual observation over several years. Since they probably did not appear every year (there were none in the untouched part of the field) they should probably have been recorded with a C.



If anyone has problems with the status of aliens they find, record them with an A (for *alien*) but then give full details on the card. If you want a second opinion, please write with full details and an SAE to Dr P. Macpherson (15 Lubnaig Road, Newlands, Glasgow G43 2RY).

Recorders Conference

Repeating the biennial Conference that brings together recorders from all over the country, this will again take place in Lancaster – a booking form with full details is enclosed with this edition of *BSBI News*. The conference, which is aimed at ALL members interested in recording, will naturally concentrate on Atlas 2000 and has therefore been extended by half a day so we can cover all the ground (so to speak). Please book soon to ensure a place.

Status of Recording in Britain and Ireland

As we are at the start of a new season, I thought it would be helpful for members to have an insight into the state of recording in Britain and Ireland. This should help in understanding which areas require most effort in the next few years, and recording effort can then be directed accordingly. As with any mapping project, we would like the Atlas 2000 to cover all areas as evenly as possible. Measuring the level of recording is difficult, especially when looking at the national picture, and so the following should only be taken as a guide.

In order to assess the state of recording in Britain and Ireland, each Vice-county Recorder kindly supplied two figures. The first was the number of hectads (10 km squares) that cover their Vice-county. The second was the number of these that are well recorded in the most recent Atlas 2000 date class (i.e., 1987 onwards). This number was then calculated as a percentage of the total number of hectads in each Vice-county, and is shown in the map below. There are many factors that contribute to the overall pattern of recording in this map. A very important one is the estimate by the Vice-county Recorder of the number of hectads that are 'well recorded'. Many recorders noted that no hectad is ever 'well recorded' as species are constantly appearing and disappearing from a hectad. Given this, and other caveats, however, the map does give a good over all impression of the status of recording.

On the map, dark areas are under-recorded, while paler areas are better recorded. For England, Scotland and Wales, the black areas on the map represent those vice-counties with less than 26% of their hectads being well recorded from 1987 onwards. In Ireland, however, most black areas represent vice-counties for which an estimation of the amount of recording is too difficult to be reliable.

The map, and the implications of the pattern it shows, is largely self explanatory. In total, about 60 percent of the hectads in Britain and Ireland are currently well recorded. This means that, if we are to get good recording coverage for Atlas 2000, about 40% of the total area needs further recording. A glance at the map will immediately show where the areas of less comprehensive coverage are:

1. Central Southern England (Gloucs., Hampshire, Berks., Warks. and, to a lesser extent, Oxon. and Northants.)
2. South Wales (Glam., Brecs., Rads.)
3. East England (Essex, Suffolk, Cambs., Hunts.)
4. Pennines and North-east England (Derbs., Yorkshire, Co. Durham)
5. Most of Scotland!
6. Most of Ireland!

It may come as a surprise to find some of these Vice-counties on this list (e.g., Hants. and Berks.), while others could be predicted (e.g., most of Scotland). There are many reasons for particular areas not being well recorded, the most important ones being a lack of members to help (which applies to most under-recorded counties in Northern England, Scotland and Ireland), and the need for a complete Vice-county re-survey (most Southern under-recorded counties). In many remote areas of upland Scotland, the lack of Recorders is so acute that we will be accepting 1970+ records as the most recent possible date class. Whatever the cause of under recording, however, the remedy is the same, namely a targeting of these areas for intense field recording over the next few seasons. Most Atlas 2000 recording meetings are held in these areas, but these alone will simply not address the problem.

The most comprehensively recorded areas are:

1. South-west of England (Channel Islands through Cornwall, Devon, Somerset, Dorset and the Isle of Wight).
2. South-east of England (Sussex, Surrey, Kent, Herts., Middlesex, Bucks. and Beds.)
3. English-Welsh borders and parts of Wales (Mons., Herefs., Cheshire, Carm., Pems., Cards., Monts., Caerns., Anglesey and Denbs.)
4. Parts of the Midlands and Norfolk (Worcs., Salop, Staffs., Leics. & Rutland, Notts., Lincs., Norfolk)
5. North-west England (Westmoreland, Furness, Cumberland and W. Lancs.)
6. Parts of Scotland (Kircudbrights., Ayr., Renfrews., Main Argyll, Dunbarton, W. Perth, Midlothian, Kincardines. N. Aberdeen, Orkney and Shetland).
7. Parts of Ireland (Wexford, Roscommon, Fermanagh and Antrim)

However, although these areas are described as well recorded, almost all Vice-county Recorders still need help in extra recording and record compilation, for which offers of help will be gratefully received. A very few, such as Kent, are so well covered that members may consider offering their services in neighbouring vice-counties!

If you live in, or can travel to, one of the under-recorded areas, **please** help Atlas 2000 by getting in touch with the Vice-county Recorder and offering to help. If you've never been recording before, have a look at *Fieldwork for Atlas 2000. 4. A Beginners Guide to Recording*, and you may be stimulated to have a go. **All help is welcome!**

TREVOR DINES (Atlas Organiser) Rhyd y Fwch, Bethel, Nr Caernarfon, Gwynedd LL55 3PS. Tel: 01248 670789

CO-ORDINATOR'S CORNER

Introduction

Things are progressing well. Since Christmas, eleven more computers have been delivered to Vice-county Recorders in England (10) and Wales (1) which brings the total for grant-aided PCs to 17. So, taking into account both existing computerised Vice-county Recorders and records held on computer by computer link persons, this means that now, a staggering 92 vice-counties are computerised. Of course, many recorders are only just starting to enter their data or have only recently acquired machines, so we are still a long way from having all records transferred to BRC in digital form. But we're getting there. For more on computers, see Computer Bytes (page 35).

NBN Failure

Many of you will have heard that the National Biodiversity Network has failed in its bid for Millennium funding. This is not entirely bad (or good, depending on your viewpoint!) news since the 'Partners' intend to progress the plans anyway, perhaps seeking further funding from other sources. Again, I will keep you posted.

County Plants

In response to Graeme Kaye's suggestion that each county adopts a plant I have had one or two ideas. Perhaps a starting point for selecting candidates should be reference to the county or major town as part of the name of the plant. For example Lancashire may wish to adopt the Lancashire Whitebeam (*Sorbus lancestransis*), or the Manchester Poplar (*Populus nigra* var. *betulifolia* 'Manchuniensis' – a male clone planted in the industrial North West), or maybe even the Leyland Cypress (\times *Cupressocyparis leylandii*) after the town of Leyland in Central Lancashire (but perhaps that's stretching it a bit far!). And what about the existing Lancs. county flower – the Lancashire Rose, *Rosa gallica*? In the same vein, across the Pennines, there is of course the White Rose of Yorkshire, *Rosa* \times *alba* or even Yorkshire Fog, *Holcus lanatus*. Using this technique, (and just a touch of artistic licence!) there are quite a number of other plants fitting the bill, for, dare I say it, most parts of the British Isles.

For example, in no particular order . . .

Guernsey Broad-Leaved Centaury – <i>Exaculum pusillum</i>	Cambridge Milk Parsley – <i>Selinum carvifolia</i>
Oxford Ragwort – <i>Senecio squalidus</i>	Shetland Mouse-ear – <i>Cerastium arcticum</i> subsp. <i>edmonstonii</i>
Norfolk Skullcap – <i>Scutellaria hastifolia</i>	Dorset Heath – <i>Erica ciliaris</i>
Cornish Heath – <i>Erica vagans</i>	Isle of Man Cabbage – <i>Coincya monensis</i> subsp. <i>monensis</i>
Hampshire Purslane – <i>Ludwigia palustris</i>	Jersey Cudweed – <i>Gnaphalium luteo-album</i>
Arran Whitebeam – <i>Sorbus arranensis</i>	

then, perhaps a little more tenuously . . .

Tenby Daffodil – <i>Narcissus obvallaris</i>	Rannoch-rush – <i>Scheuchzeria palustris</i>
London rocket – <i>Sisymbrium irio</i>	London Plane – <i>Platanus</i> \times <i>hispanica</i>
Killarney Fern – <i>Trichomanes speciosum</i>	Bristol Whitebeam – <i>Sorbus bristolensis</i>
Lundy Cabbage – <i>Coincya monensis</i> subsp. <i>wrightii</i>	Plymouth Pear – <i>Pyrus cordata</i>
Duke of Argyll's Tea-plant – <i>Lycium barbarum</i> (sorry, couldn't resist!)	

and more generally for those who can't find one that quite fits the bill . . .

Welsh Poppy – <i>Meconopsis cambrica</i>	Irish Eyebright – <i>Euphrasia salisburgensis</i>
Midland Thorn – <i>Crataegus laevigata</i>	Scots Pine – <i>Pinus sylvestris</i> subsp. <i>scotica</i>

That's just a selection and I'm quite sure there are many more . . . aren't there? It's amazing what you think about on long train journeys.

CAMERON S. CROOK, BSBI Co-ordinator, Millstones, 8 Woodstock Close, Lostock Hall, Preston, Lancs. PR5 5YY. Tel. & fax: (01772) 316717; e-mail cameron_sc@compuserve.com

NOTES AND ARTICLES

MORE PLAQUES TO BOTANISTS

BAKERS ALLEY

Judy Dinwiddie of Highview, Thirsk, North Yorkshire, sends a note of the wall plaque commemorating John Gilbert Baker in Thirsk, together with a photo of its site in 'Baker's Alley'.

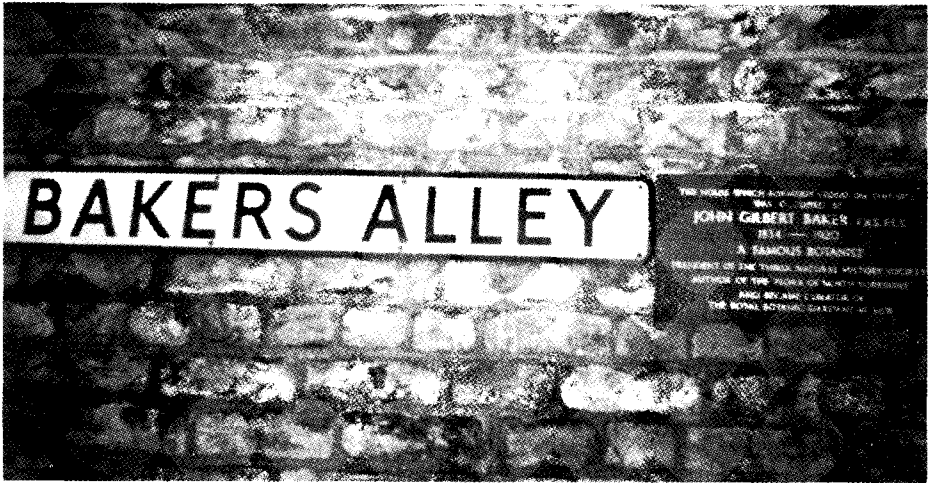


Photo by J. Dinwiddie. © 1996

The wording reads

THE HOUSE WHICH FORMALLY STOOD ON THIS SITE
WAS OCCUPIED BY

A FAMOUS BOTANIST
PRESIDENT OF THE THIRSK NATURAL HISTORY SOCIETY
AUTHOR OF THE 'FLORA OF NORTH YORKSHIRE'
AND BECAME CURATOR OF
THE ROYAL BOTANIC GARDENS AT KEW

N.B J.G. Baker's portrait, painted by J.W. Forster, was left to the BSBI by his son E.G. Baker. For many years it could be seen at the Linnean Society, but in 1982 BSBI Council decided that it would be appropriate to return the painting to Kew where it can be seen in the Old Central Library at the Herbarium. A note on this, and on J.G. Baker by Dr David E. Allen was published in *BSBI News* 32: 8-9, 1982.

Sending the note of the wall plaque, Judy tells us that she is the current Chairman of the Catherine Muriel Rob NHS, and that Kit Rob was a great friend and contemporary of her mother; when in her 'teens' Judy had many outings with this memorable Yorkshire botanist and BSBI member.

Lichenologist's Plaque

The British Lichen Society on a field excursion to Slovakia in 1993, paid homage to the great lichenologist A. Zahlbruckner when they visited his birth-place in the quaint town of Svätý Jur (Sankt Georgen) in N.E. Slovakia.

Dr O.W. Purvis, Hon. Sec. of the B.L.S. sends this picture of the excursion group, including the Director of the Institute of Botany, Bratislava, which he photographed by the Zahlbruckner wall plaque on that occasion. The BSBI members in the group are Amanda Waterfield and Peter James.



Photo by W. Purvis © 1993

Botanists Plaque Down Under

In Perth W.A. along St George's Terrace a series of paving stones commemorate famous names in the history of the Swan River Colony, from the pioneer settlers in 1829 to present Western Australia. We were pleased to find the botanists Georgiana Molloy and James Drummond included along the walkway.



Photos by M. Briggs © 1996

MEMORIAL TO JOHN RAY

On page 26 of *BSBI News* 74, Dorothy Lousley asked for details of the John Ray memorial in Essex which she recalled visiting with Ted.

The memorial is at the Church of St Peter and St Paul, Black Notley (Ray's birthplace), near Braintree. On 23 July 1985 about 25 members of The Ray Society and guests attended a memorial service at which a plaque inscribed 'John Ray 29th November 1627 – 17th January 1705 Naturalist' was affixed to the Ray monument. Texts of the Latin inscription on the monument, no longer legible, and an English translation, reproduced in fine calligraphy, and sealed in vapour-resistant frames, were hung in the main body of the church. After the dedication service a visit was made to Ray's cottage nearby.

KEITH H. HYATT, 1 Tremcelynog, Rhandirmwyn, Llandovery, Carmarthenshire SA20 0NU

J.K. Jackson also wrote that Ray's memorial was at Black Notley Church and added '... according to the Dictionary of National Biography there is a monument to him in the church, dated (in its final form) 1782. The monument is apparently not significant enough artistically to merit a mention in Pevsner's Buildings of England.

Frank Penfold also offered the following information: 'Braintree DC held a celebration of Ray in 1986, a booklet was produced by Stuart Baldwin, and a plaque has been placed on the monument by the Ray Society'.

WILLIAM BORRER FLS, FRS 1781-1862

On 6th November 1996, West Sussex County Council mounted a plaque at 'Potwell', Cagefoot Lane, Henfield, birthplace of William Borrer on 13th June 1781. Friend of many leading botanists of his day, he was the first recorder of many notable plants in Britain and many have been named in his honour. By some he is styled 'Father of Sussex Botany'; but students of lower plants claim him as 'Father of British Lichenology'.

His father built for him the mansion of Barrow Hill, Henfield, where his garden housed over 6,000 native and exotic plant species. He died in 1862 and his herbarium and many plants are now at Kew.

A large company of Sussex naturalists attended the ceremony and were addressed by Professor Mark Seaward

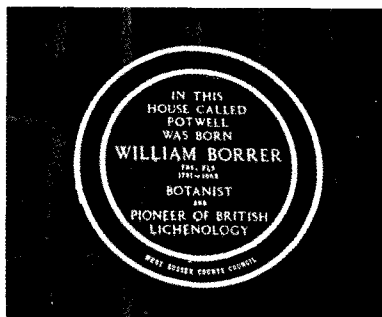


Photo of plaque, courtesy of West Sussex Record Office.

FRANK PENFOLD, Morels, Burpham, Arundel BN18 9RR.

PLAQUE TO ROYAL HORTICULTURAL SOCIETY

A plaque with the following inscription appears over Hatchard's, the booksellers in Piccadilly:

AT MESSRS. HATCHARD'S
IN A HOUSE ON THIS SITE
THE ROYAL HORTICULTURAL SOCIETY
WAS FOUNDED
ON THE 7TH MARCH 1804

JANE STUBBS, 181 Broadway, Peterborough PE1 4DS

SALTMARSH SPECIES AT INLAND COLLIERY SITES

Reading recently through 'Welsh Plant Records' in the *Welsh Bulletin*, I noticed a few records of typically saltmarsh species occurring on colliery sites in Monmouth (VC 35) and Glamorgan (VC 41). The records comprised *Juncus gerardii* found in a 'wet area over colliery waste' at Rock, ST/1.9 (T.G. & U.T. Evans, 1986), and also at Abercarn, ST/2.9 (*Welsh Bulletin* 49:16). Then, in Welsh Plant Records 1993 (*Welsh Bulletin* 58:14), G. Hutchinson and I.B. Hart recorded *Bolboschoenus maritimus* 'possibly introduced with salt used in separating coal from shale' at Tower Colliery and Washery, Hirwaun SN/945.058 (1991).

In 1993, I noted *B. maritimus* growing around settling lagoons at the former Cynheidre Colliery site near Llanelli, Carmarthen (VC 44), SN/491.088. Interestingly, I also recorded the large soldier fly *Stratiomys singularior*, a species normally associated with brackish coastal marshes.

The salinity of some colliery spoil is well-known. For instance, the Dept of the Environment's useful book *Restoration and Revegetation of Colliery Spoil Tips and Lagoons* (Richards, Moorhead and Laing Ltd., 1996: 64) states that 'freshly exposed colliery spoil may contain high concentrations of sodium, calcium and magnesium in the form of dissolved salts such as carbonates, sulphates and chlorides'. These salt concentrations will decline as they are eventually leached by rainfall. Perhaps this helps explain the occurrence of saltmarsh plants at inland sites?

IAN K. MORGAN, c/o Countryside Council for Wales, 56 Rhosmaen Street, Llandeilo, Carmarthen SA19 6HA

NOTES ON *VERONICA ANAGALLIS-AQUATICA* AGG.

Members of *Veronica anagallis-aquatica* agg. (*V. anagallis-aquatica* (Vaa), *V. catenata* (Vc) and their hybrid, *V. × lackschewitzii* (V×)) still continue to be confused and their hybrid apparently often goes unrecognised. This note seemed apposite since attention has been drawn to the hybrid in the BSBI *Fieldwork for Atlas 2000. Part I*, and excellent distribution maps and other information has just been published in C.D. Preston & J.M. Croft's *Aquatic Plants in Britain and Ireland* (Harley Books 1997, £25). It arises from experience with material sent to me for identification and collector's notes, for all of which I am most grateful, as well as my own observations and experiments.

First, on abundance. Despite Preston & Croft's view that there has been little change in either abundance or distribution of *Vaa* 'since it was first recognised in our area', *i.e.* as distinct *c.* 1912, my impression is that *Vaa*, much the most widespread and abundant of the three taxa, has declined appreciably in numbers in England over the last 20-30 years. I hope that data collected for Atlas 2000 will demonstrate whether or not this is the case. Historical data is very odd. One of the unexplained situations is that virtually every early British collector who published comments (Druce, 1911; Britton, 1928; Williams, 1929) remarked that *Vc* was probably the most abundant species! It is certainly the

case that *Vc* is less common as one proceeds northwards and that most of the early collectors were located in southern England but can that be the whole explanation? My own observations suggest that over the last three to four decades *Vc* does not seem to have declined so much as *Vaa* in England. Can it be these species show cyclical changes? A phenomenon that, in general, botanists have been slow to investigate.

Next, key characters. For certain identification it is best to examine a plant with both intact flowers and mature capsules.

Flower size and colour. The corollas of *Vaa* are usually more variable in size but larger than those of *Vc*, ranging from (6.7)5.0 - 5.5(4.7) mm in the former to (4.6)4.8 - 5.1(5.3) mm in the latter.

The corolla is usually suffused with colour and the veins are always coloured (even in rare white flowered plants of both species) and the colour(s) of both should be recorded. Indeed, the value of herbarium specimens would be greatly enhanced if a few corollas were separated and pressed and a careful and precise note added of their colour and venation. In *Vaa* the veins are stronger and extend almost to the outer rim of the corolla lobes, whereas in *Vc* they are much shorter and usually more delicate. Veins in the hybrid resemble those of *Vaa*. Unfortunately this useful character is not easy to see in herbarium material unless pressed corollas are included.

Vaa exhibits much the greater colour range, most frequently pale blue-, violet-blue-, violet-, or lilac-veined and the rest of the corolla may be suffused with the same, or one of these colours. Reddish-lilac veined, corollas suffused with pink do occur also and this is the typical appearance of *Vc*. I have never seen such corolla colouring in the hybrid which is most commonly a more intense pale blue than *Vaa* with darker veins. So, pinkish flowered plants without ripe capsules can pose a problem.

Flower density. There are usually clear differences between well grown plants of these species. The hybrid is characteristically exceedingly floriferous, (30)-60-(90) flowers per raceme, compared with about (10)-25-(30) in *Vaa* and even fewer and more widely spaced in *Vc*. The stalk of the inflorescence continues to extend as the fruits ripen but this is most marked in the hybrid. Of course in depauperate plants the numbers are reduced below these ranges but even depauperate *VxI* usually manages 20 flowers per raceme. The only species I have ever seen flowering when submerged, and that very rarely indeed, is *Vaa*, but it is reported that seed can be set in experimental conditions.

Capsule. The capsule of *Vaa* is borne on slender pedicels, usually subtended by slender, elliptical bracts, most usually much shorter than the pedicels (but rarely up to 1.3 cm in some cases!) and enclosed in lanceolate sepals. Capsules are of the order of 3-3.5 mm long and, in shape, more or less orbicular although most usually longer than broad: they can approach to elliptic but are **not** deeply notched at the apex and rarely exceed the sepals in length. The pedicels are most commonly subtended from the stalk of the inflorescence at about 45°. Capsules of *Vc* are borne on relatively robust pedicels (that may thicken after pollination) subtended by oblong-obtuse bracts. The capsule is enclosed within narrowly ovate, obtuse sepals which rarely exceed the obcordate to orbicular capsule which is most usually broader than long, about 3-4 mm broad and 3-3.5 mm long. However, it is always deeply notched at the apex in mature, undehiscent capsules (see Figure 2b in Burnett, 1950, *Watsonia* 1, p. 350).

The form of the pedicel, its subtending bract and the sepals in *VxI* are often variable but resemble most closely those of *Vaa*. Very rarely indeed, a small immature capsule may develop in the hybrid but I have never found seeds within. Nevertheless, some of the hybrids may be potentially pollen-fertile, at least. S.M. Walters (in C.A. Stace, editor, *Hybridisation and the Flora of the British Isles*, pp. 371-2), quoting an unpublished Cambridge PhD thesis by N.G. Marchant, describes a topodeme near Barrington, VC 29, where 'the fertility of pollen varied from 3% to more than 99%'. Nevertheless, in the field, the virtual absence of capsules is so striking that I suspect their appearance often inhibits collectors from examining the florets either for pollen fertility or immature capsules. More observations, please!

The habit of the capsules can be misleading. In 1912 Ernst Krösche, who monographed the continental forms of the species in great detail, described *V. anagallis-aquatica* subsp. *divaricata*: earlier this had been described as a full species. The name has been applied in Britain as a varietal epithet to

plants whose pedicels in fruit spread more widely and whose large capsules are subacute. It resembles somewhat *Vc* whose capsules come to be more or less horizontally spreading when mature, but can be distinguished from it in fruit by the slender pedicels, the lanceolate bracts and sepals and the absence of a deep notch at the apex of the capsule. The vegetative characters are also diagnostic (see below). The exact status of plants with these characters is uncertain. They become increasingly common eastwards in Europe as does the presence of glandular hairs on the inflorescence (a sporadically distributed character in British plants of both species) and merge into the still confused complex of Middle-eastern and near-Asian species.

Vegetative characters. These are usually well set out in floras but the most useful are the absence of basal petiolate leaves on *Vc* and the more marked, frequent, small serrations of the leaves of *Vaa*. In some plants of *Vaa*, possibly potentially in this species as a whole depending on environmental conditions, short basal, leafy shoots grow out more or less horizontal to the ground and may be persistent. This is a not uncommon habit in the genus as a whole but I am not wholly convinced of their ability to bring about overwintering in the aquatic Veronicas. More observations are needed please! In general, the hybrid resembles *Vaa* in vegetative characters although I think basal procumbent shoots are usually more common and vigorous.

Other characters such as habitat and life-cycles are less discriminatory but need to be studied more carefully.

Habitats. With most collections or records far too little habitat data are given. I have never been able to convince myself that the taxa grow in clearly distinct habitats although they occur in a range of ponds, streams, wet-muddy and muddy places, provided they are not acidic. Stace's *New Flora of the British Isles* states that *Vc* is 'mostly in open muddy places with little or no flowing water' and this may be so. Preston & Croft give a range for each species with suggested preferences. Once again, more observations are needed.

Life cycles. All three are predominantly annuals but *Vaa* and *VxI* can overwinter. The hybrid is particularly intriguing since the observations of several correspondents suggest that it can persist in the absence of either parent. If so, this can only be by perennation, or rare fertile seed. The former seems to me to be much the more likely but the latter possibility should not be disregarded. I understand that the statement in Stace's *Flora* that the hybrid is 'partially fertile' is based on Marchant's experimental work when fertile hybrids were raised from seven separate experimental crosses, six others failed. He also raised further generations in which the fertility increased. In fact, Gerhardt Schlenker had already completed an exhaustive thesis on experimental crossing of continental material within the whole section *Beccabunga* at Tübingen in the early 30s. Fortunately, his essential findings were published (in German) in *Flora* **130**: pp 305-350. This paper is invaluable for its very full series of measurements, illustrations and photographs of habit, leaves, racemes and capsules together with coloured illustrations of flowers, including those of the progeny of hybrids. Anyone seriously interested in any of these species and *V. beccabunga* should, at least, look at this important paper. Schlenker found that very few of his hybrids were even partially fertile and this is the commonest situation. Further generations were only produced with difficulty. I have made species crosses over many years the majority of which have produced hybrids but I have never been fortunate enough, so far, to produce a fertile hybrid! However, the Tübingen and Cambridge work, the latter alas unpublished, should alert collectors to the possibility of finding such plants in the field. Any observations bearing on this possibility, or even better, either specimens or seed collected from such fertile plants are most desirable. Please keep a lookout. The most favourable situations might well be in those areas where the hybrid has apparently persisted in the absence of either parent - N. Hampshire is one but I am sure there are others.

Finally, I am always happy to assist in identification and would greatly value any further elucidation of the uncertain issues raised in this note.

JOHN BURNETT, 13 Field House Drive, Oxford OX2 7NT

CHLOROTIC *EPIPACTIS HELLEBORINE* IN VC 12 N. HANTS SOME EARLY RECORDS

I read with interest the reports of chlorotic *Epipactis helleborine* in recent issues of *BSBI News*. I had noticed, and photographed, such plants on several occasions, notably in Fleet in 1978 and 1983 and in Church Crookham in 1985. The plants produced very attractive white and pink flowers; none reappeared in following years. A few years earlier than 1978 I saw a similar but variegated plant in Berkshire with leaves half green and half white. I am sure that this chlorotic effect is not caused by herbicide damage but is a 'natural' effect.

TONY MUNDELL, 38 Conifer Close, Church Crookham, Fleet, Hampshire GU13 0LS

DATING HERBARIUM SPECIMENS IN THE EARLY 1800s

I have recently encountered some mysteriously annotated herbarium specimens in which a letter has apparently been substituted for the numeral which usually indicated the day of the month, but the meaning of the letters is not obvious. What do m. July 1807, or f. June 1808, or i. May 1805 mean? Only f, i and m seem to be employed. Philip Oswald has suggested that perhaps these are intended to indicate *initium*, *medium* and *finis*, in other words, *beginning*, *middle* and *end* of the month. Has anyone encountered such a dating system elsewhere and what did they conclude about the letters? I have not seen this method before although during my work I must have examined tens of thousands of specimens.

E. CHARLES NELSON, Tippitiwitchet Cottage, Hall Road, Outwell, Wisbech PE14 8PE.

THE NATURAL HISTORY MUSEUM'S BRITISH HERBARIUM

In view of Arthur Chater's remarks about national herbaria (*BSBI News* 74: 32), it might be opportune to provide an introduction to the Natural History Museum's collection of British and Irish Flowering Plants, commonly known as the 'British Herbarium'.

The Herbarium contains an estimated 60,000 specimens, including over 1,000 types, the earliest collections dating back to the 1700s (earlier collections of British plants can be found in the Museum's Sloane Herbarium).

All parts of the British Isles are covered, although for most groups the emphasis is inevitably concentrated on Southeast England. However, some other areas, such as the Isle of Mull and the Outer Hebrides are also well represented.

The Herbarium is very strong on critical groups, such as *Hieracium*, *Rosa* and *Rubus*, and rarities, common plants, such as *Urtica dioica* tend to be under-represented.

In recent years comparatively little material has been added to the collections, the most noteworthy recent accession being Rose Murphy's herbarium, which she donated in 1994. Other recent accessions include collections of *Rubus* and *Hieracium*, donated respectively by David Allen and David McCosh.

The Museum welcomes the donation of well prepared and fully labelled material from any part of the British Isles.

Although the Museum does not have any member of staff who specialises in the British flora, its collections are frequently consulted and annotated by monographers and other specialists. For example, the *Rosa* collection has recently been annotated by Gordon Graham and Tony Primavesi. Whenever experts visit the Museum every effort is made to ensure that they are made aware of, and encouraged to annotate, British material. Similarly British material is readily made available to workers who request loans.

At present families and genera are arranged according to Kent's *List* (1992), while in most genera species are still arranged according to Dandy's 1958 *Checklist*. It is hoped that eventually species will also be arranged according to Kent, but progress is slow and depends largely on the work of volunteers.

The Herbarium is open from 8.30 a.m. until c. 5.00 p.m., Mondays to Fridays, and Saturday openings can often be arranged if approximately three weeks notice is given. Ideally appointments should be made in writing to the address below, from which further information can also be obtained.

ROY VICKERY, Curator of Flowering Plants, The Natural History Museum, London, SW7 SBD.
Fax: 0171 938 9260; e-mail: arv@nhm.uk.ac.

CATAPODIUM MARINUM ON INLAND ROADSIDES

Further to David Pearman's note in *BSBI News* 74, I can add a few recent sightings of roadside *Catapodium marinum* (Sea Fern-grass), all of them made while searching for *Cochlearia danica* (Danish Scurvygrass).

In VC 11 it is with *C. danica* on the central reservation of the A338 (40/1.9), where I believe it has been known since about 1987. This is fairly close to David's record on the A35, and suggests it might be worth doing a more thorough search of dual-carriageways in the Poole-Bournemouth area. In VC 3 I recorded it in 1992 – with *C. danica* and *Spergularia marina* (Lesser Sea-spurrey) – alongside the A380 near Kingsteington (20/8.7), and the following year it turned up on the central reservation of the A38 between Haldon Hill and its junction with the A30 (20/9.8) – again with *C. danica* and *S. marina*, as well as with *Puccinellia distans* (Reflexed Saltmarsh-grass) and a single clump of *Armeria maritima* (Thrift). In 1996 I found a few plants of it adjoining the M5, by a slip road to the Exeter Service Station (20/9.9).

For high-speed hunters of *Cochlearia danica*, searching for *Catapodium marinum* can come as a bit of a shock – let's face it, even a stationary botanist on all-fours could easily fail to spot it! Which means that its inland distribution on roadsides is likely to be badly under-estimated – unless of course there's someone out there fearless enough to rise (or should I say *stoop*?) to the challenge. . .

SIMON LEACH, 15 Trinity Street, Taunton, Somerset, TA1 3JG

DIALECT PLANT NAMES

The following continues from *BSBI News* 74 a list of recently collected names, but before commencing on the main list I cannot resist mentioning an interesting name which was passed on to me in February 1997:

'Talking to a man from Norfolk, I told him that common persicaria (redshank, *Persicaria maculosa*) also had the name Calvary plant (which I'd read in a book). He told me that in East Anglia they'd known it as devil's arse-wipe.'

In folklore the reddish brown blotches on the leaves of redshank are usually explained by Christ's blood having dropped on them (hence the name Calvary plant) or by them having been pinched by the Virgin Mary or an unidentified murderess. The East Anglian name appears to suggest an alternative explanation.

Ellumblow – *Sambucus nigra*, elder, flowers. 'The queen of all Forest [of Dean] remedies was 'ellumblow tea' (it rhymes with 'bough')' [Cinderford, Gloucestershire, November 1993].

- Favourite – *Fumaria officinalis*, common fumitory. Southwest Devon, c. 1920. [Plymouth, January 1993].
- February fair maids – *Galanthus nivalis*, snowdrop. South Somerset, c. 1930. [Taunton, Somerset, April 1994].
- Five fingers – *Primula elatior*, oxlip. Suffolk, c. 1930. [East Tuddenham, Norfolk, May 1994].
- French willow – *Chamerion angustifolium*, rosebay willowherb. [Lerwick, Shetland, March 1994].
- Ginger – *Sedum acre*, biting stonecrop. [Chichester, West Sussex, June 1993].
- Goodie two-shoes – *Lotus corniculatus*, common bird's-foot-trefoil. [Truro, Cornwall, December 1993].
- Gowans – *Taraxacum officinale*, dandelion. From grandparents born in the 1850s; also heard in Scotland. [Cinderford, Gloucestershire, November 1993].
- Gowst – *Ulex europaeus*, gorse. [Cinderford, Gloucestershire, November 1993].
- Granfer griggles – i) *Briza media*, quaking grass. [Pimperne, Dorset, January 1992].
– ii) *Orchis mascula*, early-purple orchid. Yetminster, Dorset, 1940s. [South London Botanical Institute, January 1996; also Pimperne, Dorset, January 1992].
- Grannies mutch – *Aconitum napellus*, monk's-hood. [Lerwick, Shetland, March 1943].

Thanks to Mrs M.K. Adams, J.W. Antell, Alec Bull, Rhoda Bulter, Bob Gilbert, Jessie Kurak, Elsie Olivey, Irene Palmer, W. Gerald Tremewan and Stella Wilson.

As usual, any comments or further contributions would be much appreciated.

ROY VICKERY, 9 Terrapin Court, Terrapin Road, London, SW17 90W.

APRIL 9th 1954 – A DAY TO REMEMBER

Seeing that the Notes from the Hon. General Secretary in *BSBI News* 74 which record members with over 50 years association with the Society (a distinction I am fast approaching myself), was on the page opposite to the enthusiastic report on Atlas 2000, I suddenly realised that a large proportion of our current membership know little about the initiation of the original Maps Scheme and certainly do not realise what a significant event this was. Sadly, none of the original prime movers on the original Maps Committee of 1950 are still with us (although several members of the subsequently reformed and enlarged committee are happily still active), but the impressions of an ordinary, and then very junior member, may be of some interest.

The Project was launched at the 1954 Conference on *Species Studies in the British Flora*, with lectures by Prof. Roy Clapham and Dr Max Walters, associated with a demonstration of the electro-mechanical equipment by Powers-Samas that was used for the data handling. It is perhaps impossible to convey the excitement generated by the event for young botanists like my wife and myself. Although the equipment today looks positively dinosaurian, the vista of possibilities which its use presented is truly memorable even now, when my young grandchildren take the presence in their homes of considerable computing power, as no more than should be expected of a properly equipped household. As recent students, we had much admired Hulten's splendid Atlas of Scandinavian plants, which for all its excellent qualities and elegant presentation, was based on traditional, manual plotting, and records accumulated from literature, herbaria and fieldwork, but without blanket coverage organised in a comprehensive manner. Younger members may like to try to imagine a world in which distributional information was reliant on the Comital Flora for quick reference purposes and compare that with a glance at Atlas pages.

Examination of the page opening of the recent membership list on which our name appears, reveals only two other members (and none on the pages either side), who could have been present at the launch. This gives some indication of the way in which the Society has changed even more than the

flora which we study. Those now intensely involved in Atlas 2000 may not realise just how much the Society was quite literally a world leader in the application of new technology to an old scientific problem, and the organisation of field recording involving many individuals, with the largely successful aim of even, systematic recording coverage for the whole country. The Society's old 'logo', (though we didn't know the term then), was the highly inappropriate *Victoria regia*, which was accompanied by the motto *Floreat Flora*. It is gratifying that as we approach the Millennium, the latter at least is still appropriate for our current activities and general vitality. In due course when we celebrate the publication of Atlas 2000, we should not forget the outstanding foundation stone on which it will be built.

References

- Druce, G.C. (1932). *The Comital Flora of the British Isles*, Buncl, Arbroath.
Hulten, E. (1950). *Atlas över Kärlväxterna i Norden*, Stockholm.

JOHN CANNON, Barn Croft, Rodmell, Lewes, East Sussex BN7 3HF

MADDER AND TURKEY RED

I was interested to read in *BSBI News 74* the account of the discovery of a plant of *Rubia tinctorum* (Madder) in South Lincs. by Irene Weston. Should any readers with craft interests be tempted to try to reproduce the famous 'Turkey Red', I would beg them to think again. The import of cotton textiles dyed a bright shade of red, which was almost fadeless, caused a sensation in Europe in the early 1700s. Industrial espionage allowed the secret of its manufacture to be brought to France from Turkey in 1747. The whole dyeing process took a month, and involved about twenty separate steps, using along with madder roots, large amounts of bullocks' and sheeps' blood, fish or whale oil (the more rancid the better!), charcoal, cow, sheep and dog dung, and the liquid contents of animals' stomachs. In Turkey the dyeing, not surprisingly, was confined to villages where the only occupants were the dyers and their families. Mercifully, by the time the method reached the British Isles at the end of the 18th century, the process was somewhat sanitised and some of the more unsavoury additions replaced by less noxious substances.

Madder was used to dye reds and browns on cottons from very early times and references to its use in the Indus Civilisation date from around 3000BC. The stems and smaller roots were used for browns and the largest and most succulent roots gave reds of various shades, depending on the various accessory chemicals used in the process. Its cultivation in the British Isles was not extensive, as dyers preferred that grown in Turkey and the Eastern Mediterranean, or from the marshes of the Vaucluse in France. In the middle of the 19th C, at the Fontaine de Vaucluse, near Avignon, which many members of the BSBI must have visited, fifty watermills were occupied day and night over eight months of the year, crushing the dried roots into powder, producing 33 million kilograms of madder powder per year (Cardon 1990), from where it was even exported back to Turkey. The industry collapsed soon after the introduction of synthetic madder – *Alizarin*, synthesised in 1868 and on the market in 1869.

Madder root is still used today by craft dyers, mostly imported via The Netherlands, or grown in their gardens. My plants are now eight years old but have never flowered, perhaps because they are in a dry, shady situation with a restricted root run. It would be interesting to hear of members whose madder plants do flower.

References

- Cannon, J.F.M. & M.J. (1994). *Dye Plants and Dyeing*. Herbert Press, London.
Cardon, D. (1990). *Guide des Teintures Naturelles*. Delachaux & Niestlé, Neuchatel & Paris.
Ponting, K.G. (1980). *A Dictionary of Dyes and Dyeing*. Bell & Hyman, London.

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BOTANISTS AND BOTANY IN LITERATURE – 5

There is a little-known Ulster novel that is entirely devoted to botany, a gentle romance, very moral in tone. To be sure the botanical theme is not phanerogamous but cryptogamous, but I do not think that rules it out as a contribution to this occasional series. What's more, the novel was written by an amateur botanist, and has a botanical title – the ultimate piece of botanical literature, perhaps?

Ulota by the Revd William Rutledge Megaw, B.A., M.R.I.A. (1885-1953) is a rare little volume, published in 1934 by The Quota Press, Belfast. It is most infrequently seen in antiquarian booksellers' catalogues; I think the only time I have noticed a copy listed during the past 15 years or so was the occasion when, for £5, I acquired my own copy.

Megaw was a minister in the Presbyterian Church, and after his retirement in 1950 he went to live at Portstewart, County Derry, on the north coast of Ulster where his 'most intensive' botanical work was done. He used to botanise for mosses and flowering plants at almost any opportunity. Apart from a year's study at Princeton University in New Jersey and a visit during 1927 to his sister who lived in South Africa, Megaw did not travel outside Ireland and Britain. He was a keen gardener, a 'true Ulsterman', and author of several books – a volume of addresses given to children in church, *Caragloon* (a collection of Ulster stories which I have not seen), and *Ulota*.

Ulota was described in Megaw's obituary (*Irish naturalists' journal* 11 (1954): 181-183), as 'a kind of propaganda for his hobby of moss-hunting'. I've read it several times, because, like some other books, it simply intrigues me. It opens with this disclaimer:

ULOTA. The names of the men and women, whose words weave this story, are purely fictitious.

The cottage and Slievetaara exist only in the imagination of the writer. The cult, however, is as real as *Ulota* and its kindred; and so fact and fiction are intertwined.

It is a brief novel, 202 small pages printed in large type, yet *Ulota* is crammed with botanical gems, and the key to these is the second edition of *Flora of the north-east of Ireland* published in 1938 also by The Quota Press; R.L.I. Praeger prepared the material on flowering plants, vascular cryptogams and charophytes, while the section on mosses and liverworts was compiled by Megaw.

I will quote a couple of examples. Describing a botanical excursion on a windy January day near the coast, the narrator recounted:

'When we got beyond the marram grass, where Dame Nature spreads a closer carpet of fescue and moss, we sat down on the edge of an old trench to get our breath and . . . to let the lady call in her wanton locks. The trench was deep and dry, and Mary suggested that we search its sheltered sides; so we walked along in it, following its twists and turns. When we had gone some distance, Mary, who was leading, called back to me: "Guess, Ver, what I've found? You'll not believe until you see it!" And between her finger and thumb she held before my eyes a single stem of *Bryum roseum*, in fruit.'

On p. 386 of the *Flora of the north-east*. . . is the corresponding record: 'Fruiting in a trench north of the Newcastle golf-links, January, 1927; Megaw.' In the novel, Megaw explained that 'never before in Ireland, nor since, that we are aware of, has roseum been found fruiting.' I cannot say whether his wife also botanised with him and really discovered the fruits on *Bryum roseum*.

There is also a story about 'our which moss',

' . . . a very rare *Bryum* which we found in a swamp by the shore. It is one or other of two, so far unknown in this country. Only by its fruits can it be known definitely; so we are growing it, hoping that by autumn it will be in fruit – meanwhile, "which" is its name!'

Again the *Flora of the north-east*. . . provides a clue. *Bryum calophyllum* was found by Megaw at Magilligan, County Derry, in 'swampy ground near the sea', and was noted as being very rare, this was its only Irish station. Curiously the record is dated 1936, two years after *Ulota* was published!

There are frequent mentions of tin boxes (vascula!) and herbarium specimens –

'Some folk. . . take photographs of interesting places they visit, I usually bring back, instead, a moss. So I have in my herbarium a tuft from Robbie Burn's cottage, a spray from the stones of Melrose Abbey and a sprig from Thomas Moore's tree at the Meeting of the Waters. . . . Pictures

of the top of Helvellyn or Errigal or Snowden or Ben Lawers, or the Katberg might look bleak; I have "a little bit off the top" of each of them in my cabinet at the cottage!

I have no doubt that a search of Megaw's herbarium in the Ulster Museum, Belfast, would produce the scalps of those mountains; he did collect on them!

"Dad is a veritable old scalp-hunter," Aileen broke in; "he has scalped the heads of I don't know how many mountains and actually glories in the fact!"

"Why not say," interposed Mary, "that he possess a lock from each beautiful head?" "Yes," said Oliver [the bryologist!], "life is largely a matter of our point of view; the facts are the same, but the way in which we regard them makes all the difference."

Being a 'true Ulsterman', Megaw '... loved "good crack" and as a raconteur had a fund of humorous stories of the countryside ...'. (For the benefit of those unfamiliar with the Irish vernacular, crack is the chat and consequently the entertainment of convivial company.) *Ulota* is certainly not a humorous novel; it's a love story, in several senses. True to form the hero falls in love with the bryologist's daughter and you just know that they will live happily ever after! It is also a tale with thinly disguised localities, a bit jumbled up but recognisable. I believe that Slievetaara is partly Benevenagh in County Derry, and the surrounding fictional region is a mixture of Magilligan and Newcastle with some of Portstewart added for good measure. So, although the author was a Presbyterian minister, and says that all the places and characters are fictitious, I have no doubt there is a lot of reality and autobiography in this wee novel. No, I'm not accusing him of telling fibs, only of being a story-teller.

'When asked if [*Ulota*] had made any converts to botany, Megaw would answer rather dryly "Very few, I fear".' (*Irish nat. j.* **11** (1954): 183). I'm not surprised, but it is an exceptional (unique?) example of botany-in-fiction as propaganda for botanical studies.

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BOTANISTS AND BOTANY IN LITERATURE – 6

At our W.I. Jumble Sale I picked up *A Song of Sixpence* by A.J. Cronin for 10p. In it, when young Lawrence Carroll's father dies, he and his mother move into a Miss Greville's house. This good lady feeds him hearty lunches and broadens his education!

'I am going to take you in hand.' Miss Greville regarded me calmly. 'Do you know anything of botany?'

'No, I don't,' I answered sulkily.

'Then tomorrow, as it is Sunday, you shall begin to learn. Be ready at nine sharp. ...'

Next morning, ... Miss Greville presented a somewhat singular figure ... over her shoulder was rakishly slung a curious black japanned container.

'That,' she explained, reading my expression, 'is a vasculum' ...

'You know, I'm sure, the commonerheath flowers. The ericas not yet out, the yellow gorse, the broom and the cotton grass – these white tufts blowing in the wind.' She paused. 'But have you seen this?'

'No, I haven't,' I said sourly.

Kneeling down she had parted the grass and exposed a delicate little plant with pointed green leaves and starry, bright golden-yellow flowers.

'The bog asphodel *Nartheicum ossifragum*. One of the *Liliaceae*.'

Quite against my wishes and inclination, I was impressed, not only by her manifest erudition, but by the sudden uncovering of this hidden, sparkling and wholly unsuspected flower.

'Shall we dig it up?'

‘Decidedly not. But we’ll take one raceme for pressing.’ And she snipped off a single stem which, rather to my surprise since I had decided not to co-operate, I accepted and tucked away in the vasculum.

We proceeded for some minutes without incident, then she stopped again.

‘Here is something rather striking. The round-leafed sun-dew, *Drosera rotundifolia*.’

As I gazed questioningly at the graceful little rosette, she went on.

‘Each leaf, as you see, bears several rows of crimson hairs, terminating in rounded heads, like a sea-anemone’s tentacles. Indeed they serve a similar purpose. They secrete a clear sticky fluid which entraps small insects crawling over the leaf. Their efforts to free themselves irritate the hairs which bend over the insect so that it is secured, digested and assimilated by the plant.’

‘I say!’ I exclaimed, in a tone of wonder. ‘A fly-eating plant!’ ‘Precisely. We shall dig this one up – I have no love for the sun-dews – plant it in peat moss and you may observe it in action at home.’

‘May I really, Miss Greville?’

‘Why not?’

She allowed me to wield the trowel taken from the vasculum and, when the plant was safely stowed, made a gesture of liberation.

‘Now that you’re launched, Carroll, you may go off on your own. Call me if you find anything that looks exciting.’

I started off, with a willingness I would not have believed possible, eager to demonstrate my tracker’s skill. To my chagrin, although Miss Greville seemed to be having success, my untrained eyes found nothing. But at last, suddenly, I stumbled on a splendid bloom, starting up from amongst the withered grass, big as a hyacinth and of a deep glowing purple.

‘Quick, Miss Greville,’ I shouted. ‘Please come quickly.’

She came.

‘Do look, Miss Greville. Isn’t it a beauty?’

She made a generous gesture of assent.

‘The *Orchis maculata*. Tubers palmate, bracts green, three-nerved. A first-rate specimen. I congratulate you, Carroll. If only we can find its neighbour, the *morio*, we may count ourselves fortunate.’

I blushed with pride, watching as she carefully snipped two flowers from the spiky stem and, with some other specimens she had collected, permitted me to stow them away. . .

‘May I tell you something, Miss Greville? I ventured, taking up the last egg-and-cress sandwich. ‘I think I am going to like doing botany very much.’

Imperturbably, she inclined her head.

‘Then we shall do some more presently. We still have to find an *Orchis morio* to match your *maculata*.’

After we had rested for a while we started off again, not deeper into the moor, but across, towards the road. Charged with botanical ardour, I surpassed myself. We found the *morio* orchid, and specimens of bog myrtle, yellow pimpernel and St John’s wort, for all of which Miss Greville knew the Latin names. . .

After that we were soon home. With effusive thanks I parted from Miss Greville and dashed upstairs with the vasculum.

‘I’ve had such a time, Mother. I found a rare orchid. We got a plant that actually eats flies, and all sorts of other specimens. Miss Greville’s going to show me how to mount them and cut sections too, for her microscope.’

COUNTY FLOWERS

Surely there is one serious objection to Mr Kaye's ideas of each county adopting a local flower (see *BSBI News* 74: 33 & page 11 of this issue). Do we want county authorities to focus public attention on what in many cases would be very rare plants, which at the same time have attractive flowers? This would be certain to lead to increased pressure on their sites.

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HERTFORDSHIRE COUNTY FLOWER

Graeme Kaye's piece about *County Flowers* in *BSBI News* 74: 33, lists *Gentianella anglica* for Herts.! I'm not sure why he chose this one – as there is no confirmed record for it in VC 20. I would prefer to claim *Pulsatilla vulgaris* before anyone else does. Therfield Heath must have about the best colony in the UK now.

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IDENTIFICATION QUALIFICATIONS – IdQ's

Widespread and growing concern for the quality of our environment has led to a rapid expansion of legislation and associated procedures for assessing the status of habitats, and for measuring impacts and changes. One consequence of this is a heavy demand for practical field investigations and reports.

A universal feature of biological monitoring, biological impact assessments and nature conservation studies is a requirement for identifying animal and plant species. From these identifications, information on abundance, distribution, richness, change and many other aspects is then acquired. Fundamental to the entire process is accurate identification and the consistent use of the right names for the fauna and flora. The significance of subsequent analyses and interpretation is heavily dependent on this stage of the process, yet it is so often taken for granted and the identification skills required are much underrated. Without confidence in the original data, any final recommendations must be open to doubt – a concern increasingly expressed by environmentalists.

To address this problem, the Natural History Museum introduced the Identification Qualification (IdQ) scheme in 1993 with the aim of improving standards in environmental work in the UK by awarding certificates of competence in animal and plant identification to biologists and ecologists. The IdQ's external Advisory Board has a membership drawn by nomination from industry, consultancies, universities and non-governmental organisations, and now includes Mary Briggs to represent the BSBI. This is the first scheme of its kind to deal specifically with identification, and has been widely praised.

Qualification is by examination within a particular subject area, and the Natural History Museum is the awarding body. IdQ's are available in a wide range of subjects, including vascular plants, freshwater algae, aquatic macrophytes, seaweeds, lichens and mosses. They are normally held at the NHM in London and consist of an exam lasting c. 3 hours. The exam tests a knowledge of nomenclature and terminology of characters as well as the ability to identify and key out a wide range of species from the relevant plant group(s).

The vascular plant IdQ, for example, consists of a section to test the participant's understanding of nomenclature followed by fresh samples of 50 species of vascular plants to be identified, usually to species level. Ten selected 'spot' samples must be identified without the aid of field guides or identification keys. The species are chosen to reflect a range of families and habitats, including woodland,

ruderal, chalk grassland, marsh, coastal and heathland, and are collected by a group of collectors from around the UK, many of whom are BSBI members, to provide a spread of geographic location.

In addition to the full IdQ certificate for candidates who achieve the 90% pass mark for the examination, the NHM also recognises an Intermediate Standard for candidates who do not reach the pass mark but who attain at least 70% – intended to encourage the progressive acquisition of identification skills.

The fees range from £200-250 for each exam. For further information please contact the Science Marketing Office, The Natural History Museum, Cromwell Rd, London, SW7 5BD, Tel: 0171 938 9261, Fax: 0171 938 9189, or e-mail: botany-enquires@nhm.ac.uk.

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NNR STATUS FOR SUTTON PARK, WARWICKSHIRE

Everyone who knows Sutton Park will be interested – and, I am sure, delighted – at the news that its status has recently been upgraded to that of a National Nature Reserve. This is a most welcome development in view of the fact that Sutton Park is one of the largest public areas with exceptional natural interest in an urban setting in Europe. Members who participated in BSBI field meetings in September, 1989 (*BSBI News* 53) and June, 1991 (*BSBI News* 60) will already appreciate the park's varied range of habitats and their flora, which is being frequently updated by new discoveries.

In this connection I would like members to know that a second edition of Part 1 (The Vascular Plants) of a series of booklets on the natural history of Sutton Park, edited by Dr Peter Coxhead and myself is in an advanced state of preparation. This edition contains numerous additions and amendments. Most importantly the records are now based on D.H. Kent's *List of the Vascular Plants of the British Isles* and on Stace's *New Flora*. I hope to give other necessary details regarding availability, price (? £3), etc., at a later date.

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AN ABERRANT FORM OF FLY ORCHID IN SURREY

I was surprised to see R.H. Roberts note on 'A New Variety of Fly Orchid in Anglesey' in *BSBI News* 74: 24 as I have also found a similar aberration in Surrey in 1991. I also recollect seeing this oddity on a previous occasion but my memory is a little fogged and the precise details of where or when seen are now irretrievable. The plant is quite attractive with the broad mid-lobe of the labellum a rich chestnut brown bordered with a band of lemon yellow and a speculum of steel blue. It has the appearance of being a little larger than the usual form.

The site of the orchid is a Surrey C.C. Open Space called the Sheep Leas, this is an area of woodland with open glades mainly on chalk but with a few patches of clay with flints. There was a very rich ground flora which has sadly suffered since the great storm of 1987. It is also a very popular spot for picnickers and dog walkers so one has to be rather careful when searching out the rarer species so as not to draw unnecessary attention to the exact location of the plants.

The Surrey aberration was found in the scrubby margins of a patch of open calcareous grassland where I have often found pure *Ophrys insectifera*. The associated species were; *Ophrys apifera* (Bee Orchid), *Listera ovata* (Twayblade), *Dactylorhiza fuchsii* (Common Spotted-orchid), *Anacamptis pyramidata* (Pyramidal Orchid), *Gymnadenia conopsea* (Fragrant Orchid) and the bigeneric hybrid *Gymnadenia conopsea* × *Dactylorhiza fuchsii*. R.H. Roberts regards the Anglesey plants to be different

to those in Surrey and that they are possibly conspecific with *Ophrys aymoninii*, an orchid of southern France. It is my considered opinion that these plants are clearly not of hybrid origin, whether or not they warrant species, subspecies or just variety status I don't know, I suppose it depends on whether you are a splitter or a lumpner.



Flower of aberrant form of *Ophrys insectifera* in Surrey. Del. A. G. Hoare © 1997

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HOW MANY ENDEMIC?

Receiving a query from Bob Edgar on the number of endemic plants in the Canary Islands, I was unable to instantly find the answer to this, other than counting from the plant descriptions in *Wild Flowers of the Canary Islands*, David & Zoë I. Bramwell, 1974 (before the significance of the number of endemics was fully appreciated?). However Bob Press in the Dept. of Botany, The Natural History Museum, was able to direct me to the *Centres of Plant Diversity*, A guide and strategy for their conservation (1994, IUCN, WWF, ed. V.H. Heywood, S.D. Davis & A.C. Hamilton) in the Botany Library. Volume 1 of the three large volumes covers Europe, Africa, South West Asia and The Middle East, and in this the datasheet for the Canaries written by David Bramwell gave the answer:

'c. 1200 indigenous vascular species of which 500 are Canary Island endemics, and a further 200 are Macronesian endemics.'

Similar information is given for other countries, islands and areas, together with a summary description of the vegetation and assessment of importance for conservation. Volume 2 covers Asia, Australasia and the Pacific; volume 3 The Americas.

Meanwhile, Rob Cooke found in the NCC Library at Peterborough, *Global Biodiversity*, Status of the Earth's living Resources. A report compiled by the World Conservation Monitoring Centre, 1992, Ed. Brian Groombridge. Chapman & Hall.

In this, Table 14.1 in the Island species section gives the number of endemic plants (with date of information) for Oceanic Islands in declining order of endemic species. Topped by Cuba with 3233(!), the eighth is Canary Islands, given as 693 (including the Macronesian endemics). There is further information on page 148 – 'Plants on Oceanic Islands'.

Beryl and Ron Clough, recently returned from a Canary Islands holiday, tell me that similar figures for Canaries endemics are in *Flowers of the Canaries* by Bruno Foggi, 1997. This booklet published locally describes a selection of both cultivated and wild plants found on the Islands, with general notes on the vegetation, including a total of plants there endemic to the Canaries or Macronesia. In *Flores*

Silvestres de las Islas Canarias by David & Zoë I. Bramwell, 1990 (in Spanish), I have not found a figure for total endemics, but this updated local Flora is well produced with good colour photos, and recommended for those planning a visit to the Canaries.

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GOULD'S SPANDRELS

In *BSBI News* 74, as a follow-up to teasel water traps, members were encouraged to read *The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptionist Programme*. May I strongly suggest that anyone who has done so, now turns to *Darwin's Dangerous Idea* as an antidote?

References

Gould, S. & Lewontin, R. (1979). The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptionist Programme. *Proceedings of the Royal Society Series B*, **205**: 581-598.
Dennet, D.C. (1995). *Darwin's Dangerous Idea*. Penguin.

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DIPSACUS FULLONUM – AN ENTOMOLOGIST'S VIEW

I have been most encouraged to see the recent attention which has been paid to *Dipsacus fullonum* (Fuller's Teasel) in the pages of *BSBI News*, in terms of phytotelmata and patterns of flowering. I have recently carried out a study of insects associated with *D. fullonum* flowerheads, and soon hope to complete a Biological Flora of the British Isles description of the plant for the *Journal of Ecology*. Consequently, I would be most interested to learn of any experiences which BSBI members may have had with this striking (and apparently understudied) plant. Sadly, I am not confident that I can add a great deal to the particular areas of interest expressed by your previous correspondents.

With regard to the unusual pattern of flowering, with a band of florets around the 'equator' of the flowerhead maturing first, followed by two rings of open flowers which develop towards the base and apex of the inflorescence over subsequent days, [C.J. Perraton, *BSBI News* 74: 41], it is reported that this is characteristic of the genus (I.K. Ferguson (1965) *J. Arnold Arboretum* **46**: 218-231), but little further information appears to be available.

I am unaware of any definite work on the functionality of teasel phytotelmata, although some interest has been shown to the insects which exploit this aquatic microhabitat (e.g., C.O. Masters (1967) *Carolina Tips* 30: 21-22; R.H.L. Disney & W.W. Wirth (1982) *Entomologist's Monthly Magazine* **118**: 233-234). The water which gathers in these hollows has also been regarded, in tradition, as having curative properties when used to bathe skin or eye complaints – a rather unappealing prospect, given the detritus which invariably accompanies the water.

I look forward to seeing further attention paid to these subjects in the months to come.

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A DEADLY NIGHTSHADE WITH YELLOW FLOWERS

Individual plants with atypically coloured flowers are known for many species, and the Solanaceae has a reputation for producing them with unusual frequency. Although it is rarely encountered in cultivation in Britain, there is an interesting colour form of Dwale or Deadly Nightshade (*Atropa belladonna*) that is variously designated as either a cultivar 'Lutea' or var. *lutea* on the rare occasions when it is

mentioned in literature. It has apparently not been recorded from Britain in the wild, as Druce, a great collector of rarities, did not include it in his *British Plant List* (1928), nor is it mentioned in any of the major European Floras. Yet the existence of such variants is commented on, in passing, in the *Biological Flora* (Butcher, 1947), who wrote, 'No British varieties have been described and the most marked forms are due to varying quantities of anthocyanin and to the density of the hairs, so that green-stemmed or purple-stemmed, nearly yellow or deep purple flowered, or densely and slightly hairy forms may be found. The shape of leaf, calyx and corolla also vary. Many of these forms are being studied by R. Melville and W.O. James.' Ronald Melville did work on many pharmaceutical plants during the 1939-1945 war, but is not known to have published on *Atropa*. The distinctive yellow-flowered, green-stemmed plant known today was first described by J.C. Döll (1808-1885) in *Flora des Grossherzogthums Baden* 3: 770 (1859). His description is very concise 'flowers and berry yellow'. He also mentions that his attention was drawn to the plant by Dr E. Schuty of Wurttemberg. It seems likely that it has been preserved in cultivation in Germany since that time, and that plants in Britain are mainly derived from material distributed by the Zentralinstitut für Genetik und Kulturpflanzenforschung at Gatersleben in the former DDR. A detailed study of *Atropa* by A. Pascher (1881-1945) was published posthumously in *Flora* 148: 84-109 (1960). In this study many European variants of *A. belladonna* are described as species, but these have not been taken up, probably because they are invalid according to the ICBN. As with so many cases, only a thorough generic revision is likely to resolve some of the many questions surrounding the group.

One intriguing question is as to the significance of these rare colour forms. It is all too easy to dismiss them as mutations. However, studies on rare colour forms of other species, for example *Podophyllum peltatum* in North America, have suggested that they may be relicts of past introgression from other species which may no longer exist as such. It is known that *A. belladonna* will hybridise spontaneously with the yellow-flowered *A. baetica*, producing a yellow-flowered progeny (Font Quer, 1932). Along with the considerable morphological variation encountered by Pascher, this may suggest a case similar to *P. peltatum*, worthy of investigation.

Atropa belladonna var. *lutea* Döll produces copious seed (which is light brown, as opposed to steel grey) and increases well by stolons. It is very easy to grow and may well escape from cultivation since birds eat the toxic berries with impunity and the voided seeds have frequently produced plants at the base of trees and in shrubberies on the campus of Nottingham University.

I would be glad to hear of any records or information concerning this or any other variety of *A. belladonna* either in cultivation or as an escape that may be known to members. I also take this opportunity to thank D.H. Kent for tracing the reference to Döll's original publication of this variety and his other helpful comments.

References

- Butcher, R.W. (1947). *ATROPA* in Biological Flora of the British Isles, *J. Ecol.* 34: 345-353.
 Font Quer, P. (1932). Una nova *Atropa hybrida*: × *Atropa martiana* Font Quer. *Cavanillesia* 5: 155-156, t 4.

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COCHLEARIA DANICA BY THE ROADSIDE

Given the extensive discussion of *Cochlearia danica* on roadside verges in recent editions of *BSBI News*, the following piece I placed on the Internet last July may be of some interest.

One of the outcomes of the development of the National Curriculum was the introduction of investigative science activities throughout the science entitlement, in both the primary and secondary school phases. Since its introduction investigative work has been the subject of much hard work as teachers came to grips with the demands of a more student centred aspect of their work. My observations on the arrival and spread of *C. danica* along the A45 have intrigued me for a few years and naturally led me to consider how I might investigate the explanations of what I was observing.

The following account is on the science pages of the Schools OnLine project that began in September 1995. Address <http://www.shu.ac.uk/schools/sci/sol/contents.htm>.

Investigations in the Environment Thoughts from a traffic jam

This is a suggestion for an investigation following a series of observations that intrigued the observer. As with many such situations the range of questions that can be asked is wide – as is the range of possibilities that are worth investigating. The investigation itself presents a safety problem because it is associated with a main road. This can be overcome and although the observations are of one specific road they are likely to be duplicated elsewhere.

Observation 1. The edge of the A45 between Coventry and Birmingham has patches of bare earth on the edges of the soft shoulder and the central reservation adjacent to the road surface.

Possible contributory factors causing the bare patches.

- Abrasion from cars running close to the edge of the road.
- Constant wind effect from passing vehicles.
- Toxic oils etc. from passing vehicle engines and tyres.
- Salt from gritting operations in the winter.

Observations 2. Over a period of five years a small white/pink flowered plant has been seen to colonise the bare patches and extend its range over that period. The plant also grows amongst the grasses and other plants that are at the edge of the bare patches, but not to any great extent. The plant does not colonise the whole of the bare patches. It is often missing from areas immediately adjacent to those adjoining the road surface. The plant is Danish Scurvygrass – *Cochlearia danica*. In the *Flora of the British Isles* this plant is described as – ‘locally common on sandy and rocky shores and on walls and banks near the sea, also on railway ballast inland. All around the British Isles.’

Questions

- Why do the grasses not colonise the bare patches?
- Why should *C. danica* colonise the bare patches almost exclusively?
- Why does *C. danica* not extend its range significantly into the grassed areas when it is being so successful at the edges of these patches?
- By what mechanism has the plant extended its range so effectively?

Could it be that under the normal conditions of the locality, *C. danica* is unable to compete with grasses and other plants which are taller, or whose root development is more vigorous, or whose vegetative growth is more rapid – but when the soil is modified the balance is upset?

Hypothesis

That there is a concentration gradient of sodium chloride from the edge of the road extending into the soft shoulder/central reservation. That *C. danica* is tolerant of sodium chloride to a greater extent than the local grasses – but not at high concentrations. This means that it can compete effectively with grasses that normally swamp it over a limited range.

Problem for discussion

How can the hypothesis be investigated?

I believe that the range of possible approaches is wide and that within this range there will be possibilities for work at key stages 3, 4 and 5 in the National Curriculum.

MALCOLM OAKES, Kenmore Lodge, 251 Boldmere Road, Sutton Coldfield, W. Midlands B73 5LL

PAIRS

In an old, and now rather gappy, hedge on the south side of a deepening ditch, there is a curious tree. When we first came upon it, it had been cut so that it was once effectively coppiced but is now growing as a multi-stemmed medium-sized standard ash. When we stopped to look at it we were surprised to

notice that it had green buds as well as black! The buds looked familiar, but certainly not ash. The limbs of the tree seemed to interlace, and as we followed the green-budded branches back to their source we could see that they all arose from one side of the trunk. Looking further under the tree we could see old wild service-tree leaves. A little more investigation showed that the apparent tree was in fact two – an Ash (*Fraxinus excelsior*) from beneath which the Wild Service-tree (*Sorbus torminalis*) emerged.

It is hard to decide which of the two came first. The ash is the bigger, but then it is probably faster growing. Anyway both have been cut about in the course of hedging. It may be that the ash grew over a service-tree root, which had lost its foliage in hedge cutting, and the root then recovered and grew up from under the ash. Perhaps a service-tree fruit or pip dropped by a bird got lodged in a hollow under the ash, and from its protected place was able to grow into a tree. We have been looking at the trees over two seasons now, and both seem healthy. We presume that despite their appearance the systems of the trees remain separate. Of course, it would only be possible to demonstrate that there had been no grafting effect by felling the trees, and this is unlikely in our lifetimes! As the trees are of different families, we think that true anatomical or physiological union is improbable, but we should like to know if anyone else has had experience of this.

We have seen other pairs of different species growing closely, where one trunk has been arched over by another, or a smaller tree has grown so near the base of the trunk of another that the trunks flatten against one another. But this is the only pair which we have seen which actually appears to have two kinds of leaves and a single origin!

Further along the same hedge the once coppiced, and now decrepit, Small-leaved Limes (*Tilia cordata*) have colonies of *Polypodium interjectum* (Intermediate Polypody) in the hollows of the stool. Two of these died in the drought of last summer, but three other crowns continue to grow. The hedge is on a parish boundary.

U. A. BROUGHTON, 'Farthings', Layer Breton, Colchester, Essex CO2 0PP

B. E. WRIGHT, 33 Estuary Court, Hunts Farm Close, Tollesbury, Maldon, Essex CM9 8QZ

BOTANISTS AND THE FARMING COMMUNITY

The mystery letter from which the extract was taken (*BSBI News* 74: 31) came from a letter written by John Pitchford to Dawson Turner and was penned on 15 July 1797, *two centuries* ago. Pitchford lived in Norwich, and is noted as the discoverer of *Holosteum umbellatum*. There are specimens in **LIV**. The letter is in the Turner collection in the library of Trinity College, Cambridge.

Only two people responded to my quiz, Mrs E. Hesselgreaves, and Chris Preston! Both were out by many decades, so I have decided to give a copy of *Shamrock* to both of them, as it was clearly a draw.

E. CHARLES NELSON, Tippitiwichtet Cottage, Hall Road, Outwell, Wisbech PE14 8PE.

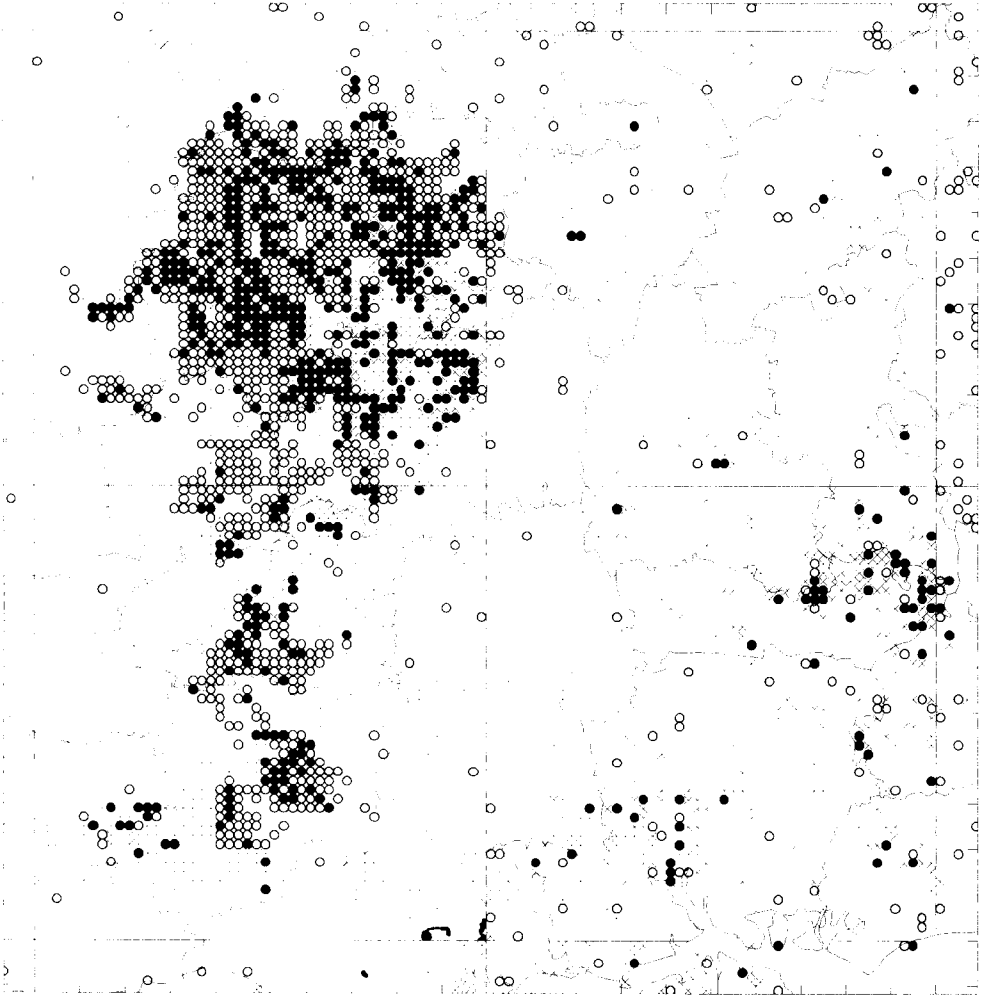
MISTLETOE SURVEY

SPRING 1997 UPDATE

Since I write this surrounded by piles of still unprocessed mistletoe data my first comment has to be to stress that survey results are *still being processed*. This means that anything you've read elsewhere describing the results is only provisional. It also means it is not too late to send in those tetrad cards – I am sure there are several members who have still not got around to sending their results in!

I am aware there is a lot of interest in the results and must apologise for the continuing delay in finalising data. However it is proving rather time-consuming and it is increasingly obvious that analysis is not going to be straightforward! The production of some provisional maps, despite the delay in full

processing, has led to an assumption by many correspondents, and most of the media, that results are available and finalised. This is not the case – much of the data sent in to me has still to be processed and the data sent into Plantlife, though now entered on computer, has still to be checked and validated. There has been a lot of pressure to draw early conclusions, particularly in the run-up to Christmas. I hope that the following notes demonstrate some of the problems in interpreting the data so far and the risks involved in reaching premature conclusions.



The data appear to be beginning to show some interesting trends – both in terms of distribution and host preference. Whilst these trends have similarities with the old 1970 data (only recently entered on computer at BRC) there are some intriguing differences. Whether these are real changes or simply differences in recording effort is debatable. The map compares data for all hosts from the 1970 survey with new data (Plantlife and BSBI) entered so far from the new survey. Solid dots indicate confirmations, open dots ‘losses’ and crosses ‘gains’. For clarity the map shows central southern England only. There are relatively few records outside this area and many of these are re-confirmations of old sightings (e.g. Edinburgh and Dublin Botanic Gardens). All results are plotted by tetrad using DMAP.

The first and inescapable conclusion from the map is that there are a lot of *new* sites, some blocked together (e.g. the parts of the Thames valley and north-west Gloucestershire) but with most isolated and scattered across central and southern England. Equally striking is the number of ‘lost’ sites, again blocked together (e.g. much of Herefordshire and Worcestershire) but again also scattered across central and southern England. Many of these ‘lost’ sites may of course be re-confirmed once all the data have been entered on computer. I fully expect this for much of Hereford and Worcester. It is also possible that a few of the new sites will disappear once data have been fully checked and validated. This has already happened for some of the more questionable sites – apparently exciting new records for Pembrokeshire and Skye turned out to null returns accidentally included as positives on the DMAP plot!

There are all sorts of possible explanations for the (provisional!) new results – my own view (at present) is that we are seeing anomalies largely due to differences in recording effort. The ‘gains’ of new isolated records could easily be explained as garden or otherwise isolated trees that were simply missed in the earlier survey. After all there seems to have been a much greater effort by the general public this time around and many hitherto ‘private’ sites may have been recorded. Complementary but opposite arguments could be used to explain some of the ‘losses’ – preliminary analysis of the 1970 data suggests a dedicated 10 km square survey methodology that may be simply less common today. I would be interested in members’ views on these comments, though, as above, would warn against any premature judgements!

Another interesting aspect of the comparison so far is the host data – again there are consistencies and inconsistencies. The principle host lists are similar with Cultivated Apple, Hybrid Lime, Willow, Hawthorn, False Acacia, etc., high on the favourite list. However there are anomalies and as with distribution data these are possibly attributable to differences in recording. An obvious example is Crab Apple – the old data suggests this is an unusual host but the new data gives it a higher than expected listing. Does this represent less accurate recording (as might be expected in a public participation project)? Or does it genuinely indicate that there is more on Crab, possibly particularly on ornamental varieties in a garden situation? This, and other anomalies, have led to suggestions that it might be worthwhile to separate new ‘Plantlife’ data from new ‘BSBI’ data as there may be differences in the recorders’ winter tree identification abilities. However intriguing this angle might be in comparing ‘public’ surveys with more ‘professional’ ones, the reality is that such a comparison might be difficult, not least because I have had as many general public records as BSBI member records and so the data is inevitably mixed.

I hope these brief comments go some way to satisfy those curious about the results so far. Data entry will continue over the next few weeks and I hope to produce a more definitive map fairly soon. Once that is produced we can start proper analysis and comparison. This is likely to be complex, not least in terms of the number of maps produced since plots for different host species will be a key tool in interpretation. A formal write-up will eventually be submitted to *Watsonia* but a more popular account is obviously needed for the general public as well as BSBI and Plantlife members. In the short-term this is likely to take the form of some information sheets presenting the maps. Such sheets could be used by others keen on interpreting the results – I already know of some Universities suggesting (perhaps prematurely?) the mistletoe survey as a subject for final year dissertations. For the longer term several people have suggested some sort of popular booklet presenting the results, perhaps available for Christmas. This is something as yet undiscussed in any detail and the information sheets are my immediate aim. I have given up giving precise delivery dates on this project but hope these sheets will be available soon. In the meantime, please send in any remaining data as soon as possible and thank you for your continued patience.

CONSERVATION NEWS

LIPARIS LOESELII – PLEASE KEEP AWAY

English Nature as part of its fen orchid Species Recovery Programme together with Norfolk Wildlife Trust are again requesting photographers not to visit the last sites for Fen Orchid (*Liparis loeselii*) in Norfolk during the summer. In 1996 photographers took heed and only a few problems were encountered.

The warden of Kenfig NNR in Glamorgan, Wales, Dave Carrington (tel. 01656 743386) would be very happy to help photographers who wish to photograph the South Wales populations of fen orchids as an alternative. Please contact Peter and find out the latest situation.

It is hoped that as the population of fen orchids in Norfolk increases we can develop facilities that enable photographers to visit Norfolk sites. Many thanks for your co-operation.

REG LAND, Conservation Manager, Norfolk Wildlife Trust, 72 Cathedral Close, Norwich, Norfolk.
NRI 4DF.

LIPARIS LOESELII – PLEASE COME AND VISIT

While it is unfortunate that Mr and Mrs Dell and their daughter (*BSBI News* 74: 35) were disappointed in their attempts to see the Fen Orchid (*Liparis loeselii*) at Kenfig, I feel sure that their experience was not typical.

Kenfig is unusual in being a National Nature Reserve managed by a local authority, the new Bridgend County Borough Council. The Reserve is run by a small but dedicated team of staff and volunteers who spend much of their time assisting the large numbers of visitors who are attracted to the dunes. Kenfig Pool is a traditional destination for local people on summer weekends. Access is permitted throughout the site.

Orchid walks will be held at Kenfig on the following dates in 1997:

Sundays at 10.00 am: 8, 22 June and 6, 20 July (duration 2 hrs)

Tuesdays at 7.00 pm: 17 June and 1, 15 July (duration 1 hr 15 mins)

Anyone wishing to see the Fen Orchid this year is recommended to join one of these walks in late June or early July. To establish the best date to see it in bloom, or to make other arrangements, telephone the Reserve Centre (tel. 01656 743386). The Project Officer, David Carrington, will arrange for visitors to be shown the orchid if possible, but it must be recognised that other demands on staff time may sometimes make this difficult.

GILL BARTER and JULIAN WOODMAN (BSBI Recorder, VC 4I (East)), c/o Countryside Council for Wales, South Area, 4 Castleton Court, Fortran Road, St Mellons, Cardiff, CF3 0LT

CLEAR WATER 2000 – MILLENNIUM MILLION

The Millennium Commission has awarded £1.15m to the Broads Authority in support of its innovative Clear Water 2000 project to restore Barton Broad in North Norfolk.

The key aims of the project include:

- The restoration of water quality and depth by dredging Barton Broad to create a broad rich in plant and animal life, with benefits for both conservation and navigation.
- The restoration of plant life in significant areas of the broad, using the pioneering technique of biomanipulation
- The restoration of the landscape of the broad, including the reed edge and Pleasure Island, the only island in the broad.

Further information is available from:

LUCY WILLIAMS, Press Officer, Broads Authority, 18 Colegate, Norwich, Norfolk NR3 1BQ
Tel: 01603 610734, fax: 01603 765710

If anyone knows what the pioneering technique of biomanipulation is, I would be pleased to hear from them – it sounds painful! Ed.

CYPRIPEDIUM CONSERVATION REPORT 1996

The native plant of *Cypridium calceolus* continues to flower well due largely to careful habitat management and wardening. The seedling which first flowered in 1993 has continued to produce a flower each year since.

The success of seed germination at Kew has led to the planting out of seedlings at several sites and regular monitoring will be carried out leading to a report on the success or otherwise of this venture.

A site for public viewing has now been agreed with the land owners and it is expected that there will be more information about this in a press release later this year. It is not expected that there will be any flowers at this site for at least two years.

The Committee once again wish to thank members for not attempting to visit the native site and are pleased to report that the number of would-be visitors continues to fall.

MARGARET LINDOP, E . N . *Cypridium* Committee.

COMPUTER BYTES

BioBase

Last issue I promised more information on BioBase, the latest addition to the BSBI Approved Software list, so here it is.

BioBase is a simple to use yet powerful computer package for plant recording. It has a Windows interface to the underlying MS Access database and has been developed to meet the requirements of the BSBI Data Transfer Standard. Facilities include:

- Examination, browsing, editing and new entry of Record Cards
- Examination, editing and new entry of Sites, People and Literature/Herbarium Sources
- Reports (on screen and printed) of, Records for Species, Records for a Site, Species list for a Site, Species list for a 10km square
- Distribution Mapping using DMAP for Windows
- Import/Export to other BioBase systems and RECORDER
- Export to BRC

Records used for reports and distribution mapping may be limited by date range and can be marked as confidential to be excluded from reports, maps and exports.

Data entry is largely by mouse action with minimal use of the keyboard. Species can be entered by selection from a checklist on scientific name or by BRC Code. Checks are made on the validity of numeric, data and grid reference formats. Dates can be entered as a full date, as month and year, or just a year, as a year range, before a year and after a year. Grid references may be entered in alpha-numeric (SU987654) or numeric (41/987654) form with precision between 10 km and 10 m. Tetrad (DINTY) form is also accepted.

Records may be related to a defined site or to a location which is unrelated to a site. If repeated visits to the same location are made, it is recommended that a site be defined, after which Record card entry is greatly simplified and association with other records for the site is made possible.

BioBase is supplied with full installation and user documentation and a tutorial working with a test database which can be used to gain familiarity without impacting on the live database. BioBase is developed by Thurner Automation and is available to Vice-county Recorders or Computer Link persons for the subsidised rate of £58.75 (inc. VAT) from the Co-ordinator. Further information and orders other than above, should contact: Mike Thurner, Thurner Automation, Littleton Farmhouse, Littleton, Guildford, Surrey GU3 1HW. Tel. 01483 304949.

BSBI Computers – Links/Advisors

You may have read in Co-ordinator's Corner that there are now over 92 Vice-counties which have or plan to have their records computerised. A number of these records will be held by what I call computer link persons who are usually (but not always) botanists, but are always computer enthusiasts. They work in close collaboration with the Vice-county Recorder and manage the data on their behalf. A classic example of how this works is in Sussex where records for the two Vice-counties are systematically computerised on behalf of the Vice-county Recorders. This is co-ordinated by Dr Alan Knapp along with a team of data in-putters and organised through the Sussex Botanical Records Centre.

As more and more Vice-county Recorders become computerised, there is an increasing need for technical support and assistance. At the moment, technical support falls mainly to me but as I am often away from the phone and cannot visit everyone who may need help, the logical thing to do is to set up a computer help network within BSBI. This has been done on an informal basis for some while now and many Recorders are linked with someone who can help with data entry or provide technical advice where needed. To all those who are links I would like to offer a big formal thank you!

However, more help would be very much appreciated. What is needed are people who can answer queries by phone, sometimes just routine computing problems which are easy to solve if you've got past the rudimentary stages of computing. But also, more specific advice relating to Recorder, Aditsite, BioBase or DMAP. If you are proficient in any one of these, would you be prepared for your name to be given to one or more Vice-county Recorders who may then contact you when required? Ultimately, my intention is to have a register of BSBI computer advisors and links. If you are interested please let me know. You may qualify for subsidised software!

Recorder

Existing Recorder users will now have heard that Recorder is under redevelopment and the systems analysis has more or less reached its culmination. No decisions have been made yet but it is almost certain that Recorder will become a Windows package. Options for how it will develop include a slight modification of the existing set-up using a Windows interface such as OpenInsight, using a proprietary database package platform such as Paradox or Access, or most radically, totally re-writing from scratch in a programming language such as Delphi or C++. There are numerous pros and cons and pitfalls associated with each of these options as well as cost implications. One much favoured option is to produce modular versions of Recorder which would be designed to suit the differing users. For example, there would be a botanical version which would only have the facilities required by botanical users. A master version would be used by central data points such as LRCs. Anyone with strong views who hasn't already been consulted is encouraged to contact me or express their views directly to Stuart Ball

at JNCC, Monkstone House, City Road, Peterborough, PE1 1JY or Charles Copp, 8 the Paddock, Clevedon, North Somerset BS21 6JU.

As far as the existing Recorder is concerned, we are stuck with it as it is for at least another eighteen months. For Atlas purposes, one of the easiest ways to enter data from field cards is to use the Species Pop-up Cards. These can be modified by the user and I am compiling a set of Atlas 2000 species pop-up cards for this purpose. Anyone who would like to obtain one or more of these can get one free by sending me a first class stamp and address label (however, please expect a slight delay in my sending out these Atlas 2000 Species Pop-up Cards since the Recorder species Dictionary is currently being updated to include the BRC Atlas spp. list). As I don't wish to re-invent the wheel, I would quite like to here from anyone who has already produced such a thing for their area (including those based on older BRC cards which could be modified) with a view to sharing it with other members.

Botanical URLs

And finally, for those of you fortunate enough to have access to the World Wide Web (the Internet) here are a number of botanical URLs (Unique Resource Locators – or Web Site addresses to you and me!). Hours of endless fun.

<http://www.algy.com/herb/index.html>
gopher://freenet.victoria.bc.ca/11/environment/Botany/ben
<http://net.bio.net/>
<http://www.ou.edu/cas/botany-micro/ben/>
<http://www.helsinki.fi/kmus/botfor.html>
<http://www.bbnc.org.uk/tv/watchout/>
<http://www.isc.tamu.edu/FLORA/tfphone1.html>
<http://www.u-net.com/trees/home.htm>
<http://www.dmap.co.uk/>
<http://www.webdirectory.com/>
<http://www.wane-leon.scri.fsu.edu/80/~mikems/>
<http://www.prairienet.org/ag/garden/homepage.htm>
<http://www.herb.com/herbal.htm>
<http://www.teleport.com/~howieb/howie.html>
<http://herb.biol.uregina.ca/liu/bio/idb.shtml>
<http://mgd.orst.edu/hyperSQL/lichenland/index.html>
<http://www.alice.net/rarebooks/>
<http://chih.r166.com/hrbmoore/HOMEPAGE/>
<http://www.compulink.co.uk/~museumgh/>
<http://www.nhbs.co.uk/nhbsmain.html>
<http://ifs.plants.ox.ac.uk/>
<http://www.met.unimelb.edu.au/Porcher/PlantNames.html>
<http://sunsite.unc.edu/herbmed/database.html>
<http://trident.ftc.nrcs.usda.gov/plants/staselec.html>
<http://www.sp2000.org/>
<http://www.linnean.org.uk/>
<http://phylogeny.arizona.edu/tree/phylogeny.html>
<http://www.algy.com/herb/index.html>
http://botany.biology.uleth.ca/botany_4500/HomePage_4500.html
http://www.pathfinder.com/@/@.lnB*pAAAAAAGEHh/vg/Gardens/NYBG/index.html
http://www.inform.umd.edu/8080/EdRes/Colleges/LFSC/life_sciences/plant_biology/PBIO/pbio.html
<http://pathfinder.com/@/@.Esa1JQAbGbOZK2Q/vg/Welcome/welcome.html>
<http://aquat1.ifas.ufl.edu/>
<http://www.ou.edu/cas/botany-micro/ben/>
<http://rbge-sun1.rbge.org.uk/bss/>
<http://www.botanical.com/>
<http://www.leland.stanford.edu/~corelli/botany.html>
<http://www.uwm.edu/Dept/Biology/Docs/botany.html>
<http://www.helsinki.fi/kmus/botmenu.html>
<http://www.bib.wau.nl/dlo/>
<http://www.dur.ac.uk/~deb0www/dubg/bghomep.html>
<http://www.algy.com/herb/index.htm>
<http://www.uni-tuebingen.de/uni/bbm/index.html>
<http://rampages.onramp.net:80/~garylipe/>
<http://www.hcrweb.com/>
<http://iopi.csu.edu.au/iopi/>
<http://www.tau.ac.il/~ibs/>
<http://www.euronet.nl/users/mbleeker/>
<http://www.rfhsm.ac.uk:81/golly/naturpag.html>
<http://cissus.mobot.org/mobot/research/>
<http://www.compulink.co.uk/~museumgh/mghidx.htm>
<http://ifs.plants.ox.ac.uk/>
<http://trident.ftc.nrcs.usda.gov/plants/staselec.html>
<http://aspp.org>
<http://www.wild-flowers.com/>
<http://www.produceoasis.com/>
<http://www.prairienet.org/ag/garden/>
<http://griffin.rbgekew.org.uk/>
<http://www.heronpublishing.com/tphome.html>
<http://bssv01.lancs.ac.uk/vegsci/home.html>

Oh, by the way, in case you were wondering where I get the time to do all this 'Surfing', most of these were sent to me by Roger Whitehead (who does this sort of thing for a living). Nice work if you can get it!!!

CAMERON S. CROOK, BSBI Co-ordinator, Millstones, 8 Woodstock Close, Lostock Hall, Preston, Lancs. PR5 5YY. Tel. & fax: (01772) 316717; e-mail cameron_sc@compuserve.com

ALIENS

ALIEN RECORDS

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*. Arrangement is alphabetical; an * following the Latin name indicates a taxon new to Clement & Foster or Ryves, Clement & Foster. 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* are eligible for inclusion but other more widespread aliens listed in that work may be included at the discretion of the VC 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).

My thanks to John Palmer for supplying the following records.

Thymus vulgaris (Garden Thyme). Grassy glade in Darenth Wood, TQ/5.6, W. Kent (VC 16), 11/8/73, J.R. Palmer. Still flourishing 29/5/96, increased to about 15 plants after 23 years.

Aeonium cuneatum (Wedge-leaved Aeonium). Chalk pit, Swanscombe, TQ/6.7, W. Kent (VC 16), 8/7/90, J.R. Palmer (with *Legousia hybrida*).

Trachelium caeruleum (Throatwort). Growing in cracks of stone steps, Belgravia, TQ/28.79, Middx. (VC 21), 30/11/96, J.R. Palmer, det. E.J. Clement. No other vegetation near.

*Polygonum affine**. D. Don (Dense-flowered Wall Knotgrass). On walls in a number of places in E. Cornwall (VC 2), July '96, J.R. Palmer, det. E.J. Clement. Not terribly well Established, at present.

Cupressocyparis leylandii (Leyland's Cypress). A 15 cm seedling on footway, Eynsford, TQ/54.65, W. Kent (VC 16), 16/8/96, J.R. Palmer.

Primula pulverulenta (Powdered Primrose). Well established in damp copses, Pencarrow, E. Cornwall (VC 2), 8/7/96, J.R. Palmer, conf. E.J. Clement.

Sequoia sempervirens (Coastal Redwood). A seedling about 30 cm high on top of wall, Lanhydroan estate, E. Cornwall (VC 2), 7/7/96, J.R. Palmer, det. E.J. Clement.

Dianthus caryophyllus × *D. gratianopolitanus** (a hybrid Pink). Roadside bank between Horton Kirby and Farningham, TQ/5.6, W. Kent (VC 16), 12/6/95, J.R. Palmer, det. E.J. Clement who states that it is fertile in Britain. Known here for some years.

*Satureja spicigera** (Spiked Savory). Pavement weed at Longfield, TQ/6.6, W. Kent (VC 16), 24/10/96, J.R. Palmer, 'v. close to this species', E.J. Clement.

*Verbena canadensis**. Sandy waste ground near Swanley, TQ/5.6, W. Kent (VC 16), 15/6/95, J.R. Palmer, 'v. close to this species', E.J. Clement.

*Oxalis emeaphylla** (Nine-leaflet Oxalis). Weed in copse among roots of small trees, (where all the other ground vegetation is native) on the Trewithen estate, E. Cornwall (VC 2), 6/7/96, J.R. Palmer, conf. E.J. Clement. Leaflets numerous, in two series, very glaucous, sharply emarginate, (almost bifid), with rounded lobes. Flowers pink (= var. *rosea*).

EDITOR

ALIENS NOT AGGRESSIVE?

Herewith a rather belated response to the short article Aliens are not Aggressive in *BSBI News* 73, September 1996.

You have to be careful in defining your terms, for what is meant by aggressive – do plants have to be large and obvious? Or is any plant capable of spreading in native habitats to be termed aggressive?

There are areas of southwest Scotland, for example, where the dominant ground flora in woods is *Montia sibirica* (Pink Purslane); and *Epilobium brunnescens* (New Zealand Willowherb) is common in suitable habitats even in remote areas. Presumably they have displaced some native species, even if it is only the occasional moss or alga. Does this matter?

You can always tell where the 'big house' is on a Highland estate – go to the centre of spread of *Rhododendron ponticum*!, and it is still running rampant (so much so that I sometimes wonder whether it is even worth trying to control it). *Fallopia japonica* (Japanese Knotweed), alien *Impatiens* (Balsam) species, *Heracleum mantegazzianum* (Giant Hogweed) are still spreading along banks and rivers in Scotland; and *Doronicum pardalianches* (Leopard's Bane) is rife in many east coast plantation woods. There are also potential large-scale threats looming if no action is taken on species such as *Gaultheria* [*Pernettya*], *Griselinia*, *Leycesteria* and *Cotoneaster*.

Indeed, a good example of what could happen to the British countryside is at Craggside, near Rothbury in Northumberland: the estate woods, covering many hectares, have an understorey consisting almost entirely of *Rhododendron ponticum*, *Gaultheria*, and one other alien shrub, *Griselinia* if I remember correctly; *Prunus laurocerasus* (Laurel) is also present. Many of the woods such as these with an increasing alien flora are not ancient or semi-natural but plantations, although they are still an integral part of the British countryside. In many cases, though, invasive aliens do affect natural or semi-natural habitats.

Vegetation change may appear slow in our lifetimes, but if the current rate of introductions of invasive species continues, one can foresee a time when the concept 'native' becomes meaningless, and the BSBI might as well close up shop and go home, or at least become an adjunct to the British Horticultural Society!

I do think that invasive alien species pose a long-term threat to our native flora, and also that society must take a stronger line on importing any plant species into Britain: putting an extreme view, this might be that no species should be allowed to be imported, or grown as a garden plant, unless it can be shown to be non-invasive. The problem with this, though, is that it can take many years to find out if a plant is potentially invasive: often it is only possible to find out by trial and error – by which time it may be too late. Maybe we should not be importing plants at all? After all, enough is known on the global scale about the inherent dangers in this, whether prickly pears in Australia, gorse bushes in New Zealand, brambles in Chile, water hyacinth in Africa. . . . The list is endless.

I also think that there needs to be closer links between horticulturists and, say, the BSBI, so gardeners become more educated about which plants to grow and not to grow in their gardens for ecological reasons. I, for example, would never grow *Rhododendron ponticum* or Japanese knotweed in my garden; however, I do have some Leopard's Bane, and I have not yet put my money where my mouth is and removed it! Perhaps BSBI should produce a code of conduct on this?

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ALIENS AND INTRODUCTIONS IN A VC 22 GARDEN

The systematic approach to the recording of aliens in Atlas 2000 recalls similar problems I have had in analysing data for the new Oxfordshire Flora. At the same time, my garden in Abingdon, VC 22, to which I came in 1988, poses the same problems in microcosm.

The house is a converted Victorian stable. The front garden was formerly a stable yard and the rear a chicken run with old apple trees; both are now mainly lawn with a smaller area of flower beds and surrounded mostly by fences and the Victorian garden wall. The soil is slightly acid with much sand, gravel and pebbles and supports *Fumaria* (Fumitories), *Valerianella locusta* (Common Cornsalad) and both subspecies of *Papaver dubium* (Long-headed Poppy). The lawn must have come from turf (and therefore been introduced) having much *Pilosella officinarum* (Mouse-ear-hawkweed), also *Aphanes*

arvensis (Parsley-piert), *Alopecurus pratensis* (Meadow Foxtail), *Cardamine pratensis* (Cuckoo-flower) and *Primula veris* (Cowslip).

In the last 9 years a wealth of aliens has appeared, all, unless stated, without help from me. Seedlings of trees, *Acer pseudoplatanus* (Sycamore) and *Aesculus* (Horse-chestnut) are a constant nuisance, but those of *Acer platanoides* (Norway Maple), *Chamaecyparis lawsoniana* (Lawson's Cypress, now 80 cm high) are more welcome.

Barried shrubs are numerous. Much the commonest are the Cotoneasters, many but not all below the fences. I named *C. horizontalis* agg. (Wall Cotoneaster) myself but was glad of help from Jeanette Fryer with *C. salicifolius* (Willow-leaved Cotoneaster), *C. dielsianus* (Diel's Cotoneaster), *C. franchetii* (Franchet's Cotoneaster) and from both her and Bertil Hylmö with *C. ascendens*. *Mahonia aquifolium* (Oregon-grape) has appeared twice below fences. *Ribes sanguineum* (Flowering Currant) has developed unaided in a crevice at the foot of the house wall for several years. It is tempting to suggest that birds, which perch frequently on the fences, brought seeds of all these from the neighbouring gardens or park.

Some of the herbaceous introductions may have been, unknowingly, by me. I didn't have *Erophila verna* (Common Whitlowgrass), *Barbarea vulgaris* (Winter-cress) or *Chaerophyllum temulum* (Rough Chervil) when I first came, and could well have introduced them when checking specimens. The most interesting of these is *Epilobium brunnescens* (New Zealand Willowherb) on my front path; almost certainly this would have come from a Carmarthenshire forest, the only place I have recently seen it.

Among pre-existing herbs, *Alcea rosea* (Hollyhocks) are virtually wild, with a very fine one having taken over most of a patio and seedlings everywhere. Likewise pre-existing herbs *Tanacetum parthenium* (Feverfew), *Symphytum orientale* (White Comfrey) and *Myosotis sylvestris* (Wood Forget-me-not) all self-seed prolifically. *Diplotaxis muralis* (Annual Wall-rocket) has spread from the wall to the back patio.

Many of these raise interesting questions for a plant recorder. Most are wild in the sense that they did the last bit of their journey under their own steam and if in a genuinely 'wild' location would unquestionably qualify for an 'S' or even an 'E' in the aliens classification. I would welcome people's views about this. More generally it shows what a fascinating habitat a garden can be for studying our developing flora.

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PHACELIA TANACETIFOLIA AS 'GREEN MANURE'

In *BSBI News* 74 Mary Briggs drew our attention to *Phacelia tanacetifolia* (Phacelia) which, according to Stace (1991), is 'grown in gardens for ornament and small-scale in fields for bees, also [occurring as a] contaminant of crop- and grass-seed'. It may also be worth pointing out that it is being used increasingly by organic vegetable-growers as a 'green manure'.

Green manures are plants grown, not for human consumption, but specifically to fill short gaps in the cultivation cycle. They are used essentially as a soil conservation tool – they are quick-growing, smothering weeds and trapping soil nutrients that might otherwise be lost through leaching, and when chopped down and dug in they improve soil structure and increase humus content. Plants commonly used as green manures include *Fagopyrum esculentum* (Buckwheat), *Medicago sativa* (Lucerne), *M. lupulina* (Black Medick), *Raphanus sativus* (Fodder Radish), *Trigonella* spp. (Fenugreek), *Trifolium hybridum* (Alsike Clover), *Vicia faba* (Field Bean) and *V. sativa* ('Tares').

Phacelia tanacetifolia is a fairly recent addition to the list of green manures. In Woodward & Burge (1982) it is noted as 'a very new crop in Britain. . . used fairly extensively on the Continent', but 'it definitely needs further investigation. . . before it can be recommended'. Experimental work on the species was carried out in the 1980s by the Henry Doubleday Research Association (HDRA), including extensive field trials by HDRA members in 1989 (*HDRA Newsletter* 115). These trials showed that

P. tanacetifolia had considerable value when sown in spring or summer, its rapid growth providing a useful 'stop-gap' for short periods (1-3 months). Its hardiness also suggested some value as an autumn-sown (overwintering) green manure (*HDRA Newsletter* 117).

In recent years *P. tanacetifolia* has been available through the *Organic Gardening Catalogue*, produced by HDRA and Chase Organics (Addlestone, Surrey). In the current edition of the *Catalogue* it is billed as a green manure 'with bright blue flowers which bees love. . . Gives good ground cover and establishes quickly. Fits in anywhere in your rotation. . . if left to flower it is an excellent attractant to beneficial insects and bees'. It is now becoming a popular plant with many growers, and is appearing increasingly in garden vegetable plots and allotments. It seems to be pretty adept at escaping the confines of the vegetable patch, and in 1996 I saw it around compost heaps and on rough ground on or near allotments in Exmouth (VC 3) (with *F. esculentum*) and Taunton (VC 5). Certainly, anyone poking about their local allotments in search of unlikely aliens would do well to keep an eye out for it – as a casual, *P. tanacetifolia* may well be more widespread than we think.

References

- Stace, C.A. (1991). *New Flora of the British Isles*. Cambridge University Press, Cambridge.
Woodward, L. & Burge, P. (1982). *Green Manures*. Practical Handbook Series, Elm Farm Research Centre.

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RECORDING CONIFERS AND OTHER ALIEN TREES FOR ATLAS 2000

Field botanists have been ambivalent in their attention to planted trees for a century and more. Good specimens in the countryside demand attention yet the naturalist feels instinctively that his, or her, concern is with the wild and not the cultivated. For the first 'Atlas', 1962, data was collected for introductions ('INT' included planted), but it was not always used. Thus for Scots Pine, *Pinus sylvestris*, only the native distribution was published, incongruous beside the map for European Larch, *Larix decidua*, a wholly introduced species. For the 'Monitoring Scheme', 1987-88, obviously planted species were to be omitted, unless included for special reason, yet it would require access to the underlying data to assess whether the 9 meagre records mapped for Wellingtonia, *Sequoiadendron giganteum*, represented planted specimens or regeneration of this widely grown ornamental. For 'Atlas 2000' we need to do better.

Clive Stace's *New Flora*, 1991, makes a clear attempt to break free from this confusion. Any plant found in significant numbers outwith gardens, whether planted or not, is considered relevant to the study of the countryside (which is optimistically called 'the wild'). The implication is that we should take the countryside as a whole as it is now, not as it was before man's intervention, and open our minds to it. This view has prevailed for 'Atlas 2000' and BSBI urges its members to record alien trees accordingly with the option of the use of 'E' for Established/Naturalised and 'P' for Planted, when the information is available. But it hasn't been happening. Many recorders, including myself, have shied away from recording planted trees except those like Ash, *Fraxinus excelsior*, which we recognise as native or well established though we differ to the extent that we are particular as to whether the specimen in front of us is self-sown before recording it without comment. Other recorders have 'ticked off' alien trees without defining their status.

Spurred on by Arthur Chater, who advised me that conifers regenerate more often than I was inclined to suggest, I have done some winter field work on conifers and have surprised myself. There is more to these conifers than I had thought. They are not just the dark regiments I have feared. They are living things like any other, looking for the chance to multiply their kind in the natural way. By choosing to look in the right places, typically steep banks, ungrazed heather and recently felled forest

compartments in or around plantations I have found that, around here in the Scottish Borders, European Silver-Fir, *Abies alba*, almost always regenerates; that Scots Pine, the Larches, *Larix decidua* and *L. × marschlinii*, and Sitka Spruce, *Picea sitchensis*, frequently regenerate; that Douglas Fir, *Pseudotsuga menziesii*, and Lawson's Cypress, *Chamaecyparis lawsoniana*, sometimes regenerate but that Norway Spruce, *Picea abies*, regenerates seldom and Wellingtonia, on the basis of my sample, not at all. None of this is new, but much of it has been for me. A.F. Mitchell in *Conifers of the British Isles* is not alone in referring to the abundant regeneration of *Abies alba*, but there is not much about it in the average county flora.

Where a group of maturing saplings, and not just isolated seedlings, are present I can record the species presence as 'E'. I am also beginning to develop a feel for the habitat preferences of individual species. I have become interested and now support Arthur Chater's contention that this is a neglected study worthy of BSBI's attention.

Ideally I now need a woodland field card, targeted at all trees and shrubs – not just conifers – with columns for 'P' and 'E' and space for notes opposite each species. Arguably the card should also provide for the recording of the ground flora and ecological details. Crucially I need a host of like-minded recorders to be out and about around Britain, not necessarily in the winter, and we might even at this late date gather some meaningful field data for 'Atlas 2000' of our alien trees. That's where you come in!

Foresters grow trees where they are expected to flourish, and we should not be too surprised if the 'E' distribution closely follows the 'P' distribution for many, but not all, of the commoner species. For those species used more selectively there is much to learn.

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A (VERY) PROVISIONAL CHECKLIST OF CONIFERS IN THE BRITISH ISLES

Introduction

Conifers (here used in the broadest sense to include the Pinopsida, Taxopsida and Ginkgoopsida) are amongst the largest organisms on earth, yet, they are often overlooked (or should this be underlooked!?) in botanical surveys. Despite there being only three native species of conifer in the British Isles, a considerable number are grown in cultivation be it for amenity or forestry. Since most conifers are trees and consequently long-lived as plants go, they often persist long after the original reason for planting – for example, an estate garden or a landscaping scheme – has been lost in the mist of time. As more and more species are introduced and planted, this will become an issue of greater importance in the years ahead.

Over the centuries up until the Victorian era, many species of trees, including numerous conifers, have been introduced into the British Isles which has an ideal climate for their growth. Indeed, some specimens are larger and more luxuriant here than they are in their country of origin. Many of these species are reaching maturity here for the first time and many are starting to set seed of their own accord and even hybridise. As the climate warms (as it is now largely accepted to be doing) the West is expected to become more mild and wet. The South conversely is expected to become warmer and drier. This, coupled with the increasing variety and age of coniferous species, will allow a greater number to thrive and set seed.

This Checklist, is an early attempt to catalogue all species of conifer which have been, or due to increased planting or ability to self-seed, may be expected to be recorded in the British Isles. It is largely based upon existing records and the brief list of sources below, from knowledge of species used in forestry and amenity planting, personal experience, or pure supposition on my part with the presumption that many species on the list yet to be recorded, may have been recordable but simply overlooked or mis-recorded. The list is deliberately long, including numerous sub-species, varieties, forms and

cultivars mainly to provide as complete a picture as possible, but partly, to be provocative and hopefully generate comments and further records.

Taxa highlighted in bold are those most likely to be encountered, or those to look out for since they may be expected to become more prevalent; those followed by an * are included in the Atlas 2000 project. Alien status follows Macpherson *et al.* (1996).

The Checklist

- Abies alba*** Miller*. Pinaceae. Established alien. Commonly occurring in older plantations but much less planted now due to fungal rust and woolly aphids. Possibly over-recorded for other *Abies* spp.
- Abies amabilis* (Douglas) Forbes. Pinaceae. Surviving alien. Frequently planted in parks and gardens and probably overlooked or mis-recorded.
- Abies cephalonica*** Loudon. Pinaceae. Surviving alien (some seedlings seen).
- Abies cilicica* (Antoine & Kotschy) Carriere. Pinaceae. Surviving alien.
- Abies concolor* (Gordon) Lindley ex Hildebr. Pinaceae. Surviving alien.
- Abies delavayi* (Van Tieghem) Franchet. Pinaceae. Surviving alien.
- Abies grandis*** (Douglas ex D.Don) Lindley*. Pinaceae. Established alien. Very commonly used in forestry.
- Abies forrestii* Craib ex Coltm.Rog. Pinaceae. Surviving alien. Included under *A. delavayi* group in Clement & Foster (1994).
- Abies homolepis*** Siebold & Zucc. Pinaceae. Surviving alien. Frequently used in forestry.
- Abies koreana*** E.H.Wilson. Pinaceae. Surviving alien. Commonly planted in parks and gardens.
- Abies lasiocarpa* (Hook.) Nutt. Pinaceae. Surviving alien.
- Abies lowiana* (Gordon) A.Murray. Pinaceae. Surviving alien. Included under *A. concolor* in Clement & Foster (1994).
- Abies nordmanniana*** (Steven) Spach. Pinaceae. Surviving alien. Commonly used in forestry and Christmas tree production.
- Abies pinsapo* Boiss. Pinaceae. Surviving alien.
- Abies procera*** Rehder*. Pinaceae. Established alien. Commonly used in forestry and Christmas tree production.
- Abies veitchii* Lindley. Pinaceae. Surviving alien.
- Araucaria araucana*** (Molina) K.Koch*. Araucariaceae. Surviving alien (some seedlings seen).
- Calocedrus decurrens*** (Torrey) Florin*. Cupressaceae. Surviving alien.
- Cedrus atlantica*** (Endl.) Manetti ex Carrière*. Pinaceae. Surviving alien. Commonly planted in parks and gardens.
- Cedrus atlantica* f. *glauca*** Beissner. Pinaceae. Surviving alien(?). Blue forms normally referable here. Many cultivars in existence as clones of this taxon (e.g. *C.a.* 'Glauca').
- Cedrus brevifolia* (Hooker f.) Henry. Pinaceae. Surviving alien. Previously known as *C. libani* subsp. *brevifolia*.
- Cedrus deodara*** (Roxb. ex D.Don) Don*. Pinaceae. Surviving alien (some seedlings seen). Commonly planted in parks and gardens. Often confused with *C. libani* of which it was previously considered a subspecies.
- Cedrus libani*** A.Rich.* Pinaceae. Surviving alien. Commonly planted in parks and gardens.
- Cedrus libani* subsp. *stenocoma* (O.Schwarz) P.H.Davis. Pinaceae. Surviving alien.
- Cephalotaxus fortunei* Hook. Cephalotaxaceae. Surviving alien.
- Cephalotaxus harringtonia* (Knight ex Forbes) K.Koch. Cephalotaxaceae. Surviving alien.
- Cephalotaxus harringtonia* var. *drupacea* (Sieb. & Zucc.) Koidz. Cephalotaxaceae. Surviving alien. Included under *C. harringtonia* as *C. drupacea* in Clement & Foster (1994).
- Chamaecyparis lawsoniana*** (A.Murray) Parl.* Cupressaceae. Established alien. Very commonly planted in parks, gardens and in forestry. An imponderable number of cultivars of all shapes, colours and sizes.

- Chamaecyparis nootkatensis* (Lambert) Spach.* Cupressaceae. Surviving alien. Commonly planted. One of the parents of \times *Cupressocyparis leylandii*.
- Chamaecyparis obtusa* (Siebold & Zucc.) Endl. Cupressaceae. Surviving alien. Commonly planted, often as one of the numerous cultivars.
- Chamaecyparis pisifera* (Siebold & Zucc.)* Cupressaceae. Surviving alien. Commonly planted in parks and gardens often as cultivars.
- Cryptomeria japonica* (L.f.) D.Don*. Taxodiaceae. Surviving alien (some seedlings seen). Commonly planted.
- Cryptomeria japonica* subsp. *sinensis* (Sieb. & Zucc.) P.D.Sell. Taxodiaceae. Surviving alien.
- Cryptomeria japonica* 'Elegans'. Taxodiaceae. Surviving alien. Frequently planted. A form with juvenile foliage.
- \times *Cupressocyparis leylandii* (A.B.Jackson & Dallimore) Dallimore*. Cupressaceae. Surviving alien (some seedlings seen). The most frequently planted conifer outside forestry plantations. An intergeneric hybrid between *Cupressus macrocarpa* and *Chamaecyparis nootkatensis*, also spontaneous.
- Cupressus duclouxiana* Hickel ex Camus. Cupressaceae. Surviving alien.
- Cupressus glabra* Sudw. Cupressaceae. Surviving alien. Commonly planted in parks and gardens. Probably overlooked or mis-recorded. Some authorities consider this taxon *C. arizonica* var. *glabra* (Sudw.) Little.
- Cupressus goveniana* Gordon ex Lindley. Cupressaceae. Surviving alien.
- Cupressus macrocarpa* Hartweg ex Gordon*. Cupressaceae. Established alien. Commonly planted mainly near the South coast. One of the parents of \times *C. leylandii*.
- Cupressus sempervirens* L. Cupressaceae. Surviving alien.
- Ginkgo biloba* L. Ginkgoaceae. Surviving alien. Becoming more frequently planted.
- Juniperus chinensis* L. Cupressaceae. Surviving alien. Commonly planted in parks and gardens.
- Juniperus communis* L.* Cupressaceae. Native.
- Juniperus communis* subsp. *communis**. Cupressaceae. Native.
- Juniperus communis* subsp. *nana* (Hook.) Syme*. Cupressaceae. Native.
- Juniperus communis* subsp. *hemisphaerica* (J.S.&C. Presl) Nyman. Cupressaceae. Native.
- Juniperus recurva* Buch.-Ham. ex D.Don Cupressaceae. Surviving alien.
- Juniperus squamata* Buch.-Ham. ex Lamb. Cupressaceae. Surviving alien. Commonly planted as the cultivar *J.s.* 'Meyeri'.
- Juniperus virginiana* L. Cupressaceae. Surviving alien.
- Larix decidua* Miller*. Pinaceae. Established alien. Common as older specimens but much less planted now. Perhaps over-recorded for *L. kaempferi* or *L. \times marschlinsii*.
- Larix gmelinii* (Rupr.) Rupr. ex Kusen.-Proch. Pinaceae. Surviving alien.
- Larix kaempferi* (Lindley) Carrière. Pinaceae. Established alien. More commonly planted now than *L. decidua*.
- Larix laricina* (Duroi) K.Koch. Pinaceae. Surviving alien.
- Larix \times marschlinsii* Coaz*. Pinaceae. Surviving alien/Established alien(?). Hybrid – *L. decidua* \times *L. kaempferi*. Spontaneous where the parents meet and backcrossing occurs. According to some authorities, this name refers to the hybrid between *L. decidua* and *L. sibirica*. By far the most commonly planted *Larix* spp.
- Libocedrus chilensis* (D.Don) Endl. Cupressaceae. Surviving alien.
- Metasequoia glyptostroboides* Hu & W.C.Cheng. Taxodiaceae. Surviving alien. Becoming more frequently planted in parks and gardens.
- Picea abies* (L.) H.Karst.* Pinaceae. Established alien. Very commonly planted. Christmas tree and timber production.
- Picea abies* subsp. *abies*. Pinaceae. Established alien. As *Picea abies* s.l. above.
- Picea abies* subsp. *abies* var. *acuminata* Beck. Pinaceae. Established alien(?).

- Picea abies* subsp. *obovata* (Ledeb.) Hulten. Pinaceae. Previously as a full species (in Sell 1988), this taxon is now considered a sub-species (Tutin *et al.* 1993).
- Picea asperata* Masters. Pinaceae. Surviving alien.
- Picea breweriana* S. Watson. Pinaceae. Surviving alien. Frequently used in forestry
- Picea engelmannii* Parry ex Engelm. Pinaceae. Surviving alien. Frequently used in forestry
- Picea engelmannii* f. *glauca* (R. Smith) Beissn. Pinaceae. Surviving alien. More frequently planted in parks and gardens than *P. engelmannii* s.s., above but occasionally in forestry.
- Picea* × *fennica* (Regel) Komarov. Pinaceae. A hybrid, probably *P. abies* subsp. *abies* × *P. abies* subsp. *obovata*. May occur where the parents are in close proximity but not yet recorded.
- Picea glauca* (Moench) Voss*. Pinaceae. Surviving alien. Frequently used in forestry.
- Picea glehnii* (F. Schmidt) Masters. Pinaceae. Surviving alien.
- Picea* × *hurstii* De Hurst. Pinaceae. Surviving alien. A hybrid, *P. engelmannii* × *P. pungens*. May occur where the parents grow together.
- Picea* × *lutzi* Little. Pinaceae. Surviving alien(?). A natural hybrid – *P. glauca* × *P. engelmannii* which may occur where the parents are grown together.
- Picea montigena* Masters. Pinaceae. Surviving alien.
- Picea omorika* (Pancic) Purk.* Pinaceae. Surviving alien. Frequently used in forestry.
- Picea omorika* × *P. sitchensis*. Pinaceae. Surviving alien (some seedlings seen). Occurs sporadically where the parents grow together.
- Picea orientalis* (L.) Link. Pinaceae. Surviving alien.
- Picea polita* (Siebold & Zucc.) Carriere. Pinaceae. Surviving alien.
- Picea pungens* Engelm. Pinaceae. Surviving alien. Frequently used in forestry, less often in parks and gardens.
- Picea pungens* f. *glauca* (Reg.) Beissn. Pinaceae. Surviving alien. Very commonly planted in parks and gardens usually as one or more cultivars cloned from this taxon (i.e. *P. pungens* 'Glauca').
- Picea retroflexa* Masters. Pinaceae. Surviving alien. Included under *P. asperata* in Clement & Foster (1994).
- Picea sitchensis* (Bong.) Carriere. Pinaceae. Established alien. Very commonly planted for forestry and amenity.
- Picea smithiana* (Wallich) Boiss. Pinaceae. Surviving alien.
- Pinus ayachuite* Ehrend. Pinaceae. Surviving alien.
- Pinus banksiana* Lambert. Pinaceae. Surviving alien.
- Pinus cembra* L. Pinaceae. Surviving alien. Frequently planted in parks and gardens.
- Pinus contorta* Douglas ex Loudon*. Pinaceae. Established alien. Commonly used in forestry and amenity plantations.
- Pinus contorta* subsp. *contorta* Loudon. Pinaceae. Established alien. Commonly used in forestry and amenity plantations, mostly near the coast and in the west.
- Pinus contorta* subsp. *latifolia* (Engelm.) Critchfield. Pinaceae. Established alien. Commonly planted, mainly inland.
- Pinus contorta* subsp. *murreyana* (Grev. & Balf.) Critchf. Pinaceae. Surviving alien ?
- Pinus densiflora* Siebold & Zucc. Pinaceae. Surviving alien.
- Pinus mugo* Turra*. Pinaceae. Surviving alien. Very commonly planted in parks, gardens and landscaping schemes.
- Pinus muricata* D. Don. Pinaceae. Surviving alien (some seedlings seen). Planted in shelter belts on the West coast.
- Pinus nigra* J.F. Arnold*. Pinaceae. Established alien. Commonly planted for forestry and amenity.
- Pinus nigra* subsp. *nigra* J.F. Arnold*. Pinaceae. Established alien. Commonly planted for forestry and amenity.
- Pinus nigra* subsp. *laricio* Maire*. Pinaceae. Established alien. Commonly planted for forestry and amenity.
- Pinus nigra* subsp. *salzmanii* (Dumal) Franco. Pinaceae. Surviving alien ?

- Pinus peuce* Griseb.* Pinaceae. Surviving alien. Used in small scale forestry plantings and amenity.
- Pinus pinaster* Aiton*. Pinaceae. Established alien. Commonly planted especially in southern coastal areas.
- Pinus pinaster* subsp. *pinaster*. Pinaceae. Established alien. As *P. pinaster* s.l. above.
- Pinus pinaster* subsp. *atlantica* H.del Villar. Pinaceae. Surviving alien. Probably under recorded for *P.p.pinaster*.
- Pinus pinea* L. Pinaceae. Surviving alien.
- Pinus ponderosa* Douglas ex Lawson & P.Lawson. Pinaceae. Surviving alien.
- Pinus radiata* D.Don*. Pinaceae. Established alien. Commonly planted, mainly in the South.
- Pinus rigida* Miller. Pinaceae. Surviving alien.
- Pinus strobus* L.* Pinaceae. Established alien. Commonly planted in parks and gardens and some forestry.
- Pinus sylvestris* L.* Pinaceae. Established alien. Numerous varieties and sub-species occur in Britain, mostly indeterminate (see Sell 1988).
- Pinus sylvestris* subsp. *scotica* (P.K.Schott) E.Warb. Pinaceae. Native.
- Pinus thunbergii* Parl. Pinaceae. Surviving alien.
- Pinus wallichiana* A.B.Jackson. Pinaceae. Surviving alien. Commonly planted in parks and gardens.
- Platycladus orientalis* (L.) Franco. Cupressaceae. Surviving alien (some seedlings seen). Commonly planted for ornament, often as the form *P.o.* 'Elegantissima', formerly known as *Thuja orientalis*.
- Pseudotsuga menziesii* (Mirbel) Franco*. Pinaceae. Established alien.
- Pseudotsuga menziesii* subsp. *glaucescens* (Schwerin) P.D.Sell. Pinaceae. Surviving alien ?
- Pseudotsuga menziesii* subsp. *glaucescens* var. *caesia* (Schwerin) Franco. Pinaceae. Surviving alien ?
- Pseudotsuga menziesii* subsp. *glaucescens* var. *glauca* (Beissner) Franco. Pinaceae. Surviving alien ?
- Sciadopitys verticillata* (Thunb.) Siebold & Zucc. Taxodiaceae. Surviving alien.
- Sequoia sempervirens* (D.Don) Endl. Taxodiaceae. Surviving alien (some seedlings seen).
- Sequoiadendron giganteum* (Lindley) Buchholz*. Taxodiaceae. Surviving alien. Frequently planted in parks and larger gardens.
- Taxodium distichum* (L.) Rich. Taxodiaceae. Surviving alien
- Taxus baccata* L.* Taxaceae. Native.
- Taxus baccata* f. *baccata*. Taxaceae. Native.
- Taxus baccata* f. *fasciculata* (Lindley) Pilger. Taxaceae. Surviving alien ?
- Taxus baccata* f. *dovastonii* (Carriere) Pilger. Taxaceae. Surviving alien ?
- Taxus baccata* 'Fastigiata' Loudon. Taxaceae. Surviving alien. Commonly planted in parks and gardens often in golden form.
- Thuja occidentalis* L. Cupressaceae. Surviving alien. Used in forestry.
- Thuja plicata* Donn ex D.Don*. Cupressaceae. Established alien. Commonly planted for forestry.
- Thujopsis dolabrata* (L.f.) Siebold & Zucc. ex Endl. Cupressaceae. Surviving alien.
- Tsuga canadensis* (L.) Carriere. Pinaceae. Surviving alien. Occasionally used in forestry
- Tsuga heterophylla* (Raf.) Sarg*. Pinaceae. Established alien. Commonly used in forestry.

Any further records particularly confirmation of those not yet known to be recorded, and any comments, general or otherwise, would be very gratefully received.

Main Sources:

- Arnold, H.R. & Preston, C.D. (1997). *Fieldwork for Atlas 2000 3. List of taxa covered by the project*. BSBI. London.
- Clement, E.J. and Foster, M.C. (1994). *Alien Plants in the British Isles*. BSBI. London
- Hillier (1991). *Hillier Manual of Trees and Shrubs*. David and Charles. Newton Abbott
- Kent, D.H. (1992). *List of Vascular Plants of the British Isles*. BSBI, London
- Kent, D.H. (1996). *List of Vascular Plants of the British Isles*. Supplement 1 (December 1996). BSBI Database, Leicester

- Krussman, G. (1985). *Manual of Cultivated Conifers*. Timber Press. Oregon
- Macdonald, J. et al (eds) (1957). *Exotic trees in Great Britain*. Forestry Commission Bulletin No. 30. HMSO. London
- Macpherson, P. et al. (1996). Plant Status Nomenclature. *BSBI News* **72** 13-16
- Mitchell, A. (1974). *A Field Guide to the Trees of Britain and Northern Europe*. Collins. London
- Rushforth, K. D. (1987). *Conifers*. Helm. London
- Sell, P.D. (1988) Conifers. in: *The Plant Crib*. (eds.) T.C.G. Rich and M.D.B. Rich. BSBI London
- Stace, C.A. (1991). *New Flora of the British Isles*. Cambridge
- Tutin, T.G. et al (eds) (1993). *Flora Europaea*. Vol. 1. 2nd Edition. Cambridge
- Welch, H. and Haddow, G. (1993). *The World Checklist of Conifers*. The World Conifer Data Pool. Devon

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COTULA AUSTRALIS IN NEWTON ABBOT (VC 3)

Cotula australis (Annual Buttonweed) is a native of Australia and New Zealand known in the British Isles as a rather frequent, sometimes persistent, wool-alien (Stace 1991). It was first recorded in Newton Abbot in 1946 by the Rev. T. Stephenson (Stephenson & Brokenshire 1946). Eleven years later, in 1957, it was recorded again by Mary McCullum Webster amongst a collection of shoddy aliens in the vicinity of Bradley Woollen Mills on the edge of Newton Abbot (McCullum Webster 1959). Shoddy species were recorded in the same area by Mrs M.C. Hockaday in 1964 (Hayward 1965) but additional species only were published and there is no full record of the species seen at that time. In early May 1996 one of us (CJS) noted a group of small unfamiliar plants growing in a gutter in Newton Abbot which we identified as *C. australis*. Subsequently we explored the area in the vicinity of Bradley Mills and found a large population of this plant which was mostly growing in the crevice between the walls of houses and the pavement. We saw the plant at a third location in Newton Abbot flowering in a similar crevice outside the public library on 21 December 1996. Since Bradley Woollen Mills closed in 1972 it seems likely that this species has persisted in the Newton Abbot area since at least that time and possibly much earlier.

Other wool aliens still present in the Bradley Mills area are *Polypogon viridis* (Water Bent) and *Medicago polymorpha* (Toothed Medick). Both were recorded there by Mary McCullum Webster in 1964 (*loc. cit.*). *M. polymorpha* occurs elsewhere in Newton Abbot and by the estuary of the River Teign nearby, presumably as a native. However, it is possible that the Bradley population may have arisen from shoddy, rather than as part of the native population.

References

- Hayward, J.J. (1965). 57th Report on Botany. *Rep. Trans. Devon. Ass. Advmt. Sci.* **64**: 110-113.
- McCullum Webster, M. (1959). Wool aliens collected at Newton Abbot and Buckfast. *Rep. Trans. Devon. Ass. Advmt. Sci.* **91**: 189-192
- Stace, C.A. (1991). *New Flora of the British Isles*. CUP, Cambridge.
- Stephenson, T. & Brokenshire, F.A. (1946). 38th Report on the Botany of Devon. *Rep. Trans. Devon. Ass. Advmt. Sci.* **78**: 51-64.

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TINTERN SPURGE IN SOUTH DEVON (VC 3)

John Palmer reports the Tintern Spurge (*Euphorbia serrulata*) (*BSBI News* 72: 46) from sites in Surrey and Kent. In August 1996 while visiting a nursery at Chudleigh we came across a *Euphorbia* species unknown to us. It was growing as a frequent pot weed in two areas of the nursery. It proved to be Tintern Spurge. It was known to the nurseryman but not by name and he was not directly responsible for introducing it. It had been present for some years. It seems likely that it had arrived from another nursery as a pot weed and that it may well be reaching other parts of the country by this means.

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SWEDISH GOOSEFOOT – PERHAPS NOT SO RARE

In recent years Swedish Goosefoot (*Chenopodium suecicum*) has been seen at three sites in the Glasgow area. The first record was from a dock in 1984, at which time a single plant was seen and about 20 plants were present at a different part of the same complex in 1995. The second site was a soil heap on which there was a single plant in 1987. The third was a refuse tip at the edge of which about ten plants occurred in 1994, with many more being present in both 1995 and 1996. The records are all from Lanarkshire (VC 77) and verified specimens have been deposited in **herb. PM**.

Stace (1991) states that the plant occurs on tips and waste places, that it was formerly frequent, but is now rare and extremely scattered in Britain. This is of course based on the published records of the occurrence of the plant. As specialist knowledge is required for accurate identification, *C. suecicum* may well be under recorded.

Acknowledgement

I am grateful to Dr J.R. Akeroyd for help with identification.

Reference

Stace, C.A. (1991). *New Flora of the British Isles*. Cambridge University Press.

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FEN NETTLE (*URTICA GALEOPSISIFOLIA*) IN E. SCOTLAND (ANGUS)

I had read with some interest about the occurrence of Fen Nettles in south-eastern England (*Watsonia* 19: 127-9 (1992); Alec Bull & A. Showler (both in *BSBI News* 69: Apr. 1995)), but never expected to come across it in Scotland. I was staying with friends in Kirriemuir (Angus) for a few days in mid-July, and as my companions were late-risers (to say the least) I had a few hours to myself each morning to botanise the surroundings. I headed straight for the Loch Kinnordy nature reserve, where such treasures as *Cicuta virosa* (Cowbane) and *Ranunculus lingua* (Greater Spearwort) can be seen along with lots of apparently interesting birds.

On my second visit, I followed what appeared to be a footpath near the SE side of the Loch, which soon took me into wet woodland. Here I was surprised to see a colony of several hundred nettles which had the narrow leaves and slender overall plant appearance of *Urtica galeopsifolia*. I risked picking a couple by hand and found them to be almost (but not quite) free of stinging hairs.

On the advice of Dr Stephen Jury, I sent a specimen to Prof. D. V. Geltman, who was pleased to confirm the plant to be *U. galeopsifolia*. As far as I'm aware, this is the first record of this species from Scotland, which again extends its known range and suggests that it lurks undiscovered in many more sites up and down the country.

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MESPILUS GERMANICA IN SOUTHERN BRITAIN

In *BSBI News* 69 I wrote a short note concerning *Mespilus germanica* L. (Medlar) and its claim to being naturalised in the British Isles. The correspondence which this note generated encouraged me to investigate further. I wrote to the recorders of those vice-counties listed in Table 1 asking them for any information they might have on *M. germanica*. The area covered by my enquiries was roughly determined by the statement that the Medlar was '... naturalised (recorded 1597) in hedges in S. England, north to Middlesex, Oxford and Gloucester, and in Stafford and S. Yorks., rare; Channel Is.' (Clapham, Tutin & Warburg 1952).

It can be seen from table 1 that records are scattered very thinly across southern Britain. Recent records are very rare. What claim have these records of being for naturalised trees rather than relicts of cultivation? Although most records are accompanied by little extra information some trees are recorded as growing in semi-natural habitats such as woods or hedgerows while others are recorded as growing far from habitation. However, with such long lived plants, circumstantial evidence can be misleading. Some of the trees have been known for 100-150 years and during this sort of time period sites of orchards and habitations are easily forgotten. It is interesting to note, in this context, Richard Mabey's comment that they could be 'examples of the once widespread peasant practice of planting orchard trees in the wild?' (Mabey 1996). There is very little evidence for regeneration from seed. In fact there is only one instance of a young bush occurring near to an older tree suggesting this (VC 11). One wonders how often fertile seed is produced in this country the tree being a native of south-east Europe and southwest Asia. Like *Sorbus domestica* L. (True Service-tree) the fruits need to be bletted by the first frosts before they are palatable in this country. One wonders whether this indicates that our summers are normally too short to ripen the seed. It is interesting that Miles Hadfield says that he has 'never succeeded in raising seedlings from the large-fruited cultivated kinds, but certain forms produce fertile seed.' (Hadfield 1957). Has anyone tried growing medlars from British seed?

One also wonders which birds or animals would distribute the large seeds of the Medlar in this country? It would be interesting to know how it is distributed in its native home.

Is there any means of knowing whether a particular tree is planted or self-sown? Well, in response to my original note I received a very interesting letter from Mrs E. Marper of Cumbria who sent me some photographs of what appears to be a self-sown tree in the harbour area of Maryport, Cumbria. This medlar is creating a thicket by what appears to be vigorous suckering. Normally cultivated medlars are grafted onto a different species such as Hawthorn which obviously prevents suckering of the medlar. If it is normal for medlars, on their own roots, to produce suckers then any self-sown tree is likely to do so thus distinguishing it from a planted (grafted) tree.

Another interesting point is that many accounts describe 'wild' trees as being thorny (e.g. Hadfield 1957, Hanbury & Marshall 1899, J.E. Lousley 1976). Such data for many of the records in Table 1 is lacking although a couple are known to be thorny (such as the famous tree at Redhill, Surrey) and some are known not to be.

Taking the above into account it could be suggested that any medlar found growing in a natural/semi-natural habitat (far from a garden or orchard) which shows signs of suckering and has

thorny stems has a strong case for being considered naturalised. Presence or absence of suckering and/or thorns should, I suggest, be recorded if and when medlars are found.

Can any further claims be made for the medlar other than that of naturalisation? Looking at Table 1 there is an interesting grouping of records in the neighbouring counties of East Sussex, Kent and Surrey (South Hampshire, Somerset and Devon also have interesting numbers of records. All of Devon's records are very old and it might be interesting to try and relocate them.). I understand that A.H. Wolley-Dod thought that the medlar might be native in the extreme south-east and Mary Briggs tells me that when she started botanising in the early 1960s 'the Sussex botanical elders of the time . . . talked of the medlar in the Ashburnham, Battle area as possibly native in the hedgerows.' It would be interesting if anyone with more local knowledge than me could say whether the clustering is apparent or real and whether it follows changes in soil types, etc. The medlar reminds me, for different reasons, of two species which are rather more fashionable at present.

Like the medlar the True Service-tree was once thought to be native on the basis of very few records. It then fell from favour and it was not until the events of recent years that it has once again been taken more seriously (Hampton & Kay 1995).

Pyrus cordata Desv. (Plymouth Pear) also has a tenuous claim to native status and there is evidence to suggest that it may be an ancient introduction (Jackson 1996). In spite of this it is part of English Nature's Species Recovery Programme.

It would be very surprising if *Mespilus germanica* turned out to be a native species in Southern Britain given its distribution in the rest of Europe. It seems more likely that it may turn out to be a naturalised, ancient, introduction. In either case I suggest it deserves a little more attention if the examples of *Sorbus domestica* and *Pyrus cordata* are taken as a guide.

References

- Clapham, A.R., Tutin, T.G. & Warburg, E.F. (1952). *Flora of the British Isles*. Cambridge University Press.
- Hadfield, M. (1957). *British Trees*. London.
- Hampton, M. & Kay, Q.O.N. (1995). *Sorbus domestica* L. new to Wales and the British Isles. *Watsonia* **20**: 379-384.
- Hanbury, F.J. & Marshall, E.S. (1899). *Flora of Kent*. London.
- Jackson, A. (1996). A Celtic Mystery. *Tree News*, Autumn 1996.
- Lousley, J.E. (1976). *Flora of Surrey*.
- Mabey, R. (1996). *Flora Britannica*. Sinclair-Stevenson.

VC	1a	2	3+4	5	6	7	8	9	10	11	12	13	14
Total records	-	-	7	2	4	-	0	1	0	4	0	1	15
Records post 1960	-	-	1	2	2	-	0	1	0	3	0	0	2
VC	15+16	17	18	19	20	21	22	23	24	25	26	35+34	
Total records	12	5	-	-	-	0	2	3	2	0	0	2	
Records post 1960	5	3	-	-	-	0	0	1	2	0	0	0	

Table 1

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THE SPREAD OF JAPANESE KNOTWEED AND HIMALAYAN BALSAM INVASIVE ALIEN WEEDS IN CHESTERFIELD, DERBYSHIRE

Introduction

Japanese Knotweed and Himalayan Balsam were introduced from Asia by horticulturists in the 19th century, and both species have now spread to most parts of the British Isles (1)(2). Himalayan Balsam was first recorded in Derbyshire in about 1930. A third invasive alien weed species, the poisonous Giant Hogweed (*Heracleum mantegazzianum* Sommier & Levier), although present in Sheffield and the Peak District, has not yet been recorded in N.E. Derbyshire. The writer is indebted to D.J. Beerling and his co-authors for much authoritative information on these weeds.

Japanese Knotweed (*Fallopia japonica* (Houtt.) Ronse Decraene)

This bamboo-like plant, with its distinctive red zig-zag shoots and heart-shaped leaves, produces stout jointed stems over 2 m tall in summer from perennial woody rootstocks. The plant in Europe constitutes female clonal material (2); there are no male plants (at present) for pollination of the flowers and production of viable seed. It spreads vegetatively by its underground rhizomes and by the transport of bud-bearing plant fragments to new sites. This is known to occur along linear features such as water-courses, roads and railways, and in the movement of contaminated soil or earth in the course of building work, land reclamation and fly-tipping by gardeners. Japanese Knotweed is, according to the National Rivers Authority (4) ... regarded as the most invasive plant in Britain ... able to grow through walls, tarmac and concrete ... The N.E.R.C. Unit of Comparative Plant Ecology at Sheffield University (6) describes it as ... probably the most aggressive of the relatively common herbaceous dominants in the British flora'. It can dislodge river bank revetments and its deep root system may create problems with underground piping and cabling: it is impracticable to dig out the rootstocks or rhizomes (which may be spread in the process); cutting back or burning the stems is ineffectual in the short term and eradication is best achieved by herbicides (4)(5).

Japanese Knotweed is frost-tender, but is reported in Britain as being almost immune to insect attack and to be mostly free of parasites and diseases (2). Two moribund (?sprayed) clones have so far been observed locally, and the rootstocks very probably have an indefinite life-span in this country. Plants have been seen strangled by Large Bindweed (*Calystegia sepium* subsp. *silvatica* (Kit.) Maire, and affected by a leaf-perforating necrosis. A fertile hybrid (*F.* × *bohemica*) with Giant Knotweed (*Fallopia sachalinensis*) has been reported (13).

According to the writer's site recording locally since 1977, Japanese Knotweed is now (1996) generally distributed in the Chesterfield area, has been recorded in all urban 1 km squares, has spread along all of Chesterfield's rivers and streams, and is well established on waste ground, old industrial land, railway embankments and allotments. It is spreading in tipped material to new industrial sites and into suburban and amenity areas, farm hedgerows, riparian and secondary sycamore woodlands and into gardens. It is apparent that Japanese Knotweed has entered a new phase of exponential expansion in the Chesterfield area; the writer advances the following as consequential working hypotheses

- (a) total number of Japanese Knotweed sites at present is increasing at between 15% per annum (doubling in 5 years) and 25% per annum (doubling in 3 years).
- (b) number of clones (clumps) per site increases at between 15% and 25% per annum.
- (c) mean area of largest clones is c. 100 sq. m (aged 8-15 years).
- (d) total Japanese Knotweed area in Chesterfield is doubling every 2 to 3 years (corresponding to an annual radial growth of 0.5 m - 1.0 m for a putative mean clone area of 50 sq. m).
- (a) overall costs of an eradication programme by herbicidal spraying (reconnaissance survey to log all sites, transportation, spray equipment, herbicide, staff training, publicity and administration, etc.) doubles annually.

Himalayan Balsam (*Impatiens glandulifera* Royle)

Himalayan Balsam (Policeman's Helmet) is 'the tallest annual herb in the British flora' (6) and by virtue of its vigorous germination, rapid summer growth and prolific seed production is according to a British Ecological Society publication 'highly invasive' (1). Its tall fleshy stems and pink flowers have long

been a feature of riversides and streamsides in Chesterfield. However recent observations have brought to light that it is rampant in silted-up sections of the old Rother and the Chesterfield canal, and has now spread into most of the Chesterfield drainage system.

The plant is dispersed naturally by the explosive shedding of the seed from the ripe capsules in late summer. Although the seed may then be carried downstream (particularly in flood waters), it is known to be spread from site to site or from stream to stream (or upstream) only by human agency. Himalayan Balsam is established along a trackway in a larch plantation and on a shoreline at Linacre reservoir, whence it has been spread by visitors to nearby woodland. From the River Drone it has spread into a mire and an ancient oakwood, Brierley Wood, at the expense of the native ground flora. Counts in sample quadrats suggest that Himalayan Balsam can increase at an annual rate of 400-500% under optimal conditions, resulting in large, high density populations in local woodlands (an estimated 700,000 individuals per ha. in less than ten years under Crack Willow on Sud Brook). Such a high rate of site colonisation cannot be explained solely by the explosive projection of the seed driving an advancing front of the plants at the rate of *c.* 2 m per year. Locally, in addition to a human element in its dispersal, seasonal flooding has distributed the seed at Sud Brook, and woodland grazing by sheep (at Brierley Wood) or high winds at dehiscence have accelerated the natural rate of colonisation. Overtopping bramble and stinging nettle, Himalayan Balsam under shade can soon exclude all other ground cover, and it should now be recognised as a threat to Chesterfield's principal populations of native spring flowers.

Himalayan Balsam is little subject to plant pests or diseases (1). A summer virus can perforate the young leaves under shade, and the herbaceous climber Cleavers (*Galium aparine*) can smother early growth on open riverbanks. The plant can be effectively controlled by spraying, pulling up or cutting back (with a cordless strimmer at the seedling rosette stage) before flowering and seeding (4) – a suitable subject for voluntary action.

National Policy, Legislation, Research and Control

The legislation of 1981 (8) and 1991 (9) may be interpreted as codifying a Government policy (7) of control leading to eradication in the U.K. of invasive alien weeds scheduled in these Acts. Such a policy presumably reflects the majority view of academic, nature conservation and land management opinion in the U.K., and is based on an already exhaustive body of pure and applied research into these weeds and their control in Europe and elsewhere. However, invasive alien weeds may not yet figure in the U.K.'s Biodiversity Action Plan. It is an offence to plant or cause Japanese Knotweed or Giant Hogweed to grow in the wild (8)(4), or to dump cut stems or spread any soil contaminated with seed or plant fragments of Japanese Knotweed, Giant Hogweed or Himalayan Balsam, such material is designated as waste under the Regulations (9)(4). Awareness of Government policy has not apparently been generally promoted, its implementation adequately funded outside special conservation areas, or responsibilities clearly defined. The legislation is not known to be enforced (14); control by-laws have been considered by a few Local Authorities (11) but enacted by none. Landowners, including Local Authorities, may be ignorant of, or evade (say, on grounds of cost) their responsibility under Section 14(2) of the 1981 Act to control scheduled weeds (but not including Himalayan Balsam) on their land; the force, if any, of Section 14(5) in empowering official agencies, Local Authorities or authorised voluntary groups to gain access for the purpose of monitoring the spread of these weeds or effecting control measures is unclear or even untested.

An example of an 'interagency' approach to the organisational problems posed by control measures has been set out by Swansea City Council (10). There is an annual (October) Japanese Knotweed control workshop at the International Centre for Landscape Ecology, Loughborough University (11), and the Welsh Development Agency has documented herbicide use (5). Research at the International Institute of Biological Control, Silwood is directed principally at seeking a biological solution from exotic rather than native or naturalised biocontrol agents.

Regional Policies and Control

The Planning and Highways Department of Derbyshire County Council carries out a policy of eradication of Japanese Knotweed mainly on land reclamation sites owned or leased by the Council and

managed for countryside interests; the Countryside Ranger Service organises control of Himalayan Balsam on the upper Drone, Chesterfield canal and Linacre reservoir using volunteers. Chesterfield Borough Council burns or cuts back Japanese Knotweed at various roadside sites controlled by the Council, while N.E. Derbyshire District Council's Legal Section considers it unable to act to control these weeds. The inclusion of this matter in the County's Agenda 21 is unclear. The Derbyshire Wildlife Trust's policies on biodiversity include the re-introduction of extinct Derbyshire plants and the control of sycamore in its Reserves by volunteers. No information was available from the River Rother Strategy Group, a regional body of composite representation, or in their published 'Wildlife Strategy'.

Conclusions

Japanese Knotweed contributes to environmental decay in old industrial and housing areas of Chesterfield, can cause structural damage and is costly to eradicate. The invasion of new habitats by both of the plants reported here, and by the Derby Biological Records Centre (12), threatens changes in our countryside objectionable on ecological and aesthetic grounds – the most significant since the death of the elms. The establishment of Japanese Knotweed alongside, say, Elder (*Sambucus nigra*) in our hedgerows and Hazel (*Corylus avellana*) in lowland woodland, and the replacement of Lesser Celandine (*Ranunculus ficaria*), Wood Anemone (*Anemone nemorosa*) and Bluebell (*Hyacinthoides non-scripta*) by Himalayan Balsam are in prospect and would be an unwelcome legacy to future generations. The current situation has passed beyond one of 'nip it in the bud', but still cannot be regarded as one of 'out of control'. Although much of the further spread of both weeds locally could be checked within existing resources (including voluntary resources) by co-ordinated policies and agreed control measures, their eradication could not be achieved without additional provision, at least in the short term.

Acknowledgements

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References

- (1) Beerling, D.J. & Perrins, J.M. (1993). Biological Flora of the British Isles. *Impatiens glandulifera* Royle (*Impatiens roylei* Walp.). *J. Ecology* **81**: 367-382.
- (2) Beerling, D.J., Bailey, J.P. & Conolly, A.P. (1994). *Ibid.* *Fallopia japonica* (Houtt.) Ronse De Craene. *J. Ecology* **82**: 959-979.
- (3) Clapham, A.R. (1969). *Flora of Derbyshire*. Derby Museum.
- (4) National Rivers Authority/ICOLE (1994). *Guidance for the control of invasive plants near water-courses*. N.R.A. Leeds.
- (5) Welsh Development Agency (1991). *Guidelines for the Control of Japanese Knotweed (Reynoutria japonica)*. W.D.A., Cardiff.
- (6) Grime, J.P., Hodgson, J.G. & Hunt, R. (1988). *Comparative Plant Ecology*. Unwin Hyman, London.
- (7) Blatch, Baroness (1990). Japanese Knotweed. Answer to Baroness Sharples, 16 October 1990. *Hansard* (Lords), 720-721. H.M.S.O.? London.
- (8) *Wildlife and Countryside Act 1981*. Ch. 69, Sect. 14 & Schedule 9, Pt. II.
- (9) *Environmental Protection (Duty of Care) Regulations 1991*.
- (10) Hill, Deborah J. (1994). A practical strategy for the control of *Fallopia japonica* (Japanese Knotweed) in Swansea and the surrounding area, Wales. *Ecology and Management of Invasive Riverside Plants* (eds L.C. de Waal *et al.*), 195-198. John Wiley.
- (11) I.C.O.L.E (1996). *Japanese Knotweed – A Strategy for Effective Control*. Department of Geography, Loughborough University.
- (12) Moyes, N.J. (1995). Japanese Knotweed and Himalayan Balsam Survey. *The Derbyshire Recorder* **4**. Derbyshire Biol. Records Centre, Derby Museum.

- (13) Bailey, J.P., Child, L.E. & Conolly, A.P. (1996). A survey of the distribution of *Fallopia* × *bohemica* (Chrtek & Chrtkova) J.Bailey (Polygonaceae) in the British Isles. *Watsonia* **21**: 187-198.
- (14) Gritten, R. (1990). The control of invasive plants in the Snowdonia National Park. *The Biology and Control of Invasive Plants*. BES Industrial Ecology Group Conference, Cardiff, pp. 80-85.

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NOTICES (BSBI)

FIELD MEETINGS 1998

The field meetings for 1997 are about to begin and I am now starting to plan the programme for 1998.

I would welcome any suggestions from members for locations which they would like to visit and also from volunteers who are willing to lead a meeting. This could be from one to three days (or longer).

If you have not led a meeting before, plenty of help, in the form of guidelines, will be given, so do contact me for a chat.

MARGARET LINDOP, Field Meetings Secretary, 36 Woodland Hill, Whitkirk, Leeds LS15 7DG
Tel. 0113-2646513

BSBI FIELD MEETING THE AZORES 21st June to 6th July 1997

Because only two bookings had been received by mid January 1997, the leader has regrettably found it necessary to cancel the above meeting.

ARTHUR COPPING, The Nook, Brewers Green, Roydon, Diss, Norfolk IP22 3SD

[It is a great shame that this meeting had to be cancelled and we thank Arthur for all the hard work he put into organising it on our behalf. Ed.]

BSBI FIELD EXCURSION IN SOUTH WEST AUSTRALIA 1998

This excursion (see *BSBI News* **74**: 51) now has applicants for the available places, but as these are **provisional** bookings, there could be some spare if any members would like to be on the waiting list.

The dates for the meeting are

September 12 – October 3 1998

We still hope to keep the costs to around £2,500, London – London to include flights, full board (apart from 3 snack lunches in Perth), and all travel in Western Australia.

MARY BRIGGS, 9 Arun Prospect, Pulborough, West Sussex RH20 1AL

NOTICES (NON BSBI)

INVESTIGATION OF THE VASCULAR FLORA IN NORTH OF SWEDEN

During the period 11th July to 3rd August we arrange an annual camp in order to document the vascular flora in Norrbotten, the most north-eastern province of Sweden. The first two weeks are based in Pajala, located about 60 km north of the Arctic Circle. Pajala village was actually the home of L.L. Laestadius, perhaps our most well-known botanist in Sweden.

The method of flora investigation is very similar to the Atlas 2000 project in the UK. The investigation grid is 5 × 5 km. The area of northern Norrbotten is arctic taiga with vast forests and mires. There are several big rivers in the area, all undisturbed! Actually northern Norrbotten is a quite unique part of Europe and the flora of the area is very poorly known.

If you are interested in sharing botanical experiences under the Midnight sun, please contact us. We offer you free lodging and you could stay one, two or three weeks, as you please.

LENNART STENBERG, Fastlagsv. 13, S-126 48 Hagersten, Sweden.

Tel.: 009 46 8-645 34 56 (evening)

UNIT OF VEGETATION SCIENCE – LANCASTER UNIVERSITY

The aim of the Unit of Vegetation Science is to put in place some of the skills and confidence needed to understand and sustain Britain's semi-natural vegetation resources beyond the millennium. Various courses provide training in a number of areas including National Vegetation Classification. Full details of 1997 courses are available from:

JULIA MILTON, Short-Courses Officer, Unit of Vegetation Science, Lancaster University, Lancaster LA1 4YQ. Tel.: 01524-594503; fax: 01524 843854; e-mail: j.c.milton@lancaster.ac.uk; Web homepage: <http://bssv01.lancs.ac.uk/vegsci/home.html>

ASOCIO POR LA ENKONDUKO DE NOVA BIOLOGIA NOMENKLATURO

Association for the Introduction of NEW BIOLOGICAL NOMENCLATURE

Six years ago, a symposium 'Improving the Stability of Names: Needs and Options' took place at the Royal Botanic Gardens, Kew, London (20-23 February 1991). Its proceedings have been edited and widely distributed but hardly any true progress towards improved stability of names is evident.

This is hardly surprising, since the reasons for the existing instability are inherent to the present nomenclature system itself, owing to its history and to the growing lack of knowledge of Latin and Greek.

One may wonder if biologists follow a good working method when continuing with a system of nomenclature that, although a marvellous innovation in the 18th century, is now becoming increasingly inadequate.

Even in 1867 the famous botanist A.P. de Candolle, when editing one of the first projects for a code of biological nomenclature, was wise enough to recognise that one day Linnaeus' method would have outlived itself and that a new method would be needed to replace it. De Candolle's prophecy could become a reality in the 21st century.

In the last few minutes of the Kew Symposium the audience had the opportunity to hear a very short communication on the existence of an alternative nomenclature system that could become promising in the future (see Chapter 21, pp. 179-181 of the Proceedings).

This alternative system, New Biological Nomenclature (N.B.N.), is a special system for naming plants and animals based on the international language of Esperanto, it has matured over the last six years, and we would be happy to send recent information to anyone who requests it.

Dr W.M.A. De SMET, N.B.N., Hertendreef 12, B-2920 Kalmthaut, Belgium

Publication of this note does not imply support for N.B.N., it is just to inform members of its existence! Ed.

FUTURE CONFERENCES AND SYMPOSIA

INTERNATIONAL ASSOCIATION FOR LANDSCAPE ECOLOGY (UK REGION) SPECIES DISPERSAL AND LAND USE PROCESSES

The annual conference of the International Association for Landscape Ecology (UK) will be held at the University of Ulster, Coleraine, Northern Ireland, 9th - 12th September 1997.

Session themes

1. Dispersal and spatial scale
2. Species distribution and land use processes
 - arable and pastoral landscapes
 - uplands
 - forests and woodlands
3. Large-scale distribution patterns and GIS
4. Insect dispersal in altered landscapes
5. Habitat creation and species dispersal

For further information, please contact the organiser at the address below.

Dr ALAN COOPER, IALE97, School of Environmental Studies, University of Ulster, Coleraine, BT52 1SA, Northern Ireland.

Tel: 01265 324692/324428; Fax: 01265 324911; e-mail: iale97@ulst.ac.uk

CARING FOR YOUR HERBARIUM

An Open Day on a botanical theme will be held on **19 April 1997** in Liverpool at the National Museums & Galleries on Merseyside. It will be of particular relevance to owners of private herbaria and volunteers in museums. Visit the Liverpool Museum's award-winning Natural History Centre, take a tour behind the scenes to visit the Museum's Herbarium, and explore the new Conservation Centre displays in Whitechapel (5 minutes' walk from Liverpool Museum). No need to book (but places on behind the scenes tours are limited).

In Liverpool Museum's **Natural History Centre**, demonstrators will show you a wide range of botanical and other material, some displayed in specially designed cabinets. Use the video-microscopes to examine plants under high magnification, surf the Internet using a specially selected list of Web sites. The Centre is open from 13.00 to 16.30; admission free.

Behind the scenes in the **Herbarium**, see state of the art compactorised storage and traditional herbarium cabinets. Examine ways of documenting specimens on computer, and generating labels.

Curators John Edmondson and Donna Hughes will be there to answer your questions. Tours will be held at 14.00, 15.00 and 16.00 and will last about 30 minutes; tickets free, but places are limited.

In the **Conservation Centre [admission charge made]**, visit 'Caught in Time', the new permanent display on museum conservation, including hands-on exhibits. Special sessions will be held on herbarium specimen conservation at 12.30, 13.30, 14.30 and 15.30 using a video link with the Paper Conservation laboratory. The Conservation Centre is open from 10.00 to 17.00.

LIVERPOOL MUSEUM, William Brown Street, Liverpool L3 8EN. Tel: 0151 478 4291

THE CONSERVATION CENTRE, Whitechapel, Liverpool L1 6HZ. Tel: 0151 478 4999

[My apologies to members, and to John Edmondson and Liverpool Museum if this notice arrives too late to be of use. Various factors have combined to make the mailing of this issue of *BSBI News* a week later than usual. Ed.]

REQUESTS

JOURNALS WANTED

Wanted to purchase – *Watsonia* Vols 1-7 inclusive; also a complete set of the *Proceedings of the BSBI*.

JOHN HUMPHREYS, Chygwedhen, Long Lane, St Stephen-in-Brannel, St Austell, Cornwall PL26 7SX. Tel. 01726 824828 (evenings)

BOOK NOTES

NEWS FROM OUNDLE BOOKS

There are a number of important botanical books in the process of being updated, due this spring.

- (1) A completely new edition of Clive Stace's *New Flora of the British Isles*, with the addition of over 200 species and subspecies and numerous extra hybrids. £28-95, and initially, no postal charges.
- (2) *Ferns of Britain and Ireland*, second edition by C. N. Page.
- (3) *The Identification of Flowering Plant Families* fourth edition by J Cullen.
- (4) *The Plant Book* by D.J. Mabberley.

These will all be available from me. As for new books, members can buy Peter Sell's *Flora of the British Isles* at a special rate from the publisher direct, whereas *Common Families of Flowering Plants* by Michael Hickey and Clive King, *Atlas Flora Europaea* Part 11, *Orchids of Cyprus* and *Wildflowers of Southern Western Australia* are some of the variety of new titles you could acquire from me.

Just write, phone or fax for the Supplement to my Autumn 1996 stock list.

MARGARET PERRING, Green Acre, Wood Lane, Oundle, PE8 5TP, Tel.: 01832-273388; Fax: 01832-274568

A BOTANICAL PIONEER IN SOUTH WEST CHINA

Experiences and Impressions of an Austrian Botanist
Heinrich Handel-Mazzetti

This new English translation by our member David Winstanley, published in 1996, contains the complete and unabridged text of the original 1927 book *Naturbilder aus Südwest China* together with much fresh material about his life and personality.

The 217 page paperback in A4 format, costs £17.15 incl. p. & p. (£19.50 overseas) is available from:

Alpine Garden Society Publications Ltd, AGS Center, Avon Bank, Pershore, Worcs. WR10 3JP

FLORA OF ASHDOWN FOREST

Tim Rich, Pat Donovan, Paul Harmes, Alan Knapp, Malcolm McFarlane, Chris Marrable, Nicola Muggerridge, Rachel Nicholson, Madeline Reader, Peter Reader, Elizabeth Rich and Phyllis White

Ashdown Forest is a large area of heathland and wilderness in the High Weald of Sussex of considerable importance for nature conservation. It has a diverse flora and about 900 species have been recorded in the flora area, including specialities such as marsh gentians (*Gentiana pneumonanthe*) and bog asphodels (*Narthecium ossifragum*). Another 60 species such as hairy greenweed (*Genista pilosa*) and bog orchid (*Hammarbya paludosa*) are now thought to be extinct.

Our *Flora of Ashdown Forest* documents the plants found in this superb area of East Sussex, with numerous distribution maps, historical and current records, notes on ecology and local references. It covers the 71 1-km x 1-km squares which include parts of Ashdown Forest. We have used a standardised survey method to minimise recording bias and endeavoured to put equal recording effort into each square and it sets new standards for recording plants in Britain.

The book is hardback with 256 pages, 3 colour and 4 black and white plates. The contents include a description of Ashdown Forest and its habitats, details of the sources of information and methods, an analysis of the recording, the systematic accounts of all plants, a gazetteer and an index.

This is the last chance for members to obtain a copy (only 50 are left) at a cost of £15.50 + £4.00 postage. Please order from Mrs R. Nicholson, Summerhill, Five Ashes, Mayfield, East Sussex TN20 6JG (01825 830286), and makes cheques payable to 'Ashdown Forest flora group'.

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

OBITUARY NOTES

Obituaries will be published in *Watsonia* for the following members:

Dr H.H. Heine, Miss D.S. Lambert MBE, Mr E. Milne-Redhead MBE, ISO, TD, Prof. P.W. Richards AAA, ScD, MA, Mrs V.C.C. Schwerdt and Mr P.J.O. Trist OBE, FLS.

In 1996 we were sad also to lose Mrs Primrose Warburg and Mr F.H. Brightman. Primrose Warburg joined the BSBI in 1946, with her husband Dr E.F. 'Heff' Warburg (the 'W' of C.T.W. *Flora of the British Isles*) who was BSBI President 1965-6, but sadly died during his Presidency. Primrose was particularly interested in petaloid monocots, and for more than 20 years she was the Hon. Sec., President, Treasurer and General Manager of the Crocus group, for which she raised funds by organising crocus auctions. Growing a large collection of crocuses in her garden at South Hayes. Primrose also gave a lot of her time to collecting for the Heart Foundation (her husband's early death was due to a heart attack). With interests also in Shetland ponies and a holder of a heavy vehicle driving licence, Primrose was a remarkable woman who will be greatly missed.

Frank Brightman, a BSBI member for almost 40 years, was a popular member of many Societies. On the BSBI Conservation Committee Frank represented for many years the British Lichen Society of which he was a founder member and later President. When working in the BM Dept of Education, Frank produced the information leaflets for distribution to the public explaining the *Conservation of Wild Creatures and Wild Plants Act 1975* – which was the first legislation for wild plants in this country. For many years Frank was associated with the South London Botanical Institute of which he

became President, then Director, promoted publicity for an expanded programme of lectures and meetings and resuscitated the SLBI garden there. He was awarded the title 'Fellow Honoris Causa' for services to botany by the Linnean Society of London.

With regret too, we report the deaths in 1997 of Mrs M.E.R. Martin, Mr C. Simpson, Miss I.F. Gravestock and Miss E.J. Garlick. Mary Martin was VC Recorder for Dumfriesshire from 1957 - 1993. Author of *Wild Plants of Dumfriesshire* (VC 72 Dumfries.), 1985, Mary Martin was a hard worker in her VC., enjoyed her recording and was very appreciative of the help received from Referees and other BSBI members. A member since 1959, Florence Gravestock served on BSBI Conservation Committee for many years. She was a notably active and vigilant local conservationist, alerting BSBI to threatened plants and sites of botanical importance in the Bristol area. Joan Garlick was a geographer, teacher and lecturer who became absorbed in plants after her retirement when she joined Rene Weston's course of lectures, and was introduced to local fieldwork by the late Miss Joan Gibbons in Lincolnshire. From these contacts Joan recorded in these vice-counties with enthusiasm, including squares for the BSBI Monitoring Scheme. She will be greatly missed by many friends who enjoyed botanising with her.

MARY BRIGGS, 9 Arun Prospect, Pulborough, West Sussex RH20 1AL

REPORTS OF FIELD MEETINGS – 1995/1996

Reports of Field Meetings are edited by Dr Alan Showler, 12 Wedgewood Drive, Hughenden Valley, High Wycombe, Bucks HP14 4PA, and **reports should be sent to him**, not to the editor of *BSBI News*.

1995

BLACK ISLE COAST, EAST ROSS-SHIRE (VC 106). 27th MAY

Eighteen BSBI members plus ten from Inverness Botany Group met at Rosemarkie to explore the inaccessible south-east coastline of the Black Isle, within the Rosemarkie to Shandwick Coast SSSI. The IBG party led by Margaret Barron remained in the Rosemarkie area, recording in woodland, sand dune and coastal cliff habitats. The base-rich nature of the Old Red Sandstone in this locality was well illustrated by some of the more notable species found: *Astragalus danicus* (Purple Milk-vetch), *A. glycyphyllos* (Wild Liquorice), *Geranium sanguineum* (Bloody Crane's-bill), *Helianthemum nummularium* (Common Rock-rose), *Saxifraga granulata* (Meadow Saxifrage) and *Potentilla neumanni-ana* (Spring Cinquefoil). The BSBI party drove north to Eathie and traversed the 7 km of coastline back to Rosemarkie, taking in views of spectacular sandstone pinnacles, caves inhabited by rock-doves and a sighting of the famous Moray Firth dolphins. We were joined for part of the walk by three of the farmers who had kindly permitted access to their land. The varied habitats encountered included: herb-rich dry grasslands with *Koeleria macrantha* (Crested Hair-grass), *Lotus corniculatus* (Common Bird's-foot-trefoil), *Linum catharticum* (Fairy Flax), *Thymus polytrichus* (Wild Thyme), and more *Helianthemum nummularium*; calcareous seepages with *Schoenus nigricans* (Black Bog-rush), *Eupatorium cannabinum* (Hemp-agrimony), *Orchis mascula* (Early-purple Orchid) and *Lychmis flos-cuculi* (Ragged-Robin); strand-line shingle with *Atropa belladonna* (Deadly Nightshade) and *Cynoglossum officinale* (Hound's-tongue) – both possibly ancient escapes from an early monastic site at Fortrose, further down the coast; sand dunes with *Ammophila arenaria* (Marram), *Leymus arenarius* (Lyme-grass), *Erodium cicutarium* (Common Stork's-bill), *Rosa pimpinellifolia* (Burnet Rose), *Valerianella locusta* (Common Cornsalad) and *Geranium molle* (Dove's-foot Crane's-bill); dry sandstone rocks with *Sedum acre* (Biting Stonecrop), *Armeria maritima* (Thrift), *Fulvia bromoides* (Squirreltail Fescue) and *Reseda luteola* (Weld); and scrub of *Corylus avellana* (Hazel), *Prunus spinosa* (Blackthorn)

and *Sambucus nigra* (Elder) supporting a woodland ground-flora including *Allium ursinum* (Ramsons), *Mercurialis perennis* (Dog's Mercury), *Adoxa moschatellina* (Moschatel) and *Galium odoratum* (Woodruff).

Further records of *Astragalus glycyphyllos* and *Potentilla neumanniana* were made, some of them in new localities for the SSSI. An additional find was several isolated specimens of *Sorbus rupicola* (Rock Whitebeam), later confirmed by Allan Stirling, on the cliffs. Despite these botanical delights, the tide was still sufficiently far out when we arrived at the tidal cliff just north of Rosemarkie, for us to be able to rejoin the IBG party dry-shod. The combined total of species seen by the two parties was 268.

RO SCOTT

1996

GRANTOWN-ON-SPEY (VCC 94 & 95). 20th-21st JULY

On Saturday a group of sixteen members and friends met at the Cairngorm Coire Cas car park. The news that the chair-lift was not working was greeted with some dismay, but two groups were undeterred and set off on foot.

The Cairngorm – Ben Macdui plateau and the area around Loch Avon are part of the large RSPB reserve, and we were fortunate in having the reserve warden, Andy Amphlett, to lead one group. The main target was the colony of *Poa glauca* (Glaucous Meadow-grass) which grows on Stacan Dubha on Beinn Mheodhoin.

Another group, led by Graeme Kay, went up Coire an t-Sneachda and on to the plateau. At 1309 metres Ben Macdui is the second highest hill in Scotland, and only a restricted range of species grow there. However, several hundred plants of *Luzula arcuata* (Curved Woodrush) were found on the seldom visited northern slopes.

The rest of the party returned to Grantown and went on to Lochindorb. A feature of the loch is the island with the ruin of the 13th century castle. Once the stronghold of Alexander Stewart, the Wolf of Badenoch, it was destroyed in 1455 by the Thain of Cawdor. Now Cawdor Estates, with the help of Historic Scotland, plan to restore the castle, and wanted to know if there were any rare plants on the island which might be destroyed in the process. Ian Green, the recently appointed recorder for VC 95, rowed out to the island, and came back with an up-to-date list.

The remainder of the group recorded plants along the shore line. These included, subject to confirmation: *Isoetes lacustris* (Quillwort), *I. echinospora* (Spring Quillwort) and *Potamogeton praelongus* (Long-stalked Pondweed).

After lunch on the shore, the party went on to Huntly's Cave, a rocky gorge five km north of Grantown. The cave is named after the second Marquis of Huntly who hid there from the Covenanters in 1645. There was some speculation about which cave he used, but it was probably the one which Anna White spotted high up on the cliff. While gazing upwards Olga Stewart spotted a red patch of *Geranium lucidum* (Shining Crane's-bill). Lower down the gorge opened out into grassland with some *Persicaria vivipara* (Alpine Bistort).

On Sunday numbers were down to eight. A group of five, led by Graeme Kay, went back to the Cairngorms. The chair-lift was working again, so the group went up Cairngorm and down into Coire Raibeirt, here some large pink mats of *Loiseleuria procumbens* (Trailing Azalea) caught the eye, *Lycopodium annotinum* (Interrupted Clubmoss) was also doing well.

The remaining three members revisited Huntly's Cave, this time exploring the upper reaches of the gorge and the pine wood. At the lay-by they found the roadside verges lined with *Spergularia rubra* (Sand Spurrey) and *S. marina* (Lesser Sea-spurrey), presumably from the salt and grit put on the roads during the winter.

The group then went to Lochindorb and searched the south end of the loch and the adjacent marshy area. A good specimen of *Isoetes lacustris* was found washed up on the shore. On the way back

to Grantown a slight diversion was made to Old Grantown Wood where the scattered colony of *Linnaea borealis* (Twinflower) was flowering well.

I would like to thank Logie Estate, Cawdor Estate and Strathspey Estate for permission to go on their land. Also the members and friends who helped with the recording. They were rewarded with a sunny weekend in some of the finest countryside in Scotland.

J EDELSTEN

CO. LIMERICK (VC H08). 24th-25th AUGUST

On Saturday, we met south of Limerick city at Lough Gur (R/6.4), an area renowned for its prehistoric sites and monuments. The botanical group consisted of two members from England, two from Wales, two from Belfast, three from Dublin, two from Kerry and four from Cork. Despite heavy downpours, we recorded in the marsh by the lake where *Bidens tripartita* (Trifid Bur-marigold) and *B. cernua* (Nodding Bur-marigold) grew side by side. Many plants of *Rumex maritimus* (Golden Dock), first found here in 1900, were appropriately turning yellow-brown. The rare aquatic *Ceratophyllum demersum* (Rigid Hornwort) has also been known here for at least a hundred years. On the adjacent grassy slopes with reef limestones, we found *Arabis hirsuta* (Hairy Rock-cress), *Viola tricolor* (Wild pansy) and *Koeleria macrantha* (Crested Hair-grass).

From Lough Gur, we drove a few kilometres south to contrasting habitats at Knockderc Hill (R/6.3), a hill of red syenite which has been quarried in the past. At this time of year, *Sambucus ebulus* (Dwarf Elder), an introduced plant in Ireland, was conspicuous on the roadside. On the south side of Knockderc Hill, we discovered a wet area with well developed tussocks of *Carex paniculata* (Greater Tussock-sedge), *Potentilla palustris* (Marsh Cinquefoil), *Sparganium erectum* (Branched Bur-reed) and *Menyanthes trifoliata* (Bogbean) under *Alnus glutinosa* (Alder). Peregrine falcons flew over the hill.

On Sunday, the regional Wildlife Ranger briefly joined the smaller group. We first visited an ungrazed saltmarsh on Aughinish Island (R/2.5) where there were many plants of *Seriphidium maritimum* (Sea Wormwood) and *Limonium humile* (Lax-flowered Sea-lavender) among the saltmarsh grasses. *Elytrigia atherica* (Sea Couch) and *E. repens* (Common Couch) grew at the top of the saltmarsh where they are possibly hybridising.

A beautiful area of limestone grassland in the same 10 km square at Barrigone contained many characteristic calcicole species including *Juniperus communis* (Common Juniper), *Rubus saxatilis* (Stone Bramble), *Carlina vulgaris* (Carline Thistle), *Sanguisorba minor* (Salad Burnet) and *Euphrasia salisburgensis* (Irish Eyebright) as well as *Oeoglossum viride* (Frog Orchid) and *Viola hirta* (Hairy Violet), currently a protected species. *Cuscuta epithymum* (Dodder) was very common and was flowering profusely. *Neotinea maculata* (Dense-flowered Orchid, Irish Orchid) was seen here a few years ago. A surprise new find at this well botanised dry site was a single clump of *Schoenus nigricans* (Black Bog-rush).

We lunched in Askeaton (R/3.5) by the river (with its kingfisher), where there were scattered plants of *Linum usitatissimum* (Flax) among recently sown white clover. After reading out a list of plants found in Askeaton by Praeger while doing fieldwork for his *Irish Topographical Botany* (1901), we promptly refound many patches of *Clinopodium ascendens* (Common Calamint) on a nearby rock outcrop. Between the river and the Franciscan Abbey, we found *Apium graveolens* (Wild Celery), *Verbena officinalis* (Vervain), *Conium maculatum* (Hemlock) and *Vicia hirsuta* (Hairy Tare), the last an uncommon plant in the west of Ireland.

In contrast to the variety of good habitats and mostly native plants seen over the weekend, we paid a brief visit to Foynes Port (R/2.5) on the River Shannon where many alien species have been recorded since 1988. Weedkiller had been liberally used at the port, but we still found a patch of robust *Amaranthus retroflexus* (Common Amaranth) as well as small numbers of other aliens such as *Malva pusilla*

(Small Mallow), *Erucastrum gallicum* (Hairy Rocket), *Lepidium ruderae* (Narrow-leaved Pepperwort) and, unexpectedly, two plants of *Reseda lutea* (Wild Mignonette).

From my point of view, as recorder for Co. Limerick, the field meeting was both enjoyable and very productive; undoubtedly new eyes added some good records and new ideas provoked interesting discussions.

SYLVIA REYNOLDS

ANNUAL EXHIBITION MEETING – 1996

The reports that follow have been edited for publication by Dr Sarah Webster. Sarah writes that although '... it's really a small job... I have a superfluity of small jobs!' and has decided to resign from this one. We thank her for her efforts on our behalf.

IS *FALLOPIA* × *BOHEMICA* IN YOUR ATLAS 2000 SQUARE?

A corrected and updated version of the distribution map published in Bailey *et al.* 1996, and a list of all records with grid reference, sex expression and chromosome number (where available) were on display. 24 new 10 km squares have been added since the 1996 paper. Herbarium specimens of the two parents and the hybrid were available to refresh members' memories. The hybrid has now been found in 51 vice-counties throughout the British Isles. Vice-counties or regions with a number of records are attributable to the efforts and expertise of the local botanists. It is anticipated that this taxon is still heavily under-recorded and that the Atlas 2000 project will produce many new records.

Reference

Bailey, J.P., Child, L.E. & Conolly A.P. (1996). A Survey of the distribution of *Fallopia* × *bohemica* (Chrték & Chrtkova) J Bailey (Polygonaceae) in the British Isles. *Watsonia* 21: 187-198

J.P. BAILEY

A CYTOLOGICALLY CONFIRMED POPULATION OF *POTAMOGETON* × *GESSNACENSIS* IN SHETLAND

On 1 August 1996 PMH and CDP found a population of plants which appeared to be intermediate between *Potamogeton natans* and *P. polygonifolius* at Loch of Gards, Scat Ness, Mainland, Shetland. Cytological examination by JPB showed that the plants had a chromosome number of $2n=c.39$, intermediate between that of *P. natans* ($2n=52$) and *P. polygonifolius* ($2n=26, 28$). We have therefore concluded that they are the hybrid between these two species, *P.* × *gessnacensis* G. Fisch., which was previously known in the British Isles from Caernarfonshire and East Ross. Specimens of the plants and photographs of the site, the living plants and the cytological preparations were exhibited. A more detailed account has been submitted to *Watsonia*.

J.P. BAILEY, P.M. HOLLINGSWORTH & C.D. PRESTON

ULMUS LAEVIS NATURALISED IN CARDS, VC 46

The European White Elm, *Ulmus laevis*, native from Central France to the Caucasus, is reported naturalised for the first time in Britain in mixed woodland at Rhydyfelin, SN593.793, 2 km SSE of Aberystwyth. Vigorous sucker growths extend over an area 10 × 6 metres, and the parent trees, which were probably planted 70-100 years ago appear to be resistant to Elm disease. The species can be recognised by the pointed buds, the long-pedicellate flowers, and the conspicuously ciliate samaras. The rather similar *U. americana* has less acute buds, longer petioles, narrower leaves, and the apical notch of the samara reaches the seed (which it does not do in *U. laevis*).

A.O. CHATER

FLORA OF CRETE – A SUPPLEMENT

Flora of the Cretan area: annotated checklist & atlas, by Nick Turland, Lance Chilton & Bob Press, was published by The Natural History Museum and HMSO in March 1993. Crete is now, without doubt, botanically the best explored region of Greece, and one might expect little new information to come to light. However, with so many botanists now working in the area, and with the inevitable interest generated by a new *Flora*, a substantial body of new information has swiftly built up. This will be presented as a Supplement to the *Flora* by Chilton & Turland, to be published in early 1997. The distribution mapping program DMAP for Windows has been employed to produce new maps. These are generated from the Flora of Crete Database, which contains records for some 2,400 species and subspecies, 650 synonyms, 350 bibliographic references, and 34,000 plant records, based on literature sources, herbarium specimens, and the authors' own field observations.

L. CHILTON & N. TURLAND

AZORE FIELD MEETING, 1997

The purpose of the exhibit was to publicise the meeting planned for 21/6/97 to 6/7/97. Photographs, plant lists and guides to the islands were displayed, together with living material of two Azorean endemic species, *Carex vulcani* Hochst. and *Festuca petraea* Guthnick ex Seub., both widespread on islands to be visited.

A. COPPING

UPDATING THOSE OTHER LARGE ALIEN 'POLYGONUMS'

A map was shown of the known occurrence in Great Britain and Ireland of the dwarf variety of Japanese Knotweed, *Fallopia japonica* var. *compacta*. This variant was first described by Hooker f. in 1880 and is distinguished by low growth and leathery, square-cut leaves with wavy margins. Unlike var. *japonica*, 'male-fertile' plants are known as well as male-sterile ('female'). Moreover, var. *compacta* has only 2n=44 chromosomes in contrast to var. *japonica* with 2n=88. A putative hybrid between the two has been found. Grown as a decorative garden plant, the dwarf variant is less invasive than var. *japonica*. The earliest known cultivation dates from 1881 (Kirkstall Abbey, Leeds), and the first established record 1915 (Melrose Abbey). Records are known ranging from Cornwall and Kent to Inverness and Shetland; and Blarney Castle, Ireland.

Updated maps were also shown for 'normal' var. *japonica* and for other alien 'polygonums': *Fallopia sachalinensis* (Giant Knotweed), *Persicaria wallichii* (*Polygonum polystachyum*) (Himalayan Knotweed), and *P. campulata* (Lesser Knotweed), to indicate additional sites recorded since 1976 (see *Watsonia*, 1977).

A.P. CONOLLY

BOTANICAL SITE QUALITY MONITORING ON DORSET SSSI'S AND NNR'S BY ENGLISH NATURE

In addition to a programme of visits to check the nature conservation condition of all Sites of Special Scientific Interest (SSSI's) and National Nature Reserves (NNR's), more detailed botanical site monitoring is carried out by English Nature on selected sites. In Dorset such monitoring is most frequently carried out on sites where grazing regimes have been introduced or modified, or levels of fertiliser input modified, usually under management agreements or Wildlife Enhancement Schemes, or on NNR's. Methodology most frequently involves numbers of stratified random nested quadrats being recorded in each monitoring plot, and on grassland sites the ecological attributes of the vegetation are analysed using a computer database. Results are used to inform management policies and site management decisions, and provide an objective basis for long-term analysis of vegetation change.

J.H.S. COX

AN ABERRANT FLORA PROJECT

Literature relating to the study of plant aberrations and teratology was displayed. The 400th anniversary of Gerard's catalogue of plants growing in his London garden was acknowledged. Specimens displaying spiral torsion in *Urtica dioica*, (Nettle), *Dipsacus fullonum* (Teasel), *Mentha spicata* (Spearmint) and *Plantago lanceolata* (Ribwort Plantain) were shown. A curious specimen from the teratological collection at The Natural History Museum was made available displaying extra leaf tissue produced on the surface of the leaves of *Brassica oleracea* (Wild Cabbage). There were two examples of fasciation having caused reversion of variegated cultivars (in *Hedera helix* (Ivy) and *Ilex aquifolium* (Holly)) and the theory that this might be a 'use' for fasciation was propounded. A miscellany of other recently occurring aberrations was presented and reports from members were invited.

M.J. CRAGG-BARBER

THE STATE OF RECORDING IN THE BRITISH ISLES

The state of recording in the Britain and Ireland has been analysed, allowing us to target recording for Atlas 2000. Initial submission of records to BRC is in October 1997. Vice-county Recorders estimated the number of hectads (10 km squares) they would be ready to submit at this time. The percentage of their total hectads this represented was displayed on a map. There are 2836 hectads in Britain; records from 1417 are expected in 1997 (49.9%). Records from each hectad will be submitted by a single person. Where the hectad is shared between two or more Vice-counties (a 'shared-square'), responsibility for submission has been given to one of the Recorders involved. This allocation of shared-squares (shown on the map) does not mean that Vice-county boundaries have been squared-off, only that a single person submits records. The Vice-county identity of records will be preserved, even if they come from a shared-square.

T.D. DINES, Atlas Organiser

SOME MONMOUTHSHIRE (VC 35) AND WENGEN PLANTS

The plants, mounted on museum herbarium sheets, were chosen for different reasons but certainly to arouse interest. Three sheets of *Bupleurum tenuissimum* (Slender Hare's-ear) showed ungrazed plants over 30 cm tall, cattle-grazed plants under 4 cm tall and sheet that was blank apart from the plant name. Some viewers missed the point of the latter as the sheet was often turned over. Some of the alien species now turning up in the Vice-county were on display and included a Broom, *Cytisus striatus*, with silky-white hairy fruits that are planted on roadside banks by highway authorities, *Phacelia tanacetifolia*, planted in bands to keep aphids away from Rape crops, *Hydrocotyle ranunculoides* (Floating Marsh Pennywort), which forms rapidly spreading patches and promises to be a bigger menace than *Crassula helmsii*, *Lathyrus heterophyllus*, which, according to Stace, is found in dunes in West Norfolk and perhaps nowhere else, but exists in a very large colony beside a disused railway near Pye Corner, Newport. Specimens showed that the position of bracteoles on pedicels of Marsh Violet is not a reliable character for separating the two subspecies. More often than not *Viola palustris* subsp. *palustris* has its bracteoles well ABOVE halfway and not below as in Stace.

The Wengen display was mainly of sedges and grasses. One sheet showed the inflorescence similarity of *Carex foetida* from above First with those of *Carex stenophylla* from Central Hungary and *Carex maritima* from Scotland. Another showed that the 'curly' foliage of *Carex curvula*, found in quantity above First, is very like that of another mountain sedge *Carex rupestris* of Scotland.

T.G. EVANS

SOME ENDEMIC PLANTS OF THE UPPER REGIONS OF THE SIERRA NEVADA, SPAIN

The Sierra Nevada is an isolated high mountain massif in south-east Spain with several summits around the 3400 metre contour. The nearest mountains of comparable height are in the Pyrenees and the High Atlas of Morocco, both over 600 km distant. Due to its isolation and extreme height in proximity to the Mediterranean coast, the Sierra Nevada has a large and interesting flora with many endemic species. The exhibit illustrated three of these which are only found on the stony schistose slopes or consolidated scree in the highest regions of the mountain. These were *Artemisia granatensis*, now very rare because of previous commercial collection for its value as a medicinal herb, *Viola crassiuscula*, quite frequent around the summits and *Erigeron frigidus*, a small caespitose plant whose closest relatives are in the Middle East.

M.J.Y. FOLEY

ORIGINAL DRAWINGS AND SAMPLE COPIES OF COMMON FAMILIES OF FLOWERING PLANTS C.U.P. 1997

This book provides a basic introduction to twenty-five commonly occurring families of flowering plants, chosen for their economic, ornamental and ecological importance. It is designed to enable students of botany and related disciplines to gain some knowledge of the general characteristics of each family and the relationships between them. It will also be helpful to those pursuing courses in botanical illustration, field studies, and other activities requiring a knowledge of flower structure. An introductory section provides basic botanical information which is often assumed to be known and which is essential for a proper consideration of the families themselves. These are described in the second

section of the book. For each family, information on its distribution, classification, general features and economic importance precedes a detailed description of a typical representative species. For the larger or more varied families several representative species are included. The text is illustrated throughout with clear and accurate line drawings taken from life and these are accompanied by a written commentary. There are also numerous explanatory diagrams. An exhaustive glossary is provided as an additional aid to the reader.

M. HICKEY & C.J. KING

ISOETES HYBRIDS IN BRITAIN

Our two aquatic species of *Isoetes*, *I. echinospora* (Spring Quillwort) and *I. lacustris* (Quillwort), are common throughout the northern cool temperate zone. *I. echinospora* is a diploid ($2x=22$); *I. lacustris* is a decaploid ($2x=110$). In eastern North America the two species frequently hybridise forming *I. × hickeyi* Taylor & Lubke ($2x=66$). In Britain the two species are rarely recorded as growing in the same lake. More lakes where the two species are found together are coming to light, however, and we want to urge field recorders, when mapping for Atlas 2000, to get familiar with the habit and 'jizz' of each species and make a special search for intermediate plants.

The exhibit illustrated material from two areas where putative hybrids have been found: Llyn Pendam (VC 46; collected by Arthur Chater) and Loch Choire Dhuibh and Loch Leathaidh, Assynt (VC 108; collected by Pat and Ian Evans). The plants showed abortive spores (shown by presence of many much smaller, usually empty megaspores, or shrivelled microspores), intermediate leaf morphology and megaspore wall patterning. It is now important to check the chromosome number of these populations. Spores of cytologically checked *Isoetes × hickeyi* (kindly sent by Daniel Brunton, Ontario) were similarly illustrated for comparison.

C. JERMY, A. CHATER, P. & I. EVANS & O. STEWART

A NEW BRITISH /AUSTRALASIAN HYBRID: *EPILOBIUM MONTANUM × E. PEDUNCULARE*

This – probably unique – specimen of a cross between the Broad-leaved Willowherb and the Rockery Willowherb was found in August 1996, in oak woodland near Aberfoyle, VC 87.

It is clearly intermediate in its semi-prostrate habit, its large and deeply dentate ovate leaves, slightly bronzed, and its partly lobed stigmas. *Epilobium pedunculare* is little naturalised outside New Zealand, where *E. montanum* is hardly present. Opportunities for hybridisation are therefore limited.

The find provides further evidence of the lack of hybridisation barriers between New Zealand and British species of *Epilobium*, to add to the increasing records of hybrid combinations with New Zealand Willowherb, *E. brunnescens*.

G.D. KITCHENER

A TRIPLE HYBRID WILLOWHERB: *EPILOBIUM CILIATUM × E. HIRSUTUM × E. PARVIFLORUM*

A hybrid was exhibited, of which *Epilobium hirsutum* was the pollen parent, and *E. parviflorum × E. ciliatum* the seed parent. Triple hybrid willowherbs are known, but seldom recorded, and determination is not easy. The present specimen was exceptional in the evidence available to justify the determination.

It resulted from a natural cross within a mixed population of *Epilobium* growing at Polhil, W. Kent, VC 16. Several F2 plants were raised from seed gathered from *E. parviflorum* × *E. ciliatum* in that population, and from those, the plant exhibited was exceptional in showing clear evidence of *E. hirsutum* parentage as well. This was apparent from flower colour and size, as well as seed shape (in the occasional fertile seeds). Stigmas were intermediate.

G.D. KITCHENER

EPILOBIUM BRUNNESCENS HYBRIDS : AN UPDATE

The exhibit illustrated the hybrids with New Zealand Willowherb now known in the British Isles. Crosses have been found with *Epilobium ciliatum*, *E. lanceolatum*, *E. montanum*, *E. obscurum* and *E. palustre* – most of these endemic to the British Isles.

Many new records have been made in 1995 and 1996. The total number of sites is 11, mostly quarry or mining sites in Cornwall, but also locations in South Wales and Northern Ireland. There are no Scottish records, despite search. It is early to draw any conclusions as regards distribution, beyond the obvious need for overlapping ranges of parents. But most habitats are disturbed, and extremely hostile to plant life. The Cornish concentration may reflect the impact of weather on hybridisation, if the effect of dull days is to diminish flower opening, and so increase the likelihood of self-pollination.

A full account is in preparation.

G.D. KITCHENER

FLORA OF THE BAILIWICK OF GUERNSEY 1996

We have not had a lot of new records from the islands this year, although Sark botanists have been busy. Hopefully, recording over the next few years for Atlas 2000 will turn up new finds! *Anthemis arvensis* appeared in disturbed ground near an area of recently seeded grassland, thus the seed may have been imported, as the only previous record was in 1901. *Carex acutiformis* was found in a wet meadow, and may be found elsewhere now that we recognise it.

In Sark, *Medicago lupulina* and *Veronica agrestis* were last seen in the 1800s, whilst *Veronica polita*, found in a garden, had not been recorded since 1958. *Allium vineale* is also an elusive plant last recorded in 1956. A new record for Sark was *Juncus gerardii*, found on rocks at the bottom of cliffs. This plant is rare in the other Channel Islands also.

B.J. OZANNE

SEX DISTRIBUTION OF AMPHIBIOUS BISTORT (*PERSICARIA AMPHIBIA*) IN THE BRITISH ISLES

Amphibious Bistort, *Persicaria amphibia* (L.) Gray, is widespread and common in many areas in Britain; it has terrestrial and aquatic growth forms. Seeds are rarely set: none was found on the Midland plants which I examined in 1994-6.

To investigate this infertility further, I examined the distribution in the British Isles of the sexual forms of this plant, and the presence of seeds, in live and herbarium specimens.

1. 'Female' plants are the commonest sexual form in the material studied ('female': 101, 'male': 59, 'hermaphrodite': 33).
2. Map 1: The 3 sexual forms are generally distributed throughout Britain though there may be fewer 'male' plants in NW Wales.
3. 34 of the 193 plants carried seed (17.8%).
4. Map 2: More plants from England and Wales set seed ($30/152 = 20\%$) than those from Scotland ($4/41 = 10\%$).
5. There are several factors influencing fertility in *P. amphibia*, further studies are planned and fresh material (particularly from Ireland) would be welcome.

J.W. PARTRIDGE

THE FIRST ATLAS FIRST MAPPING MEETING IN SCOTLAND

A photograph of members of BSBI setting out to map squares in Galloway from Newton Stewart in June 1955 was exhibited. It belongs to Peter Hall, who with his wife Joan, Mr & Mrs Howitt and Miss Biggar, appears on the photograph.

The report of the meeting in *Proceedings* and distribution patterns revealed by the meeting were also exhibited. The latter were compared with data collected during a similar meeting in mid-Wales the following year.

F.H. PERRING

SOME INTERESTING PLANTS FROM THE CAMBRIDGE HERBARIUM

Specimens of the following taxa were exhibited from the Cambridge University herbarium (CGE): *Cirsium palustre* var. *ferox* Druce, *Crassula helmsii*, *Hieracium pruinale*, *Limonium dodartiforme*, *Potamogeton* × *lanceolatus*, *Prunus domestica* subsp. *insititia* var. *nigra* Ascherson & Graebner, *Senecio aquaticus* var. *ornatus* Druce, *Taraxacum retzii* and *Ulmus minor*. Most specimens were accompanied by photographs or descriptions made from the living plant, or critical notes. The incorporation of many of the specimens into the herbarium was made possible by grants from the BSBI Bequest Fund.

C.D. PRESTON & P.D. SELL

ENVIRONMENTALLY INDUCED VARIATION IN *RUBUS* SERIES *HYSTRICES* AND ASSOCIATED PROBLEMS WITH IDENTIFICATION

Because of the large number of species it has been convenient to divide *Rubus* L. subgenus *Rubus* (blackberries and dewberries) into series defined mainly by the quality of their armature and presence or absence of stalked glands. Of these, series *Hystrices* boasts the most complex set of arms.

Where problems of identification arise they often relate to characters which are habitat dependent. Species with a wide distribution may experience different climates, soils and/or habitats. When this is the case the full variability of the species may be displayed, often frustrating any would-be batologist.

The species exhibited were mostly local or regional endemics. Authentic material was exhibited along with specimens, potentially of the same species, but from outside their known distribution.

One specimen was confirmed to be definitely not the species suggested, but members present were unable to confirm the correctness or otherwise of nine other determinations.

R.D. RANDALL

FLORA OF ASHDOWN FOREST

Copies of the new *Flora of Ashdown Forest* were displayed. This is the first Flora in Britain to be systematically recorded and sets new standards; all future atlas projects should use similar methods to standardise recording and minimise bias.

T.C.G. RICH

A NEW SPECIES OF *SORBUS* FROM THE AVON GORGE, BRISTOL

During a survey of *Sorbus* in The Gully, Avon Gorge, Bristol we found three plants of a distinct *S. porrigentiformis* / *leptophylla*-allied tree (unpublished report to English Nature). It has large, obovate leaves with cuneate bases and c. 9-10 pairs of veins, and deep red fruits, longer than wide (typically 11-13 mm long) with few lenticels.

Examination of material in Cambridge (CGE) suggests that our plants are close to *S. leptophylla* but appear distinct. These plants are currently referred to by us as 'JWWhite' for convenience, and if confirmed as a new taxon may be named after the great Bristol botanist J.W. White to celebrate the 150th anniversary of his birth in 1846. This will then be White's whitebeam!

T.C.G. RICH & L. HOUSTON

FLORA OF GREAT BRITAIN AND IRELAND

The cover designs of the five planned volumes of *Flora of Great Britain and Ireland* were displayed and two made-up copies of Volume 5 (without the index) were available for perusal. A display entitled 'The road to the Flora' began with childhood and adolescent photographs of P.D.S., who got to know cornfield weeds 'walking behind tractor and binder' and roadside plants 'cycling over 100,000 miles in southern Cambridgeshire'. Other photographs illustrated hawkweed-hunting with Cyril West and N. Douglas Simpson (with his celebrated 1930 Alvis); 2,000 miles 'square-bashing' in Ireland in 1952 with David Webb, Max Walters, Tom Tutin, Roy Clapham, Tyge Bøche and Donald Pigott; P.D.S. and J.G.M. on fieldwork with undergraduates; the authors of *A Flora of Cambridgeshire* (1964); John Corner, Alex Watt and Cyril West at a party at CGE; and Cyril West's 90th birthday celebrations, also at CGE.

P.D. SELL & J.G. MURRELL

BRITISH UMBELLIFERES AND THEIR TURKISH COUSINS

By no means all the umbelliferae in Turkey are obscure, poorly-collected and unrelated to those of Western Europe. The exhibitor provided 30 pressings to illustrate affinities between British and Turkish species, showing one British plant per genus and 1-3 Turkish relatives.

Realisation that Turkey has six times as many umbelliferae as Britain may be disconcerting initially but the genera exhibited can provide a basis of confidence from which to confront those which have no close European allies. That basis could become wider than a modest exhibit could demonstrate – 3 species of *Pimpinella* were shown, for instance, whereas Turkey has 25.

Not all the affinities are immediately obvious, of course. Fruits where present, are *usually* diagnostic, but their presence cannot be relied upon, so we need to develop an eye for other characters. As the exhibitor claimed, one point was clearly made – Umbellifers (sorry, Apiaceae) are NOT all the same.

M. SOUTHAM

SCOTTISH MISCELLANY

1. An exhibit showing plants that are appearing on newly seeded roadside verges and on waste ground by a new library near Dumfries. *Lotus corniculatus* var. *sativus* and *Anthyllis vulneraria* subsp. *carpatica* were among those which makes one suspect that it was foreign seed. Also there were *Anthemis arvensis* and *Centaurea scabiosa*, not found in SW Scotland, alien to the area.
2. New VC 73 Kirkcudbrightsh. *Pastinaca sativa* and drawings of other records. Also *Persicaria hydropiper* × *P. minus*, possibly new to Scotland.
3. *Calamagrostis canescens* was found on the Atlas 2000 meeting near Lockerbie, the 4th South Scotland site, again with the atypical sturdy awn overtopping the lemma.
4. A *Calamagrostis* specimen collected from a large population in the Insh Marshes near Kincaig, VC 96. It looks like, and the measurements are close to, *Calamagrostis purpurea*, but has a lower awn attachment. This need further study.

O.M. STEWART

RUBIA TINCTORUM (MADDER) IN SOUTH LINCS. VC 53, 1996

Herbarium specimen and photographs of a large plant of *Rubia tinctorum* found in South Lincolnshire in 1996 were exhibited, together with details of habitat, flowers and fruits. The plant was found on a Jurassic limestone wall in the village of Boothby Graffoe (SK/9.5).

References to the use of the plant in dying and data on the quantities of madder root imported into Great Britain from abroad in the 1850s and 60s were given, as were brief comments on the data in current floras.

I. WESTON

SCORZONERA HUMILIS – NEW TO WALES

A large population of *Scorzonera humilis* (Viper's-grass) was discovered by the author in several hectares of marshy and dry grassland at Cefn Cribwr, South Wales, VC 41, Glam. (East), in early June. Specimens from this population are indistinguishable in achene and other characteristics from herbarium material of *S. humilis* in NMW and CGE. Two other extant sites are known in the British Isles: at

Ridge in Dorset, with two further sites recorded in the past near Poole, Dorset and Earlswood, Warwickshire. The habitat at Cefn Cribwr is broadly similar to that of the Dorset sites and also to that in continental Europe. Recent floristic data at Cefn Cribwr and Dorset were compared with quadrat records taken in Brittany in 1990. British populations occur in similar plant communities to those recorded on the continent, supporting claims that the species is native in England and Wales.

J.P. WOODMAN

The following exhibits were also shown:

- Mistletoe Survey results – J. Briggs
- BSBI approved software and Co-ordinator's corner – C.S. Crook
- Molecular systematics of *Limonium* – R.S. Cowan
- Wild flowers of Totteridge – D. Griffith
- Know your aliens by growing them – G. Hanson
- Help – S. Karley
- BSBI Annual Exhibition Meeting, Leicester, 1995 – S. Taylor
- British fungi illustrations – J.P. Tyler

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KINDROGAN FIELD CENTRE

The 1997 brochure listing Study Holiday Courses at Kindrogan Field Centre is now available. Of particular interest to BSBI members is a course on *Coniferous Trees in Scotland* by our Co-ordinator, Cameron Crook from July 12-19. The brochure is available from the address below:

ALISON GIMINGHAM, Kindrogan Field Centre, Enochdhu, Blairgowrie, Perthshire PH10 7PG.
Tel: 01250 881 286; Fax: 01250 881 433

GUIDE TO CONTRIBUTORS

PAPERS

The success of a journal like *BSBI News* depends on the editor receiving many relatively short contributions of topical interest. There must be lots of members who have something interesting, informative or just plain amusing that they would like to share with others and this journal is meant to be the place for the 'ordinary' member to express her or his opinions. So please do continue to send in your notes or letters and I will do my best to publish them. I am prepared to accept copy in any form but it is so much easier for me if this can be sent typed or printed. The following recommendations will, if followed, make the editor's job that much easier.

1. Keep it short! Preferably to less than two pages of finished print. Longer articles can be accepted but it may be more difficult to fit them in quickly. As you will see by looking through any issue, many contributions are half a page or less.
2. It is nice to have typed copy but if you don't have access to a typewriter or computer, just write it out making sure that your handwriting is **legible**, especially for names of persons, places and other words which cannot easily be checked.
3. Contrary to what I wrote in *BSBI News* 58, I would now prefer to have computer produced copy as a printed page rather than on disc. This obviates the need for virus-checking and the scanner I use to scan in text is very accurate.
4. When typing or printing, please use double (or 1½) line spacing and use a new ribbon which gives a **dark** image, especially if using a dot-matrix printer.
5. To make it easier to scan accurately, any corrections to a typed or printed page are best confined to the margins using a **pale-blue** pencil, but do ensure that the instructions are clear. If necessary, send two copies, one with, the other without corrections.
6. Where emphasis is required, mark the words to be in *italic*, **bold** or underlined fonts in the normal way or print them using the correct fonts. There is no need to put Latin names in italics but it would be a help.
7. Latin names must conform to Stace's *New Flora of the British Isles*, Kent's *List of Vascular Plants of the British Isles*, Clement & Foster's *Alien Plants of the British Isles* or Ryves, Clement & Foster's *Alien Grasses of the British Isles*. No authorities are needed for names in these books but if the taxon is not included in any of the above then an authority should be given.
8. English names must also conform to Dony *et al.* *English Names of Wild Flowers*, Stace, Clement & Foster or Ryves, Clement & Foster and if available **must** be given when a species is first mentioned in the text except sometimes in long lists of species.
9. Titles of papers and author's names are always in **CAPITALS**.
10. **Keep formatting to a minimum.**

PLEASE NOTE: to save postage, contributions will not now be acknowledged when first received, unless accompanied by an S.A.E.

All contributors will receive, if time allows, a proof for checking, so that you will be able to see what your note looks like before it is printed and will have the opportunity to alter anything at that stage. Any contributions received, which appear to be more suitable for inclusion in *Watsonia* as a 'Short Note' will be passed on to the editor of that journal.

Suitable illustrations accompanying notes, in the form of line drawings (see below), black and white or colour negatives, prints or slides are also welcomed

ILLUSTRATIONS

The following notes, written by my predecessor, the late Edgar D. Wiggins, are reprinted almost word-for-word from *BSBI News* 25: 31 (Sept. 1980). They are as valid today as they were then and should be read by all aspiring artists. Note in particular the comments on size – please draw at least at A4 size so that the printer can reduce them, and on scale bars – please do not give magnifications.

BSBI News has more than once been complimented on the excellence of the line drawings, usually of alien plants, which appear in its pages. For these we have to thank the small band of talented artists who freely make their expertise available to us. Nor should we forget our printers who ensure that these illustrations reach the printed page exactly as they left the artist's drawing board.

We set great store by these illustrations as they are often the only extant representation of the species in question, and for this reason are fully protected by copyright.

Regrettably we do receive some drawings, no less meticulously executed, which are unsuitable for reproduction because of technicalities despite all the skill the printer can bring to bear on them.

For the benefit of the many aspiring young artists we know we have amongst our members, we append what we hope will be some helpful notes for their guidance.

First of all, **proportions**. The print area of a page of *BSBI News* is 18.5 cm. × 12.5 cm. giving a proportion of height to width of roughly 3 to 2, and to make the best use of the space available drawings should conform generally to these proportions, whatever their actual size. Next, **size**, as large as possible within reason. Not only is it much easier for the printer to reduce than enlarge, but any blemishes are correspondingly reduced, not magnified. **Evenness of line** is important; not that all lines in a drawing should be of equal thickness or density, that way a drawing looks stodgy or lifeless. But too great a contrast between thick and thin can cause difficulties. Extremely fine lines, which become finer still on reduction, can almost disappear in the final printing.

Scale is best shown by a line marked in millimetres or centimetres, thus 1 cm close to the drawing. If several drawings at different scales are shown, a scale bar for each is needed. Then whatever reduction the printer has to use, the scale is reduced correspondingly. Do **not** use the notation × 1, × 2, etc. This may be correct on the artist's original but if the printer reduces it to, say, 3/5 of its size what magnification does that then become?

Labelling is most satisfactory if the separate drawings on a page (showing for example, floral organs) are indicated by identifying letters, these being explained either on the back of the drawing itself or on an accompanying sheet.

Let any budding illustrator be put off by the excellence of some of the drawings already published, let it be said that any drawing is welcome and if it is of an alien, so much the better. If not suitable for reproduction it will be returned together with a letter explaining why it was not acceptable.

To convey as much information as possible about a species, an illustration should include a whole plant drawing to show habit and such anatomical and/or floral details as are helpful in identification.

It should be stressed that the Editor does not consider himself competent to pass judgement on botanical accuracy, the responsibility for which must rest with the artist.

EDITOR

STOP PRESS

***LUPINUS* 'QUEEN ELISABETH' – SEED REQUESTED**

On April 5th I received the following request from Dr Wolfgang Lippert, President of the Bayerische Botanische Gesellschaft, Munich, Germany.

Some time ago in Bavaria there was in cultivation a yellow flowered fragrant lupin with the cultivar name of 'Queen Elisabeth'. Within a short time all known specimens died out, perhaps due to some disease and we have been unable to obtain seeds of this lupin to reintroduce it into cultivation here.

Is it possible that someone in the British Isles still has *Lupin* 'Queen Elisabeth' in cultivation? and if so would they be so kind as to send us some seeds.

This cultivar is not listed in my 1993/94 edition of *The Plantfinder*, so, if any member can help could they please contact Dr W. Lippert, Bayerische Botanische Gesellschaft, Meninger Str. 67, 80638 München, Germany.

EDITOR

SPECIMENS OF *ROSA CANINA* WANTED

I have just (5/4/97) received an e-mail from Jane Squirrell who is working towards a PhD at the University of East London. She writes that she is about to start a project looking at the diversity of chloroplast DNA of wild roses within the UK. She is hoping to contact people who would be prepared to send her specimens of *Rosa canina* from throughout the UK.

This news is so 'hot off the press' that I have no address or telephone number, just an e-mail address (j.squirrell@uel.ac.uk) and as it is a weekend and *BSBI News* goes to the printers first thing tomorrow morning, there is no time to ask for one. However if any member can help just let me know and I will pass the message on.

EDITOR

The Editor Gwynn Ellis can be contacted by phone or fax on 01222-496042 or e-mail: bsbihgs@aol.com

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Enquiries concerning the Society's activities and membership should be addressed to:

The Hon. General Secretary, c/o Dept. of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD. Tel: 0171 938 8701

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